Systems for the human/ machine interface

Command Panel
Industrial workstations
PC enclosures
Console systems

FRIEDHELM **LOH** GROUP

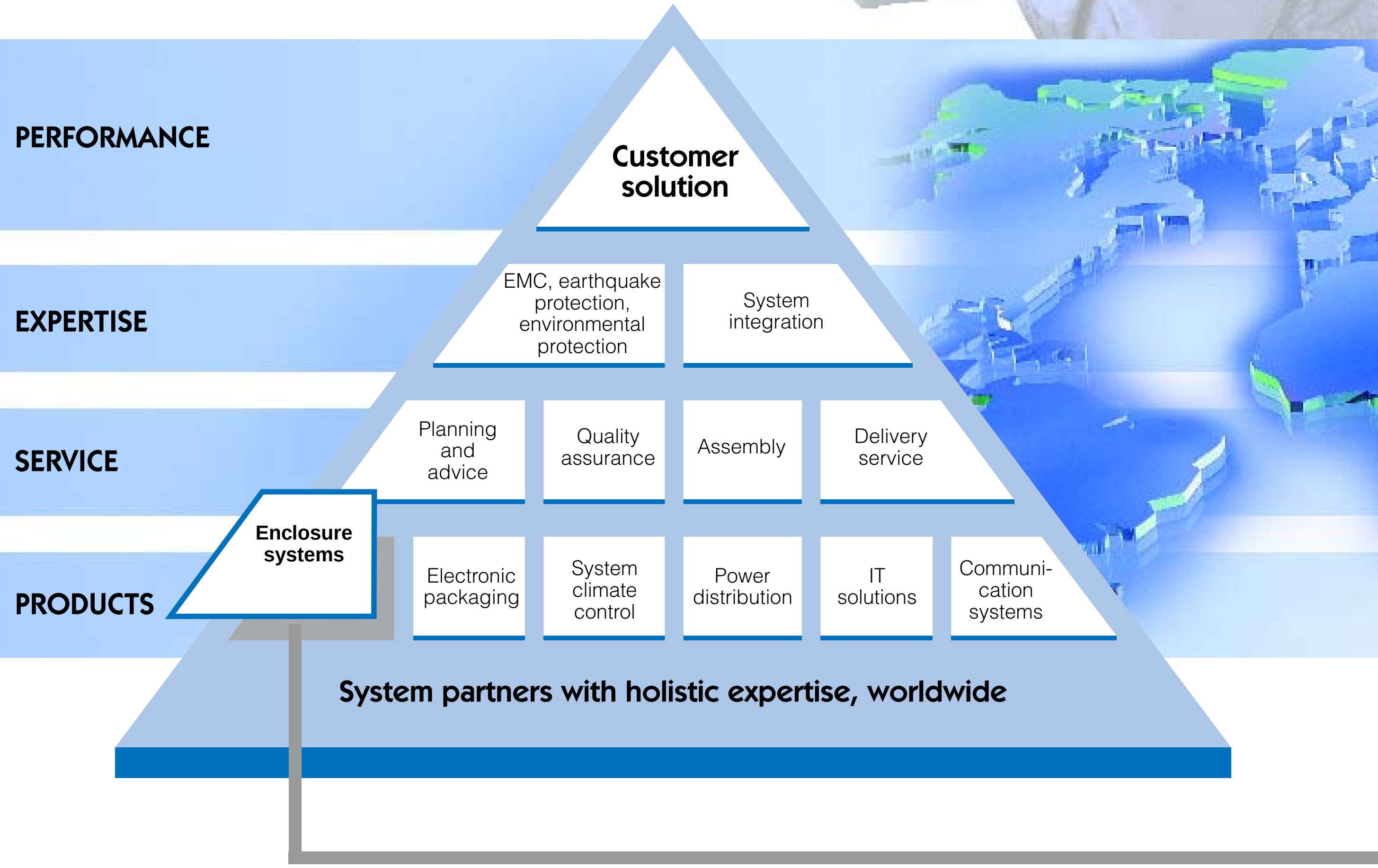
RITTAL®

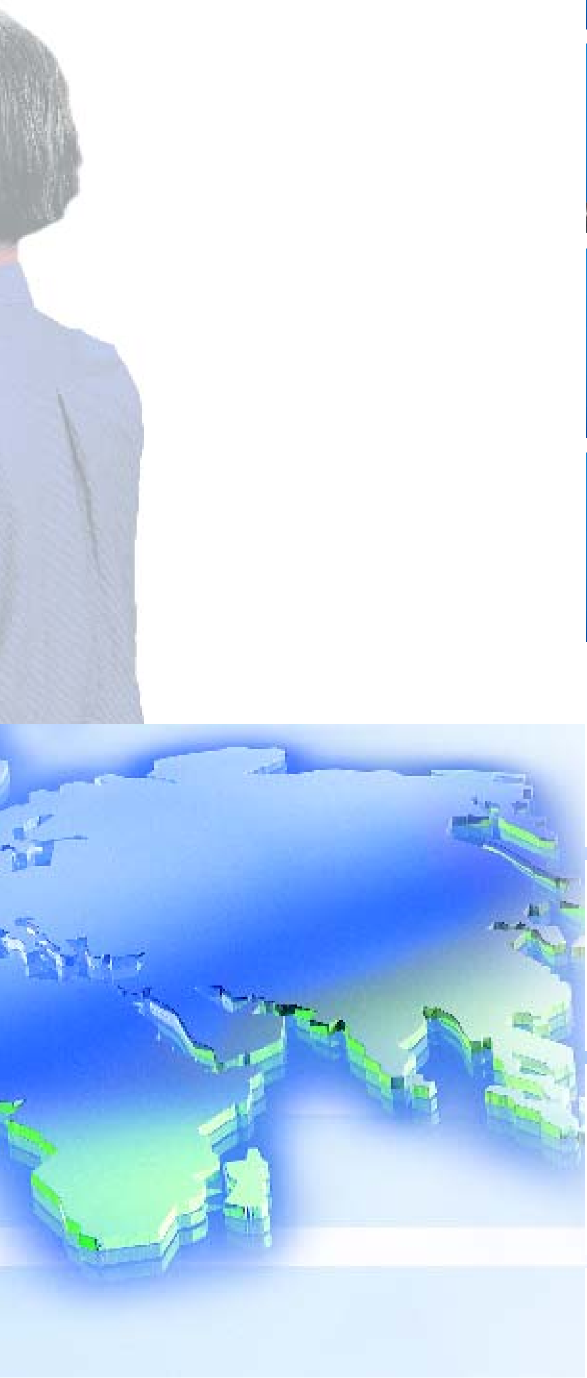
Perfect systems

at the human / machine interface

All our knowledge and skills are dedicated to this objective on a daily basis, throughout the world. As leading global suppliers, we develop technology packaging systems based on our comprehensive product range. This is accompanied by a broad portfolio of services and specialist areas of competence.

This brochure invites you to find out more about the systems for the human/machine interface within the enclosure systems segment, and to utilize them for your own benefit.


PERFORMANCE
EXPERTISE
SERVICE
PRODUCTS
Customer solution
EMC, earthquake protection, environmental protection
System integration
Planning and advice
Quality assurance
Assembly
Delivery service
Enclosure systems
Electronic packaging
System climate control
Power distribution
IT solutions
Communication systems
System partners with holistic expertise, worldwide



Rittal: Everything from a single source 2 – 7

Command Panel 8 – 77

Support arm systems 78 – 127

Floor-standing systems 132 – 149

Industrial workstations 150 – 169

PC enclosure systems 170 – 181

Console systems 182 – 199

System accessories 200 – 273

Climate control 202 – 205
Accessories 206 – 273

Service 274 – 279

Order number table 274 – 275
Index 276 – 278
Order forms 279

Our achievements are your advantages

The Rittal value-added package

In choosing Rittal, you are making the right decision. We meet all your requirements in terms of flexibility, security, cost-cutting and problem-solving expertise.

Everything is complete: the platform, the range, the timing, the planning, the quality, the security.

We address worldwide market requirements, perform development and testing at our own accredited laboratories, and offer innovative, market-ready, cost-effective solutions.

Solution diversity through system platforms

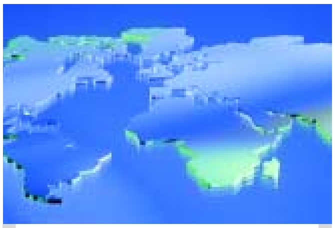
Our successful platform strategy forms the basis for our comprehensive standard range. Perfect solutions for various applications and to suit individual customer requirements are configured cost-effectively from mass production.

Pre-configuration saves time

Rittal products are perfectly prepared for immediate use. This saves assembly and ordering time, as well as warehousing costs. Fast assembly of system accessories is an added bonus.

Complete, thanks to system integration

You tell us your requirements, we supply you with an individual complete solution e.g. with coordinated climate control, power supply and security management up to system integration Level 4. All from Rittal, all from a single source.



Global proximity with a local presence

Our experience of international markets and the global availability of our products and services lead to complete customer solutions.

Secure your competitive lead with a quality advantage

International approvals and our own accredited laboratories – the result? A guaranteed standard of quality available to customers worldwide.

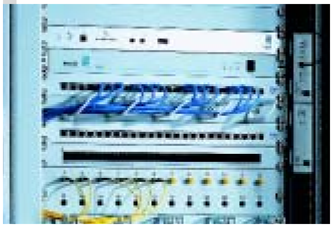
IQNet
CERTIFICATE
ZERTIFIKAT

Perfect solutions through planning expertise

Rittal's expert advisers know their stuff – be it EMC protection, earthquake protection, climate control or electronic components, all technical questions relating to a particular customer requirement are expertly answered.

Eliminate the risks with a security advantage

Cut operating costs and administration, and ensure simple monitoring of all security-relevant parameters with comprehensive rack security concepts: climate control, power management and access control.



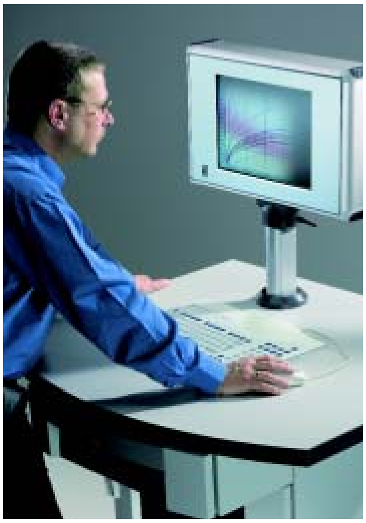
Benefit from our product portfolio

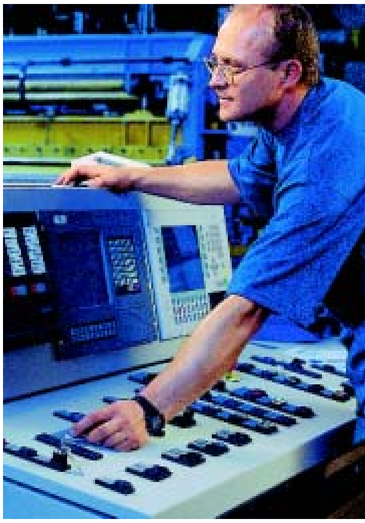
Rittal offers a wide range of specialized solutions available off the shelf for immediate delivery, for all segments of the market. Documented in the main Rittal Handbook.

Four systems at a glance

You have the requirements – we have the solution

We offer a broad spectrum of products to meet modern requirements at the human/machine interface. Superb quality, inexpensively priced, and ergonomically tailored to individual requirements. Programming, operating, monitoring. Solutions by people, for people. These are derived from our conversations with customers, our decades of development expertise, and our highly skilled staff.





Command Panel

Rittal offers a wide range of enclosure versions for all panel combinations. In standard sizes, or customized to your requirements.
Interaction between monitoring and operation is achieved to perfection with the support arm and floor-standing systems.

Industrial workstations

Industrial workstations offer more work space than a PC cabinet and are more compact than a desk. Thanks to their modularity, individual customer requirements are met to perfection.

PC enclosure systems

Secure accommodation of a monitor, computer system, printer and mouse becomes child's play, thanks to factory automation with the PC enclosure system.

Console systems

Function and variability are key features of all Rittal console systems.
Three series accommodate differing requirements in terms of assembly, security and operation.

Outstanding performance based on customized solutions and uncompromising laboratory tests.

Rittal Command Panel . . .

. . . Meeting your requirements!

The interface between human and machine has a decisive effect on productivity. With this in mind, Rittal offers a wide range of enclosure versions to suit virtually all panel combinations, tailor-made, in standard sizes and in a variety of different materials.

The VIP 6000 offers the greatest diversity for individual customer requirements. Where the emphasis is on a slimline design and dimensional coordination with small operating units, the stylish Optipanel offers an ideal solution. The new Compact Panel in standard sizes provides an alternative.

As well as the command panels shown here in sheet steel or stainless steel, we are also happy to equip other small enclosures as command panels for you.

VIP 6000

Sizes:
5 depths,
screw-fastened or hinged sections
height and width to order

Version:
3 front design versions
5 color versions

Material:
Aluminum

Page 12 – 39

Optipanel

Sizes:
3 depths
height and width to order

Material:
Aluminum

Page 40 – 57

Compact Panel

5 sizes:
238 x 241 x 87 mm
(9.37″ x 9.49″ x 3.43″)
to 388 x 315 x 87 mm
(15.28″ x 12.40″ x 3.43″)

Material:
Aluminum

Page 58 – 59

NEW

Command Panel, sheet steel

Versatile complete solutions in sheet steel are available as standard.

Command Panel housing with door, with handle grips
6 sizes:
200 x 300 x 180 mm
(7.87″ x 11.81″ x 7.48″)
to 500 x 500 x 180 mm
(19.69″ x 19.69″ x 7.09″)

Material:
Sheet steel

Page 66 – 67

Premium Panel

Sizes:
for installed equipment 19″/7 U,
120 and 220 mm (4.72″ and 8.66″) deep,
optionally with keyboard housing for 19″/4 U

Material:
Stainless steel

Page 60 – 63

Command Panel, stainless steel

For extremely discerning requirements in terms of corrosion protection and hygiene

AUS
EIN
Axial gespannt
Radial gespannt
Wechsel-position

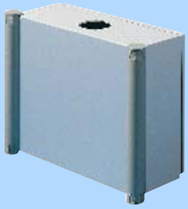
Command Panel 10 – 77

VIP 6000 12 – 39
Optipanel 40 – 57
Compact Panel 58 – 59
Premium Panel, stainless steel 60 – 63
Command Panel 64 – 73
Command Panel, stainless steel 74 – 77

Command Panel,
with handle grips
5 sizes:
200 x 300 x 155 mm
(7.87″ x 11.81″ x 6.1″)
to 380 x 600 x 210 mm
(14.96″ x 23.62″ x 8.27″)

Material:
Sheet steel

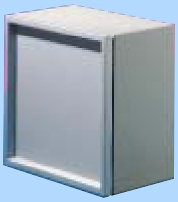
Page 68 – 69



Command Panel,
with display panel front
4 sizes:
380 x 380 x 249 mm
(14.96″ x 14.96″ x 9.8″)
to 600 x 600 x 249 mm
(23.62″ x 23.62″ x 9.8″)

Material:
Sheet steel

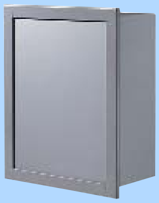
Page 70 – 71



Command Panel,
with VIP 6000 frame
Sizes according to choice

Material:
Sheet steel

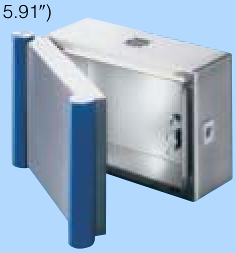
Page 72 – 73



Command Panel
housing with door
4 sizes:
300 x 300 x 150 mm
(11.81″ x 11.81″ x 5.91″)
to 400 x 600 x 150 mm (15.74″ x 23.62″ x 5.91″)

Material:
Stainless steel

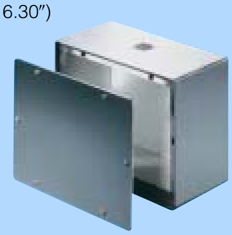
Page 74 – 75



Command Panel
2 sizes:
240 x 320 x 160 mm
(9.45″ x 12.60″ x 6.30″)
and 320 x 400 x 160 mm
(12.6″ x 15.75″ x 6.30″)

Material:
Stainless steel

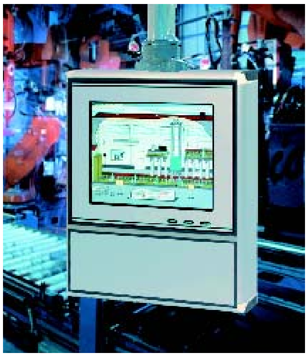
Page 76 – 77



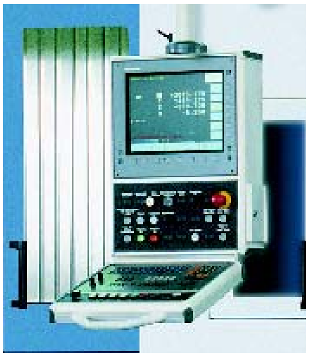
Rittal Command Panel . . .

. . . Suggestions from industry, for industry

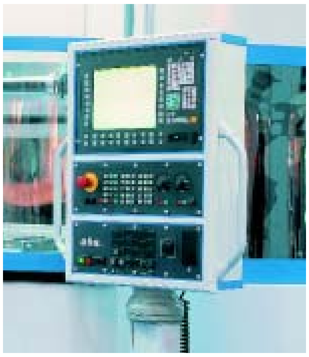
Our Command Panel solutions are as diverse as the requirements placed on them. They are tailored to customer requirements in terms of size, design and execution. The VIP 6000 (from page 12), Optipanel (from page 40) and Premium Panel (from page 60) are outstanding systems for this purpose. All Rittal CP enclosure systems may be combined with floor-standing and support arm systems. Allow yourself to be inspired by the application examples shown here.



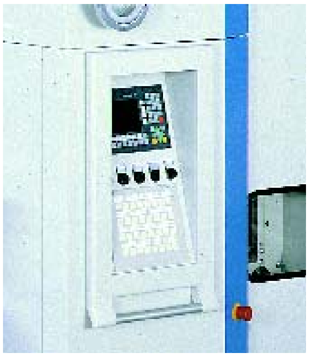
Example 1
Optipanel as a TFT case



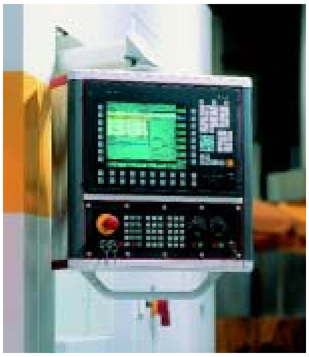
Example 2
Optipanel divided with cross member, slimline keyboard housing with U handle



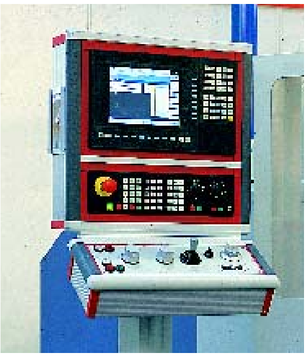
Example 3
VIP 6000 with narrow frame, divided twice, with support arm system CP-XL



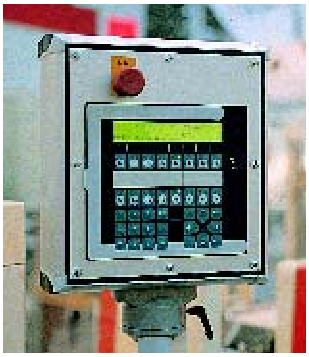
Example 4
Wide VIP frame integrated into a machine housing



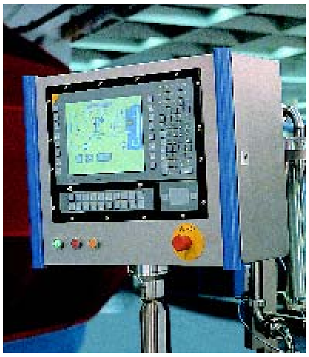
Example 5
VIP 6000 with combined frame, U handle and support arm system CP-L



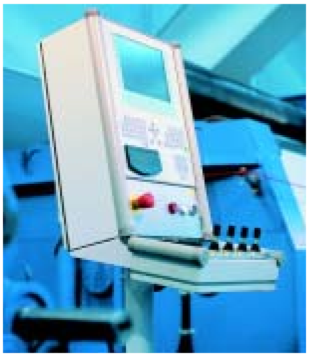
Example 6
VIP operating housing with combined frame, interface box and deep keyboard housing



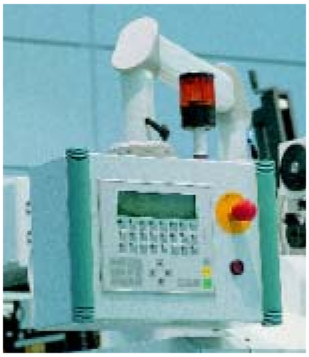
Example 7
Optipanel with controller and emergency-off switch integrated into the adaptor panel



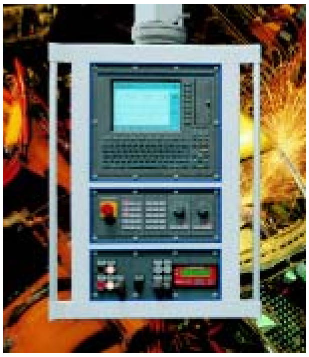
Example 8
Command Panel housing with door and support arm system CP-S in stainless steel



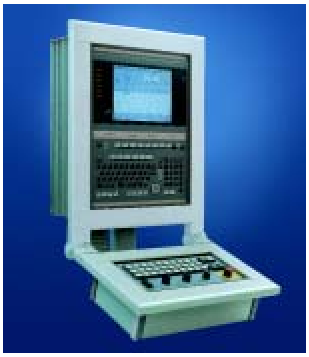
Example 9
Operating housing with terminal box KL as keyboard housing



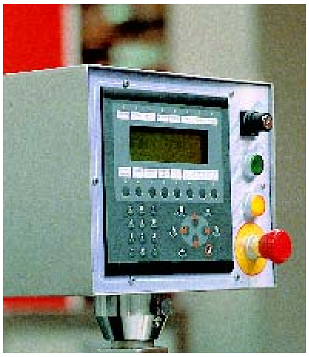
Example 10
Command Panel housing with door with signal pillar on support arm system CP-L



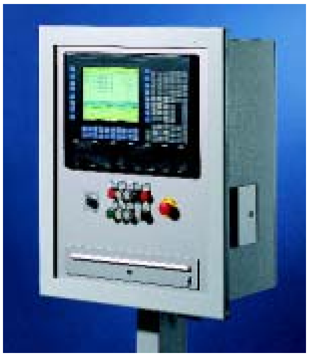
Example 11
VIP 6000 with handle set for wide frames on support arm system CP-XL



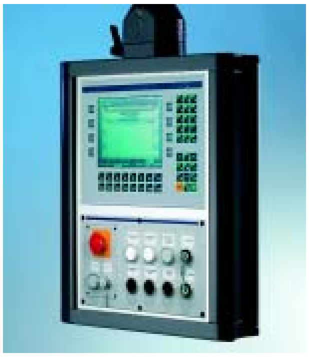
Example 12
VIP 6000 with wide frame and adjustable frame connector



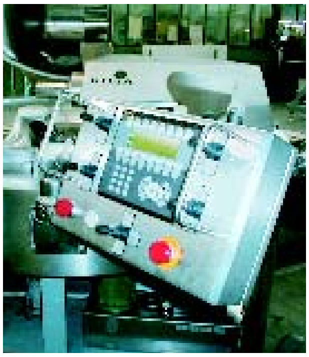
Example 13
Stainless steel operating housing with control components. Suitable for installation in the front or rear panel



Example 14
Operating housing with wide VIP 6000 frame and keyboard drawer mounted in the front panel



Example 15
Compact Panel with control components integrated into the front panel on support arm sytem CP-S



Example 16
Premium Panel with side support arm connection CP-S. Particularly suitable for use in the food industry.

Rittal Command Panel VIP 6000 . . .

. . . the yardstick of individuality

A solution is quickly found, simply by defining your requirements. Tell Rittal the dimensions of the operator panel you are intending to use, and the desired configuration type, and we will customize a dimensionally accurate operating housing for you. Simply proceed through the following pages step by step, and your solution will fit. There is a choice of three design versions. What better framework conditions could your operator panel have?

- US Design Patent No. Des. 375,726
- German patent no. 195 25,876
- German Patent No. P 41 09 695
- European patent no. 505,681 with validity for CH, DE, FR, GB, IT
- German registered design No. M 94 08 533
- IR Reg. Des. No. DM/032 843 with validity for BE, CH, ES, FR, IT, NL
- Austral. Reg. Des. No. 125352
- Japanese Registered Des. No. 983 783
- Austrian registered design no. 17467
- Swedish registered design no. 58 996
- South Korean Reg. Des. No. 191148
- UK Reg. Des. No. 2047055
- Brazilian design pattern no. DI 5500 709-0

Command Panels VIP 6000 have the following approvals:

- UL
- CSA
- TÜV
- DNV
- Lloyds Register of Shipping
- BV
- VDE

VIP 6000 14 – 39

VIP 6000 diversity 14 – 21
VIP 6000 selection 22 – 31
Technical details 32 – 39
Order form 279

This is how we implement your requirements: With the VIP 6000 concept, customized production for your panel is the norm. Every operator panel is achieved quickly and precisely. Need a certain depth, a defined color scheme or special ergonomic requirements?

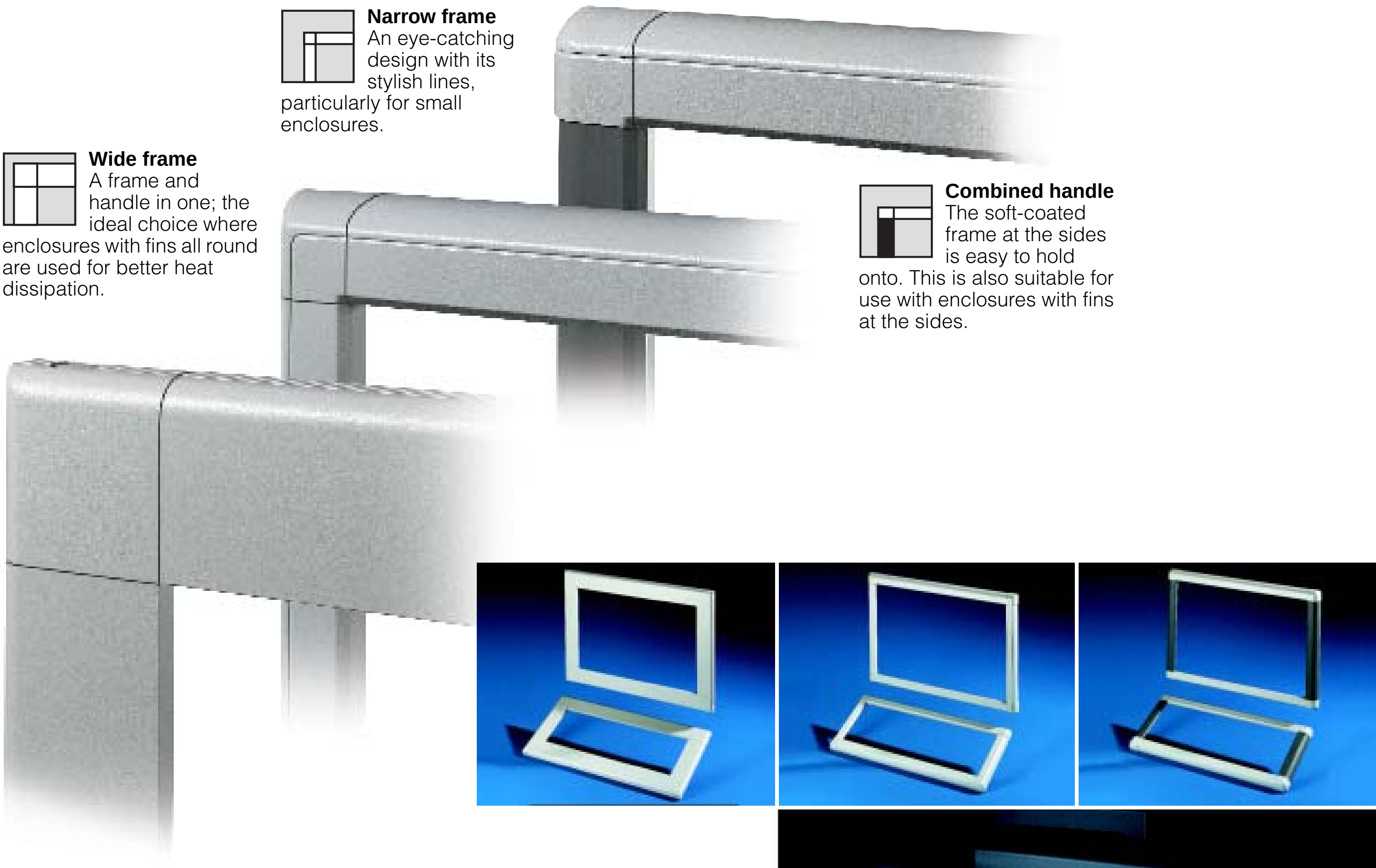
With the Command Panel VIP 6000, we will supply you with a unique product, tailored to your technical and aesthetic requirements.

The choice is yours.
You define the dimensions.

The VIP 6000 offers exceptionally diverse opportunities.

- Each of the three frames conveys its own design lines with specific functions.
- Every enclosure is custom-built to order.
- Every operator panel is assembled quickly and precisely.

Three design lines



Narrow frame
An eye-catching design with its stylish lines, particularly for small enclosures.

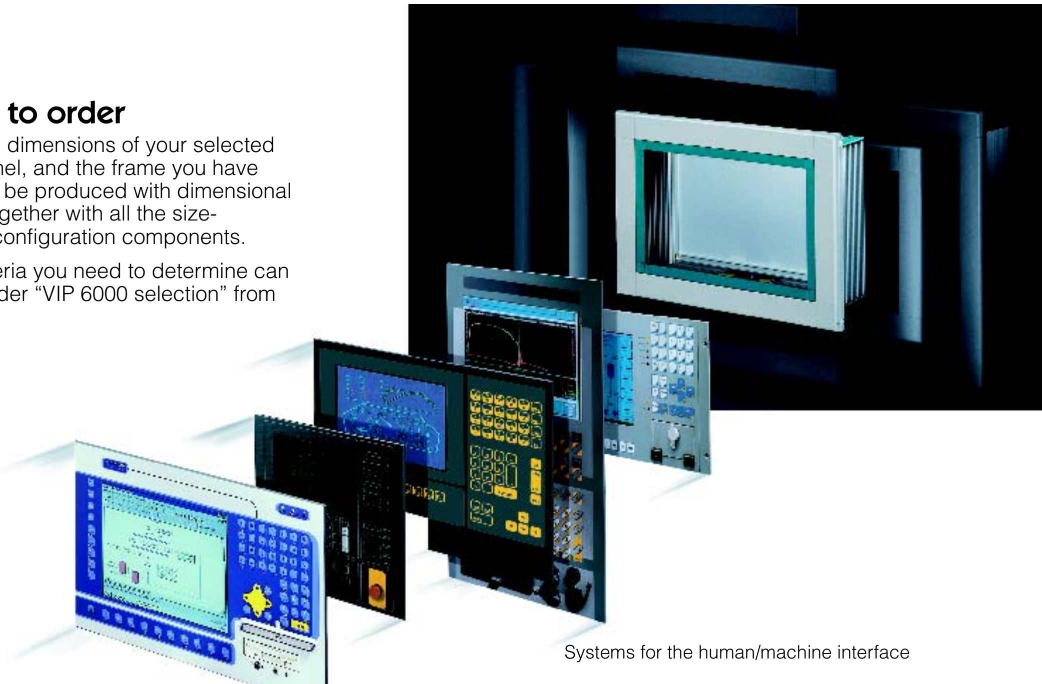
Wide frame
A frame and handle in one; the ideal choice where enclosures with fins all round are used for better heat dissipation.

Combined handle
The soft-coated frame at the sides is easy to hold onto. This is also suitable for use with enclosures with fins at the sides.

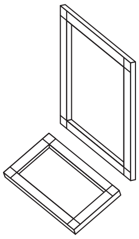
Any size to order

Tell Rittal the dimensions of your selected operator panel, and the frame you have selected will be produced with dimensional accuracy, together with all the size-dependent configuration components.

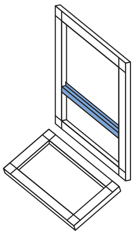
The few criteria you need to determine can be found under “VIP 6000 selection” from page 22.



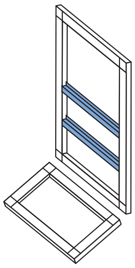
Individual front design



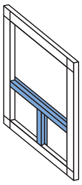
Without subdivision



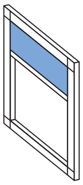
With cross member or sealing bar



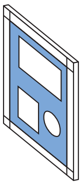
With two cross members or sealing bars; combinations are also possible



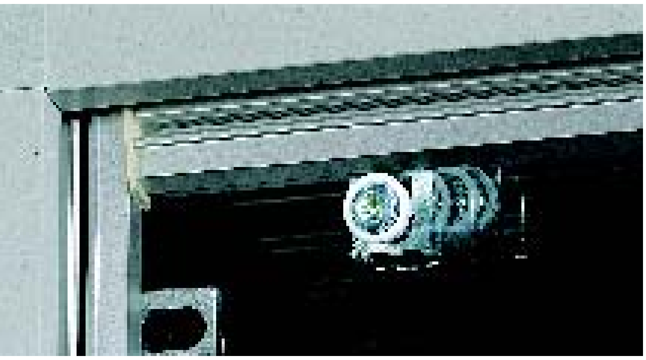
With cross member or sealing bar, horizontal/vertical combined



With spacing and built-in trim panel. May be positioned at the top, bottom or side.



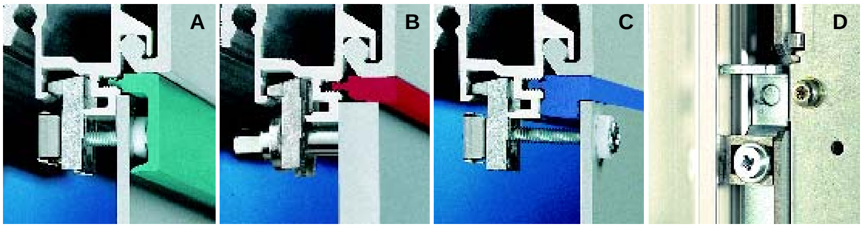
Adaptor plate with individual cutouts



Every attachment point is accessible on all sides!
The movable retaining clips create sufficient play to accommodate virtually all hole spacings (distance from the panel’s outer edge 7 – 13 mm (0.28″ to 0.51″).

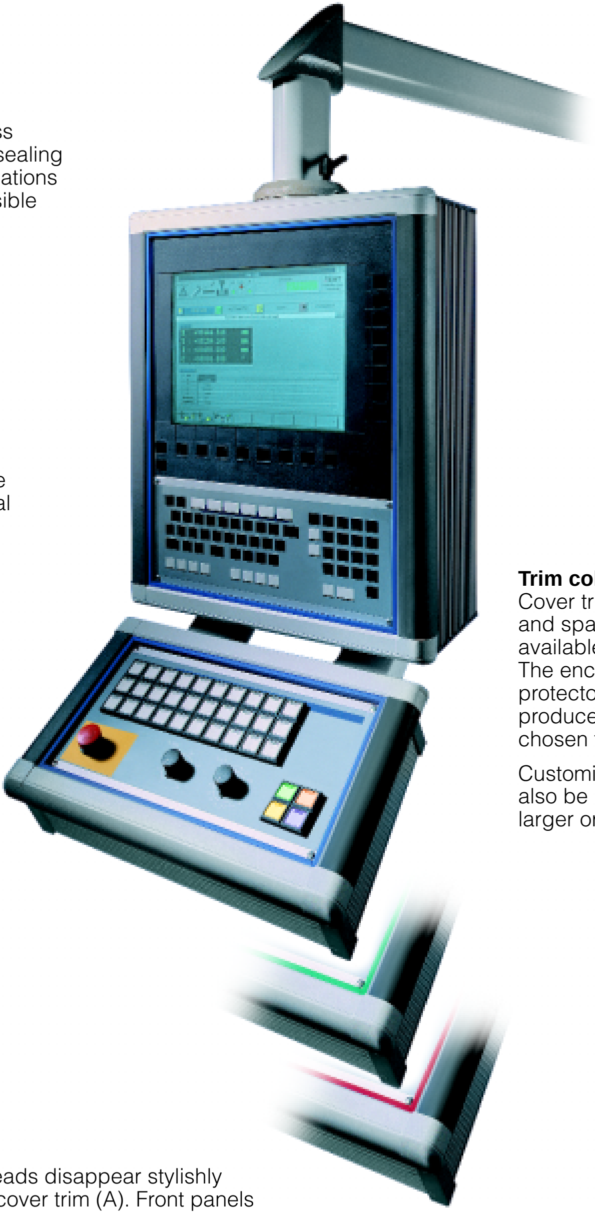
Screw-fastening the operator panel to the case from the outside is particularly easy.

The screw heads disappear stylishly beneath the cover trim (A). Front panels with threaded bolts may also be combined with the end trim (B) or spacer trim (C), depending on the material thickness. Panels with screw clamp (D) are mounted with the end trim.



There's always a solution
Subdivison of the operating level with Rittal standard modules fulfils every requirement. Individual cutouts can be achieved, for example, via the adaptor panel.

Should you have any queries, please contact your specialist Rittal advisor. As we have said, there's always a solution!



Trim colors to order
Cover trim, end trim and spacer trim are available in five colors. The enclosure corner protectors are likewise produced in the chosen trim color.

Customized colors can also be produced for larger orders.

VIP 6000 selection,
see page 22 – 31.

Order form,
see page 279.

Enclosures with all the options

Enclosures are customized to the size of the front panel.

- Installation depths of 155 to 438 mm (6.1″ to 17.24″), screw-fastened or hinged sections.
- Hinged rear panels offer easy servicing.
- Out with the heat! Cooling fins in the enclosure panels and rear panels or the VIP small cooling unit make this possible.

Installation depth 155 mm (6.1″)

Installation depth 185 mm (7.28″)

Installation depth 295 mm (11.61″)

Installation depth 328 mm (12.91″)

Installation depth 438 mm (17.24″)

Tailor-made operating housing

There are five installation depths avaialble, depending on the dimensions of the front panel.
Screw-fastened or hinged depending on your requirements, they offer space for: industrial PCs, machine control panels, flat screens and monitors, keyboard drawers, drives, bus modules and every other conceivable application.
Versatile configuration is individual and easy, thanks to the internal screw channels.

Rear panels to order

Screw-fastened or vertically/horizontally hinged – choose the rear panel to suit your servicing requirements.
A depth extension of 45 or 245 mm (1.77″ or 9.65″) can also be achieved using special rear panels.

Diversity: Enclosures, rear panels, heat dissipation

Effective heat dissipation

Because it is equipped with cooling fins, the VIP 6000 solution often eliminates the need for active cooling components.

Even the VIP 6000 enclosure version without fins boasts excellent heat loss dissipation.

As indicated by the example below with an installation depth of 155 mm (6.1″), with all-round cooling fins the dissipatable heat loss is increased by approximately 30 %. With air circulation inside the enclosure, the dissipatable heat loss is increased by up to a further 15 %. A further significant increase in heat dissipation can be achieved with the modular cooling rear panel.

Dissipatable heat loss*				
Installation depth: 155 mm (6.1″)	19″/ 7 U	+ Cooling rear panel, modular	19″/ 7 + 3.5 U	+ Cooling rear panel, modular
Without fins	80 W	88 W	100 W	110 W
Side fins	95 W	105 W	115 W	127 W
Fins all round	110 W	121 W	130 W	148 W

* P_V (W) at $\Delta T = 20$ K

Enclosures with an installation depth of 185 mm (7.28″) and 328 mm (12.91″) do not have any fins immediately behind the front frame at a depth of 44 mm (1.73″).

Fins all round

Fins at sides

No fins

VIP SK small cooling unit
If cooling fins are not enough – particularly with warm ambient air – this cooling unit offers peace of mind. A space-saving, cost-effective solution, specifically designed for the VIP 6000.

Out with the heat – even without expensive active cooling modules!
Cooling fins on the enclosure panels (either all-round or on the sides only, as you prefer) and the rear cooling panel achieves a substantial increase in the amount of heat loss dissipated compared with enclosures without fins. This is achieved due to a combination of cooling fins on the outside, and screw channels on the inside. In this way, heat is absorbed and dissipated to the outside to optimum effect.

VIP 6000 selection,
see page 22 – 31.

Order form,
see page 279.

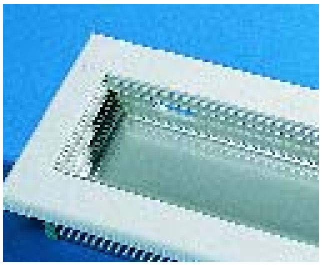
For optimum ergonomic conditions

Further diversity from the modular system:

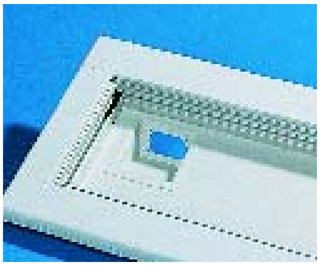
- Keyboard housing in three different depths.
- Support arm systems swivel, rotate, raise and lower the operating unit at any given point.
- Stationary and mobile floor-standing systems.
- Handle sets make it easier to hold and steer.

The matching keyboard housing

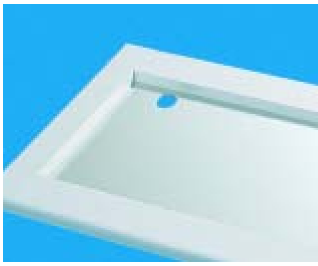
For all three frame types, keyboard housings are available in the installation depths 105 and 44 mm (4.13″ and 1.73″). For the wide frame, a depth of 27 mm (1.06″) is available in two versions.
The width of the keyboard and operating housing is identical with the wide VIP 6000 frame. With narrow and combined VIP 6000 frames, different widths of keyboard and operating housings may also be used.



Installation depth 105 mm (4.13″)



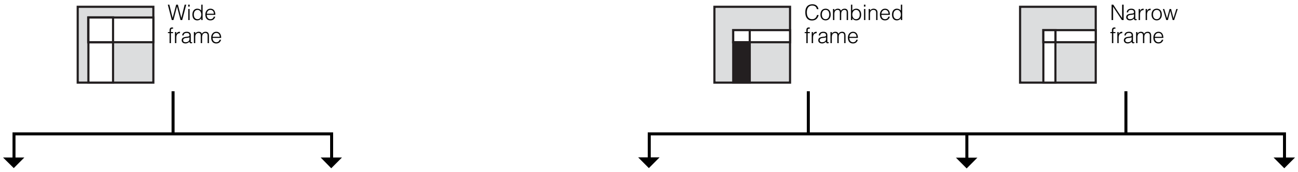
Installation depth 44 mm (1.73″)

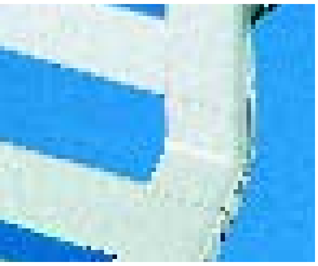


Installation depth 27 mm (1.06″) with cable entry grommet or cable tube, flexible

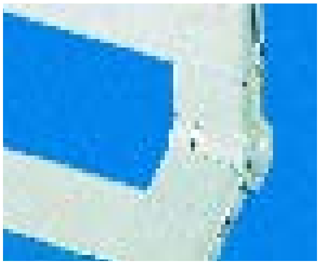
Keyboard housing connector

Depending on the chosen VIP 6000 frame, rigid and adjustable connections between the operating housing and the keyboard housing are available.

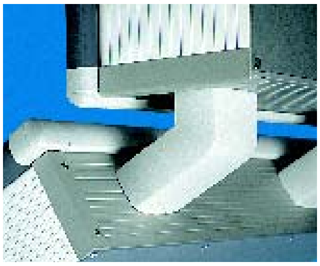




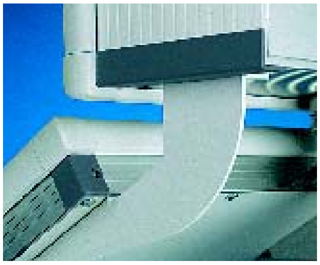
Frame connector, rigid
Tilting angle 120°



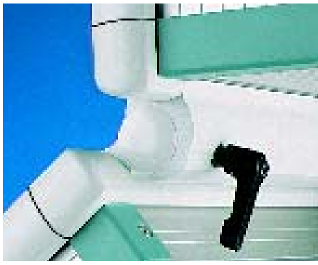
Frame connector, adjustable
Tilting angle adjustable from 75° – 120° in 7.5° increments



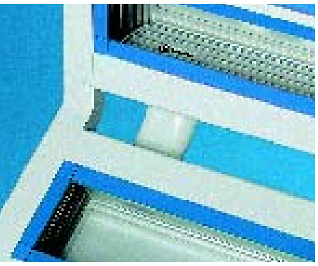
Enclosure duct connector
Tilting angle 120°, rigid, with integral cable tube, for enclosure installation depth 105 mm (4.13″)



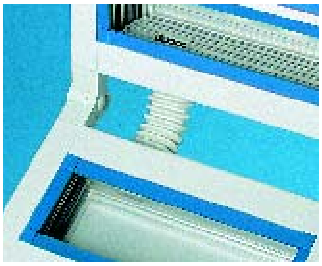
Enclosure bar connector
Tilting angle 120°, rigid, for enclosure installation depth 44 mm (1.73″)



Hinged frame connector
Tilting angle 75° – 120° infinitely adjustable



Cable tube, rigid
in conjunction with enclosure depth 105 mm (4.13″)

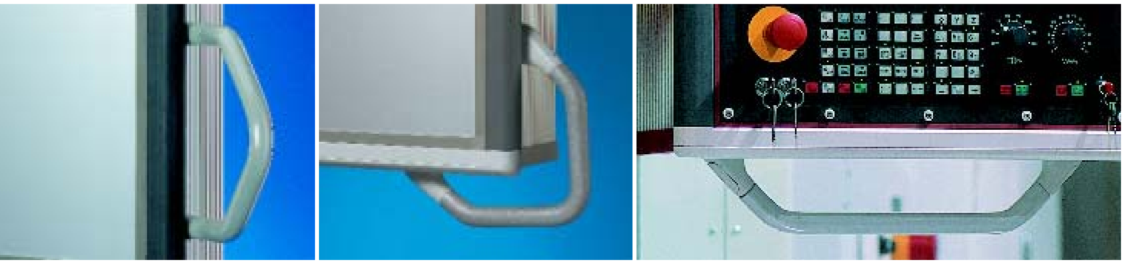


Cable tube, flexible
to fit enclosures in depths 105, 44 and 27 mm (4.13″, 1.73″ and 1.06″) (with cable tube connection)

Diversity: Keyboard housings and ergonomics

Precisely the right position

Different viewing angles of the machine, whether the operating staff are tall or short, sitting or standing – with Rittal support arm systems, the Command Panel is always in the optimum position.
Depending on the system configuration, arm length and enlcosure weight, support arm systems CP-L or CP-XL are used. If you want to combine a high load capacity with a stylish look, system combinations provide the ideal solution.



Always within reach

Tailored precisely to the operator's requirements, various handle sets may be fitted in accordance with ergonomic requirements. “Moving” the enclosure becomes effortless.

Stationary or mobile

Floor-standing systems in a variety of designs – even height-adjustable – round out the application diversity of the VIP 6000 Command Panel.

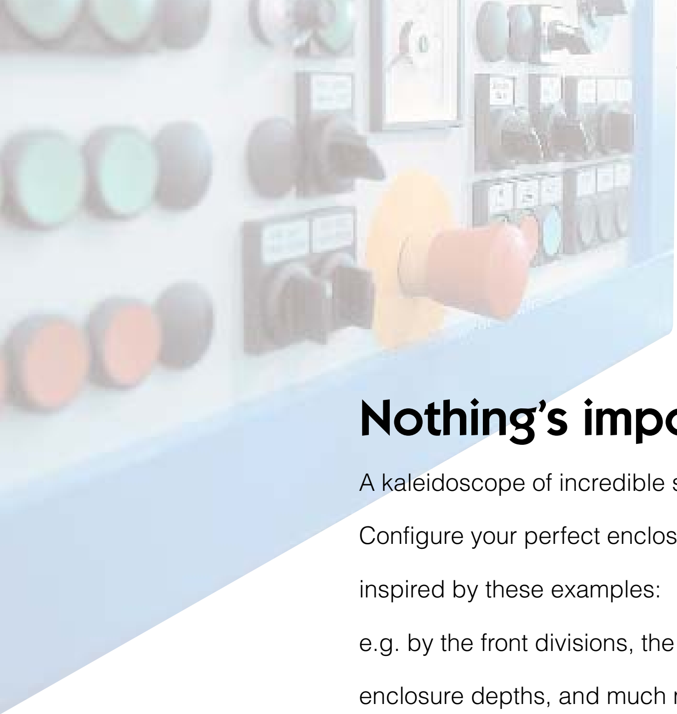
CP pedestal, height-adjustable

Mobile pedestal

Pedestal base plate

VIP 6000 selection,
see page 22 – 31.

Order form,
see page 279.



Nothing's impossible . . .

A kaleidoscope of incredible solution diversity.

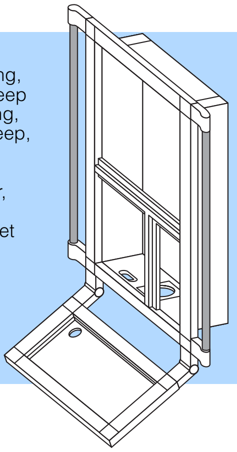
Configure your perfect enclosure. Allow yourself to be inspired by these examples:

e.g. by the front divisions, the handle arrangements, the enclosure depths, and much more besides.

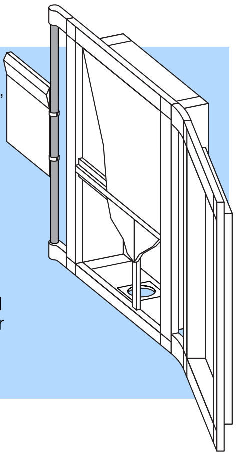
. . . with wide frame.

A small selection from the wide range of opportunities available.
For enclosures with cooling fins, the wide frame is important.

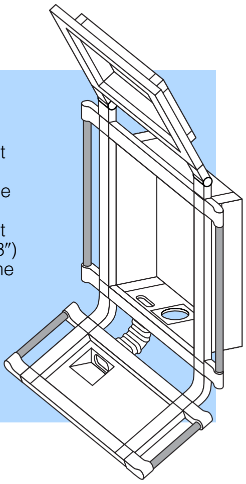
Example A
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 27 mm (1.06″) deep, with cable entry grommet
- Frame connector, adjustable
- Vertical handle set
- With vertical and horizontal cross member
- Support arm connection at bottom



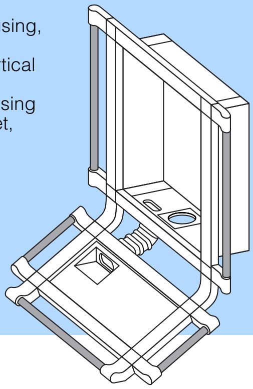
Example B
- Operating housing, 155 mm (6.1″) deep
- Side keyboard housing, 44 mm (1.73″) deep
- Frame connector, rigid
- Vertical handle set with clipboard
- With horizontal cross member and vertical sealing bar
- Support arm connection at bottom



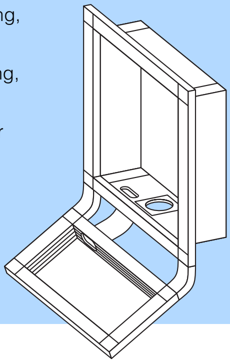
Example C
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing at top, 44 mm (1.73″) deep, with adjustable frame connector
- Keyboard housing at bottom, 44 mm (1.73″) deep, with rigid frame connector
- Cable tube, flexible
- Vertical handle sets
- Support arm connection at bottom



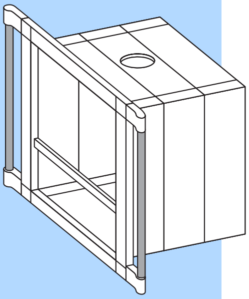
Example D
- Operating housing, 155 mm (6.1″) deep, with vertical handle set
- Keyboard housing with handle set, horizontal and vertical
- Cable tube, flexible
- Support arm connection at bottom



Example E
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 105 mm (4.13″) deep
- Frame connector and cable tube, rigid
- Support arm connection at bottom



Example F
- Operating housing, 438 mm (17.24″) deep, for color screen
- With horizontal handle set
- With horizontal sealing bar
- Support arm connection at top

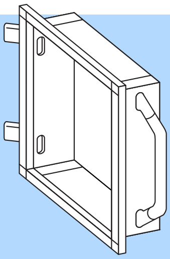


Diversity: Configuration examples

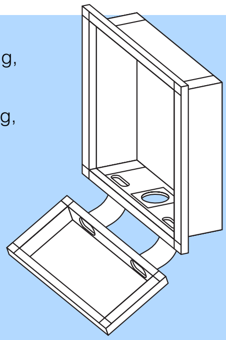
. . . with narrow frame.

Stylish lines for small enclosures and those without fins.

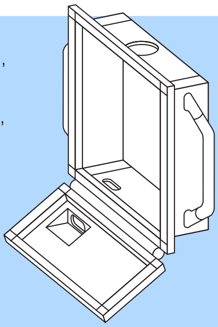
Example G
- Operating housing, 155 mm (6.1″) deep
- With U handle, vertical
- Enclosure connector, adjustable, on the left-hand side for vertically hinged wall mounting



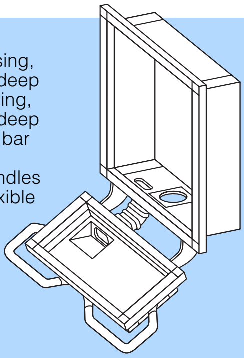
Example H
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 105 mm (4.13″) deep
- Enclosure duct connector
- Support arm connection at bottom



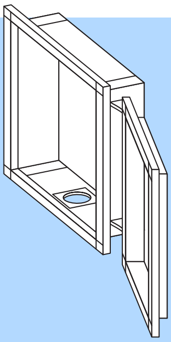
Example I
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 44 mm (1.73″) deep
- Hinged frame connector
- U handles – vertical
- Cable tube, flexible
- Support arm connection at top



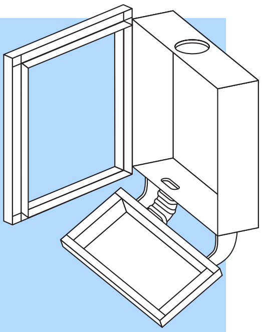
Example J
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 44 mm (1.73″) deep
- With enclosure bar connector
- With corner handles
- Cable tube, flexible
- Support arm connection at bottom



Example K
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 44 mm (1.73″) deep
- Enclosure bar connector
- Support arm connection at bottom



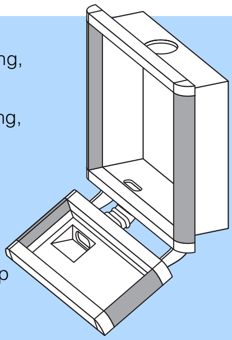
Example L
- Operating housing, 185 mm (7.28) deep, hinged
- Keyboard housing, 44 mm (1.73″) deep
- Enclosure bar connector
- Cable tube, flexible
- Support arm connection at top



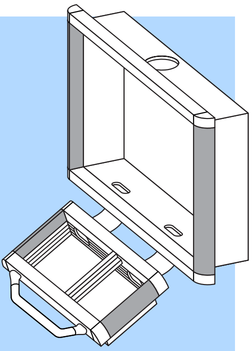
. . . with combined frame.

The soft-coated frame at the sides is particularly sympathetic to the touch.

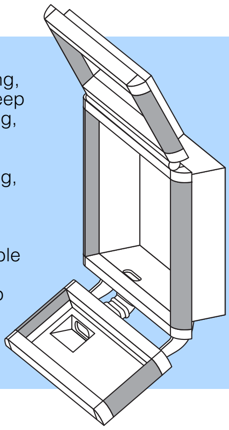
Example M
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, 44 mm (1.73″) deep
- Enclosure bar connector
- Cable tube, flexible
- Support arm connection at top



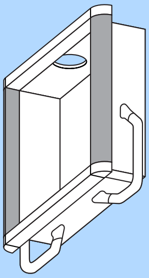
Example N
- Operating and keyboard housing in various widths
- Keyboard housing, 105 mm (4.13″) deep, with cross member
- Enclosure duct connector
- U handle, horizontal
- Support arm connection at top



Example O
- Operating housing, 155 mm (6.1″) deep
- Keyboard housing, top, with hinged frame connector
- Keyboard housing, bottom, with enclosure bar connector
- Cable tube, flexible
- Support arm connection at top



Example P
- Operating housing, 155 mm (6.1″) deep
- Corner handles
- Support arm connection at top



Selection: Operating housing / keyboard housing

We will need the following information in order to deal with your enquiry/order:

- Model No. front frame: CP 6392.X09
- The dimensions and number of panels/front panels to be installed in the operating/keyboard housing
- Design code number for the operating/keyboard housing

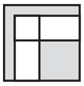
Order form, see page 279

1. Front frame

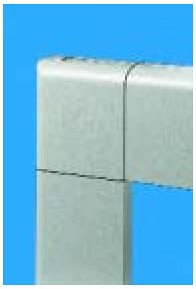
Select the frame to match your requirements. It is used automatically for a keyboard housing as well.

[1] For keyboard housing depth 27 mm (1.06″) not possible (see selection 4.1).

[2] Other RAL colors available on request.



.009



Wide frame **0**

Extruded aluminum section

Die-cast zinc corner pieces

Color: RAL 7035[2] finely textured

.109

Combined frame[1] **1**

Extruded aluminum section in finely textured RAL 7035[2] (top/bottom), horizontal

Soft-coated frame similar to RAL 7024 (sides), vertical

Die-cast zinc corner pieces, RAL 7035[2]

Note:
Not possible with enclosures with all-round cooling fins.

.209

Narrow frame[1] **2**

Extruded aluminum section

Die-cast zinc corner pieces

Color: RAL 7035[2] finely textured

Note:
Only possible with enclosures without cooling fins.

Part No. CP

6 3 9 2 . ☐ 0 9

2. Panel dimensions

2.1 For operating housings CP 6392.X09

On the order form, please state the number of front panels/panels used, their Height (H) x Width (W) x Depth (D) and the manufacturer/model, using the installation criteria below.

2.2 For keyboard housings CP 6351.X09

On the order form, please state the Height (H) x Width (W) x Depth (D) of the keyboard/panel and the manufacturer/model, using the installation criteria below.

Checking the installation criteria

With the following installation criteria, please check whether your operator panels may be installed directly into the VIP 6000.
Otherwise, an adaptor panel is needed – cf. 3.2, design code number 6, see page 24. The dimensions of the command panel and keyboard housing are derived from the dimensions of your panel and the number of cross members.

① **7 to 13 mm (0.28″ to 0.51″) edge spacing** of the mounting holes or bolts.

② **Front panel projection** on sides with mounting holes or bolts **at least 17 mm (0.69″),** on sides without mounting holes at least 6 mm (0.24″).

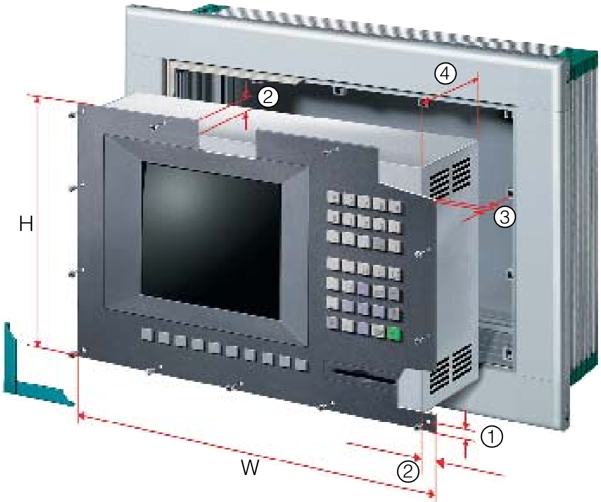
③ **Front panel thickness** variable, depending on the type of trim section see page 25, version 3.4.

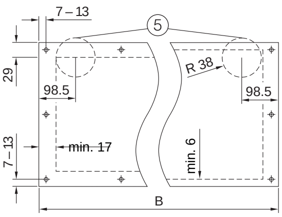
④ **Installation depths:**
Command panels = 155 mm (6.1″), 185 mm (7.28″)[1], 295 mm (11.61″[1]), 328 mm (12.91″)[1], 438 mm (17.24″)[1].
Command panel **with 45 mm deep rear panel[2]** = 200 mm (7.87″), 230 mm (9.06″)[1], 340 mm (13.39″)[1], 373 mm (14.69″)[1], 483 mm (19.02″)[1].
Command panel **with 245 mm deep rear panel[2]** = 400 mm (15.75″), 430 mm (16.93″)[1], 540 mm (21.26″)[1], 573 mm (22.26″)[1], 683 mm (26.89″)[1].

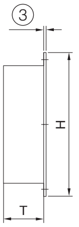
⑤ For versions with a hinged rear panel, the maximum installation depth is reduced by 27 mm (1.06″) in the vicinity of the lock.

[1] Enclosure without fins with a 60 mm (2.36″) deeper rear section available on request.

[2] Other depths available on request.







T = Depth

B = Width

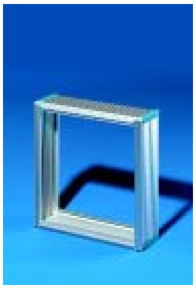
3.1 Installation depth

Material:
Enclosure:
Extruded aluminum section
Corner protectors:
Plastic, self-extinguishing

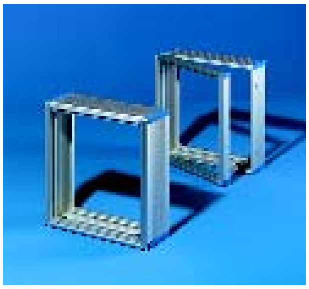
Finish:
Enclosure: Natural anodized

Note:
Support arm connection, see 3.6.
Drawing view from above.
R/h hinge is also possible.

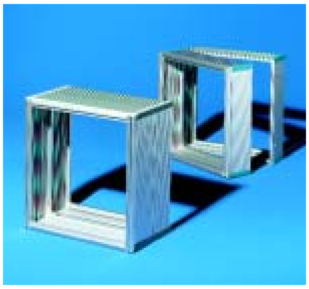
Technical details,
see page 32/33.



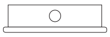
Installation depth:
155 mm (6.10″)



Installation depth:
185 mm (7.28″)1)

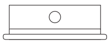


Installation depth:
295 mm (11.61″)1)



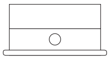
3.1
1

screw fastened



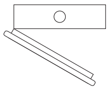
3.1
2

screw fastened



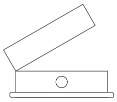
3.1
4

screw fastened



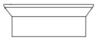
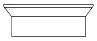
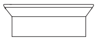
3.1
3

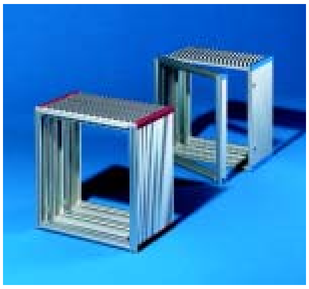
hinged2)



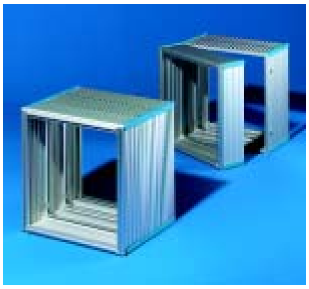
3.1
5

hinged2)

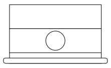
Support arm system CP-L	prepared	prepared	prepared
Support arm system CP-XL	with adaptor CP 6528.500 	with adaptor CP 6528.500 	with adaptor CP 6528.500 



Installation depth:
328 mm (12.91″)1)

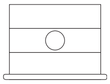


Installation depth:
438 mm (17.24″)1)



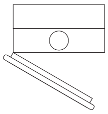
3.1
6

screw fastened



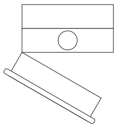
3.1
8

screw fastened



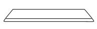
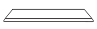
3.1
7

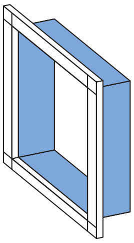
hinged2)



3.1
9

hinged2)

Support arm system CP-L	with adaptor CP 6528.0003) 	with adaptor CP 6528.0003) 
Support arm system CP-XL	prepared	prepared



3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8

---

1) Enclosure without fins with a 60 mm (2.36″) deeper rear section available on request.

2) Cam lock with double-bit lock insert may be exchanged for lock inserts 41 mm (1.61″), version C, see page 246.

3) Provided the admissible load capacity of the support arm system is adequate (see page 96).

Selection: Operating housing

3.2 Front design

Cross member
For horizontal and/or vertical division. With channel on both sides for mounting kits, see page 233.

Material:
Extruded aluminum section, RAL 7035.

Sealing bar
For horizontal and/or vertical division. The “slot-free” division produces a height gain of 28 mm (1.10″).

Material:
Extruded aluminum section 8 x 20 mm (0.79″), natural anodized

Adaptor plate

Material thickness:
3 mm (0.12″) aluminum, natural anodized.

Please specify the dimensions for the front panel and the desired holes and cutouts.

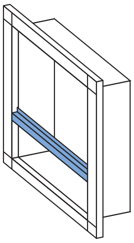
Spacing and Built-in trim panel
For additional space for cable entry and for the installation of switches/indicator lights, emergency off/key switches, CD-ROM drives, interfaces etc. With channel on one side for mounting kits, cf. page 233.

Material:
Extruded aluminum section, natural anodized.

Technical details,
see page 34.

! Additional parts

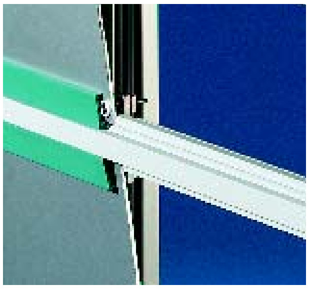
Mounting kit for installing front panels, operating panels and keyboards in operating and keyboard housings, see page 233.



3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8

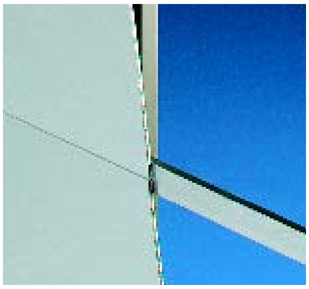
Without cross member

3.2
0



With one cross member

3.2
1



With one sealing bar[1]

3.2
2

With two cross members

3.2
3

With two sealing bars[1]

3.2
4

With one cross member and one sealing bar[1] [2]

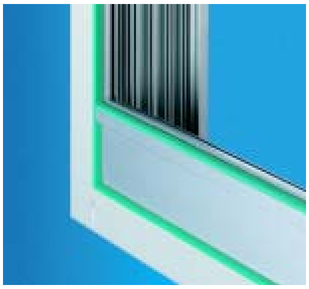
3.2
5

With one adaptor plate (to specifications)

3.2
6

With spacing and built-in trim panel at the top[3]

3.2
7



With spacing and built-in trim panel at the bottom[3]

3.2
8

With front panel hinged[4]
For example, if a disk drive built into the operator panel necessitates free access.

3.2
9

Standard design
- Screw-fastened from the outside
- R/h hinge

---

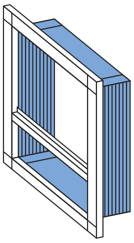
[1] Not possible with spacer trim (cf. 3.4).

[2] Unless otherwise specified: Sealing bar at the top, Cross member at the bottom.

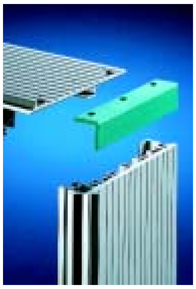
[3] Only for use in conjunction with end trim.

[4] Screw-fastened from the inside, with cam or l/h hinge on request.

3.3 Cooling fins

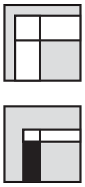


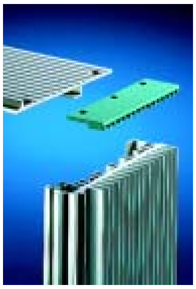
3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8



No fins

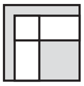
3.3
1

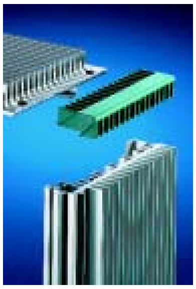




Fins at sides

3.3
2





Fins all round

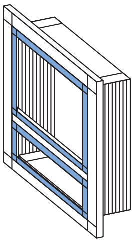
3.3
3

Fin design is chosen according to the heat loss to be dissipated, see page 17.

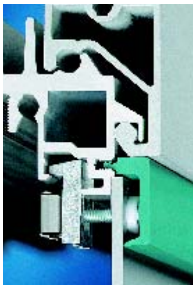
Enclosures with an installation depth of 185 mm (7.28″) and 328 mm (12.91″) do not have any fins immediately behind the front frame at a depth of 44 mm (1.73″). The color of the corner protectors matches the trim color selected under 3.5.

3.4 Trim types

Technical details,
see page 35.

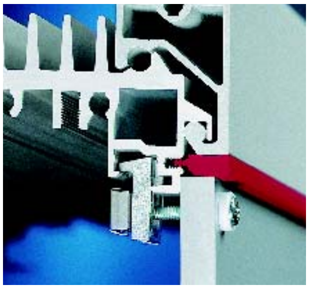


3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8



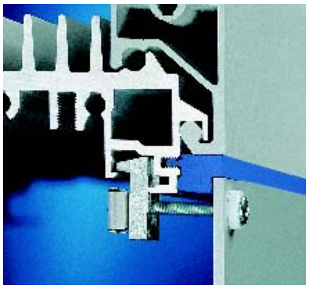
Cover trim
To conceal the front panel assembly screws. For front panel thickness up to 3.5 mm (0.14″).

3.4
1



End trim
Attractively finishes off the space between the front panel and the frame section. For all front panel thicknesses.

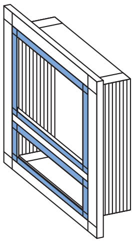
3.4
2



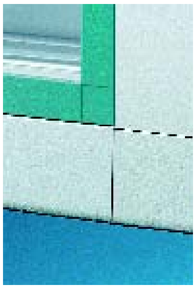
Spacer trim
For installed equipment flush with the frame section.
For front panel thickness up to approx. 3.5 mm (0.14″).

3.4
3

3.5 Trim colors



3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8



🟩 **Turqoise** (similar to RAL 5018) — 3.5 1

🟦 **Bright blue** (similar to RAL 5005) — 3.5 2

🟥 **Bright red** (similar to RAL 3001) — 3.5 3

⬜ **Pebble grey** (similar to RAL 7030) — 3.5 5

⬛ **Graphite** (similar to RAL 7024) — 3.5 6

Note:
Enclosure corner protectors are also supplied in the chosen color. Other colors available on request with larger orders.

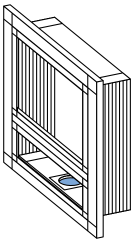
Selection: Operating housing

3.6 Support arm / wall connection

3 different support arm systems, see page 80 and various floor-standing systems, see page 132 are available.

Note:
Support arm connection CP-S for small enclosures with an installation depth of 155 mm (6.10″) are selected by adding an “S” after the design code number.

Technical details,
see page 32.



3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
					▨		

Without connection

3.6
0

Connection, top

3.6
1

Wall connection, rigid,[1]
see page 226

3.6
X

Connection, bottom

3.6
2

Connection, top and bottom,
one cover plate included

3.6
3

Wall connection, vertically hinged,
see page 226

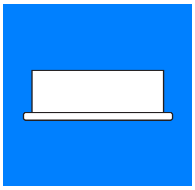
3.6
0

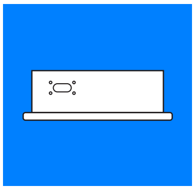
---

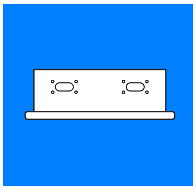
[1] When ordering, please specify the position of the enclosure duct connector.

3.7 Preparation for mounting keyboard housings

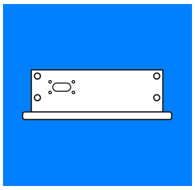
Technical details,
see page 32 – 33.

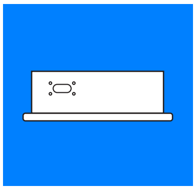




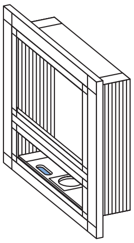


	Without connection to the keyboard housing 3.7 0	**Connection to frame connector either rigid or adjustable** 3.7 1	**Connection with enclosure duct connector** 3.7 2
To fit keyboard housing depth:	–	105 (4.13)	105 (4.13)
	–	44 (1.73)	–
	–	27 (1.06)	–
Connection of operator panel to keyboard housing: (Selection 4.4, page 30)	–	Frame connector, rigid/adjustable	Enclosure duct connector
Cable tube: (Selection 4.5, page 31)	–	rigid/flexible	Enclosure duct connector





	Connection with enclosure bar connector 3.7 3	**Connection with hinged frame connector** 3.7 4
To fit keyboard housing depth:	–	105 (4.13)
	44 (1.73)	44 (1.73)
Connection of operator panel to keyboard housing: (Selection 4.4, page 30)	Enclosure bar connector	Hinged frame connector
Cable tube: (Selection 4.5, page 31)	flexible	flexible



3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
						▨	

3.8 Rear panels

Screw fastened

3.8 1

Material:
Aluminum,
natural anodized.

Hinged[1)]
For rapid
service access

3.8 2

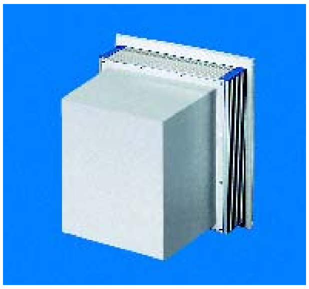
Material:
Aluminum, natural anodized.

Depth plus 45 mm (1.77″)
Hinged,
screw fastening

3.8 3

Material:
Sheet steel, RAL 7035

[1)] On the longest side (right/bottom), cam with double-bit insert, may be exchanged for lock inserts 41 mm (1.61″), version C, see page 246, plastic handles and T handles, version C, see page 245 – 246.



Depth plus 245 mm (9.65″),
square[2)], screw-fastened

3.8 4

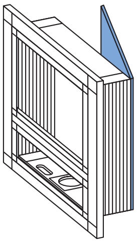
Material:
Sheet steel, RAL 7035

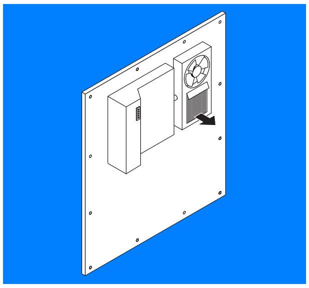
[2)] For 482.6 mm (19″)/7 U concave

Hinged[1)]
for heavy installed
equipment

3.8 5

Material:
Aluminum, natural anodized.





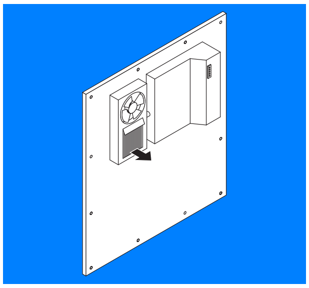
Screw-fastened with built-in VIP SK small cooling unit, condenser configuration left top

3.8 6

Recommendation for command panel design
(see 3.1 Installation depth, 3, 5, 7, 9)

Material:
Aluminum, natural anodized.

Technical details,
see page 202.



Screw-fastened with built-in VIP SK small cooling unit, condenser configuration right top

3.8 7

Recommendation for command panel design
(see 3.1 Installation depth, 3, 5, 7, 9)

Material:
Aluminum, natural anodized.

Technical details,
see page 202.

Rear cooling panel modular[3)]

3.8 8

Significantly increases heat dissipation from the enclosure!

Material:
Extruded aluminum section, natural anodized

Technical details and arrangement of the sections,
see page 35.

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8

[3)] When installing the pull-out keyboard CP 6002.100 (see page 263) in the VIP 6000, design version 3.1, no. 1 the 11 mm (0.43″) cooling fins and screw channels protruding into the enclosure may be milled off.
Please state the installation position when ordering.

Selection: Keyboard housing

4.1 Keyboard housing

Without fins.

For installing or positioning keyboards on top (with a depth of 27 mm (1.06″).

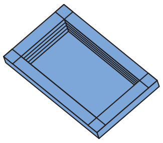
All keyboard housings are custom-produced to your dimensions. When selecting the wide front frame, the width of the keyboard housing depends on the operating housing.

Material:
Extruded aluminum section

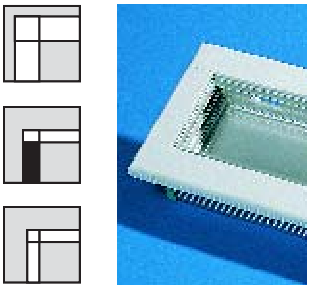
Technical details,
see page 36 – 38.

! Additional parts

Mounting kit for installing front panels, operating panels and keyboards in command panels and keyboard housings, see page 233.

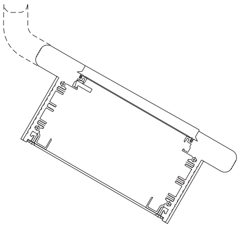


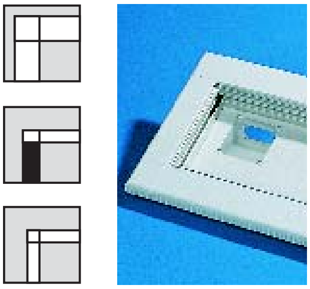
4.1 4.2 4.3 4.4 4.5



Installation depth 105 mm (4.13″) for built-in keyboards

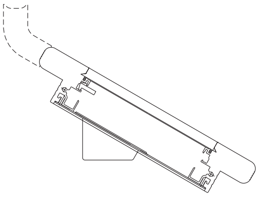
4.1
1

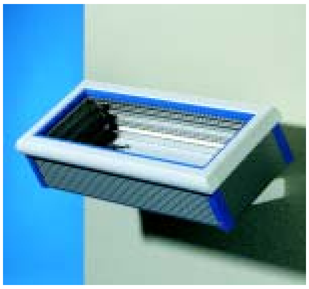




Installation depth 44 mm (1.73″) for built-in keyboards

4.1
2

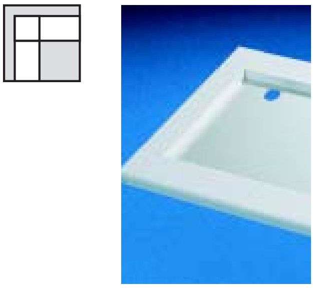




Example of the versatility of the keyboard housing: External mounting on doors
With all keyboard housings, the rear panel may be supplied prepared for external mounting on flat surfaces on request.

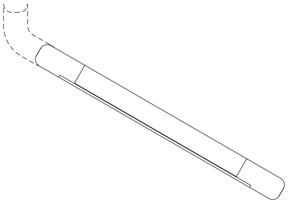
! Additional parts

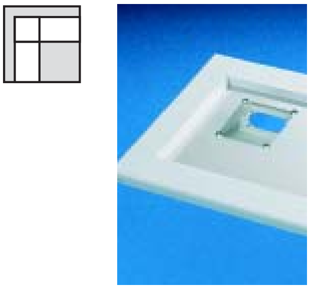
Enclosure duct connector CP 6006.000, see page 226.
For mounting and cable entry.
Cross-brace for door TS 8800.960 / TS 8800.980, for mounting on 600/800 mm (23.62″/31.50″) wide doors TS/ES.



Depth 27 mm (1.06″) with cable entry grommet, for desktop enclosures

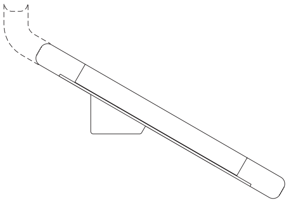
4.1
3

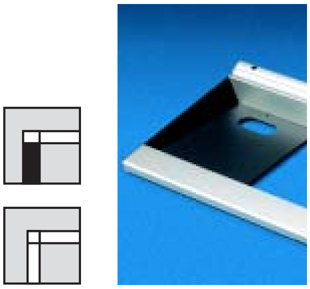




Depth 27 mm (1.06″) with cable tube, flexible, for desktop enclosures

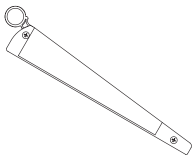
4.1
4





Support for keyboards [1]

4.1
5

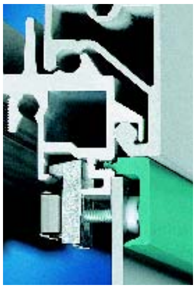


---

[1] Only in conjunction with hinged frame connector, cf. 4.4 design code number 5.

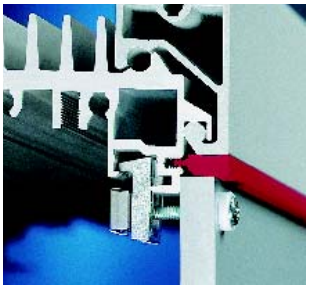
4.2 Trim types[1]

Technical details,
see page 35.



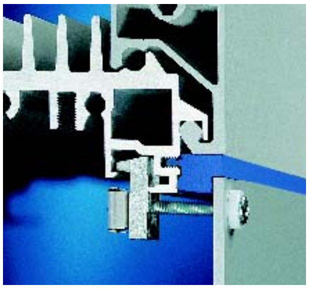
Cover trim
To conceal the front panel assembly screws. For front panel thickness up to 3.5 mm (0.14″).

3.4
1



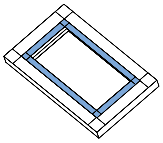
End trim
Attractively finishes off the space between the front panel and the frame section. For all front panel thicknesses.

3.4
2



Spacer trim
For installed equipment flush with the frame section.
For front panel thickness up to approx. 3.5 mm (0.14″).

3.4
3



4.1	4.2	4.3	4.4	4.5

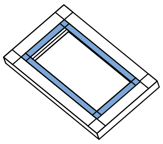
---

[1] Cannot be selected with keyboard housing depth 27 mm (1.06″) or support for keyboards. In such cases, please enter an **X**.

4.3 Trim colors[1]

Note:
Enclosure corner protectors may also be supplied in the chosen color.
Other colors available on request with larger orders.

🟩	**Turqoise** (similar to RAL 5018)	4.3 1
🟦	**Bright blue** (similar to RAL 5005)	4.3 2
🟥	**Bright red** (similar to RAL 3001)	4.3 3
⬜	**Pebble grey** (similar to RAL 7030)	4.3 5
⬛	**Graphite** (similar to RAL 7024)	4.3 6



4.1	4.2	4.3	4.4	4.5

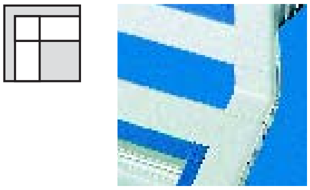
---

[1] Cannot be selected with keyboard housing depth 27 mm (1.06″) or support for keyboards. In such cases, please enter an **X**.

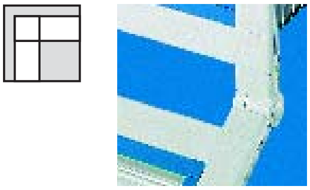
4.4 Keyboard housing connector

Supplied loose with the keyboard housing for connecting operating housings and keyboard housings.

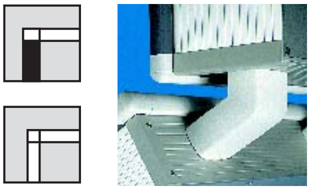
Technical details,
see page 39.



Frame connector, (rigid) 4.4 1



Frame connector, (adjustable) 4.4 2



Enclosure duct connector 4.4 3

	Frame connector, (rigid) 4.4 1	Frame connector, (adjustable) 4.4 2	Enclosure duct connector 4.4 3
Keyboard housing depth:	105 (4.13″)	105 (4.13″)	105 (4.13″)
	44 (1.73″)	44 (1.73″)	–
	27 (1.06″)	27 (1.06″)	–
Tilting angle:	120°, rigid	75 – 120°, adjustable in 7.5° increments	120°, rigid
Cable tube:	See 4.5	See 4.5	Integral

4.4 1: To fit operating and keyboard housings with the same width.

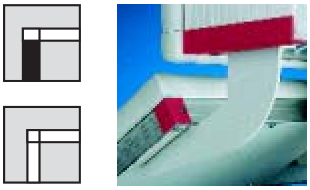
Material:
Die-cast zinc, RAL 7035

4.4 2: To fit operating and keyboard housings with the same width.

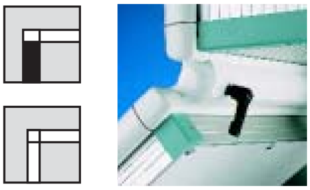
Material:
Die-cast zinc, RAL 7035

4.4 3: To fit operating housings with keyboard housing 105 mm (4.13″) deep, also in different widths.

Material:
Aluminum, RAL 7035



Enclosure bar connector 4.4 4



Hinged frame connector 4.4 5

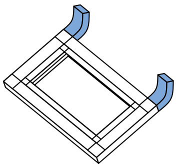
	Enclosure bar connector 4.4 4	Hinged frame connector 4.4 5
Keyboard housing depth:	–	105 (4.13″)
	44 (1.73″)	44 (1.73″)
Tilting angle:	120°, rigid	75 – 120°, infinitely adjustable
Cable tube:	See 4.5	See 4.5

4.4 4: To fit operating housings with keyboard housings 44 mm (1.73″) deep, also in different widths.

Material:
Sheet steel, RAL 7035

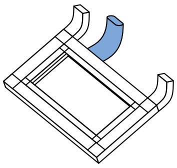
4.4 5: To fit operating housings with keyboard housings 105, 44 mm (4.13", 1.73″) deep and support for keyboards, also in different widths.

Material:
Aluminum, RAL 7035

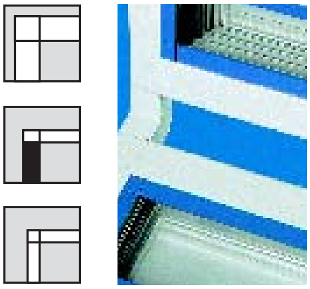


4.1 4.2 4.3 4.4 4.5

4.5 Cable tube

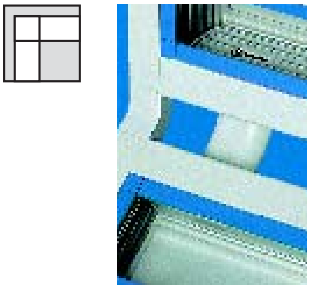


4.1	4.2	4.3	4.4	4.5



Without cable tube

4.5
0



Cable tube, rigid

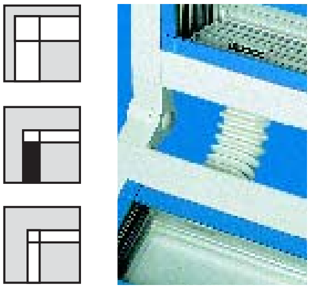
4.5
1

Suitable for cable routing when using the rigid frame connector (for wide frames) and keyboard housings with a depth of 105 mm (4.13″).

Material:
Aluminum, RAL 7035

Note:
Not possible with:
3.1 Operating housing, design code numbers 3 and 7.

4.4 Keyboard housing connector, design code number 2.



Cable tube, flexible

4.5
2

Suitable for cable entry when using the frame connector, adjustable, hinged frame connector or enclosure bar connector. External mounting on keyboard housings with 105, 44 or 27 mm (4.13″, 1.73″ or 1.06″) depth or support for keyboards.

Material:
Plastic, RAL 7035

Note:
Not possible with:
4.1 Keyboard housing, design code number 3.

Examples

The picture opposite shows the solution we have chosen, together with its corresponding design code number. The following key explains how the code number in our example is made up.

We need the following information in order to deal with your enquiry/order:
- Part No. front frame: CP 6392.X09[2)]
- The dimensions and number of panels/front panels to be installed in the operating/keyboard housing
- Design code number for the operating/keyboard housing

Order form, see page 279.

Operating housing

Part No.: CP 6392.009

Design code number:

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
1	1	2	1	2	2	1	2

3.1	1	Operating housing, Installation depth 155 mm (6.1″)
3.2	1	1 cross member
3.3	2	Cooling fins (sides)
3.4	1	Cover trim
3.5	2	Trim color: Bright blue
3.6	2	Support arm connection at bottom
3.7	1	Frame connector and cable tube
3.8	2	Rear panel, hinged with double-bit lock

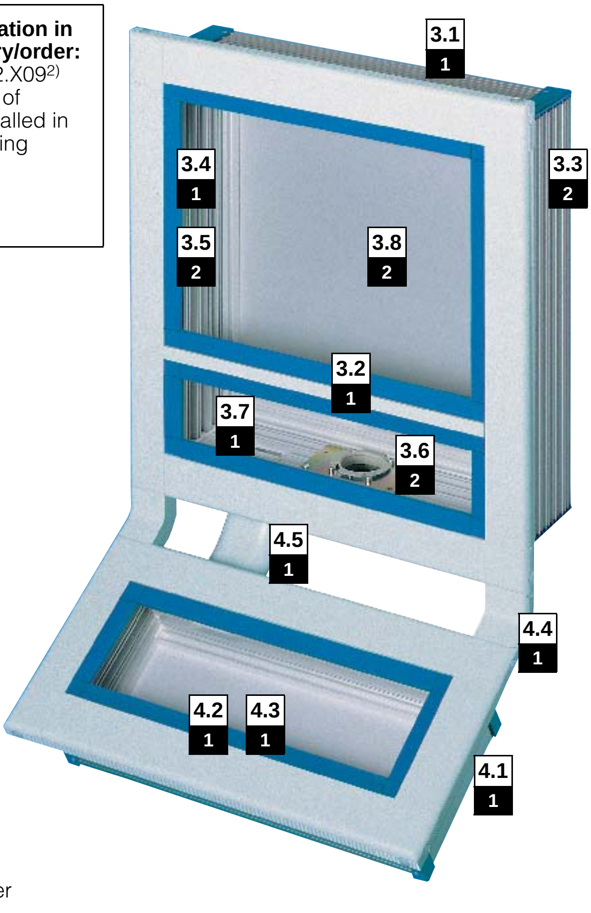
Keyboard housing

Part No.: CP 6351.009

Design code number:

4.1	4.2	4.3	4.4	4.5
1	1	2	1	1

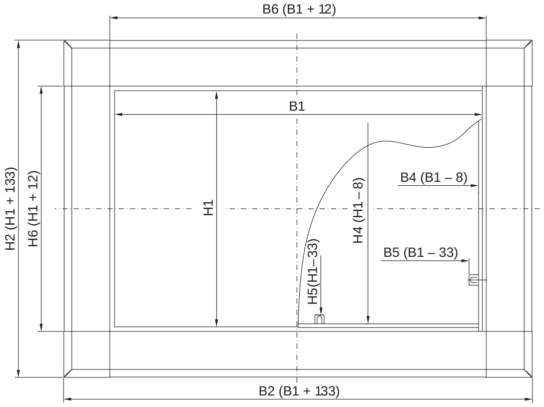
4.1	1	Keyboard housing, installation depth 105 mm (4.13″)
4.2	1	Cover trim
4.3	2	Trim color: Bright blue
4.4	1	Frame connector, rigid
4.5	1	Cable tube, rigid



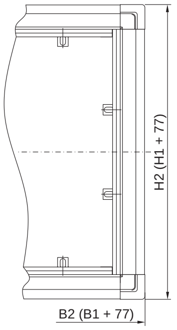
[2)] Replace X with the number after selecting the front frame.

3.1 Installation depth

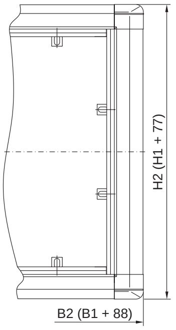
Front frame, wide


B6 (B1 + 12)
B1
B4 (B1 – 8)
B5 (B1 – 33)
H2 (H1 + 133)
H6 (H1 + 12)
H1
H5(H1–33)
H4 (H1 – 8)
B2 (B1 + 133)

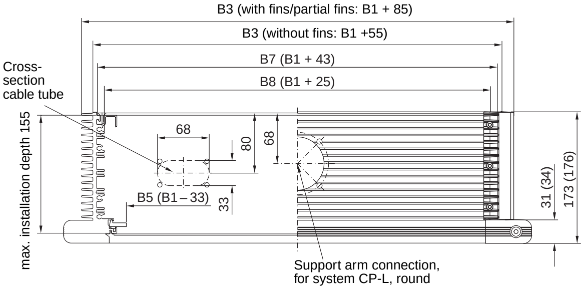
Narrow


H2 (H1 + 77)
B2 (B1 + 77)

Combined


H2 (H1 + 77)
B2 (B1 + 88)

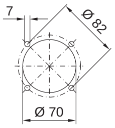
1 155 mm (6.10″)


B3 (with fins/partial fins: B1 + 85)
B3 (without fins: B1 +55)
B7 (B1 + 43)
B8 (B1 + 25)
Cross-section cable tube
68
80
68
B5 (B1 – 33)
33
31 (34)
173 (176)
max. installation depth 155
Support arm connection, for system CP-L, round

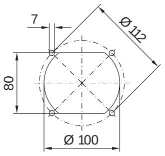
Dimensions in brackets refer to narrow and combined front frames

Support arm connections

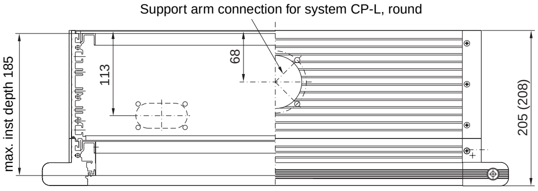
CP-L, round



CP-XL

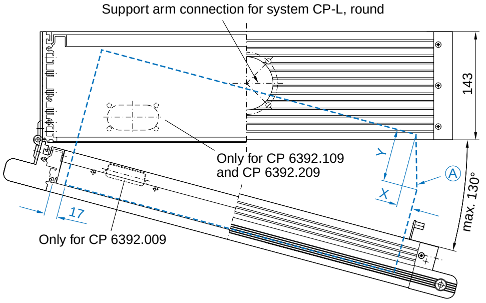

7
Ø 112
80
Ø 100

2 185 mm (7.28″), screw-fastened


Support arm connection for system CP-L, round
68
113
max. inst depth 185
205 (208)

Dimensions in brackets refer to narrow and combined front frames

3 185 mm (7.28″), hinged


Support arm connection for system CP-L, round
143
Only for CP 6392.109 and CP 6392.209
Y
X
Ⓐ
max. 130°
17
Only for CP 6392.009

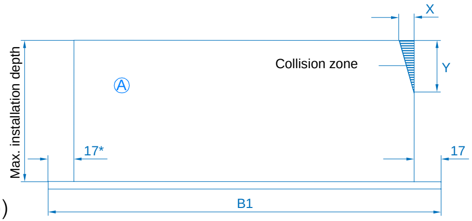
Width dimensions:

B1 = Width of front panel
B2 = Overall width
B3 = Enclosure width
B4 = Clearance width between enclosure sections
B5 = Clearance width between the retaining clips of the mounting kit
B6 = Clearance width between the front frames
B7 = Width of rear panel
B8 = Internal clearance of enclosure, width

Height dimensions:

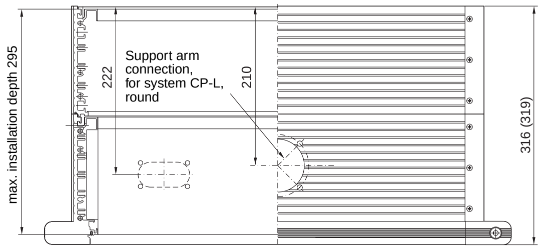
H1 = Height of front panel
H2 = Overall height
H3 = Enclosure height (with fins: H1 + 85 (3.35″); without fins: H1 + 55 (2.17″))
H4 = Clearance height between enclosure sections
H5 = Clearance height between the retaining clips
H6 = Clearance height between the front frames
H7 = Height of rear panel (H1 + 43 (1.69″))
H8 = Internal clearance of enclosure, height (H1 + 25 (0.98″))

Ⓐ = Max. installation space with hinged housings


X
Y
Collision zone
Ⓐ
Max. installation depth
17*
17
B1

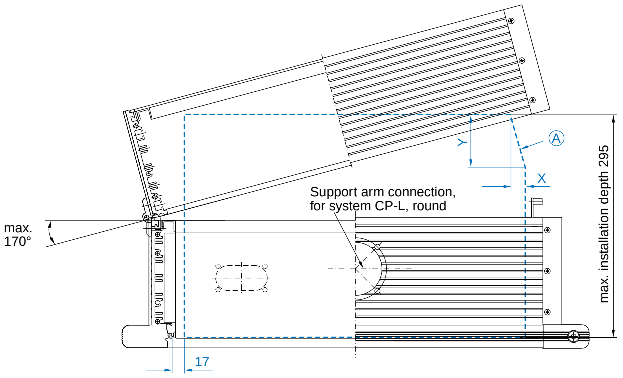
* see page 22.

4 295 mm (11.61″), screw-fastened

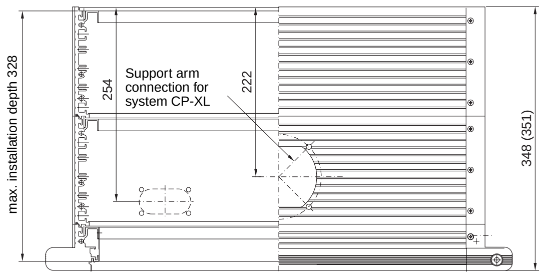

max. installation depth 295
222
Support arm connection, for system CP-L, round
210
316 (319)

Dimensions in brackets refer to narrow and combined front frames

5 295 mm (11.61″), hinged

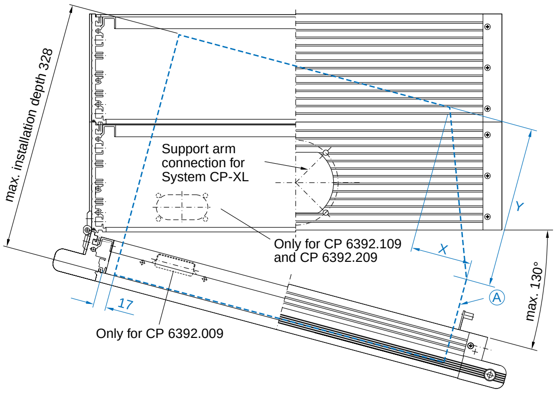

max. 170°
Y
Ⓐ
X
Support arm connection, for system CP-L, round
max. installation depth 295
17

6 328 mm (12.91″), screw-fastened

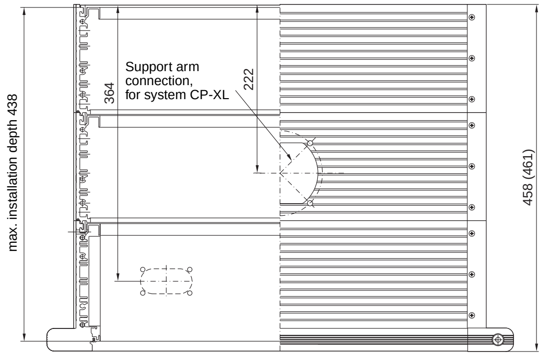

max. installation depth 328
254
Support arm connection for system CP-XL
222
348 (351)

Dimensions in brackets refer to narrow and combined front frames

7 328 mm (12.91″), hinged

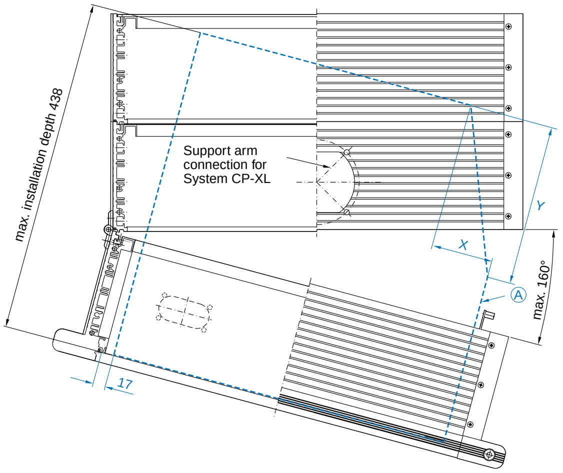

max. installation depth 328
Support arm connection for System CP-XL
Only for CP 6392.109 and CP 6392.209
Y
X
Ⓐ
max. 130°
17
Only for CP 6392.009

8 438 mm (17.24″), screw-fastened

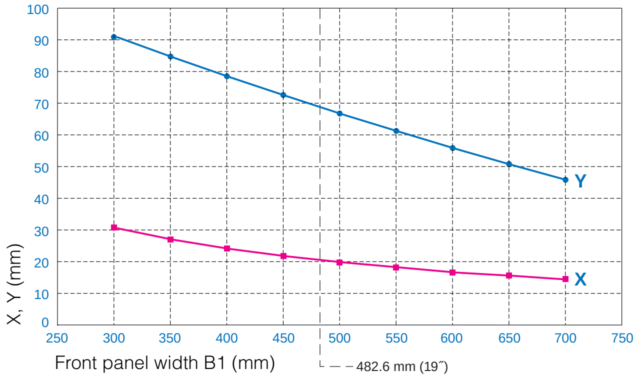

max. installation depth 438
364
Support arm connection, for system CP-XL
222
458 (461)

Dimensions in brackets refer to narrow and combined front frames

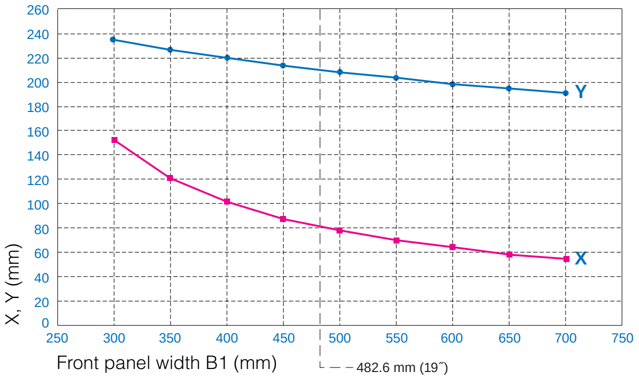
9 438 mm (17.24″), hinged


max. installation depth 438
Support arm connection for System CP-XL
Y
X
Ⓐ
max. 160°
17

Calculating the swivel mounting space (Version 3 and 5)

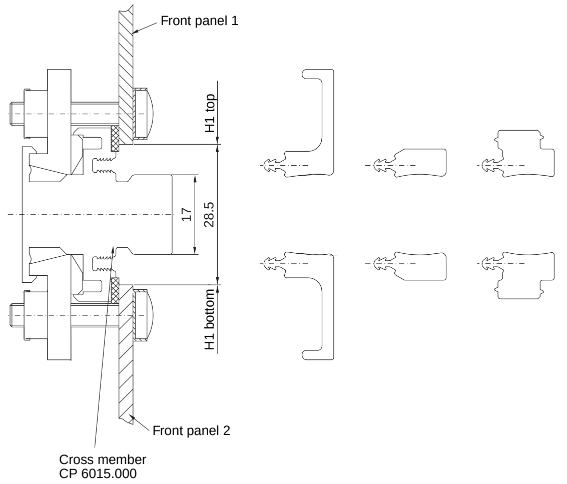


Calculating the swivel mounting space (Version 7 and 9)

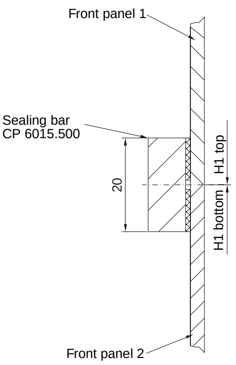


3.2 Front design

1 3 5 Cross member

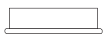
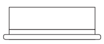
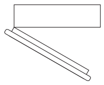
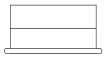
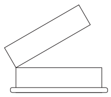
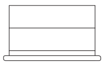
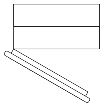
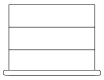
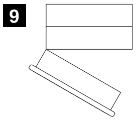

Front panel 1
H1 top
17
28.5
H1 bottom
Front panel 2
Cross member
CP 6015.000

2 4 5 Sealing bar


Front panel 1
Sealing bar
CP 6015.500
20
H1 top
H1 bottom
Front panel 2

Minimum front panel width (B1)

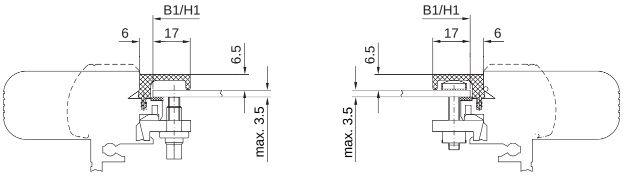
Depending on the
- Installation depth of the operating housing
- Connection between the operating housing/keyboard housing
- Position of the support arm connection

Dimensions in mm (inches)		Installation depth of operating housing (see 3.1, page 23)				
		155 (6.10″)	185 (7.28″)	295 (11.61″)	328 (12.91″)	438 (17.24″)
Connection to keyboard housing (see 3.7, page 26)	Position of support arm connection (see 3.6, page 26)	1 	2  3 	4  5 	6  7 	8  9 
0 None	0 to 3 top or bottom	Minimum front panel width				
		169 (6.65″)	265 (10.43″)	169 (6.65″)	265 (10.43″)	265 (10.43″)
1 Frame connector or 4 Hinged frame connector	1 top	169 (6.65″)	265 (10.43″)	169 (6.65″)	265 (10.43″)	
	2 and 3 bottom	339 (13.35″)*	445 (17.52″)*	339 (13.35″)*	445 (17.52″)*	
2 Enclosure duct connector	1 top	189 (7.44″)	265 (10.43″)	189 (7.44″)	265 (10.43″)	
	2 and 3 bottom	339 (13.35″)	445 (17.52″)	339 (13.35″)	445 (17.52″)	
3 Enclosure bar connector	1 top	169 (6.65″)	265 (10.43″)	169 (6.65″)	265 (10.43″)	
	2 and 3 bottom	397 (13.35″)*	445 (17.52″)*	397 (15.63″)*	445 (17.52″)*	

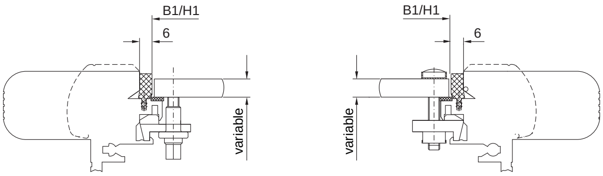
* Smaller front panel widths for asymmetrical support arm connection available on request.

3.4 Trim types

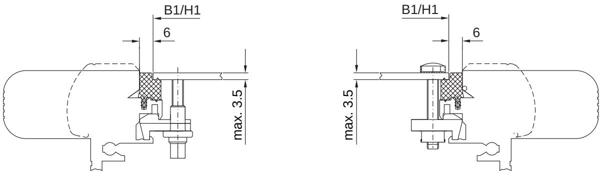
1 Cover trim
Front panel recessed, screws concealed



2 End trim
Front panel recessed



3 Spacer trim
Front panel flush



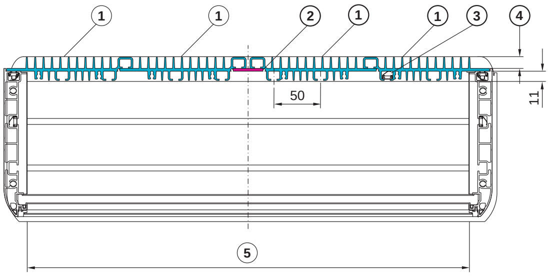
Mounting kit
for bolts:
M5: CP 6053.500
M4: CP 6058.500

Mounting kit
for screw clamp:
CP 6053.200

Mounting kits,
see page 233.

Mounting kit
for holes:
M5: CP 6053.000
M4: CP 6058.000
M6: CP 6053.000 / 6058.000
+ EL 2092.200
+ screws M6 x 25

3.8 Rear cooling panel



① = Rear cooling panel section, unless otherwise specified the cooling fins are arranged vertically

② = Width compensating panel, mounted in the center with an even number of heat sinks, or on the right with an uneven number.
By rotating the entire rear panel by 180°, this position may be modified individually

③ = Spring nut M5, CP 6108.000 for interior installation on screw channels

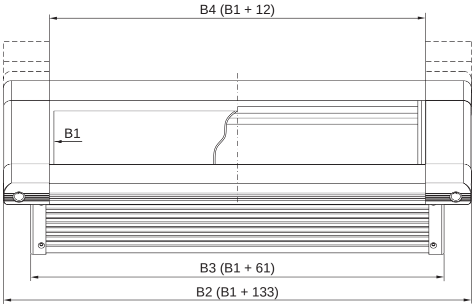
④ = Overall depth of the enclosure is increased by 13 mm (0.51″)

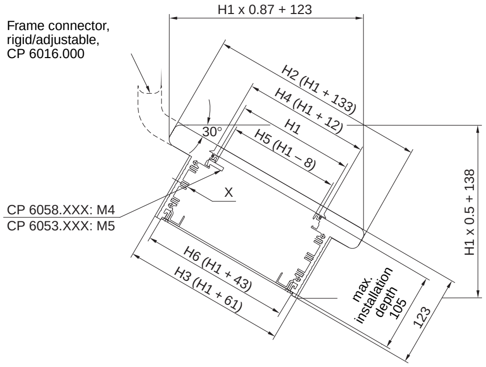
⑤ = Front panel width for determining the cooling modules and compensating panel

4.1 Keyboard housing

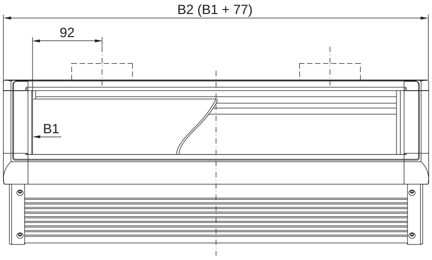
1 Installation depth 105 mm (4.13″)

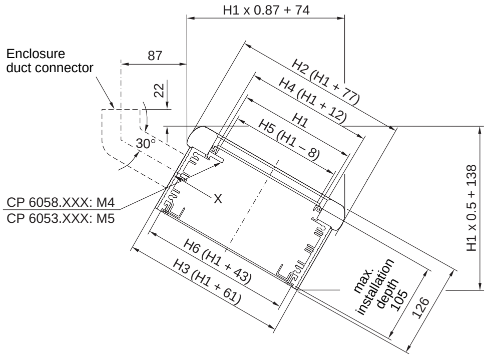
Front frame
Wide


B4 (B1 + 12)
B1
B3 (B1 + 61)
B2 (B1 + 133)

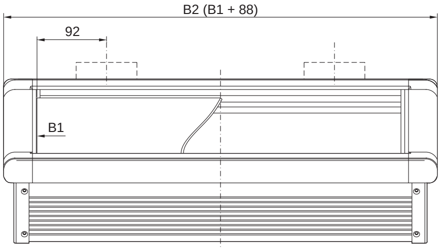

H1 x 0.87 + 123
Frame connector,
rigid/adjustable,
CP 6016.000
H2 (H1 + 133)
H4 (H1 + 12)
H1
30°
H5 (H1 – 8)
X
CP 6058.XXX: M4
CP 6053.XXX: M5
H6 (H1 + 43)
H3 (H1 + 61)
max.
installation
depth
105
123
H1 x 0.5 + 138

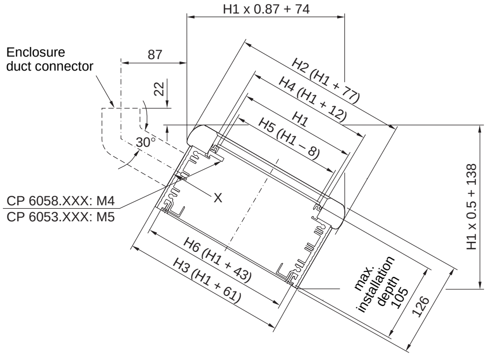
Narrow


B2 (B1 + 77)
92
B1


H1 x 0.87 + 74
Enclosure
duct connector
87
22
H2 (H1 + 77)
H4 (H1 + 12)
H1
30°
H5 (H1 – 8)
X
CP 6058.XXX: M4
CP 6053.XXX: M5
H6 (H1 + 43)
H3 (H1 + 61)
max.
installation
depth
105
126
H1 x 0.5 + 138

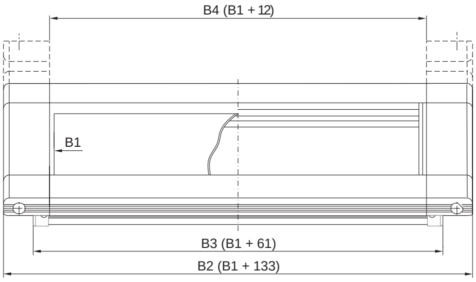
Combined

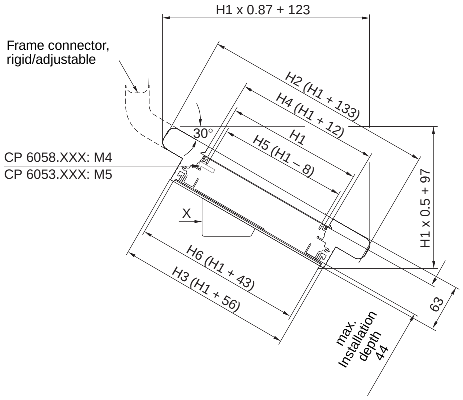

B2 (B1 + 88)
92
B1


H1 x 0.87 + 74
Enclosure
duct connector
87
22
H2 (H1 + 77)
H4 (H1 + 12)
H1
30°
H5 (H1 – 8)
X
CP 6058.XXX: M4
CP 6053.XXX: M5
H6 (H1 + 43)
H3 (H1 + 61)
max.
installation
depth
105
126
H1 x 0.5 + 138

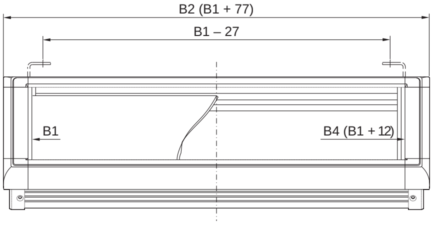
2 Installation depth 44 mm (1.73″)

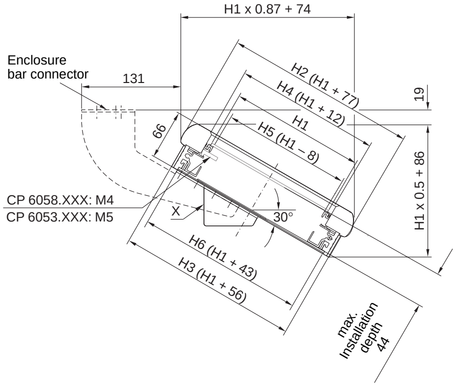
Front frame
Wide


B4 (B1 + 12)
B1
B3 (B1 + 61)
B2 (B1 + 133)

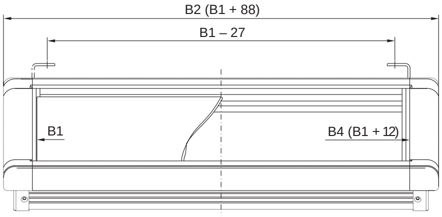

H1 x 0.87 + 123
Frame connector, rigid/adjustable
H2 (H1 + 133)
H4 (H1 + 12)
30°
H1
H5 (H1 – 8)
CP 6058.XXX: M4
CP 6053.XXX: M5
X
H1 x 0.5 + 97
H6 (H1 + 43)
H3 (H1 + 56)
63
max. Installation depth 44

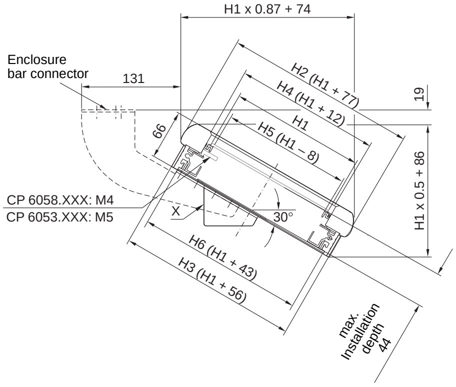
Narrow


B2 (B1 + 77)
B1 – 27
B1
B4 (B1 + 12)


H1 x 0.87 + 74
Enclosure bar connector
131
H2 (H1 + 77)
H4 (H1 + 12)
19
H1
66
H5 (H1 – 8)
H1 x 0.5 + 86
CP 6058.XXX: M4
CP 6053.XXX: M5
X
30°
H6 (H1 + 43)
H3 (H1 + 56)
max. Installation depth 44

Combined

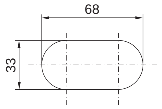

B2 (B1 + 88)
B1 – 27
B1
B4 (B1 + 12)


H1 x 0.87 + 74
Enclosure bar connector
131
H2 (H1 + 77)
H4 (H1 + 12)
19
H1
66
H5 (H1 – 8)
H1 x 0.5 + 86
CP 6058.XXX: M4
CP 6053.XXX: M5
X
30°
H6 (H1 + 43)
H3 (H1 + 56)
max. Installation depth 44

Height dimensions:
H1 = Height of front panel
H2 = Overall height
H3 = Enclosure height
H4 = Clearance height between the front frames
H5 = Clearance height between enclosure sections
H6 = Height of rear panel
H7 = Distance between rear panel holes, height

Width dimensions:
B1 = Width of front panel
B2 = Overall width
B3 = Enclosure width
B4 = Clearance width between the front frames
B6 = Width of rear panel
B7 = Distance between rear panel holes, width

X = Cross-section of cable tube connection

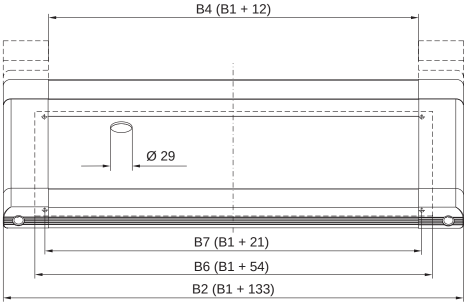


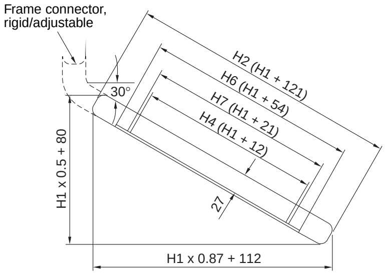
Continued

4.1 Keyboard housing

3 Depth 27 mm (1.06″)

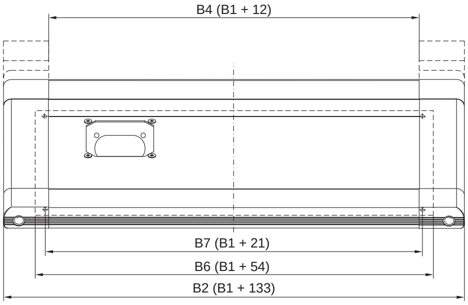
Front frame, wide,
with cable entry grommet

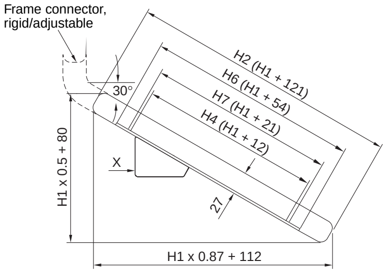

B4 (B1 + 12)
Ø 29
B7 (B1 + 21)
B6 (B1 + 54)
B2 (B1 + 133)


Frame connector, rigid/adjustable
30°
H2 (H1 + 121)
H6 (H1 + 54)
H7 (H1 + 21)
H4 (H1 + 12)
27
H1 x 0.5 + 80
H1 x 0.87 + 112

4 Depth 27 mm (1.06″)

Front frame, wide,
for cable tube, flexible


B4 (B1 + 12)
B7 (B1 + 21)
B6 (B1 + 54)
B2 (B1 + 133)


Frame connector, rigid/adjustable
30°
H2 (H1 + 121)
H6 (H1 + 54)
H7 (H1 + 21)
H4 (H1 + 12)
X
27
H1 x 0.5 + 80
H1 x 0.87 + 112

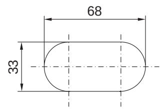
Height dimensions:

H1 = Height of front panel
H2 = Overall height
H3 = Enclosure height
H4 = Clearance height between the front frames
H5 = Clearance height between enclosure sections
H6 = Height of rear panel
H7 = Distance between rear panel holes, height

Width dimensions:

B1 = Width of front panel
B2 = Overall width
B3 = Enclosure width
B4 = Clearance width between the front frames
B6 = Width of rear panel
B7 = Distance between rear panel holes, width

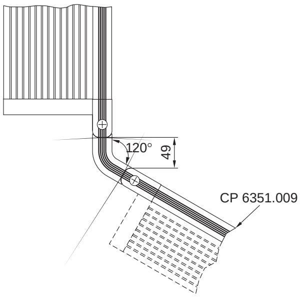
X = Cross-section of cable tube connection



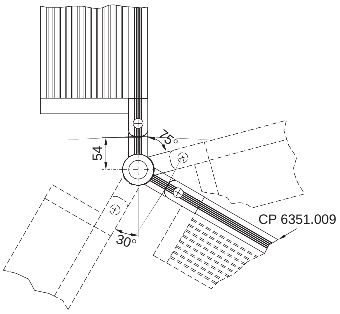
4.4 Keyboard housing connector

Front frame, wide

1 Frame connector, rigid
for all keyboard housings

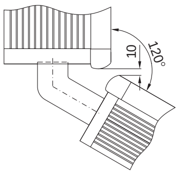

120°
49
CP 6351.009

2 Frame connector, adjustable
for all keyboard housings

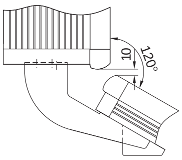

75°
54
30°
CP 6351.009

Front frame narrow/combined

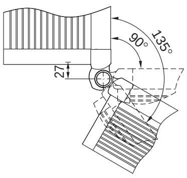
3 Enclosure duct connector
for keyboard housing:
Installation depth 105 mm (4.13″)



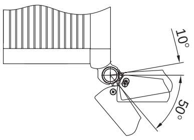
4 Enclosure bar connector
for keyboard housing:
Installation depth 44 mm (1.73″)



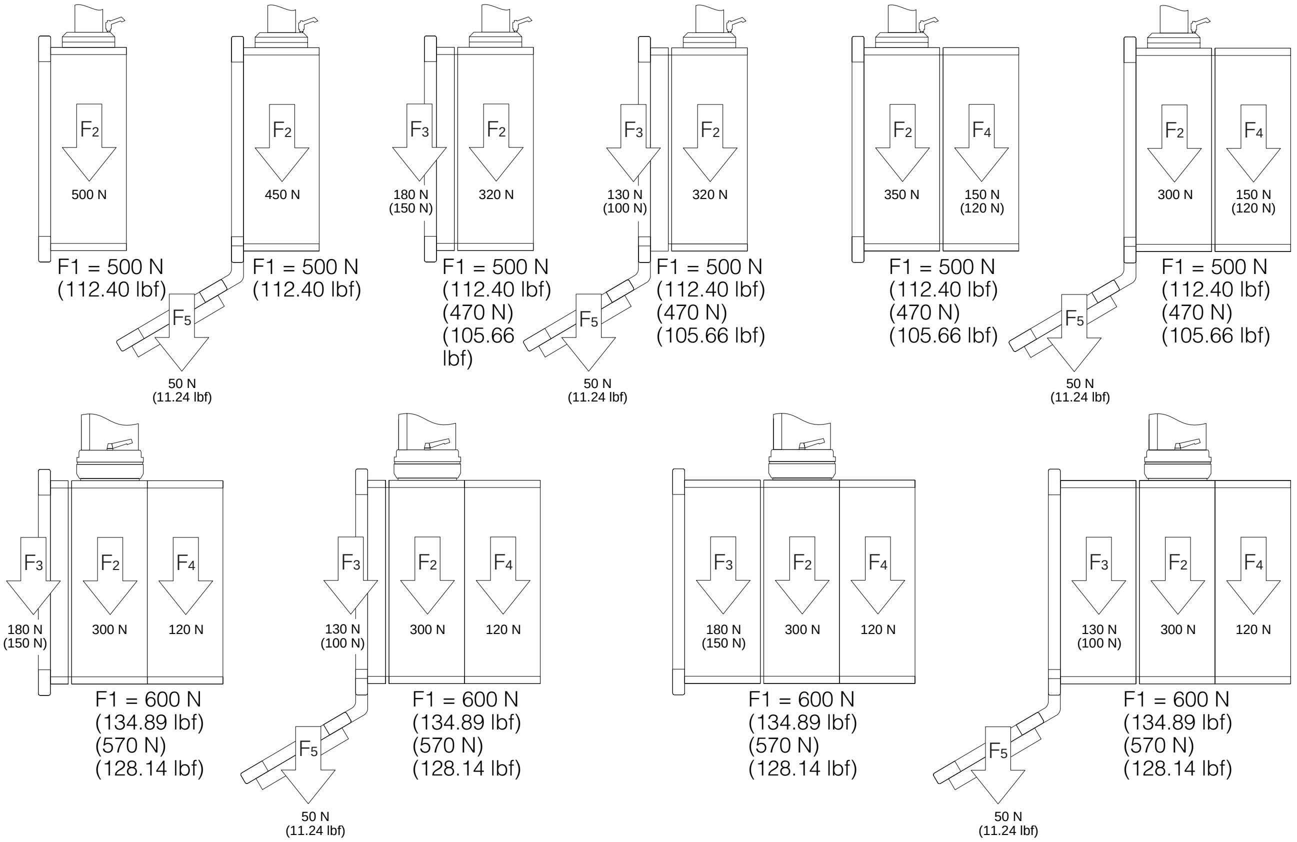
5 Hinged frame connector
for keyboard housing:
Installation depth 105 mm (4.13″) + 44 mm (1.73″)



Support for keyboards



Load specifications for installed equipment


F_2
500 N
F1 = 500 N (112.40 lbf)
F_2
450 N
F1 = 500 N (112.40 lbf)
F_5
50 N (11.24 lbf)
F_3
180 N (150 N)
F_2
320 N
F1 = 500 N (112.40 lbf) (470 N) (105.66 lbf)
F_3
130 N (100 N)
F_2
320 N
F1 = 500 N (112.40 lbf) (470 N) (105.66 lbf)
F_5
50 N (11.24 lbf)
F_2
350 N
F_4
150 N (120 N)
F1 = 500 N (112.40 lbf) (470 N) (105.66 lbf)
F_2
300 N
F_4
150 N (120 N)
F1 = 500 N (112.40 lbf) (470 N) (105.66 lbf)
F_5
50 N (11.24 lbf)
F_3
180 N (150 N)
F_2
300 N
F_4
120 N
F1 = 600 N (134.89 lbf) (570 N) (128.14 lbf)
F_3
130 N (100 N)
F_2
300 N
F_4
120 N
F1 = 600 N (134.89 lbf) (570 N) (128.14 lbf)
F_5
50 N (11.24 lbf)
F_3
180 N (150 N)
F_2
300 N
F_4
120 N
F1 = 600 N (134.89 lbf) (570 N) (128.14 lbf)
F_3
130 N (100 N)
F_2
300 N
F_4
120 N
F1 = 600 N (134.89 lbf) (570 N) (128.14 lbf)
F_5
50 N (11.24 lbf)

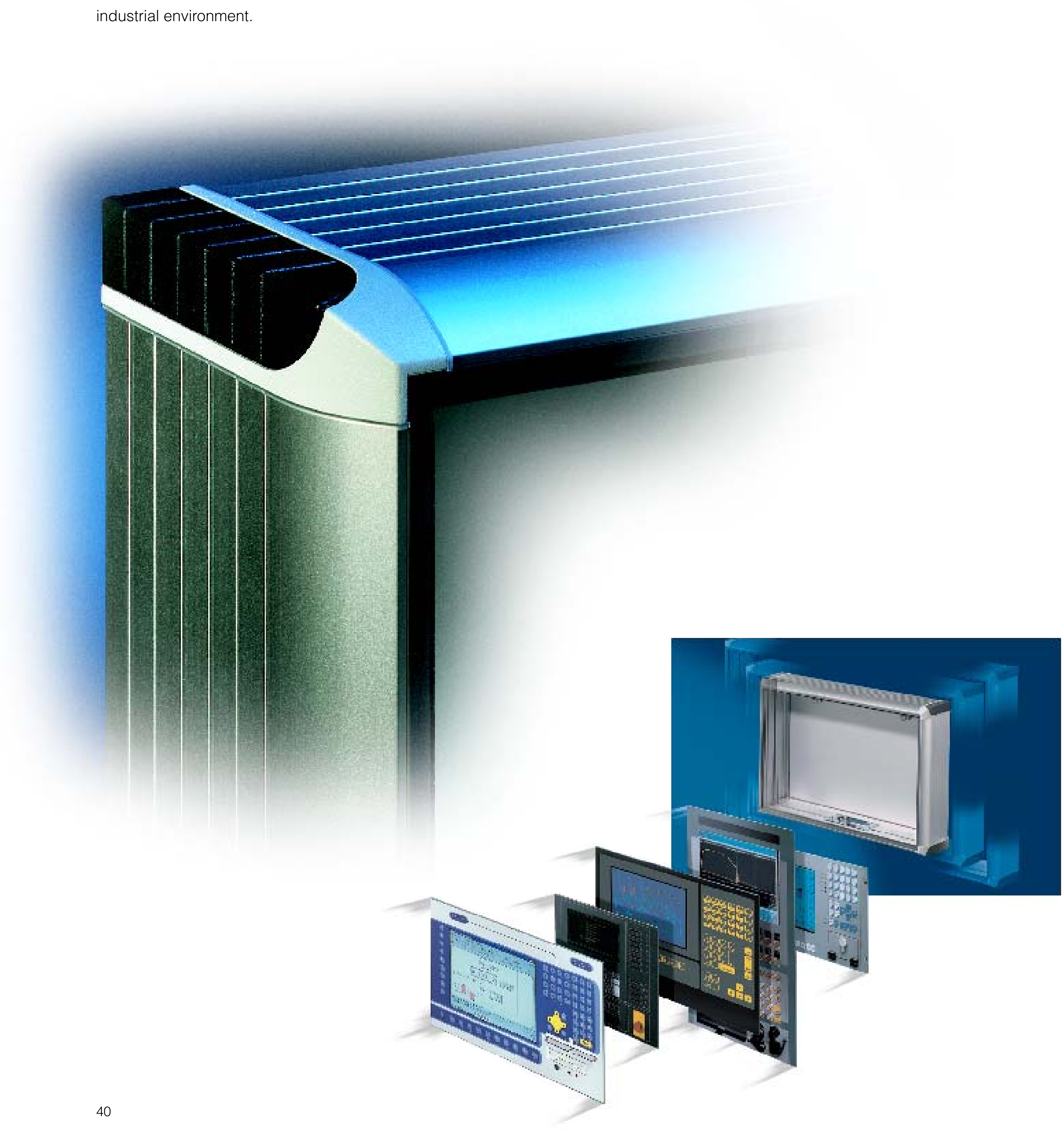
Permissible installed weight:
F_1 = total, F_2 = enclosure part (with support arm connection),
F_3 = front part, F_4 = rear part, F_5 = keyboard housing

Figures in brackets are for the hinged version (see 3.1 Command panels, page 23).
Enclosures for larger weights available on request.

Optipanel for optimum . . .

. . . Interaction between monitoring and operation

Ideal for small operating units, in terms of both function and design. You specify the dimensions of the selected operator panel and your equipment; and we will custom-produce your Command Panel/keyboard housing to your precise dimensions. Neutral in color and stylish, it is an eye-catching feature in any industrial environment.

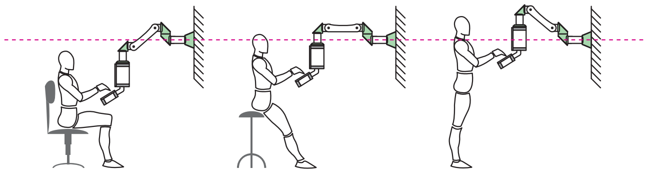


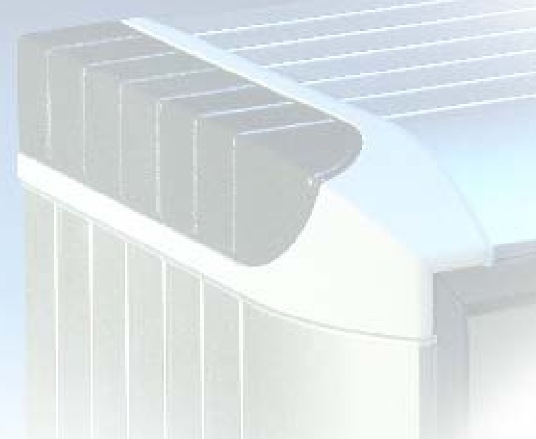
Optipanel 42 – 57

Optipanel diversity 42 – 45
Optipanel selection 46 – 51
Optipanel standard sizes 52 – 53
Technical details 54 – 57
Order form 279

Rittal Optipanel – the Command Panel with a special touch. Lightweight, slender and stylish in profile. The panel and installed equipment determine the dimensions.

Do you have special requirements in terms of function, design and ergonomics? The Optipanel will meet them. For example, also in conjunction with the support arm systems CP-S and CP-L.





Enclosures with all the options

The stylish, customized solution.

- Three installation depths: 50 mm (1.97″), 100 mm (3.94″), 150 mm (5.91″).
- Hinged rear panels offer easy servicing.
- Every operator panel is assembled quickly and precisely.
- Two enclosures in standard sizes available off the shelf.

Installation depth 50 mm (1.97″)

Installation depth 100 mm (3.94″)

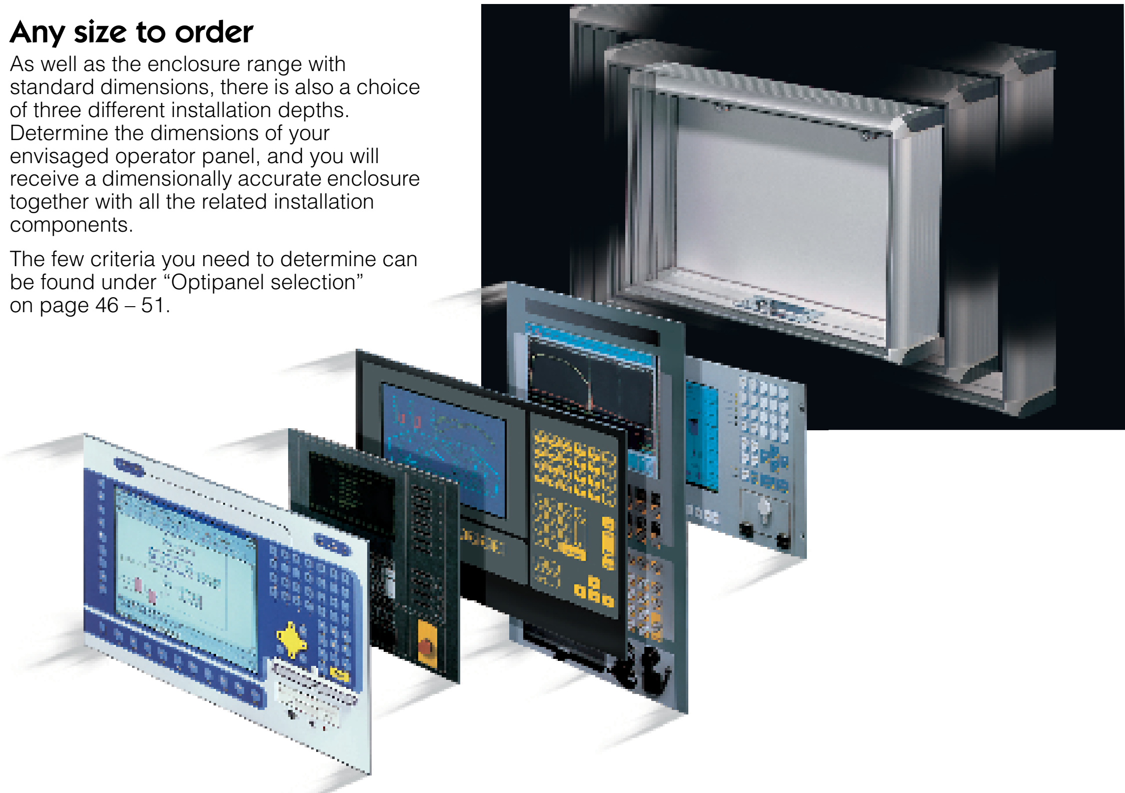
Installation depth 150 mm (5.91″)

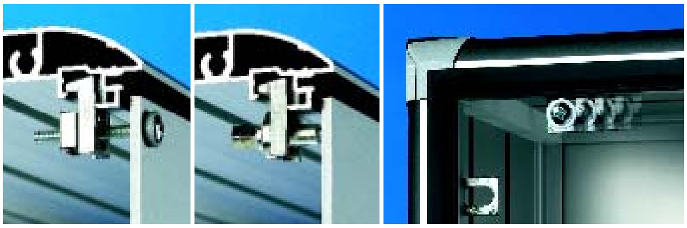
Enclosure in standard dimensions see page 52 – 53.

Any size to order

As well as the enclosure range with standard dimensions, there is also a choice of three different installation depths. Determine the dimensions of your envisaged operator panel, and you will receive a dimensionally accurate enclosure together with all the related installation components.

The few criteria you need to determine can be found under “Optipanel selection” on page 46 – 51.



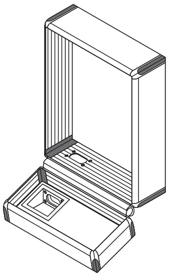


Every attachment point is accessible on all sides!
The retaining clips create sufficient play to accommodate virtually all hole spacings (distance from the panel’s outer edge 7 – 13 mm (0.28″ – 0.51″)).

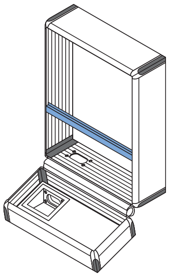
Screw-fastening the operator panel from the front is the simple, ideal solution. Front panels with studs or screw clamps may also be used.

Diversity: Enclosure, front design, rear panels

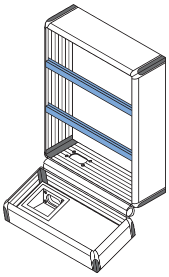
Individual front design



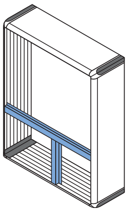
Without subdivision



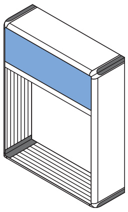
With cross member or sealing bar



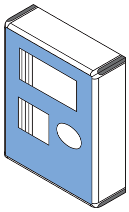
With two cross members or sealing bars; combinations are also possible



With cross member or sealing bar horizontal/vertical combined



With spacing and built-in trim panel. It may be positioned at the top, bottom or side.



Adaptor plate with individual cutouts

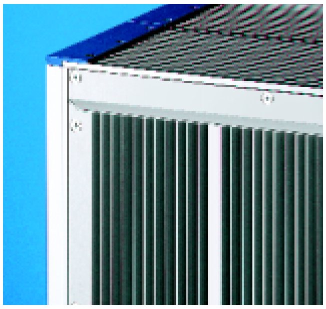
There's always a solution
The subdivison of the operating level with Rittal standard modules fulfils your every requirement. Individual cutouts can be achieved, for example, via the adaptor panel.

Should you have any queries, please contact your specialist Rittal advisor. As we have said, there's always a solution!

Rear panels to order

Choose the rear panel according to your servicing requirements:
- screw fastened
- hinged with cam lock and double-bit insert
- hinged with quick-release fasteners

Effective heat dissipation



The **modular rear cooling panel** significantly increases dissipation of the heat loss from the enclosure! This is achieved thanks to a combination of cooling fins on the outside and screw channels on the inside, which ensure optimum heat absorption and dissipation.

Dissipatable heat loss*		
Installation depth: 150 mm (5.91″)	19″/ 7 U	+ Cooling rear panel, modular
Without fins	60 W	66 W

* P_v (W) at ΔT = 20 K

Optipanel selection,
see page 46 – 51.

Order form,
see page 279.

For optimum ergonomic conditions

- Keyboard housings in two different installation depths and support for keyboards.
- Support arm systems swivel, rotate, raise and lower the operating unit at any given point.
- Stationary and mobile floor-standing systems.
- Handle sets for easier handling.

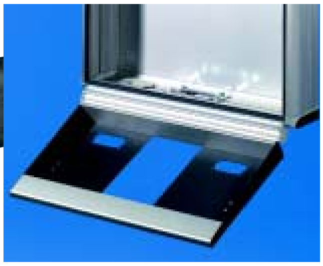
The matching keyboard housing

Choose the most suitable keyboard housing, tailored to your requirements. Two installation depths are available. The keyboard housing with an installation depth of 50 or 100 mm (1.97″ or 3.94″) and the keyboard support may be attached directly to the command panel or to the enclosure door.

Installation depth 50 mm (1.97″)

Installation depth 100 mm (3.94″)

Installation depth 100 mm, (3.94″) attached to the enclosure door



Support for keyboards attached to the enclosure

Support for keyboards attached to the enclosure door

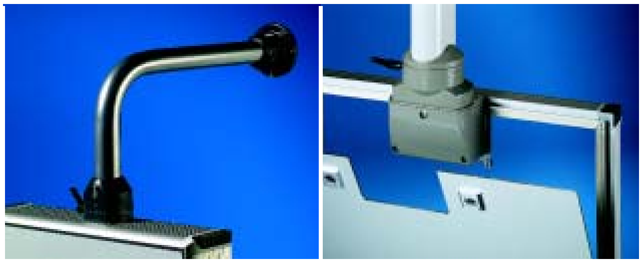
Always within reach

Tailored precisely to the operator's requirements, various handle sets may be fitted in accordance with ergonomic requirements. “Moving” the enclosure becomes effortless.

Diversity: Keyboard housing and ergonomics

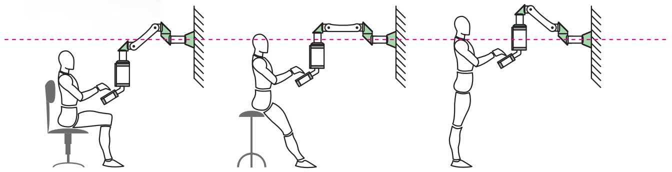
Precisely the right position

Different viewing angles of the machine, whether the operating staff are tall or short, sitting or standing – with Rittal support arm systems, the Optipanel is always in the optimum position.
All system components for rotating, tilting, swivelling, raising and lowering are combined with one another with unbelievable diversity.
Depending on the system configuration, arm length and enclosure weight, support arm systems CP-S or CP-L are used. If you want both a high load capacity and elegance, system combinations offer the ideal solution.



The connection fits

Even in enclosures with a very shallow installation depth, the support arm systems may be attached to the rear via an adaptor.



Stationary or mobile

Floor-standing systems in a variety of designs – even height-adjustable – round out the application diversity of the Optipanel.

CP pedestal, height-adjustable

Mobile pedestal

Pedestal base plate

Optipanel selection,
see page 46 – 51.

Order form,
see page 279.

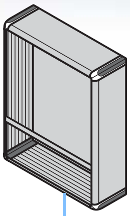
Selection: Operating housing / keyboard housing

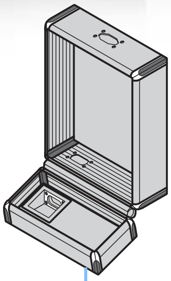
It's so easy!

We need the following three pieces of information in order to deal with your enquiry/order:

- Part No.: CP 6382.009
- The dimensions and number of panels/front panels to be installed in the keyboard/operating housing
- Design code number

Order form, see page 279





Operating/keyboard housing

Part No. CP

6382.009

Material:
Enclosure: Extruded aluminum section
Corner pieces: Die-cast zinc
Corner protectors:
Plastic, self-extinguishing
Sealing trim: Flexible plastic section

Finish:
Enclosure: Natural anodized
Corner pieces: Powder coated in finely textured RAL 7035
Corner protectors and sealing trims: Dyed similar to RAL 7024

For larger orders, other colors similar to RAL
- 5018 (turquoise)
- 5005 (bright blue)
- 3001 (bright red)
- 7030 (stone grey)

are available.

Protection ratings:
IP 65 to EN 60 529/10.91
(with appropriate front panel installation).
Complies with NEMA Type 12.

1. Panel dimensions

1.1 For operating housings
Please state the number of front panels/panels used, their height (H) x width (W) x depth (D) and the manufacturer/model (see below) on the order form.

1.2 For keyboard housings
Please state the height (H) x width (W) x depth (D) of the keyboard(s)/panel(s) and the manufacturer/model on the order form. (see criteria).

Checking the installation criteria

With the following installation criteria, please check whether your operator panels may be installed directly into the Optipanel.
Otherwise, an adaptor panel is needed – cf. 2.2, design code number 2.
The dimensions of the operating housing and keyboard housing are derived from the dimensions of your panel and the number of cross members.

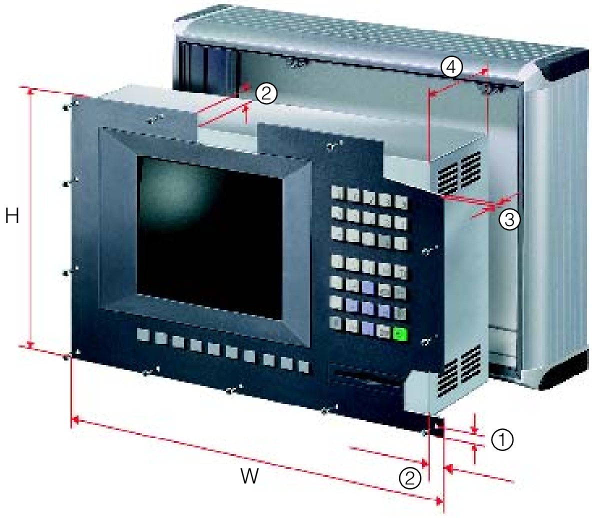
① **7 to 13 mm (0.28″ to 0.51″) edge spacing** of the mounting hole or bolt.

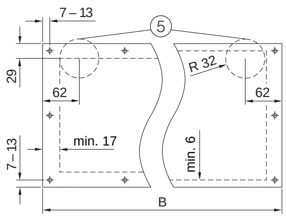
② **Front panel projection** on sides with mounting holes and bolts at least 17 mm (0.67″), on sides without mountings at least 6 mm (0.24″).

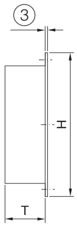
③ **Front panels up to 5 mm (0.20″).** With a thickness of approximately 3.5 mm (0.14″) the front panel is flush with the sealing trim and the enclosure front.

④ **Installation depths:** Operating housing = 50 mm (1.97″), 100 mm (3.94″), 150 mm (5.91″). Keyboard housing = 50 mm (1.97″), 100 mm (3.94″).

⑤ For versions with a hinged rear panel and cam lock, the maximum installation depth is reduced by 25 mm (0.98″) in the vicinity of the lock.



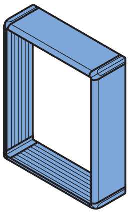




T = Depth
B = Width

2.1 Installation depth

Technical details,
see page 54.



2.1	2.2	2.3	2.4	2.5

50 mm (1.97″)

2.1
1

100 mm (3.94″)

2.1
2

150 mm (5.91″)

2.1
3

Selection: Operating housing

2.2 Front design

Additional parts

Mounting kit for installing front panels, operating panels and keyboards in operating housing and keyboard housings, see page 233.

Technical details,
see page 55.

[1] Quantity needed for sealing the individual separation points.
Example: 3 front panels in operating housing = 2 separation points = 2 cross members/ sealing bars included in the configuration. Other combinations available on request.

[2] Screw-fastened from the inside, with cam or l/h hinge on request.

[3] **Technical details,**
see page 234.

Without cross member 2.2 0

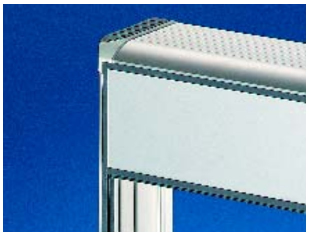
With cross member[1] 2.2 1
For horizontal and/or vertical division of the operating housing front. With mounting channel on both sides to accommodate mounting kits, see page 233.

Material:
Extruded aluminum section, natural anodized

With an adaptor plate 2.2 2
(to specifications)

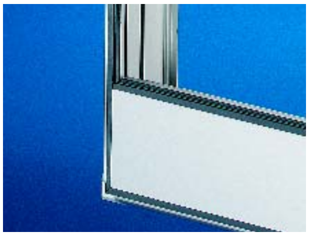
Material thickness:
3 mm aluminum, natural anodized

Please specify the dimensions for the front panel and the desired holes and cutouts.



With spacing and built-in trim panel[3] at the top 2.2 3
For additional space for cable entry and for installing switches/ indicator lights, emergency off/key switches, CD-ROM/disk drives, interfaces etc.

Material:
Extruded aluminum section, natural anodized



With spacing and built-in trim panel[3], at the bottom 2.2 4
For additional space for cable entry and for installing switches/ indicator lights, emergency off/key switches, CD-ROM/disk drives, interfaces etc.

Material:
Extruded aluminum section, natural anodized

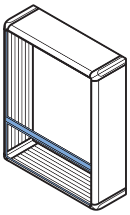
With sealing bar[1] 2.2 5
For horizontal and/or vertical division of the operating housing front. The “slot-free” division produces a height gain of 22 mm (0.87″).

Material:
Extruded aluminum section 8 x 20 mm (0.31″ x 0.79″), natural anodized

With front panel hinged[2] 2.2 6
For example, if a disk drive built into the operator panel requires this free access, see page 233.

Standard design:
- Screw-fastened from the outside
- R/h hinge

Material:
Front panel: Aluminum, 3 mm (0.12″), natural anodized.
Extruded aluminum section: Natural anodized



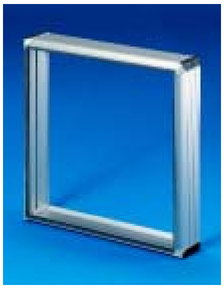
2.1	2.2	2.3	2.4	2.5

2.3 Support arm and pedestal connection

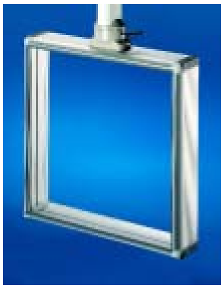
Accessories:

Support arm components for connection of the Optipanel to the support arm system CP-L, see page 96 – 115.
Pedestals,
see page 132 – 147.
Pillar,
see page 148 – 149.

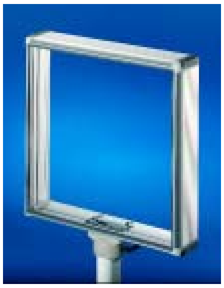
Technical details,
see page 55.



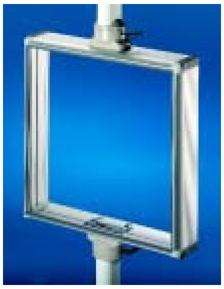
Without connection 2.3 0



Connection at top[1] 2.3 1

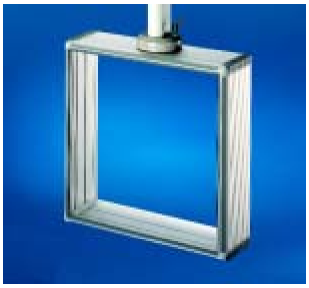


Connection at bottom[1] 2.3 2

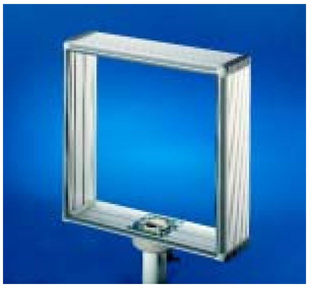


Connection top and bottom[2] 2.3 3

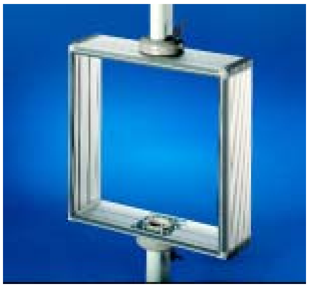
CP-L, rectangular
for enclosure coupling CP 6525.1X0,
enclosure attachment CP 6525.6X0
only applies to installation depth 100 mm (3.94″), 150 mm (5.91″)



Connection at top 2.3 4

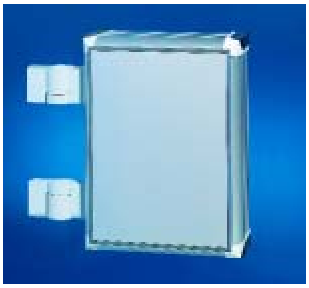


Connection at bottom 2.3 5

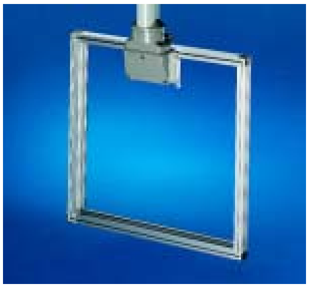


Connection top and bottom[2] 2.3 6

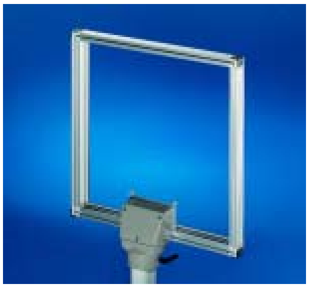
CP-L, round
for enclosure coupling CP 6525.0X0,
enclosure attachment CP 6525.5X0,
angle coupling CP 6526.0X0
only applies to installation depth 150 mm (5.91″)



Note:
Wall mounting possible:
hinged with CP 6016.200,
see page 226.

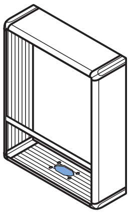


Connection at rear, top[3] 2.3 7



Connection at rear, bottom[3] 2.3 8

CP-L, rectangular
for enclosure coupling CP 6525.1X0,
enclosure attachment CP 6525.6X0 and
enclosure attachment, tilting CP 6902.640 / .670



2.1	2.2	2.3	2.4	2.5

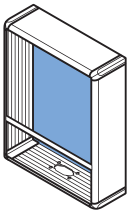
[1] For support arm system CP-S, steel, for installation depth 50 mm (1.97″), 100 mm (3.94″), 150 mm (5.91″) please enter **S** after the design code number.

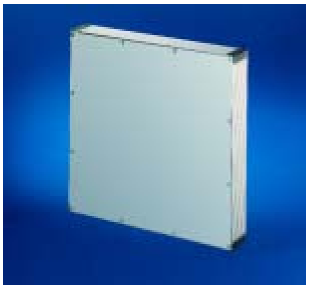
[2] Including a cover plate for sealing the unused section.

[3] Unless otherwise specified, will be supplied in RAL 7030

Selection: Operating housing

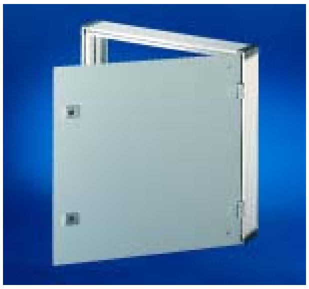
2.4 Rear panels





Rear panel screw-fastened

2.4
1



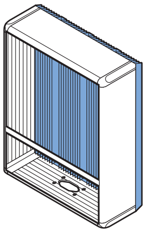
Rear panel hinged on the longest edge.
Viewed from the rear, hinged on the right or at the bottom [1] [2] [3] [4].

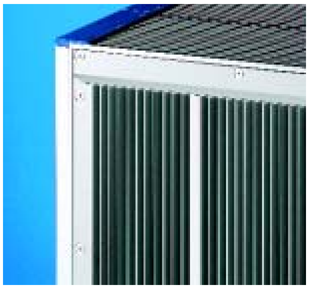
2.4
2

Example of the versatility of the enclosure:
Mounting on doors
With all operating housing/keyboard housings, the rear panel may be supplied prepared for external mounting on flat surfaces on request.

Additional parts

Enclosure duct connector CP 6006.000, see page 226.
For mounting and cable entry.
Cross-brace for door TS 8800.960 / TS 8800.980, for mounting on 600/800 mm (23.62″/31.50″) wide doors TS/ES.





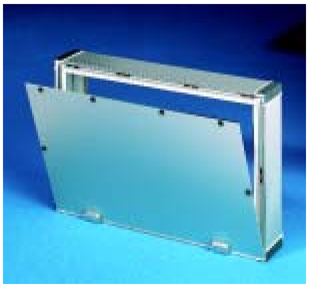
Rear cooling panel, modular
Significantly increases the dissipation of heat loss from the enclosure.

2.4
3

Material:
Extruded aluminum section

Note:
When installing the pull-out keyboard CP 6002.100 (see page 263) in an Optipanel, design version 2.1, no. 3 the 11 mm (0.43″) cooling fins and screw channels protruding into the enclosure may be milled off – please specify when ordering.

Technical details,
see page 204.



Rear panel hinged with quick-release fasteners[1]

2.4
4

2.1	2.2	2.3	2.4	2.5
			■	

Note:

[1] With a support arm connection at the rear, only possible on the side opposite the support arm connection.

[2] Not for operating housing with an installation depth of 50 mm (1.97″) with keyboard housing.

[3] Standard double-bit lock insert may be exchanged for lock inserts 41 mm (1.61″), version C, see page 246, Plastic handles and T handles, version C, see page 245 – 246.

[4] With a hinged rear panel, the maximum installation depth in the vicinity of the lock is reduced by 25 mm (0.98″) (see page 47 ⑤).

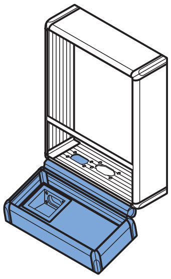
2.5 Keyboard housing

Width independent of operating housing.
The swivel bracket is infinitely adjustable from 80° to 155°.

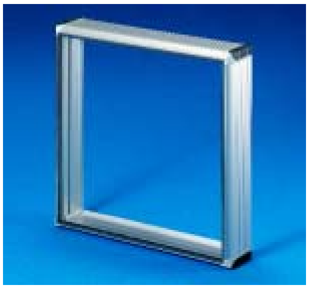
Additional parts

[1] Mounting kit for installing front panels, operating panels and keyboards in operating housings and keyboard housings, see page 233.

Technical details,
see page 56 – 57.

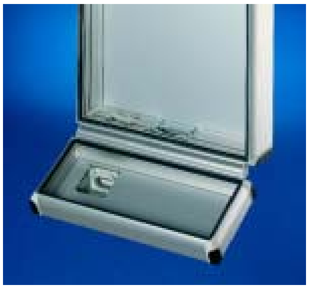


2.1	2.2	2.3	2.4	2.5



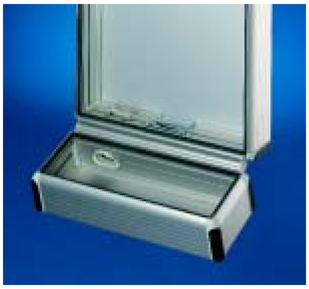
Without keyboard housing

2.5
0



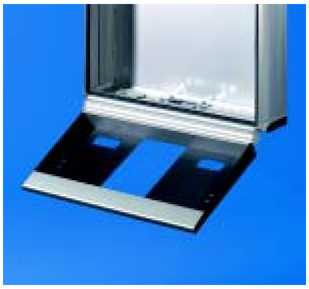
With keyboard housing Installation depth 50 mm (1.97″) [1]

2.5
1



With keyboard housing Installation depth 100 mm (3.94″)[1]

2.5
2



With support for keyboards

2.5
3

Examples

The picture opposite shows the solution we have chosen, together with its corresponding design code number. The following key explains how the code number in our example is made up.

Operating/keyboard housing

Part No.: CP 6382.009

Design code number:

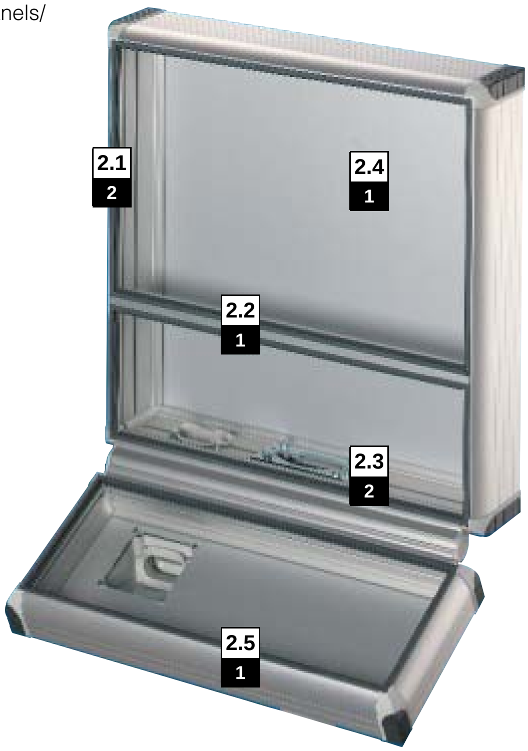
2.1	2.2	2.3	2.4	2.5
2	1	2	1	1

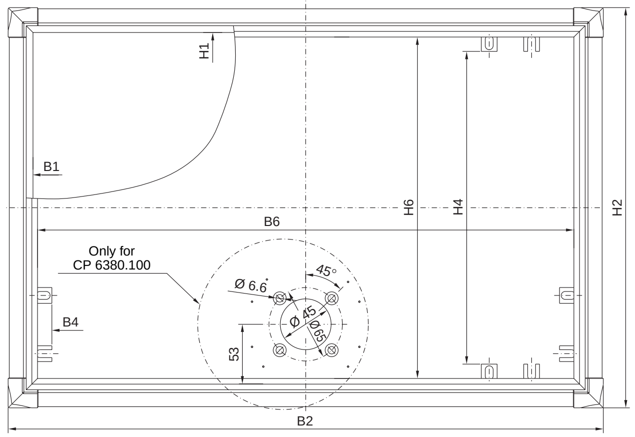
2.1	2	Operating housing, Installation depth 100 mm (3.94″)
2.2	1	With cross member
2.3	2	Support arm connection CP-L, rectangular, bottom
2.4	1	Rear panel, screw-fastened
2.5	1	With keyboard housing, Installation depth 50 mm (1.97″)

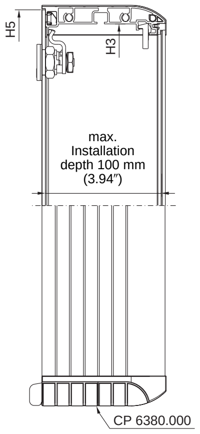
We need the following three pieces of information in order to deal with your enquiry/order:

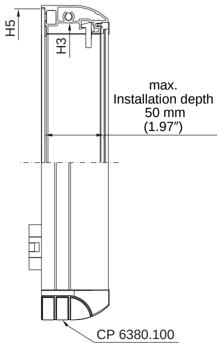
- Part No.: CP 6382.009
- The dimensions and number of panels/ front panels to be installed in the keyboard/operating housing
- Design code number

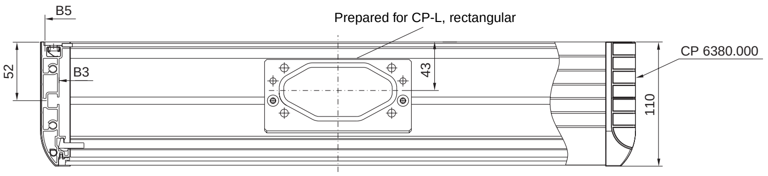
Order form, see page 279.

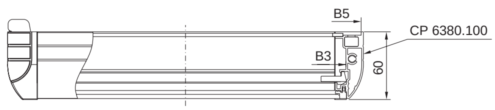



H1
B1
B6
H6
H4
H2
Only for
CP 6380.100
Ø 6.6
45°
Ø 45
Ø 65
B4
53
B2

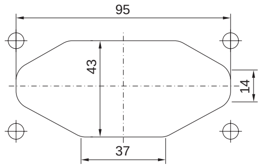

H5
H3
max.
Installation
depth 100 mm
(3.94")
CP 6380.000


H5
H3
max.
Installation depth
50 mm
(1.97")
CP 6380.100


B5
Prepared for CP-L, rectangular
52
B3
43
CP 6380.000
110


B5
CP 6380.100
B3
60

Support arm connection CP-L, rectangular
for CP 6380.000



B = Width

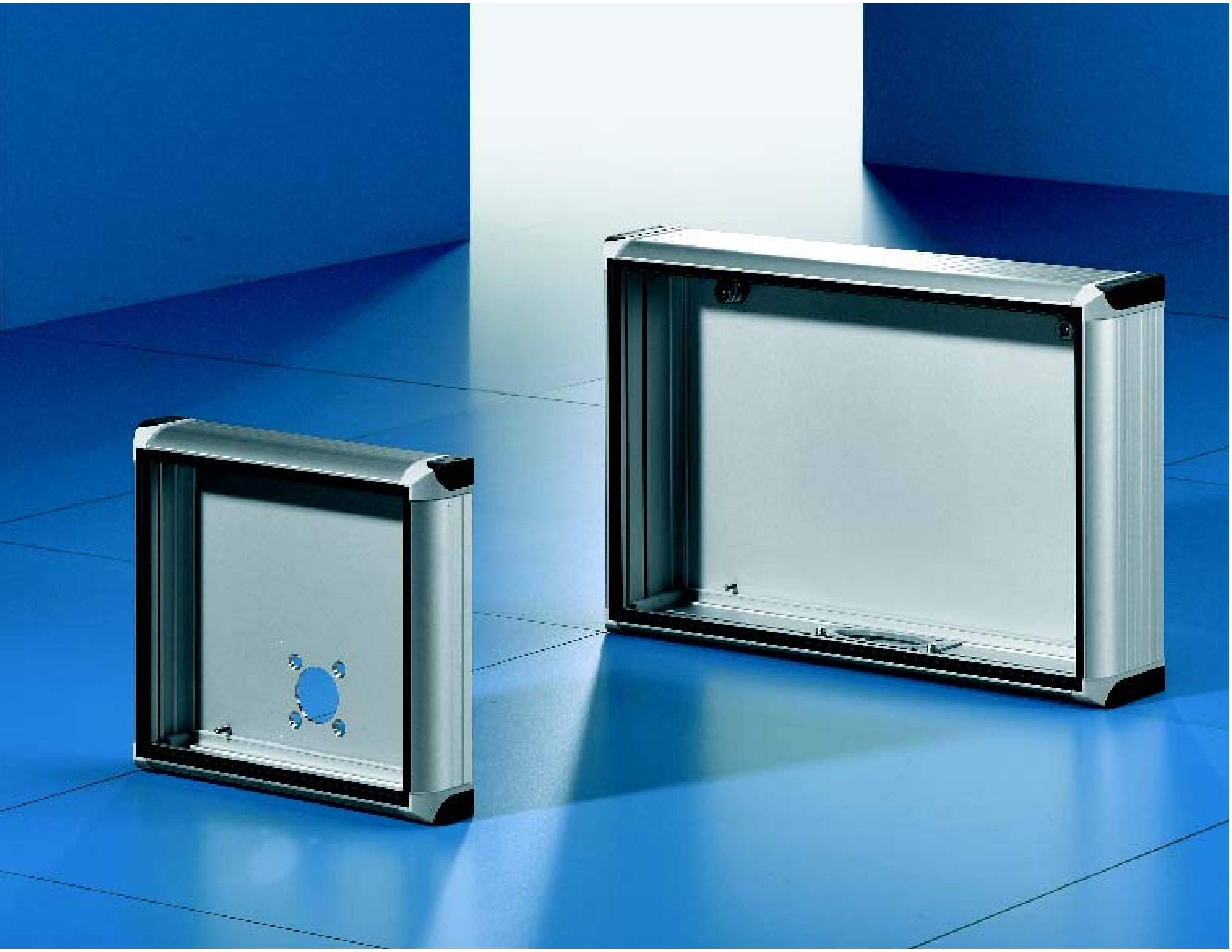
Two basic sizes available off the shelf
For direct installation of panels/front panels with H/B 7U x 482.6 mm (19″) and for smaller compact panels/front panels H/B 234 x 270 mm (9.21″ x 10.62″) mm Rittal offers these two Optipanel command panels off the shelf.

Optipanel	PU			see page
Part No. CP	1	**6380.000**	**6380.100**	
to fit front panel H1 x B1[1]		310.3 mm (7U) x 482.6 mm (19")	234 x 270 mm (6.21" x 10.63")	
Max. installation depth		100 (3.94)	50 (1.97)	
B2 = Overall width		527 (20.75)	314 (12.36)	
B3 = Clearance width between enclosure sections		494 (19.45)	281 (11.06)	
B4 = Clearance width between the retaining clips of the mounting kit		450 (17.72)	237 (9.33)	
B5 = Width of rear panel		519 (20.43)	306 (12.04)	
B6 = Clearance width for assembly		475 (18.70)	262 (10.31)	
H2 = Overall height		354 (13.94)	278 (10.94)	
H3 = Clearance height between enclosure sections		321 (12.64)	245 (9.65)	
H4 = Clearance height between the retaining clips of the mounting kit		277 (10.91)	201 (7.91)	
H5 = Height of rear panel		346 (13.62)	270 (10.63)	
H6 = Clearance height for assembly		302 (11.89)	226 (8.90)	
Hinging of rear panel		bottom/top	right	
Support arm connection		CP-L, rectangular, bottom/top	CP-S[2] Rear panel	80
Weight kg (lbs)		6.2 (13.67)	2.8 (6.17)	

Lock systems
Standard double-bit lock insert may be exchanged for 41 mm (1.61″) lock inserts, type C, see page 246,
Plastic handles and T handles, Version C, see page 245 – 246.

[1] Installation criteria required for direct mounting of the panels, see page 47.
[2] Additional marked points for drilling holes, for the external mounting of:
Enclosure attachment, tilting,
Support arm system CP-L, rectangular,
Assembly components with hole pattern to VESA 75,
see page 80/81.

Standard dimensions for front panel 482.6 mm (19″) x 7 U / 270 x 234 mm (10.63″ x 9.21″)



German registered design
No. 4 00 02 955

Accessories:

For connecting to the support arm system or surfaces, see page 80/81.

Material:
Enclosure:
Extruded aluminum section
Corner pieces:
Die-cast zinc
Corner protectors:
Plastic, self-extinguishing
Sealing trim:
Flexible plastic section

Finish:
Enclosure:
Natural, anodized
Corner pieces:
Powder coated in finely textured RAL 7035
Corner protectors and sealing trims:
Dyed similar to RAL 7024

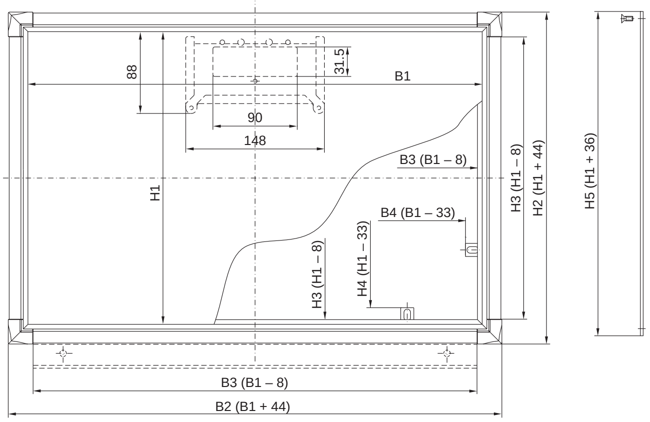
Protection ratings:
IP 65 to EN 60 529/10.91 (with appropriate front panel installation).
Complies with NEMA Type 12

Mounting kit
For the installation of front panels, command panels and keyboards.
Part No. see page 233.

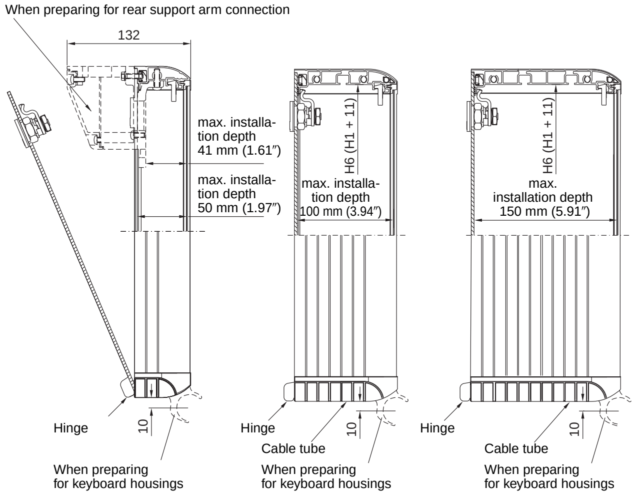
Spring nut M5
For inserting into the channels of the Optipanel.
Part No. see page 255.

Enclosure attachment, tilting, base
for attaching to worktops.
Part No. see page 110.

2.1 Installation depth

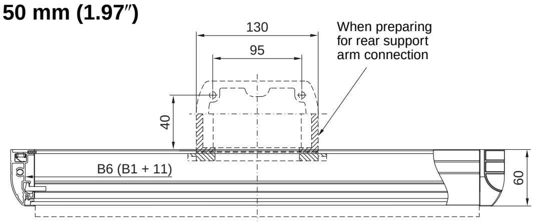


88
31.5
B1
90
148
B3 (B1 – 8)
H1
B4 (B1 – 33)
H3 (H1 – 8)
H4 (H1 – 33)
H3 (H1 – 8)
H2 (H1 + 44)
H5 (H1 + 36)
B3 (B1 – 8)
B2 (B1 + 44)



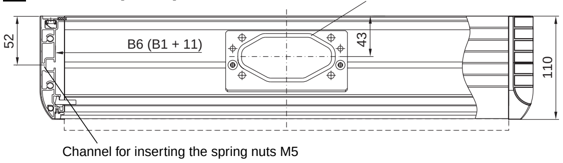
When preparing for rear support arm connection
132
max. installation depth 41 mm (1.61″)
max. installation depth 50 mm (1.97″)
H6 (H1 + 11)
max. installation depth 100 mm (3.94″)
H6 (H1 + 11)
max. installation depth 150 mm (5.91″)
Hinge
10
When preparing for keyboard housings
Hinge
Cable tube
10
When preparing for keyboard housings
Hinge
Cable tube
10
When preparing for keyboard housings

1 **50 mm (1.97″)**



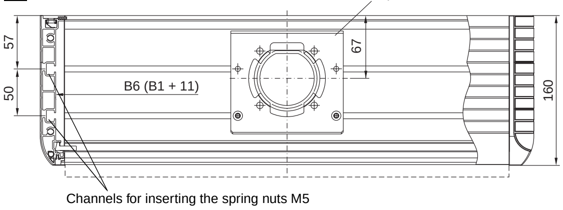
130
95
When preparing for rear support arm connection
40
B6 (B1 + 11)
60

2 **100 mm (3.94″)**



Preparation for CP-L, rectangular
52
B6 (B1 + 11)
43
110
Channel for inserting the spring nuts M5

3 **150 mm (5.91″)**



Preparation for CP-L, round
57
50
B6 (B1 + 11)
67
160
Channels for inserting the spring nuts M5

Width dimensions:

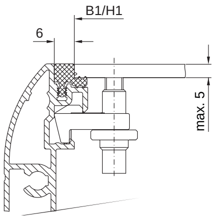
B1 = Width of front panel
B2 = Overall width
B3 = Clearance width between enclosure sections
B4 = Clearance width between the retaining clips of the mounting kit
B5 = Width of rear panel (B1 + 36)
B6 = Clearance width for assembly

Height dimensions:

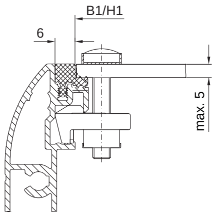
H1 = Height of front panel
H2 = Overall height
H3 = Clearance height between enclosure sections
H4 = Clearance height between the retaining clips of the mounting kit
H5 = Height of rear panel
H6 = Clearance height for assembly

2.2 Front design

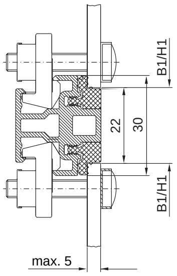
Front panel from the inside, screw fastened



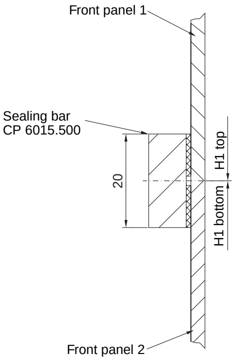
Front panel from the outside, screw fastened



Cross member

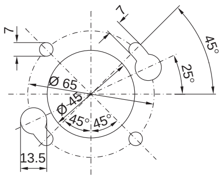

B1/H1
22
30
B1/H1
max. 5

Sealing bar


Front panel 1
Sealing bar
CP 6015.500
20
H1 top
H1 bottom
Front panel 2

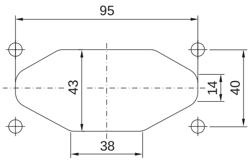
2.3 Support arm and pedestal connection

CP-S
For installation depths 100/150 mm (3.94″/5.91″)


7
7
45°
25°
Ø 65
Ø 45
45°
45°
13.5

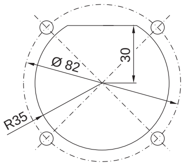
External mounting of support arm connections,
see page 84/85.

CP-L, rectangular
For installation depths 100/150 mm (3.94″/5.91″)


95
43
14
40
38

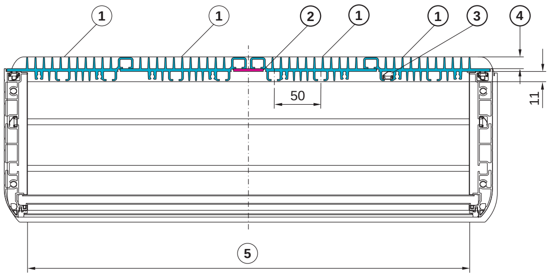
External mounting of support arm connections,
see page 98/99.

CP-L, round
For installation depth 150 mm (5.91″)



External mounting of support arm connections,
see page 98/99.

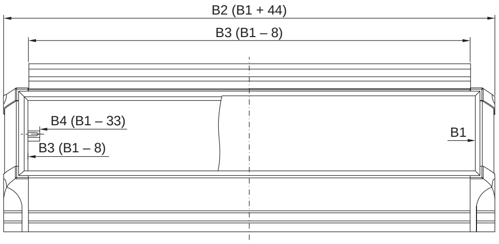
2.4 Rear cooling panel

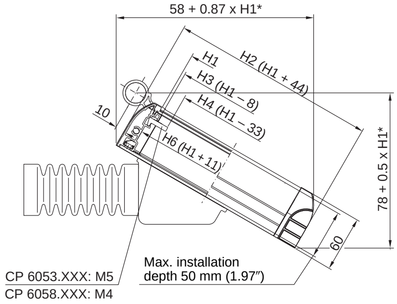

①
①
②
①
①
③
④
50
11
⑤

① = Section of rear cooling panel
② = Width compensating panel for optimum adaptation to the enclosure
③ = Spring nut M5, CP 6108.000 for interior installation on screw channels
④ = Overall depth of the enclosure is increased by 13 mm (0.51″)
⑤ = Front panel width for determining the cooling modules and compensating panel

2.5 Keyboard housing

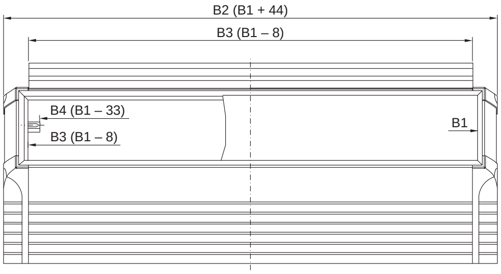
1 Installation depth 50 mm (1.97″)

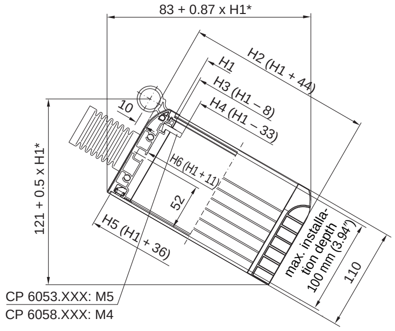

B2 (B1 + 44)
B3 (B1 – 8)
B4 (B1 – 33)
B3 (B1 – 8)
B1


58 + 0.87 x H1*
H1
H2 (H1 + 44)
H3 (H1 – 8)
H4 (H1 – 33)
10
H6 (H1 + 11)
78 + 0.5 x H1*
60
Max. installation depth 50 mm (1.97″)
CP 6053.XXX: M5
CP 6058.XXX: M4

* applies to a tilting angle of 30 ° to the horizontal

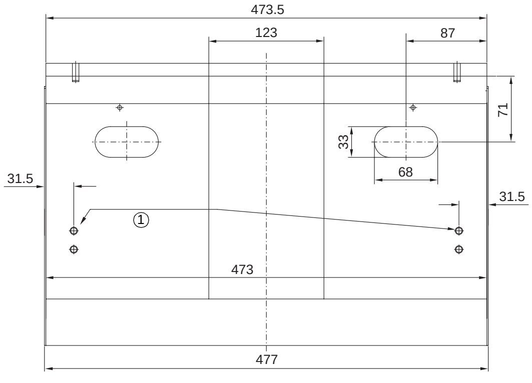
2 Installation depth 100 mm (3.94″)

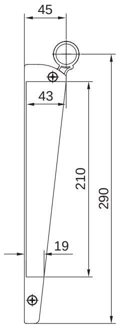

B2 (B1 + 44)
B3 (B1 – 8)
B4 (B1 – 33)
B3 (B1 – 8)
B1


83 + 0.87 x H1*
H1
H2 (H1 + 44)
H3 (H1 – 8)
H4 (H1 – 33)
10
H6 (H1 + 11)
52
121 + 0.5 x H1*
H5 (H1 + 36)
max. installation depth 100 mm (3.94″)
110
CP 6053.XXX: M5
CP 6058.XXX: M4

* applies to a tilting angle of 30 ° to the horizontal

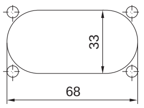
3 Support for keyboards


473.5
123
87
71
33
68
31.5
31.5
①
473
477


45
43
210
290
19

① = Prepared for mouse pad support SM 2383.020

Cross-section of cable tube connection



Width dimensions:

B1 = Width of front panel

B2 = Overall width

B3 = Clearance width between enclosure sections

B4 = Clearance width between the retaining clips of the mounting kit

B5 = Width of rear panel (B1 + 36)

B6 = Clearance width for assembly

Height dimensions:

H1 = Height of front panel

H2 = Overall height

H3 = Clearance height between enclosure sections

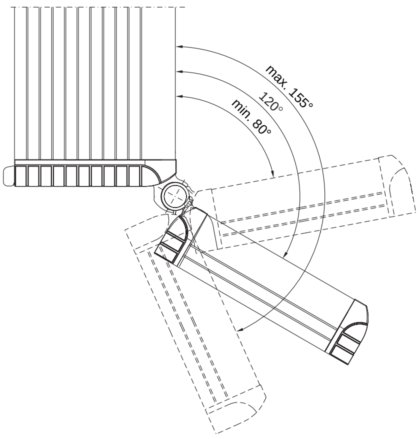
H4 = Clearance height between the retaining clips of the mounting kit

H5 = Height of rear panel

H6 = Clearance height for assembly

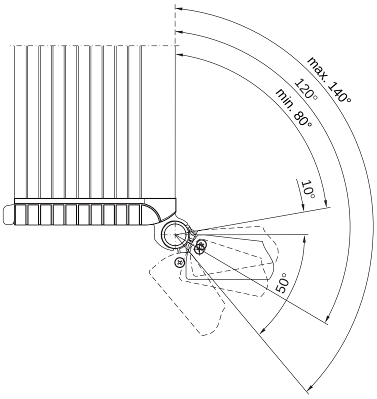
Keyboard housing connection

1 2 Frame hinge connector with Optipanel keyboard housing



Tilting angle infinitely ajustable from 80° to 155°.

3 Frame hinge connector with support for keyboards



Tilting angle infinitely ajustable from 80° to 140°.

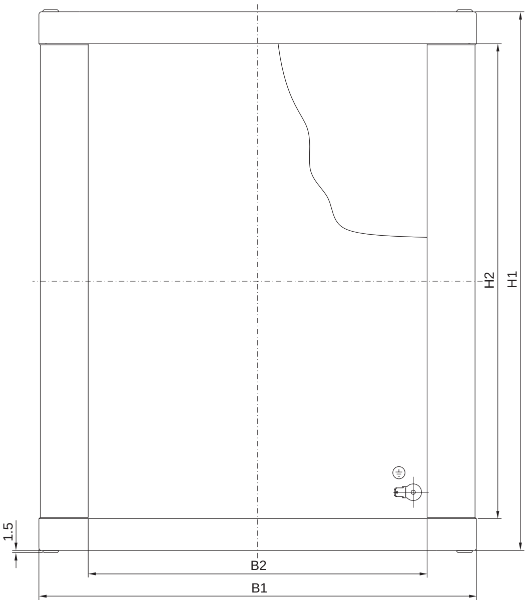
Minimum front panel width (B1):

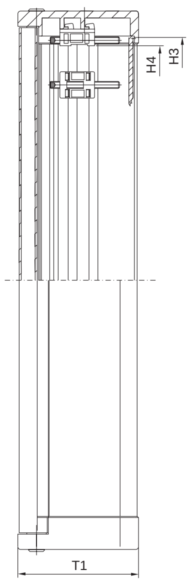
Depending on the
- Installation depth of the operating housing
- With or without keyboard housing
- Position of the support arm connection

		Installation depth of operating housing (see 2.1, page 47)		
2.5 Keyboard housing (see page 51)	2.3 Position of the support arm connection (see page 49)	50 mm (1.97″)	100 mm (3.94″)	150 mm (5.91″)
		Minimum front panel width mm (inches)		
0 without	0 to 8 top, bottom or rear	160 (6.30) (265 (10.43))	150 (5.91)	150 (5.91)
1 and 2 with	1 4 7 8 top or rear			
	2 3 5 6 bottom	378 (14.88)*	339 (13.35)*	339 (13.35)*

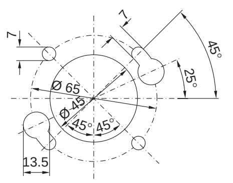
( ) Figures in brackets:
Only with the hinged rear panel combination (see page 50, 2.4)
version 2 and 4 with connection at rear (see page 49, 2.3) design 7 and 8.

* Smaller front panel widths for asymmetrical support arm connection available on request.

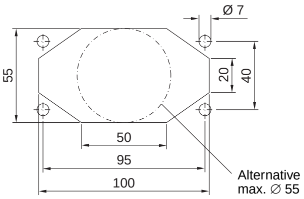


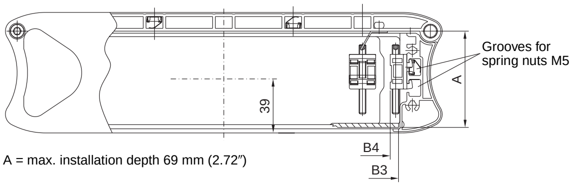


Mounting cutouts:
CP-S



CP-L, rectangular





A = max. installation depth 69 mm (2.72″)

Compact Panel
For small operating units built into front panels. The front panel is inserted from the rear and secured with screw clamps. Front panels with a material thickness of between 2 and 6 mm (0.08″ and 0.24″) are possible. Rear panel hinged on the left or right; by rotating the enclosure, the rear panel may also be used as a hinged front panel.

Protection ratings:
IP 65 to EN 60 529/10.91
Complies with NEMA Type 12

Configuration Enclosure	Version	Material	Surface finish/ color
1 roof tray	Solid	Aluminum	Powder coated in RAL 7024
1 base tray	With or w/o support arm connection, depending on Part No. – see table	Aluminum	Powder coated in RAL 7024
1 rear wall	Screw-fastened via roof and base tray	Aluminum	Natural anodized
2 side parts	With channels for M5 spring nuts	Extruded aluminum section	Powder coated in RAL 7024
Screw cover		Plastic	Sim. to RAL 7024

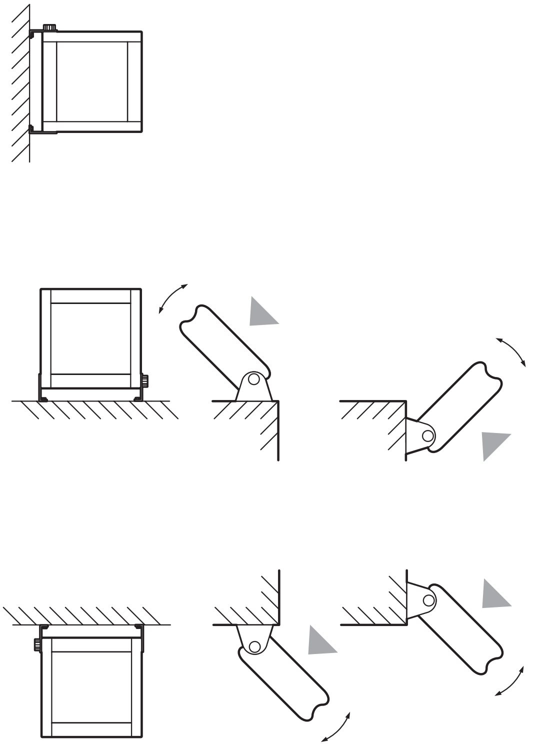
Including seal and screw clamp.

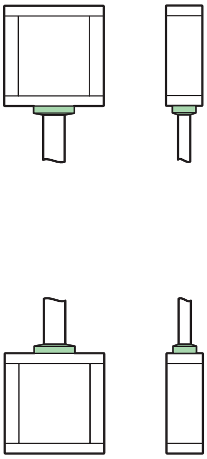
Height (H1) in mm (inches)	PU	238 (12.40)	388 (9.49)	521 (20.51)	238 (12.40)	388 (9.49)
Width (B1) in mm (inches)		241(9.49)	241(9.49)	241(9.49)	315 (12.40)	315 (12.40)
Depth (T1) in mm (inches)		87 (3.43)	87 (3.43)	87 (3.43)	87 (3.43)	87 (3.43)
Part No. CP (with support arm connection CP-S)	1	**6340.000**	**6340.100**	**6340.200**	**6340.300**	**6340.400**
Part No. CP (with support arm connection CP-L, rectangular)	1	**6340.010***	**6340.110***	**6340.210***	**6340.310***	**6340.410***
Part No. CP (without support arm connection)	1	**6340.020***	**6340.120***	**6340.220***	**6340.320***	**6340.420***
B2 = Enclosure clearance width		170 (6.69)	170 (6.69)	170 (6.69)	244 (9.61)	244 (9.61)
B3 = Front panel width		178 (7.01)	178 (7.01)	178/4 U (7.01)	252 (9.92)	252 (9.92)
B4 = Clearance width between screw clamps		164 (6.46)	164 (6.46)	164 (6.46)	238 (9.37)	238 (9.37)
H2 = Enclosure clearance height		192 (7.55)	342 (13.46)	475 (18.70)	192 (7.55)	342 (13.46)
H3 = Front panel height		200 (7.87)	350 (13.78)	482,6/19″	200 (7.87)	350 (13.78)
H4 = Clearance height between screw clamps		186 (7.32)	336 (13.23)	469 (18.46)	186 (7.32)	336 (13.23)
Weight kg (lbs)		2.3 (5.07)	3.2 (7.05)	3.9 (8.60)	2.8 (6.17)	3.8 (8.38)

Accessories

Front panel, 3.0 mm aluminum, natural anodized	1	6028.500	6028.510	6028.520	6028.530	6028.540
Wall mounting bracket, vertically hinged	1 set	6341.000				
Cover plate for support arm connection CP-S	1	6505.200				
Spring nut M5	50	6108.000				

* Extended delivery times
Order numbers for other heights with front panel width (B3):
– 178 mm (7.01″) – Part No.: CP 6342.109
– 252 mm (9.92″) – Part No.: CP 6342.209
Please specify the front panel height (H3) as well. Extended delivery times.





Rittal Service:

- Other RAL colors
- Drilled holes and cutouts in the roof and base tray

Accessories:

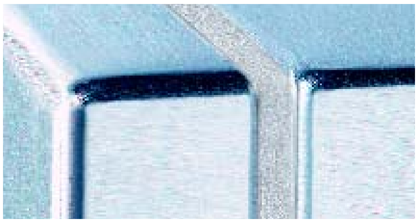
see page 200 – 201
or see index.

Wall mounting bracket, vertically hinged, for direct mounting of the Compact Panel on surfaces.
Part No. see page 227.

First-class in terms of design, sealing, protection and hygiene

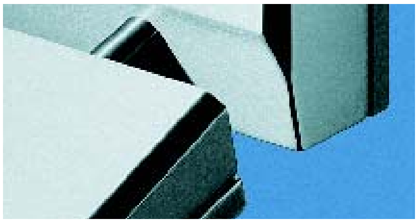
These are the outstanding features of the Premium Panel made from stainless steel. Simply ideal for use in the food and hygiene sector. Outstanding performance at a low price.

- **Resistant to high-pressure cleaning**
  The new gap-free sealing concept facilitates the high protection category of IP 69K. The sealing gasket lies between two surfaces and is ideally compressed by the all-round screw fastening.



Easy to clean, external sealing gasket.

- **Suitable for clean room use**
  The fact that it is suitable for clean room use makes it capable of meeting the highest standards in the food and hygiene sector (certified by the Fraunhofer-Institut IPA).
  This is achieved thanks to the unique screw-fastening of the rear panel (screws on the inside with plastic stoppers or hex screws on the outside) and the bracket on the inside, which is clearly superior to exterior hinges when it comes to hygiene.



Duct connector between the operating and keyboard housing for cable routing.

- **Optimum EMC conditions**
  Because the sealing surfaces of the rear panel and the enclosure are directly in contact with one another, exceptional RF shielding of the Premium Panel is achieved.

- **Restricted breathing**
  Short-term protection against an explosive atmosphere.
- **Easy to use**
  Practical cable routing via two duct connectors between the enclosures.

Premium Panel		PU	**with** keyboard housing				**without** keyboard housing	
Part No. CP		1	**6680.000**	**6680.010**	**6680.100**	**6680.110**	**6681.000**	**6681.100**
for installation panel H x W	Command Panel		356 mm (14.01″) (8 U) x 482.6 mm (19″)				310 mm (12.20″) (7 U) x 482.6 mm (19″)	
	Keyboard housing		177 mm (6.97″) (4 U) x 482.6 mm (19″)				–	
Installation depth	Command Panel		115 (4.53)		215 (8.46)		115 (4.53)	215 (8.46)
	Keyboard housing		front 58 (2.28) rear 63 (2.48)				–	–
Width mm (inches)			530 (20.87)				530 (20.87)	
Height mm (inches)	Command Panel		460 (18.11)				360 (14.17)	
	Keyboard housing		200 (7.87)				–	
Depth mm (inches)	Command Panel		120 (4.72)		220 (8.66)		120 (4.72)	220 (8.66)
	Keyboard housing		63/80 (2.48/3.15)				–	
Support arm connection			top	bottom	top	bottom	top, bottom by rotating of the enclosure	

Accessories

CP holder	2	6682.000	

To order the Premium Panel in Type 304 (Type 316L) use Part No. CP 665X.XXX. Delivery times available on request.

Premium Panel

Stainless steel

Rittal Service:

Other sizes and other enclosures with this sealing concept are available on request.
Cutouts and drilled holes to your specifications.

Accessories:

see page 200 – 201
or see index.

Material:
Type 304 stainless steel

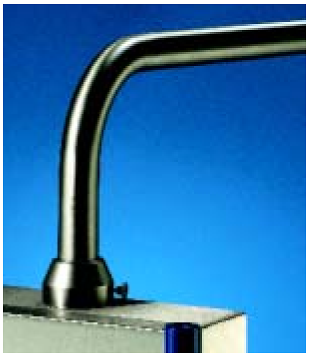
Finish:
Brushed, 180 grain,
polished with 280 grain

Protection ratings:
IP 69K to DIN 40 050-9/5.93

Technical details,
see page 62.

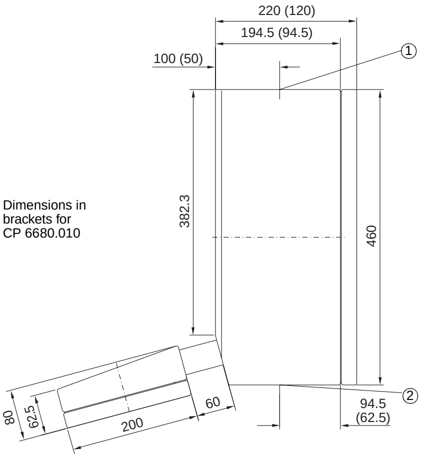
The **holder** holds the rear panel in an open position.

Part No. CP 6682.000

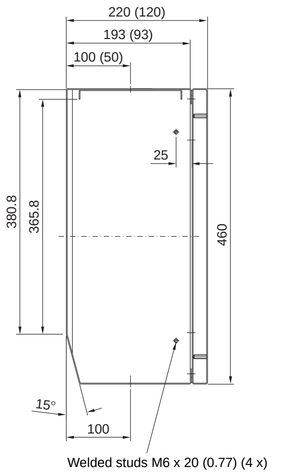


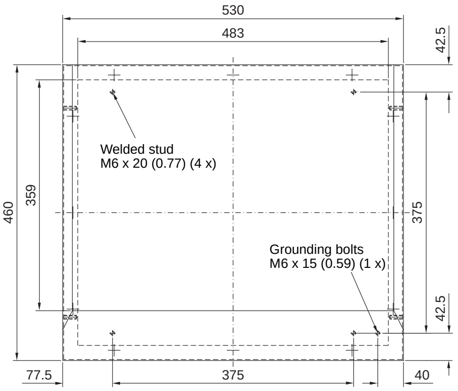
Support arm system CP-S, stainless steel
Selection see page 92 – 95.

Operating and keyboard housing

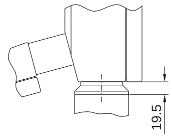

220 (120)
194.5 (94.5)
100 (50)
①
382.3
460
80
62.5
200
60
94.5
(62.5)
②

Dimensions in
brackets for
CP 6680.010

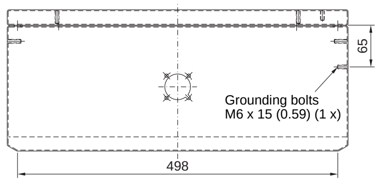

220 (120)
193 (93)
100 (50)
25
380.8
365.8
460
15°
100
Welded studs M6 x 20 (0.77) (4 x)


530
483
42.5
Welded stud
M6 x 20 (0.77) (4 x)
460
359
375
Grounding bolts
M6 x 15 (0.59) (1 x)
42.5
77.5
375
40

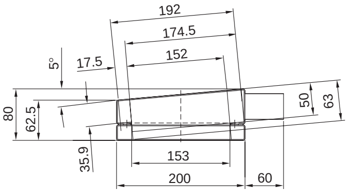
① = Support arm connection CP-S, stainless steel, top only for CP 6680.000, CP 6680.100
② = Support arm connection CP-S, stainless steel, bottom only for CP 6680.010, CP 6680.110

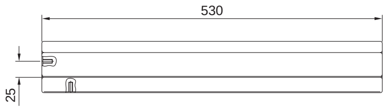


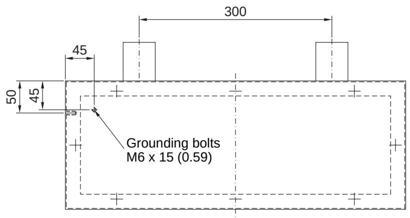
Busbar connection adaptor only with version .010


65
Grounding bolts
M6 x 15 (0.59) (1 x)
498

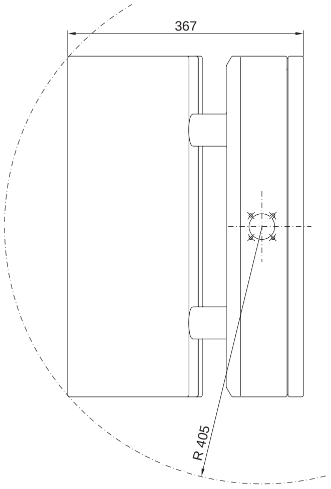
Keyboard housing


192
174.5
152
5°
17.5
80
62.5
50
63
35.9
153
200
60

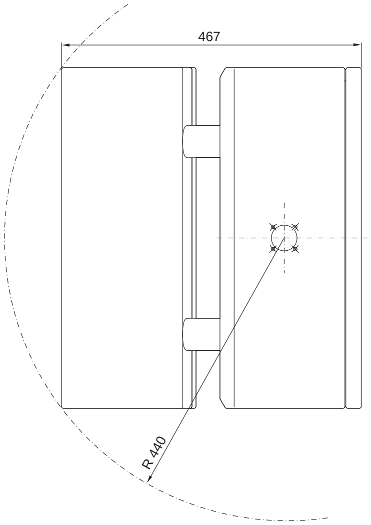



300
45
50
45
Grounding bolts
M6 x 15 (0.59)

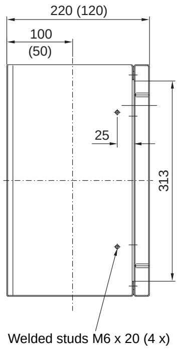
Top view – Depth 120 mm (4.72″)

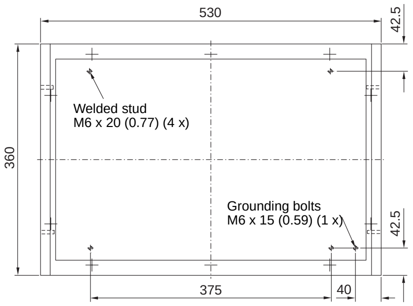


Top view – Depth 220 mm (8.66″)

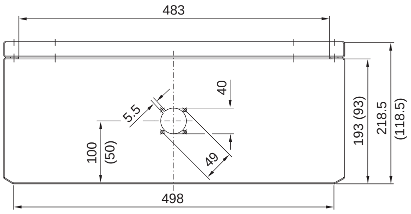


Command Panel


220 (120)
100
(50)
25
313
Welded studs M6 x 20 (4 x)

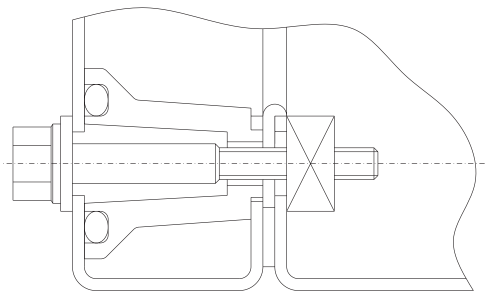

530
42.5
Welded stud
M6 x 20 (0.77) (4 x)
360
Grounding bolts
M6 x 15 (0.59) (1 x)
42.5
375
40

Top view

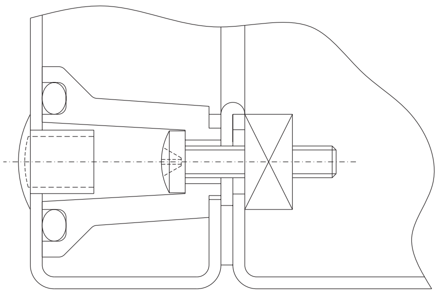

483
40
5.5
100
(50)
49
193 (93)
218.5
(118.5)
498

Support arm connection
CP-S, stainless steel, at
the bottom by rotating the
enclosure.
Dimensions in brackets
for CP 6681.000

Rear panel screw fastened with hex screw, external



Rear panel screw fastened with internal screw with plastic stoppers



Rittal operating housings . . .

. . . "Standard solutions"

Command Panel housing with door, with handle grips

- Door 40 mm (1.57″) deep, l/h hinge, side handle grips made from aluminum with plastic cover caps
- Support arm connection with reinforcement plate at the top/bottom by rotating the enclosure
- Enclosure sealed all round, Double-bit lock insert in the right-hand side

Command Panel, with handle grips

- Door rear, r/h hinge, with double-bit lock insert
- Support arm connection with reinforcement plate at the top/bottom by rotating the enclosure
- With side mounting sections for individual interior installation
- Enclosure sealed all-round, with cutout and fitted, easily machined 3 mm (0.12″) aluminum front panel at the front with side handle grips made from aluminum and plastic cover caps

Operating housing with display panel front

- Door rear, r/h hinge, with double-bit lock insert
- With side mounting sections for individual interior installation
- Enclosure sealed all-round, with cutout and fitted operating panel at the front (easily machinable 3 mm aluminum front panel with frame), r/h hinge, screw-fastened from the inside

Command Panel with wide VIP 6000 frame

- Door rear, r/h hinge, with double-bit lock insert
- Support arm connection with reinforcement plate
- With side mounting sections for individual interior installation
- Enclosure sealed all-round with cutout at the front for 3 mm (0.12″) aluminum front panel with VIP 6000 front frame (supplied loose)

Command Panel housing with door, stainless steel

- Door 40 mm (1.57″) deep, l/h hinge, side handle gripshandle grips made from food-safe plastic
- Support arm connection with reinforcement plate at the top/bottom by rotating the enclosure
- Enclosure sealed all round, Double-bit lock insert in the right-hand side

Command Panel, stainless steel

- Front panel screw-fastened all round, with projection to protect the installed equipment
- Support arm connection with reinforcement plate at the top/bottom by rotating the enclosure
- Enclosure sealed all round, rear panel may also be used as a mounting surface

Approvals	Command Panel housing with door with handle grips	Command Panel with handle grips	Command Panel with display panel front	Command Panel with wide VIP 6000 frame	Command Panel housing with door, stainless steel	Command Panel, stainless steel
UL		●	●		●	●
UL – Underwriters Laboratories Inc. For USA and Canada	●			●		
CSA		●	●		●	●
TÜV		●	●		●	
Norske Veritas		●			●	
Lloyds Register of Shipping	●	●	●			
VDE		●	●		●	
Bureau Veritas					●	

Command Panel, sheet steel 66 – 73

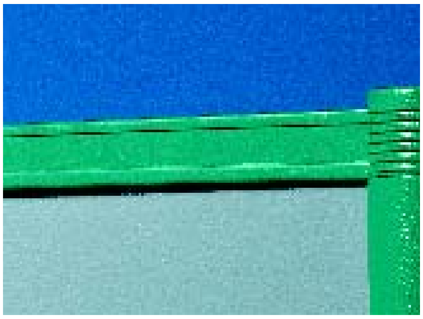
Command Panel housing with door, with handle grips 66 – 67
Command Panel, with handle grips 68 – 69
Operating housing with display panel front 70 – 71
Command Panel with wide VIP 6000 frame 72 – 73

Command Panel, stainless steel 74 – 77

Stainless steel Command Panel housing with door 74 – 75
Stainless steel Command Panel 76 – 77

NOT AUS
ESC
ACK
HELP

Modern, flexible production technology demands solutions which precisely meet the required standards of ergonomics, user-friendliness, hygiene or corrosion protection at the operating interface. The Rittal Command Panel range is tailored to these requirements. Supplemented by a support arm or pedestal system, system accessories or system climate control, an enclosure becomes a complete solution. All achieved quickly and practically on your behalf.



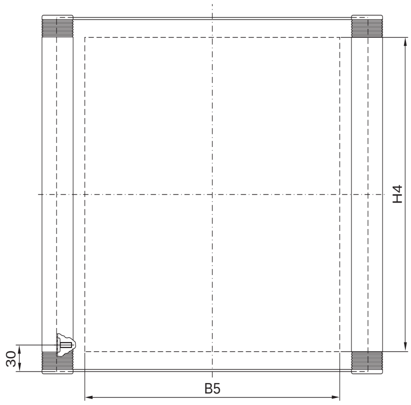
Profile strip

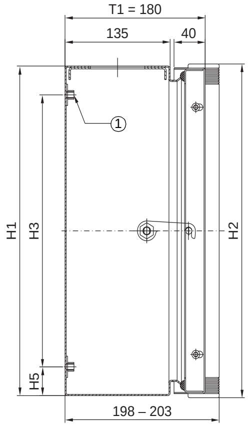
- Protects the edges of the Command Panel or membrane against damage.
- Provides space for panel labelling.

For labels:
Width: Enclosure width – 45 mm (1.77″)
Height: 17 mm (0.69″)
Thickness: 0.4 mm (0.02″)

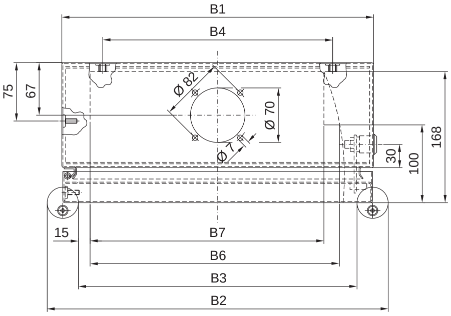
Configuration:
2 aluminum strips, including clear cover strips and 4 cover caps.

For Command Panel housing with door	Width mm (inches)	Color RAL	**Part No. CP**
CP 6534.000 CP 6535.000 CP 6537.000	300 (11.81)	5018	**6542.000**
CP 6536.000 CP 6538.000	400 (15.75)	5018	**6543.000**





① Welded nut M8 for the attachment of mounting panels or support rails



Configuration:
Enclosure with cutout and reinforcement for support arm system CP-L²⁾, round, with seal. Door with sealing frame, side handle grips and end caps.

Support arm connection	Door hinge
top	left
bottom	right

Height in mm (inches) (H1)		200 (7.87)	300 (11.81)	400 (15.75)	300 (11.81)	400 (15.75)	500 (19.69)	Page
Width in mm (inches) (B1)	PU	300 (11.81)	300 (11.81)	300 (11.81)	400 (15.75)	400 (15.75)	500 (19.69)	
Depth in mm (inches) (T1)		180 (7.09)	180 (7.09)	180 (7.09)	180 (7.09)	180 (7.09)	180 (7.09)	
Part No. CP	1	**6534.000**	**6535.000**	**6537.000**	**6536.000**	**6538.000**	**6544.000**	
B2 = Enclosure width with handle grips		338 (13.31)	338 (13.31)	338 (13.31)	438 (17.24)	438 (17.24)	538 (21.18)	
B3 = Clearance opening, front		258 (10.15)	258 (10.15)	258 (10.15)	358 (14.09)	358 (14.09)	458 (14.09)	
B4 = Spacing of mounting panel attachment		260 (10.24)	215 (8.46)	215 (8.46)	295 (11.61)	295 (11.61)	410 (16.14)	
B5 = Max. front cutout, width		227 (8.94)	227 (8.94)	227 (8.94)	327 (12.87)	327 (12.87)	427 (16.81)	
B6 = Hinged width for depth 100 mm (3.94")		220 (8.66)	220 (8.66)	220 (8.66)	320 (12.60)	320 (12.60)	420 (16.54)	
B7 = Hinged width for depth 168 mm (6.61")		200 (7.87)	200 (7.87)	200 (7.87)	300 (11.81)	300 (11.81)	400 (15.75)	
H2 = Enclosure height with handle grips		205 (8.07)	305 (12.00)	405 (15.94)	305 (12.00)	405 (15.94)	505 (19.88)	
H3 = Spacing of mounting panel attachment		122 (4.80)	250 (10.04)	350 (13.77)	250 (9.84)	330 (12.99)	445 (17.52)	
H4 = Max. front cutout, height		155 (6.10)	255 (10.04)	355 (13.98)	255 (10.04)	355 (13.98)	455 (17.91)	
H5 = Distance from base – mounting panel attachment		39 (1.54)	25 (0.98)	25 (0.98)	25 (0.98)	35 (0.98)	35 (0.98)	
Weight kg (lbs)		5.5 (12.13)	7.1 (15.65)	8.4 (18.52)	8.4 (18.52)	10.6 (23.37)	14.5 (31.97)	

Accessories

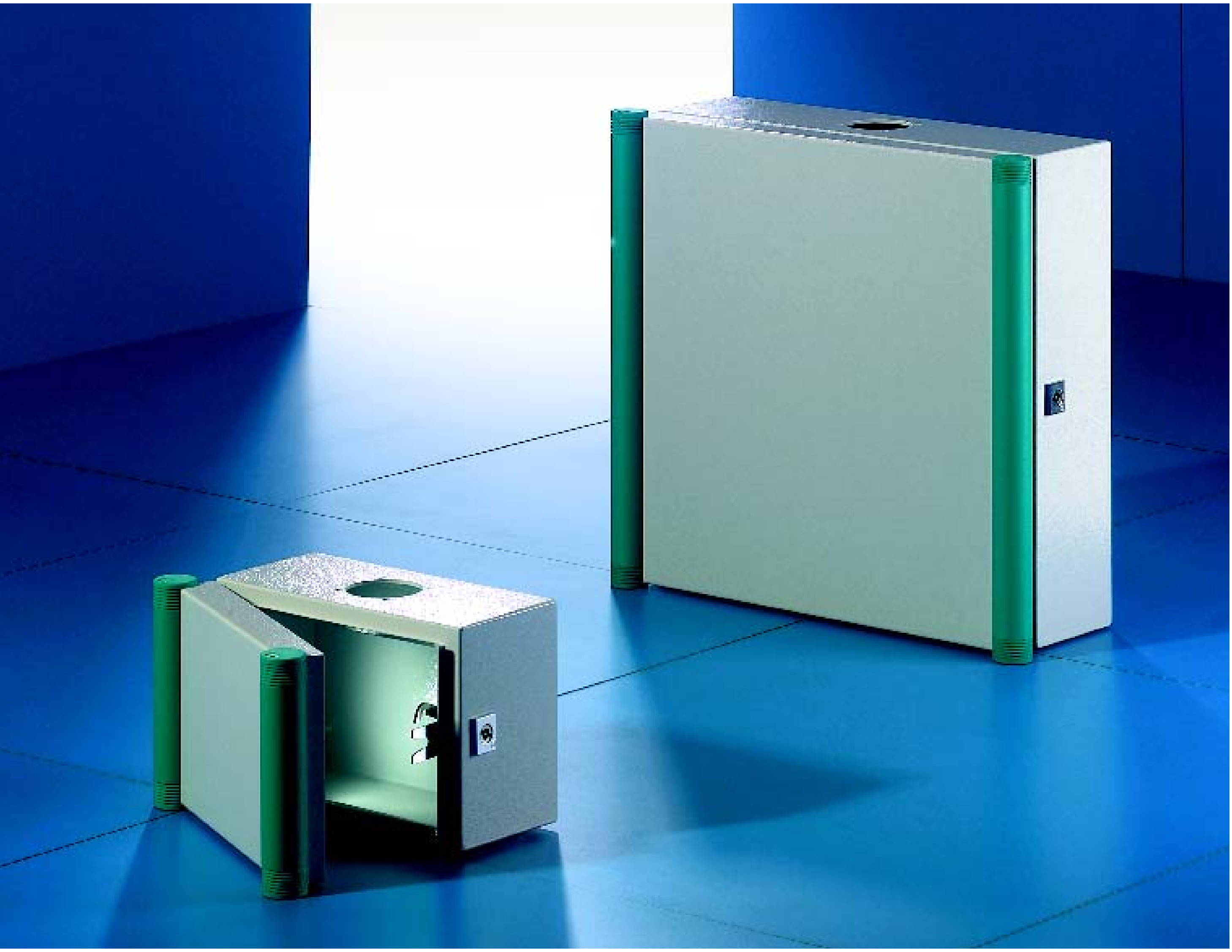
Matching mounting panel from AE		1032.600	1033.600	1034.600	1030.600	1380.600	1050.600	HB 30 page 68
ID no.		271324	271926	271924	274131	271548	271333	
Support rails¹⁾ SZ **Part No. SZ**	10	2316.000	2316.000	2316.000	2317.000	2317.000	2318.000	HB 30 page 983

Lock systems
Standard double-bit lock insert may be exchanged for 41 mm (1.61") lock inserts, plastic handle and T handle, version C, see page 245 – 246.

¹⁾ Only with vertical attachment of system bar 23 x 23 mm (0.91" x 0.91") see HB 30, page 976.
²⁾ **To order a Command Panel housing with door with mounting cutout CP-S, please use the extension number .080. Delivery times available on request.**

Command Panel housing with door

with handle grips



Accessories:

Pedestal systems,
see page 132 – 149.
Support arms systems,
see page 80.

Material and Finish:
Enclosure and door:
Sheet steel, e-coat primed and powder coated in textured RAL 7035
Interior surfaces:
E-coat primed in RAL 7044
Handle grips:
Aluminum, powder coated in RAL 5018.
Cover caps:
Plastic, RAL 5018

Protection ratings:
IP 55 to EN 60 529/10.91
Complies with NEMA Type 12

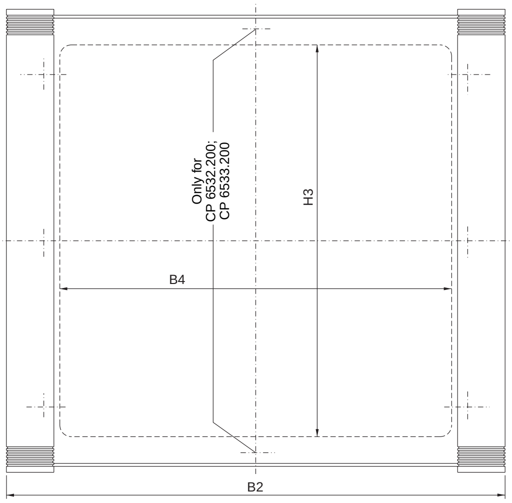
Rittal Service:

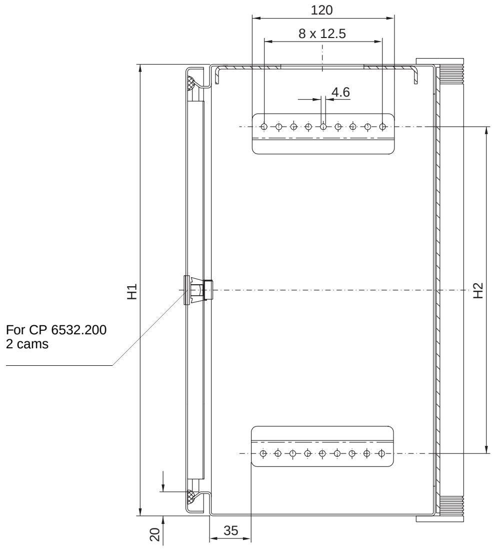
- Other sizes
- Other RAL colors
- Altered support arm cutout or door hinge
- Holes and cutouts for switches and operator panels
- Aluminum front panels (up to a thickness of 5 mm (0.2″) may be positioned on the enclosure front between the side handle grips and the door)

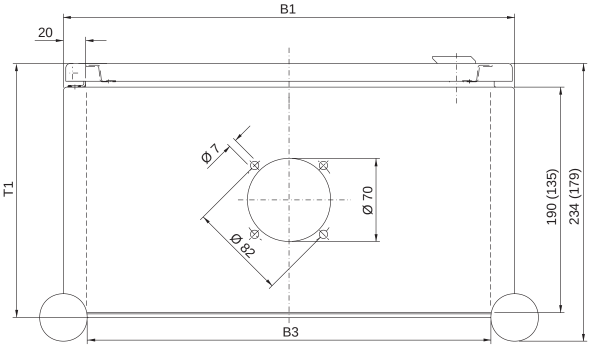
available on request.

Signal pillar
for system monitoring.
Part No. see Handbook 30, page 1000 – 1002.

Command Panel housing with door, stainless steel
The alternative where hygiene and corrosion resistance are important.
Part No. see page 74 – 75.







Dimensions in brackets for CP 6540.200

Configuration:
Enclosure with reinforcement,
Support arm connection CP-L, round and with mounting angles spot welded at the sides.
Front with maximum cutout, covered with easily machinable 3 mm (0.12″) aluminum front panel and side handle grips with end caps.
Rear with door.

Support arm connection	Door hinge
top	right
bottom	left

US patent no. 5,662,397
German patent no. 44 13 543
French Patent no. 95 04769
GB patent no. 2,288,971
Ital. patent no. 01273518
Jap. patent no. 2 820 637
US design patent no. des 375,938
German registered design
No. M 94 03 156
IR reg. design no. DM/031 020
with validity for BE, DE, ES, FR, IT, LU, NL
U.K. reg. des. no. 2 042 639
Jap. reg. des. No. 955 950

Height in mm (inches) (H1)	PU	200 (7.78)	300 (11.81)	380 (14.96)	500 (19.69)	380 (14.96)	Page
Width in mm (inches) (B1)		300 (11.81)	380 (14.96)	380 (14.96)	500 (19.69)	600 (23.62)	
Depth in mm (inches) (T1)		155 (6.1)	210 (8.27)	210 (8.27)	210 (8.27)	210 (8.27)	
Part No. CP	1	**6540.200***	**6531.200**	**6530.200**	**6532.200**	**6533.200**	
B2 = Enclosure width with handle grips		340 (13.39)	420 (16.54)	420 (16.54)	540 (21.26)	640 (25.20)	
B3 = Clearance opening, front		260 (10.24)	340 (13.39)	340 (13.39)	460 (18.11)	560 (22.05)	
B4 = Cutout, in enclosure		250 (9.84)	330 (12.99)	330 (12.99)	450 (17.72)	550 (12.65)	
H2 = Hole distance of side mounting angles		75 (2.95)	175 (6.89)	275 (10.83)	375 (14.76)	275 (10.83)	
H3 = Cutout, in enclosure		150 (5.90)	250 (9.84)	330 (12.99)	450 (17.72)	330 (12.99)	
Weight kg (lbs)		4.9 (10.80)	9.3 (20.50)	10.2 (22.49)	15.4 (33.95)	14.6 (32.19)	

Accessories

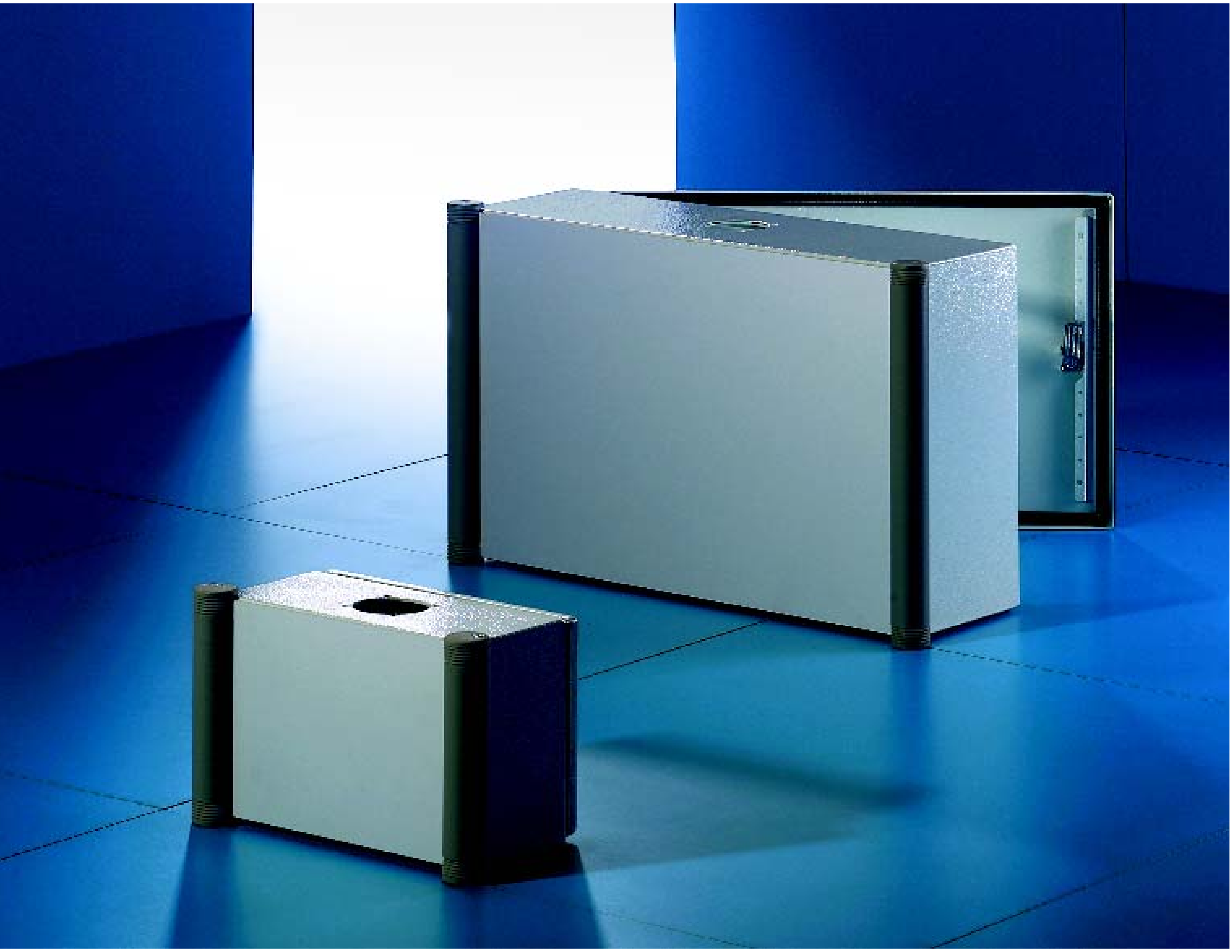
Support strips PS for attaching to the mounting sections on the side panel	20	–	–	4594.000	4309.000	4594.000	HB 30, page 950

Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A,
Plastic handles, T handles, version B and lock cylinders, see page 245 – 247.

***** Support arm connection and door hinge at the bottom.

Command Panel

with handle grips



Rittal Service:

- Other sizes
- Other RAL colors
- Altered support arm cutout or door hinge
- Holes and cutouts for switches and operator panels

available on request.

Accessories:

Pedestal systems,
see page 132 – 149.
Support arm system CP-L,
see page 96 – 115.

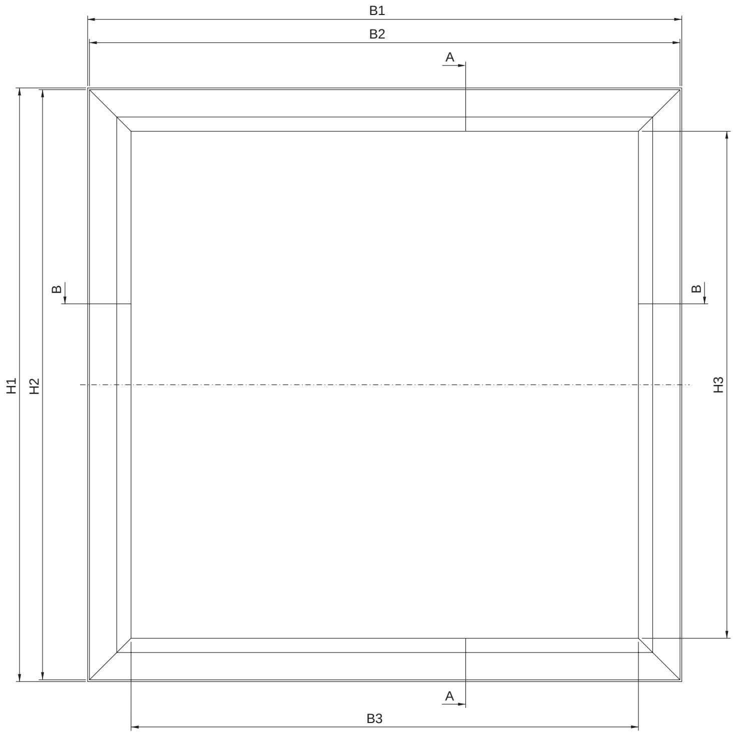
Material and Finish:
Enclosure and door:
Sheet steel, e-coat primed and powder coated in textured RAL 7035
Interior surfaces:
E-coat primed in RAL 7044
Handle grips:
Aluminum, RAL 7030
Cover caps:
Plastic, RAL 7030

Protection ratings:
IP 55 to EN 60 529/10.91
Complies with NEMA Type 12

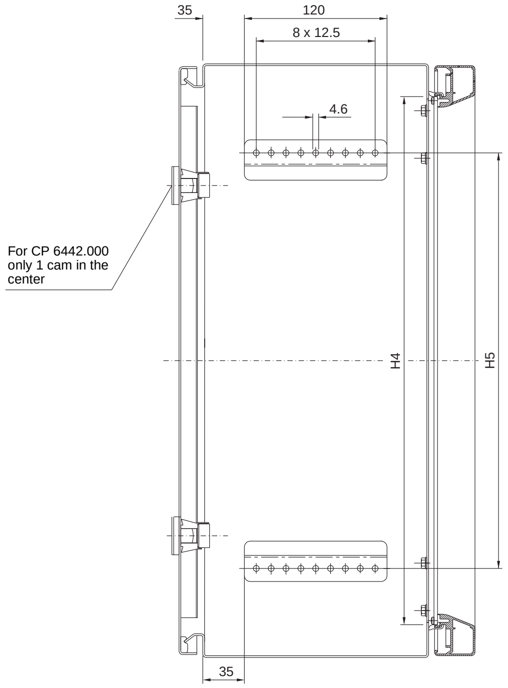
Support arm bracket 90°, CP-L
for the configuration of compact support arm systems.
Part No. see page 102.

Connector for compact enclosures
Part No. see page 228.

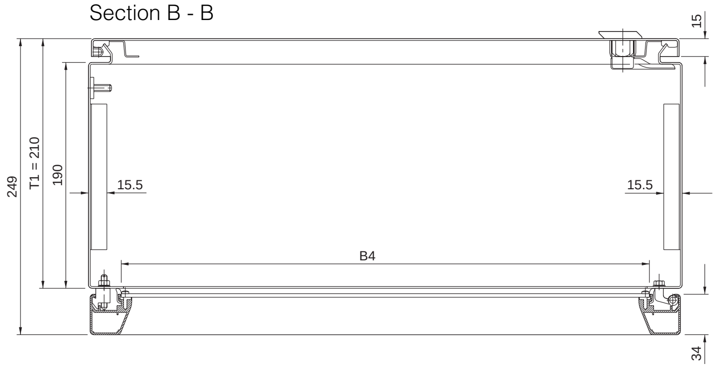
Enclosure connector, adjustable
for screw-fastening to vertical or horizontal surfaces.
Part No. see page 226.



Section A – A



Section B - B



Configuration:
Enclosure without support arm connection with mounting angles spot-welded at the sides. With maximum cutout at the front and fitted, easily machinable 3 mm (0.12″) front panel with aluminum designer frame, r/h hinge, screw-fastened from the inside. Rear door with r/h hinge, with two cam locks (for CP 6442.000 one lock).

Height in mm (inches) (H1)	PU	380 (14.96)	600 (23.62)	500 (19.68)	600 (23.62)
Width in mm (inches) (B1)		380 (14.96)	380 (14.96)	500 (19.68)	600 (23.62)
Depth in mm (inches) (T1)		249 (9.80)	249 (9.80)	249 (9.80)	249 (9.80)
Part No. CP	1	**6442.200**	**6462.200**	**6552.200**	**6662.200**
B2 = Width of display panel front		379 (14.92)	379 (14.92)	499 (19.65)	599 (23.58)
B3 = Clearance opening, front		309 (12.66)	309 (12.66)	429 (16.89)	529 (20.82)
B4 = Width of front panel		323 (12.72)	323 (12.72)	443 (17.44)	543 (21.38)
H2 = Height of display panel front		377 (14.84)	597 (23.50)	497 (19.57)	597 (23.50)
H3 = Clearance opening, front		307 (12.09)	527 (20.75)	427 (16.81)	527 (20.75)
H4 = Height of front panel		321 (12.61)	541 (21.30)	441 (17.36)	541 (21.30)
H5 = Hole distance of side mounting angles		250 (9.84)	450 (17.72)	350 (13.78)	450 (17.72)
Weight kg (lbs)		9.5 (20.94)	13.4 (29.54)	18.0 (39.68)	19.6 (43.21)

Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A,
Lock cylinder, plastic handles and T handles, type B, see page 245 – 247.

The reinforcement plate required for mounting on pedestal CP 6135.000, see page 147, is already included in the configuration in this model.

For Command Panels in RAL 7035, please use the extension number .500. Delivery times available on request.

Command Panel

with display panel front

Rittal Service:

- Other sizes
- Other RAL colors
- With support arm cutout
- Holes and cutouts for switches and operator panels

available on request.

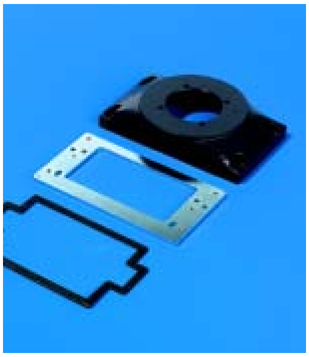
Accessories:

Reinforcement plate with support arm cutout, see page 218.

Material and Finish:
Enclosure and door:
Sheet steel, e-coat primed and powder coated in textured RAL 7032
Interior surfaces:
E-coat-primed in RAL 7044
Frame and front panel:
Aluminum, natural anodized.

Protection ratings:
IP 54 to EN 60 529/10.91
Complies with NEMA Type 12

Handle set
with handle tube made of aluminum.
Part No. see page 235.

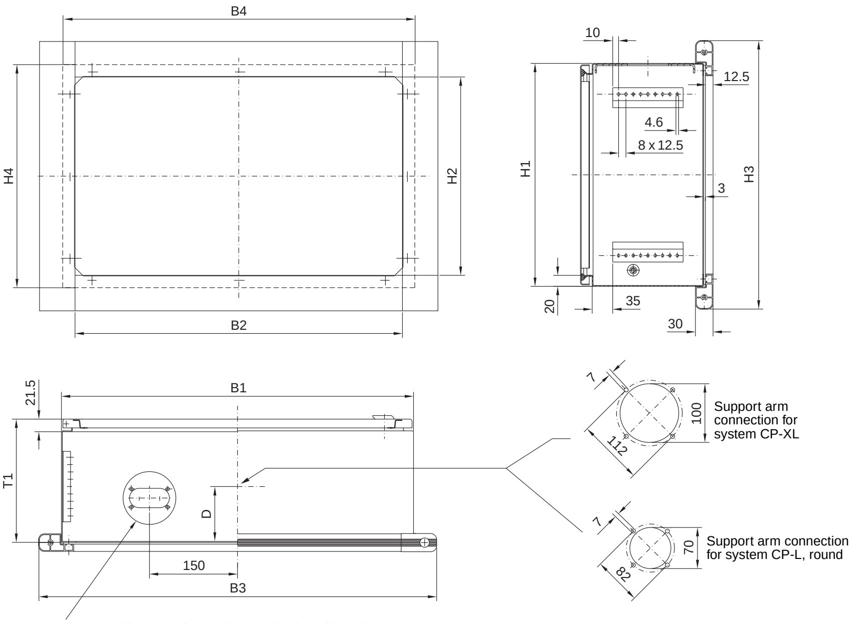


Connection plate
Simply screw-fasten from the outside.
Part No. see page 219.

Enclosure attachment
Tiltable for small enclosures for mounting on surfaces.
Part No. see page 91.

The right frame, even for deeper operator panels.
On request, the compact enclosure AE can be equipped with an elegant VIP 6000 frame mounted on the rear. The large AE door provides easy access for servicing.

Configuration:
Housing with integral roof or base reinforcement and connection for support arm system CP-L or CP-XL. Aluminum front panel and front frame supplied loose, rear door.


B4
H4
H2
B2
10
12.5
4.6
8 x 12.5
H1
H3
3
20
35
30
21.5
B1
T1
D
150
B3
7
100
112
Support arm connection for system CP-XL
7
70
82
Support arm connection for system CP-L, round

On request, with external mounting of a keyboard housing for cable entry

Width dimensions:
B1 = Enclosure width
B2 = B1 – 42 mm (1.65″), clearance between the front frames
B3 = B1 + 79 mm (3.11″), overall width
B4 = B1 – 5 mm (0.20″), front panel width

Height dimensions:
H1 = Enclosure height
H2 = H1 – 42 mm (1.65″), clearance between the front frames
H3 = H1 + 79 mm (3.11″), overall height
H4 = H1 – 5 mm (0.20″), front panel height

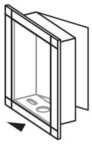
D = Position of support arm connection
For CP-L: 95 mm (3.74″)
For CP-XL: 165 mm (6.50″)
T1 = Enclosure depth

Command Panel with wide VIP 6000 frame in the dimensions of compact enclosures AE or in individual dimensions

	6541.009	**Design code number**		
Support arm connection for support arm system				
without	6541.009	**0**		
CP-XL, top	6541.009	**1**		
CP-XL, bottom	6541.009	**2**		
CP-L, round, top	6541.009	**3**		
CP-L, round, bottom	6541.009	**4**		
Cable tube connection				
without	6541.009	X	**0**	
bottom	6541.009	X	**1**	
Dimensions				
Individual dimensions	6541.009	X	X	H x W x D:
as for compact enclosure AE (HB 30, pages 68 – 73)	6541.009	X	X	Part No. AE:

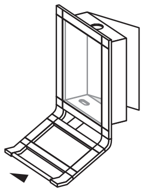
Lock systems
Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A,
Lock cylinder, plastic handles and T handles, type, version B, see page 245 – 247.

Order example	6541.009	**4**	**1**	H x W x D: 352 x 537 x 350 mm (13.86″ x 21.14″ x 13.78″) (or e.g. AE 1050.600)



Order example

Part No. CP 6541.009
Design code numbers:
- **Support arm connection CP-L, round, bottom (4)**
- **Cable tube connection, bottom (1)**
- **Individual dimensions:**
  H x W x D: 537 x 352 x 350 mm (13.86″ x 21.14″ x 13.78″)



Additional mounting of a VIP 6000 keyboard housing is possible via the design code number (see page 28). The front panel width refers to an enclosure width B1 – 54 mm (2.13″) and is achieved via a frame connector, which is included in the configuration of the keyboard housing.

Command Panel

with wide VIP 6000 frame

Accessories:

Pedestal systems,
see page 132 – 149.
Support arms systems,
see page 80.
VIP 6000 keyboard housing,
see page 28 – 31.

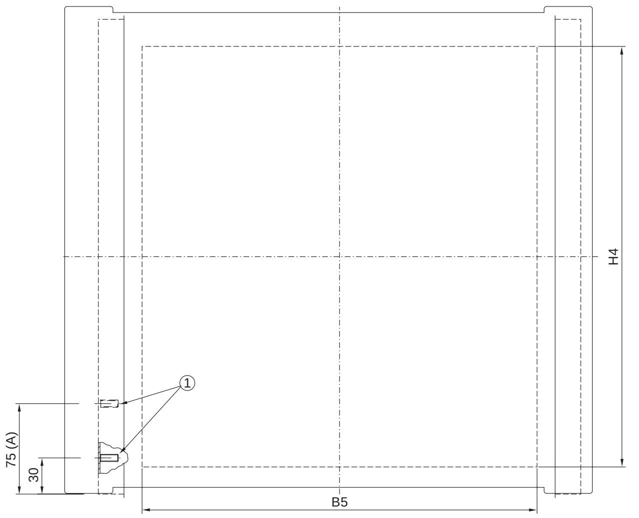
Material and Finish:
Enclosure and door:
Sheet steel, e-coat primed and powder coated in textured RAL 7035
Interior surfaces:
E-coat primed in RAL 7044
Front panel:
3 mm aluminum, natural anodized
Frame section:
Aluminum, powder coated in RAL 7035.
Frame corner pieces:
Die-cast zinc, powder-coated in RAL 7035

Protection ratings:
IP 56 to EN 60 529/10.91
Complies with NEMA Type 12.

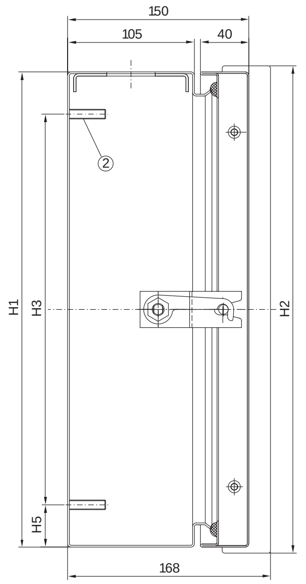
Connection plate
Simply screw-fasten from the outside.
Part No. see page 219.

Pull-out keyboard
super-slimline with cursor keys and trackball.
Part No. see page 263.

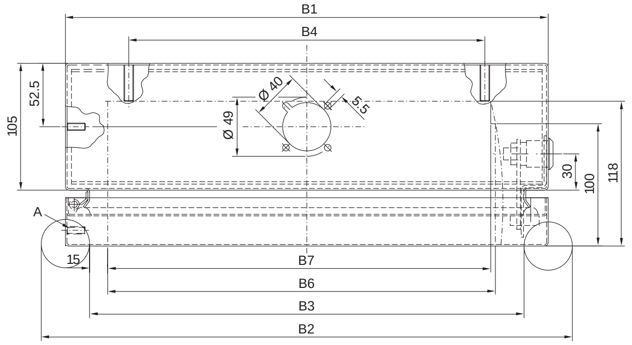
Interface box
for secure accommodation of $3^1/_2$″ drives or sockets.
Part No. see page 240.



① = Welded studs M6 x 15



② = Welded studs M6 x 30
for the attachment of mounting
panels or support rails



Configuration:

Enclosure of all-round solid construction, with cutout and reinforcement for support arm system CP-S, stainless steel, Fastener with guide plate. Door with sealing frame and side handle grips.

Support arm connection	Door hinge
top	left
bottom	right

Height (H1) in mm (inches)	PU	300 (11.81)	300 (11.81)	400 (15.75)	400 (15.75)	Page
Width (B1) in mm (inches)		300 (11.81)	400 (15.75)	400 (15.75)	600 (23.62)	
Depth (T1) in mm (inches)		150 (5.91)	150 (5.91)	150 (5.91)	150 (5.91)	
Part No. CP	1	**6535.010**	**6536.010**	**6538.010**	**6539.010**	
B2 = Enclosure width with handle grips		340 (13.39)	440 (17.32)	440 (17.32)	640 (25.20)	
B3 = Clearance opening, front		260 (10.24)	360 (14.17)	360 (14.17)	560 (22.04)	
B4 = Spacing of mounting panel attachment		215 (8.46)	295 (11.61)	295 (11.61)	510 (20.01)	
B5 = Max. front cutout, width		225 (8.86)	325 (12.80)	325 (12.80	525 (20.66)	
B6 = Hinged width for depth 100 mm (3.94″)		220 (8.66)	320 (12.60)	320 (12.60)	520 (20.47)	
B7 = Hinged width for depth 118 mm (4.65″)		212 (8.34)	317 (12.48)	317 (12.48)	519 (20.43)	
H2 = Enclosure height with handle grips		310 (12.20)	310 (12.20)	410 (16.14)	410 (16.14)	
H3 = Spacing of mounting panel attachment		250 (9.84)	250 (9.84)	330 (12.99)	330 (12.99)	
H4 = Max. front cutout, height		255 (10.04)	255 (10.04)	355 (13.98)	355 (13.98)	
H5 = Distance from base – mounting panel attachment		25 (0.98)	25 (0.98)	35 (1.38)	35 (1.38)	
Weight kg (lbs)		6.3 (13.89)	7.5 (16.53)	8.8 (19.40)	12.1 (26.68)	

Accessories

Matching mounting panel from AE		1033.600	1030.600	1380.600	1039.600	HB 30 68
ID no.		271926	274131	271548	271351	
Support rails* SZ **Part No. SZ**	10	2316.000	2317.000	2317.000	2319.000	HB 30 983

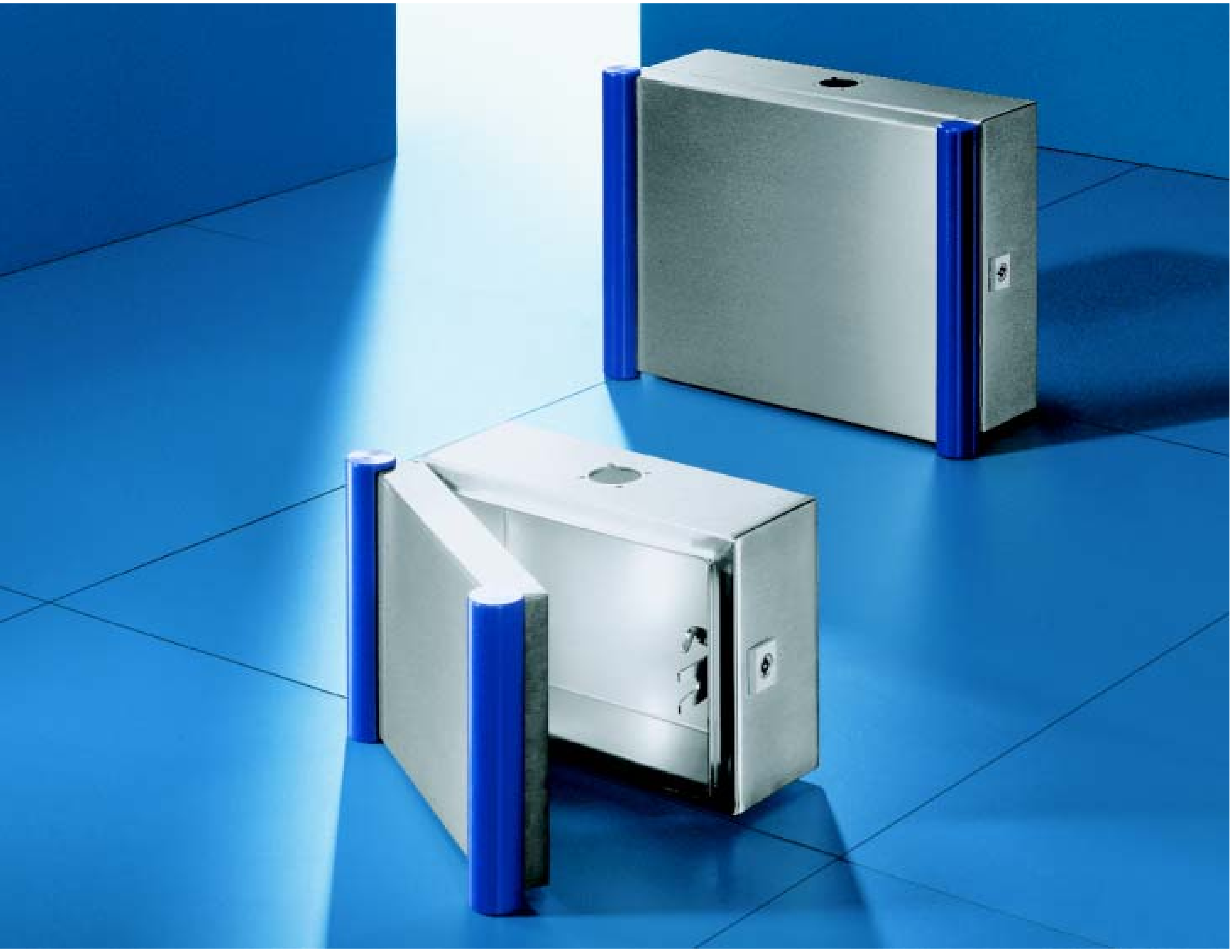
Lock systems
Standard double-bit lock insert may be exchanged for 41 mm (1.61″) lock inserts, plastic handle and T handle, version C, see page 245 – 246.

For the Command Panel housing with door in 1.4404 (Type 316L), please use the extension number .500. Delivery times available on request.

* = Only with vertical attachment of system bar 23 x 23 mm (0.91″ x 0.91″) see HB 30, page 976.

Command Panel housing with door

Stainless steel



Rittal Service:

- Separate keyboard housing
- Other sizes
- Rear support arm cutout or modified door hinge
- Holes and cutouts for switches and operator panels

available on request.

Accessories:

see page 200 – 201
or see index.

Material:
Enclosure and door:
Type 304 stainless steel
Handle grips: Plastic approved for use with foodstuffs,
RAL 5002.

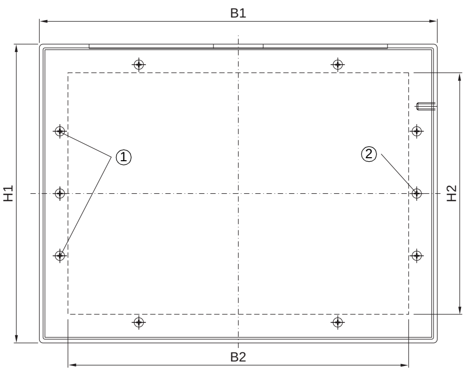
Finish:
Brushed, 240 grain

Protection ratings:
IP 66 to EN 60 529/10.91
Complies with NEMA Type 4X

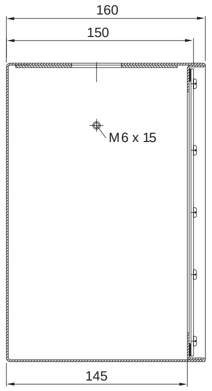
Semi-cylinder lock
for retro-fitting to all stainless steel enclosures with cam lock.
Part No. see page 247.

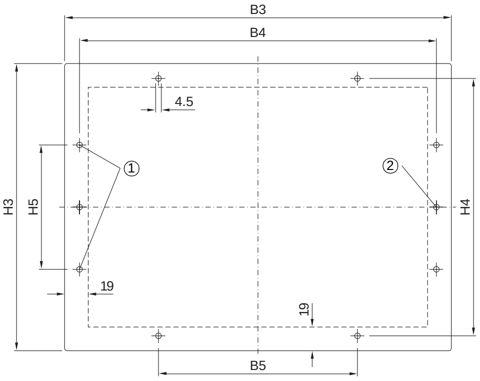
Pedestal
for external mounting of Command Panel housings with door with rear support arm cutout. Part No. see page 144.

The alternative
AE stainless steel, rear door, support arm connection and handle grips on request.
See Handbook 30, page 280.

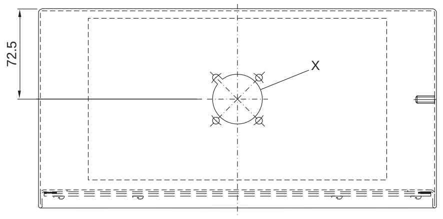


① = does not apply to CP 6670.000
② = does not apply to CP 6672.000

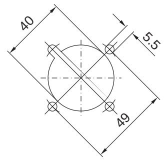




① = does not apply to CP 6670.000
② = does not apply to CP 6672.000



X = Mounting cutout



Configuration:
Enclosure with cutout and reinforcement for support arm system CP-S, stainless steel.
Front panel/rear panel with seal and installation hardware.

Two configuration options:

- Front panel screw-fastened at the front. Recessed front panel installation for a high level of mechanical protection of the top-mounted equipment
- Front panel as rear panel, additional handle grips made from plastic approved for use with food, similar to RAL 5002 on request.

Width (B1) in mm (inches)	PU	320 (12.60)	400 (15.75)
Height (H1) in mm (inches)		240 (9.45)	320 (12.60)
Depth in mm (inches)		160 (6.30)	
Part No. CP	1	**6670.000**	**6672.000**
B2 = Clearance in width		275 (10.83)	355 (13.98)
B3* = Width of front panel		313 (12.32)	393 (15.47)
B4 = Hole spacing		288 (11.33)	368 (14.49)
B5 = Hole spacing		180 (7.09)	220 (8.66)
H2 = Clearance in height		195 (7.68)	275 (10.83)
H3* = Height of front panel		233 (9.17)	313 (12.32)
H4 = Hole spacing		208 (8.19)	288 (11.33)
H5 = Hole spacing		–	180 (7.09)
Weight kg (lbs)		5 (11.02)	8 (17.64)

For the Command Panel in RAL 1.4404 (Type 316L), please use the extension number .500. Delivery times available on request.
* Other sizes and machining of the front panel available on request.

Stainless steel

Accessories:

see page 200 – 201
or see index.

Material:
Type 304 stainless steel
Enclosure: 1.25 mm (18 ga)
Front panel: 2.0 mm (14 ga)

Finish:
Brushed, 240 grain

Protection ratings:
IP 65 to EN 60 529/10.91
Complies with NEMA Type 12

Handle grips
made from plastic approved for use with food, similar to RAL 5002 on request.

Enclosure attachment CP-S, stainless steel
with prefitted screw for location.
Part No. see page 93.

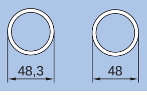
Connector gland
for 2 cables up to Ø 8 mm (0.31″).
Part No. SZ 2400.300, see page 220.

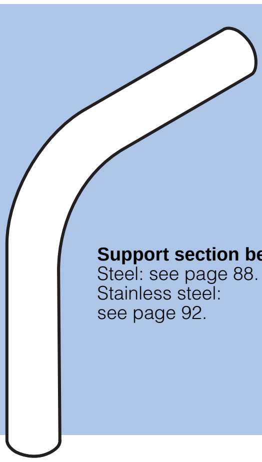
Rittal support arm systems . . .

. . . and the panel is in position!

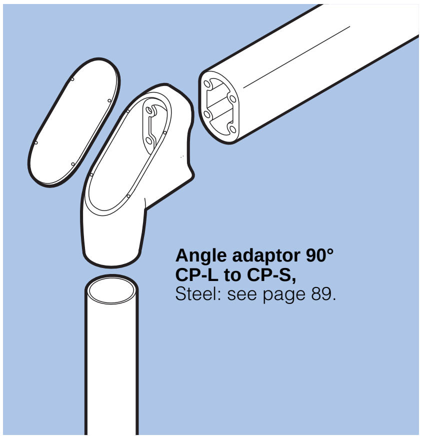
CP-S

Material:
Steel (left),
Stainless steel (right)





Support section bent,
Steel: see page 88.
Stainless steel:
see page 92.



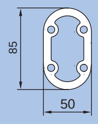
Angle adaptor 90°
CP-L to CP-S,
Steel: see page 89.

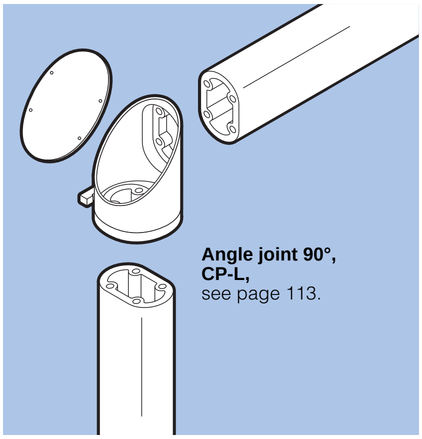
CP-S / CP-L and CP-XL –
three load categories, three well-designed systems with style. By combining CP-L with CP-S and CP-XL with CP-L the solution diversity is extended significantly.

The important joint – the transition from the horizontal to the vertical – is illustrated here.

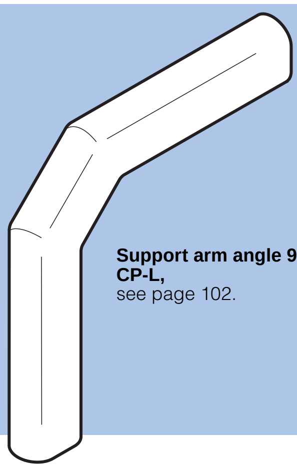
CP-L

Material:
Aluminum

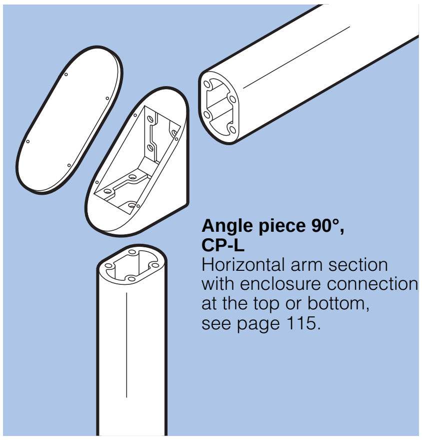




Angle joint 90°,
CP-L,
see page 113.



Support arm angle 90°,
CP-L,
see page 102.

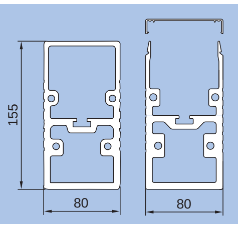


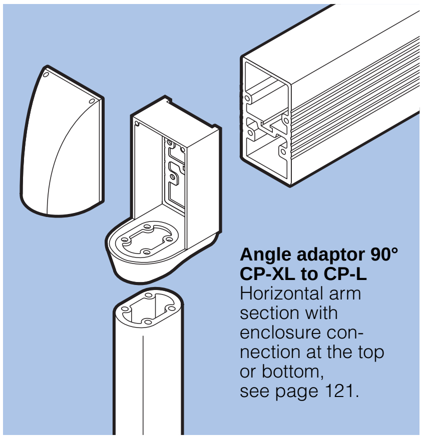
Angle piece 90°,
CP-L
Horizontal arm section
with enclosure connection
at the top or bottom,
see page 115.

CP-XL

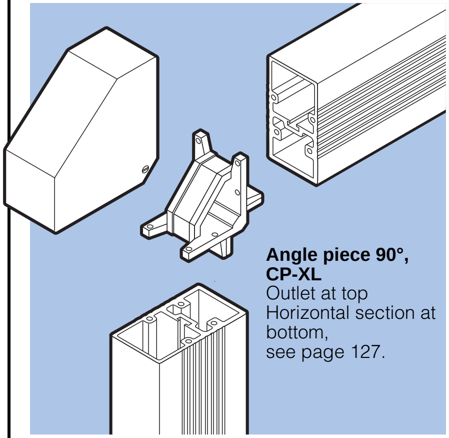
Material:
Aluminum

2 versions:
sealed (left)
open (right)





Angle adaptor 90°
CP-XL to CP-L
Horizontal arm
section with
enclosure connection at the top
or bottom,
see page 121.



Angle piece 90°,
CP-XL
Outlet at top
Horizontal section at
bottom,
see page 127.

Support arm systems 80 – 127

Combinations of enclosures/support arm systems 80 – 81
CP-S, steel 82 – 91
CP-S, stainless steel 82, 92 – 95
CP-L, aluminum 96 – 115
CP-XL, aluminum 116 – 127

Different viewing angles of the machine, tall or short operating staff, sitting or standing – with the support arm sytems from Rittal, the interaction between monitoring and operating is achieved to perfection.

All system components for rotating, tilting, swivelling, – raising and lowering are combined with one another with unbelievable flexibility.

Three different systems are used, depending on the system configuration, arm length and enclosure weight.

Combinations of enclosures / support arm systems

The simplest approach is the best

The diagrams show how the the Rittal enclosures may be connected to support arm systems, either directly or via adaptors.

There is a choice of four support arm systems, depending on your design, load and cabling requirements.

tiltable or rotatable components.

System end

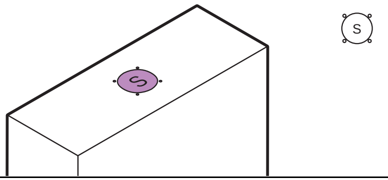
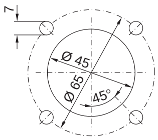
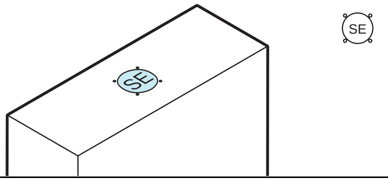
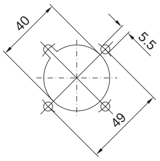
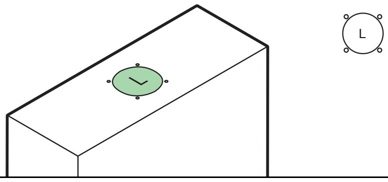
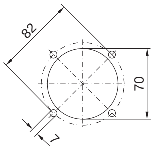
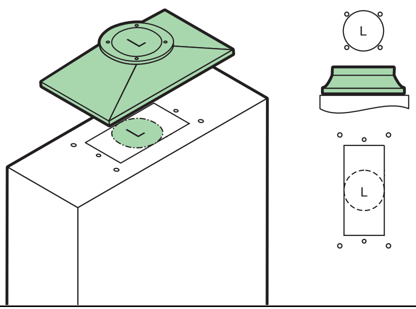
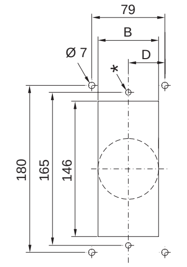
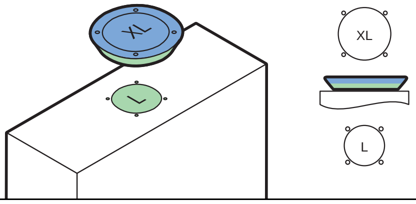
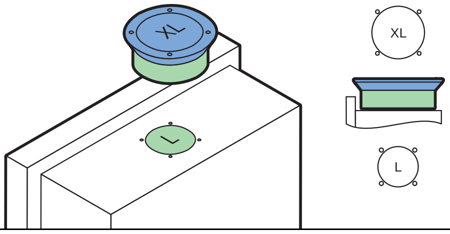
X = 0 (RAL 7030), X = 1 (RAL 7024)

▶ **CP-S**
For small and lightweight enclosures.

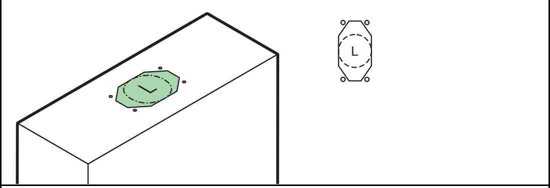
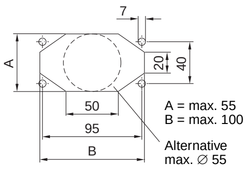
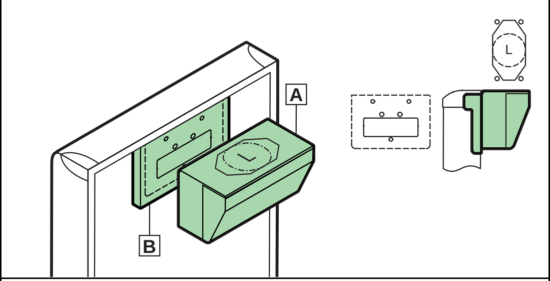
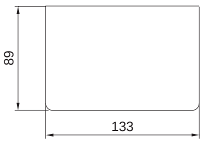
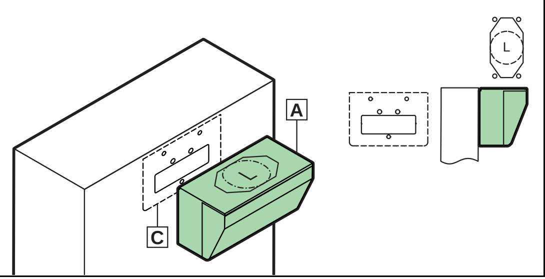
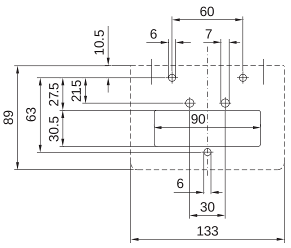
▶ **CP-S stainless steel**
For use where there are special requirements in terms of corrosion and hygiene.

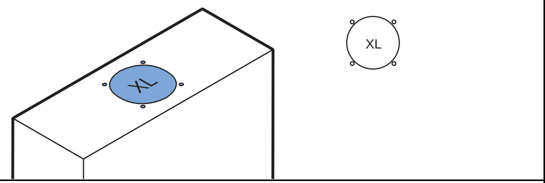
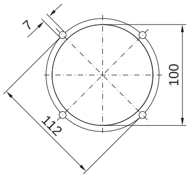
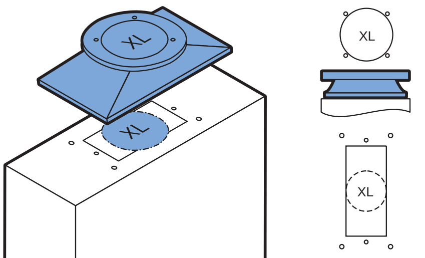
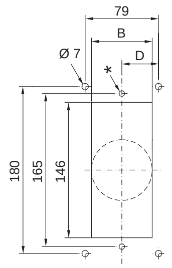
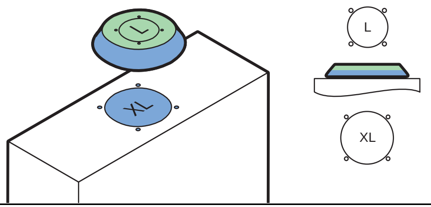
▶ **CP-L**
The system for average Command Panel weights, stylish lines, and extreme solution diversity.

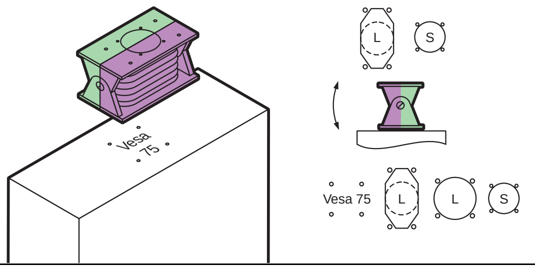
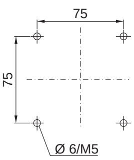
▶ **CP-XL**
The system for extreme loads. Also with open cable duct for super-easy cable entry.

	Enclosure	Mounting cutout and adaptor		Connection to support arm system
CP-S **steel**		**Mounting cutout** **CP-S** Compact Panel, as well as small and slimline enclosures, from an installation depth of 100 mm (3.94″)		▶ **CP-S steel:** **1, 2, 3** **s. p. 85** ▶ **CP-L:** **1.6** **s. p. 98**
CP-S **stainless steel**		**Mounting cutout** **CP-S stainless steel** Stainless steel enclosures from an installation depth of 100 mm (3.94″)		▶ **CP-S stainless steel:** **2, 3** **s. p. 87**
		**Mounting cutout** **CP-L, round** Enclosures from an installation depth of 150 mm (5.91″)		▶ **CP-L:** **1.6, 2.1, 2.2, 2.4** **3.1, 3.2, 3.3** **s. p. 99**
		**Connection plate** **CP-L** With reinforcement plate For enclosures from an installation depth of 150 mm (5.91″) . For easy location of the Command Panel onto the support arm or pedestal. **CP 6528.2X0,** see page 219 **Note:** May also be fitted via CP-L mounting cutouts (additional hole ∅ 7 mm (0.28″) required).	 Dimensions B, D depending on the enclosure, see page 219 * ∅ 6 mm / (0.24″) only with metal enclosures, for securing the reinforcement plate.	
		**Connection adaptor** **CP-L to CP-XL** For mounting between enclosures with support arm connection CP-L and support arm system CP-XL. Benefits: High load capacity and easier cable routing **CP 6528.0X0,** see page 104		▶ **CP-XL:** **2, 3** **s. p. 119**
CP-L **round**		**Connection adaptor** **CP-L to CP-XL** To bridge the frame when mounting between VIP 6000 enclosures with installation depths from 155 mm (6.10″) to 295 mm (11.61″) with support arm connection CP-L and support arm system CP-XL Benefits: High load capacity and easier cable routing **CP 6528.500,** see page 104		

Combinations of enclosures / support arm systems

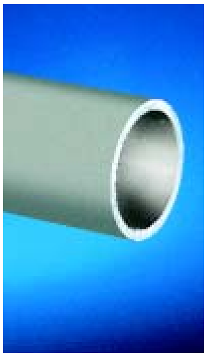
	Enclosure	Mounting cutout and adaptor	Connection to support arm system
CP-L **rectan-gular**		**Mounting cutout CP-L, rectangular** Enclosures from an installation depth of 100 mm (3.94″)  7 A 20 40 50 95 B A = max. 55 B = max. 100 Alternative max. ∅ 55	▶ **CP-L:** **2.3, 2.4** **3.4, 3.5, 3.6** **s. p. 99**
		**Connection console CP-L, rectangular A** For Optipanel, from an installation depth of 50 mm (1.97″) **CP 6508.0X0** on Optipanel support plate B **CP 6508.100** see page 108 – 109 	
		**Connection console CP-L, rectangular A** For other slimline enclosures Enclosure with mounting cutout C **CP 6508.0X0,** see page 108  60 6 7 10.5 27.5 21.5 89 63 30.5 90 6 30 133	

	Enclosure	Mounting cutout and adaptor	Connection to support arm system
CP-XL		**Mounting cutout CP-XL** Enclosures from an installation depth of 150 mm (5.91″) 	▶ **CP-XL:** **2, 3** **s. p. 119**
		**Connection plate CP-XL** with reinforcement plate For enclosures from an installation depth of 150 mm (5.91″). For easy location of the command panel onto the support arm or pedestal. **CP 6528.300,** see page 219 **Note:** May also be fitted via CP-L mounting cutouts (additional hole ∅ 7 mm (0.28″) required).  Dimensions B, D depending on the enclosure, see page 219 * ∅ 6 mm / (0.24″) only with metal enclosures, for securing the reinforcement plate.	
		**Connection adaptor CP-L to CP-XL** For mounting between enclosures with support arm connection CP XL and support arm system CP-L, provided the load permits and a stylish design is required. **CP 6528.0X0,** see page 104	▶ **CP-L:** **2.1, 2.2, 2.4** **3.1, 3.2, 3.3** **s. p. 99**

	Enclosure	Mounting cutout and adaptor	Connection to support arm system
VESA 75		**Enclosure attachment, tilting, top mounting** To fit enclosures with cutout: CP-S, CP-L rectangular, CP-L round, VESA Standard 75 With cable tube for protected cable entry. **IW 6902.670,** see page 91 	▶ **CP-S:** **3** **s. p. 85** ▶ **CP-L:** **3.4, 3.5, 3.6** **s. p. 99**

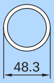
Support arm systems CP-S . . .

. . . small but powerful!



CP-S

Material:
Steel



The compact support arm system for small and slimline Command Panels.

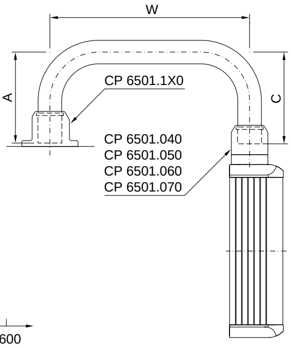
- Simple, fast assembly via clamping screws on the support arm components.
- 2 color combinations facilitate an individual design.
- The moving parts have a maintenance-free friction bearing.
- Horizontal connection to the larger CP-L support arm system also facilitates longer support arm lengths.

Order instructions for enclosures with support arm connection CP-S:

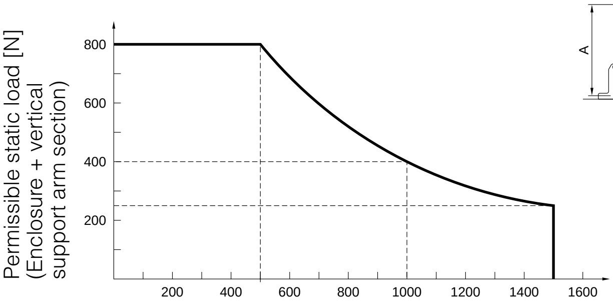
- VIP 6000, Optipanel, **should be ordered by adding an “S” to the design code number.**
- Other Command Panels **are ordered by adding extension .100 to the Model No.**
- With other enclosures, please state **“with support arm connection and reinforcement plate CP-S”** in the order text.

Delivery times available on request.

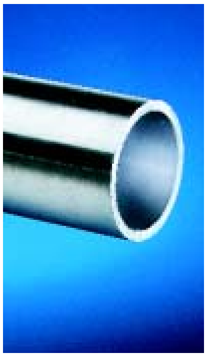
A max. = C max. = 800 mm (31.50″)



Load capacity CP-S steel:

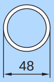


Arm length B [mm]
When using CP-S in conjunction with CP-L (in the horizontal development of the sytem), the load diagram for CP-L applies



CP-S

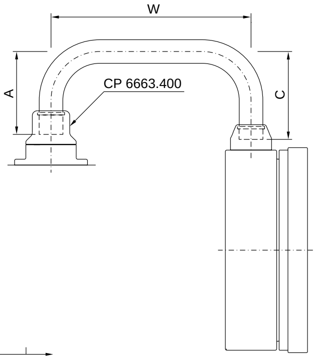
Material:
Stainless steel



In conjunction with stainless steel enclosures (Command Panels, terminal boxes 120 mm (4.72″) deep, compact enclosures AE), this support arm system is particularly well-suited to meet demanding requirements in terms of corrosion protection and hygiene.

The tilting adaptor and enclosure coupling may optionally be mounted on the top or bottom of the enclosure. **They are not suitable for use as the base point of a system.** For this purpose, we recommend wall/base mountings, or with larger heights and widths, an additional pillar made of steel tubing or stainless steel (available on request).

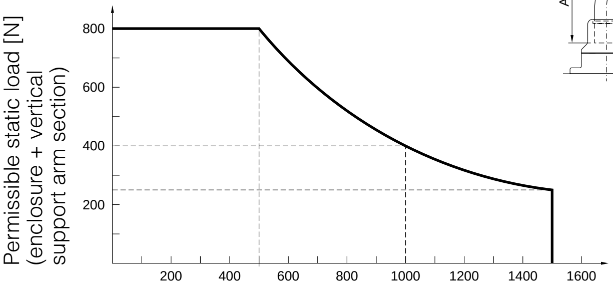
A max. = C max. = 800 mm (31.50″)



Protection ratings:
IP 69K to DIN 40 050-9/5.93
(protection for high-pressure cleaning)

IP 69 K

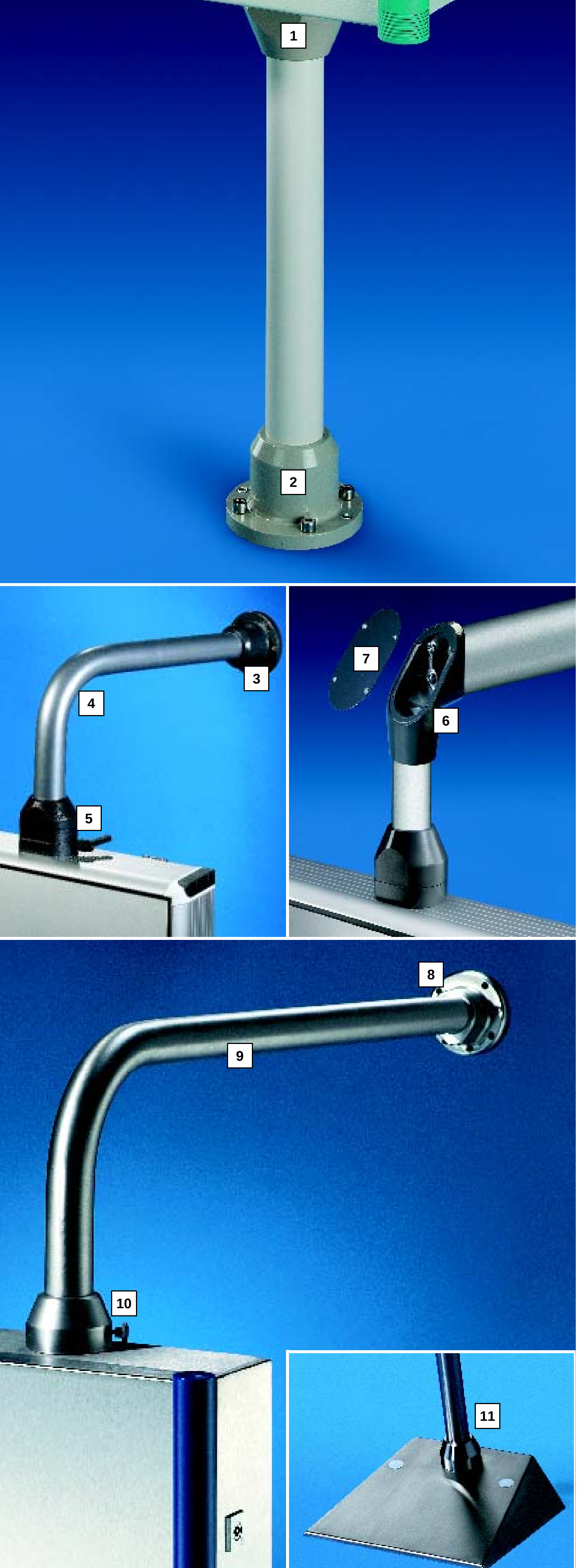
Load capacity CP-S stainless steel:



Arm length B [mm]

Support arm system CP-S 84 – 95

Fast selection, steel 84 – 85
Fast selection, stainless steel 86 – 87
CP-S components, steel 88 – 91
CP-S components, stainless steel 92 – 95



CP-S steel

1 Attachment of CP-S for rigid mounting of the support section on enclosures or flat surfaces.

2/3 CP-S wall/base mounting for front mounting on the floor or on surfaces.

4 The tube is available in standard lengths in the following versions: straight, L-shaped and U-shaped.

5 For swivel mounting of the enclosure, enclosure coupling CP-S is used.

6 If a higher load capacity is required, combination with CP-L offers a solution. Angle adaptor 90°, CP-L to CP-S, provides the connection.

7 Easier cable routing, thanks to the removable cover.

CP-S stainless steel

8 Rigid wall/base mounting. Swivel base mountings are likewise available.

9 In stainless steel, the support section is also available in straight, L-shaped, U-shaped and Z-shaped versions.

10 The housing coupling offers a rotation range of approximately 350°.

11 The pedestal base plate in conjunction with the rigid enclosure attachment provides a basis for Command Panels with pedestal.

Support arm system CP-S

Steel, fast selection

It’s so easy!

Make a simple sketch showing the basic form of the support arm. Next, select the corresponding support arm components. Start at 1 “system start” by selecting the enclosure situation which best describes your requirements.

▶ Continue with CP-S according to the item numbers.

System changes are indicated by the color.

▶ Green = CP-L

System continuation/system end:

✥ all directions

↕ vertical

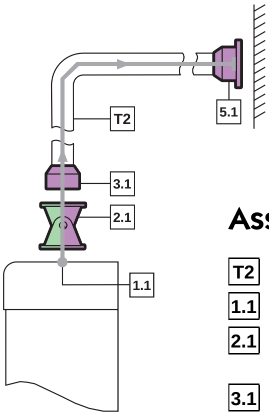
↔ horizontal

↱ around a corner

⤸ tiltable or

⤺ rotatable components

○ From item 3 a support section is required between each component (minimum length approx. 100 mm (3.94″), for wall/floor mounting approx. 160 mm (6.30″)). The cross-sections indicate the installation position(s).



Assembly example:

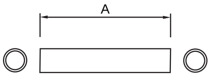
- **T2** Support section CP-S
- **1.1** Mounting cutout CP-S
- **2.1** Tilting enclosure attachment, top mounting
- **3.1** Enclosure attachment CP-S
- **5.1** Wall/base mounting CP-S

Note:
After any given support section, the 90° angle adaptor CP-L to CP-S may be used as a transition to the CP-L system.

T Support sections

T1 support section CP-S straight

$A_{min.}$ = 100 mm (3.94″)
$A_{max.}$ = 2000 mm (74.74″)

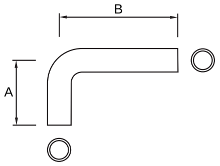


A mm (inches)	RAL 7035 **Part No. CP**	RAL 9006 **Part No. CP**
500 (19.69)	6501.000	6501.010
1000 (39.37)	6501.020	6501.030
(to specifications)	6501.350*	6501.340*

See page 88

T2 support section CP-S L-bend

$A_{min.} = B_{min.}$ = 240 mm (9.45″)
$B_{max.}$ = 1500 mm (59.06″)

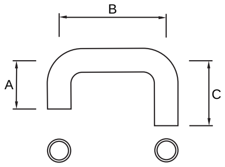


A mm (inches)	B mm (inches)	RAL 7035 **Part No. CP**	RAL 9006 **Part No. CP**
240 (9.45)	500 (19.69)	6501.230	6501.220
500 (19.69)	1000 (39.37)	6501.250	6501.240
(to specifications)	(to specifications)	6501.210*	6501.200*

See page 88

T3 support section CP-S U-bend

$A_{min.} = C_{min.}$ = 240 mm (9.45″)
$B_{min.}$ = 410 mm (16.14″)
$B_{max.}$ = 1500 mm (59.06″)

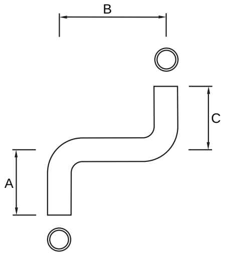


A mm (inches)	B mm (inches)	C mm (inches)	RAL 7035 **Part No. CP**	RAL 9006 **Part No. CP**
240 (9.45)	800 (31.50)	800 (31.50)	6501.290	6501.280
240 (9.45)	500 (19.69)	500 (19.69)	6501.310	6501.300
To specifications	To specifications	To specifications	6501.270*	6501.260*

See page 88

T4 support section CP-S Z-bend

$A_{min.} = C_{min.}$ = 240 mm (9.45″)
$B_{min.}$ = 410 mm (16.14″)
$B_{max.}$ = 1500 mm (59.06″)



A mm (inches)	B mm (inches)	C mm (inches)	RAL 7035 **Part No. CP**	RAL 9006 **Part No. CP**
To specifications	To specifications	To specifications	6501.330*	6501.320*

See page 88

* Delivery times available on request

Steel, fast selection

1 System start

All options see page 80 – 81

1.1 Mounting cutout CP-S

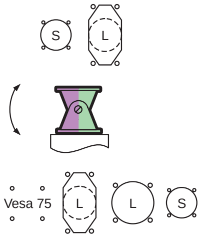
see page 80

▶ 2 3

1.2 Enclosure attachment, tilting, top mounting*

IW 6902.670 (RAL 7024)

see page 91



▶ 3

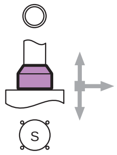
▶ CP-L s. p. 99

3 Enclosure attachments

3.1 Attachment CP-S

CP 6501.060 (RAL 7030)
CP 6501.070 (RAL 7024)

see page 90

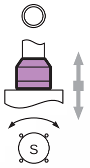


▶ 4 5

3.2 Housing coupling CP-S

CP 6501.040 (RAL 7030)
CP 6501.050 (RAL 7024)

see page 90

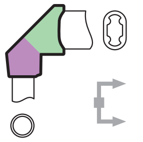


4 Angle components

4.1 Angle adaptor 90° CP-L to CP-S

CP 6501.080 (RAL 7030)
CP 6501.090 (RAL 7024)

see page 89



▶ CP-L s. p. 98 99

The support sections CP-S, bent (T2, T3, T4) are used as angle components.

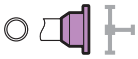
▶ 5

5 System end

5.1 Wall/base mounting CP-S

CP 6501.100 (RAL 7030)
CP 6501.110 (RAL 7024)

see page 89

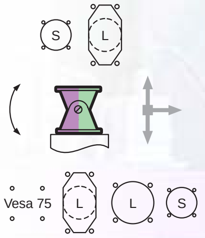


2 Tilting adaptor

2.1 Enclosure attachment, tilting, top mounting*

IW 6902.670 (RAL 7024)

see page 91



▶ 3

▶ CP-L s. p. 99

* May also be used rotated through 180°, e.g. from CP-L rectangular or CP-S to CP-L round.

Stainless steel, fast selection

It’s so easy!

Make a simple sketch showing the basic form of the support arm. Next, select the corresponding support arm components. Start at $\boxed{1}$ “system start” by selecting the enclosure situation which best describes your requirements.

► Continue with CP-S stainless steel according to the item numbers.

System continuation/system end:

↕↔ all directions

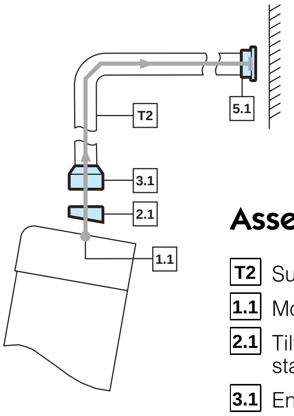
↕ vertical

⊢ horizontal

↱ around a corner

↷ rotatable components

○ From item $\boxed{3}$ a support section is required between each component (minimum length approx. 100 mm (3.94″), for wall/floor mounting approx. 160 mm (6.30″)). The cross-sections indicate the installation position(s).



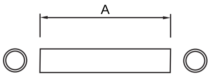
Assembly example:

- **T2** Support section CP-S, stainless steel
- **1.1** Mounting cutout CP-S, stainless steel
- **2.1** Tilting adaptor 10° CP-S, stainless steel
- **3.1** Enclosure attachment CP-S, stainless steel
- **5.1** Wall/base mounting, rigid CP-S, stainless steel

$\boxed{T}$ Support sections

T1 support section CP-S
Stainless steel, straight

$A_{min.}$ = 100 mm (3.94″)
$A_{max.}$ = 2000 mm (74.74″)

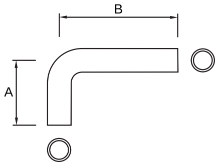


A mm (inches)	**Part No. CP**
500 (19.69)	6660.050
1000 (39.37)	6660.010
2000 (78.74)	6660.020
(to specifications)	6660.000*

See page 92

T2 support section CP-S
L-bend

$A_{min.} = B_{min.}$ = 240 mm (9.45″)
$B_{max.}$ = 1500 mm (59.06″)

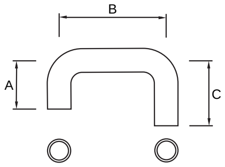


A mm (inches)	B mm (inches)	**Part No. CP**
240 (9.45)	500 (19.69)	6660.110
500 (19.69)	1000 (39.37)	6660.120
(to specifications)	(to specifications)	6660.100*

See page 92

T3 support section CP-S
U-bend

$A_{min.} = C_{min.}$ = 240 mm (9.45″)
$B_{min.}$ = 410 mm (16.14″)
$B_{max.}$ = 1500 mm (59.06″)



A mm (inches)	B mm (inches)	C mm (inches)	**Part No. CP**
240 (9.45)	800 (31.50)	800 (31.50)	6660.210
240 (9.45)	500 (19.69)	500 (19.69)	6660.220
To specifications	To specifications	To specifications	6660.200*

See page 92

* Delivery times available on request

Stainless steel, fast selection

1 System start

All options see page 80 – 81

1.1 Mounting cutout CP-S stainless steel

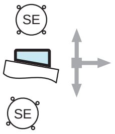
see page 80

▶ 2 3

2 Tilting adaptor

2.1 Tilting adaptor 10° CP-S stainless steel

IW 6664.100, see page 93

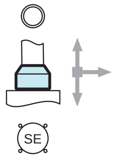


▶ 3

3 Enclosure attachments

3.1 Enclosure attachment CP-S stainless steel

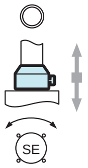
CP 6664.500, see page 93



▶ 5

3.2 Housing coupling CP-S stainless steel

CP 6664.000, see page 93



4 Angle components

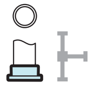
The support sections CP-S, bent (T2, T3) are used as angle components.

▶ 5

5 System end

5.1 Wall/base mounting, rigid CP-S stainless steel

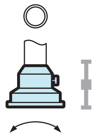
CP 6663.000, see page 94



5.2 Swivel wall/base mounting CP-S stainless steel

CP 6663.400
(front hole ∅ 9 mm (0.35″))
CP 6663.500
(M8 thread at rear)

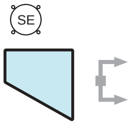
see page 94



5.3 Wall console CP-S stainless steel

CP 6665.500
(front hole ∅ 9 mm (0.35″))
CP 6665.000
(M8 thread at rear)

see page 95



Steel

Support arm section CP-S

Twelve standard items available off the shelf, which may be adapted to your individual requirements by cutting to length.

Material:
Steel tube

Finish:
Powder coated

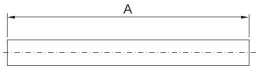
Size:
External diameter: 48.3 mm (1.90″)
Wall thickness: 4.0 mm (0.16″)

Other sizes to order available on request.

Order example:
Z-bend = CP 6501.330
Dimension A = 300 mm (11.81″)
Dimension B = 800 mm (31.50″)
Dimension C = 240 mm (9.45″)

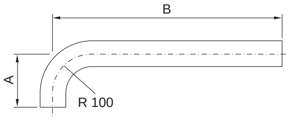
The minimum dimensions must be adhered to, because of the bending radius and insertion depth of the enclosure attachment, housing coupling and wall/base mountings.

Straight
$A_{min.}$ = 100 mm (3.94″),
$A_{max.}$ = 2000 mm (78.74″)



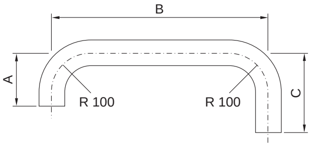
A mm (inches)	Weight kg (lbs)	Color RAL	**Part No. CP**
500 (19.69)	2.1 (4.63)	7035	**6501.000**
500 (19.69)	2.1 (4.63)	9006	**6501.010**
1000 (39.37)	4.2 (9.26)	7035	**6501.020**
1000 (39.37)	4.2 (9.26)	9006	**6501.030**
To specifications A =	4.2 (9.26) kg/m	7035	**6501.350***
To specifications A =	4.2 (9.26) kg/m	9006	**6501.340***

L-shaped
$A_{min.} = B_{min.}$ = 240 mm (9.45″),
$B_{max.}$ = 1500 mm (59.06″)



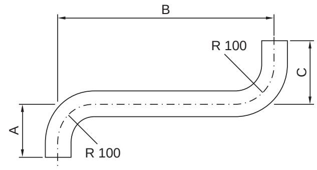
A mm (inches)	B mm (inches)	Weight kg (lbs)	Color RAL	**Part No. CP**
240 (9.45)	500 (19.69)	3.3 (7.28)	7035	**6501.230**
240 (9.45)	500 (19.69)	3.3 (7.28)	9006	**6501.220**
500 (19.69)	1000 (39.37)	6.6 (14.55)	7035	**6501.250**
500 (19.69)	1000 (39.37)	6.6 (14.55)	9006	**6501.240**
To specifications A =	To specifications B =	4.2 (9.26) kg/m	7035	**6501.210***
To specifications A =	To specifications B =	4.2 (9.26) kg/m	9006	**6501.200***

U-shaped
$A_{min.} = C_{min.}$ = 240 mm (9.45″),
$B_{min.}$ = 410 mm (16.14″)
$B_{max.}$ = 1500 mm (59.06″)



A mm (inches)	B mm (inches)	C mm (inches)	Weight kg (lbs)	Color RAL	**Part No. CP**
240 (9.45)	800 (31.50)	800 (31.50)	8.0 (17.64)	7035	**6501.290**
240 (9.45)	800 (31.50)	800 (31.50)	8.0 (17.64)	9006	**6501.280**
240 (9.45)	500 (19.69)	500 (19.69)	5.2 (11.46)	7035	**6501.310**
240 (9.45)	500 (19.69)	500 (19.69)	5.2 (11.46)	9006	**6501.300**
(To specifications) A =	(To specifications) B =	(To specifications) C =	4.2 (9.26) kg/m	7035	**6501.270***
(To specifications) A =	(To specifications) B =	(To specifications) C =	4.2 (9.26) kg/m	9006	**6501.260***

Z-shaped
$A_{min.} = C_{min.}$ = 240 mm (9.45″),
$B_{min.}$ = 410 mm (16.14″)
$B_{max.}$ = 1500 mm (59.06″)



A mm (inches)	B mm (inches)	C mm (inches)	Weight kg (lbs)	Color RAL	**Part No. CP**
(To specifications) A =	(To specifications) B =	(To specifications) C =	4.2 (9.26) kg/m	7035	**6501.330***
(To specifications) A =	(To specifications) B =	(To specifications) C =	4.2 (9.26) kg/m	9006	**6501.320***

* Delivery times available on request

Angle adaptor 90° CP-L to CP-S

The connecting component between

- the horizontal support section CP-L and
- the vertical support section CP-S

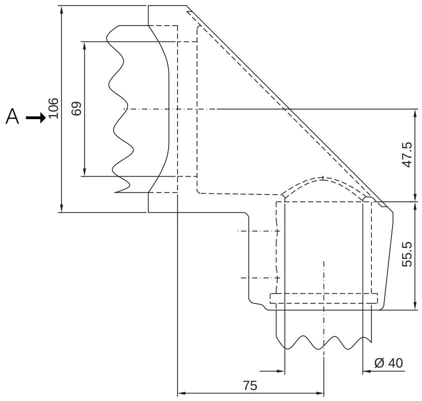
Outlet option top or bottom if this configuration is chosen for structural or visual reasons. The removable cover ensures easier cable entry.

Material:
Cast aluminum

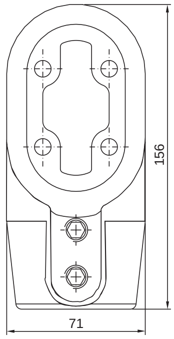
Configuration:
Seal and self-tapping screws for CP-L or clamping screws for CP-S support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.0 (2.20)	**6501.080**
7024	1.0 (2.20)	**6501.090**

Note:
Mounting component for signal pillar available on request.



View A



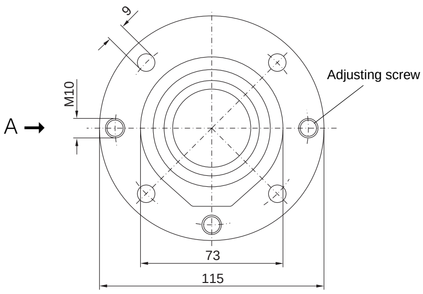
Wall/base mounting CP-S

For rigid attachment of the support section to surfaces. With flange for front mounting.

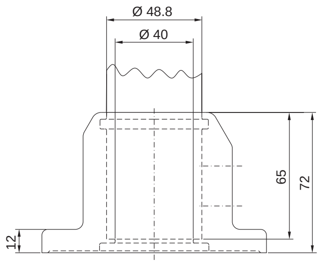
Material:
Cast aluminum

Configuration:
Seal, 2 clamping screws for support section CP-S and 3 pre-fitted adjusting screws.

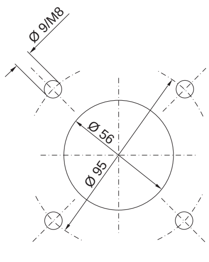
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	0.7 (1.54)	**6501.100**
7024	0.7 (1.54)	**6501.110**

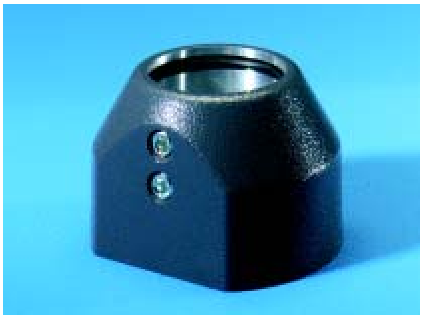


View A



Mounting cutout





Attachment CP-S

For rigid attachment of the

- enclosure to the support section,
- support arm to flat surfaces, rear*.

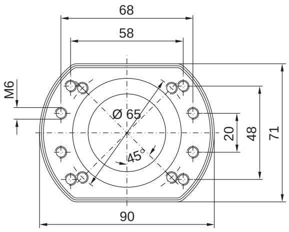
With two drilling patterns for
a) Rittal Command Panel
b) Complete Control Panel

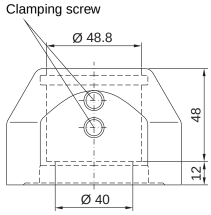
Material:
Die-cast zinc

Configuration:
Seal and 2 clamping screws for support section CP-S.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.0 (8.99)	**6501.060**
7024	1.0 (8.99)	**6501.070**

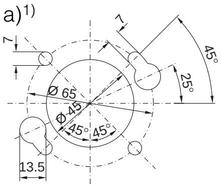
* Maximum load 400 N (40 kg/88.18 lbs).


68
58
M6
Ø 65
45°
20
48
71
90

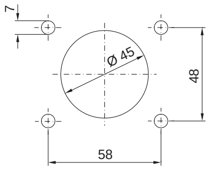

Clamping screw
Ø 48.8
48
12
Ø 40

Mounting cutouts

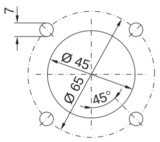
a)[1]


7
7
45°
25°
Ø 65
Ø 45
45°
45°
13.5

b)



Like cutout a), but without lock holes



---

[1] Possible for Optipanel with an installation depth of 100 mm (3.94″) and 150 mm (5.91″). Under 2.3 (see page 49), in addition to the design code number, 1 to 3 please enter an S.

Housing coupling CP-S

For swivel mounting of the enclosure on the vertical section of the support arm system.

With two drilling patterns for
a) Rittal Command Panel
b) Complete Control Panel

Rotation range:
Approx. 350 °, lockable via clamping lever

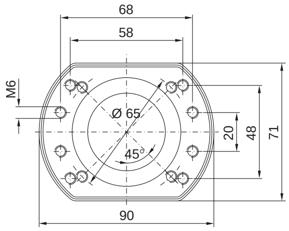
Material:
Die-cast zinc

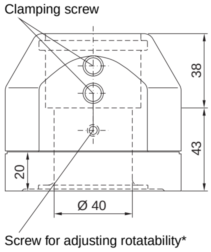
Configuration:
Seal, 2 clamping screws for support section CP-S and clamping lever.

Note:
May also be used as top mounted joint. Load capacity, see page 82.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.1 (2.43)	**6501.040**
7024	1.1 (2.43)	**6501.050**

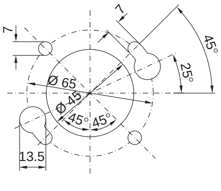
* Depending on the weight of the command panel, this can be used to make rotation easier or harder.


68
58
M6
Ø 65
45°
20
48
71
90

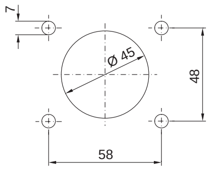

Clamping screw
38
43
20
Ø 40
Screw for adjusting rotatability*

Mounting cutouts

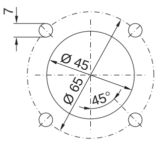
a)[1]


7
7
45°
25°
Ø 65
Ø 45
45°
45°
13.5

b)



Like cutout a), but without lock holes



---

[1] Possible for Optipanel with installation depth 100 mm (3.94″) and 150 mm (5.91″). Under 2.3 (see page 49), in addition to the design code number, 1 to 3 please enter an S.

Tilting enclosure attachment, top mounting

For mounting on:
- IW worktop, prepared for enclosure attachment CP-L, round, see page 106.
- Surfaces
- Enclosure attachment/coupling CP-L rectangular, see page 106, 109
- Attachment/housing coupling CP-S [1], see page 90.

To fit enclosures up to 20 kg (44.09 lbs) with cutout:
- CP-S
- CP-L rectangular,
- CP-L round,
- VESA Standard 75

With cable tube for protected cable entry.

Tilt angle:
+100°/–60°, lockable in 7.2° increments via clamping lever and may be limited to +100°/–15° with the included stop screw.

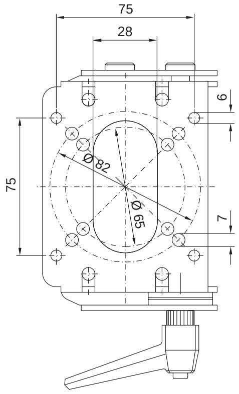
Material:
Sheet steel, painted

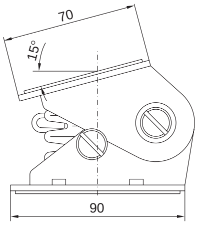
Configuration:
Installation hardware and plastic bellows section.

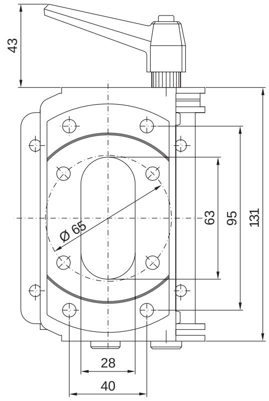
Color RAL	Weight kg (lbs)	**Part No.** **IW**
7024	0.8 (1.76)	**6902.670**

Accessories:

IW worktops prepared
for enclosure attachment,
see page 162/163.







---

[1] May also be used as a tilting adaptor +100°/–60° for CP-S.

Support section CP-S, stainless steel

Seven standard part numbers available off the shelf, which may be adapted to your individual requirements by cutting to length.

Material:
Type 304 stainless steel

Finish:
Brushed, 240 grain

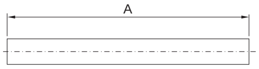
Dimensions:
External diameter: 48 mm (1.89″)
Wall thickness: 3.6 mm (0.14″)

Other sizes to order available on request.

Order example:
U-shaped = CP 6660.200
Dimension A = 300 mm (11.81″)
Dimension B = 800 mm (31.50″)
Dimension C = 240 mm (9.45″)

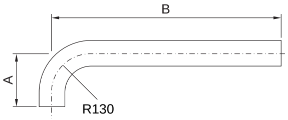
The minimum dimensions must be adhered to, because of the bending radius and insertion depth of the enclosure attachment, housing coupling and wall/base mountings.

Straight
$A_{\text{min.}}$ = 100 mm (3.94″),
$A_{\text{max.}}$ = 2000 mm (6.56″)



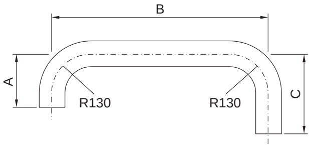
A mm (inches)	Weight kg (lbs)	**Part No. CP**
500 (19.69)	2.0 (4.41)	**6660.050**
1000 (39.37)	3.9 (8.60)	**6660.010**
2000 (78.74)	7.8 (17.20)	**6660.020**
(To specifications) A =	3.9 (8.60) kg/m	**6660.000***

L-shaped
$A_{\text{min.}} = B_{\text{min.}}$ = 240 mm (9.45″),
$B_{\text{max.}}$ = 1500 mm (59.06″)



A mm (inches)	B mm (inches)	Weight kg (lbs)	**Part No. CP**
240 (9.45)	500 (19.69)	2.6 (5.73)	**6660.110**
500 (19.69)	1000 (39.37)	2.6 (5.73)	**6660.120**
To specifications A =	To specifications B =	3.9 (8.60) kg/m	**6660.100***

U-shaped
$A_{\text{min.}} = C_{\text{min.}}$ = 240 mm (9.45″),
$B_{\text{min.}}$ = 410 mm (16.14″),
$B_{\text{max.}}$ = 1500 mm (59.06″)



A mm (inches)	B mm (inches)	C mm (inches)	Weight kg (lbs)	**Part No. CP**
240 (9.45)	800 (31.50)	800 (31.50)	6.6 (14.55)	**6660.210**
240 (9.45)	500 (19.69)	500 (19.69)	4.3 (9.48)	**6660.220**
To specifications A =	To specifications B =	To specifications C =	3.9 (8.60) kg/m	**6660.200***

* Extended delivery times

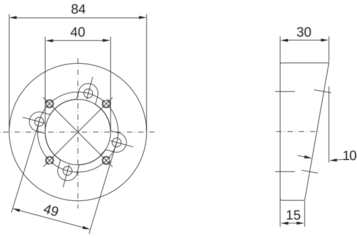
Tilting adaptor, 10° CP-S, stainless steel

For mounting between the Command Panel and
- Enclosure attachment CP 6664.500
  or
- Housing coupling CP 6664.000

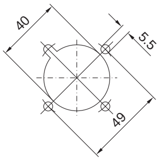
Material:
Type 304 stainless steel

Configuration:
Seal and installation hardware.

Weight kg (lbs)	Part No. CP
0.7 (1.54)	**6664.100**



Mounting cutout
Enclosure:



Enclosure attachment CP-S, stainless steel

For rigid attachment of the enclosure to the support section.

Material:
Type 304 stainless steel

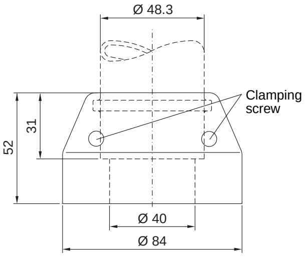
Configuration:
Seal and 2 clamping screws for support section CP-S, stainless steel.

Note:
For assembly of a modular pedestal (see page 144) 2 of these are required.

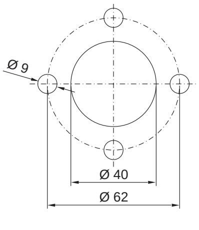
Weight kg (lbs)	Part No. CP
1.3 (2.87)	**6664.500**

+ Accessories:

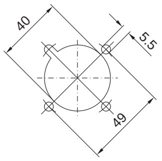
Enclosure reinforcement,
see page 218.



Mounting cutout
for pedestal, bottom



Mounting cutout
Enclosure



Housing coupling CP-S, stainless steel

For mounting on the vertical part of the support arm system.

Rotation range:
Approx. 350 °, lockable via knurled screw.

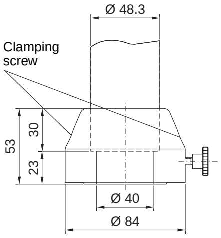
Material:
Type 304 stainless steel

Configuration:
Seal and 2 clamping screws for support section CP-S, stainless steel.

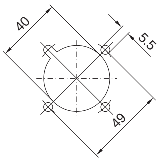
Weight kg (lbs)	Part No. CP
1.1 (2.43)	**6664.000**

+ Accessories:

Enclosure reinforcement,
see page 218.



Mounting cutout
Enclosure



Support arm system CP-S

Stainless steel

Wall/base mounting, rigid, CP-S stainless steel

For attaching the support arm system to vertical or horizontal surfaces.

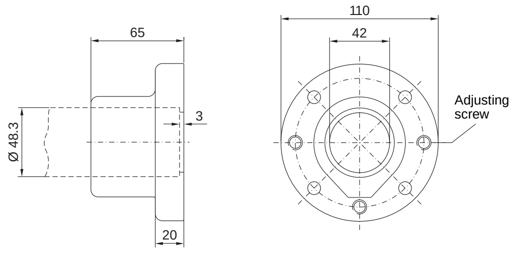
Material:
Type 304 stainless steel

Configuration:
Seals, 3 adjusting screws to compensate for any irregularities, and 2 clamping screws for support section CP-S, stainless steel.

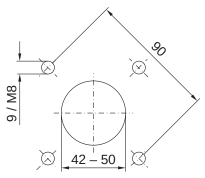
Weight kg (lbs)	Part No. CP
1.7 (3.75)	**6663.000**

Accessories:

Wall consoles,
see page 95.



Mounting cutout



Rear fastening

Swivel base mount, CP-S stainless steel

For external mounting on
- Horizontal surfaces
- Wall console (CP 6663.500 only).

Rotation range:
Approx. 350 °, lockable via knurled screw.

Material:
Type 304 stainless steel

Configuration:
Seals and 2 clamping screws for support section CP-S, stainless steel.

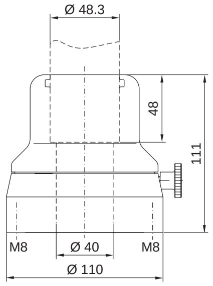
Note:
Rotation range may be limited in 60° increments using a limit plate, supplied loose.

Attachment	Weight kg (lbs)	Part No. CP
Rear M8 thread	3.9 (8.60)	**6663.500**
Front hole Ø 9 mm (0.35″)	4.5 (9.92)	**6663.400**

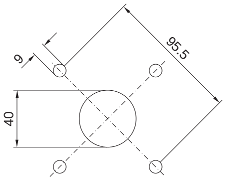
Accessories:

Wall consoles for base mounting
(CP 6663.500)
see page 95.

Rear attachment CP 6663.500

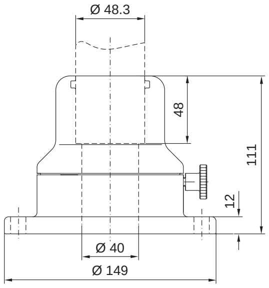


Mounting cutout

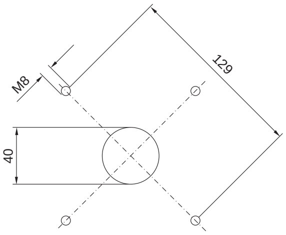


Front fastening

Front attachment CP 6663.400



Mounting cutout



Rear fastening
Example: CP 6665.000 + CP 6663.000

Wall console CP-S, stainless steel

With holes for mounting:

- Swivel base mount, CP-S (CP 6663.500) with 4 screws
- Wall/base mounting, rigid, CP-S (CP 6663.000) with 4 screws and nuts

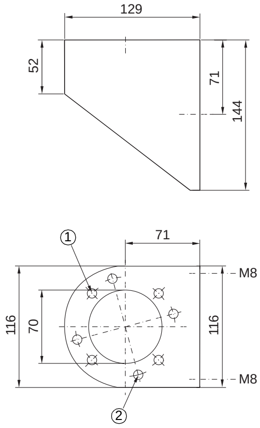
Material:
Type 304 stainless steel

Finish:
Brushed, 240 grain

Configuration:
Seals and installation hardware.

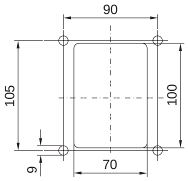
Attachment	Weight kg (lbs)	**Part No. CP**
Rear M8 thread	1.5 (3.31)	**6665.000**
Front hole Ø 9 mm (0.35″)	1.5 (3.31)	**6665.500**

Rear fastening


129
52
71
144
①
71
M8
116
70
116
M8
②

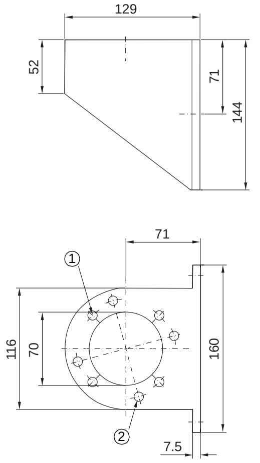
① = hole for CP 6663.000
② = hole for CP 6663.500

Mounting cutout


90
105
100
9
70

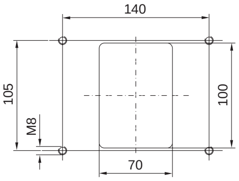
Front fastening
Example: CP 6665.500 + CP 6663.500

Front fastening


129
52
71
144
71
①
116
70
160
②
7.5

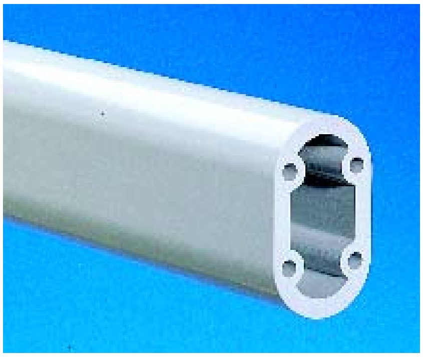
① = hole for CP 6663.000
② = hole for CP 6663.500

Mounting cutout


140
105
M8
100
70

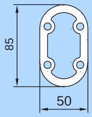
Support arm system CP-L . . .

. . . compact elegance!



CP-L

Material:
Aluminum



Support arm system CP-L

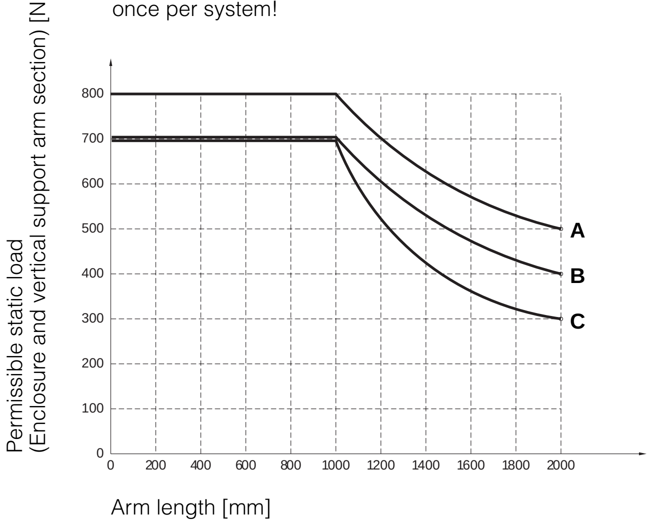
This support arm system combines compact sizes and elegant styling with excellent load capacity for small and medium-sized enclosures. All moving parts have a maintenance-free friction bearing.

Tilting adaptors, enclosure attachments and couplings may optionally be mounted on the top or bottom of the enclosure. **These components are not suitable for use as the base point of a support arm system.** For the swivel configuration we recommend the pillar with corresponding components.

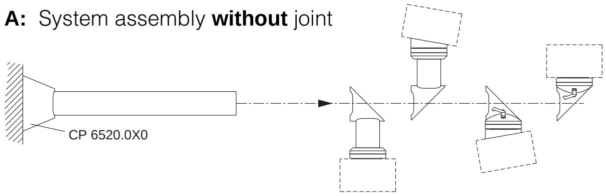
US patent no. 5,460,894
German patent no. 43 31 124
French Patent no. 94 10 806
Ital. patent no. 01275022
Jap. patent no. 2730621

Load capacity CP-L:

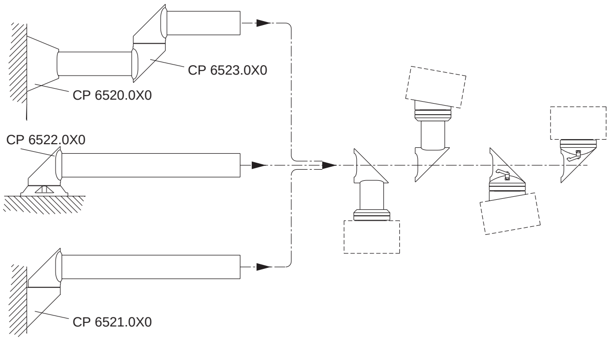
Permissible load depending on system configuration
Intermediate hinge CP 6523.0X0 should only be used once per system!



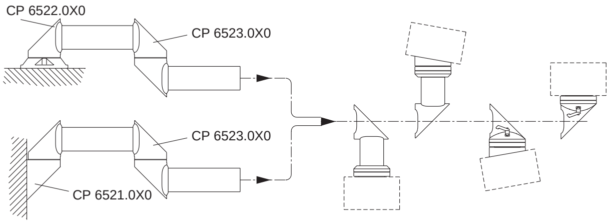
A: System assembly **without** joint



B: System assembly with **one** joint



C: System assembly with **two** joints

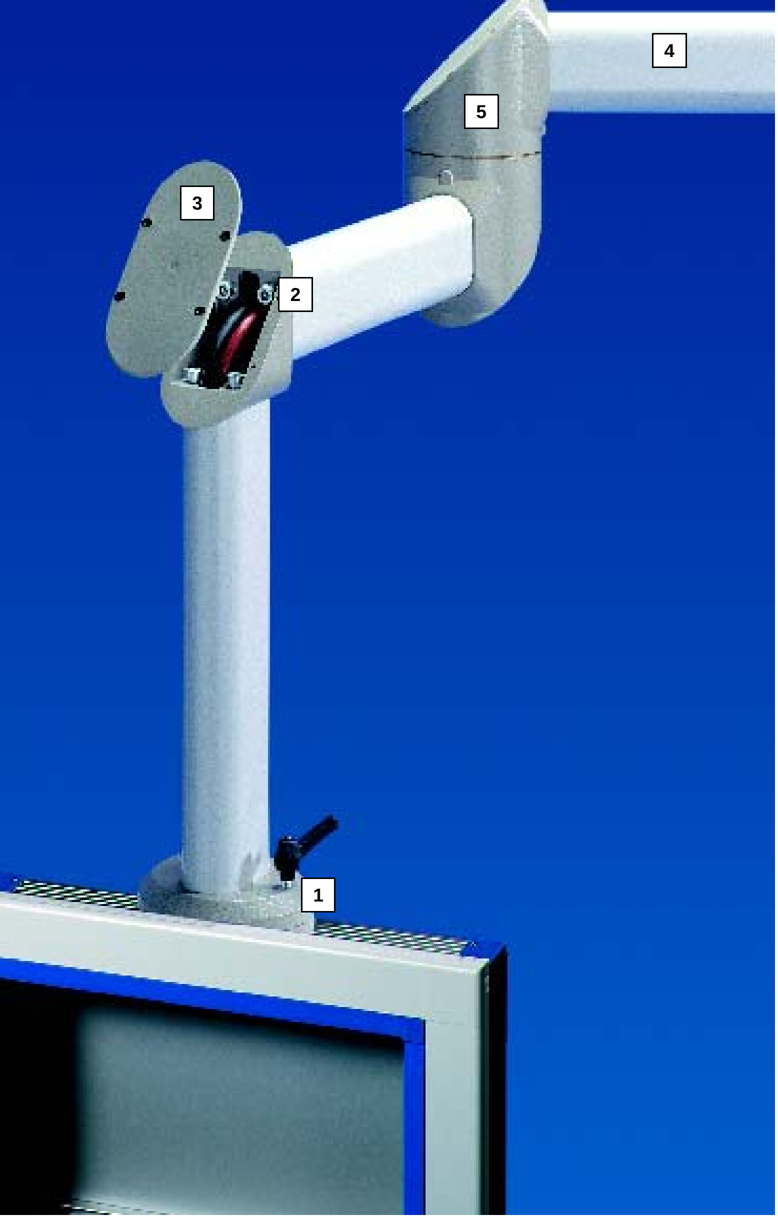


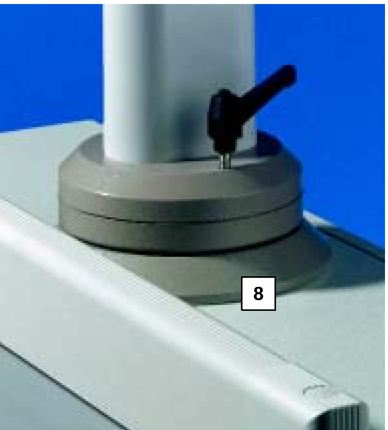
Support arm system CP-L 98 – 115

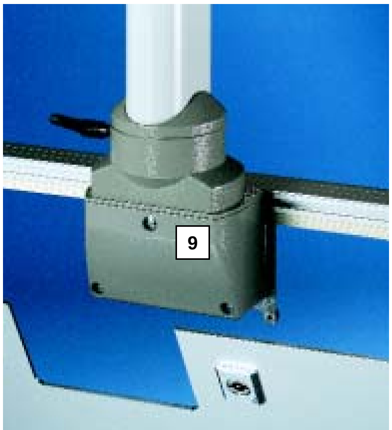
Fast selection 98 – 99

Support arm, height adjustable 100 – 101

CP-L components 102 – 115







1 Housing coupling for swivel mounting of the enclosure on the vertical part of the support arm system, with the enclosure either suspended or top-mounted.

2 Self-tapping screws for individual configuration without the need for time-consuming thread tapping.

3 Plastic cover with seal facilitates easy access to the installed cables.

4 Extruded aluminum section of high bending resistance, easily adapted to individual situations by cutting to length.

5 Intermediate hinge for vertically hinged connection of horizontal support sections within the support arm system.

6 A high load capacity and a stylish design are combined by connecting systems CP-L and CP-XL with the 90° angle adaptor.

7 Easily positioned at any height – thanks to the height-adjustable CP-L support arm.

8 The CP-L system is also used in deep enclosures with CP-XL connection. The CP-L/CP-XL connection adaptor makes the connection.

9 Even super-slimline Optipanels are no problem: the connection console provides the interface to the components of the CP-L support arm system.

Fast selection

It's so easy!

Make a simple sketch showing the basic form of the support arm. Next, select the corresponding support arm components. Start at **1** "system start" by selecting the enclosure cutout which best describes your requirements.

▶ Continue with CP-L according to the item numbers.

System changes are indicated by the color.

▶ Blue = CP-S

▶ Violet = CP-XL

System continuation/system end:

all directions

vertical

horizontal

around a corner

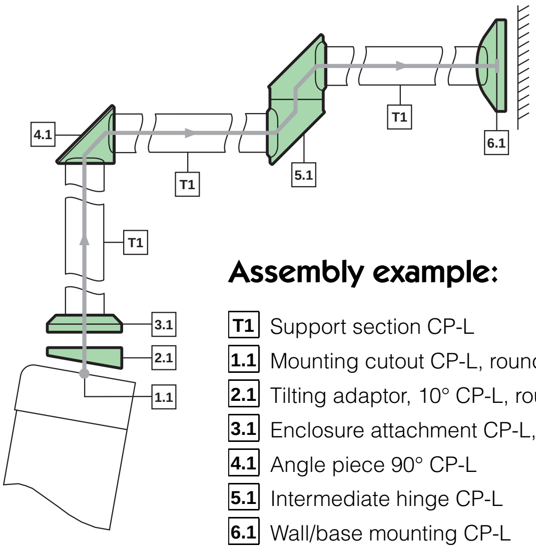
tiltable or

rotatable components

From item **3** a support section is required between each component (minimum length approx. 100 mm (3.94″), for wall/floor mounting approx. 160 mm (6.30″)).
The cross-sections indicate the installation position(s).

X = 0 (RAL 7030)

X = 1 (RAL 7024)

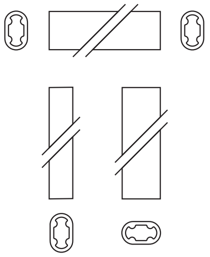


Assembly example:

- **T1** Support section CP-L
- **1.1** Mounting cutout CP-L, round
- **2.1** Tilting adaptor, 10° CP-L, round
- **3.1** Enclosure attachment CP-L, round
- **4.1** Angle piece 90° CP-L
- **5.1** Intermediate hinge CP-L
- **6.1** Wall/base mounting CP-L

T Support sections

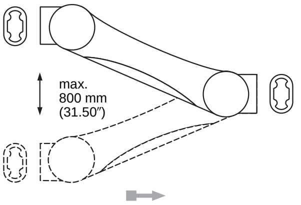
T1 support section CP-L



Length mm (inches)	Color RAL	**Part No. CP**
250 (9.84)	7035	6509.000
500 (16.69)	7035	6511.000
1000 (39.37)	7035	6513.000
2000 (78.74)	7035	6515.000
250 (9.84)	9006	6709.010
500 (16.69)	9006	6511.010
1000 (39.37)	9006	6513.010
2000 (78.74)	9006	6515.010

See page 102

T2 support arm, height-adjustable, CP-L

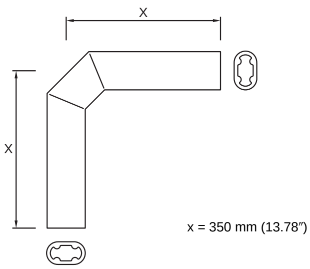


Color: RAL 7024/9006

Weight range kg (lbs)	Length mm (inches)	**Part No. CP**
10 – 20 (22.05 - 44.09)	962 (37.87)	6510.210
	1032 (40.63)	6510.260
19 – 30 (41.89-66.14)	958 (37.72)	6510.310
	1028 (40.47)	6510.360

See page 100 – 101

T3 support arm bracket 90° CP-L



Color RAL	**Part No. CP**
7035	6519.000
9006	6519.010

See page 102

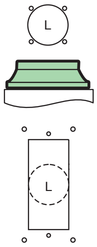
1 System start

All options see page 80 – 81

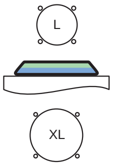
1.1 Mounting cutout CP-L, round

▶ **2.1 2.2 3.1 3.2 3.3**

1.2 Connection plate CP-L with connection for CP-L
CP 6528.2X0, see page 219



1.3 Busbar connection adaptor CP-L to CP-XL
CP 6528.000, see page 104



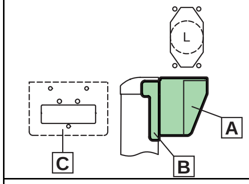
1.4 Mounting cutout CP-L, rectangular

▶ **2.3 2.4 3.4 3.5 3.6**

1.5 Connection console CP-L rectangular A

CP 6508.0X0
on Optipanel support plate **B**
CP 6508.100

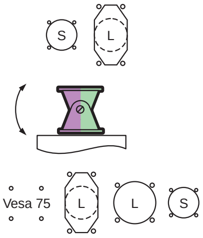
Other enclosures with mounting cutout **C** for connection console see page 108 – 109



1.6 Enclosure attachment, tilting, top mounting*

RAL 7024

IW 6902.670, see page 91



▶ **3.4 3.5**

▶ **CP-S** s. p. 85

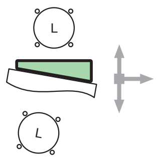
---

* May also be used rotated through 180°, e.g. from CP-L rectangular or CP-S to CP-L round.

2 Tilting adaptor

2.1 Tilting adaptor 10° CP-L, round

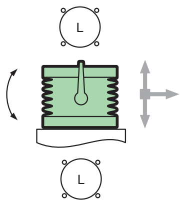
CP 6527.0X0, see page 111



▶ 3.1 3.2 3.3

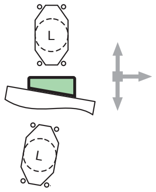
2.2 Tilting adaptor +/– 45° CP-L, round

CP 6529.0X0, see page 112



2.3 Tilting adaptor 10° CP-L, rectangular

CP 6527.1X0, see page 111

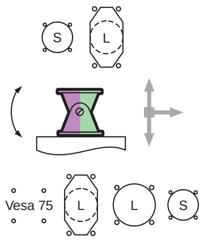


▶ 3.4 3.5 3.6

2.4 Enclosure attachment, tilting, top mounting*

RAL 7024

IW 6902.670, see page 91



▶ 3.4 3.5

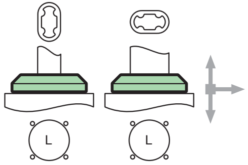
▶ **CP-S** s. p. 85

* May also be used rotated through 180°, e.g. from CP-L rectangular or CP-S to CP-L round.

3 Enclosure attachments

3.1 Enclosure attachment CP-L round

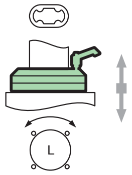
CP 6525.5X0, see page 106



▶ 4 5 6

3.2 Housing coupling CP-L, round

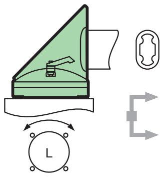
CP 6525.0X0, see page 109



▶ 4.1 4.3 6.1 6.2 6.3* 6.4*

3.3 Angle coupling 90° CP-L, round

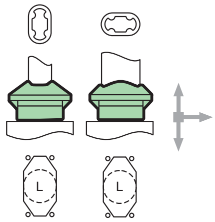
CP 6526.0X0, see page 112



▶ 4.1 5 6

3.4 Enclosure attachment CP-L, rectangular

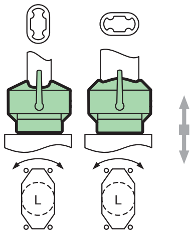
CP 6525.6X0, see page 106



▶ 4.1 4.2 4.3 5.1 6.1 6.2 6.3* 6.4*

3.5 Housing coupling CP-L, rectangular

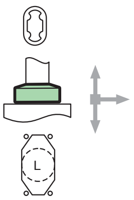
CP 6525.1X0, see page 109



▶ 4.1 6.1 6.2 6.3* 6.4*

3.6 Enclosure attachment CP-L, rectangular, locatable

CP 6525.2X0, see page 107



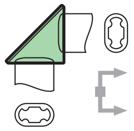
▶ 4.2 5.1 6.1 6.2

* via T3 support arm bracket 90° CP-L

4 Angle components

4.1 Angle piece 90° CP-L

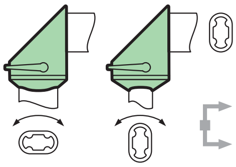
CP 6524.0X0, see page 115



▶ 5 6

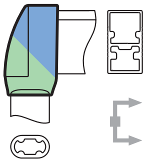
4.2 Angle joint 90° CP-L

CP 6524.2X0, see page 113



4.3 Angle adaptor 90° CP-L to CP-XL

CP 6528.100, see page 103

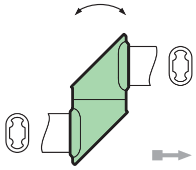


▶ **CP-XL** s. p. 118 119

5 Intermediate hinge

5.1 Intermediate hinge CP-L

CP 6523.0X0, see page 114

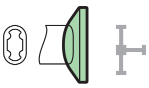


▶ 4.1 6.1 6.2

6 System end

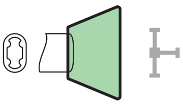
6.1 Wall/base mounting, small, CP-L

CP 6520.5X0, see page 105



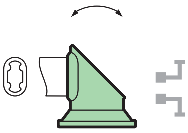
6.2 Wall/base mounting, large, CP-L

CP 6520.0X0, see page 105



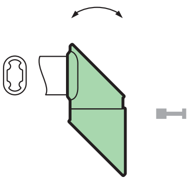
6.3 Top mounted joint CP-L

CP 6522.0X0, see page 114



6.4 Wall mounted hinge CP-L

CP 6521.0X0, see page 113



Notes:

Regarding T2
Support arm, height adjustable should always be inserted as the first horizontal component after the enclosure.

Regarding 5.1 / 6.3 / 6.4
It is always advisable to use only one intermediate hinge or one wall mounted hinge. Two joints will restrict load capacity and make positioning the Command Panel more difficult.

Regarding 4.1
Two angle pieces may also be used together.

Support arm, height adjustable

Version 20 kg

Version 30 kg

Support arm, height adjustable, CP-L

Offers enhanced ergonomics thanks to:

- Adjustment range
  - – for tall and short operators
  - – for seated and standing work

  adjustable to up to 800 mm (31.50″) as required via an adjusting screw at the front of the support arm.
- Precise counter balance of the compression spring to the enclosure weight via an adjusting screw at the rear of the support arm.
- Complete functional reliabilty – if the compression spring breaks, the arm will remain in position.
- Plastic casing clips off for access to the integral U-channel cable tray.
- Tilting angle of the mounted enclosure is identical in every height position.

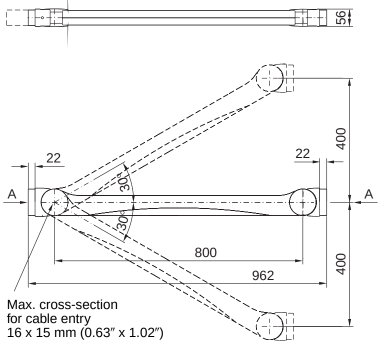
Material:
Steel

Configuration:
Round tube with compression spring relief and U section cable tray, 2 threaded connectors, plastic casing, including installation hardware.

Note:
Connection pieces for other support arms available on request.

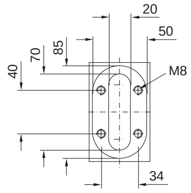
Overall length mm (inches)	Color RAL	Weight range kg (lbs)	**Part No. CP**
962 (37.87)	9006	10 – 20 (22.05 – 44.09)	**6510.210**
958 (37.72)	9006	19 – 30 (41.89 – 66.14)	**6510.310**

Version 20 kg/44.09 lbs

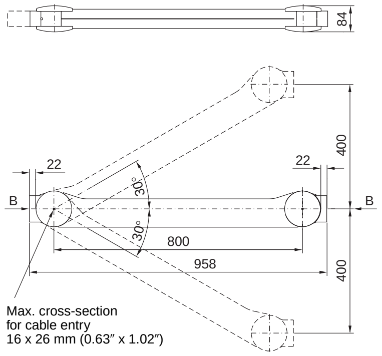


Max. cross-section
for cable entry
16 x 15 mm (0.63″ x 1.02″)

View A

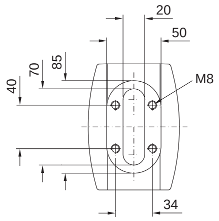


Version 30 kg/66.14 lbs

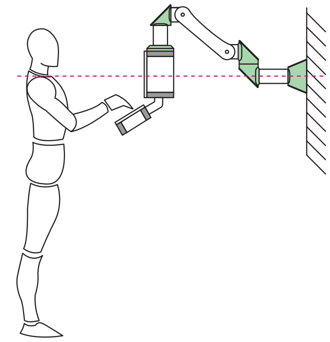


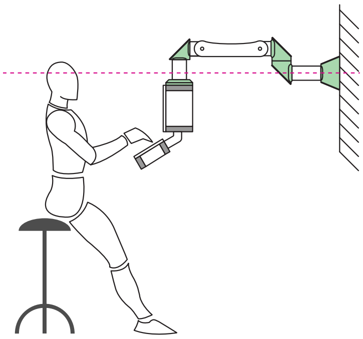
Max. cross-section
for cable entry
16 x 26 mm (0.63″ x 1.02″)

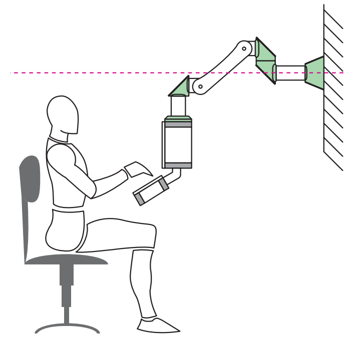
View B



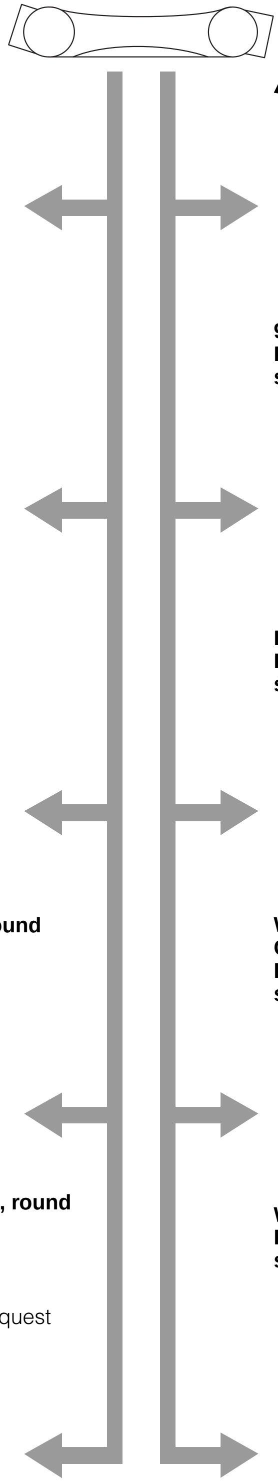
Support arm, height adjustable



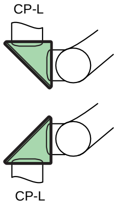




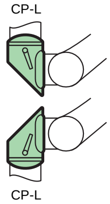
The versatile combination options with horizontal mounting are illustrated in this diagram.



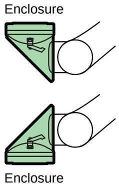
Enclosure side



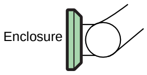
90° angle piece CP-L
Part No. 6524.0X0*,
see page 115.



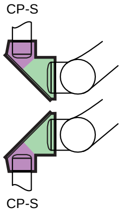
90° articulated joint CP-L
Part No. 6524.2X0*,
see page 113.



Angle coupling 90° CP-L, round
Part No. 6526.0X0*,
see page 112.

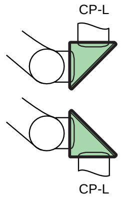


Enclosure attachment CP-L, round
Part No. 6525.5X0*,
see page 106.
Enclosure with rear
support arm cutout/
reinforcement available on request

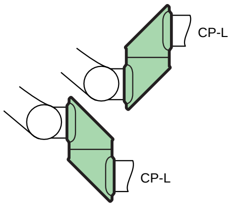


Angle adaptor 90°
CP-L to CP-S
Part No. 6501.080 (RAL 7030),
Part No. 6501.090 (RAL 7024),
see page 89.

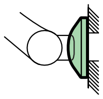
Attachment side



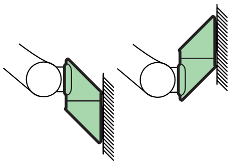
90° angle piece CP-L
Part No. 6524.0X0*,
see page 115.



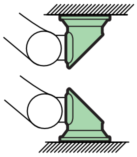
Intermediate hinge CP-L
Part No. 6523.0X0*,
see page 114.



Wall/base mounting, small, CP-L
Part No. 6520.5X0*,
see page 105.



Wall mounted hinge CP-L
Part No. 6521.0X0*,
see page 113.



Top mounted joint CP-L
Part No. 6522.0X0*,
see page 114.

* Key:
X = 0 RAL 7030
X = 1 RAL 7024

Aluminum

Support arm section CP-L

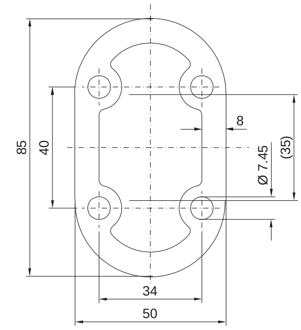
For assembling a support arm system. The connection components are attached to the support section parts with self-tapping screws, which means that the support section can be cut to any required length.

Material:
Extruded aluminum section

Note:
Load information, see page 96.

US patent no. 5,460,894
German patent no. 43 31 124
French patent no. 94 10 806
Ital. patent no. 01275022
Jap. patent no. 2730621

Length mm (inches)	Weight kg (lbs)	**RAL 7035 Part No. CP**	**RAL 9006 Part No. CP**
250 (9.84)	1.3 (2.87)	**6509.000**	**6509.010**
500 (19.69)	2.6 (5.73)	**6511.000**	**6511.010**
1000 (39.37)	5.1 (11.24)	**6513.000**	**6513.010**
2000 (78.74)	10.2 (22.49)	**6515.000**	**6515.010**



Support arm angle 90° CP-L

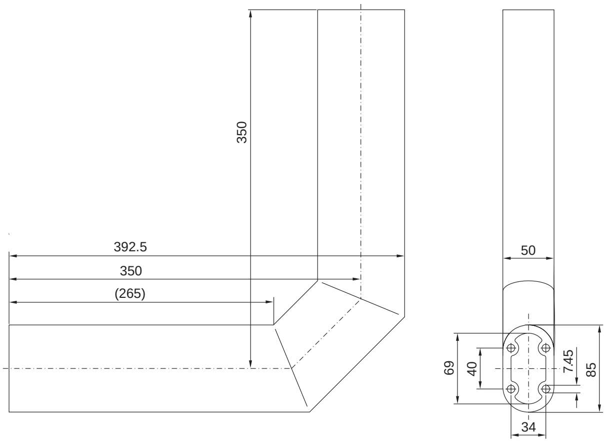
The alternative for configuring compact support arm systems ensures easier assembly and an improved visual appearance, particularly in conjunction with the small wall/base mounting (CP 6520.5X0). Attachment of the support arm components on the bracket is achieved using self-tapping screws, which means that the support section can be cut to any length.

Material:
Extruded aluminum section

Color RAL	Weight kg (lbs)	**Part No. CP**
7035	3.4 (7.50)	**6519.000**
9006	3.4 (7.50)	**6519.010**

Accessories:

Wall/base mounting, small (CP 6520.5X0), see page 105.



Angle adaptor 90° CP-L to CP-S

The connecting component between:

- the horizontal support section CP-L and
- the vertical support section CP-S

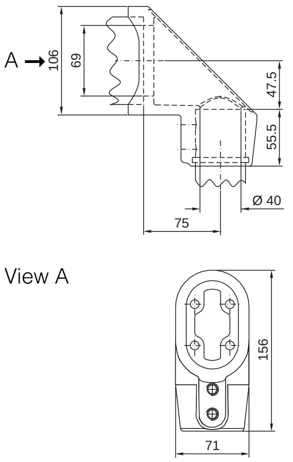
Outlet optionally at the top or bottom if this configuration is chosen for static or visual reasons. The removable cover ensures easier cable entry.

Material:
Cast aluminum

Configuration:
Seal and self-tapping screws for CP-L and clamping screws for CP-S support section attachment.

Note:
Mounting component for signal pillar available on request.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.0 (2.20)	**6501.080**
7024	1.0 (2.20)	**6501.090**



Angle adaptor 90° CP-XL to CP-L

The connecting component between:

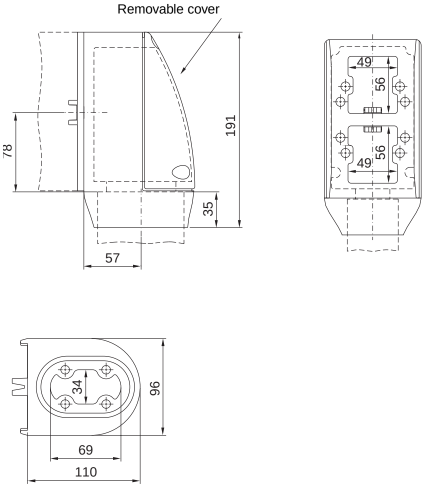
- horizontal support section CP-XL and
- vertical support section CP-L

Outlet optionally at the top or bottom if this configuration is chosen for static or visual reasons. The removable cover ensures easier cable entry.

Material:
Cast aluminum

Configuration:
Seals and self-tapping screws for CP-L / CP-XL support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.7 (3.75)	**6528.100**



Connection adaptor CP-L to CP-XL

For mounting between:

- Enclosure with support arm connection CP-L

and

- Support arm system CP-XL.

May also be used for the attachment of Command Panels with cutout for CP-L directly to machines and systems without a support arm.

Assembly sequence:

- Mount the connection adaptor on the supporting structure
- Mount the enclosure and tighten the screws

The seal to the supporting structure is available on request, if required.

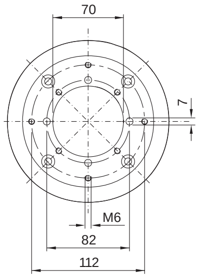
Material:
Cast aluminum

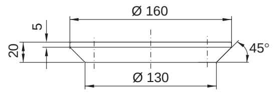
Configuration:
Seal and installation hardware.

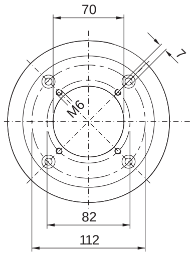
Weight kg (lbs)	Color RAL	Height mm (inches)	**Part No. CP**
0.6 (1.32)	7030	20 (0.78)[1]	**6528.000**
0.7 (1.54)	7030	55 (2.17)[2]	**6528.500**

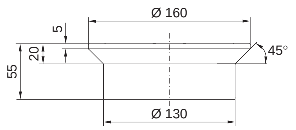
[1] Provided the load permits, may also be mounted between the enclosure with support arm connection CP-XL and support arm system CP-L.

[2] For Command Panel VIP 6000, see page 22 – 23 3.1 Command Panel, design code number 1 to 5.

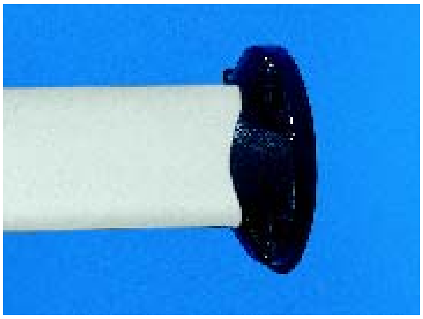








Aluminum



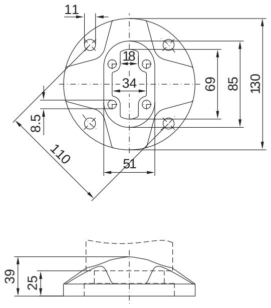
Wall/base mounting, small, CP-L

For rigid attachment of the support arm system to vertical or horizontal surfaces. Particularly suitable for the configuration of compact support arm systems with cable infeed from the inside.

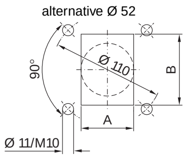
Material:
Cast aluminum

Configuration:
Seals, adjustment set for support section and self-tapping screws for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	0.6 (1.32)	**6520.500**
7024	0.6 (1.32)	**6520.510**


11
18
34
69
85
130
8.5
110
51
39
25

Mounting cutout


alternative Ø 52
90°
Ø 110
B
A
Ø 11/M10

A = max. 52
B = max. 70

Wall/base mounting, large, CP-L

For rigid attachment of the support arm system to vertical or horizontal surfaces with cable feed from the inside.

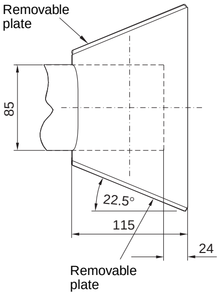
Material:
Cast aluminum

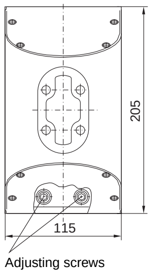
Configuration:
Seals, opportunity for adjustment with grub screws and self-tapping screws supplied loose for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.9 (4.19)	**6520.000**
7024	1.9 (4.19)	**6520.010**

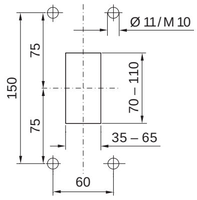
+ Accessories:

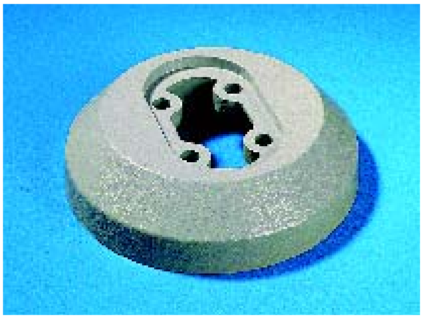
Pillar,
see page 148.

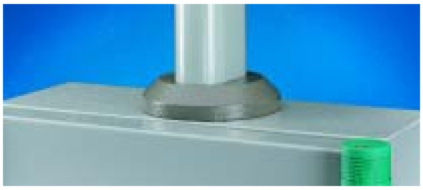

Removable plate
85
22.5°
115
24
Removable plate


205
115
Adjusting screws

Mounting cutout


Ø 11 / M 10
75
150
75
70 – 110
35 – 65
60





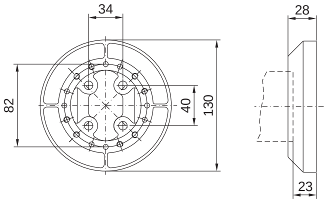
Enclosure attachment CP-L, round

For rigid fastening of the enclosure to the support arm system.

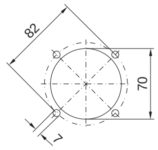
Material:
Die-cast zinc

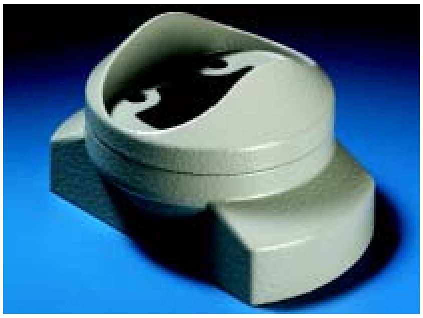
Configuration:
Seals and self-tapping screws for CP-L support section attachment.

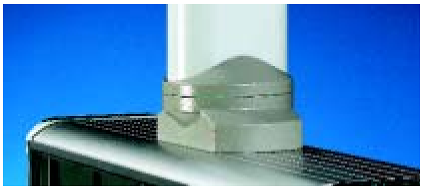
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.0 (2.20)	**6525.500**
7024	1.0 (2.20)	**6525.510**


34
28
82
40
130
23

Mounting cutout
Enclosure CP-L, round







Enclosure attachment CP-L, rectangular

For rigid fastening of the enclosure to the support arm system.

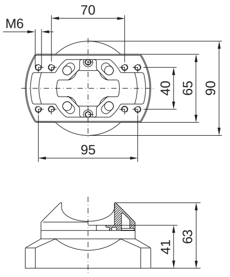
Material:
Die-cast zinc

Configuration:
Seals and self-tapping screws for CP-L support section attachment.

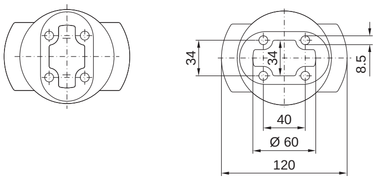
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.0 (2.20)	**6525.600**
7024	1.0 (2.20)	**6525.610**

Accessories:

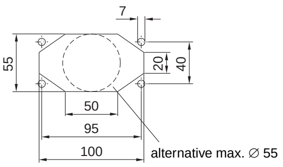
Connection console CP-L, rectangular, see page 108.

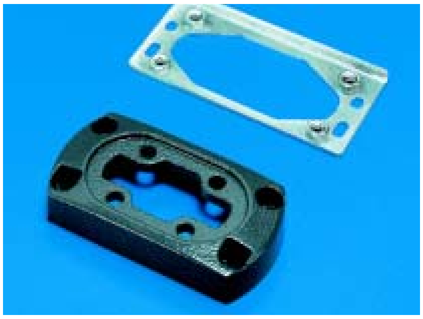

M6
70
40
65
90
95
41
63

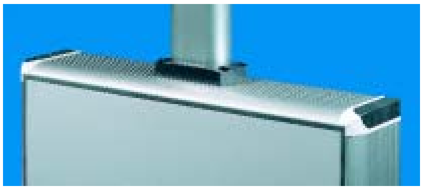
For mounting the enclosure on the support section CP-L optionally


34
34
8.5
40
Ø 60
120

Mounting cutout
Enclosure CP-L, rectangular


7
55
20
40
50
95
100
alternative max. ∅ 55





Enclosure attachment, locatable CP-L, rectangular

For rigid fastening of the enclosure to the support section.
With “lock holes” for easy, secure mounting by just one person:

- Screw the enclosure attachment to the support arm.
- Secure the supporting plate to the inside of the enclosure and pre-fit two screws from the outside.
- Locate the enclosure and tighten the screws.

Suitable for super-slimline enclosures from a depth of 70 mm (2.76″). The design also allows the entry of cables with connectors.

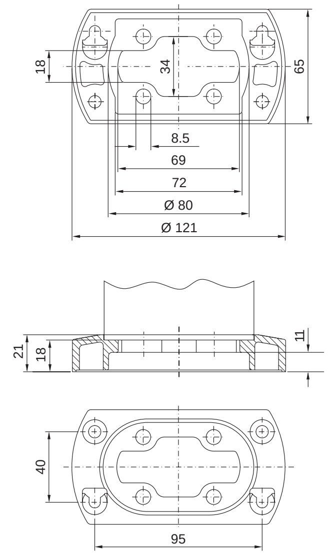
Material:
Enclosure attachment: Die-cast zinc
Support plate: Sheet steel

Configuration:
Seal, support plate and installation hardware.

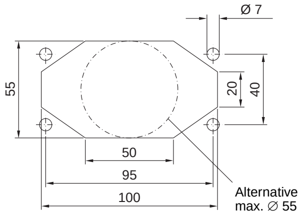
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	0.4 (0.88)	**6525.200**
7024	0.4 (0.88)	**6525.210**

! Additional parts

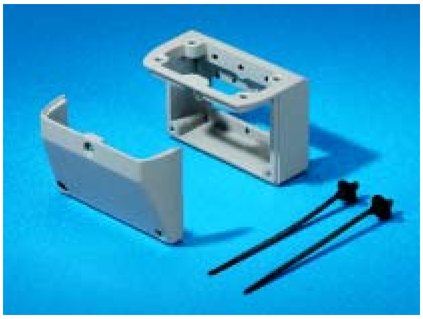
90° articulated joint CP-L, see page 113.



Mounting cutout
Enclosure



Aluminum



Connection console CP-L, rectangular

For rear connection of slimline Command Panels to support arm system CP-L. Removable cover for easy cable entry.

Material:
Cast aluminum

Configuration:
Seals and installation hardware for mounting on the enclosure and 2 cable ties.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	0.7 (1.54)	**6508.000**
7024	0.7 (1.54)	**6508.010**

! Additional parts

Enclosure attachment CP-L, rectangular, see page 106.
Housing coupling CP-L, rectangular, see page 109.
Tilting adaptor, 10° CP-L, rectangular, see page 111.

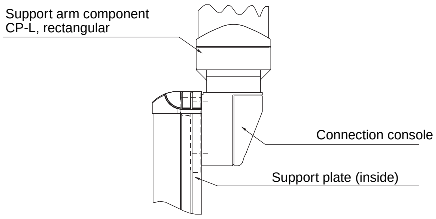
+ Accessories:

Spacer plate (CP 6508.200), available on request.
Support plate Optipanel CP 6508.100, see page 109.

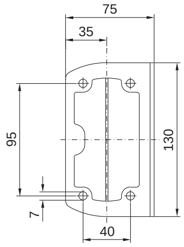
Mounting options

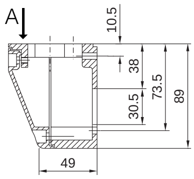
1. For retrofitting* to the Optipanel
In conjunction with the required support plate (see page 109), the connection console is screw-fastened directly to the Optipanel enclosure section. This ensures a stable connection, and the rear panel/door is removable.

* When selecting according to design code number (see page 49, item 2.3, selection **7**), the connection console and support plate are already included in the configuration, and the rear panel and door are equipped with the appropriate cutout.


Support arm component CP-L, rectangular
Connection console
Support plate (inside)

View A

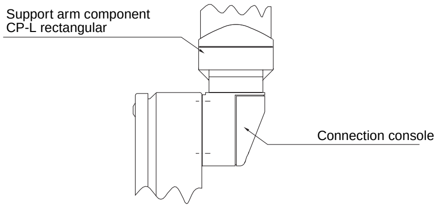

75
35
95
130
7
40

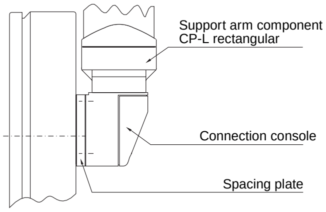

A
10.5
38
30.5
73.5
89
49

2. For other enclosures
e.g.
- Terminal boxes (see HB 30, page 48/49),
- Cast aluminum enclosures (see HB 30, page 40/41)

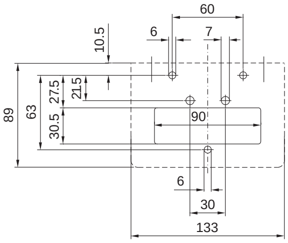
the connection console may be mounted
a) directly, flush with the enclosure edge,
b) with spacer plate CP 6508.200 (available on request)

on the rear panel of the enclosure. Reinforcement of the rear panel should be checked in individual cases.


Support arm component CP-L rectangular
Connection console


Support arm component CP-L rectangular
Connection console
Spacing plate

Mounting cutout


60
6
7
10.5
89
63
27.5
21.5
30.5
90
6
30
133

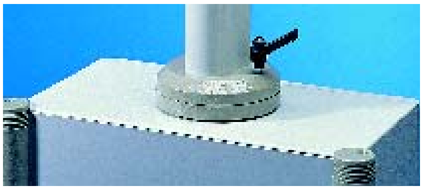
Optipanel support plate

For mounting on the enclosure section. The rear panel or door are recessed in this area, thereby ensuring easy access in case of servicing.

Material:
Cast aluminum

Configuration:
Seals and installation hardware.

Weight kg (lbs)	**Part No. CP**
0.2 (0.44)	**6508.100**



Housing coupling CP-L, round

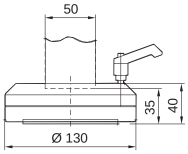
For swivel mounting of the enclosure on the vertical section of the support arm system.

Rotation range:
Approx. 350 °, lockable via clamping lever. By inserting additional tension pins 5 x 18 mm (0.20″ x 0.71″) to ISO 8752, the rotation range may be limited to ±5°, 65°, 95° and 155°.

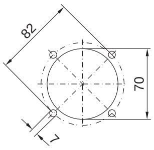
Material:
Die-cast zinc

Configuration:
Seals and self-tapping screws for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.7 (3.75)	**6525.000**
7024	1.7 (3.75)	**6525.010**



Mounting cutout
Enclosure CP-L, round



Housing coupling CP-L, rectangular

For swivel mounting of the enclosure on the vertical section of the support arm system.

Rotation range:
Approx. 350 °, lockable via clamping lever. By inserting additional tension pins 6 x 20 mm (0.24″ x 0.79″) to ISO 8752, the rotation range may be limited to ±5° and ±100°.

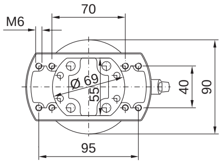
Material:
Die-cast zinc

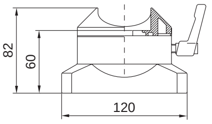
Configuration:
Seals and self-tapping screws for CP-L support section attachment.

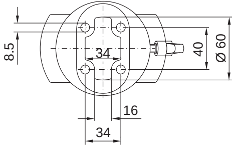
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.4 (3.09)	**6525.100**
7024	1.4 (3.09)	**6525.110**

Accessories:

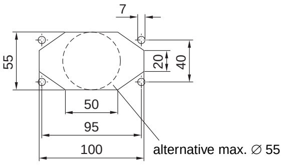
Connection console CP-L, rectangular, see page 108.

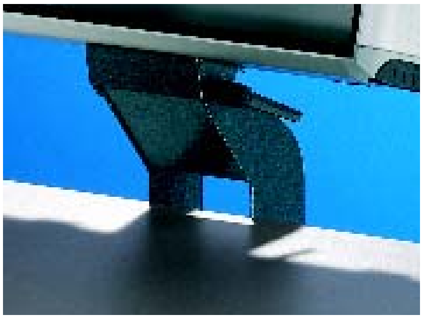






Mounting cutout
Enclosure CP-L,
rectangular





The enclosure attachment can be mounted either on the support arm connection of the Optipanel enclosure or on the underside or rear of any enclosure.

Enclosure attachment, tilting, bottom-mounting CP-L, rectangular

For mounting beneath:
- IW worktop with pedestal
- Sufficiently large surfaces.

To fit enclosures with mounting cutout:
- CP-L, rectangular (e.g. Optipanel) see page 80.

With mounting cutout for connector grommet for sealed cable entry.

Tilt angle:
+40°/–40°, lockable via clamping lever

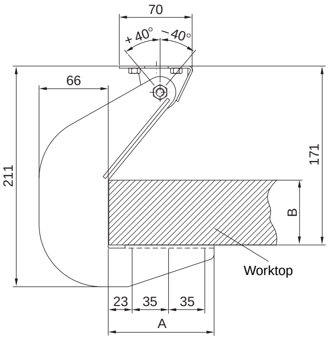
Material:
Sheet steel, painted

Configuration:
Installation hardware

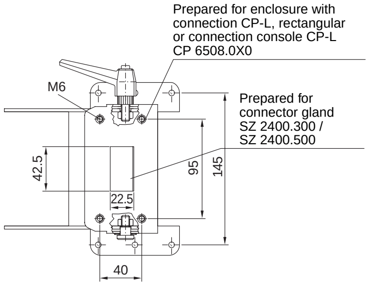
Color RAL	Weight kg (lbs)	**Part No. CP**
7024	1.6 (3.53)	**6902.640**

Accessories:

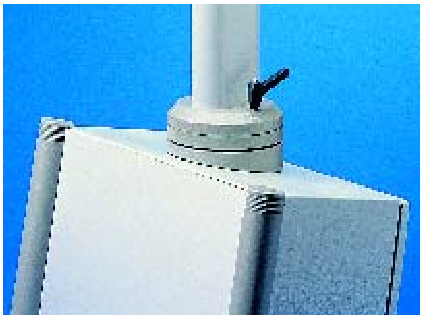
Connector grommet,
see page 220.
IW worktop with pedestal,
see page 162 – 163.


70
+40°
-40°
66
211
171
B
Worktop
23
35
35
A

A = min. 101
B = max. 62


Prepared for enclosure with connection CP-L, rectangular or connection console CP-L CP 6508.0X0
M6
Prepared for connector gland SZ 2400.300 / SZ 2400.500
42.5
95
145
22.5
40

Support arms systems



Tilting adaptor 10° CP-L, round

For mounting between:
- Housing coupling CP-L, round (CP 6525.0X0)

or
- Enclosure attachment CP-L, round (CP 6525.5X0)

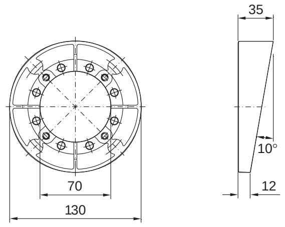
or
- Angle coupling 90° CP-L, round (CP 6526.0X0)

and the Command Panel.

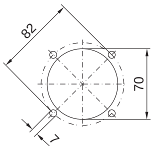
Material:
Die-cast zinc

Configuration:
Seal and installation hardware.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	0.6 (1.32)	**6527.000**
7024	0.6 (1.32)	**6527.010**



Mounting cutout
Enclosure CP-L



Tilting adaptor 10° CP-L, rectangular

For mounting between:
- Housing coupling CP-L, rectangular (CP 6525.1X0)

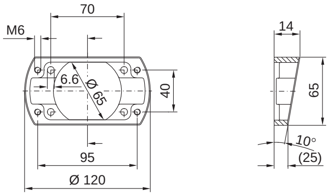
or
- Enclosure attachment CP-L, rectangular (CP 6525.6X0)

and the Command Panel.

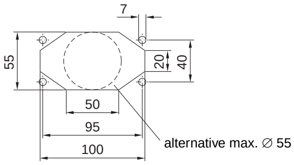
Material:
Die-cast zinc

Configuration:
Seal and installation hardware.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	0.4 (0.88)	**6527.100**
7024	0.4 (0.88)	**6527.110**



Mounting cutout
Enclosure



Aluminum

Tilting adaptor ± 45° CP-L, round

For mounting between:
- Housing coupling CP-L, round (CP 6525.0X0)

or
- Enclosure attachment CP-L, round (CP 6525.5X0)

or
- 90° angle coupling (CP 6526.0X0)

and the Command Panel.

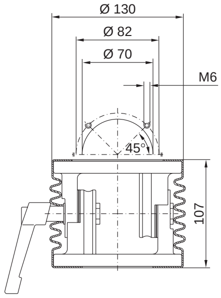
Tilting angle:
Adjustable in 7.5° increments

Material:
Cast aluminum

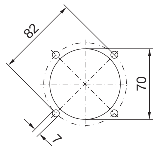
Configuration:
Seal, plastic bellows section and installation hardware.

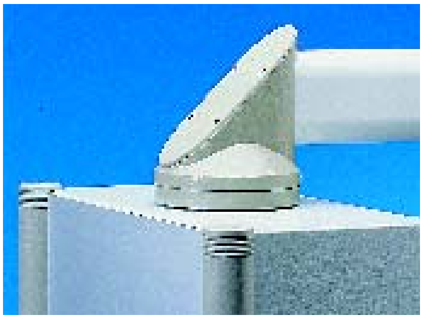
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.3 (2.87)	**6529.000**
7024	1.3 (2.87)	**6529.010**

US patent no. 5,911,393
German patent no. 195 40 298



Mounting cutout
Enclosure CP-L





Angle coupling, 90° CP-L, round

For swivel mounting of the enclosure on the horizontal part of the support arm system. Enclosure may be suspended or top-mounted.
The removable plate enables problem-free cable entry.

Rotation range:
Approx. 350°.
By inserting additional tension pins 5 x 18 mm (0.20″ x 0.71″) to ISO 8752 the rotation range may be limited to ±5°, 65°, 95° and 155°.

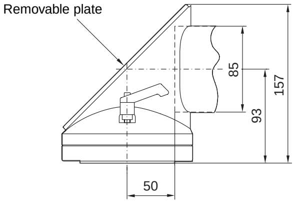
Material:
Aluminum/die-cast zinc

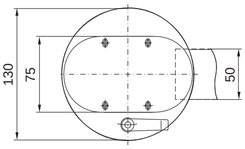
Configuration:
Seals, adjustment set and self-tapping screws for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.9 (4.19)	**6526.000**
7024	1.9 (4.19)	**6526.010**

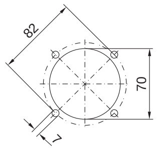
Accessories:

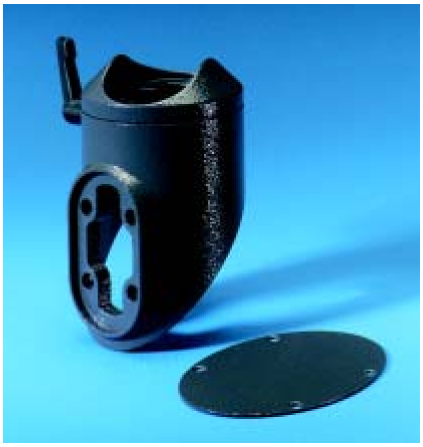
Mounting component for signal pillars (SZ 2375.000),
see page 115.





Mounting cutout
Enclosure CP-L





Angle joint 90°
CP-L

The swivel connection between horizontal and vertical support sections.
With very slimline enclosures, there is no need for the deep housing coupling. With the shallow enclosure attachment (CP 6525.2X0), the support section may also be attached with its wide side.

Rotation range:
Approx. 325°.
Option of limiting the rotation range via the use of additional tension pins 5 x 18 mm (0.20″ x 0.71″) to ISO 8752 to ±54° and ±98°.

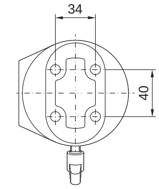
Material:
Aluminum/die-cast zinc

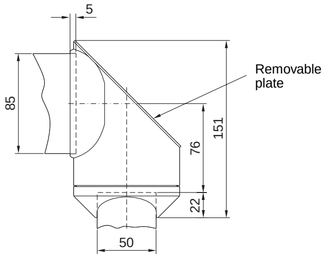
Configuration:
Seals, self-tapping screws for support section attachment and adjustment set.

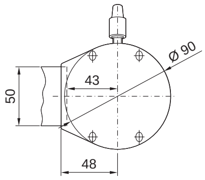
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.2 (2.65)	**6524.200**
7024	1.2 (2.65)	**6524.210**

! Additional parts

Enclosure attachment, locatable, CP-L, rectangular (CP 6525.2X0), see page 107 or enclosure attachment CP-L, rectangular (CP 6525.6X0), see page 106.







Wall mounted hinge
CP-L

For vertically hinged mounting of the support arm on vertical surfaces. The removable plates facilitate problem-free cable routing or cable entry.

Rotation range:
Approx. 350°.
Option of restricting the rotation range in 60° increments and adjusting the mobility of the joint with the screws supplied loose. To lock the joint, the screw for adjusting rotatability ① may be exchanged for standard locking lever M8 x 16.

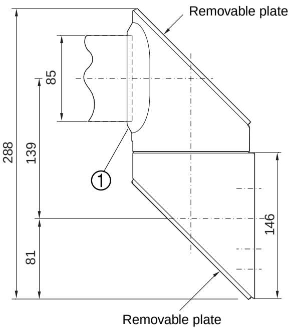
Material:
Cast aluminum

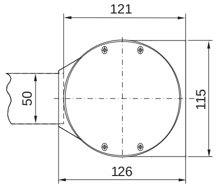
Configuration:
Seals, adjustment via grub screws and self-tapping screws for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	3.2 (7.05)	**6521.000**
7024	3.2 (7.05)	**6521.010**

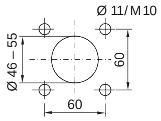
+ Accessories:

Pillar, see page 148.
Mounting component for signal pillars (SZ 2375.020), see page 115.

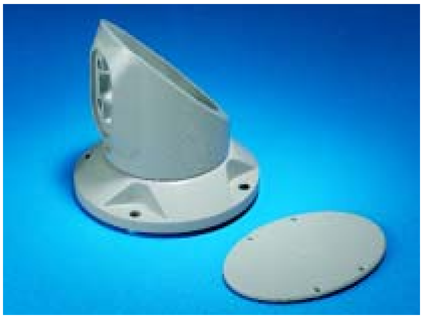




Mounting cutout



US patent no. 5,522,118
German patent no. 44 03 593
French patent no. 94 10902
Ital. patent no. 01274751
Japanese patent no. 2 675 264



Top mounted joint CP-L

For swivel mounting of the support arm system on horizontal surfaces – also suitable for suspending from the ceiling. The removable plate enables simplified cable entry.

Rotation range:
Approx. 350°.
Option of restricting the rotation range in 60° increments and adjusting the mobility of the joint with the screws supplied loose. To lock the joint, the screw may be exchanged for standard clamping lever M8 x 16.

Material:
Cast aluminum

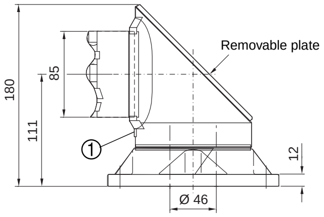
Configuration:
Seals, adjustment set and self-tapping screws for CP-L support section attachment.

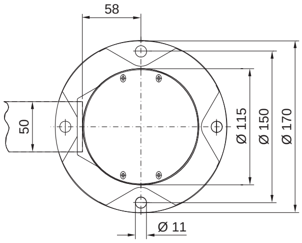
Note:
Not suitable for attaching directly to enclosures.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	3.0 (6.61)	**6522.000**
7024	3.0 (6.61)	**6522.010**

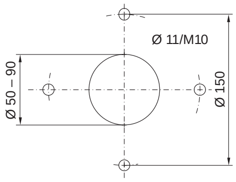
Accessories:

Pillar,
see page 148.
Mounting component for signal pillars (SZ 2375.020),
see page 115.

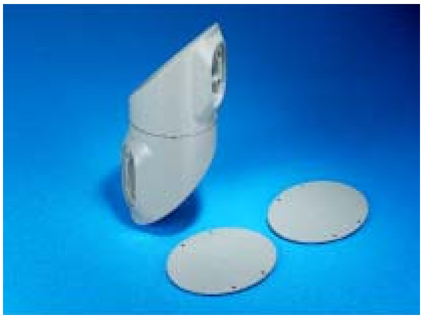


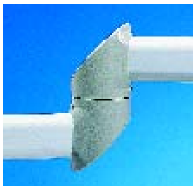


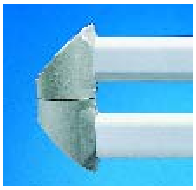
Mounting cutout



① Screw for adjusting rotatability







Intermediate hinge CP-L

For vertically hinged connection of horizontal support sections within the support arm system. The removable plates ensure simple cable entry.

Rotation range:
Approx. 350°.
Option of restricting the rotation range in 60° increments with the screws supplied loose.

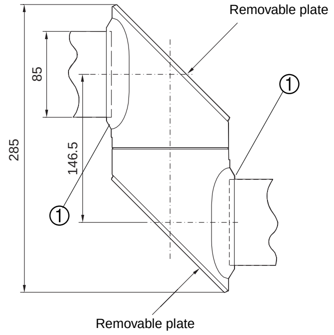
Material:
Cast aluminum

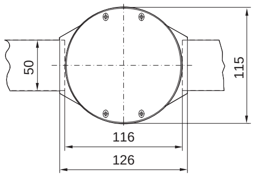
Configuration:
Seals, adjustment set and self-tapping screws for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	3.2 (7.05)	**6523.000**
7024	3.2 (7.05)	**6523.010**

Accessories:

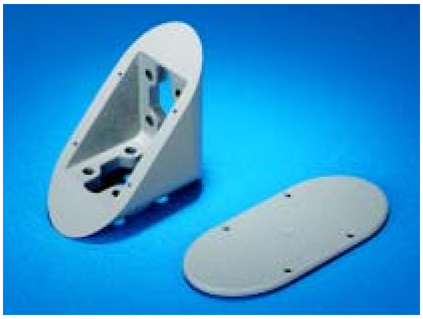
Mounting component for signal pillars (SZ 2375.020), see page 115.





① Screw for adjusting rotatability

US patent no. 5,522,118
German patent no. 44 03 593
French patent no. 94 10902
Ital. patent no. 01274751
Japanese patent no. 2 675 264



Angle piece 90° CP-L

For connecting horizontal and vertical support arm components.
The removable plate ensures easier cable entry.

Material:
Die-cast zinc

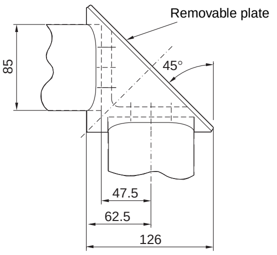
Configuration:
Seals, adjustment set and self-tapping screws for CP-L support section attachment.

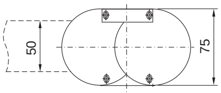
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.4 (3.09)	**6524.000**
7024	1.4 (3.09)	**6524.010**

Accessories:

Mounting component for signal pillars (SZ 2375.000),
see below.

US patent no. 5,533,763
German patent no. 43 31 125
French patent no. 94 10901
Italian patent no. 012 74 738
Japanese patent no. 2 809 993





Mounting component CP-L

for signal pillars
For mounting a signal pillar with connection component for conduit mounting on support arm system CP-L.

Material:
Sheet steel

Mounting component CP-L to fit	Color RAL	Weight kg (lbs)	**Part No. CP**
Angle piece (CP 6524.0X0)	9017	0.4 (0.88)	**2375.000**
Angle coupling (CP 6526.0X0)			
Intermediate hinge (CP 6523.0X0)	9017	0.4 (0.88)	**2375.020**
Wall mounted hinge (CP 6521.0X0)			
Top mounted joint (CP 6522.0X0)			

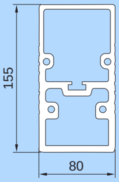
Accessories:

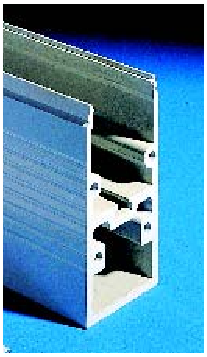
Signal pillars,
see HB 30 from page 1004.

Support arm system CP-XL . . .

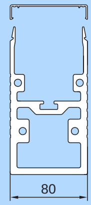
. . . for high loads

CP-XL
Material:
Aluminum
Design:
Solid





CP-XL
Material:
Aluminum
Design:
Open



There is a choice of 2 profile designs:

- Solid for high torsion loads (particularly when using an intermediate hinge)
- Open for simple cable entry

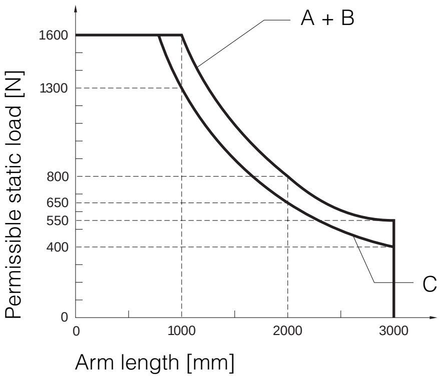
Both have two integral “cable ducts” for separate cable routing e.g. of power and control lines.

The couplings and joints have a maintenance-free friction bearing.

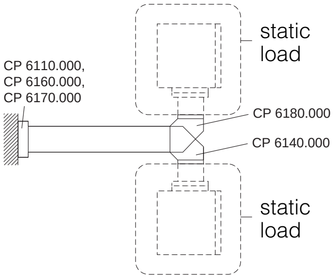
Tilting adaptors, enclosure attachments and couplings may optionally be mounted on the top or bottom of the enclosure. **These components are not suitable for use as the base point of a support arm system.** For the swivel configuration we recommend the pillar with corresponding components.

Load capacity CP-XL:

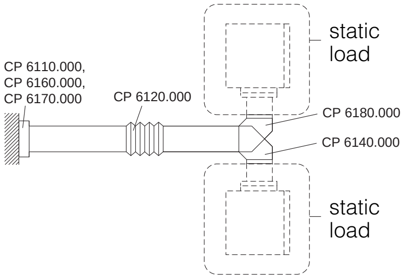
Permissible load depending on system assembly
Intermediate hinge CP 6120.000 should only be used once per system!



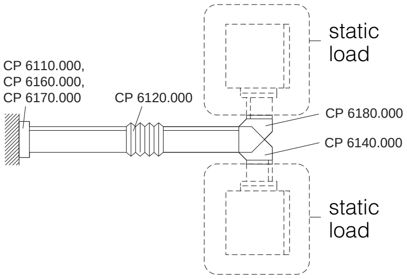
A: Open and solid support section


static load
CP 6110.000,
CP 6160.000,
CP 6170.000
CP 6180.000
CP 6140.000
static load

B: Solid support section

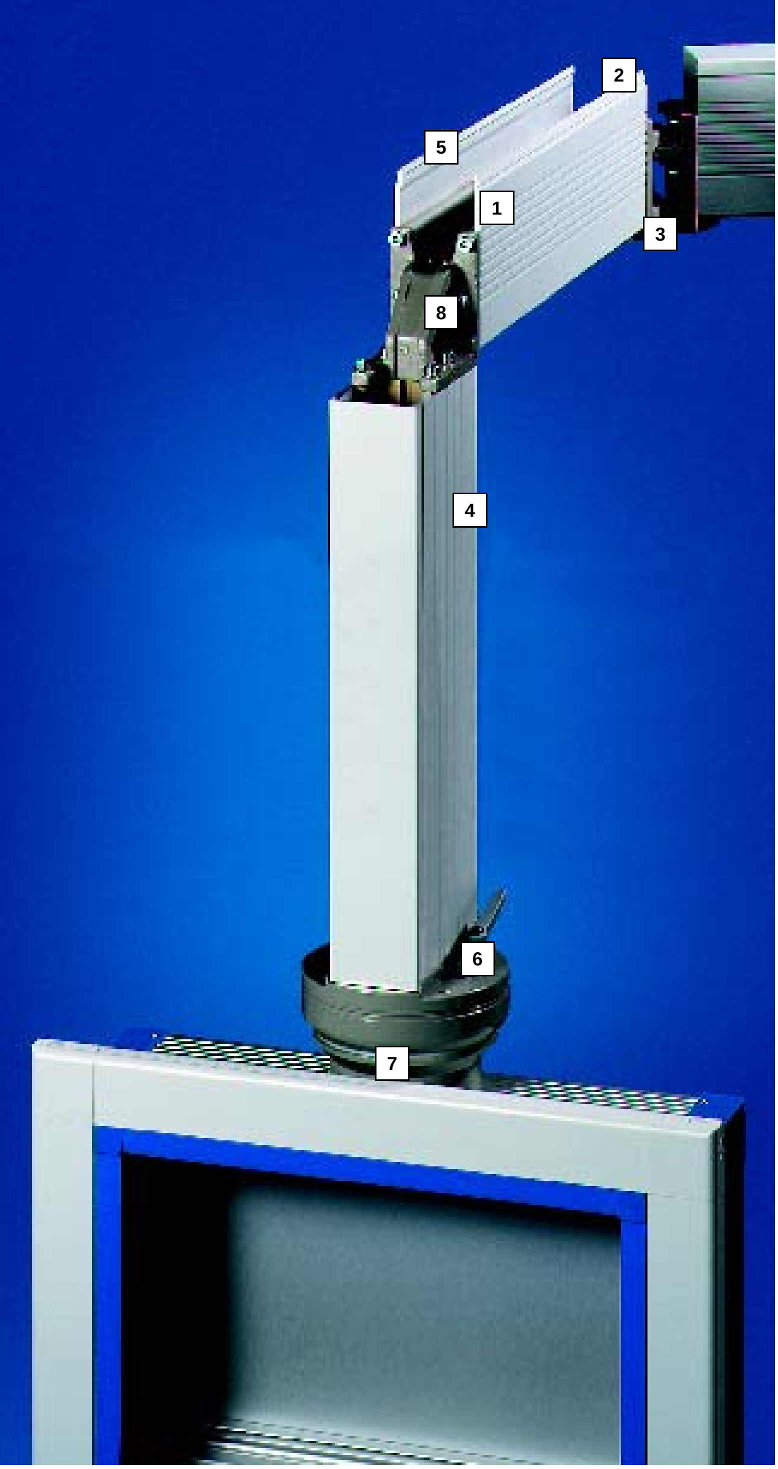

static load
CP 6110.000,
CP 6160.000,
CP 6170.000
CP 6120.000
CP 6180.000
CP 6140.000
static load

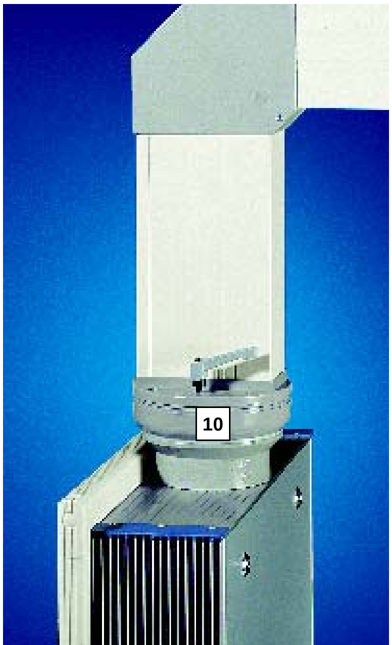
C: Open support section


static load
CP 6110.000,
CP 6160.000,
CP 6170.000
CP 6120.000
CP 6180.000
CP 6140.000
static load

Support arm system CP-XL 118 – 127

Fast selection 118 – 119
CP-XL components 120 – 127





1 Self-tapping screws facilitate simple, fast assembly of the support arm without the need for time-consuming thread-tapping.

2 Extruded groove to accommodate the clip-on cover with open support section CP-XL (included in the configuration of the support section).

3 Intermediate hinge for vertically hinged connection of horizontal support sections within the support arm system.

4 Extruded aluminum section of high bending resistance with a high load-bearing capacity and an attractive design.

5 Section open on one side, enabling easy installation of pre-assembled cables.

6 Housing coupling for connecting the support section to the enclosure facilitates an infinitely adjustable enclosure rotation range of approximately 350°.

7 Connection adaptor VIP 6000 (installation depth 155 mm (6.10″), 185 mm (7.28″) and 295 mm (11.61″)) on CP-XL support arm.

8 90° angle piece for a stable connection between support arm sections; the design permits problem-free insertion of pre-assembled cables.

9 A high load capacity and a stylish design are combined, thanks to the connections of systems CP-L and CP-XL with the 90° angle adaptor.

10 The CP-XL system is also used in shallow enclosures with CP-L connection. The CP-L/CP-XL connection adaptor makes the connection.

Fast selection

It’s so easy!

Make a simple sketch showing the basic form of the support arm. Next, select the corresponding support arm components. Start at 1 “system start” by selecting the enclosure situation which best describes your requirements.

▶ Continue with CP-XL according to the item numbers.

System continuation/system end:

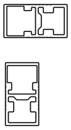
all directions

vertical

horizontal

around a corner

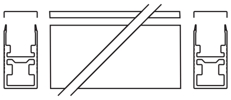
rotatable components



From item 3 a support section is required between each component (minimum length approx. 100 mm (3.94″), for wall/floor mounting approx. 160 mm (6.30″)).
The cross-sections indicate the installation position(s).

T Support sections

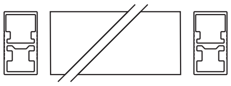
T1 Support section CP-XL, open



Length mm (inches)	Color RAL	Part No. CP
500 (19.69)	7035	6050.000
1000 (39.37)	7035	6100.000
2000 (78.74)	7035	6200.000

See page 120

T2 Support section CP-XL, sealed



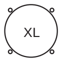
Length mm (inches)	Color RAL	Part No. CP
500 (19.69)	7035	6050.500
1000 (39.37)	7035	6100.500
2000 (78.74)	7035	6200.500

See page 120

1 System start

All options see page 80 – 81

1.1 Mounting cutout CP-XL

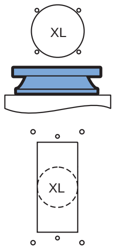


▶ 2 3

1.2 Connection plate CP-XL

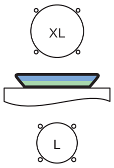
CP 6528.300 (RAL 7030)

see page 219



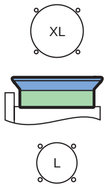
1.3 Connection adaptor CP-L to CP-XL

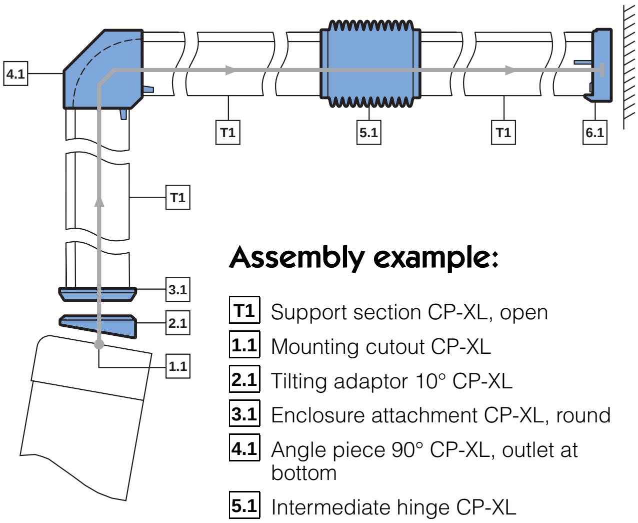
CP 6528.000 (RAL 7030)
see page 121



1.4 Connection adaptor CP-L to CP-XL
for VIP 6000 enclosures with installation depths 155, 185 and 295 mm (6.10″, 7.28″ and 11.61″)

CP 6528.500 (RAL 7030)
see page 121





Assembly example:

- **T1** Support section CP-XL, open
- **1.1** Mounting cutout CP-XL
- **2.1** Tilting adaptor 10° CP-XL
- **3.1** Enclosure attachment CP-XL, round
- **4.1** Angle piece 90° CP-XL, outlet at bottom
- **5.1** Intermediate hinge CP-XL
- **6.1** Wall/base mounting CP-XL

Note:
- Only insert one intermediate hinge
- Two angle pieces may also be used one after the other.
- With angle pieces, take care to ensure correct positioning of the support section cable duct

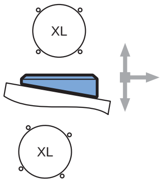
Fast selection

2 Tilting adaptor

2.1 Tilting adaptor 10° CP-XL

CP 6023.000 (RAL 7030)

see page 123

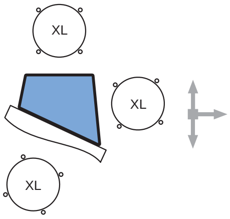


3

2.2 Tilting adaptor 25° / 60° CP-XL

CP 6150.000 (RAL 7030)

see page 124

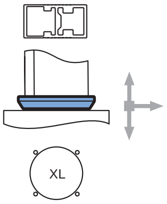


3 Enclosure attachments

3.1 Enclosure attachment CP-XL, round

CP 6130.600 (RAL 7030)

see page 122

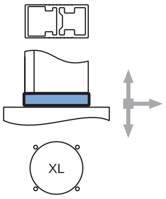


4
5
6.1

3.2 Enclosure attachment CP-XL, rectangular

CP 6130.500 (RAL 7030)

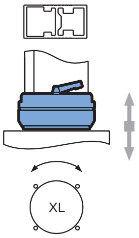
see page 122



3.3 Housing coupling CP-XL

CP 6130.000 (RAL 7030)

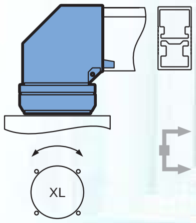
see page 123



3.4 Angle coupling 90° CP-XL

CP 6040.000 (RAL 7030)

see page 124

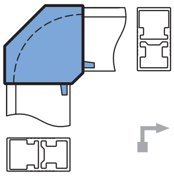


4 Angle components

4.1 Angle piece 90° CP-XL, outlet at top

CP 6180.000 (RAL 7030)

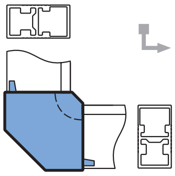
see page 127



5
6

4.2 Angle piece 90° CP-XL, outlet at bottom

CP 6140.000 (RAL 7030)
see page 127

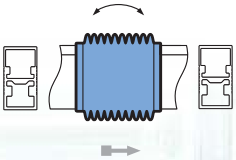


5 Intermediate hinge

5.1 Intermediate hinge CP-XL

CP 6120.000 (RAL 7030)

see page 126



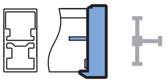
4
6

6 System end

6.1 Wall/base mounting CP-XL

CP 6160.000 (RAL 7030)

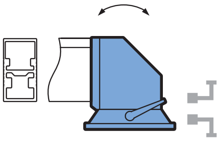
see page 122



6.2 Top mounted joint CP-XL

CP 6170.000 (RAL 7030)

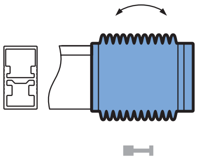
see page 125

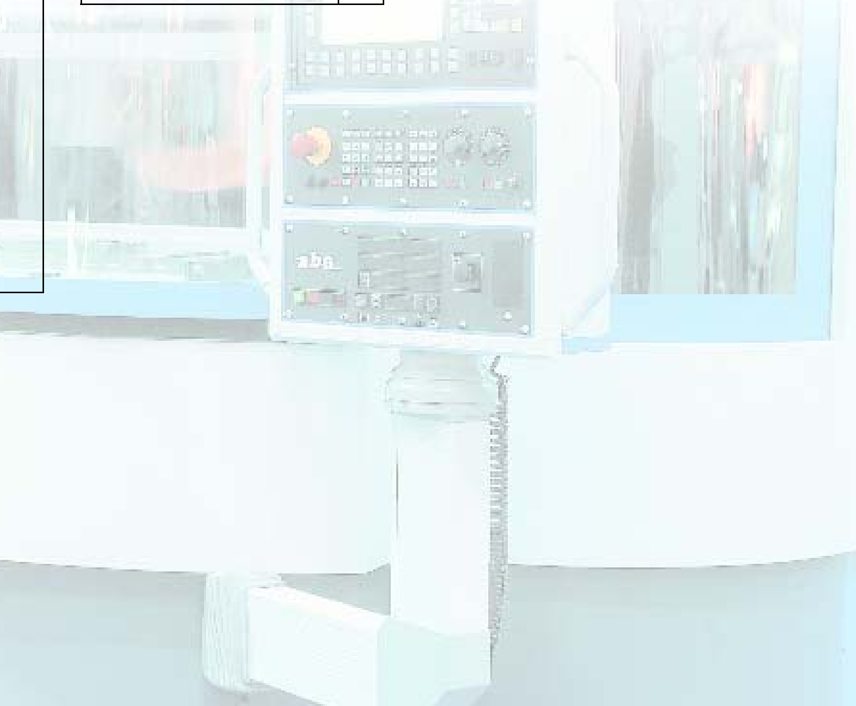


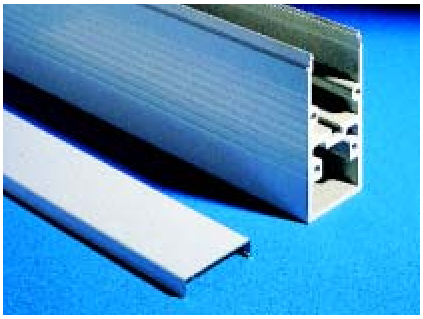
6.3 Wall mounted hinge CP-XL

CP 6110.000 (RAL 7030)

see page 125







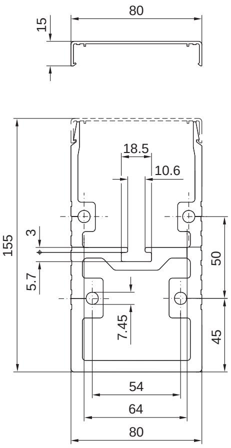
Support arm section CP-XL, open

For assembling a support arm system. The connection components are attached to the support section parts with self-tapping screws, which means that the support section can be cut to any required length. With open cable duct, for easy servicing access and for pre-assembled cables; with connector easily locked via clip-in lid.

Material:
Extruded aluminum section

Configuration:
Clip-in lid

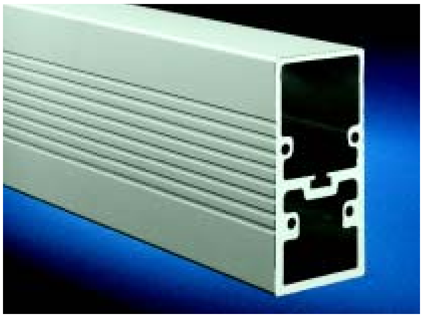
Length mm (inches)	Color RAL	Weight kg (lbs)	**Part No. CP**
500 (19.69)	7035	4.9 (10.80)	**6050.000**
1000 (39.37)	7035	9.8 (21.61)	**6100.000**
2000 (78.74)	7035	19.6 (43.21)	**6200.000**



Accessories:

Adjustment set for support section, see below.

Note:
Load information, see page 116.

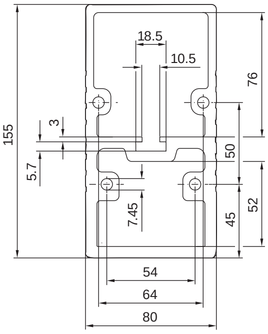


Support arm section CP-XL, solid

The alternative solution for higher loads and torsion compared with the support section CP-XL, open.
The connection components are attached to the support section parts with self-tapping screws, which means that the support section can be cut to any required length.

Material:
Extruded aluminum section

Length mm (inches)	Color RAL	Weight kg (lbs)	**Part No. CP**
500 (19.69)	7035	5.5 (12.13)	**6050.500**
1000 (39.37)	7035	11.0 (24.25)	**6100.500**
2000 (78.74)	7035	22.0 (48.50)	**6200.500**



Accessories:

Adjustment set for support section, see below

Note:
Load information, see page 116.

Adjustment set for support section CP-XL

The adjustment set permits alignment of the CP support section after installation.

Material:
Sheet steel 1.0 mm (19 ga), zinc-plated.

PU	**Part No. CP**
10	**6205.000**

Angle adaptor 90° CP-XL to CP-L

The connecting component between:

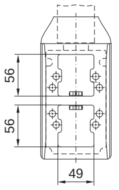
- horizontal support section CP-XL and
- vertical support section CP-L

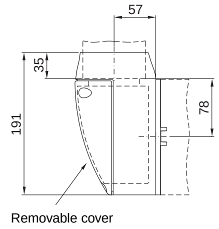
Outlet optionally at the top or bottom if this configuration is chosen for static or visual reasons. The removable cover ensures easier cable entry.

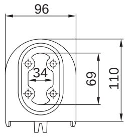
Material:
Cast aluminum

Configuration:
Seals and self-tapping screws for CP-L and CP-XL support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.7 (3.75)	**6528.100**







Connection adaptor CP-L to CP-XL

For mounting between

- Enclosure with support arm connection CP-L

and

- Support arm system CP-XL.

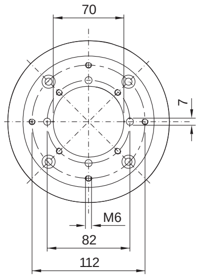
Material:
Cast aluminum

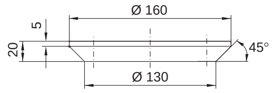
Configuration:
Seal and installation hardware.

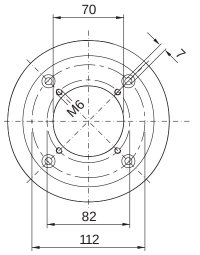
Height mm (inches)	Color RAL	Weight kg (lbs)	**Part No. CP**
20 (0.79)1)	7030	0.5 (1.1)	**6528.000**
55 (2.17)2)	7030	0.7 (1.54)	**6528.500**

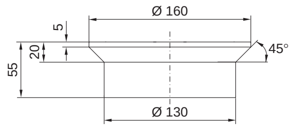
1) Provided the load permits, may also be mounted between enclosure with support arm connection CP-XL and support arm system CP-L.

2) For Command Panel VIP 6000 see page 22/23 3.1 Command Panel, design code number 1 to 5.









Wall / base mounting CP-XL

For rigid attachment of the support arm system to vertical or horizontal surfaces.

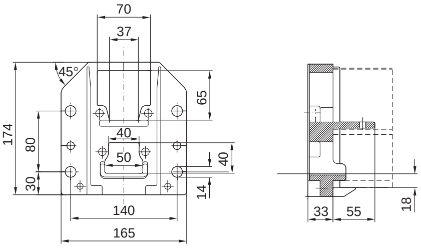
Material:
Spheroidal graphite cast iron

Configuration:
Seals and self-tapping screws for CP-L support section attachment.

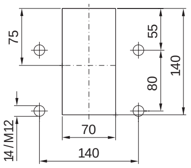
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	4.1 (9.1)	**6160.000**

Accessories:

Pillar, see page 148.


70
37
45°
174
80
30
65
40
50
40
14
140
165
33
55
18

Mounting cutout


75
55
140
80
14/M12
70
140

Enclosure attachment CP-XL, round

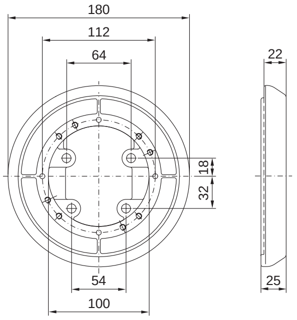
For rigid external mounting of enclosures to:

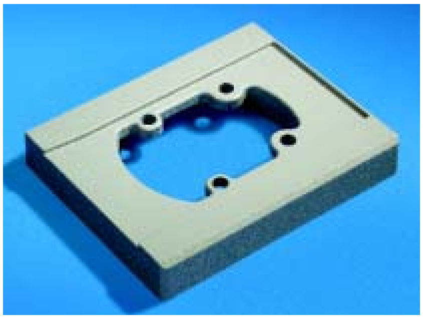
- Support section
- Tilting adaptor 10° (CP 6023.000)
- Tilting adaptor 25°/60° (CP 6015.000).

Material:
Die-cast zinc

Configuration:
Seals and self-tapping screws for CP-L support section attachment.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.6 (3.53)	**6130.600**


180
112
64
22
18
32
54
100
25



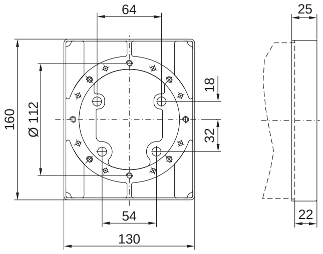
Enclosure attachment CP-XL, rectangular

For direct external mounting on the enclosure.

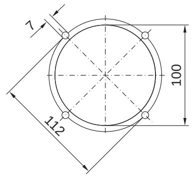
Material:
Die-cast zinc

Configuration:
Seals and self-tapping screws for CP-L support section attachment.

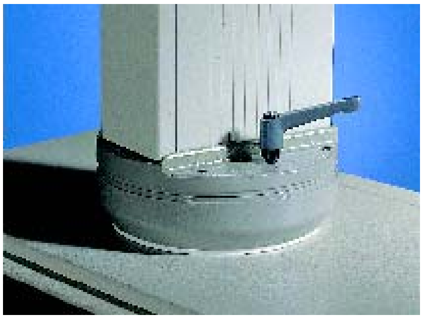
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.2 (2.65)	**6130.500**


64
25
160
Ø 112
18
32
54
130
22

Mounting cutout
Enclosure CP-XL



Support arms systems



Housing coupling CP-XL

For swivel mounting of the enclosure on the horizontal part of the support arm system.

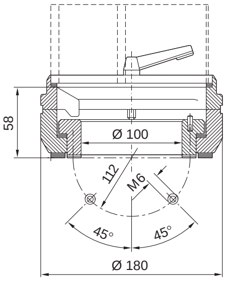
Rotation range:
approx. 350°

Material:
Die-cast zinc

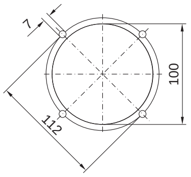
Configuration:
Seals and self-tapping screws for CP-L support section attachment.

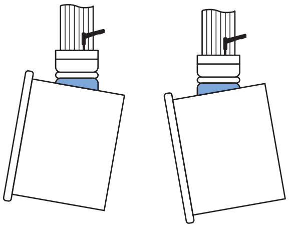
Note:
By inserting grooved pins 5 x 12 mm (0.2″ x 0.47″) to DIN 1474, the rotation range may be limited in 90° increments.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	6.8 (14.99)	**6130.000**



Mounting cutout
Enclosure CP-XL





10° tilting adaptor CP-XL

For mounting between:
- Housing coupling (CP 6130.000)

or
- Enclosure attachment (CP 6130.600)

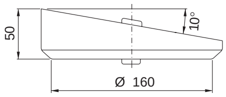
or
- Angle coupling (CP 6040.000)

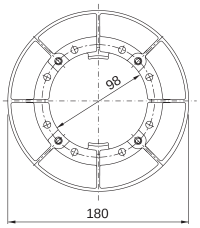
and the Command Panel.

Material:
Die-cast zinc

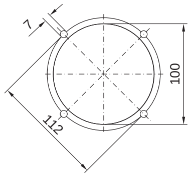
Configuration:
Seals and installation hardware.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.4 (3.09)	**6023.000**



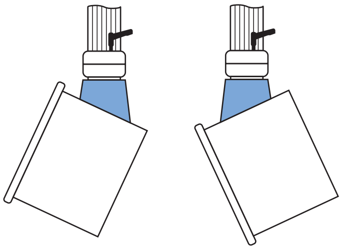


Mounting cutout
Enclosure CP-XL

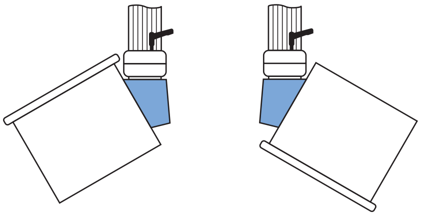


Aluminum

Tilt 25°



Tilt 60°



25° / 60° tilting adaptor CP-XL

For mounting between:
- Housing coupling (CP 6130.000)

or
- Enclosure attachment (CP 6130.600)

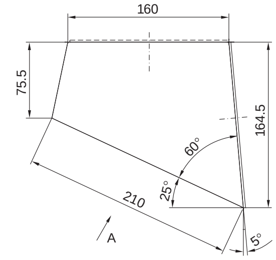
or
- Angle coupling (CP 6040.000)

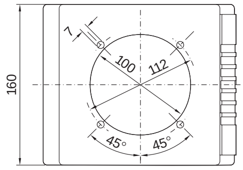
and the Command Panel.

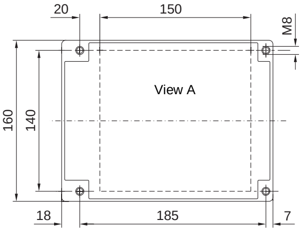
Material:
Cast aluminum

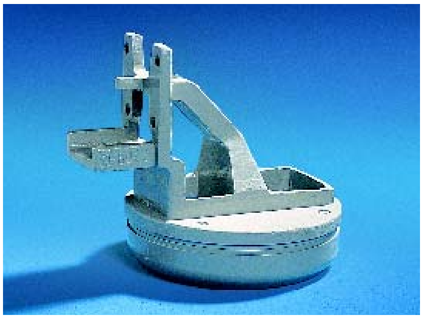
Configuration:
Seals, plastic cover and installation hardware.

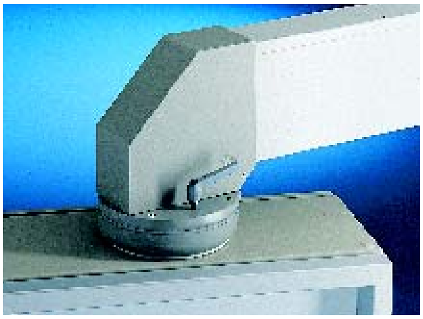
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	1.7 (3.75)	**6150.000**











Angle coupling, 90° CP-XL

For swivel mounting of the enclosure on the horizontal part of the support arm system. Enclosure may be suspended or top-mounted.

Rotation range:
approx. 350°

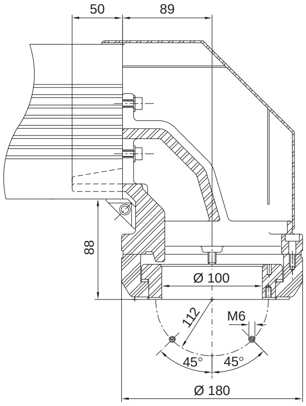
Material:
Spheroidal graphite cast iron and die-cast zinc

Configuration:
Seals, plastic casing and self-tapping screws for CP-L support section attachment.

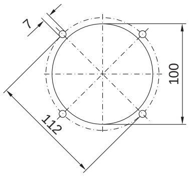
Note:
By inserting grooved pins 5 x 12 mm (0.2″ x 0.47″) to DIN 1474, the rotation range may be limited in 90° increments.

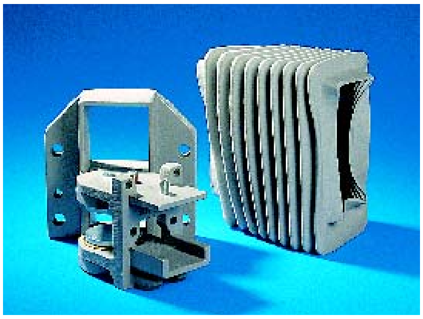
Color RAL	Weight kg (lbs)	**Part No. CP**
7030	6.2 (13.67)	**6040.000**

German patent no. 4033747
Swiss patent no. 684439
Italian patent no. 1252120



Mounting cutout
Enclosure CP-XL





Wall mounted hinge CP-XL

For vertically hinged mounting of the support arm surface on vertical surfaces.

Rotation range:
approx. 180°

Material:
Spheroidal graphite cast iron

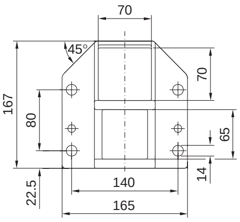
Configuration:
Seals, bellows section and installation hardware.

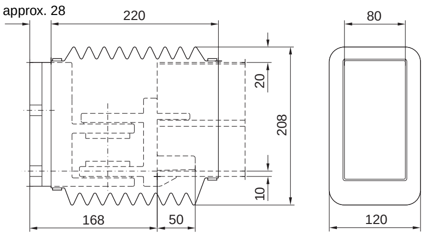
Note:
Rotation range may be reduced with rotation range limiter CP-XL.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	8.5 (18.74)	**6110.000**

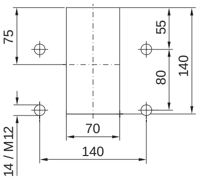
Accessories:

Pillar, see page 148.
Rotation range limiter CP-XL, see page 126.


70
45°
70
167
80
65
14
22.5
140
165


approx. 28
220
80
20
208
10
168
50
120

Mounting cutout


75
55
140
80
14 / M12
70
140

Top mounted joint CP-XL

For swivel mounting of the support arm system on horizontal surfaces – also suitable for suspending from the ceiling.

Rotation range:
approx. 350°, lockable.

Material:
Steel and cast iron parts with plastic cover.

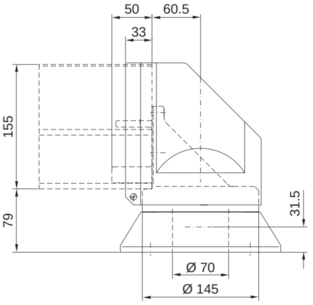
Configuration:
Seals and self-tapping screws for CP-XL support section attachment.

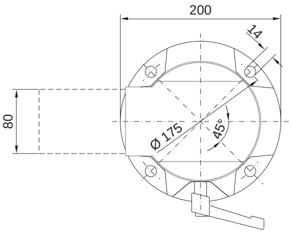
Note:
Safety end stop as anti-twist protection.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	11.9 (26.23)	**6170.000**

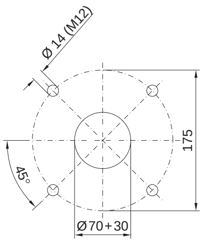
Accessories:

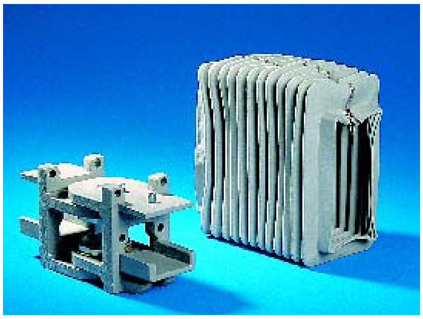
Pillar, see page 148.

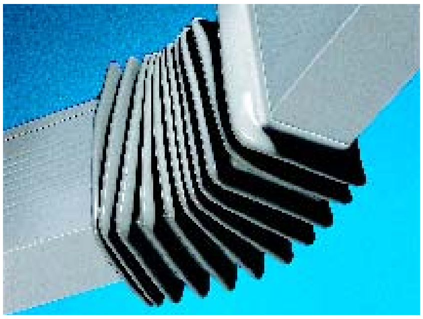

50
60.5
33
155
79
31.5
Ø 70
Ø 145


200
14
80
Ø 175
45°

Mounting cutout


Ø 14 (M12)
175
45°
Ø70+30





Intermediate hinge CP-XL

For vertically hinged connection of horizontal support sections within the support arm system.

Rotation range:
approx. 180°

Material:
Spheroidal graphite cast iron

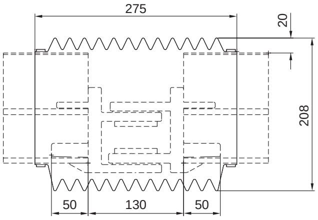
Configuration:
Self-tapping screws for CP-XL support section attachment and divided bellows section with zip for uninhibited access to the cable duct.

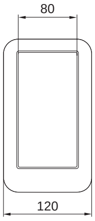
Note:
Rotation range may be reduced with rotation range limiter.

Color RAL	Weight kg (lbs)	**Part No. CP**
7030	6.5 (14.33)	**6120.000**

Accessories:

Rotation range limiter CP-XL,
see below.





US patent no. 4,998,702
German patent no. 3805424
European patent no. 0330029
with validity for FR, GB, IT
Jap. patent no. 1903905

Rotation range limiter CP-XL

Suitable for:

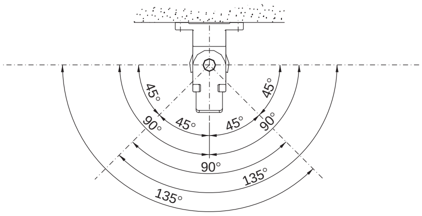
- Wall-mounted hinge (CP 6110.000)
- Intermediate hinge (CP 6120.000).

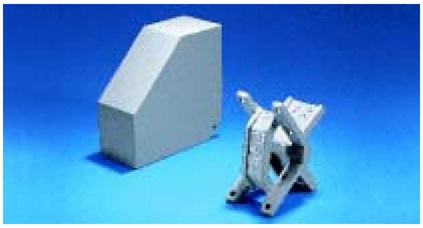
Material:
Steel, zinc plated

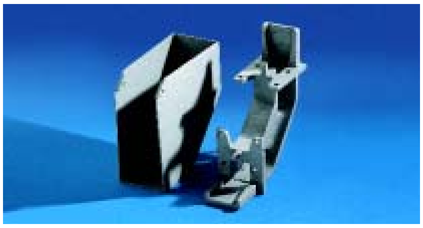
Configuration:
2 steel disks, slotted, including 3 cheese-head screws for assembly.

PU	Weight kg (lbs)	**Part No. CP**
1 set	0.6 (1.32)	**6110.100**

Adjustable swivel area:







Angle piece 90° CP-XL

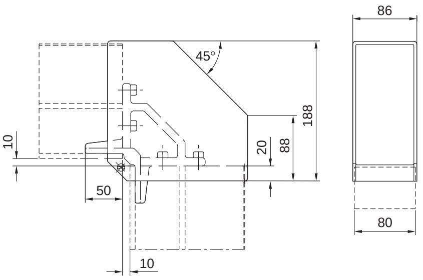
For connecting horizontal and vertical support arm components.

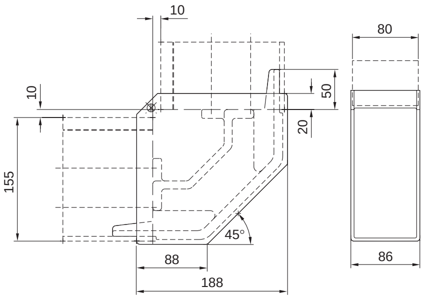
Material:
Spheroidal graphite cast iron with plastic casing

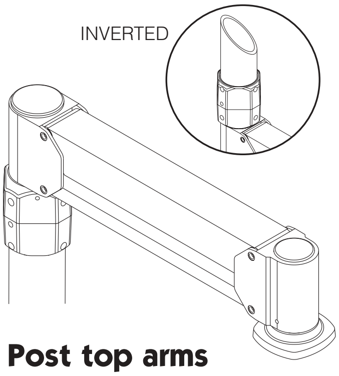
Configuration:
Seals and self-tapping screws for CP-L support section attachment.

Outlet	Color RAL	Weight kg (lbs)	**Part No. CP**
bottom	7030	2.4 (5.29)	**6140.000**
top	7030	3.6 (7.94)	**6180.000**

US patent no. 4,997,155
German patent no. 58901106
European patent no. 0330027
with validity for FR, IT
Japanese patent no. P 1870561

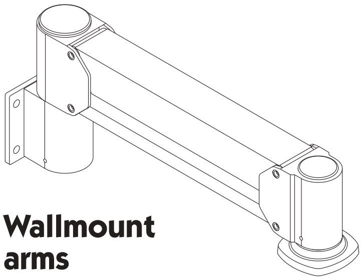






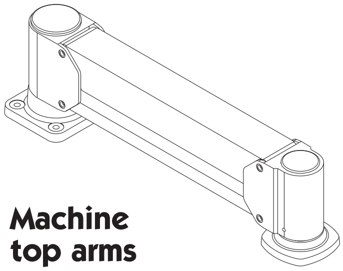
Post top arms

Attaches to a plain end 89 mm (3.5″) OD tube or pipe. Cables exit through tube.



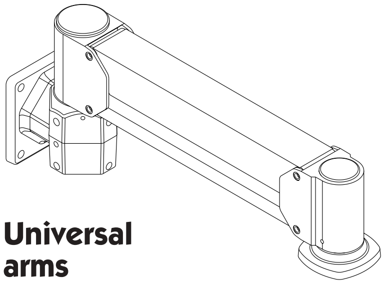
Wallmount arms

Attaches to a vertical surface with 135 mm (5.3″) H x 152 mm (6.0″) W mounting plate with 4 12.5 mm (0.5″) Ø hole pattern on 121 mm (4.75″) H x 89 mm (3.50″) W centers. 51 mm (2.0″) Ø hole through center for cable exit. 64 mm (2.5″) NPS threaded opening as alternate cable exit.



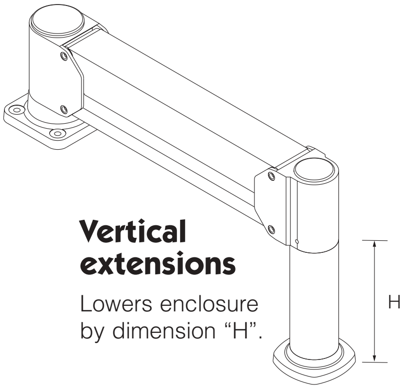
Machine top arms

Attaches to horizontal surface with 127 mm (5″) x 127 mm (5″) mounting plate with 4 9 mm (0.37″) Ø hole pattern on 90 mm (3.54″) centers. 38 mm (1.5″) Ø hole through center for cable exit.



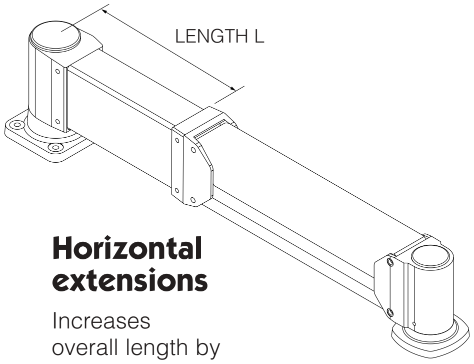
Universal arms

Designed for increased flexibility. Mounting method can be easily configured based on user requirements.



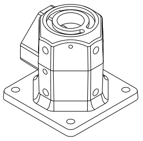
Vertical extensions

Lowers enclosure by dimension “H”.

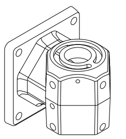


Horizontal extensions

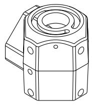
Increases overall length by dimension “L”.



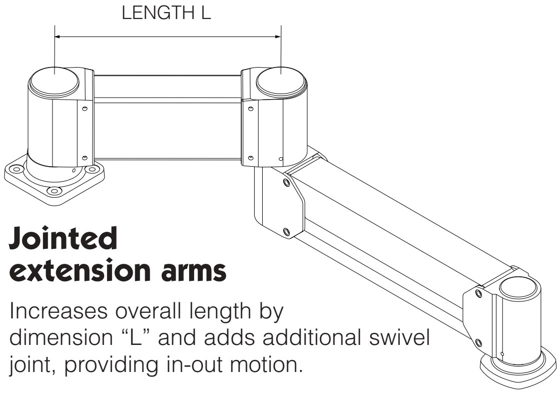
UNIVERSAL AS
MACHINE TOP



UNIVERSAL AS
WALLMOUNT

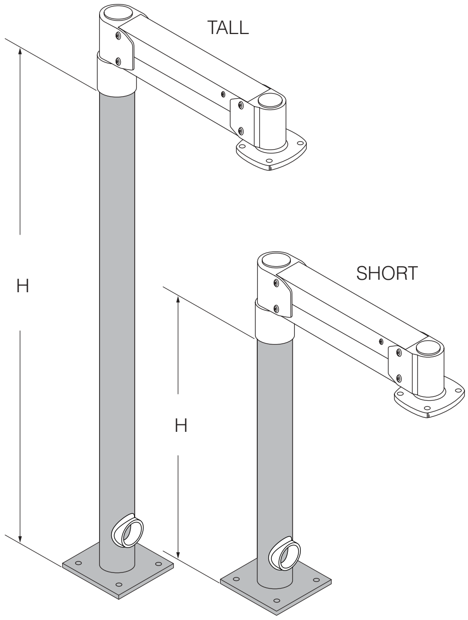


UNIVERSAL AS
POST TOP



Jointed extension arms

Increases overall length by dimension “L” and adds additional swivel joint, providing in-out motion.



Floor posts

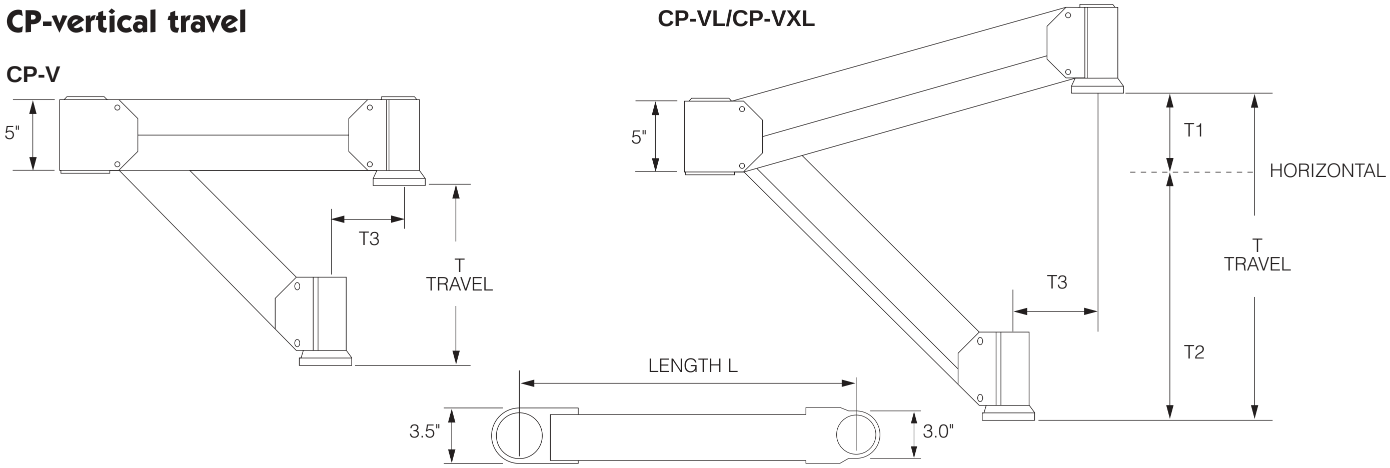
914 mm (36″), 1880 mm (74″), or 2007 mm (79″) tall, 89 mm (3.5″) x 6 mm (0.25″) OD post with square base plate. 38 mm (1.5″) NPT female coupling near base can be used for cable entry. Post can be easily shortened.

Note: *When using jointed extension arms, a 2007 mm (79″) tall post should be used.*

CP-vertical travel

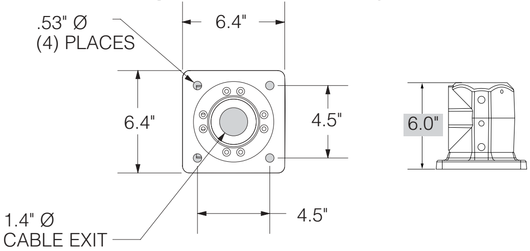
CP-V

CP-VL/CP-VXL

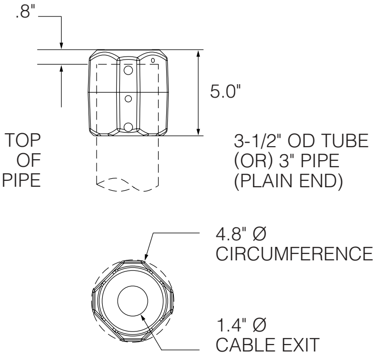

5"
T3
T
TRAVEL
5"
T1
HORIZONTAL
T
TRAVEL
T3
T2
LENGTH L
3.5"
3.0"

CP-vertical mounting dimensions

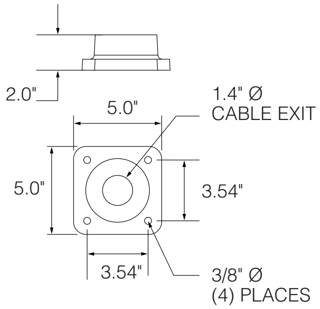
Machine top universal mounting


.53" Ø
(4) PLACES
6.4"
6.4"
4.5"
6.0"
1.4" Ø
CABLE EXIT
4.5"

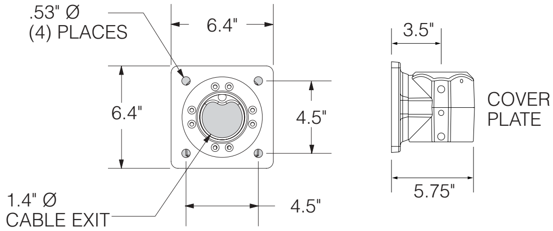
Post top mounting


.8"
5.0"
TOP
OF
PIPE
3-1/2" OD TUBE
(OR) 3" PIPE
(PLAIN END)
4.8" Ø
CIRCUMFERENCE
1.4" Ø
CABLE EXIT

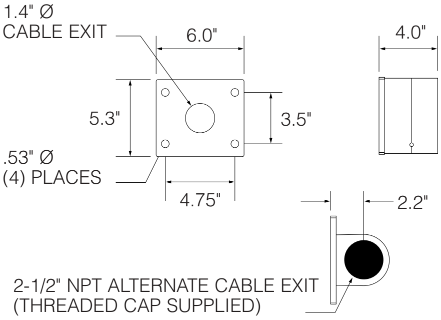
Machine top mounting


2.0"
5.0"
1.4" Ø
CABLE EXIT
5.0"
3.54"
3.54"
3/8" Ø
(4) PLACES

Wallmount universal mounting

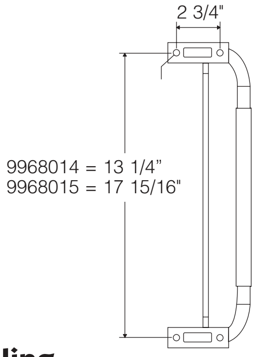

.53" Ø
(4) PLACES
6.4"
3.5"
6.4"
4.5"
COVER
PLATE
1.4" Ø
CABLE EXIT
4.5"
5.75"

Wallmount mounting

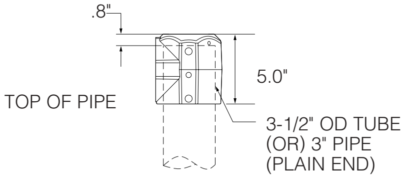

1.4" Ø
CABLE EXIT
6.0"
4.0"
5.3"
3.5"
.53" Ø
(4) PLACES
4.75"
2.2"
2-1/2" NPT ALTERNATE CABLE EXIT
(THREADED CAP SUPPLIED)

Release handles

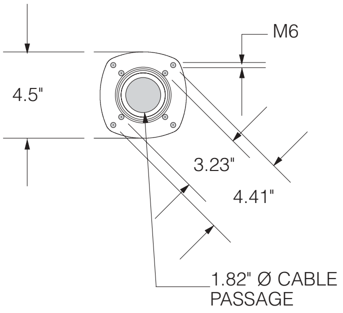
(9968014/9968015)


2 3/4"
9968014 = 13 1/4"
9968015 = 17 15/16"

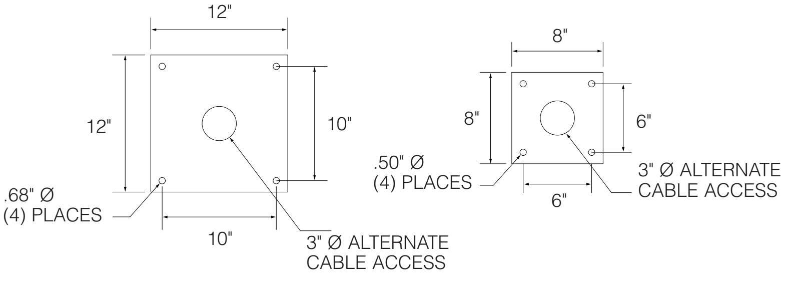
Post universal mounting


.8"
5.0"
TOP OF PIPE
3-1/2" OD TUBE
(OR) 3" PIPE
(PLAIN END)

Enclosure mounting coupling


M6
4.5"
3.23"
4.41"
1.82" Ø CABLE
PASSAGE

Floor post plates


12"
12"
10"
.68" Ø
(4) PLACES
10"
3" Ø ALTERNATE
CABLE ACCESS
8"
8"
6"
.50" Ø
(4) PLACES
6"
3" Ø ALTERNATE
CABLE ACCESS

CP-vertical pendant arm systems

Features and specifications:

- Adjusts to viewing height of each operator with simple motion
- Counterbalance can be adjusted by user for loads up to 100 lbs. (depending on arm)
- 13″, 23″, or 30″ of vertical adjustment
- Locks and unlocks with a convenient release mechanism
- Swivels at both ends
- NEMA Type 4, 12 sealed cable passageway protects wiring
- All arms can be easily reconfigured for inverted applications
- A release handle mechanism must be ordered for each arm
- **Sizes:**
  CP-V5″ H x 3″ W x 26″ L
  CP-VL 5″ H x 3″ W x 31″ L
  CP-VXL5″ H x 3″ W x 39″ L
- **Arm material:** Aluminum
- **Finish:** Powder painted aluminum, RAL 7035 light grey
- **Pivoting travel:** Swivel at both ends
- **Mounting styles:** Wallmount, machine top, post top, –standard and inverted mounting
- **Rotational stops:** One stop per swivel
- **Cable passageway:** Sealed passageway, minimum restriction 36 mm (1.4″) Ø
- **NEMA rating:** Type 4, 12

CP-vertical pendant arm specifications

Part No.	Description	Max. load	Vertical travel T	T1	T2	T3	Length (L)
9967987	Post top/CP-V	45.36 kg (100 lbs)	330 mm (13″)	–	–	142 mm (5.6″)	565 mm (22.25″)
9967988	Post top/CP-VL	34.02kg (75 lbs)	584 mm (23″)	150 mm (5.9″)	434 mm (17.1″)	160 mm (6.3″)	711 mm (28″)
9967989	Post top/CP-VXL	22.68 kg (50 lbs)	762 mm (30″)	188 mm (7.4″)	574 mm (22.6″)	221 mm (8.7″)	889 mm (35″)
9967993	Wallmount/CP-V	45.36 kg (100 lbs)	330 mm (13″)	–	–	142 mm (5.6″)	565 mm (22.25″)
9967994	Wallmount/CP-VL	34.02kg (75 lbs)	584 mm (23″)	150 mm (5.9″)	434 mm (17.1″)	160 mm (6.3″)	711 mm (28″)
9967995	Wallmount/CP-VXL	22.68 kg (50 lbs)	762 mm (30″)	188 mm (7.4″)	574 mm (22.6″)	221 mm (8.7″)	889 mm (35″)
9967996	Machine top/CP-V	45.36 kg (100 lbs)	330 mm (13″)	–	–	142 mm (5.6″)	565 mm (22.25″)
9967997	Machine top/CP-VL	34.02kg (75 lbs)	584 mm (23″)	150 mm (5.9″)	434 mm (17.1″)	160 mm (6.3″)	711 mm (28″)
9967998	Machine top/CP-VXL	22.68 kg (50 lbs)	762 mm (30″)	188 mm (7.4″)	574 mm (22.6″)	221 mm (8.7″)	889 mm (35″)
9967999	Universal mount/CP-V	45.36 kg (100 lbs)	330 mm (13″)	–	–	142 mm (5.6″)	565 mm (22.25″)
9968000	Universal mount/CP-VL	34.02kg (75 lbs)	584 mm (23″)	150 mm (5.9″)	434 mm (17.1″)	160 mm (6.3″)	711 mm (28″)
9968001	Universal mount/CP-VXL	22.68 kg (50 lbs)	762 mm (30″)	188 mm (7.4″)	574 mm (22.6″)	221 mm (8.7″)	889 mm (35″)

Part No.	Description	Height	Base plate
9968008	102 mm (4″) Vertical extension piece	102 mm (4″)	–
9968009	203 mm (8″) Vertical extension piece	203 mm (8″)	–
9968010	305 mm (12″) Vertical extension piece	305 mm (12″)	–
9968011	914 mm (36″) Floor post	914 mm (36″)	203 mm (8″) x 203 mm (8″)
9968012	1880 mm (74″) Floor post	1880 mm (74″)	305 mm (12″) x 305 mm (12″)
9968013	2007 mm (79″) Floor post	2007 mm (79″)	305 mm (12″) x 305 mm (12″)
9968014	Release handle W ≤ 406 mm (16″)1)	–	–
9968015	Release handle W > 406 mm (16″)1)	–	–
9968016	Release handle for VIP1)	–	–
9968017	Universal release handle 1)	–	–

1) Must choose one release handle per arm.

Part No.	Description	Length (L)
9968002	152 mm (6″) Horizontal extension	152 mm (6″)
9968003	305 mm (12″) Horizontal extension	305 mm (12″)
9968004	457 mm (18″) Horizontal extension	457 mm (18″)
9968005	610 mm (24″) Horizontal extension	610 mm (24″)
9968006	457 mm 18″ Jointed extension arm	457 mm (18″)
9968007	610 mm (24″) Jointed extension arm	610 mm (24″)

CP-vertical configuration order form

Fax to: 937-629-2815

Each CP-vertical pendant arm system will include the following:

- CP-Vertical pendant arm that can be counterbalanced by the user based on load rating
- Mounting method (Post, Wallmount, Machine, Universal) will be attached to pendant arm
- A 6’ release cable will be included
- Conversion wrench and instructions
- Hardware to attach enclosure to CP-Vertical arm

Note: *Hardware to attach the CP-Vertical pendant arm to mounting surface is not provided.*

Below is a step-by-step guide to selecting a CP-vertical pendant arm system:

❶ Determine maximum load*:

Maximum load = Weight of enclosure (lbs.)**
+ total weight of all components
mounted ON or INSIDE of enclosure

Maximum load kg (lbs.) = ____________________

* Load = Weight of enclosure + total weight of all components mounted inside enclosure
** See VIP weight chart or Rittal handbook for more information.

❷ Determine proper CP-vertical pendant arm based on load:

Select a vertical travel based on your maximum load calculation from above.

Maximum load range (+ 0%)	CP-V 330 mm (13″) vertical travel	CP-VL 584 mm (23″) vertical travel	CP-VXL 762 mm (30″) vertical travel
0 to 22.68 kg (50 lbs)	Yes	Yes	Yes
23.13 kg (51lbs) to 34.02 kg (75 lbs)	Yes	Yes	No
34.47 kg (76 lbs) to 45.36 kg (100 lbs)	Yes	No	No

❸ Determine mounting method:

Based on the CP-Vertical Pendant Arm you selected (i.e. CP-V, CP-VL, CP-VXL) in step #2, select a mounting method that best fits your application.

Mounting method	CP-V 330 mm (13″) vertical travel Part No.	CP-VL 584 mm (23″) vertical travel Part No.	CP-VXL 762 mm (30″) vertical travel Part No.
Post top	9967987	9967988	9967989
Wallmount	9967993	9967994	9967995
Machine top	9967996	9967997	9967998
Universal*	9967999	9968000	9968001

* Universal incorporates the ability to post, wallmount, or machine mount the CP-vertical arm.

❹ Determine if additional accessories are required:

Select any accessories that are needed for your application. Each accessory can be used for all CP-Vertical arm configurations.

Note: *You can add only one horizontal, jointed, or vertical extension to each arm.*

Extensions	Part No.
152 mm (6″) Horizontal extension	**9968002**
305 mm (12″) Horizontal extension	**9968003**
457 (18″) Horizontal extension	**9968004**
607 (24″) Horizontal extension	**9968005**
457 (18″) Jointed extension	**9968006**
607 (24″) Jointed extension	**9968007**
102 mm (4″) Vertical extension	**9968008**
203 mm (8″) Vertical extension	**9968009**
304 mm (12″) Vertical extension	**9968010**
Floor posts	
1930 mm (36″) Floor post	**9968011**
1880 mm (74″) Floor post	**9968012**
2006 mm (79″) Floor post*	**9968013**

* Select when using jointed extension.

❺ Determine release mechanism (required):

Select release mechanism based on the overall width or type of enclosure.

Enclosure width	Release mechanism Part No.
Less than or equal to 406 mm (16″)	**9968014**
Greater than 406 mm (16″) and less than or equal to 609 mm (24″)	**9968015**
Release handle for VIP enclosure	**9968016**[2]
Universal release handle	**9968017**[1]

[1] Call for availability. [2] For use with VIP 6392.009

Customer information:

Inquiry ☐ Order ☐ Date ____________________
Name ____________________ Title ____________________
Company ____________________
Address ____________________
City ____________________ State __________ Zip __________
Phone ____________________ Fax ____________________
E-Mail ____________________
Rittal Representative ____________________
Comments/Special Instructions ____________________
____

Ordering information

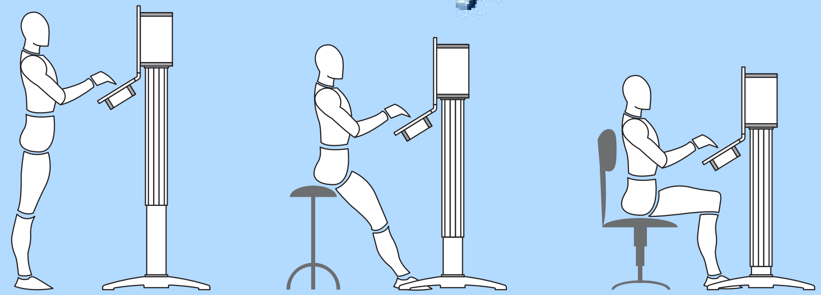
Part Number	Quantity

Rittal pedestal systems . . .

. . . stationary or mobile

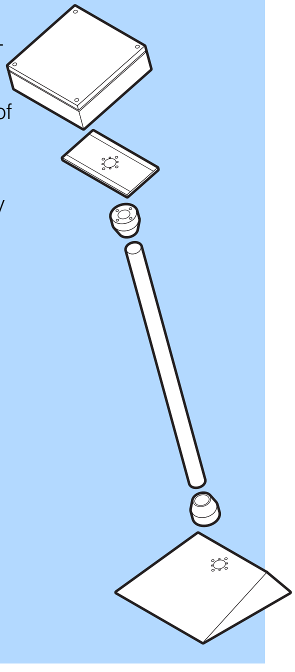
Always at the right height for the operating panel and worktops

Whether you work in a standing or sitting position, with the height-adjustable panel or the panel lift, you decide the correct position for yourself.



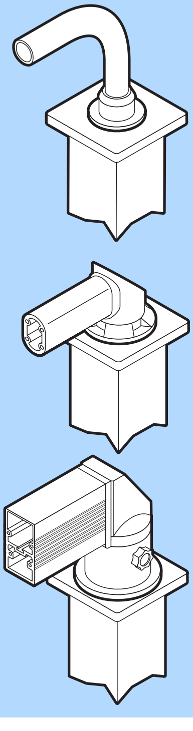
Small, fine, modular

Pedestals for rigid or height-adjustable and tiltable configuration of compact operating stations.
The modularity facilitates individual designs.



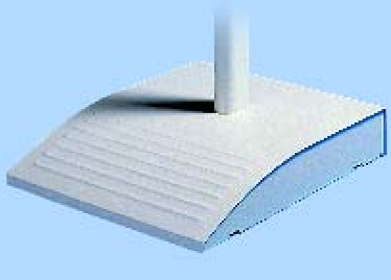
A powerful pillar with many options

The pillar provides a stable base for all support arm systems.



Pedestals in any version

For example, the cross member with die-cast feet and integral cable routing, or the mobile pedestal. The pedestal base plate may be used as an alternative.



Pedestal systems 134 – 149

Pedestal, height-adjustable 134 – 137
Panel lift 138
Worktop attachment, IW 139
Pedestals 140 – 147
Pillars 148 – 149

Bringing movement to Rittal pedestal systems. They will meet all your ergonomic and technical requirements.
For every enclosure type, height variability, mobile use, and accommodation of cables, our extensive solution diversity meets every conceivable requirement.

Pedestal, height-adjustable

Modular assembly comprising:

- Lifting pillar
- Control unit for:
  - Manual operation
  - External mounting on surfaces/ enclosures
- Cross member with cast feet

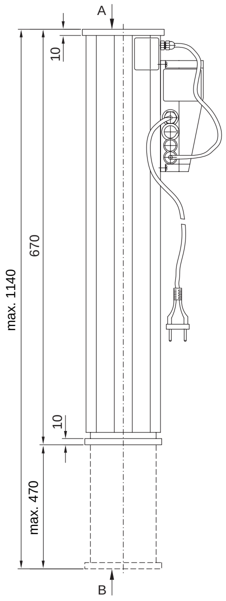
Lifting pillar, electric

Height adjustment 470 mm (18.50″) (from 670 to 1140 mm (26.38″ to 40.94″), spindle drive secured against unintentional dropping.
With electronic overload cutout to protect the drive.
Adjusting unit made from extruded aluminum section with groove on all sides for individual externally mounted equipment via mounting kit CP 6142.030.

Head plate

- For direct mounting of enclosures with support arm connection
  – CP-L round
  (e.g. Optipanel, from page 40)
  or
  – CP-XL
  (e.g. VIP 6000, from page 12).
- For swivel mounting of enclosures, also with keyboard support:
  see assembly sequences

Base plate
For external mounting on the cross member or a sub-structure provided by the customer.



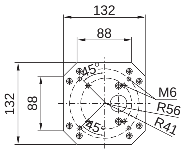
Weight kg (lbs)	**Part No. CP**
13.8 (30.42)	**6142.000**

Technical specifications:
Permissible load: max. 80 kg
Duty cycle:
max. 6 min/h during continuous operation
Ambient temperature: +5°C to +40°C
(+41 °F to 104°F)
Supply connection: 230 V/50 Hz
Transformer: 24 V DC

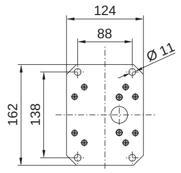
Protection ratings:
IP 65 (NEMA 4) to EN 60 529/10.91
(for electrical components).

Configuration:
Adjusting drive with transformer.

View A



View B



Pedestal, height-adjustable

For manual operation

For mounting on surfaces/enclosures

Control unit

for height adjustment of the lifting pillar. Design ready for connection with spiral cable and connector.
For manual operation: With hooks for location e.g. on the enclosure handle set.
For external mounting: With mounting brackets for screw fastening.

Version	Protection ratings	**Part No. CP**
Manual operation	IP 65	**6142.010**
Mounting on surfaces/ enclosures	IP 30	**6142.020**

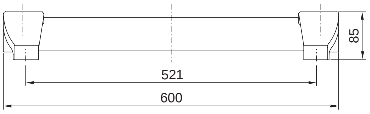
Cross member with cast feet

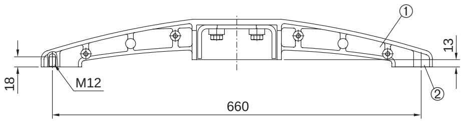
Steel cross member with mounting holes for lifting pillar, including 2 cast aluminum feet.

Color RAL	Weight kg (lbs)	**Part No. CP**
7035	5.8 (12.79)	**6142.100**

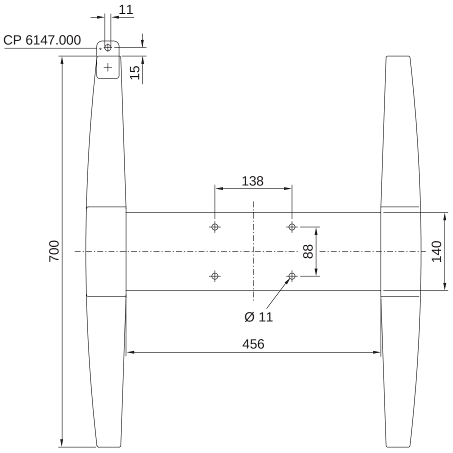
Accessories:

Foot rest CP 6145.100,
Trim panel CP 6144.100,
Base mount CP 6147.000,
see page 215.
Twin castors,
see page 213.





① Prepared for trim panel CP 6144.100 or foot rest CP 6145.100
② Prepared for twin castors CP 6148.000 or base mount CP 6147.000



Assembly kit for externally mounted accessories

Simply slide into the groove of the lifting pillar and secure at any chosen height using the existing screws.
With M10 thread for mounting your own components such as utility trays.

PU	**Part No. CP**
1 set	**6142.030**

Assembly sequence for pedestal, height-adjustable

It's so easy!

Start at 1 "system start" by selecting the enclosure situation which best describes your requirements. Next, select the corresponding support arm components.

▶ Continue with CP-L according to the item numbers.

System changes are indicated by the color.

▶ Blue = CP-XL

System continuation/system end:

↓ vertical

↶ tiltable or

↷ rotatable components

From item 3 a support section is required between each component (minimum length approx. 100 mm (3.94″), for wall/floor mounting approx. 160 mm (6.30″)). The cross-sections indicate the installation position(s).

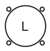
X = 0 (RAL 7030)

X = 1 (RAL 7024)

1 System start

1.1 Mounting cutout CP-L, round

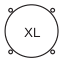
Tiltable and rotatable, direct mounting



▶ 2.1 2.2 3.1 3.2 6.1

1.2 Mounting cutout CP-XL

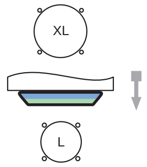
Direct mounting



▶ 1.3 6.1

1.3 Connection adaptor CP-L to CP-XL

Tiltable and rotatable
CP 6528.0X0, see page 104

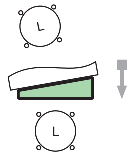


▶ 2.1 2.2 3.1 3.2

2 Tilting adaptor

2.1 Tilting adaptor, 10° CP-L, round

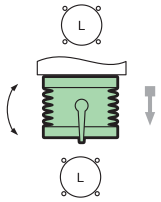
CP 6527.0X0, see page 111



▶ 3.1 3.2

2.2 Tilting adaptor +/– 45° CP-L, round

CP 6529.0X0, see page 112

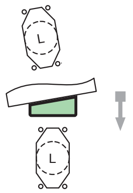


1.4 Mounting cutout CP-L, rectangular

▶ 2.3 3.3 3.4 3.5

2.3 Tilting adaptor 10° CP-L, rectangular

CP 6527.1X0, see page 111

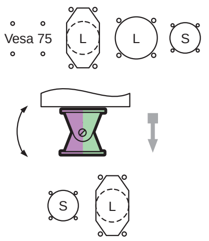


▶ 3.3 3.4 3.5

2.4 Enclosure attachment, tilting, top mounting*

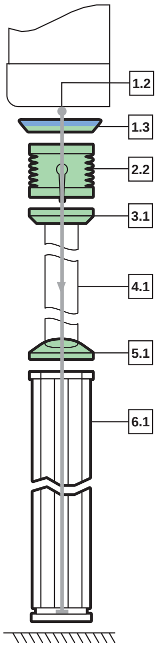
RAL 7024

IW 6902.670, see page 91



▶ 3.1 3.2 3.3 3.4 3.5 6.1

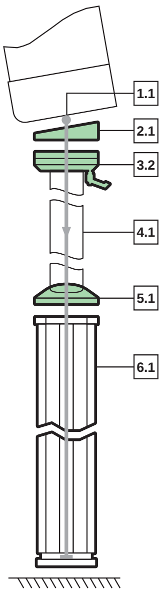
* May also be used rotated through 180°, e.g. from CP-L rectangular or CP-S to CP-L round.



Assembly example 1:

tiltable

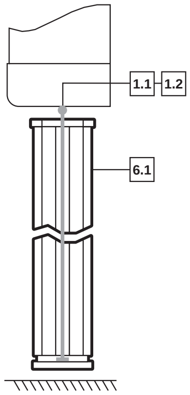
- 1.2 Mounting cutout CP-XL
- 1.3 Connection adaptor
- 2.2 Tilting adaptor +/- 45°
- 3.1 Enclosure attachment
- 4.1 Support arm section
- 5.1 Wall/base mounting
- 6.1 Lifting pillar



Assembly example 2:

swivel

- 1.1 Mounting cutout CP-L, round
- 2.1 Tilting adaptor 10°
- 3.2 Housing coupling
- 4.1 Support arm section
- 5.1 Wall/base mounting
- 6.1 Lifting pillar



Assembly example 3:

direct mounting

- 1.1 Mounting cutout CP-L, round

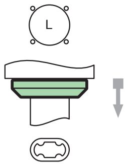
  or

- 1.2 Mounting cutout CP-XL
- 6.1 Lifting pillar

3 Enclosure attachments

3.1 Enclosure attachment CP-L round

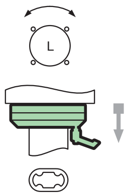
CP 6525.5X0, see page 106



4.1

3.2 Housing coupling CP-L, round

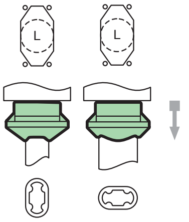
CP 6525.0X0, see page 109



4.1

3.3 Enclosure attachment CP-L, rectangular

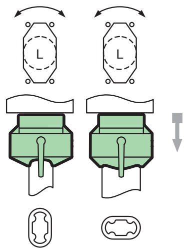
CP 6525.6X0, see page 106



4.1

3.4 Housing coupling CP-L, rectangular

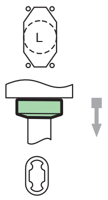
CP 6525.1X0, see page 109



4.1

3.5 Enclosure attachment CP-L, rectangular, locatable

CP 6525.2X0, see page 107



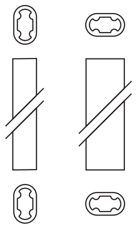
4.1

4 Support sections

4.1 Support section CP-L

Length mm (inches)	Color RAL	Part No. CP
250 (9.84)	7035	**6509.000**
250 (9.84)	9006	**6509.010**

See page 102

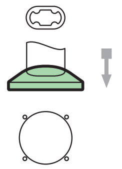


5.1

5 Attachment

5.1 Wall/base mounting, small, CP-L

CP 6520.5X0, see page 105

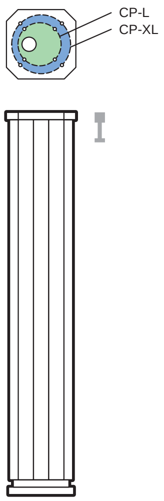


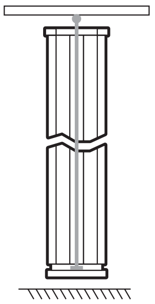
6.1

6 Lifting pillar

6.1 Lifting pillar, electric

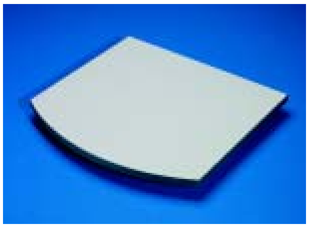
CP 6142.000, see page 134





Assembly example 4:

IW worktops for mounting on the lifting pillar,
see page 160.



Panel lift

Panel lift

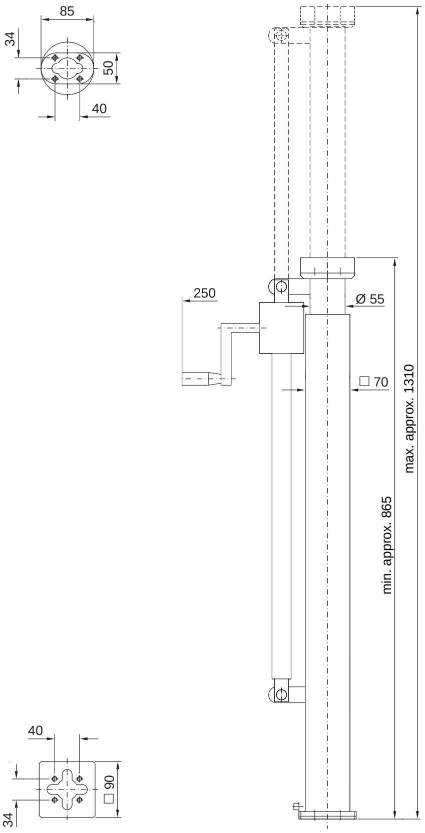
Height adjustment 445 mm (17.52″), from 865 to 1310 mm (34.06″ to 51.18″).
Max. permissible load capacity: 50 kg (110.23 lbs)

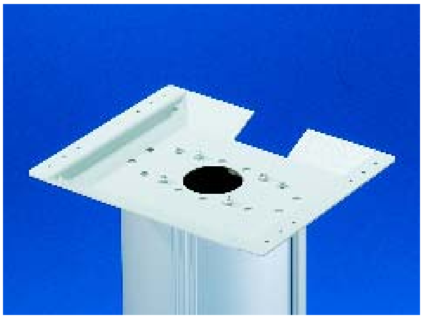
Configuration:
Telescopic pillar made of steel tube with guides.
Self-locking drive with crank handle.

Color RAL	Weight kg (lbs)	**Part No. CP**
7035	10.9 (24.03)	**6139.000**

Accessories:

Accessories	Part No. CP	see page
Pedestal base plate, large	6137.535	146
Enclosure attachment CP-L, round	6525.5X0	106
Enclosure attachment CP-L, rectangular	6525.6X0	106
Enclosure coupling CP-L, round	6525.0X0	109
Housing coupling CP-L, rectangular	6525.1X0	109





Worktop attachment, IW

For mounting worktops on:

- Lifting pillar, electric
- Panel lift
- Enclosure attachment CP-L, round
- Housing coupling CP-L, round
- Enclosure attachment CP-XL, round
- Housing coupling CP-XL

Material:
Sheet steel

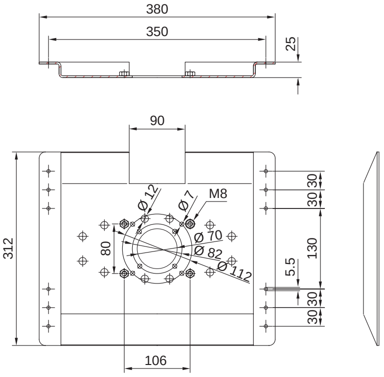
Configuration:
Installation hardware

Color RAL	Weight kg (lbs)	**Part No. IW**
7035	3.0 (6.61)	**6902.780**

⊞ Accessories:

Accessories	Part No. CP	see page
Lifting pillar, electric	6142.000	134
Panel lift [1]	6139.000	138
Enclosure attachment CP-L, round	6525.5X0	106
Housing coupling CP-L, round	6525.0X0	109
Enclosure attachment, CP-XL, round	6130.600	122
Housing coupling, CP-XL	6130.000	123

[1] In conjunction with enclosure attachment, CP-L, round, or enclosure attachment CP-L, round.

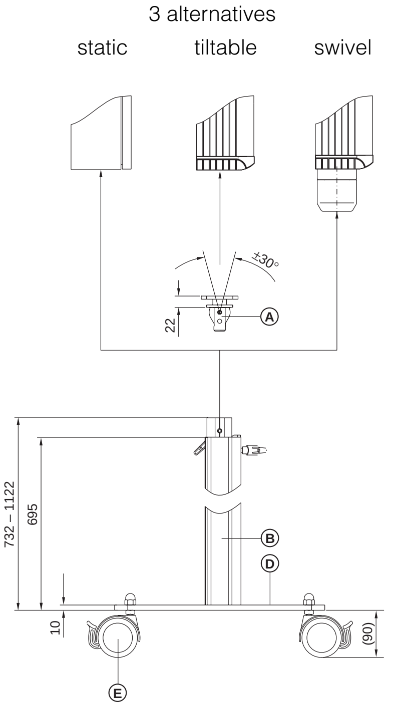


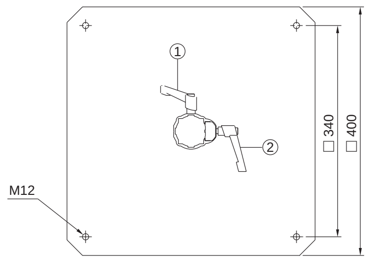
Pedestals

Pedestal, mini

with height and tilt adjustment
For small panels and keyboard housings up to 20 kg (44.09 lbs).

May be compiled from the following modules:	Part No. CP
Ⓐ Tilt adjustment	**6146.300**
Ⓑ Support section, height-adjustable	**6146.200**
Ⓒ Gas pressurised spring (not illustrated)	**6146.400**
Ⓓ Pedestal base plate	**6146.100**
Ⓔ Twin castors see page 213	**6148.000**





① Clamping lever, tilt adjustment
② Clamping lever, height adjustment

Tilt adjustment

May optionally be used for direct top-mounting on enclosures with a mounting cutout:

- CP-S
- CP-L, rectangular
- CP-L, round

Adjustment range:
±30°

Material:
Sheet steel, zinc plated

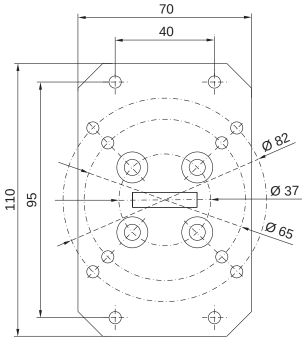
Configuration:
Locking lever and installation hardware for height-adjustable mounting on the support section.

Rittal Service:

As tilt adjustment for support arm system CP-S on request.

PU	Part No. CP
1	**6146.300**

View B



Support section, height-adjustable

Adjustment range from 732 to 1122 mm (28.82″ to 44.17″).
Inner section for external mounting of:
- Tilt adjustment CP 6146.300*
- Enclosure attachment CP 6501.060 / .070
- Housing coupling CP 6501.040 /.050

External section with:
- Clamping screws at the rear for external mounting on pedestal base plate CP 6146.100
- Clamping lever for height adjustment
- Surface for external cable routing.

* Cannot be combined with enclosure attachment or housing coupling.

Material:
Extruded aluminum section, natural anodized.

Configuration:
Inner and outer section including locking lever and installation hardware for external mounting on the base plate and enclosure.

PU	Part No. CP
1	**6146.200**

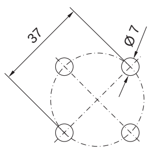
Rittal Service:

Other heights available on request.

Accessories:

Tilt adjustment CP 6146.300, see page 140.
Enclosure attachment CP 6501.060 / .070, see page 90.
Housing coupling CP 6501.040 / .050, see page 90.
Support section CP-S, see page 88.

View A

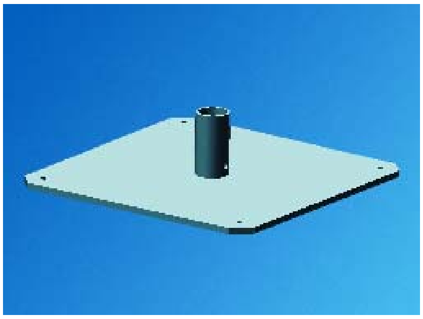


Gas pressurised spring

- For relief with height adjustment
- Optional installation
- Mounting on the inside
- Load capacity 15 kg (33.07 lbs)
- Length 490/885 mm (19.29″/34.84″)

Configuration:
Installation hardware for installing in the support section, height-adjustable.

PU	Part No. CP
1	**6146.400**



Pedestal base plate

With large surface for stability and welded tube connectors (48.3 mm (1.9″) diameter) to accommodate the external profile of the support section, height-adjustable.

Material:
Sheet steel, powder coated

Color RAL	PU	Part No. CP
7024	1	**6146.100**

Accessories:

Twin castors CP 6148.000, see page 213.
Floor attachment (from the outside using screws up to M10).

Pedestals

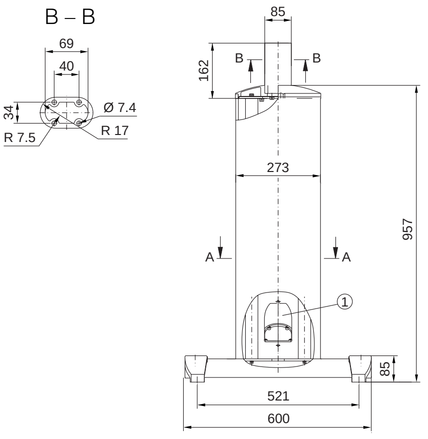
Pedestal

for Command Panel
One oval panel is permanently screw-fastened, while the other can be opened by “spreading” with a screwdriver for easy laying of cables.
In the Command Panel VIP 6000 with keyboard housing, we recommend an adjustable frame connector or hinged frame connector at the front for opening the cover (see page 226).

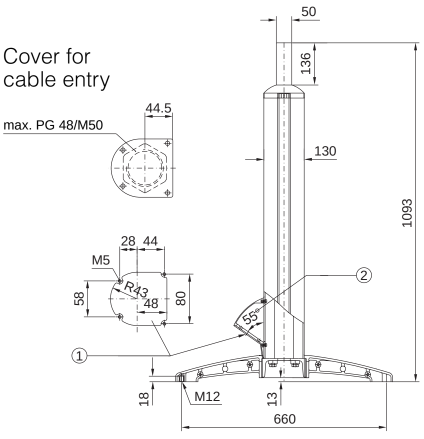
Configuration:
2 cast aluminum feet,
1 cross member made of steel,
2 steel support tubes welded to cross member,
2 oval panels made from aluminum section,
1 top cover made from cast aluminum with support section CP-L, partially pre-assembled.

Pedestal H x W x D 1093 x 600 x 700 mm (43.03″ x 23.62″ x 27.56″)	Color RAL	Weight kg (lbs)	**Part No. CP**
With hole for cable entry in cross member	7035/ Natural ano-dized	34.9 (76.94)	**6141.000**
With cable conduit adaptor and hole for cable entry in cross member	7035/ Natural ano-dized	35.1 (77.38)	**6141.100**

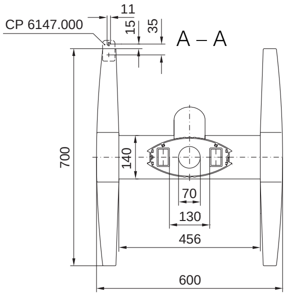
Other widths and heights and support tubes available on request.



① Cutout only for CP 6141.100



① Cross-section, cable entry
② Cable conduit adaptor only for CP 6141.100



Version and accessories

Cast feet	Accessories	Part No.	see page
With M12 thread at the bottom for	Twin castors	CP 6148.000 PC 4634.500 PC 4634.000 PS 4611.000	213
	Levelling feet	PS 4612.000	214
	Base mount	CP 6147.000	215
With M8 thread on the inside for	Foot rest	CP 6145.100	215
	Trim panel	CP 6144.100	215

Enclosure may optionally be mounted via

Accessories	Part No. CP	see page
Enclosure attachment CP-L, round	6525.500	106
Enclosure attachment CP-L, rectangular	6525.600	106
Housing coupling CP-L, round	6525.000	109
Housing coupling CP-L, rectangular	6525.100	109
Enclosure attachment CP-L, rectangular, locatable	6525.2X0	107

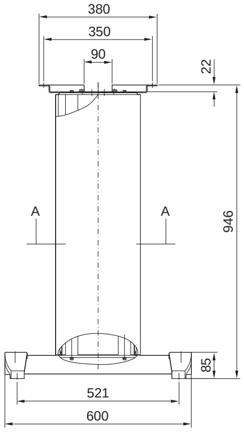
Pedestal

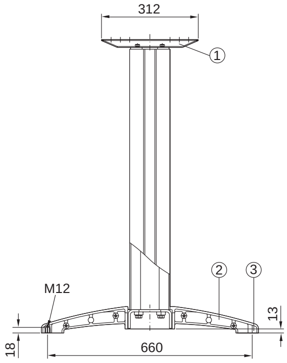
for IW worktops
The panel tray is opened for easy cable laying.

Material:
Feet: Cast aluminum
Cross member, vertical support tubes: Steel
Panels: Aluminum section

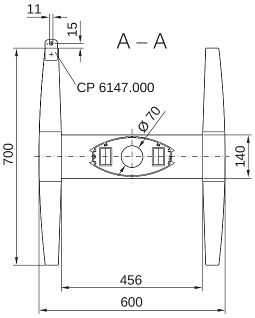
Pedestal H x W x D	Color RAL	Weight kg (lbs)	**Part No. CP**
946 x 600 x 700 mm (37.25″ x 23.62″ x 27.56″)	7035/ Natural anodized	33.7 (74.30)	**6141.200**

Note:
Pedestal, height-adjustable, available on request.


380
350
90
22
A
A
946
85
521
600


312
①
②
③
M12
18
660
13

① Prepared for worktop IW 6902.310
② Prepared for trim panel CP 6144.100 or foot rest CP 6145.100
③ Prepared for twin castors CP 6148.000 or base mount CP 6147.000


11
15
A – A
CP 6147.000
Ø 70
700
140
456
600

Pedestals

Steel

Stainless steel

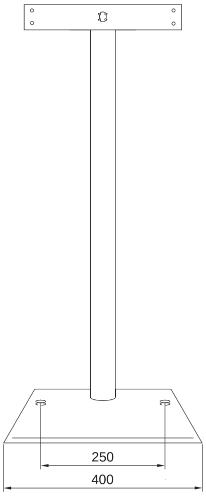
Pedestal, modular, small

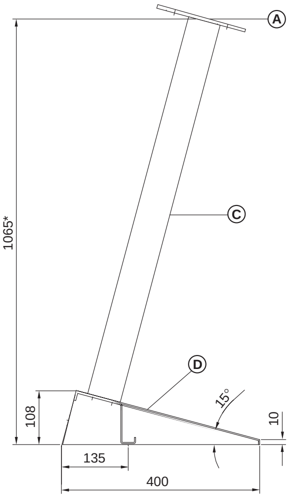
For the configuration of compact operating stations.

May be compiled from the following modules:	**Part No. CP-L Steel**	Page	**Part No. CP-S Stainless steel**	Page
Ⓐ Enclosure reinforcement	**6143.210**	218	**6143.310**	218
Ⓑ Enclosure attachment, top*	**–**	–	**6664.500**	93
Ⓒ Support section, straight (may be shortened to required length by cutting)				
500 mm (19.69″)	**6511.000**	102	**6660.050**	92
1000 mm (39.37″)	**6513.000**	102	**6660.010**	92
2000 mm (78.74″)	**6515.000**	102	**6660.020**	92
Ⓑ Enclosure attachment, bottom*	**–**	–	**6664.500**	93
Ⓓ Pedestal base plate, small	**6143.200**	145	**6143.300**	145

* Not required with CP-L steel version.

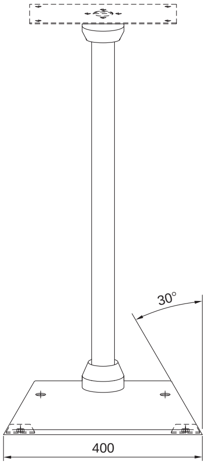
Steel

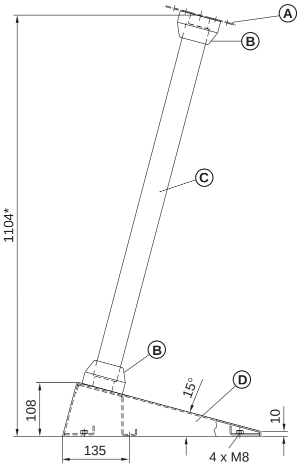




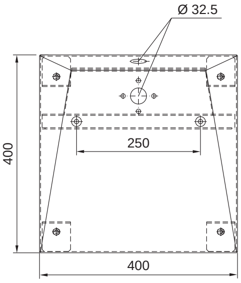
* for support section length 1000 mm (39.37″)

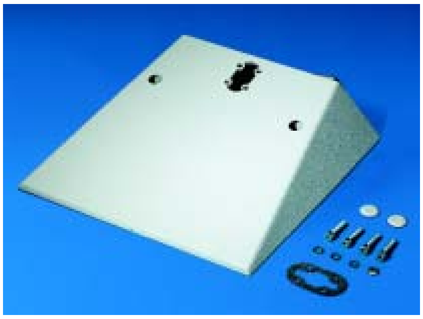
Stainless steel



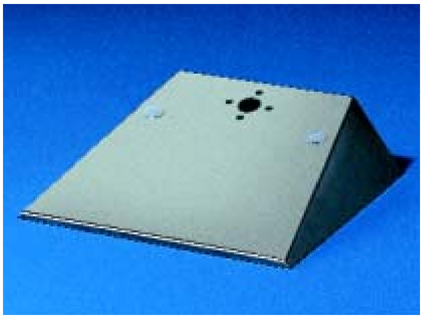


* for support section length 1000 mm (39.37″)





Steel



Stainless steel

Pedestal base plate, small

- With one hole at the rear for commercially available cable conduit gland M20.
- With two holes at the top (including sealing plug) for lower base attachment cross member.
- Prepared on the inside for a cable clamp DK 7077.000 or DK 7078.000 for strain relief.

Material	Weight kg (lbs)	Color RAL	**Part No. CP**
Sheet steel 2.5 mm (12 ga)	6.3 (13.89)	7035	**6143.200**
Type 304 stainless steel	7.0 (15.43)	–	**6143.300**

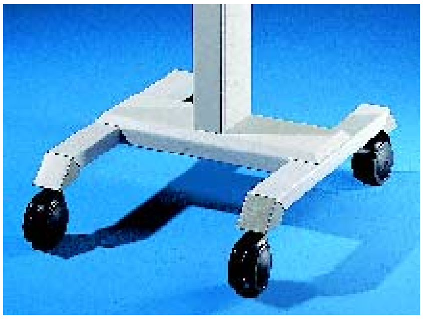
Note:
Commercially available screws up to M8 may be used for floor attachment.

Accessories:

Cable clamp DK 7077.000 or DK 7078.000, see page 223.

Additional parts

see table, page 144.



Pedestal, mobile

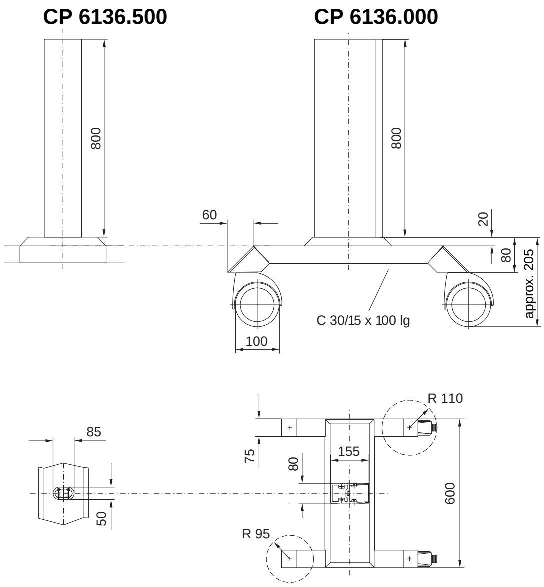
Consisting of:
2 sheet steel beams, each with
2 die-cast zinc connection plates with plastic covers,
4 twin castors, 2 x with, 2 x without locks,
1 cross-brace, screw fastened, of sheet steel with integral cable clamping bracket,
1 support section made of aluminum (for CP 6136.000 with clip-in lid).

Material:
Powder coated in RAL 7035,
Roller bearings RAL 7030,
partially pre-assembled.

Pedestal, mobile with support section	**Part No. CP**
CP-L (see page 102)	**6136.500**
CP-XL (see page 120)	**6136.000**

Accessories for the configuration of Command Panel:

Enclosure attachment for	**Part No. CP**	See page
6136.500 CP-L	**6525.6X0** **6525.5X0**	106
6136.000 CP-XL	**6130.600** **6130.500**	122



Pedestals

Pedestal base plate, large

Fitted as standard with:

- Cutout for concealed mounting of cable conduit adaptors up to PG 36 or M 50.
- Cutout for PG segments (EL 2235.010 to EL 2235.080) or cable conduit adaptor up to 70 mm (2.76″) diameter
- Integral cable clamp bracket.

Material:
Sheet steel, powder coated

Configuration:
Integral reinforcement and mounting cutout for support section CP-L or CP-XL, complete with installation hardware for configuration of the support section.

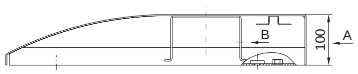
For Support arm section	Weight kg (lbs)	Color RAL	**Part No. CP**
CP-L	12.4 (27.34)	7035	**6137.535**
CP-XL	13.1 (28.88)	7035	**6137.035**

! Additional parts

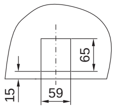
Support section CP-L,
see page 102,
Support section CP-XL,
see page 120,
Panel lift (for CP-L version),
see page 138.

+ Accessories:

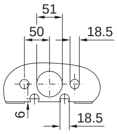
CP enclosure or worktops according to choice.
Twin castors,
see page 213.
Levelling feet,
see page 214.
Wall mounting bracket KL 1580.000 or KL 1590.000,
see Handbook, page 962.

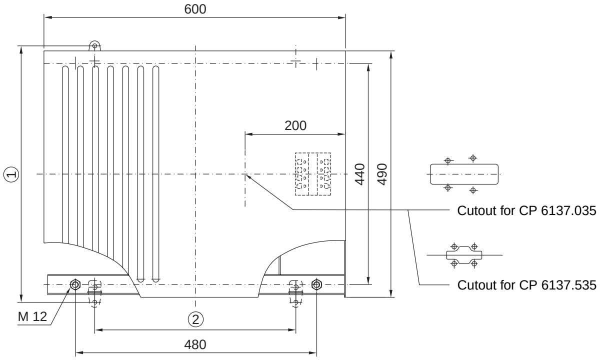


View A



View B





① 510 for floor anchoring
with KL 1580.000, KL 1590.000
② 400 for floor anchoring
with KL 1580.000, KL 1590.000

Pedestal for operating housing

Suitable for side mounting of operating housings.

Consisting of:
- Pedestal plate, on castors
- Support section
- End cap with recessed handle.

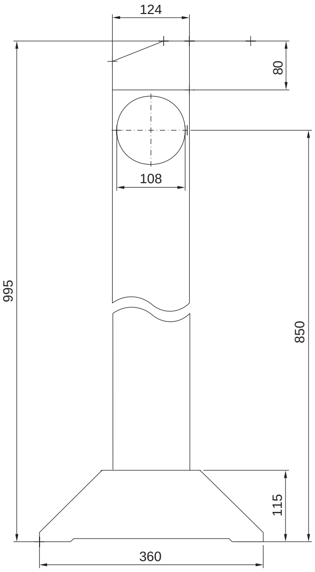
Benefits:
- Pre-assembled cables are inserted as with a cable duct and covered.
- Integral recessed handle and castors facilitate easy movement.
- Optimum adaptation of the tilt of the operating housing to the most favourable working position, with infinitely variable rotation (360°). Installation hardware are included in the supply.

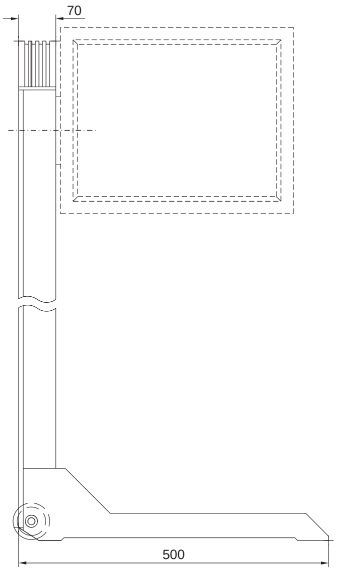
Recommended enclosure*	Permissible installation weights
CP 6442.200	45 kg (99.21 lbs)
CP 6462.200	20 kg (44.09 lbs)
CP 6552.200	30 kg (66.14 lbs)
CP 6662.200	20 kg (44.09 lbs)

* Side cutouts on the enclosures for mounting on the pedestal, available on request.

US patent no. 4,754,942
German patent no. 36 10 151
European patent no. 0 238 911
with validity for CH, IT

Weight kg (lbs)	Color RAL	**Part No. CP**
24 (0.94)	9011	**6135.000**





Pillars

Pillar

The stable base point for support arm system CP-L and CP-XL. The attachment of additional enclosures, e.g. for security systems, is also possible. There is a choice of 2 cross-sections:
- 140 x 140 mm (5.51″ x 5.51″)
- 200 x 200 mm (7.87″ x 7.87″)

Version:
Base plate 15 mm (0.59″) thick, with four mounting holes, cutout in the base plate according to the cross-section for cable entry from below. Pedestal tube (wall thickness 5 mm (0.20″)) welded to the base plate, with connection facilities for support arm systems as per the selection table.

Material:
Steel, painted

Configuration:
Installation hardware for support arm system according to selection.

Note:
Customer-specific designs, such as:
- Other RAL colors
- Drilling patterns
- Heights
- Consoles for additional enclosures

available on request.

Accessories:

Support arm system CP-L, see page 96 – 115.
Support arm system CP-XL, see page 116 – 127.
Metal gland panels, see page 217.

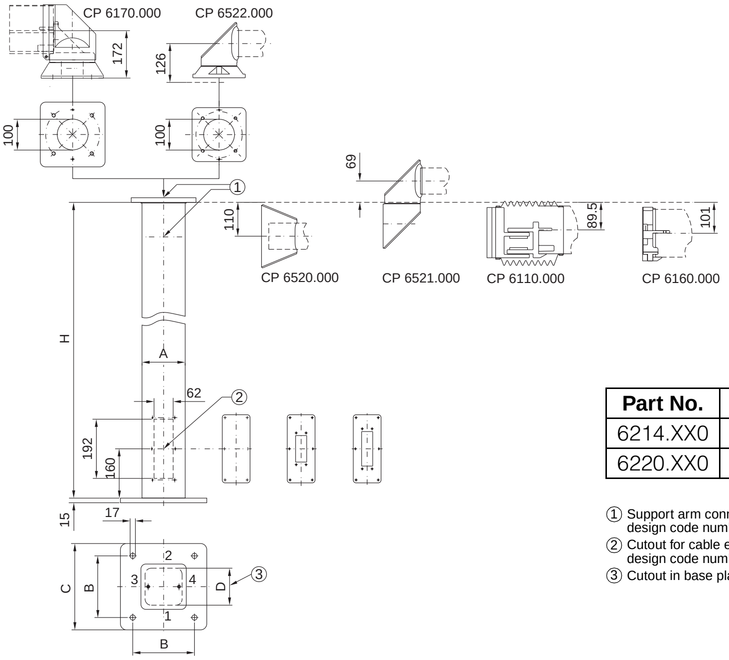
Configuration	Color RAL	**Part No. CP**				Page
Cross-section, 140 x 140 mm (5.51″ x 5.51″), Height 2000 mm (78.74″)	7035	**6214.**	**X**	**X**	**0**	
Cross-section, 200 x 200 mm (7.87″ x 7.87″) , Height 2000 mm (78.74″)	7035	**6220.**	**X**	**X**	**0**	

Cutout for cable entry

Without cutout in pillar			**0**			
Cutout on the front			**1**			
Cutout at rear			**2**			
Cutout on the left			**3**			
Cutout on the right			**4**			

Support arm connection

	Drilled for									
	Wall/base mounting		Wall mounted hinge	Top mounted joint						
	at the front	top	at the front	top						
without								**0**		–
CP-S	6501.1X0							**6**		88
CP-S		6501.1X0						**7**		88
CP-L	6520.0X0							**2**		105
CP-L			6521.0X0					**3**		113
CP-L				6522.0X0				**4**		114
CP-XL	6160.000		6110.000					**1**		122
CP-XL				6170.000				**5**		125



Part No.	A	B	C	D
6214.XX0	140	200	280	120
6220.XX0	200	300	400	180

① Support arm connection according to design code number
② Cutout for cable entry according to design code number
③ Cutout in base plate

Pillar, small

For compact assemblies with drilled holes for the attachment of:
  – Housing coupling CP-XL
  – Enclosure attachment CP-XL
- With cutout for 24-pole connector for cable entry at the bottom rear
- Height: 1150 mm (45.28″)

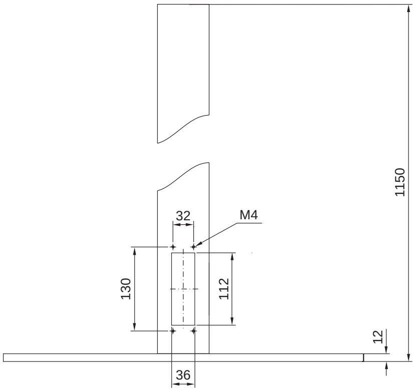
Material:
Steel

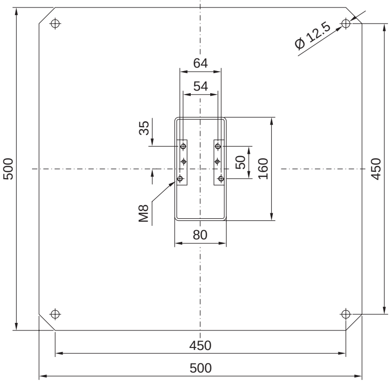
Design:
Base plate 12 mm (0.47″) thick, with 4 mounting holes.
Pedestal tube (cross-section 160 x 80 mm (6.30″ x 3.15″), wall thickness 3.2 mm (10 ga)) welded to base plate, with connection plates at the top for support arm components CP-XL.

Color RAL	**Part No. CP**
7035	**6214.500**

Accessories:

Housing coupling CP-XL, see page 123.
Enclosure attachment CP-XL, see page 122.





Rittal Industrial Workstations . . .

. . . Versatility through modularity

Industrial Workstations are more than just combinations of individual components. Individual customer requirements are achieved cost-effectively and to perfection.

Examples include compact solutions for scanner or laboratory workstations, individual worktops, combinations with the AP console system or Command Panel – there are virtually no limits to your creativity.

The concept is convincing because it is so simple: IW modules are equipped with climate control and electronic components, centralized security controlling, plus an extensive range of accessories, for a complete solution. Perfect solutions from a single source: Rittal.

We develop and manufacture according to the principles of ergonomics and safety engineering.

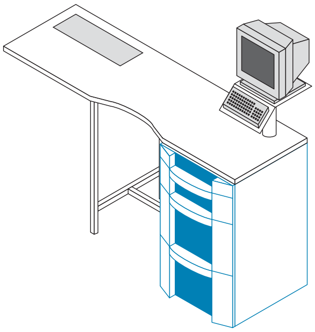
Industrial workstations 152 – 169

Individual solution examples 152 – 153
Fast selection 154 – 155
Enclosures with door versions 156 – 157
Enclosures with drawers 158 – 159
Worktops 160 – 161
Pedestal with worktop 162 – 163
Monitor housings, operating housings 164 – 165
Technical details 166 – 169

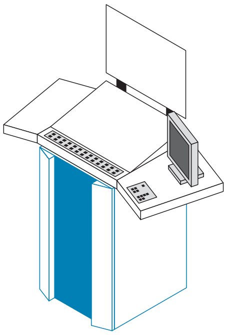
Are you looking for a solution that offers more workspace than a PC cabinet but is more compact than a desk? A system with plenty of opportunities for expansion, a high level of security, and exceptional style? Discover the new dimension at the human/machine interface: Rittal Industrial Workstations.

Our task is to achieve precisely the desired requirement profile. Standardized IW modules provide the ideal basis in this respect. Complemented by modified or individual components, this creates customized workstations.

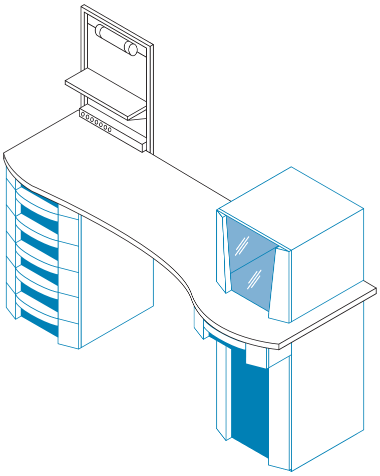
Rittal Industrial Workstations are at the core of every solution. These are solutions with a special design flair. There are virtually no limits to your creativity when designing a system.



With individual worktops – including additional pedestals – the IW range can be extended as required in production.

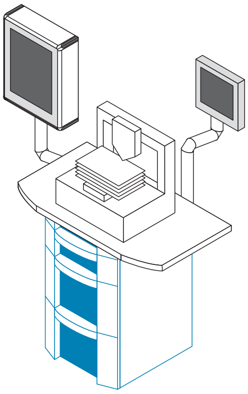


Control rooms – e.g. for printing presses with an individual control panel, and stylish enclosures for slimline HMI monitors.

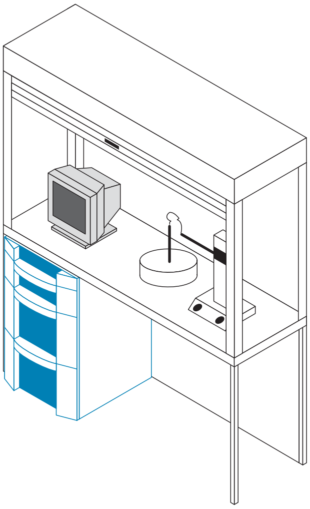


The ideal laboratory workstation:
A large worktop links the workbench and the PC enclosure. A socket strip and light are integrated into the shelved panel.

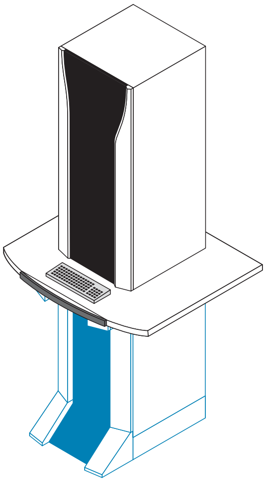
Individual solution examples



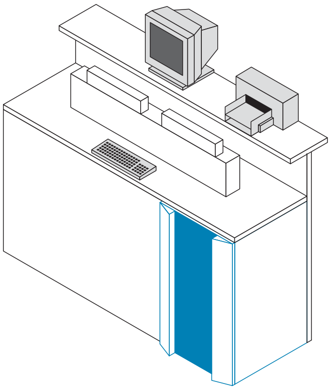
The supplement to the IW enclosure with drawers, thanks to customized panel enclosures, combined with the support arm system, provides solutions for a wide range of laboratory equipment and small machines.



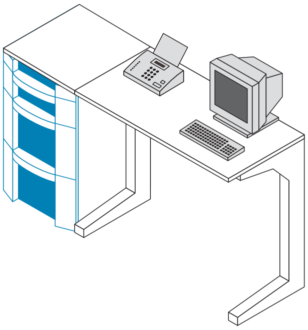
Top mounting or a partially enclosed workstation can also be developed from the IW concept.



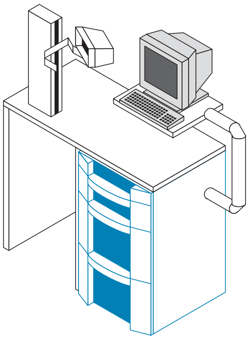
A consistent, stylish design solution is derived from a combination of IW modules with the Factory enclosure based on TS 8.



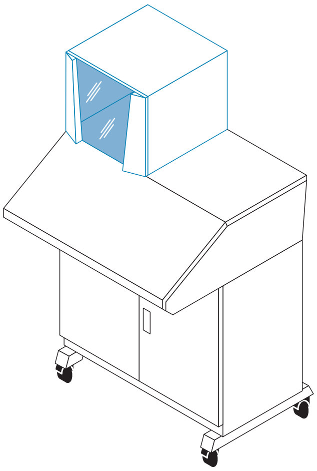
IW as an extended workbench for small machines including control and monitoring units.



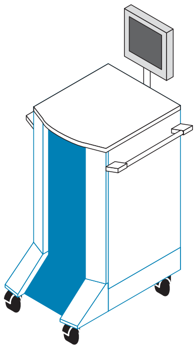
The highly individual workstations for measurement technology, calibration and monitoring are a particular IW domain.



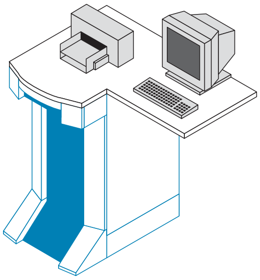
Combination with the support arm system makes the IW concept particularly versatile and cost-effective with minimal use of special components.



The monitor housing is combined with the modular diversity of the AP console system. Mounted on castors, this creates a mobile machine control center.



The sealed "mobile workstation", secure and ideal for industrial use, e.g. with guide handles and TFT enclosure.



It doesn't get much more compact than this – scanner or laboratory workstation with secure accommodation e.g. of computer and laboratory equipment.

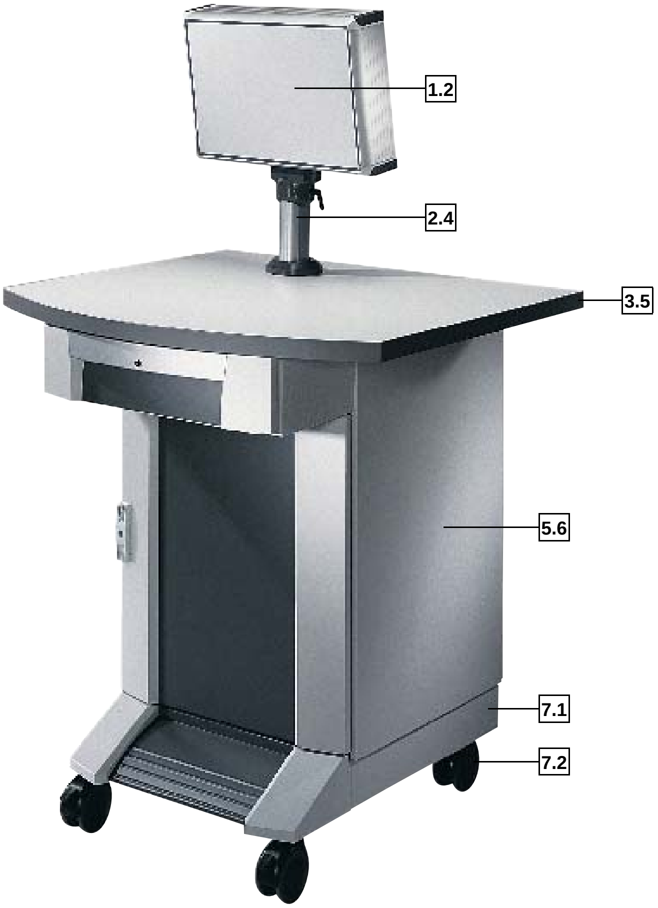
Fast selection

It’s so easy!

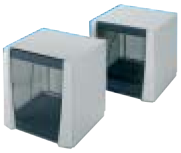
Choose the appropriate IW components according to your requirements.
Start at 1 “monitor housings, operating housings”.

► Continue with IW according to the item numbers.

⊢ System end



1 Monitor housings, operating housings

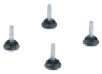
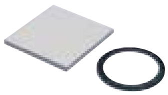
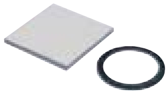
1.1 Monitor housing 17″ **IW 6902.510** **Monitor housing 21″** **IW 6902.500** see page 164 	► **2.1** **2.2**
1.2 Optipanel For TFT monitors or other display and input units From page 40 	► **2.4** **2.5**

Assembly example:

- 1.2 Optipanel
- 2.4 Support arm system CP-L
- 3.5 Worktop, prepared for enclosure attachment
- 5.6 Enclosure with drawer section
- 7.1 Base/plinth, stationary
- 7.2 Twin castors

2 Mounting components

for monitor and operating housings

2.1 Feet for monitor housing **IW 6902.610** see page 225 	⊢
2.2 Spacer plate for monitor housing **IW 6902.630** rotatable in conjunction **Turntable** for spacer and support plate **IW 6902.620** see page 224 – 225 	► **3.4** **4.2**
2.3 Support plate for indiv. equipment **IW 6902.650** rotatable in conjunction **Turntable** for spacer and support plate **IW 6902.620** see page 224 – 225 	
2.4 Supp. arm system CP-L for rotatable, swivel and height-adjustable positioning of the Optipanel command panel see page 96 – 115 	► **3.5** **4.3**
2.5 Enclosure attachment, tilting, top mounting* **IW 6902.670** see page 91 	► **3.5** **4.4**

* May also be used rotated through 180°.

2.6 Enclosure attachment tilting, base mounting **IW 6902.640** see page 110 	► **3.6** **4.4**

Fast selection

3 Worktops

3.1 Cover solid

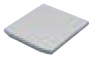
IW 6902.400

see page 160

3.2 Worktop small, solid

IW 6902.300

see page 160

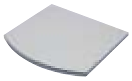


▶ 5.1 5.2 5.3 5.4 5.7

3.3 Worktop solid

IW 6902.100

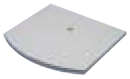
see page 160



3.4 Worktop prepared for turntable

IW 6902.110

see page 160



3.5 Worktop prepared for enclosure attachment

Connection on left,
IW 6902.120

Connection on right,
IW 6902.130

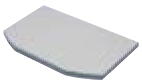
see page 160

▶ 5.1 5.2 5.3 5.4 5.6 5.7

3.6 Worktop prepared for tilting enclosure attachment, base mounting

IW 6902.310

see page 162



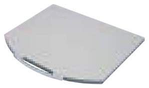
▶ 6.1

4 Worktops with handle

4.1 Worktop with handle solid

IW 6902.000

see page 160



4.2 Worktop with handle prepared for turntable

IW 6902.010

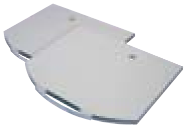
see page 160

4.3 Worktop with handle prepared for enclosure attachment

Connection on left,
IW 6902.020

Connection on right,
IW 6902.030

see page 160



▶ 5.1 5.2 5.3 5.4 5.7

4.4 Worktop with handle prepared for tilting enclosure attachment, base mounting

IW 6902.320

see page 162

▶ 6.1

5 Enclosures

5.1 Designer door, rear panel screw-fastened from the inside
Height 900 mm (35.43″)

IW 6900.000

see page 156

5.2 Designer door, rear panel screw-fastened from the outside
Height 1000 mm (39.37″)

IW 6901.000
see page 156

5.3 Designer door, rear door
Height 900 mm (35.43″)

IW 6900.100

see page 156

5.4 Viewing door, rear door
Height 900 mm (35.43″)

IW 6900.200

see page 156

▶ 7.1 7.2

5.6 Drawer sect., designer door,
Height 900 mm (35.43″)

IW 6900.400
see page 158

5.7 Drawer front, rear panel screw-fastened from the inside
Height 900 mm (35.43″)

IW 6900.600

see page 158

5.8 Worktop, keyboard drawer, designer door, rear door
pre-configured, Height 1000 mm (39.37″)

IW 6901.100*

see page 158

5.9 Roof, keyboard drawer, designer door, rear door
pre-configured, Height 1000 mm (39.37″)

IW 6901.200*

see page 158

▶ 7.1 7.2

*The fitted versions IW 6901.100 (with worktop) and IW 6901.200 (with roof) are also available with other worktops on request.

6 Pedestal

6.5 Pedestal

IW 6141.200

see page 162

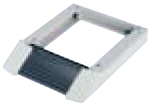
▶ 7.2

7 Base/plinth components

7.1 Base/plinth, stationary

PC 8800.920

see page 207



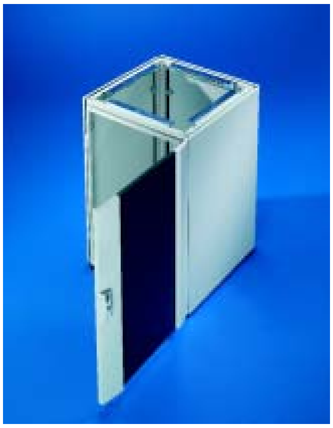
▶ 7.2

7.2 Twin castors

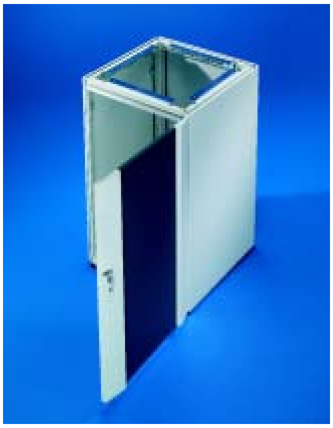
PC 4634.500

see page 213

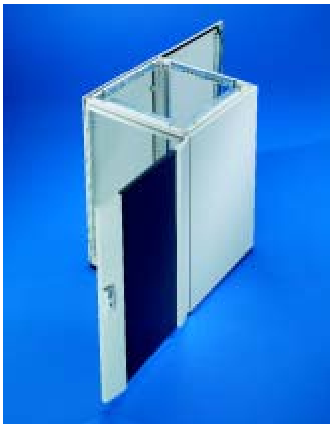
Designer door, rear panel screw-fastened from the inside



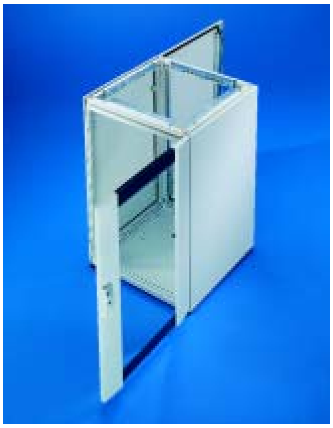
Designer door, rear panel screw-fastened from the outside



Designer door, rear door



Viewing door, rear door



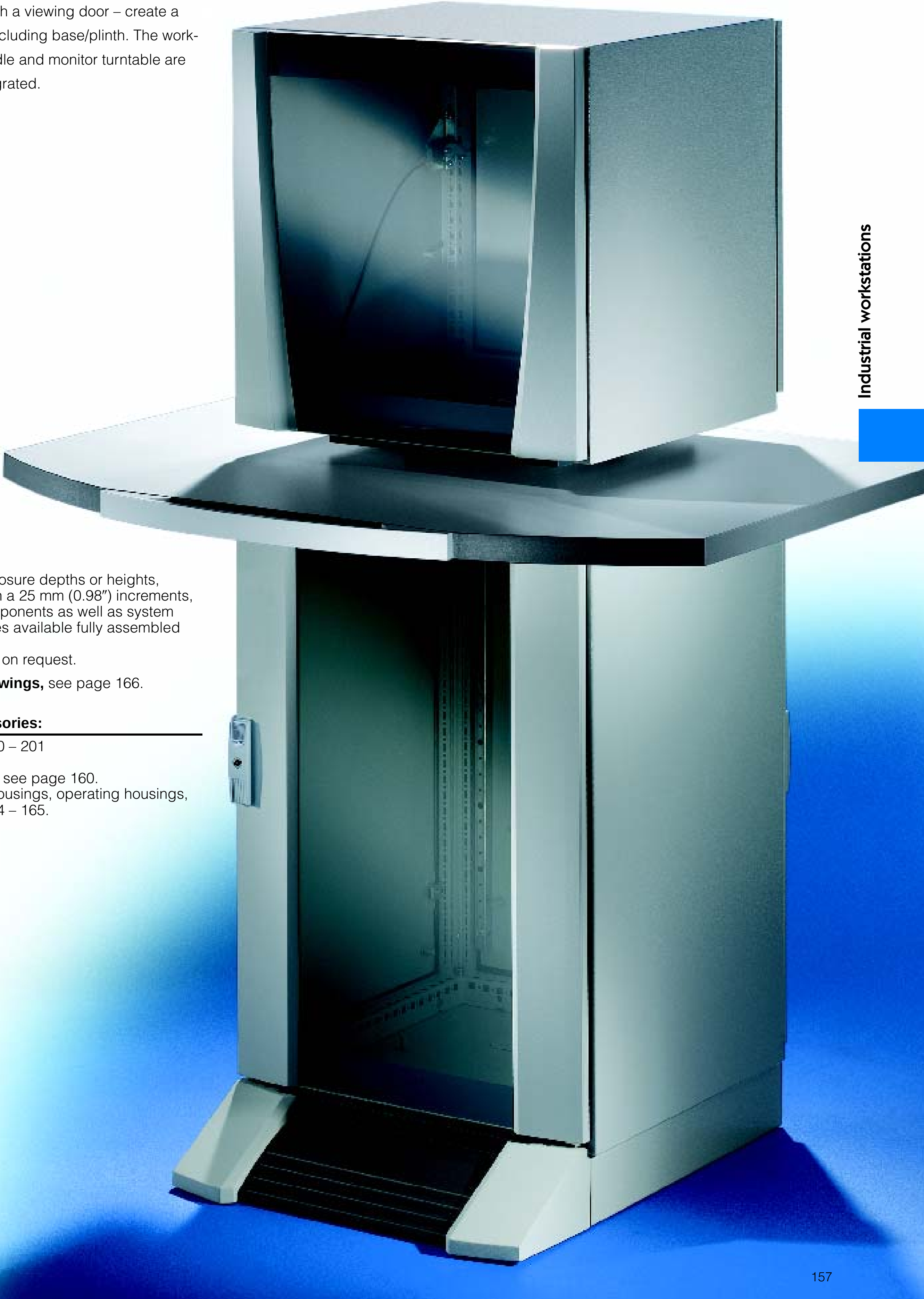
		Part No. IW	Width 600 mm (23.62″) Depth 600 mm (23.62″)	**6900.000**	**6901.000**	**6900.100**	**6900.200**
		Weight kg (lbs)		54.9 (121.03)	59.8 (131.84)	59.9 (132.06)	60.6 (133.60)
		Height mm (inches)		900 (35.43)	1000 (39.37)	900 (35.43)	900 (35.43)

Supply includes	**Design**	**Material**	**Color RAL**				
Enclosure	Frame construction with side walls, screw-fastened from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●	●	●
	Base with gland panel for cable entry						
	Levelling feet to compensate for floor irregularities						
Designer door	Vertical bars with locking rod and double-bit insert, hinged on right-hand side	Aluminum section	7035	●	●	●	
	Door or installation plate, folded	Sheet steel 1.5 mm (16 ga)	7015				
Viewing door	Vertical decorative trim panels	Plastic to UL 94-V0	7035				●
	Pane with screen-printed mask	Safety glass ESG 4.0 mm (0.16″)	7015				
Rear panel	Screw-fastened from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured	●			
	Screw-fastened from the outside				●		
Rear door	With locking rod and double-bit insert, hinged on the right-hand side	Sheet steel 1.5 mm (16 ga)	7035 textured			●	●

Lock systems:
Standard double-bit lock insert may be exchanged for lock inserts, type B cylinder inserts, or comfort handle, see page 244 – 247,
With the door at the front, only in conjunction with handle adaptor PC 8611.300, see page 244.

Enclosures with door versions

A modern workstation: Consistent lines from top to bottom!
Monitor housings and enclosures – each equipped with a viewing door – create a formal unit including base/plinth. The worktop with handle and monitor turntable are stylishly integrated.



Note:
- Other enclosure depths or heights, variable on a 25 mm (0.98″) increments,
- All IW components as well as system accessories available fully assembled ex works

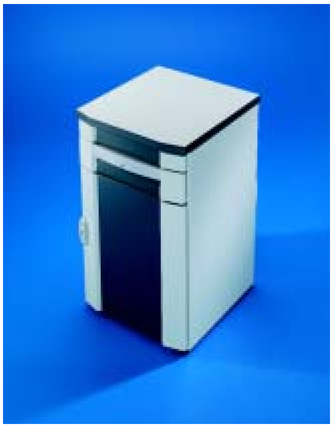
are available on request.

Detailed drawings, see page 166.

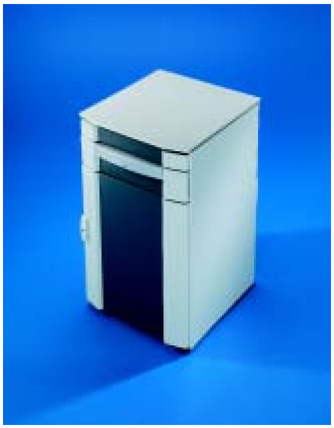
Accessories:

see page 200 – 201
or see index.
IW worktops, see page 160.
IW monitor housings, operating housings, see page 164 – 165.

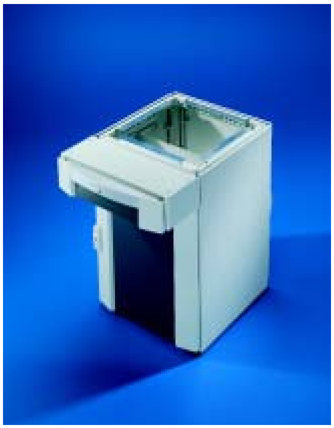
Worktop, keyboard drawer, designer door, rear door



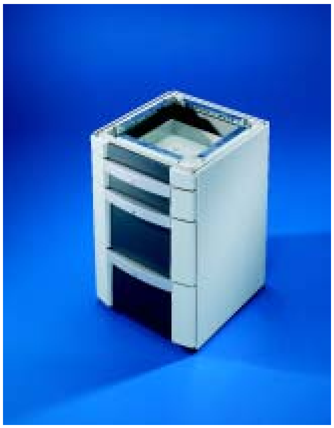
Roof, keyboard drawer, designer door, rear door



Drawer section, designer door, rear door



Drawer front, rear panel screw-fastened from the inside



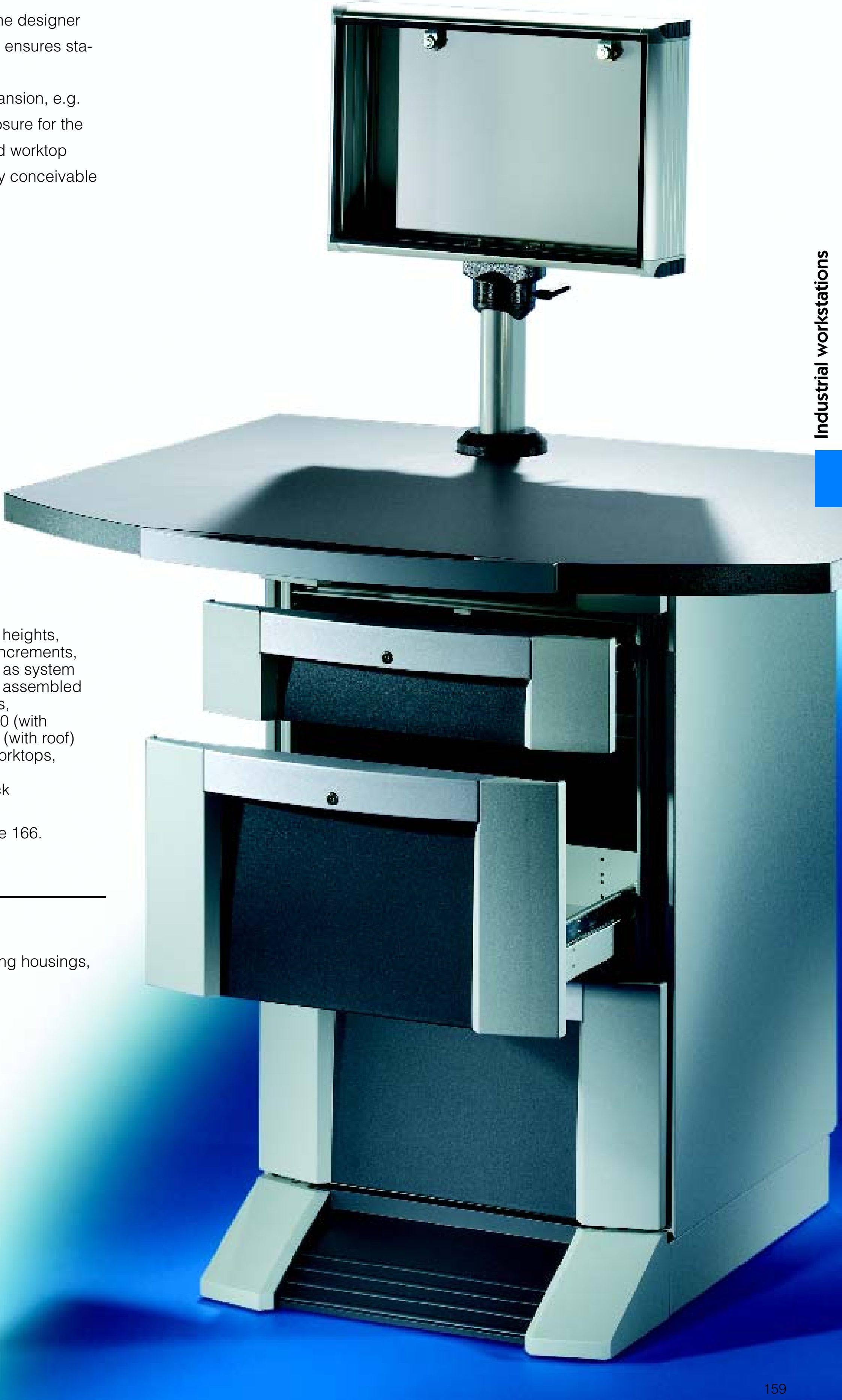
		Part No. IW	Width 600 mm (23.62″) Depth 600 mm (23.62″)	**6901.100**	**6901.200**	**6900.400**	**6900.600**
		Height mm (inches)		1000 (39.37)	1000 (39.37)	900 (35.43)	900 (35.43)
		Weight kg (lbs)		91.2 (201.06)	85.7 (188.93)	73 (160.94)	78 (171.96)

Supply includes	**Version**	**Material**	**Color RAL**				
Enclosure	Frame construction with side walls, screw-fastened from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●	●	●
	Base with gland panel for cable entry						
	Levelling feet to compensate for floor irregularities						
Trim panel, top	To finish off the enclosure at the top	Plastic to UL 94-V0	7035 7015	●	●		●
Keyboard drawer	Drawer housing	Sheet steel 1.5 mm (16 ga)	7035	●	●		
	Extension piece with cable support, hinged, plus pull-out mousepad and keyboard cradle						
	Trim panel with recessed handle, folded as handrest, with lock no. 3524 E	Plastic to UL 94-V0	7035 7015 9006				
Drawer section	Drawer tray, fitted with drawer trim panel and telescopic slides	Sheet steel 1.5 mm (16 ga)	7035			●	
	Drawer trim panel with recessed handle, with lock no. 3524 E.	Plastic to UL 94-V0	7035 7015 9006				
Designer door	Vertical bars with locking rod and double-bit insert, hinged on right-hand side	Aluminum section	7035	●	●	●	
	Door or installation plate, folded	Sheet steel 1.5 mm (16 ga)	7015				
Drawer front	Drawer tray, slotted all round for cross member retainers, 1 x with short trim panel, 2 x with tall trim panel, each with recessed handle, telescopic slides	Sheet steel 1.5 mm (16 ga)	7035 7015 9006				●
Worktop	Solid	Chipboard, plastic-laminated on both sides, with edge strip	Similar to 7035 Edge strip: Similar to 7015	●			
Roof	Edged, screw-fastened from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured		●		
Rear panel	Screw-fastened from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured				●
Rear door	With locking rod and double-bit insert, hinged on the right-hand side	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●	●	

Lock systems:
Standard double-bit lock insert may be exchanged for lock inserts, type B cylinder inserts, or comfort handle, see page 244 – 247,
with the designer door, only in conjunction with handle adaptor PC 8611.300, see page 244.

Enclosures with drawers

For a tidy workspace:
The IW enclosure offers plenty of storage space, whether with a complete drawer front or in combination with the designer door. The special base/plinth ensures stability, even with heavy loads.
Further opportunities for expansion, e.g. with a stylish Optipanel enclosure for the TFT monitor and the prepared worktop including handle, cover every conceivable requirement.



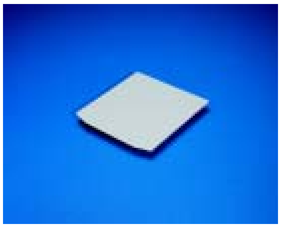
Note:
- Other enclosure depths or heights, variable in 25 mm (0.98″) increments,
- All IW components as well as system accessories available fully assembled
- Other drawer combinations,
- Fitted versions IW 6901.100 (with worktop) and IW 6901.200 (with roof) also available with other worktops, see page 160,
- Drawers with extension lock

are available on request.

Detailed drawings, see page 166.

Accessories:

see page 200 – 201
or see index.
IW worktops, see page 160.
IW monitor housings, operating housings, see page 164 – 165.
Support arm system CP-L,
see page 96 – 115.



Roof

Folded, attached from the inside.

Material:
1.5 mm (16 ga) sheet steel

Finish:
Painted in textured RAL 7035

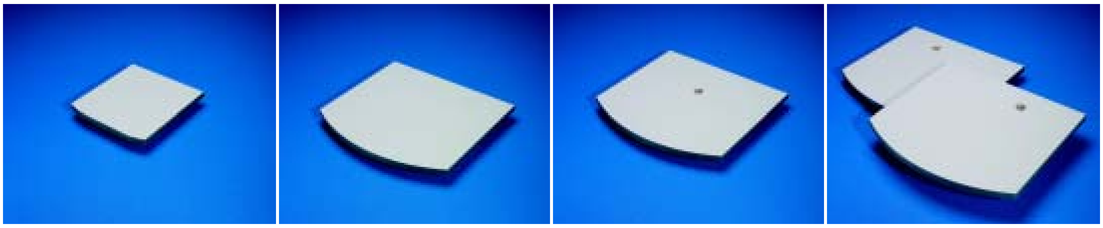
Version	**Solid**
Height mm (inches)	13 (0.51)
Width mm (inches)	600 (23.62)
Depth mm (inches)	640 (25.20)
Weight kg (lbs)	7.4 (16.31)
Part No. IW	**6902.400**

Worktops

Material thickness: 38 mm (1.50″)

Material and surface finish:
Chipboard, plastic-laminated on both sides, similar to RAL 7035, with tough plastic edging, similar to RAL 7015.

Without handle



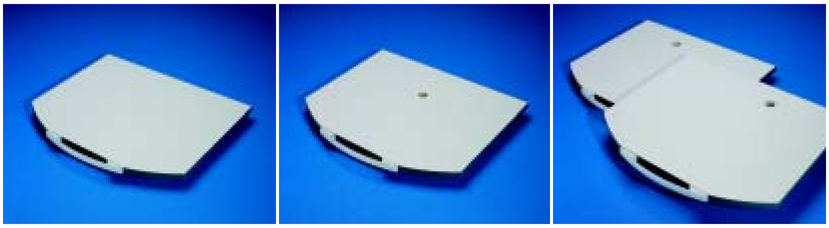
Version	**Solid**	**Solid**	**Prepared for turntable**	**Prepared for enclosure attachment***	
Mounting cutout for enclosure attachment	–	–	–	left	right
Width mm (inches)	610 (24.02)	1000 (35.24)	1000 (35.24)	1000 (35.24)	1000 (35.24)
Depth mm (inches)	645 (25.39)	895 (35.24)	895 (35.24)	895 (35.24)	895 (35.24)
Weight kg (lbs)	11.6 (25.57)	24 (52.91)	23 (50.71)	23 (50.71)	23 (50.71)
Part No. IW	**6902.300**	**6902.100**	**6902.110 1)**	**6902.120 1)**	**6902.130 1)**

* For CP-L enclosure attachment CP 6525.5X0, housing coupling CP 6525.0X0, angle coupling CP 6526.0X0, see page 106 – 112.

1) Hole may be used in conjunction with the adaptor plate for connector grommet IW 6902.660 (see page 222) for cable entry!

With handle

(not suitable for use in enclosures with drawer section IW 6900.400)



Version	**Solid**	**Prepared for turntable**	**Prepared for enclosure attachment***	
Mounting cutout for enclosure attachment	–	–	left	right
Width mm (inches)	1200 (47.24)	1200 (47.24)	1200 (47.24)	1200 (47.24)
Depth mm (inches)	950 (37.40)	950 (37.40)	950 (37.40)	950 (37.40)
Weight kg (lbs)	34 (74.96)	33 (72.75)	33 (72.75)	33 (72.75)
Part No. IW	**6902.000**	**6902.010 1)**	**6902.020 1)**	**6902.030 1)**

* For CP-L enclosure attachment CP 6525.5X0, housing coupling CP 6525.0X0, angle coupling CP 6526.0X0, see page 106 – 112.

1) Hole may be used in conjunction with the adaptor plate for connector grommet IW 6902.660 (see page 222) for cable entry!

Worktops

Every worktop has its own particular strength: e.g. for TFT enclosures on the support arm system CP-L, for monitor housings on a turntable, or simply plenty of work space.

Need a very specific format with additional cutouts for your measurement, testing or production systems? Just ask!

Note:

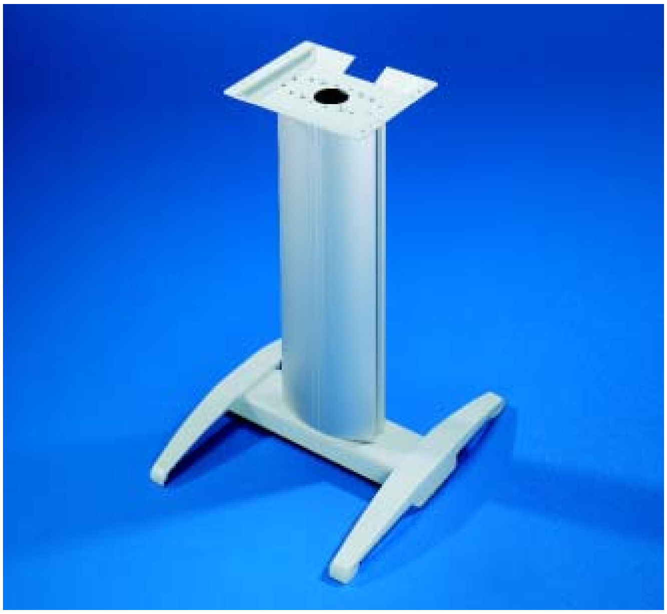
- Keyboard and mousepad integrated into the worktop (including IP 67),
- Worktops in modified sizes and height-adjustable,
- All IW components as well as system accessories available fully assembled
- Fitted versions IW 6901.100 (with worktop) and IW 6901.200 (with roof) also with other worktops

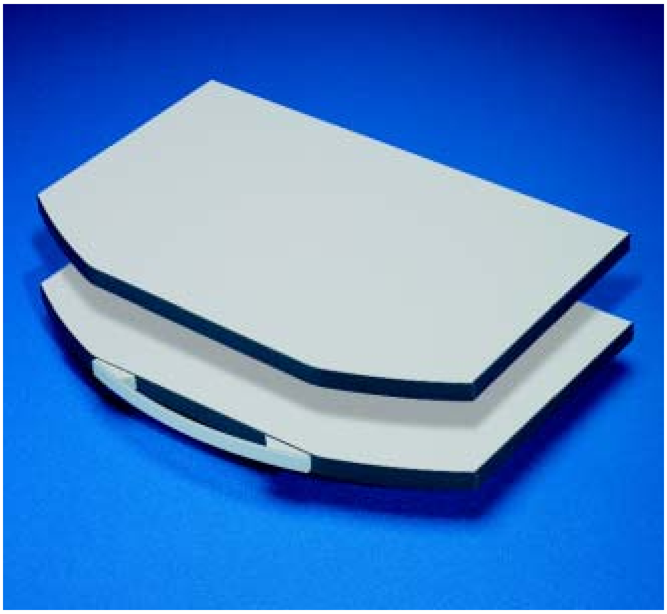
are available upon request.

Accessories:

see page 200 – 201
or see index.

Detailed drawings see page 168 – 169.





Pedestal

The panel tray is opened for easy cable laying.

Material:
Feet: Cast aluminum
Cross member, vertical support tubes: Steel
Panels: Aluminum section

Color:
Feet, cross member, support tubes and worktop attachment: textured RAL 7035.
Panels: Natural anodized

Height mm (inches)	946 (37.25)
Width mm (inches)	600 (23.62)
Depth mm (inches)	700 (27.56)
Weight kg (lbs)	33.7 (8.16)
Part No. IW	**6141.200**

Note:
Pedestal, height-adjustable, see page 134 – 137.

Worktop

Prepared for tilting enclosure attachment

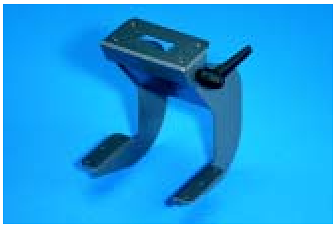
Material and surface finish:
Chipboard, plastic-laminated on both sides, similar to RAL 7035, with tough plastic edging, similar to RAL 7015.

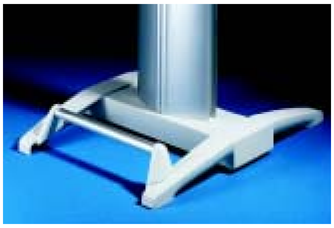
Without handle

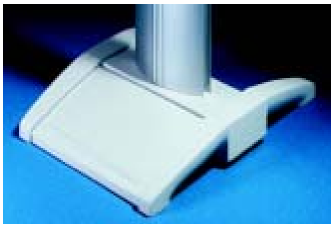
Height mm (inches)	38 (1.50)
Width mm (inches)	950 (37.40)
Depth mm (inches)	600 (23.62)
Weight kg (lbs)	16 (35.27)
Part No. IW	**6902.310**

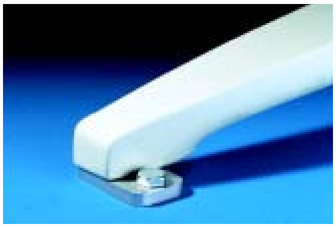
With handle

Height mm (inches)	38 (1.50)
Width mm (inches)	950 (37.40)
Depth mm (inches)	658 (23.62)
Weight kg (lbs)	16 (35.27)
Part No. IW	**6902.320**









Enclosure attachment

tiltable
For mounting underneath the worktop.
Adjustable tilting angle:
40° to the rear, 40° to the front

Material:
Sheet steel, painted, RAL 7024

Weight kg (lbs)	1.6 (3.53)
Part No. IW	**6902.640**

Foot rest

Material:
Connector pieces: Cast aluminum RAL 7035
Round tube section: Aluminum, natural anodized.

Configuration:
Installation hardware

Weight kg (lbs)	0.6 (1.32)
Part No. CP	**6145.100**

Trim panel

Material:
Cast aluminum, powder coated in textured RAL 7035.

Configuration:
Installation hardware

Weight kg (lbs)	1.6 (3.53)
Part No. CP	**6144.100**

Base mount

Material:
Sheet steel, zinc plated, passivated

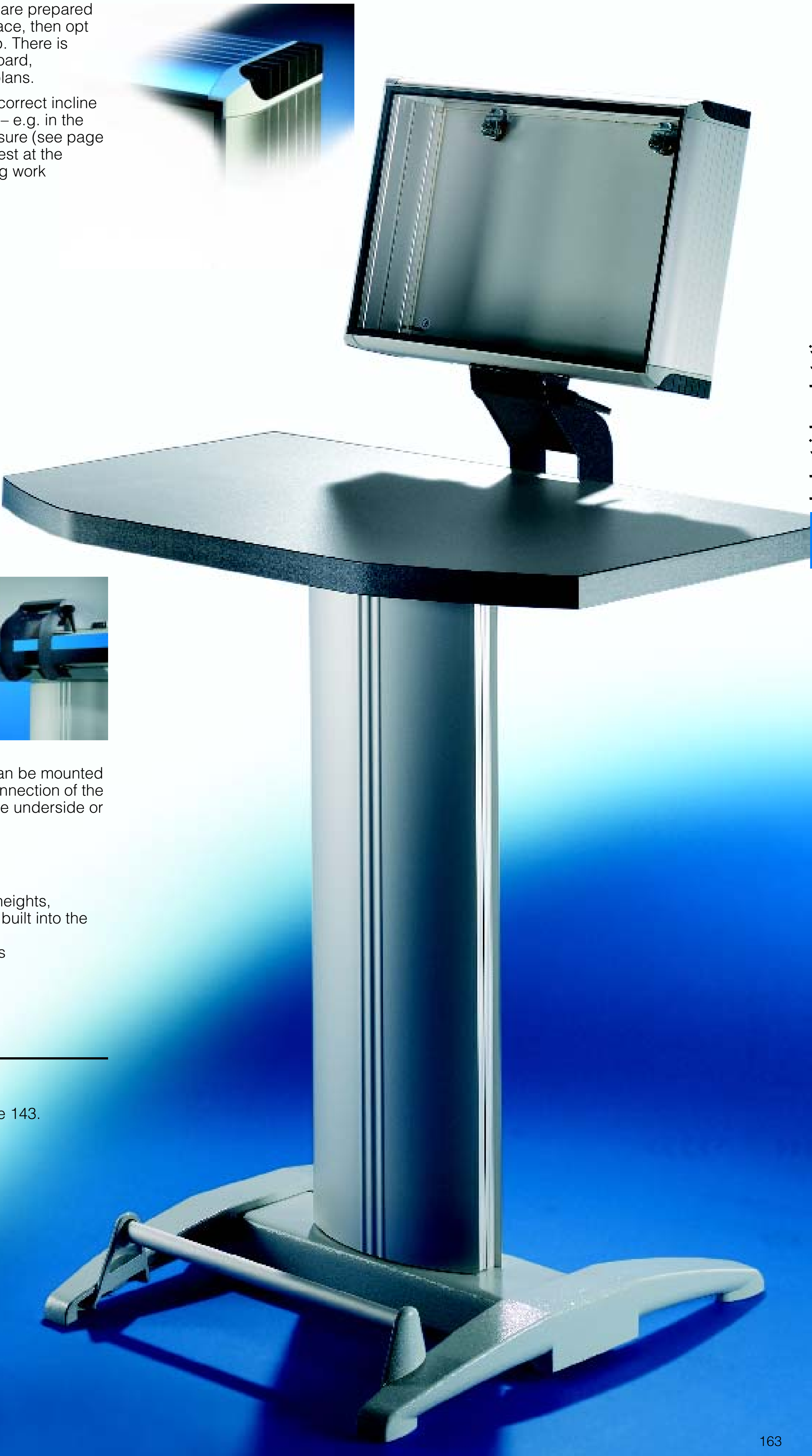
Configuration:
Posidrive raised countersunk screws M12

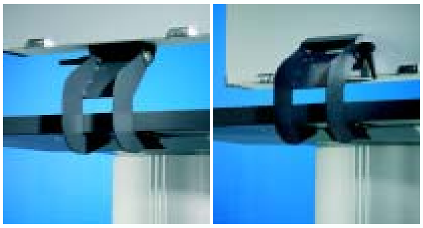
Weight kg (lbs)	0.7 (1.52)
Part No. CP	**6147.000**

Pedestal with worktop

If you need work space and are prepared to sacrifice some storage place, then opt for the pedestal with worktop. There is plenty of space for the keyboard, mousepad and production plans.

An ergonomic solution: The correct incline of the TFT monitor at the top – e.g. in the customized Optipanel enclosure (see page 40 onwards) – and the foot rest at the bottom, for relaxed, changing work positions.





The enclosure attachment can be mounted either on the support arm connection of the Optipanel enclosure or on the underside or rear of any enclosure.

Note:
- Other pedestal widths or heights,
- Keyboard and mousepad built into the worktop (including IP 67),
- Worktops in modified sizes

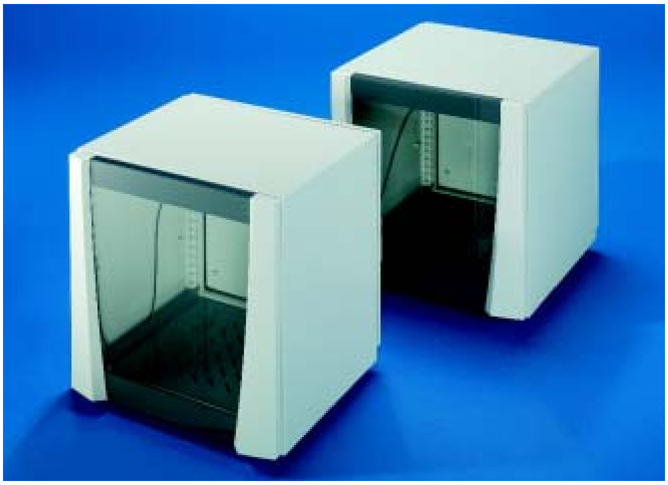
are available upon request.

Accessories:

see page 200 – 201
or see index.

Detailed drawings see page 143.

Twin castors see page 213.



Monitor housing

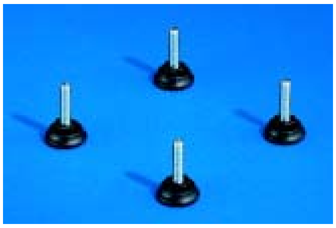
Front designer door, rear door with release for designer door. With cutout at the bottom and reinforcement for support arm connection CP-XL.
Component shelf, slotted, for monitor.

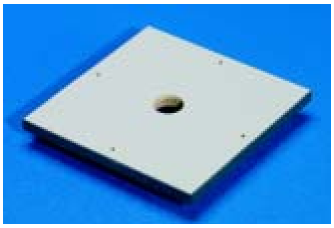
Material:
Enclosure, rear door and component shelf:
1.5 mm (16 ga) sheet steel
Designer door:
Vertical plastic decorative trim panels to UL 94-V0
Glass pane: Safety glass ESG 4.0 mm (0.16″)

Finish:
Enclosure and rear door:
Textured RAL 7035
Designer door:
Decorative trim panels RAL 7035, screen-printed mask on glass pane RAL 7015
Component shelf: RAL 7015

Lock systems:
Standard double-bit lock insert may be exchanged for lock inserts or lock system Ergoform-S, see page 245 – 247.

Dimensions H x W x D mm (inches)	Weight kg (lbs)	For screen	**Part No. IW**
600 (23.62) x 600 (23.62) x 500 (19.69)	38 (83.77)	17″	**6902.510**
600 (23.62) x 600 (23.62) x 600 (23.62)	43 (94.80)	21″	**6902.500**





Feet

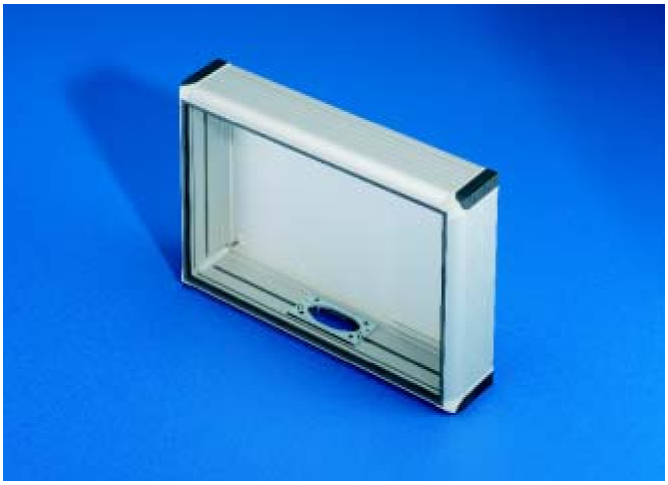
for monitor housing, see page 225.

Spacing plate

for monitor housing, see page 224.

Turntable

for spacer or support plate, see page 225.



Optipanel

A special, stylish enclosure made from extruded aluminum section. In installation depths of 50, 100 and 150 mm (1.97″, 3.94″ and 5.91″), the width and height is adapted to suit your TFT monitors or other display and input units.
All enclosure depths may be combined with support arm system CP-L, see page 40 onwards.

Support arm system CP-L

Using support section CP-L, Optipanel Command Panels may be positioned in a rotatable, swivelling and height-adjustable configuration depending on the respective ergonomic conditions, see page 96 onwards.

Monitor housings, operating housings

As well as conventional monitors, TFT flat-screens are also becoming increasingly popular.

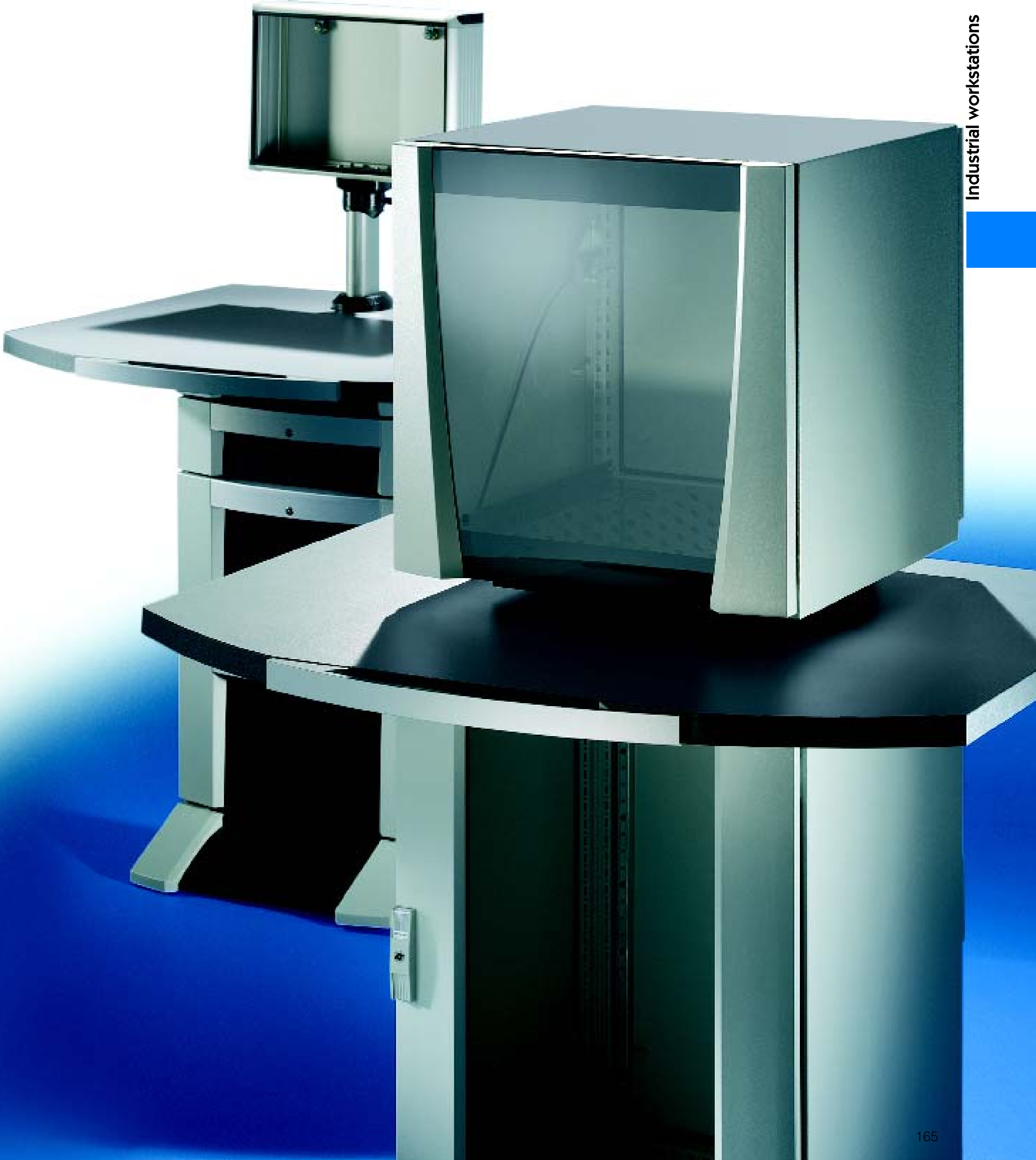
Within the context of its Industrial Workstations series, Rittal offers a wide range of standardized and individual accommodation options for both versions. Versatile ergonomic requirements, security requirements, individual dimensions and design lines are met to perfection.

Accessories:

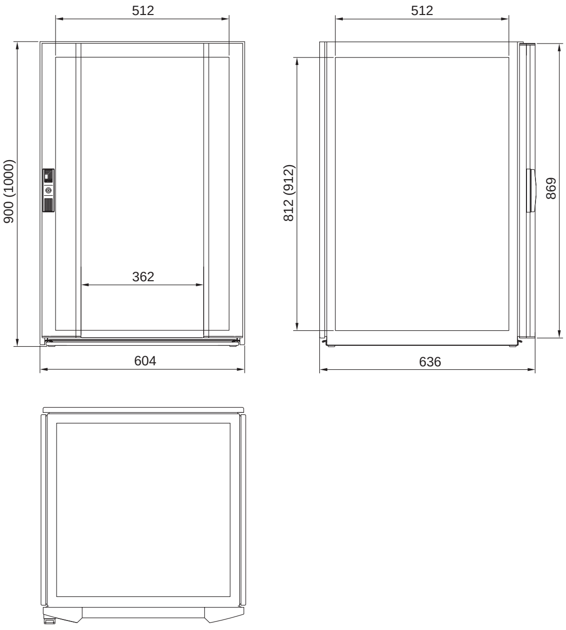
see page 200 – 201
or see index.

Detailed drawings see page 169.

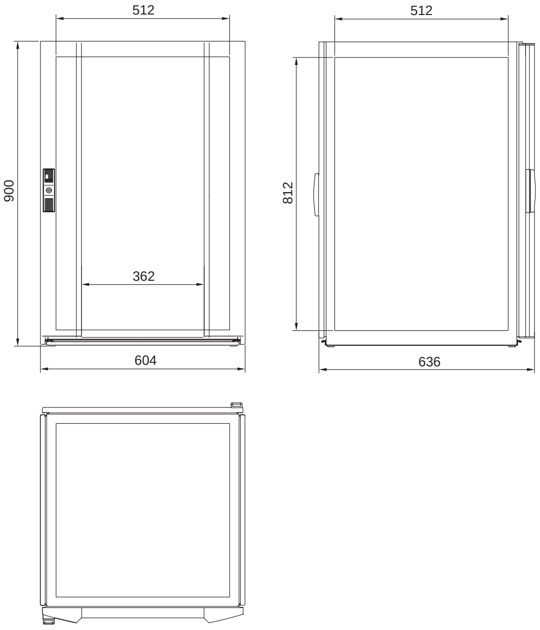
IW worktops prepared for enclosure attachment or turntable,
see page 160 – 161.



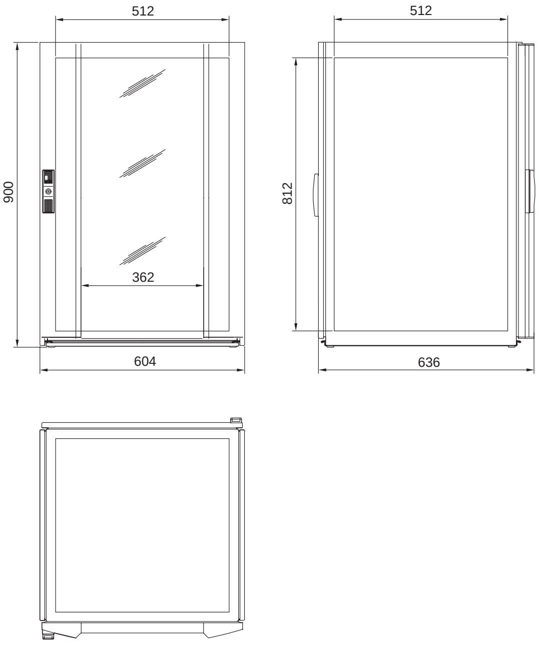
Enclosure with designer door, rear panel IW 6900.000 / IW 6901.000


512
512
900 (1000)
812 (912)
869
362
604
636

Enclosure with designer door, rear door IW 6900.100

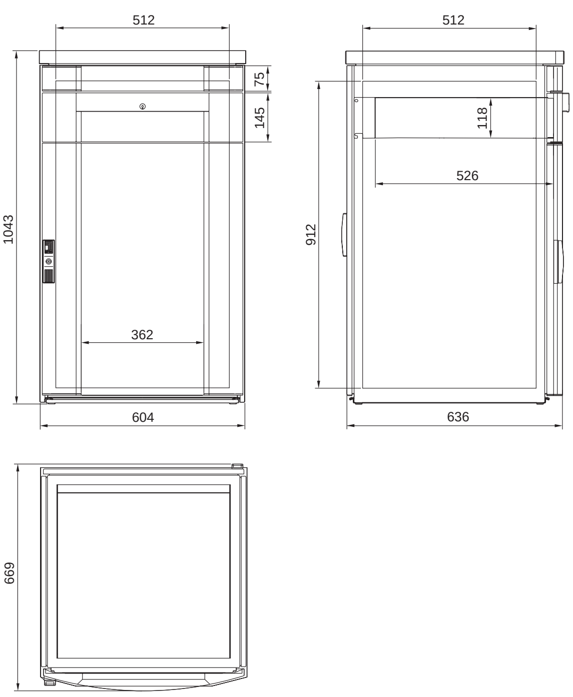

512
512
900
812
362
604
636

Enclosure with viewing door, rear door IW 6900.200

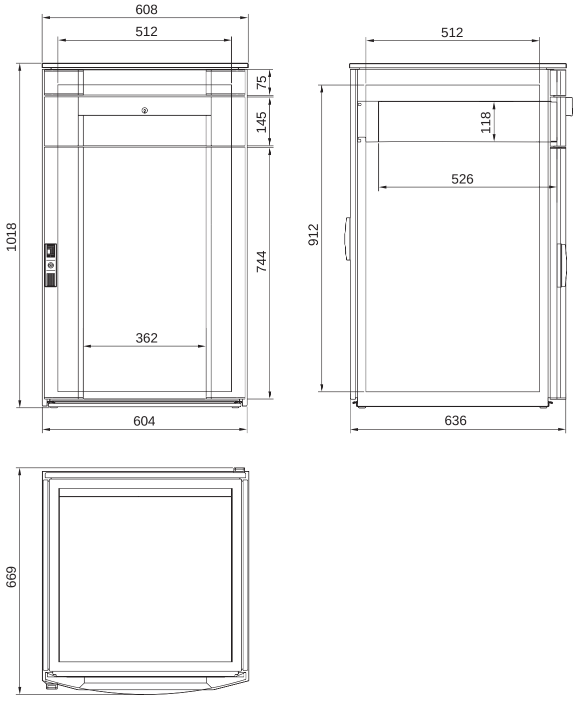

512
512
900
812
362
604
636

Technical details

Enclosure with worktop, keyboard drawer, designer door, rear door
IW 6901.100

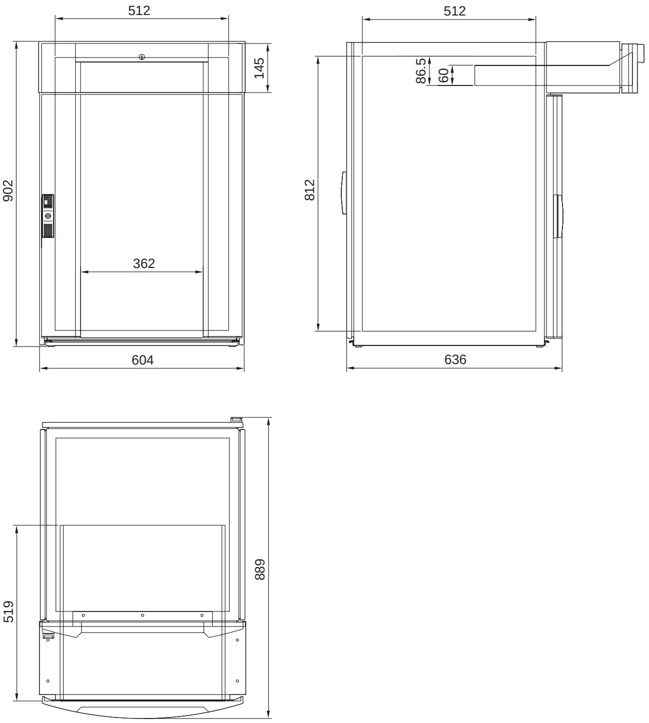

512
512
75
145
118
526
1043
912
362
604
636
669

Enclosure with roof, keyboard drawer, designer door, rear door
IW 6901.200


608
512
512
75
145
118
526
1018
912
744
362
604
636
669

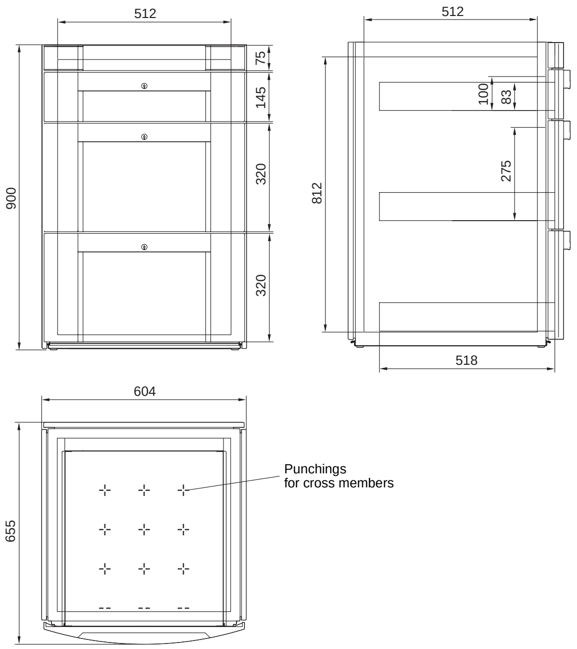
Enclosure with keyboard support, designer door, rear door
IW 6900.400

Max. load capacity of drawer: 15 kg/33.07 lbs

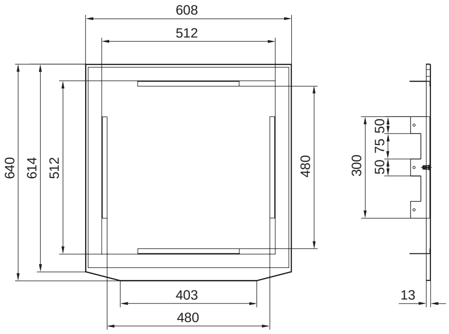

512
512
145
86.5
60
902
812
362
604
636
519
889

Enclosure with drawer front, rear panel
IW 6900.600

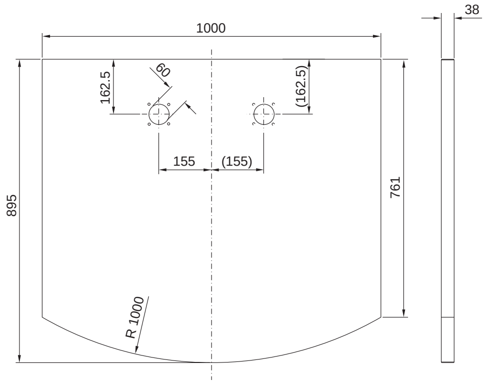
Max. load capacity per drawer: 30 kg/66.14 lbs


512
512
75
145
100
83
320
275
900
812
320
518
604
655
Punchings
for cross members

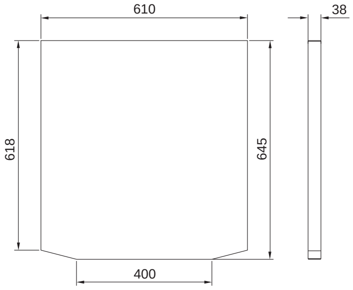
Roof
IW 6902.400


608
512
640
614
512
480
300
50
75
50
50
403
480
13

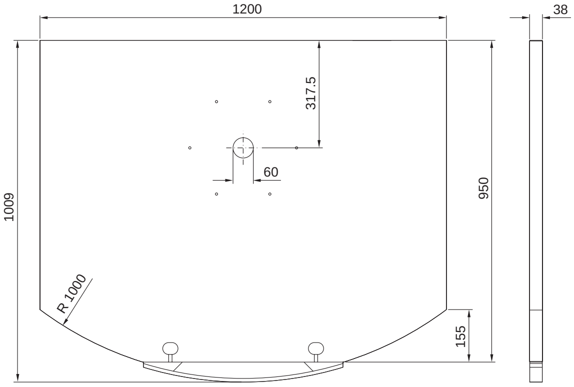
Worktop without handle, prepared for enclosure attachment IW 6902.120 / IW 6902.130


38
1000
162.5
60
(162.5)
155
(155)
895
761
R 1000

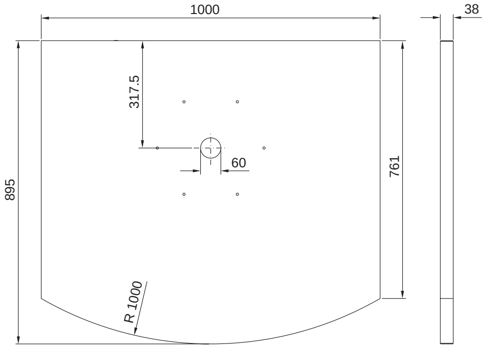
Worktop without handle, solid IW 6902.300


610
38
618
645
400

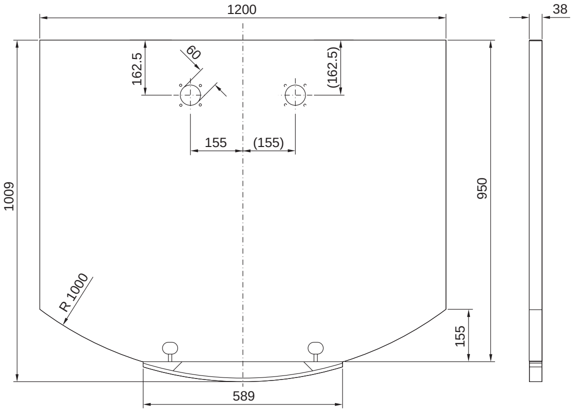
Worktop with handle, solid IW 6902.000, prepared for turntable IW 6902.010


1200
38
317.5
60
1009
950
R 1000
155

Worktop without handle, solid IW 6902.100, prepared for turntable IW 6902.110

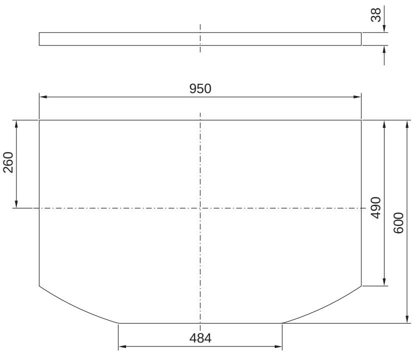

1000
38
317.5
60
895
761
R 1000

Worktop with handle, prepared for enclosure attachment IW 6902.020 / IW 6902.030

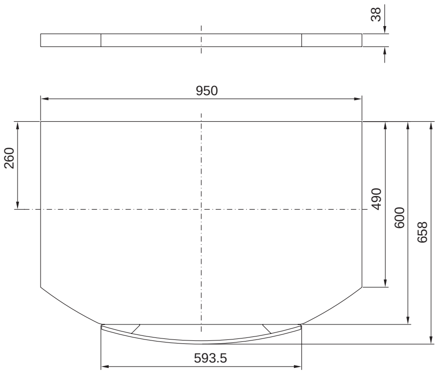

1200
38
162.5
60
(162.5)
155
(155)
1009
950
R 1000
155
589

Technical details

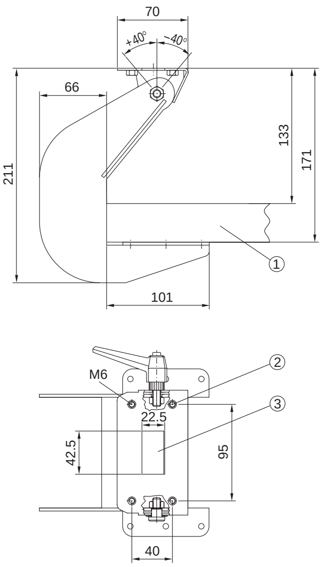
Worktop for pedestal
IW 6902.310


38
950
260
490
600
484

Worktop for pedestal with handle
IW 6902.320

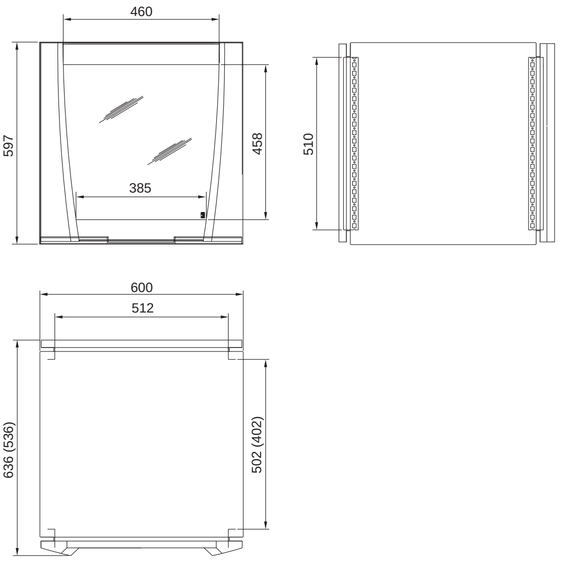

38
950
260
490
600
658
593.5

Enclosure attachment, tilting
IW 6902.640


70
+40°
-40°
66
211
133
171
①
101
M6
②
③
22.5
42.5
95
40

① IW 6902.310
② Prepared for enclosure with connection CP-L rectangular or connection console CP-L CP 6508.0X0
③ Prepared for connector gland SZ 2400.300 / SZ 2400.500

Monitor housing
IW 6902.500 / IW 6902.510


460
597
458
385
510
600
512
636 (536)
502 (402)

Rittal PC enclosure systems . . .

. . . compact and practical

Based on TS 8

The baying system with infinite configuration possibilities. The frame construction means it is open on all sides: with removable side walls and roof plate.

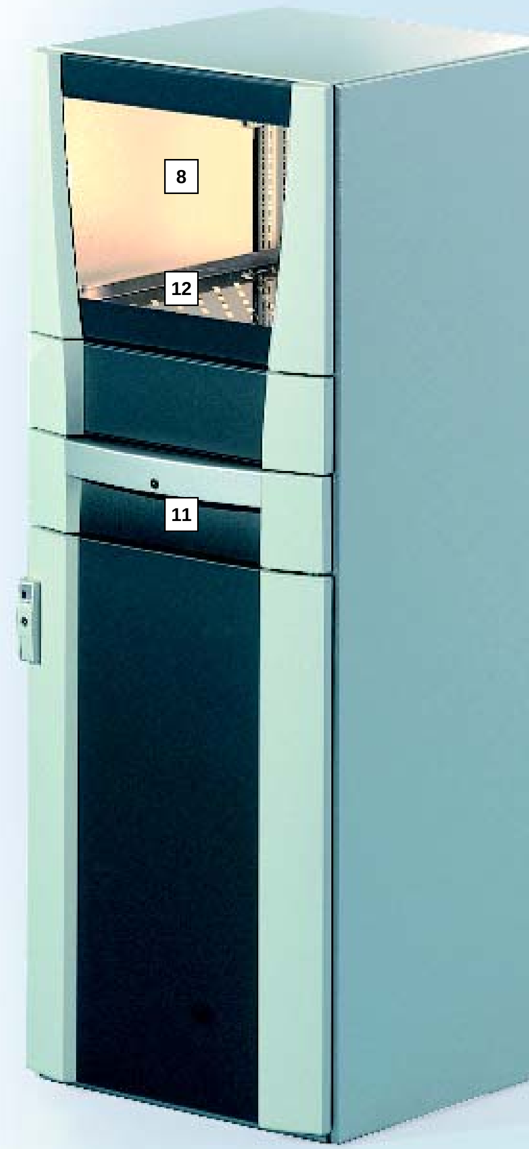
Various versions are possible, e.g. with drawer, fold-out tray or desk section. Depending on requirements, a small or large mounting compartment may be used.

Ease of operation

1. Release cable for easy unlatching of the viewing door, may also be mounted behind the door at the base or rear.
2. Handle strip folded down as handrest during data input.
3. Integral mousepad extension piece, pulls out to the left or right.
4. Keyboards up to 70 mm (2.76″) height may be used.
5. Storage tray for mouse behind the keyboard.
6. Side walls and roof removable, secured and screw-fastened from the inside.
7. Gland panels, three-part.

Safety

8. Viewing door with support frame, single-pane safety glass.
9. Cable support, hinged, on keyboard extension piece, for secure, pinch-free cable routing with clips in the accessories supplied loose.
10. Keyboard and mouse cable with connectors are routed securely to the PC in a sealed configuration via the separable connector gland.
11. Lockable keyboard drawer and viewing door of monitor. 2 keys (lock no. 3524 E) SZ 2532.000 included in the configuration.
12. Component shelf for monitor, to avoid hot spots, prepared for the assembly of axial fans, with drilled holes for power strips.

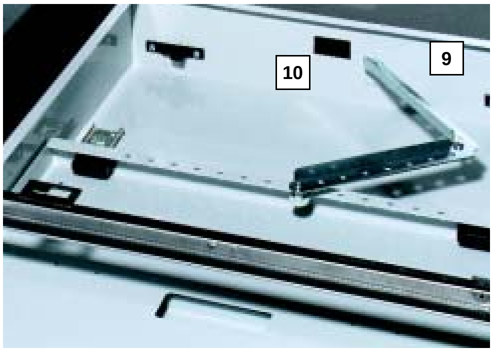


Based on ES

The compact enclosure system ES 5000 with a body manufactured from a single piece. The solid body with rear door guarantees a high load-bearing capacity.
With keyboard drawer, fold-out tray or desk section, and option either a small or large mounting compartment.

Stainless steel, based on ES

For exceptional requirements in terms of hygiene and corrosion protection.
With keyboard drawer or desk section.

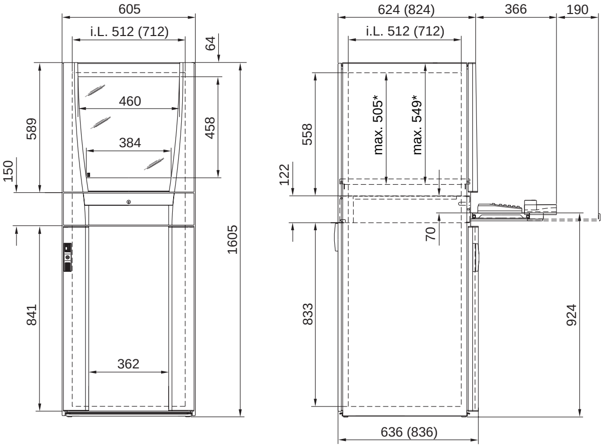


PC enclosure systems 172 – 181

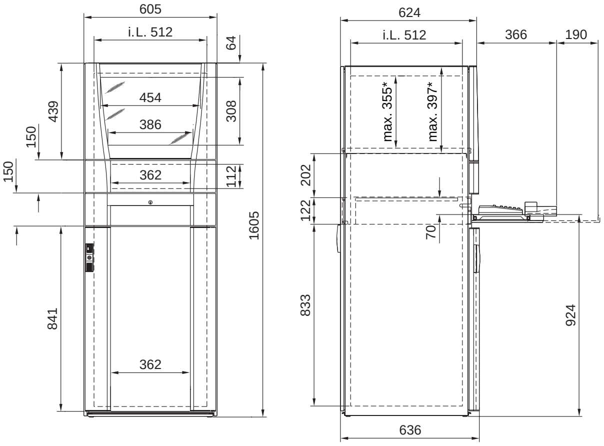
Based on TS 8 with keyboard drawer 172 – 173
Based on TS 8 with fold-out keyboard tray or desk section 174 – 175
Based on ES with keyboard drawer 176 – 177
Based on ES with fold-out keyboard tray or desk section 178 – 179
Stainless steel 180 – 181

Housing all your computer equipment, from the monitor, computer system, printer and keyboard to the mouse, becomes easy with Rittal's PC enclosure systems. The result is perfect protection from humidity and dirt, temperature fluctuations and unauthorized access. What is more, these systems will exceed your expectations with regard to ergonomics, design and accessory diversity.

With drawer
Part No. PC 8366.000, PC 8368.000

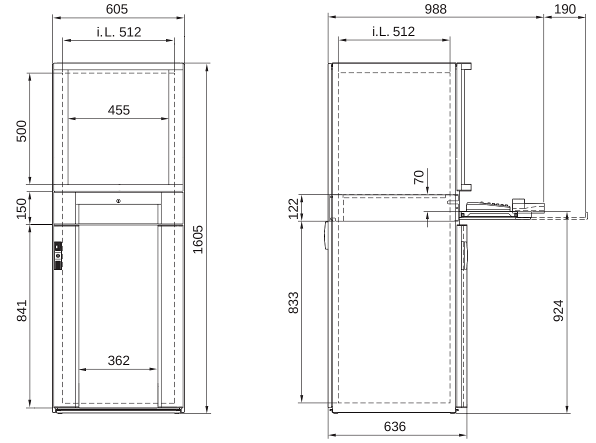

605
i.L. 512 (712)
64
460
589
458
384
150
1605
841
362
624 (824)
366
190
i.L. 512 (712)
558
max. 505*
max. 549*
122
70
833
924
636 (836)

With mounting compartment, small and drawer
Part No. PC 8366.300


605
i.L. 512
64
454
439
308
386
150
150
362
112
1605
841
362
624
i.L. 512
366
190
max. 355*
max. 397*
202
122
70
833
924
636

* adjustable in 25 mm (0.98″) increments

With mounting compartment, large and drawer
Part No. PC 8366.400

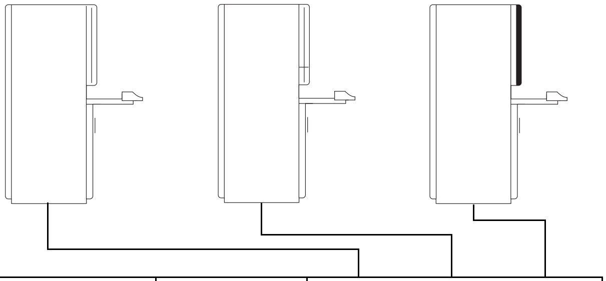

605
i.L. 512
455
500
150
1605
841
362
988
190
i.L. 512
70
122
833
924
636

i.L. = Clearance width

With drawer

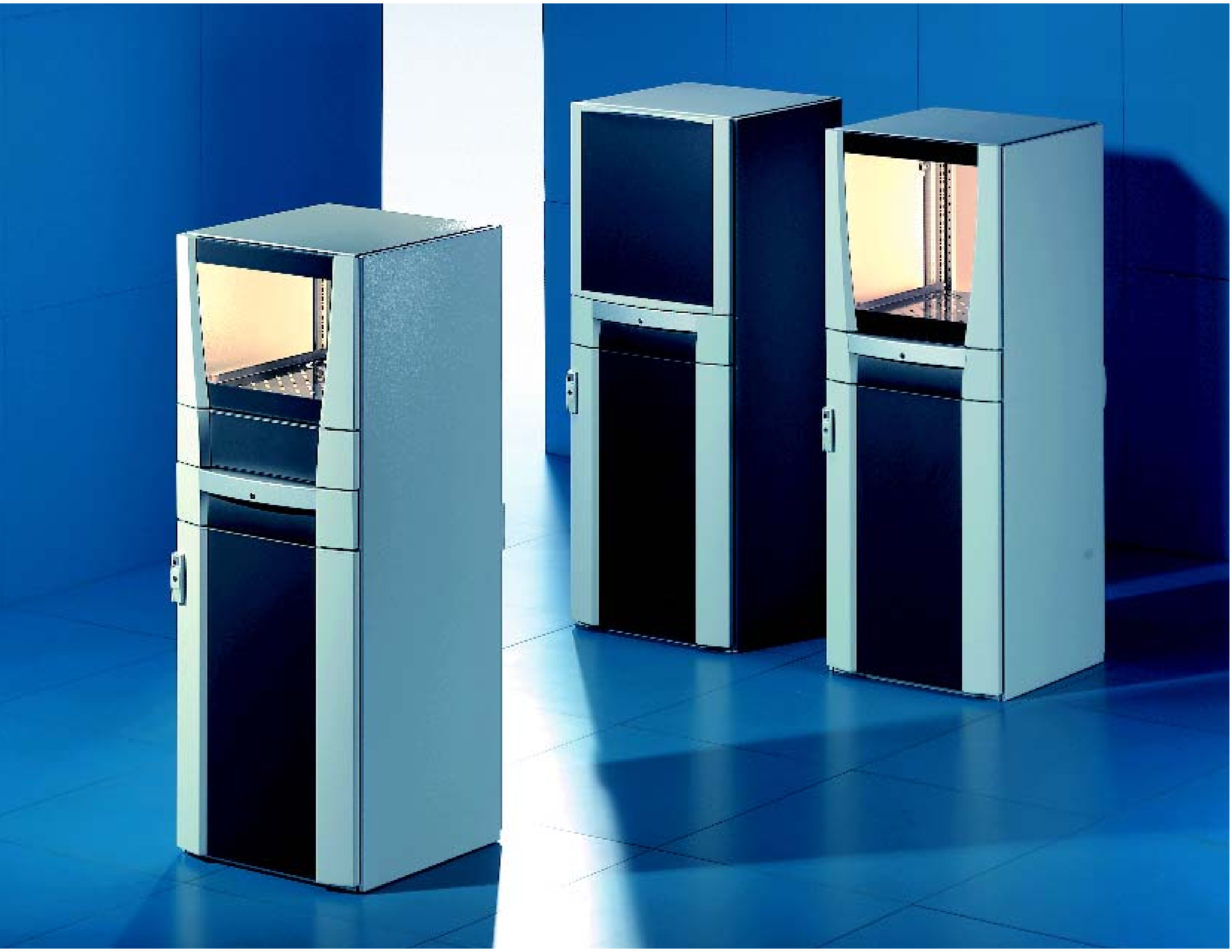
With mounting compartment, small and drawer

With mounting compartment, large and drawer



				Part No. PC		
			Depth 636 mm (25.04″)	**8366.000**	**8366.300**	**8366.400**
			Depth 836 mm (32.91″)	**8368.000**		
Supply includes	**Version**	**Material**	**Color RAL**			
Enclosure	Frame construction with side walls and roof secured from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●	●
	Gland panels, three-part	Sheet steel 1.5 mm (16 ga)	Zinc-plated			
Rear door	With locking rod and double-bit insert, r/h hinge	Sheet steel 2.0 mm (14 ga)	7035 textured	●	●	●
Viewing door, top	With support frame latched from the inside*, r/h hinge	Sheet steel 1.5 mm (16 ga)	7015	●	●	
	Vertical decorative trim panels	Plastic to UL 94-V0	7035			
	Glass with screen-printed mask	Safety glass ESG 4.0 mm (0.16″)	7015			
Mounting compartment, large, top	Vertical bars, latched from the inside*, r/h hinge	Aluminum section	7035			●
	Installation plate	Sheet steel 1.5 mm (16 ga)	7015			
	Trim strip top/bottom	Plastic to UL 94-V0	7035			
Component shelf for monitor	Slotted, permanently installed	Sheet steel 1.5 mm (16 ga)	7015	●	●	
Drawer for keyboard	Enclosure	Sheet steel 1.5 mm (16 ga)	7035	●	●	●
	Keyboard extension piece with cable support, hinged, plus pull-out mousepad and keyboard cradle	Sheet steel 1.5 mm (16 ga)	7035			
	Trim panel with handle strip, folded as handrest, with lock no. 3524 E	Plastic to UL 94-V0	7035/7015/9006			
	* With unlatching for top viewing door					
Mounting compartment, small	R/h hinge, screw-fastened from the inside on left, folded installation plate	Sheet steel 1.5 mm (16 ga)	7015		●	
	Decorative side trim panels	Plastic to UL 94-V0	7035			
Bottom door	Vertical bars with locking rod and double-bit insert, hinged on right-hand side	Aluminum section	7035	●	●	●
	Door or installation plate folded	Sheet steel 1.5 mm (16 ga)	7015			

Based on TS 8 with keyboard drawer



Maximum keyboard dimensions			
	Height mm (inches)	Width mm (inches)	Depth mm (inches)
Drawer	70 (2.76)	480 (18.90)	260 (10.24)
Fold-out tray	60 (2.60)	475 (18.70)	200 (7.87)
	50 (1.97)		250 (9.84)

Protection ratings:
IP 55 to EN 60 529/10.91
Complies with UL and NEMA Type 12.

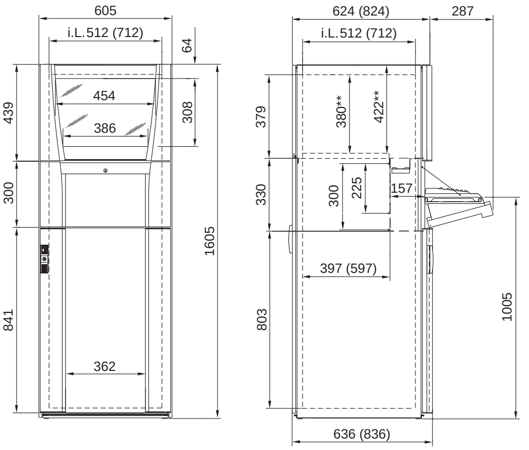
Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A or cylinder inserts, type B, see page 246 – 247 and comfort handle, see page 244.
With the door at the bottom, only in conjunction with handle adaptor PC 8611.300, see page 244.

Accessories:

Base/plinth, stationary, see page 207.
Base/plinth components and trim panels, see page 206.

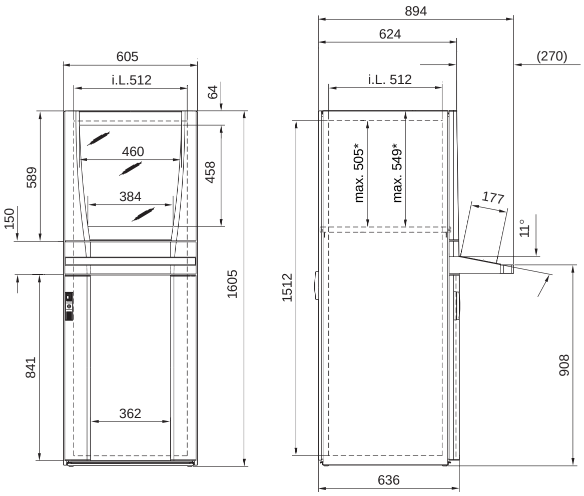
IP 67 mouse and mousepad to fit mousepad extension piece.
Part No. see page 266.

With fold-out tray
Part No. PC 8366.100, PC 8368.100


605
i.L.512 (712)
64
454
386
308
439
300
841
362
1605
624 (824)
287
i.L.512 (712)
379
380**
422**
330
300
225
157
397 (597)
803
1005
636 (836)

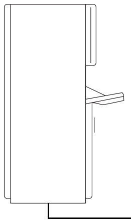
** adjustable by + 225 mm (8.86″) or + 300 mm (11.81″)
i.L. = Clearance width

With desk section
Part No. PC 8366.200

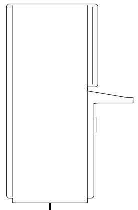

894
624
(270)
605
i.L.512
64
460
384
589
150
458
841
362
1605
i.L. 512
max. 505*
max. 549*
177
11°
1512
908
636

* adjustable in 25 mm (0.98″) increments
i.L. = Clearance width

With fold-out tray

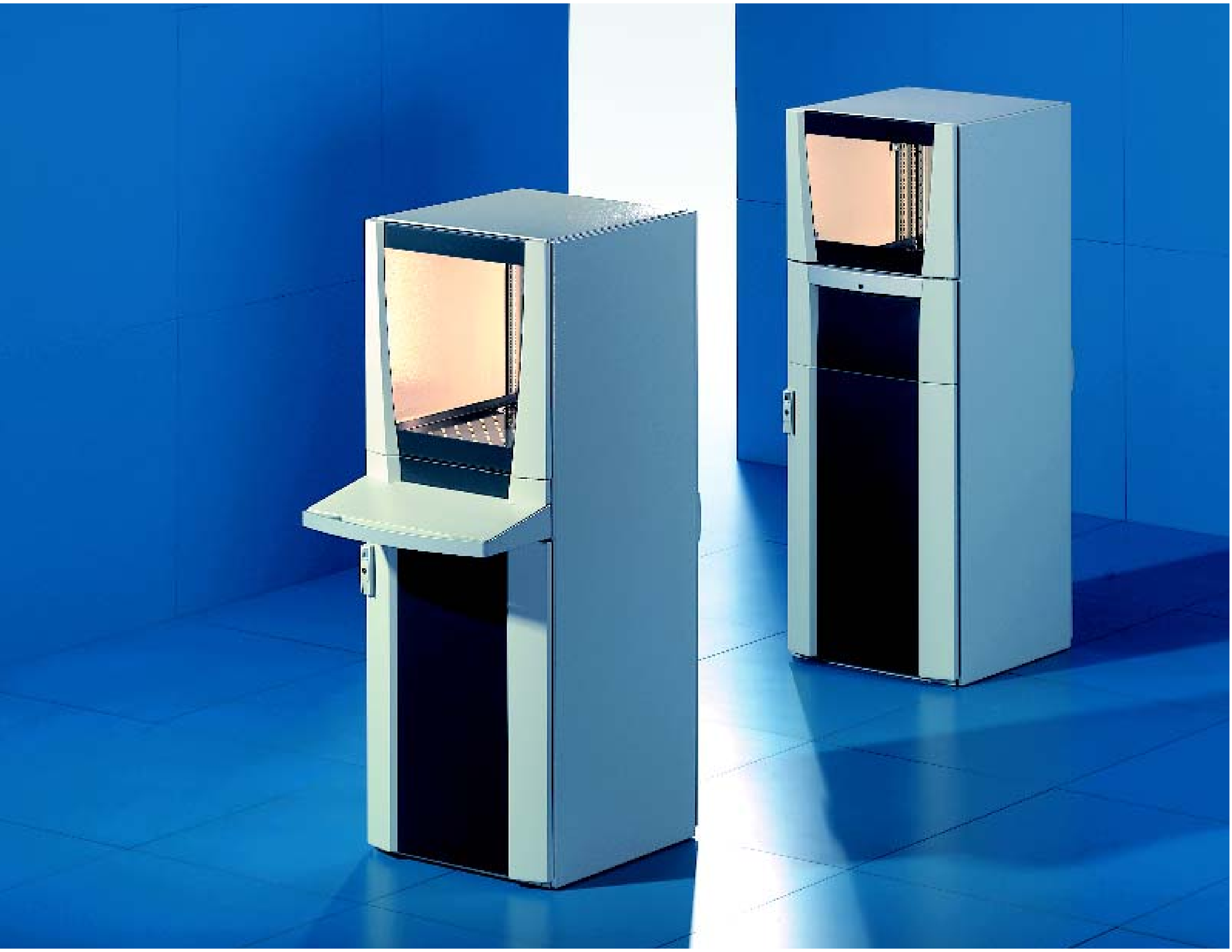


With desk section



				Part No. PC	
			Depth 636 mm (25.04″)	**8366.100**	**8366.200**
			Depth 836 mm (32.91″)	**8368.100**	
Supply includes	**Version**	**Material**	**Color RAL**		
Enclosure	Frame construction with side walls and roof secured from the inside	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●
	Gland panels, three-part	Sheet steel 1.5 mm (16 ga)	Zinc-plated		
Rear door	With locking rod and double-bit insert, R/h hinge	Sheet steel 2.0 mm (14 ga)	7035 textured	●	●
Viewing door, top	With support frame latched from the inside*, r/h hinge	Sheet steel 1.5 mm (16 ga)	7015	●	●
	Vertical decorative trim panels	Plastic to UL 94-V0	7035		
	Glass with screen-printed mask	Safety glass ESG 4.0 mm (0.16″)	7015		
Component shelf for monitor	Slotted, permanently installed	Sheet steel 1.5 mm (16 ga)	7015	●	●
Fold-out tray for keyboard	Enclosure with mouse holder and cutout in rear panel, Width 19″ x Height 4 U	Sheet steel 1.5 mm (16 ga)	7035	●	
	Trim panel hinged at the bottom, with 2 retaining cords, with lock no. 3524 E	Plastic to UL 94-V0	7035/7015/ 9006		
	Keyboard support with mousepad extension piece and 2 nylon bands for keyboard	Sheet steel 1.5 mm (16 ga)	7035		
	* With unlatching for top viewing door				
Desk section	Enclosure with removable cover top and bottom	Sheet steel 1.5 mm (16 ga)/ 2.0 mm (14 ga)	7035		●
	Trim strip, top and handle strip	Plastic to UL 94-V0	7035/7015/ 9006		
Bottom door	Vertical bars with locking rod and double-bit insert, r/h hinge	Aluminum section	7035	●	●
	Door or installation plate folded	Sheet steel 1.5 mm (16 ga)	7015		

Based on TS 8, with folding keyboard or desk section



Maximum keyboard dimensions			
	Height mm (inches)	Width mm (inches)	Depth mm (inches)
Drawer	70 (2.76)	480 (18.90)	260 (10.24)
Fold-out tray	60 (2.36)	475 (18.70)	200 (7.87)
	50 (1.97)		250 (9.84)

Protection ratings:
IP 55 to EN 60 529/10.91
Complies with UL and NEMA Type 12.

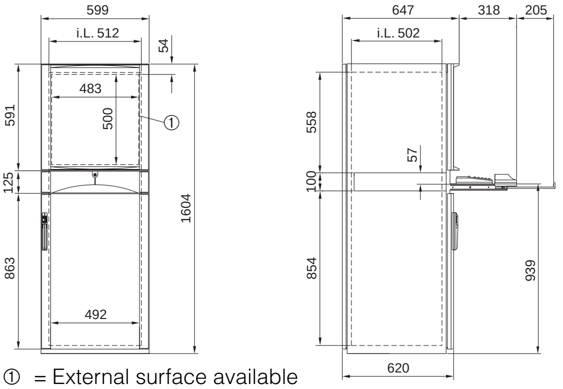
Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A or cylinder inserts, type B, see page 246 – 247 and comfort handle, see page 244.
With the door at the bottom, only in conjunction with handle adaptor PC 8611.300, see page 244.

Accessories:

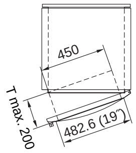
Base/plinth, stationary,
see page 207.
Base/plinth components and trim panels,
see page 206.

Base/plinth, stationary
Adapted to the design of the enclosure.

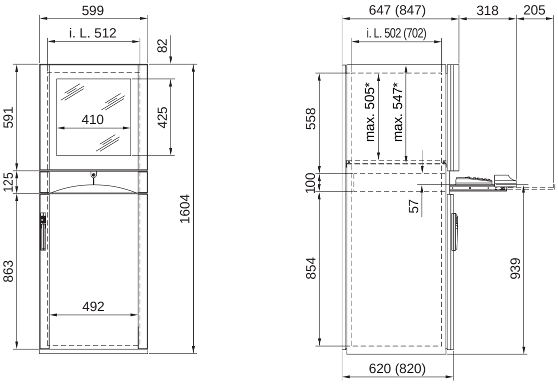
With mounting compartment, large and drawer
Part No. PC 4603.603


599
i.L. 512
54
483
500
①
591
125
1604
863
492
647
i.L. 502
318
205
558
57
100
854
939
620

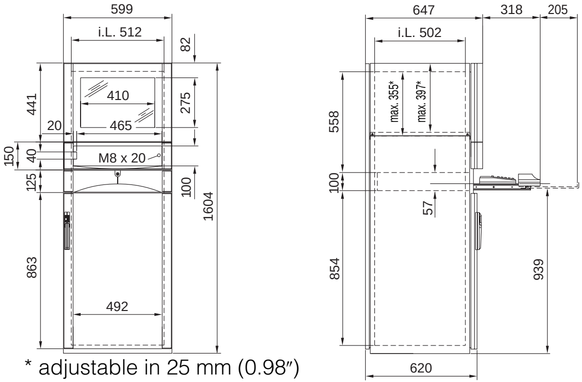
① = External surface available for population
i.L. = Clearance width


450
T max. 200
482.6 (19″)

With drawer
Part No. PC 4603.703, PC 4609.703


599
i. L. 512
82
410
425
591
125
1604
863
492
647 (847)
i. L. 502 (702)
318
205
558
max. 505*
max. 547*
100
57
854
939
620 (820)

With mounting compartment, small and drawer
Part No. PC 4603.913


599
i.L. 512
82
441
410
275
20
465
150
40
M8 x 20
125
100
1604
863
492
647
i.L. 502
318
205
558
max. 355*
max. 397*
100
57
854
939
620

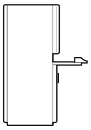
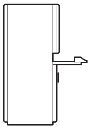
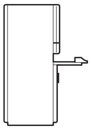
* adjustable in 25 mm (0.98″) increments

Supply includes	Version	Material	Color RAL	PC 4603.603	PC 4603.703 PC 4609.703	PC 4603.913
Enclosure	Solid, open at bottom	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●	●
	Gland panels, three-part	Sheet steel 1.5 mm (16 ga)	Zinc-plated			
Rear door	With locking rod and double-bit insert, hinged on the right-hand side	Sheet steel 2.0mm (14 ga)	7035 textured	●	●	●
Mounting compartment, large, top	Vertical bars locked from the inside*, r/h hinge	Aluminum section	5018	●		
	Folded installation plate	Sheet steel 1.5 mm (16 ga)	7035			
	Trim strip top/bottom	Plastic to UL 94-V0.	7035			
Viewing door top	Curved outwards, vertical bars, locked from the inside*, r/h hinge	Aluminum section	5018		●	●
	Trim strip top/bottom	Plastic to UL 94-V0.	7035			
	Glass with screen-printed mask	Safety glass ESG 4.0 mm (0.16″)	7015			
Component shelf for monitor	Slotted, permanently installed	Sheet steel 1.5 mm (16 ga)	7035		●	●
Drawer for keyboard	Enclosure	Sheet steel 1.5 mm (16 ga)	7035	●	●	●
	Keyboard extension piece with 1 pair of telescopic slides	Sheet steel 1.5 mm (16 ga)	7035			
	Trim panel with handle strip, folded as handrest, with fastener, lock no. Nr. 3524 E	Plastic to UL 94-V0.	7035			
	Decorative side trim panels	Aluminum section	5018			
	2 spacers for slimline keyboards	Cellular rubber				
	* With unlatching for viewing door, top					
Mounting compartment, small	R/h hinge, left from the inside folded installation plate	Sheet steel 1.5 mm (16 ga)	7035			●
	Trim strip at the bottom	Plastic to UL 94-V0.	7035			
	Vertical bars	Aluminum section	5018			
Bottom door	Vertical bars with locking rod, Ergoform-S handle and double-bit insert, r/h hinge	Aluminum section	5018	●	●	●
	Door or installation plate folded	Sheet steel 1.5 mm (16 ga)	7035			
	* With unlatching for viewing door, top with desk section					

Based on ES with keyboard drawer

	Height mm (inches)	Part No. For Depth		Page
		620 mm (24.41″)	820 mm (32.28″)	
Base/plinth	100 (3.94)	2813.200	2846.200	208
	200 (7.87)	2814.200	2847.200	208
Cross member, adjustable	70 (2.76)	8601.680		211
Twin castors	125 (4.92)	4634.500		213

	Maximum keyboard dimensions			
	Height mm (inches)		Width mm/inches	Depth mm/inches
	without mousepad	with mousepad		
Fold-out tray	69 (2.72)	62 (2.44)	480 (18.90)	230 (9.06)
Drawer	55 (2.17)	40 (1.57)	480 (18.90)	250 (9.84)

				
Version	**Mounting compartment, large, drawer**	**Drawer**		**Mounting compartment, small, drawer**
Depth mm (inches)	650 (25.59)	650 (25.59)	850 (33.46)	650 (25.59)
Part No. PC	**4603.603**	**4603.703**	**4609.703**	**4603.913**
Weight kg (lbs)	106.0 (233.69)	106.2 (234.13)	120.9 (266.54)	106.8 (235.45)
Mousepad, see opposite	4614.000	4614.000	4614.000	4614.000

Lock systems:
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A or cylinder inserts, type B, see page 246 – 247 and Ergoform-S lock system, see page 245.

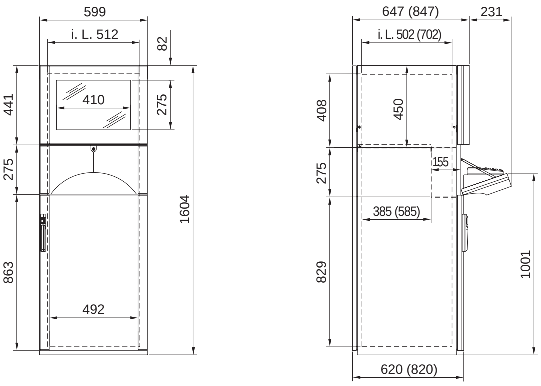
Protection ratings:
IP 55 to EN 60 529/10.91
Complies with UL and NEMA Type 12.

Accessories:

see page 200 – 201
or see index.

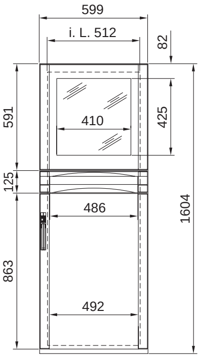
Mousepad, passive
with velour cover,
including installation hardware,
Part No. see opposite.

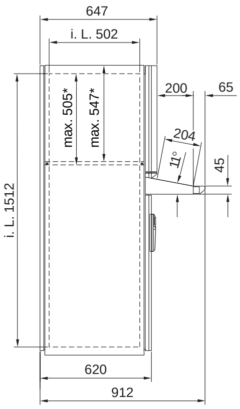
With fold-out tray
Part No. PC 4603.920, PC 4609.920


599
i. L. 512
82
441
410
275
275
1604
863
492
647 (847)
231
i. L. 502 (702)
408
450
275
155
385 (585)
829
1001
620 (820)

i.L. = Clearance width

With desk section
Part No. PC 4603.704

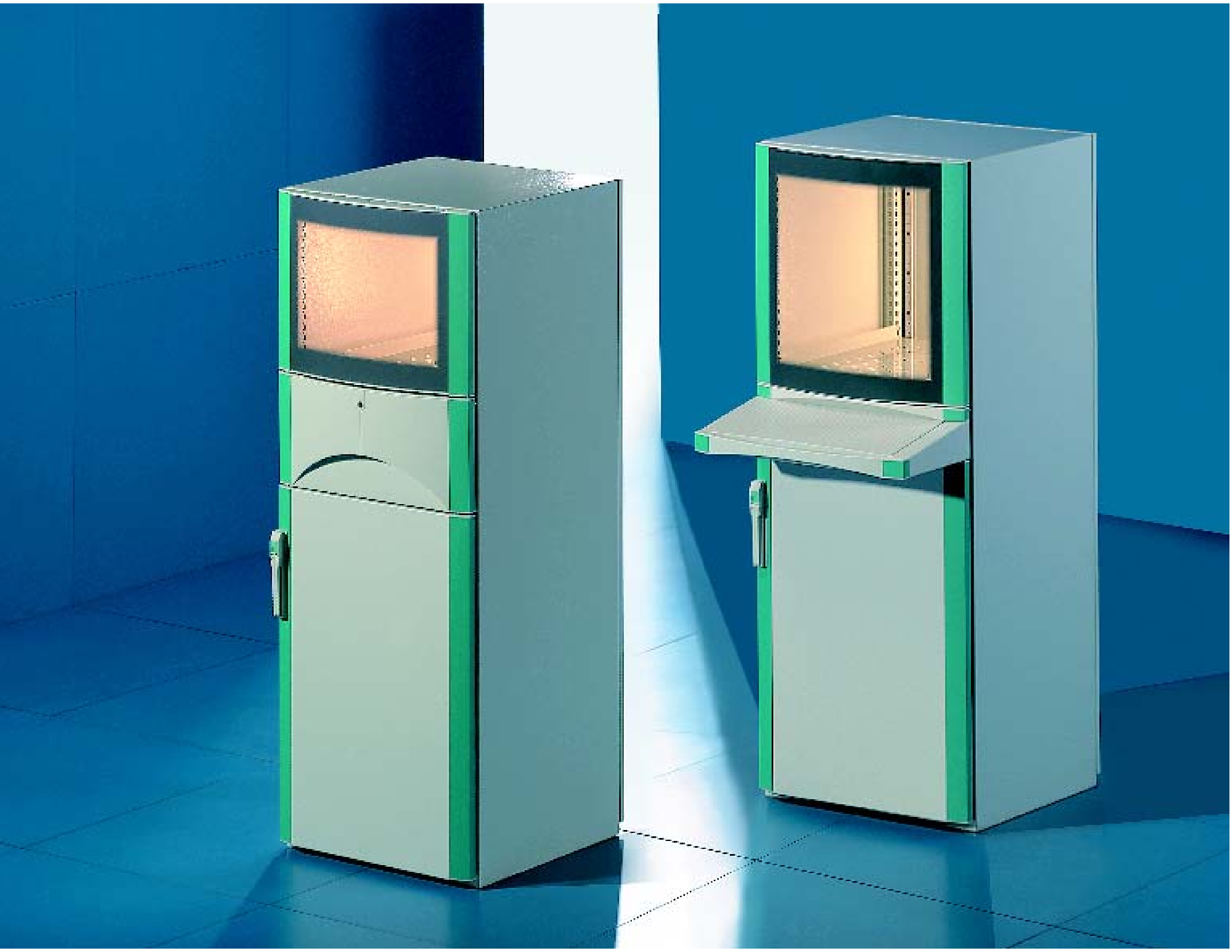

599
i. L. 512
82
591
410
425
125
486
1604
863
492


647
i. L. 502
max. 505*
max. 547*
200
65
204
11°
45
i. L. 1512
620
912

* adjustable in 25 mm (0.98″) increments

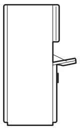
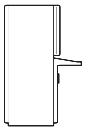
Supply includes	Version	Material	Color RAL	PC 4603.920 PC 4609.920	PC 4603.704
Enclosure	Solid, open at bottom	Sheet steel 1.5 mm (16 ga)	7035 textured	●	●
	Gland panels, three-part	Sheet steel 1.5 mm (16 ga)	Zinc-plated		
Rear door	With locking rod and double-bit insert, r/h hinge	Sheet steel 2.0 mm (14 ga)	7035 textured	●	●
Viewing door, top	Curved outwards, vertical bars, latched on the inside*, r/h hinge	Aluminum section	5018	●	●
	Trim strip top/bottom	Plastic to UL 94-V0.	7035		
	Glass with screen-printed mask	Safety glass ESG 4.0 mm (0.16″)	7015		
Component shelf for monitor	Slotted, permanently installed	Sheet steel 1.5 mm (16 ga)	7035	●	●
Fold-out tray for keyboard	Enclosure with cutout in rear panel, width 19″ x height 4 U, with screw-fastened lid	Sheet steel 1.5 mm (16 ga)	7035	●	
	Trim panel hinged at the bottom with 2 retaining shears, with fastener, lock no. Nr. 3524 E	Plastic to UL 94-V0.	7035		
	Decorative side trim panels	Aluminum section	5018		
	Keyboard support, with 2 nylon loops for keyboard	Sheet steel	7035		
	* With unlatching for top viewing door				
Desk section	Enclosure with removable lid top and bottom.	Sheet steel 1.5 mm (16 ga)/ 2.0 mm (14 ga)	7035		●
	Trim strip, top and handle	Plastic to UL 94-V0.	7035		
	Decorative side trim panels	Aluminum section	5018		
Bottom door	Vertical bars with locking rod, Ergoform-S handle and double-bit insert, r/h hinge	Aluminum section	5018	●	●
	Door or installation plate folded	Sheet steel 1.5 mm (16 ga)	7035		
	* With unlatching for top viewing door with desk section				

Based on ES with fold-out keyboard tray or desk section



	Height mm (inches)	Part No. For Depth 620 mm (24.41″)	Part No. For Depth 820 mm (32.28″)	Page
Base/plinth	100 (3.94)	2813.200	2846.200	208
	200 (7.87)	2814.200	2847.200	208
Cross member, adjustable	70 (2.76)	8601.680		211
Twin castors	125 (4.92)	4634.500		213

Maximum keyboard dimensions				
	Height mm (inches) without mousepad	Height mm (inches) with mousepad	Width mm (inches)	Depth mm (inches)
Fold-out tray	69 (2.72)	62 (2.44)	480 (18.90)	230 (9.06)
Drawer	55 (2.17)	40 (1.57)	480 (18.90)	250 (9.84)

			
Version	**Fold-out tray**		**Desk section**
Depth mm (inches)	650 (25.59)	850 (33.46)	650/910 (25.59/35.83)
Part No. PC	**4603.920**	**4609.920**	**4603.704**
Weight kg (lbs)	100.5 (221.56)	114.1 (251.24)	102.1 (225.09)
Mousepad, see page 177	4613.000	4613.000	2380.000

Lock systems:
Standard double-bit lock insert may be exchanged for lock inserts, 27 mm (1.06″), type A, or cylinder lock inserts, type B, see page 246 – 247 and Ergoform-S lock system, see page 245.

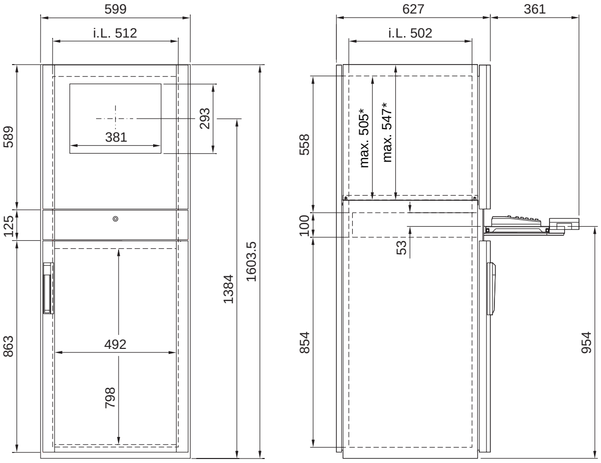
Protection ratings:
IP 55 to EN 60 529/10.91
Complies with UL and NEMA Type 12.

Accessories:

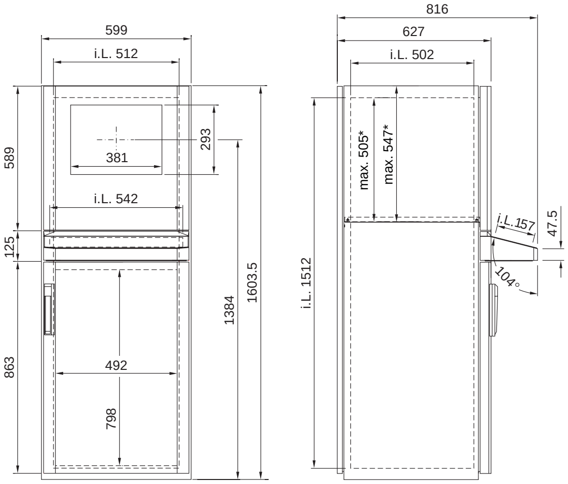
see page 200 – 201
or see index.

Mouse, IP 67
for protection against dust and humidity.
Part No. see page 266.

With keyboard drawer
Part No. PC 4650.000



With desk section
Part No. PC 4650.704

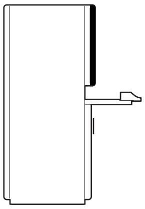


* adjustable in 25 mm (0.98″) increments

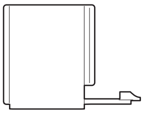
i.L. = Clearance width

Available on request:

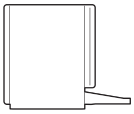
PC enclosure system with mounting compartment, large, and drawer



PC enclosure system with drawer



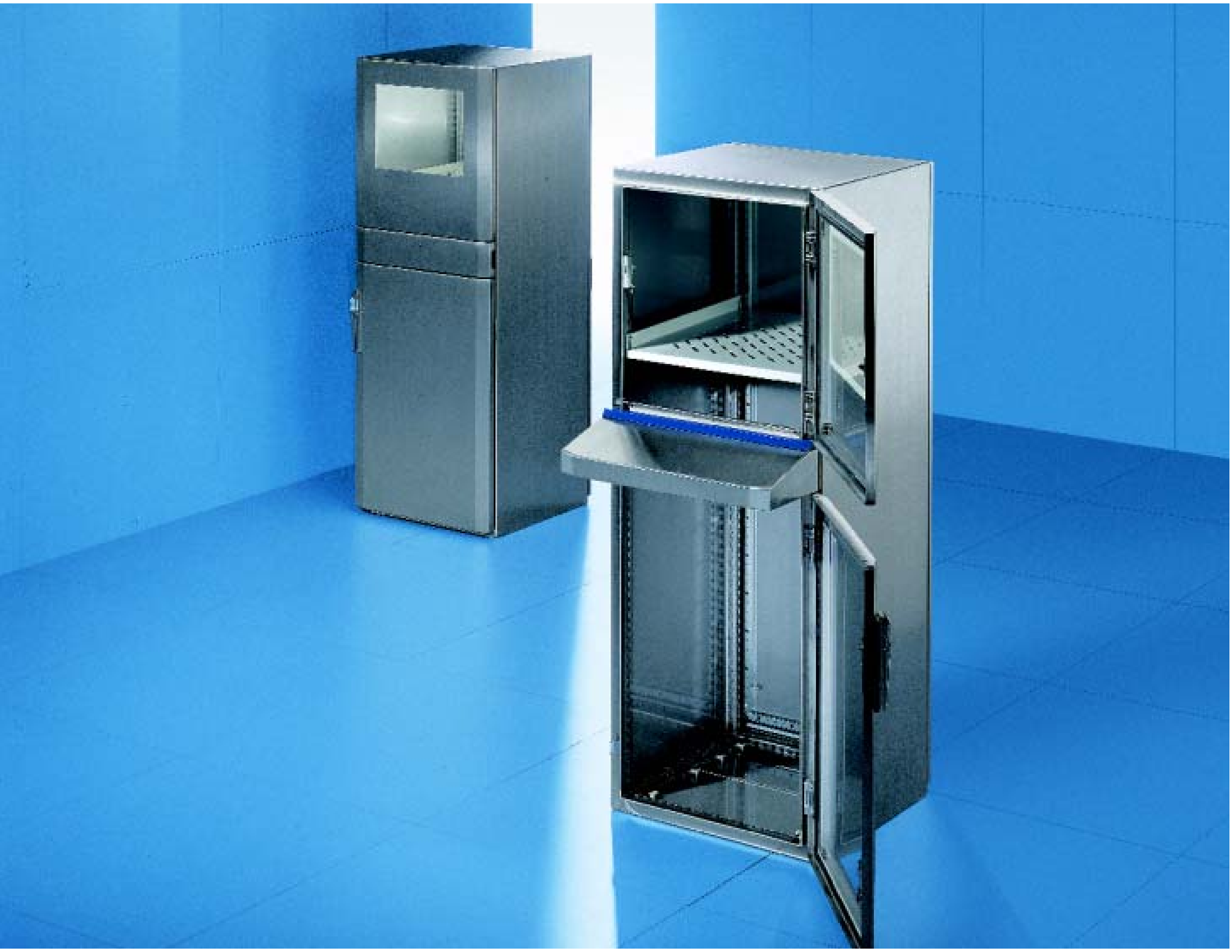
PC enclosure system with desk section



				Model No. PC			
				4650.000[1]	**4650.704[2]**	**4650.304**	**4650.305**
			Height mm (inches)	1600 (62.99)			
			Width mm (inches)	600 (23.62)			
			Depth mm (inches)	620 (24.41)	620/820 (24.41/ 32.28)	610 (24.02)	890 (35.04)
Supply includes	**Version**	**Material**	**Finish/Color**				
Enclosure	Solid top and sides, open at the bottom	Type 304 stainless steel, 1.8 mm (15 ga)	Brushed, 240 grain	●	●	●	●
	Gland panels, three-part	Type 304 stainless steel, 1.5 mm (16 ga)					
Rear door	With locking rod and double-bit insert, r/h hinge	Type 304 stainless steel, 2.0 mm (14 ga)	Brushed, 240 grain	●	●	●	●
Viewing door, top	Latched from the inside*, r/h hinge	Type 304 stainless steel, 1.5 mm (16 ga)	Brushed, 240 grain	●	●	Poly-carbonate	Safety glass
	Viewing window	Safety glass ESG 4.0 mm (0.16″)					
Component shelf	Slotted, permanently installed	Sheet steel ST 1203, 1.5 mm (16 ga)	RAL 7035	●	●	●	●
Drawer	Enclosure	Sheet steel ST 1203, 1.25 mm (18 ga)	RAL 7035	●			
	Keyboard extension piece with cable support, hinged and mousepad extension piece	Sheet steel ST 1203, 1.5 mm (16 ga)	RAL 7035				
	Trim panel, folded as handrest, with fastener, lock no. Nr. 3524 E	Type 304 stainless steel, 1.25 mm (18ga)	Brushed, 240 grain				
	* With unlatching for top viewing door			●			
Desk section	Enclosure with cover plate top and bottom	Type 304 stainless steel, 1.5 mm (16 ga)	Brushed, 240 grain		●	●	●
	Design strip	Plastic approved for use with foodstuffs	RAL 5002				
Bottom door	With locking rod and double-bit insert, r/h hinge	Type 304 stainless steel. 1.5 mm (16 ga)	Brushed, 240 grain	●	●	●	●
	* With unlatching for viewing door with desk section				●	●	●

[1] To order enclosures in 1.4404 (Type 316L) please add the extension .500 to the Model No. Delivery times available on request.
[2] To order enclosures in 1.4404 (Type 316L) please add the extension .504 to the Model No. Delivery times available on request.

Stainless steel



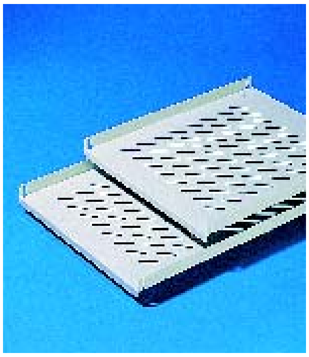
Maximum keyboard dimensions			
	Height mm (inches)	Width mm (inches)	Depth mm (inches)
Drawer	70 (2.76)	480 (18.90)	260 (10.24)
Fold-out tray	60 (2.36)	475 (18.70)	200 (7.87)
	50 (1.97)		250 (9.84)

Accessories:

Base/plinth and levelling feet, see page 209/214 or see index.

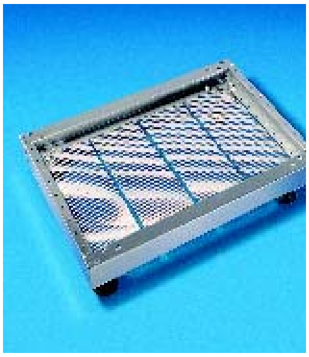
Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A or lock cylinder inserts, type B, see page 246 – 247.
Door bottom and rear prepared for installation of the Ergoform-S lock system, see page 245.

Protection ratings:
IP 55 to EN 60 529/10.91
PC 4650.000/.704 complies with UL and NEMA Type 12.
PC 4650.304/.305 complies with UL and NEMA Type 4x.



Component shelf
may be installed in the height in 25 mm (0.98″) increments.
Part No. see page 256.

Mounting angles, 19″
for mounting behind the lower front door. Part No. see HB 30, page 1026.



Base/plinth trim, modular
for cable entry in the base/plinth.
Part No. see page 210.

Rittal console systems . . .

. . . multi-variable

Universal console

- Optionally with short or tall door. Short door offers free area for mounting desk section (see photograph) or keyboard drawer.
- High level of stability and high protection category because the body is manufactured from a single piece.
- One-piece mounting panel across the entire height, with C fold at the side, depth-adjustable in 25 mm (0.98″) increments.
- Universal interior installation with partial mounting panels, component shelves, system chassiss and rails thanks to round and square holes in 25 mm (0.98″) increments.
- Rear door across the entire height for uninhibited access from the rear.

Console system

- Multi-variable in combination. Each component may be installed independently or integrated into the machine or plant.
- Pedestals, with mounting panel, in two depths, also suitable for use as consoles.
- Desk units in two depths with perforated strips in the base and cover for easy installation.
- Consoles, with mounting panel, in three depths and two heights for virtually any installation situation. Instead of the consoles, compact enclosures AK (see Handbook 30, page 84) may also be combined with the console system.

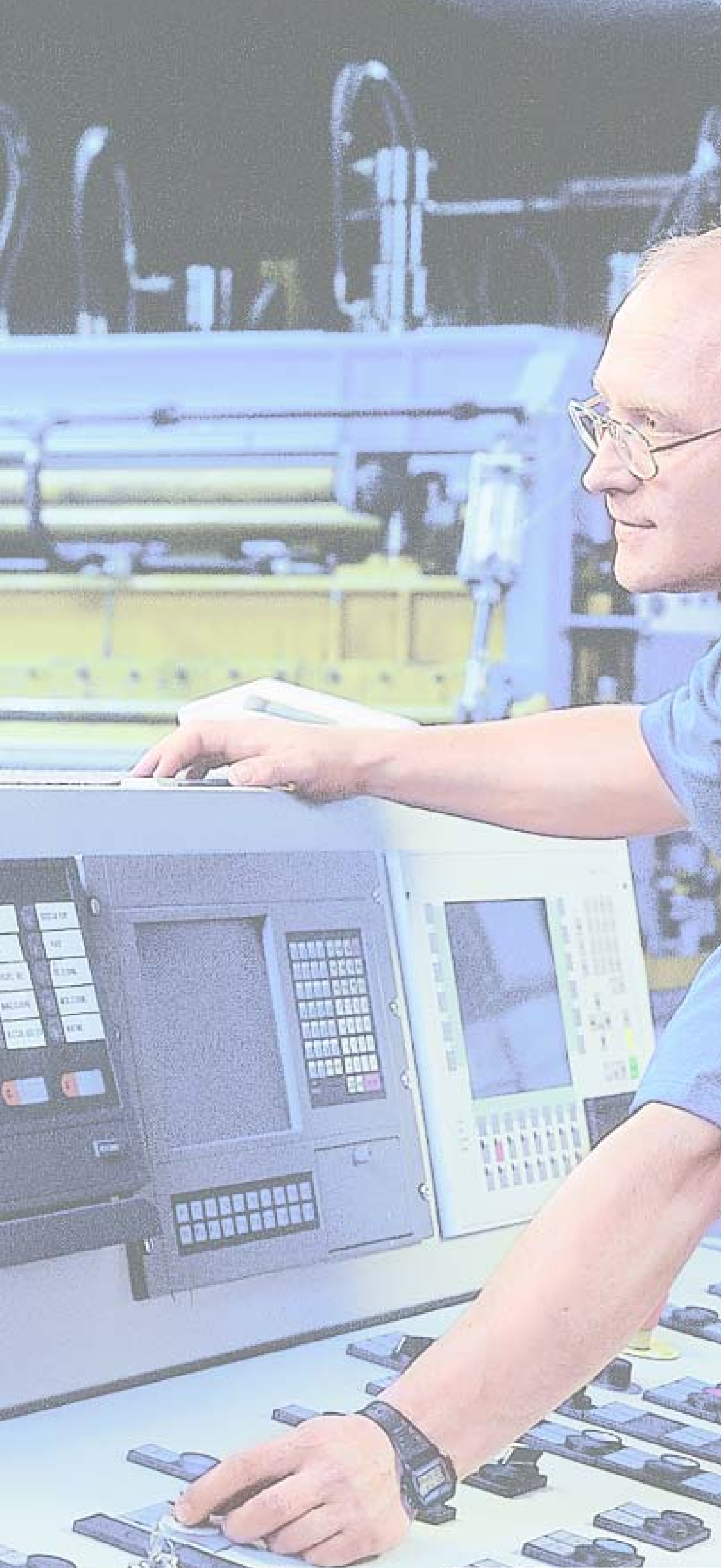
AP Muti-Vario console system
US patent no. 4,843,519
German patent no. 38 65 047
European patent no. 0 281 895
with validity for DE, ES, FR, GB, IT

One-piece console

- Variable installation depth in the cover section, and cable entry from the rear via a mounting panel height-offset by 2 x 40 mm (1.57″).
- Cover including perforated strips for cable routing. Safety lid stay may be unlatched with two-handed operation.
- Door hinge may be swapped from right to left by simply unscrewing the hinges.

The AP console system, the AP one-piece consoles and the AP universal consoles have the following approvals:

- UL
- CSA
- TÜV
- Germanischer Lloyd
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- VDE
- Norske Veritas
- Bureau Veritas



Console systems 184 – 199

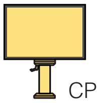
Console systems AP – Combination options 184 – 185
Console systems AP – Modules 186 – 187
Console systems AP – Technical details 188 – 191
One-piece consoles AP, sheet steel 192 – 193
Universal consoles AP, sheet steel 194 – 195
One-piece consoles AP, stainless steel 196 – 197
Universal consoles AP, stainless steel 198 – 199

Function and variability are key features of all Rittal console systems. Perfect designs for added benefits in terms of assembly, security and operation. The performance capability of a machine or plant is decided at the console and operating unit. Only optimum packaging of today's sensitive controls combined with optimum ergonomic conditions for operating staff can create the pre-requisites for cost-effective plant operation.

Simple selection of your desired combination

The elements of the AP console system in depths 400 mm (15.75″) (blue) and 500 mm (19.69″) (green) may be combined in numerous user-specific versions, as shown in the diagram.
The table opposite allows you to find the order number for your selection immediately.

Modern, slimline HMI (human/machine interfaces) or displays may also be used.

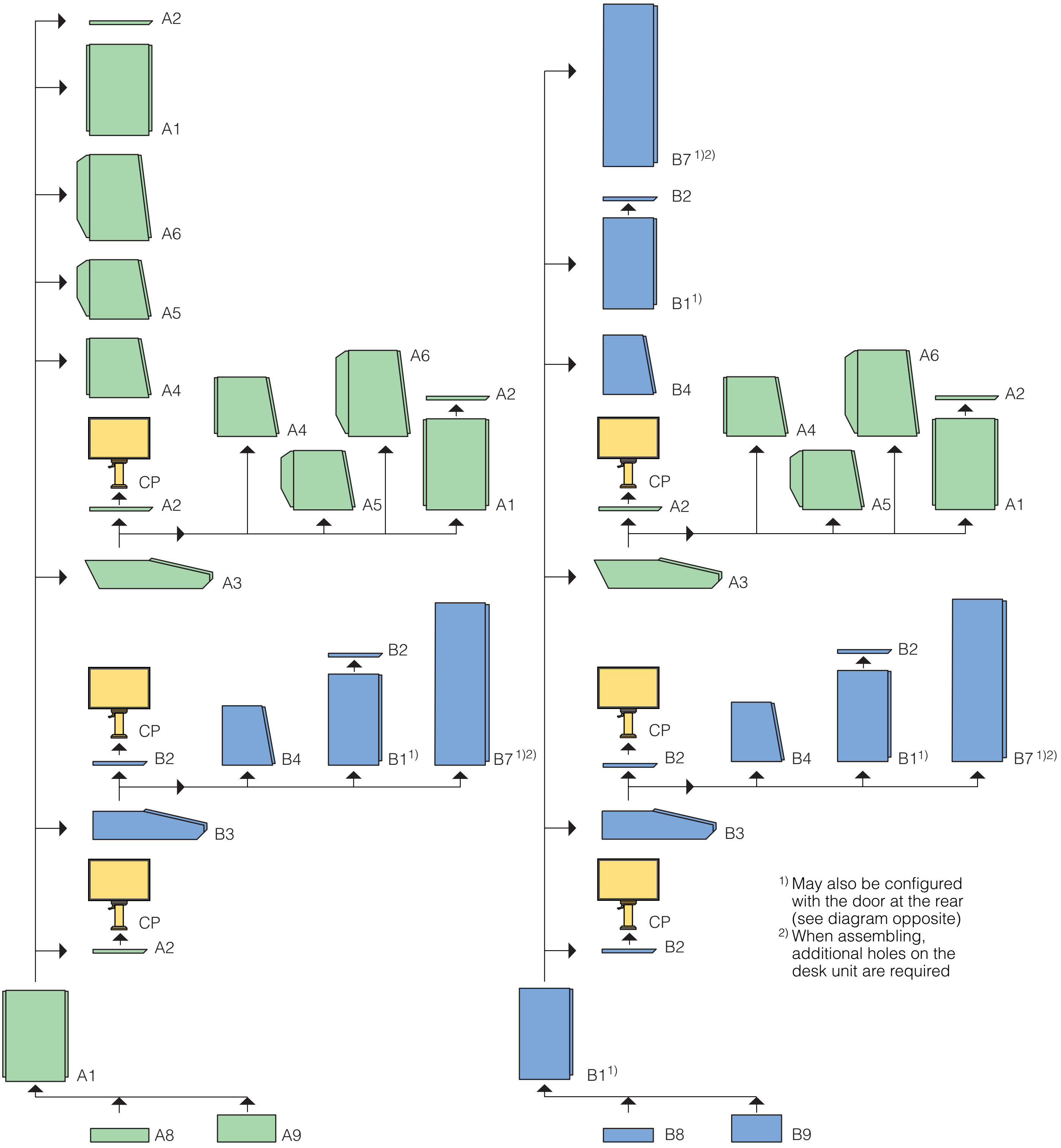


Integrated into the stylish, tailor-made Command Panel systems VIP 6000, Optipanel and Compact Panel (yellow), this produces a wide range of modern extension options for the classic AP console systems.

- VIP 6000, see page 12 – 39
- Optipanel, see page 40 – 57
- Compact-Panel, see page 58 – 59
- Support arm systems, see page 78 – 127.

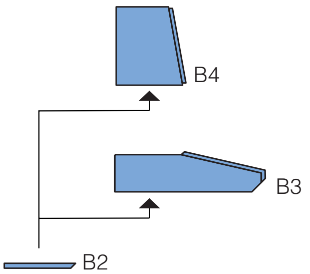
Trim plate (A2/B2) with reinforcement and cutout for CP-L available on request

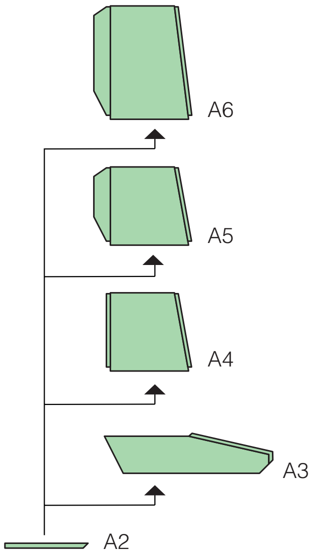
Specify the dimensions for positioning on the trim plate and the Part No. of the enclosure attachment.

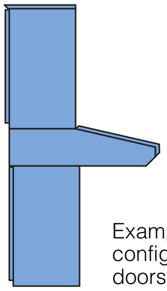

A2
A1
A6
A5
A4
CP
A2
A4
A5
A6
A2
A1
A3
B2
CP
B2
B4
B1 1)
B7 1)2)
B3
CP
A2
A1
A8
A9
B7 1)2)
B2
B1 1)
B4
CP
A2
A4
A5
A6
A2
A1
A3
B2
CP
B2
B4
B1 1)
B7 1)2)
B3
CP
B2
B1 1)
B8
B9

[1] May also be configured with the door at the rear (see diagram opposite)
[2] When assembling, additional holes on the desk unit are required

Combination options for the modules

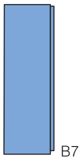
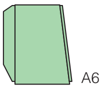
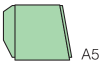
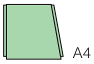
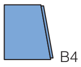
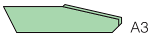
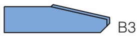
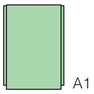
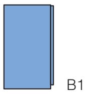






Examples of configuration with doors to the rear

For further information, see page 186 – 187.
Technical details, see page 188 – 191.

D = 500 mm (19.69″)				Height mm (inches)	D = 400 mm (15.75″)			
Width mm (inches)	800 (31.50)	1200 (47.24)	1600 (62.99)		Width mm (inches)	800 (31.50)	1200 (47.24)	1600 (62.99)
	Part No.	**Part No.**	**Part No.**			**Part No.**	**Part No.**	**Part No.**
AK enclosure								
				1200 (47.24)		**1648.600**	**1652.600**	
Console								
	**2647.600**	**2648.600**	**2649.600**	630 (24.80) with deep rear door				
Console								
	**2662.600**	**2663.600**	**2664.600**	430 (16.93) with deep rear door				
Console								
	**2614.600**	**2644.600**	**2654.600**	430 (16.93)		**2612.600**	**2642.600**	**2652.600**
Center part								
	**2613.200**	**2643.200**	**2653.200**	200 (7.87)		**2611.200**	**2641.200**	**2651.200**
Trim panel								
	2616.200	**2646.200**	**2656.200**	28 (1.10)		**2615.200**	**2645.200**	**2655.200**
Pedestal								
	**2610.600**	**2640.600**	**2650.600**	670 (26.83)		**2600.600**	**2620.600**	**2630.600**
Base/plinth								
	2842.200	**2852.200**	**2864.200**	200 (7.87)		**2902.200**	**2922.000**	**2962.200**
	2841.200	**2851.200**	**2863.200**	100 (3.94)		**2901.200**	**2921.200**	**2961.200**

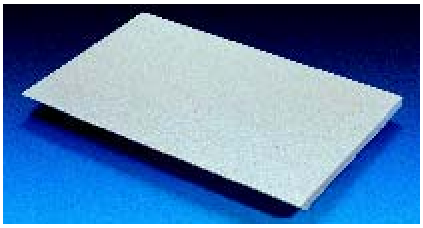
Multi-variable

The components of the AP console system can be combined in many user-specific versions. Modern flat screens and operator panels can also be used. Integrated into the stylish Command Panel systems VIP 6000, Optipanel and Compact Panel, this produces a wide range of modern extension options for the classic AP console systems.

Combination options see page 184 – 185.

Protection ratings:
IP 55 to EN 60 529/10.91
Complies with UL and NEMA Type 12 (provided the appropriate parts are combined).

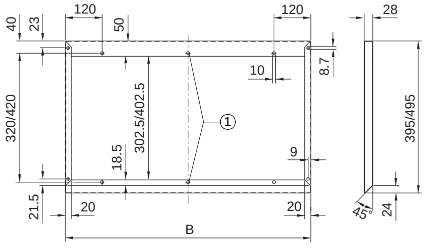
Technical details see page 188 – 191.



Trim panel

To finish off pedestals, desk units or consoles.

Material:
Sheet steel, painted, 1.5 mm (16 ga)



① = does not apply to console width 800 mm (31.50″)

To fit Width mm (inches)	 Depth mm (inches)	Color RAL	Part No. AP
800 (31.50)	400 (15.75)	7032	**2615.200**
1200 (47.24)			**2645.200**
1600 (62.99)			**2655.200**
800 (31.50)	500 (19.69)		**2616.200**
1200 (47.24)			**2646.200**
1600 (62.99)			**2656.200**

To order versions in RAL 7044, please add the extension .300 to the Part No., and for versions painted in textured RAL 7035, use extension .500. Delivery times available on request.

Consoles

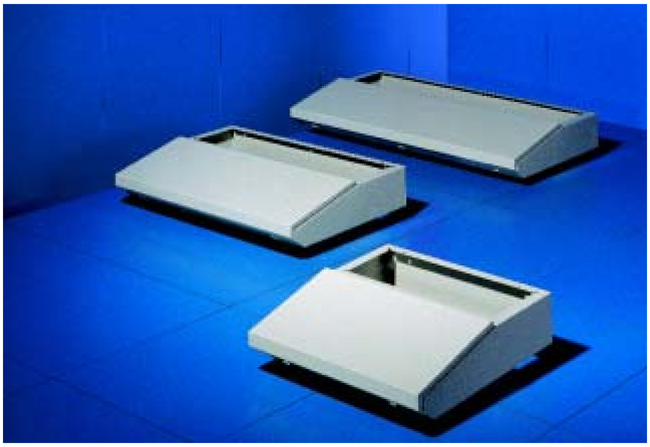
Supply includes	**Material** Sheet steel	**Color** RAL	**Finish**
Enclosure open at bottom	1.5 mm (16 ga)	7032	E-coat primed RAL 7044, Powder-coated on the outside in textured RAL 7032
Door(s) hinged at bottom with retaining cords at the front. For depth 500 mm (19.69″): with door(s) at rear	2.0 mm (14 ga)		
Mounting panel. For depth 500 mm (19.69″): adjustable in 25 mm (0.98″) increments	3.0 mm (11 ga)		Zinc-plated

Height in mm (inches)		430 (16.93)						430 (16.93)			630 (16.96)		
Width in mm (inches)	PU	800 (31.50)	1200 (47.24)	1600 (62.99)	800 (31.50)	1200 (47.24)	1600 (62.99)	800 (31.50)	1200 (47.24)	1600 (62.99)	800 (31.50)	1200 (47.24)	1600 (62.99)
Depth in mm (inches)		400 (15.75)			500 (19.69)			500 (19.69) with deep rear door					
Part No. AP	1 p.	**2612.600**	**2642.600**	**2652.600**	**2614.600**	**2644.600**	**2654.600**	**2662.600**	**2663.600**	**2664.600**	**2647.600**	**2648.600**	**2649.600**
Number of lids		1	1	1	2	2	2	2	2	2	2	2	2
Weight kg (lbs)		22.5 (49.60)	40.0 (88.18)	52.5 (115.74)	30.6 (67.46)	48.0 (105.82)	62.4 (137.57)	38.7 (85.32)	56.0 (123.46)	72.3 (159.39)	47.8 (105.38)	64.4 (141.98)	86.8 (191.36)

Lock inserts
Standard double-bit lock insert may be exchanged for 47 mm (1.85″) lock inserts, type D, see page 246

Other accessories from page 200 or see index.

To order in primed RAL 7044 please add the extension .800 to the Part No., and for versions painted in textured RAL 7035, use extension .500. Delivery times available on request.



Desk units

Supply includes	Material Sheet steel	Color RAL	Finish
Enclosure open top and bottom	1.5 mm (16 ga)	7032	E-coat primed RAL 7044, Powder-coated on the outside in textured RAL 7032
Console lid with cam and lid stay	2.0 mm (14 ga)		

Height in mm (inches)		200 (7.87)						
Width in mm (inches)	PU	800 (31.50)	1200 (47.24)	1600 (62.99)	800 (31.50)	1200 (47.24)	1600 (62.99)	Page
Depth in mm (inches)		850/33.46 (for depth 400/15.75)			950/37.40 (for depth 500/19.69)			
Part No. AP	1	**2611.200**	**2641.200**	**2651.200**	**2613.200**	**2643.200**	**2653.200**	
Weight kg (lbs)		25.5 (49.60)	35.5 (78.26)	44.0 (97.00)	30.6 (67.46)	42.6 (93.92)	52.8 (116.40)	
Accessories								
Aluminum strips AP	3	2678.000	2682.000	–	2678.000	2682.000	–	230

Lock inserts
Standard double-bit lock insert may be exchanged for 47 mm (1.85″) lock inserts, version D, see page 246

Other accessories from page 200 or see index.

To order in primed RAL 7044 please add the extension .300 to the Part No., and for versions spray-finished in textured RAL 7035, use extension .500. Delivery times available on request.

Pedestals

Supply includes	Material Sheet steel	Color RAL	Finish
Enclosure open at top	1.5 mm (16 ga)	7032	E-coat primed RAL 7044, Powder-coated on the outside in textured RAL 7032
Door or double door with locking rod. For depth 400 mm (15.75″): front. For depth 500 mm (19.69″): front and rear	2.0 mm (14 ga)		
Gland panels, two-piece	1.5 mm (16 ga)		Zinc-plated
Mounting panel. For depth 500 mm (19.69″): Infinitely adjustable.	3.0 mm (11 ga)		

Height in mm (inches)		670 (26.38)						
Width in mm (inches)	PU	800 (31.50)	1200 (47.24)	1600 (62.99)	800 (31.50)	1200 (47.24)	1600 (62.99)	Page
Depth in mm (inches)		400 (15.75)			500 (19.69)			
Part No. AP	1	**2600.600**	**2620.600**	**2630.600**	**2610.600**	**2640.600**	**2650.600**	
Doors		1	2	2	1	2	2	
Weight kg (lbs)		43.5 (95.90)	62.3 (137.35)	80.0 (176.37)	52.2 (115.08)	75.0 (165.35)	96.0 (211.64)	
Accessories for external mounting								
Base/plinth SO Height 100 mm (3.94″)	1	2901.200	2921.200	2961.200	2841.200	2851.200	2863.200	208
Height 200 mm (7.87″)	1	2902.200	2922.200	2962.200	2842.200	2852.200	2864.200	208
Cross-member, adjustable AP	2	2697.450						211
Accessories for interior installation								
Cable clamp rails	3	2038.200	2037.200	–	2038.200	2037.200	–	223
Swing frame SR 11 U	1	2027.200	2027.200 *		2027.200	2027.200 *		HB 30, 1021

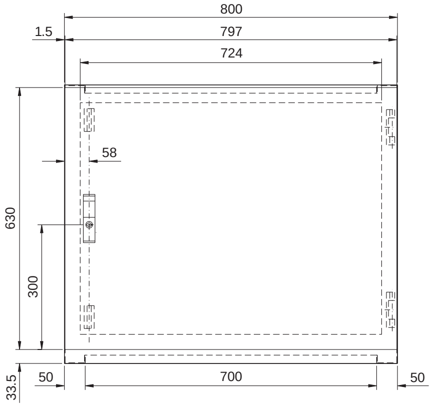
Lock inserts
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, version A, see page 246 and Ergoform-S lock system – see page 245

* Two swing frames may be installed. Other accessories from page 200 or see index.

To order in primed RAL 7044 please add the extension .800 to the Part No., and for versions painted in textured RAL 7035, please use extension .500. Delivery times available on request.

Pedestals

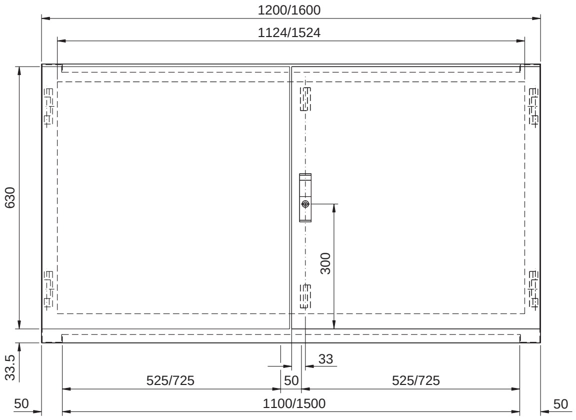
🟦 🟩 H x W 670 x 800 mm (26.38″ x 31.50″)



800
1.5
797
724
58
630
300
33.5
50
700
50

AP 2600.600 / AP 2610.600

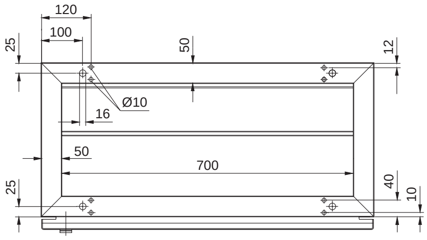
🟦 🟩 H x W 670 x 1200/1600 mm (26.38″ x 47.24/62.99″)



1200/1600
1124/1524
630
300
33.5
33
525/725
50
525/725
50
1100/1500
50

AP 2620.600 / AP 2630.600 / AP 2640.600 / AP 2650.600

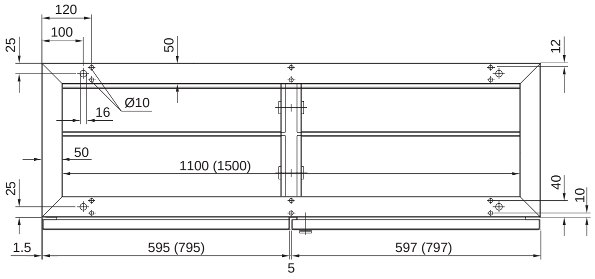
🟦 D 400 mm (15.75″)



120
100
25
50
12
Ø10
16
50
700
25
40
10

AP 2600.600

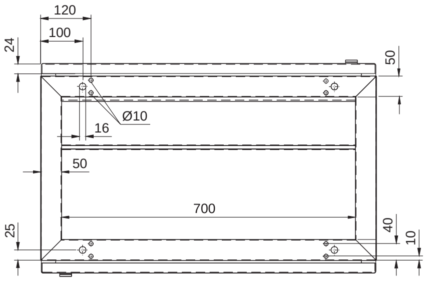
🟦 D 400 mm (15.75″)



120
100
25
50
12
Ø10
16
50
1100 (1500)
25
40
10
1.5
595 (795)
597 (797)
5

AP 2620.600 / AP 2630.600

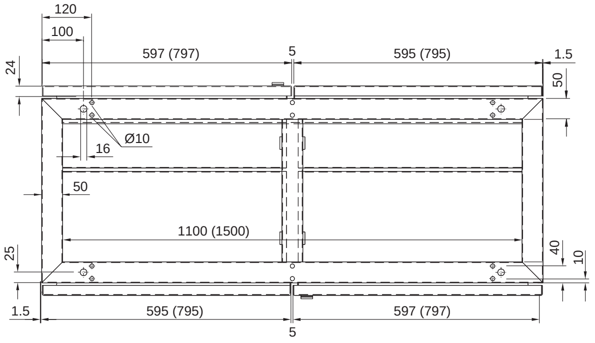
🟩 D 500 mm (19.69″)



120
100
24
50
Ø10
16
50
700
25
40
10

AP 2610.600

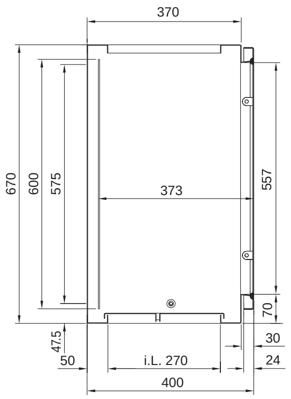
🟩 D 500 mm (19.69″)



120
100
597 (797)
5
595 (795)
1.5
24
50
Ø10
16
50
1100 (1500)
25
40
10
1.5
595 (795)
597 (797)
5

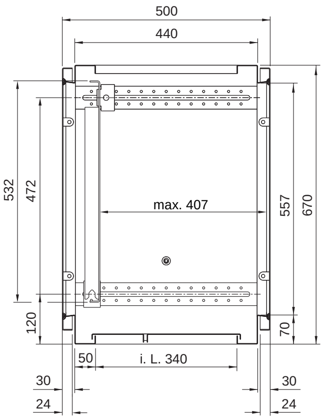
AP 2640.600 / AP 2650.600

🟩 D 400 mm (15.75″)


370
670
600
575
373
557
70
47.5
50
i.L. 270
30
24
400

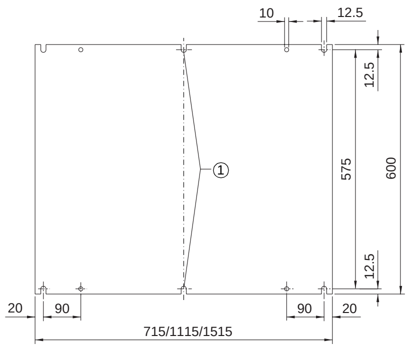
AP 2600.600 / AP 2620.600 / AP 2630.600

🟦 D 500 mm (19.69″)


500
440
532
472
max. 407
557
670
120
70
50
i. L. 340
30
24
30
24

AP 2610.600 / AP 2640.600 / AP 2650.600

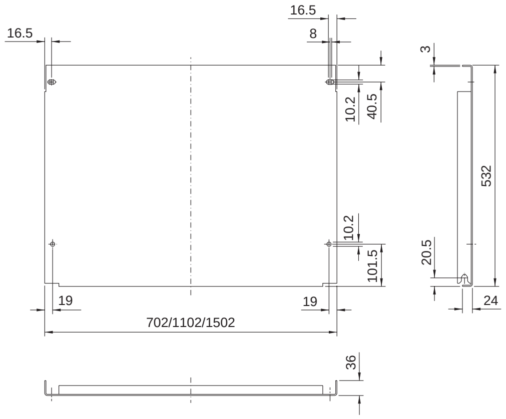
🟦 Mounting panel for D 400 mm (15.75″)


10
12.5
12.5
575
600
①
12.5
20
90
90
20
715/1115/1515

① = Does not apply to AP 2600.600

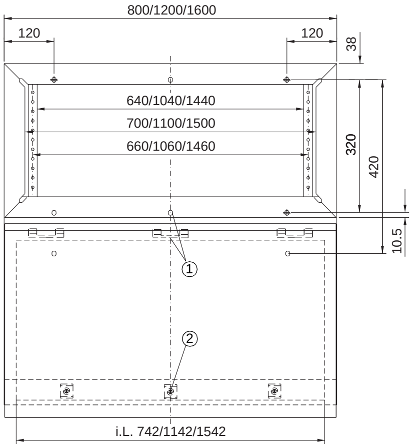
i.L. = Clearance width

🟩 Mounting panel for D 500 mm (19.69″)


16.5
16.5
8
3
10.2
40.5
532
10.2
20.5
101.5
19
19
24
702/1102/1502
36

Pedestals

🟦 🟩 H x D 200 x 850 mm (7.87″ x 33.46″)



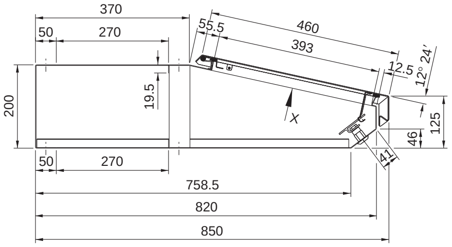
800/1200/1600
120
120
38
640/1040/1440
700/1100/1500
660/1060/1460
320
420
10.5
①
②
i.L. 742/1142/1542

① = Does not apply to AP 2611.200
② = Does not apply to AP 2611.200 / AP 2641.200

AP 2611.200 / AP 2641.200 / AP 2651.200

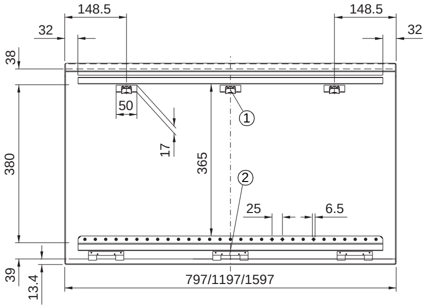
i.L. = Clearance width

🟦 Side view



370
50
270
55.5
460
393
12.5
12° 24′
200
19.5
X
125
46
41
50
270
758.5
820
850

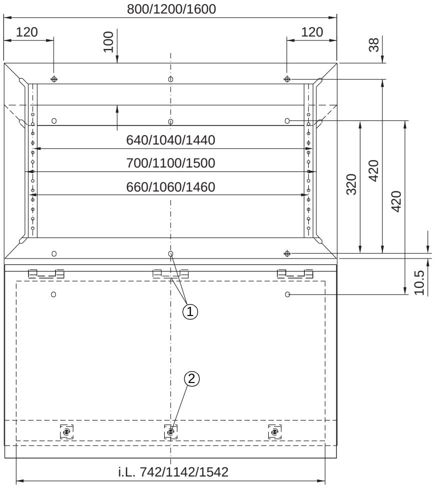
🟦 View in X direction



148.5
148.5
32
32
38
50
①
17
365
380
②
25
6.5
39
13.4
797/1197/1597

① = Does not apply to AP 2611.200 / AP 2641.200
② = Does not apply to AP 2611.200

🟦 🟩 H x D 200 x 950 mm (7.87″ x 37.40″)

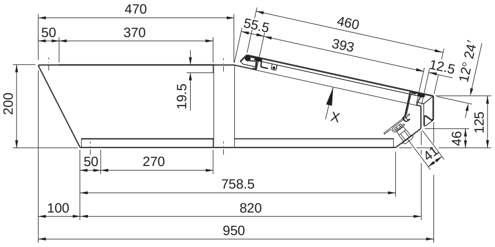


800/1200/1600
120
100
120
38
640/1040/1440
700/1100/1500
660/1060/1460
320
420
420
10.5
①
②
i.L. 742/1142/1542

① = Does not apply to AP 2613.200
② = Does not apply to AP 2613.200 / AP 2643.200

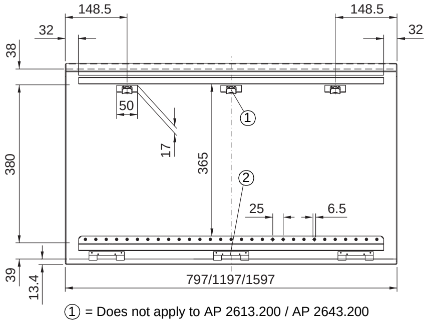
AP 2613.200 / AP 2643.200 / AP 2653.200

🟩 Side view



470
50
370
55.5
460
393
12.5
12° 24′
200
19.5
X
125
46
41
50
270
758.5
100
820
950

🟩 View in X direction



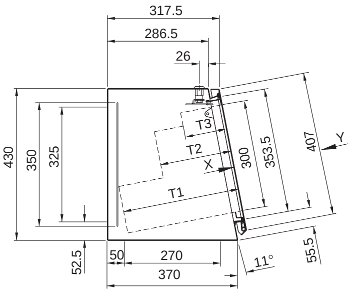
148.5
148.5
32
32
38
50
①
17
365
380
②
25
6.5
39
13.4
797/1197/1597

① = Does not apply to AP 2613.200 / AP 2643.200
② = Does not apply to AP 2613.200

Technical details

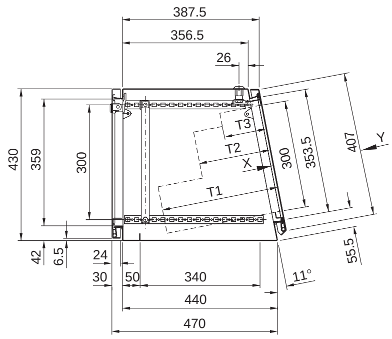
Consoles

🟦 H x D 430 x 400 mm (16.93″ x 15.75″)


317.5
286.5
26
430
350
325
T3
T2
X
T1
300
353.5
407
Y
52.5
50
270
370
11°
55.5

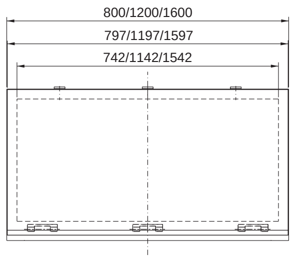
AP 2612.600 / AP 2642.600 / AP 2652.600

🟩 H x D 430 x 500 mm (16.93″ x 19.69″)

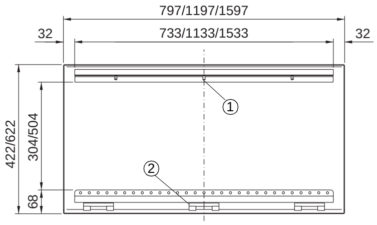

387.5
356.5
26
430
359
300
T3
T2
X
T1
300
353.5
407
Y
42
6.5
24
30
50
340
440
470
11°
55.5

AP 2614.600 / AP 2644.600 / AP 2654.600

🟦 🟩 View in Y direction


800/1200/1600
797/1197/1597
742/1142/1542

🟦 🟩 View in X direction

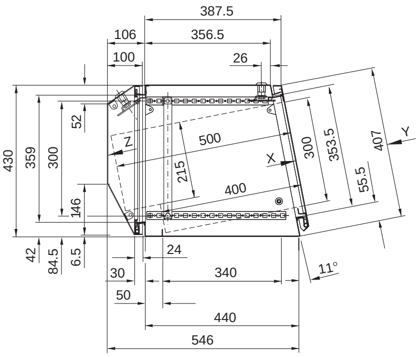

797/1197/1597
32
733/1133/1533
32
①
②
422/622
304/504
68

① = Only for AP 2649.600 / AP 2652.600 / AP 2654.600 / AP 2664.600

② = Does not apply to AP 2612.600 / AP 2614.600 / AP 2647.600 / AP 2662.600

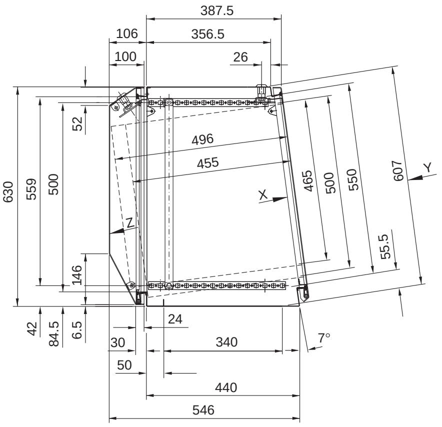
	Depth 400 mm (15.75")	Depth 500 mm (19.69")
T1 = vertically hinged 3 U	300 (11.81)	
T2 = vertically hinged 6 U	195 (7.68)	
T3 = vertically hinged, max.	110 (4.33)	
T1 = static, max.	300 (11.81)	400 (15.75)

🟩 H x D 430 x 500 mm (16.93″ x 19.69″) with deep rear door


387.5
106
356.5
100
26
430
359
300
52
146
Z
500
215
400
X
300
353.5
55.5
407
Y
42
84.5
6.5
24
30
340
11°
50
440
546

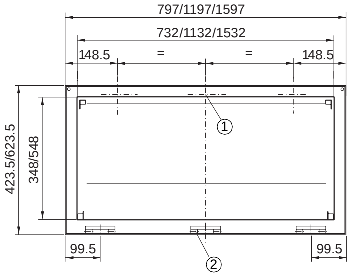
AP 2662.600 / AP 2663.600 / AP 2664.600

🟩 H x D 630 x 500 mm (24.80″ x 19.69″) with deep rear door


387.5
106
356.5
100
26
630
559
500
52
146
Z
496
455
X
465
500
550
55.5
607
Y
42
84.5
6.5
24
30
340
7°
50
440
546

AP 2647.600 / AP 2648.600 / AP 2649.600

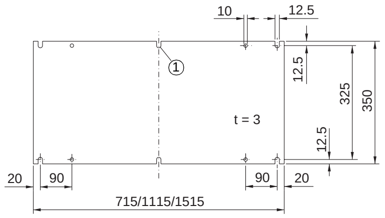
🟩 View in Z direction


797/1197/1597
732/1132/1532
148.5
=
=
148.5
①
423.5/623.5
348/548
99.5
②
99.5

① = Only for AP 2649.600 / AP 2664.600 /

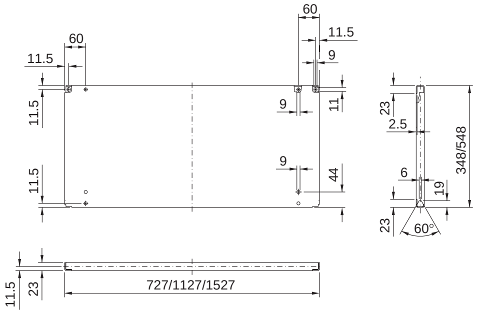
② = Only for AP 2663.600 / AP 2664.600 / AP 2648.600 / AP 2649.600

🟦 Mounting panel for D 400 mm (15.75″)

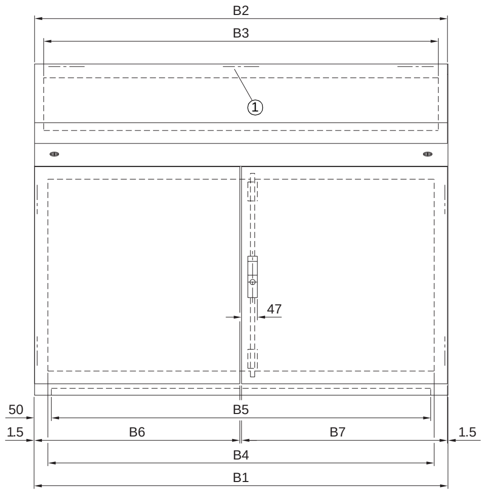

10
12.5
①
12.5
325
350
t = 3
12.5
20
90
90
20
715/1115/1515

① = Does not apply to AP 2612.600

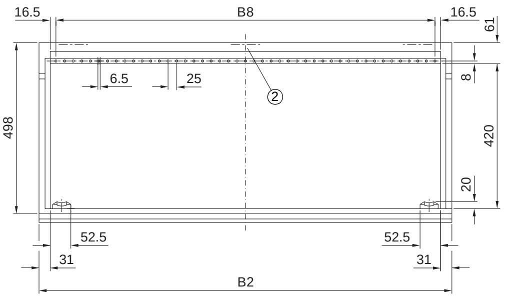
🟩 Mounting panel for D 500 mm (19.69″)


60
11.5
60
11.5
9
11.5
9
11
11.5
9
44
23
2.5
6
19
348/548
23
60°
11.5
23
727/1127/1527

AP 2670.600 / AP 2672.600

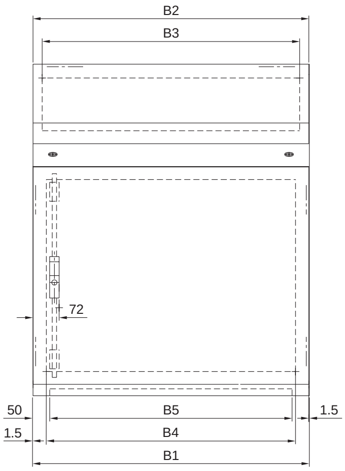

B2
B3
①
47
50
B5
1.5
B6
B7
1.5
B4
B1

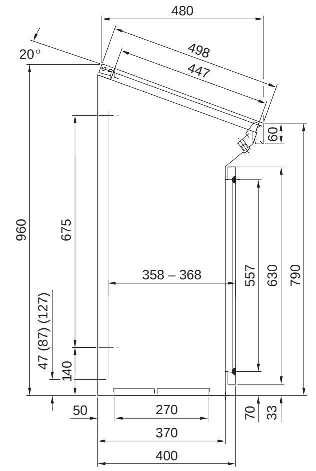
① = Hinge does not apply to AP 2670.600

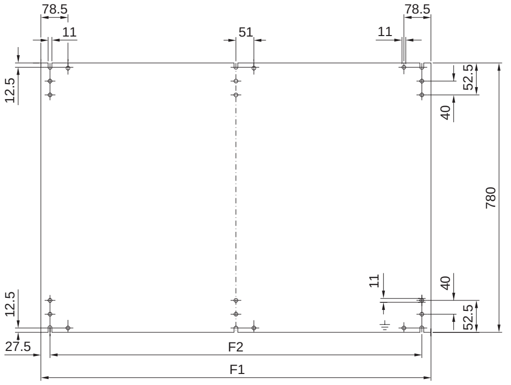

16.5
B8
16.5
61
6.5
25
②
8
498
420
20
52.5
52.5
31
31
B2

② = Hinge does not apply to AP 2666.600 / AP 2668.600

AP 2666.600 / AP 2668.600


B2
B3
72
50
B5
1.5
1.5
B4
B1


480
20°
498
447
60
960
675
358 – 368
557
630
790
47 (87) (127)
140
50
270
70
33
370
400


78.5
11
51
78.5
11
12.5
52.5
40
780
11
40
12.5
52.5
27.5
F2
F1

Configuration:
Enclosure, solid rear and sides, door or double door at front,
Console lid with lid stay,
Two-piece gland panel,
Mounting panel.

Height in mm (inches)	PU	960 (37.80)				Page
Width (B1) in mm (inches)		600 (23.62)	800 (31.50)	1000 (39.37)	1200 (47.24)	
Depth in mm (inches)		400 /480 (15.75/18.90)				
Part No. AP	1	**2666.600**	**2668.600**	**2670.600**	**2672.600**	
B2 = Width		597 (23.50)	797 (31.68)	997 (39.25)	1197 (46.26)	
B3 = Clearance width, top		544 (21.42)	744 (29.29)	944 (37.17)	1144 (45.04)	
B4 = Clearance width, front		524 (20.63)	724 (28.50)	924 (36.38)	1124 (44.25)	
B5 = Clearance width, bottom		500 (19.69)	700 (27.56)	900 (35.43)	1100 (43.31)	
B6 = Width of door, left		–	–	495 (19.49)	595 (23.43)	
B7 = Width of door, right		–	–	497 (19.57)	597 (23.50)	
B8 = Punched length		500 (19.69)	700 (27.56)	900 (35.43)	1100 (43.31)	
F1 = Mounting panel width		530 (20.87)	730 (28.74)	930 (36.61)	1130 (44.49)	
F2 = Distance between mounting holes		475 (18.70)	675 (26.57)	875 (34.45)	1075 (42.32)	
Doors		1	1	2	2	
Weight kg (lbs)		51.5 (115.74)	62.5 (137.79)	79.5 (175.27)	90.0 (198.41)	

Accessories for external mounting

Base/plinth SO	Height 100 mm (3.94″)	1	2911.200	2901.200	2891.200	2921.200	208
	Height 200 mm (7.87″)	1	2912.200	2902.200	2892.200	2922.200	208
Cross member, adjustable AP		2	2697.450				211
Aluminum strips AP		3	2676.000	2678.000	2682.000 *	2682.000	230

Accessories for interior installation

Cable clamp rails PS	3	2036.200	2038.200	1805.200	2037.200	223
Swing frame SR, 11 U	1	–	2027 .200	2027 .200	2027.200	HB 30, 1021

* should be shortened by 200 mm (7.87″).

To order primed one-piece consoles in RAL 7044, please add the extension .800 to the Part No., and for textured RAL 7035, please use extension .500. Delivery times available on request.

Sheet steel

Accessories:

see page 200 – 201
or see index.

Material:
Sheet steel
Enclosure: 1.5 mm (16 ga)
Door and console lid:
2.0 mm (14 ga)
Mounting panel: 3.0 mm
(11 ga)

Finish:
Enclosure, door and console lid: E-coat-primed in RAL 7044 and powder-coated on the outside in textured RAL 7032
Mounting panel and gland panels: Zinc-plated

Protection ratings:
IP 55 to EN 60 529 /10.91
Complies with UL and NEMA Type 12

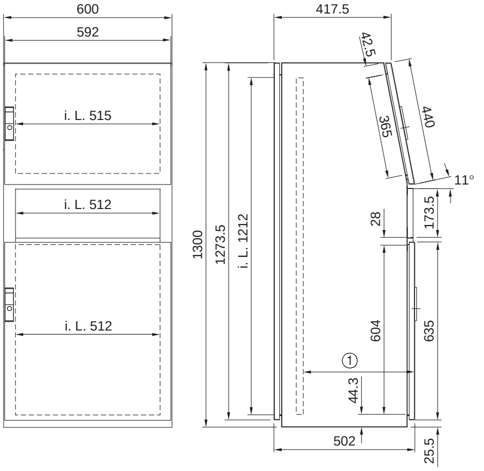
Lock systems

Console lid:
Standard double-bit lock insert may be exchanged for 47 mm (1.85″) lock inserts, type D, see page 246.

Door:
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A, see page 246
and Ergoform-S lock system, see page 245.

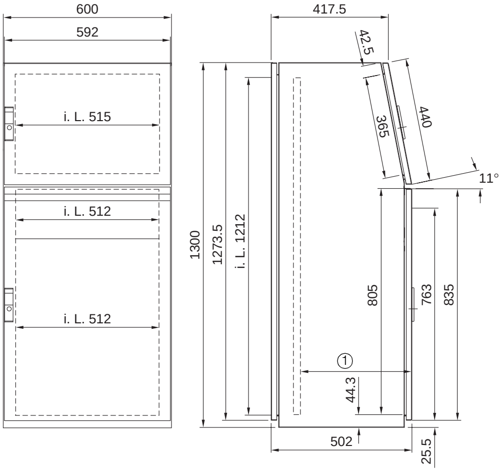
Combination of one-piece console with Optipanel.

Universal console AP 2694.600



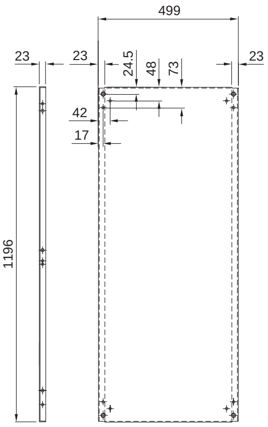
① = from 200 to 400 mm (7.87″ to 15.75″), adjustable in 25 mm (0.98″) increments

Universal console AP 2695.600



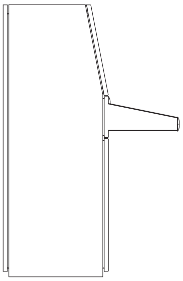
① = from 200 to 400 mm (7.87″ to 15.75″), adjustable in 25 mm (0.98″) increments

Mounting panel

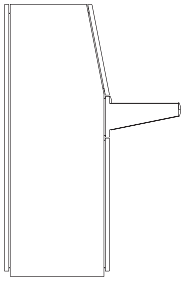


i.L. = Clearance width

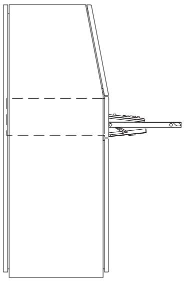
Order examples



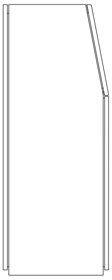
AP 2694.600 and AP 2696.200 (desk section)



AP 2694.600 and AP 2696.200 (desk section)



AP 2694.600 and MC 4757.000 (drawer)



AP 2695.600

Technical details for keyboard drawer and desk section, see page 231.

Supply includes	**Material**	**Finish**
Enclosure	Sheet steel 1.5 mm (16 ga)	E-coat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Doors* top, bottom, rear	2.0 mm (14 ga)	
Mounting panel	3.0 mm (11 ga)	Zinc-plated
Three-piece gland panels	1.5 mm (16 ga)	Zinc-plated
AP 2695.600, 2 design strips	Aluminum section	RAL 5018
Protection ratings IP 55 to EN 60,529 / 10.91, complies with UL and NEMA Type 12 * With short bottom door (AP 2695.600) the drawer or desk section (see page 231) should be fitted in order to preserve the protection category.		

H x W x D 600 x 1300 x 600 mm (51.18″ x 23.62″ x 16.96″)	**Part No.**	Weight kg (lbs)	Page
Short bottom door	**AP 2694.600**	77.0 (169.75)	
Tall bottom door	**AP 2695.600**	75.8 (167.11)	

Accessories

Base/plinth	Height 100 mm (3.94″)	SO 2807.200		208
	Height 200 mm (7.87″)	SO 2808.200		208
Cross member, adjustable		AP 2697.450		211
Cable clamp rail		PS 4191.000		223
180 ° hinges		PS 4189.000		241
Cable entry plates		PS 4320.700		216
Top door with studs left and right for installing vertical perforated mounting strips SZ 2310.038 and horizontal support strips SZ 2325.000 to be mounted on top (see HB 30, page 950). In terms of interior installation, AP universal consoles are similar to free-standing enclosure ES 5000 – in other words, many accessory components (Part No. PS) will fit.				
Lock systems Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, type A, see page 246 and Ergoform-S lock system, see page 245.				

To order in primed RAL 7044, please add the extension .800 to the Part No., and for textured RAL 7035, please use extension .500.

Sheet steel

Accessories:

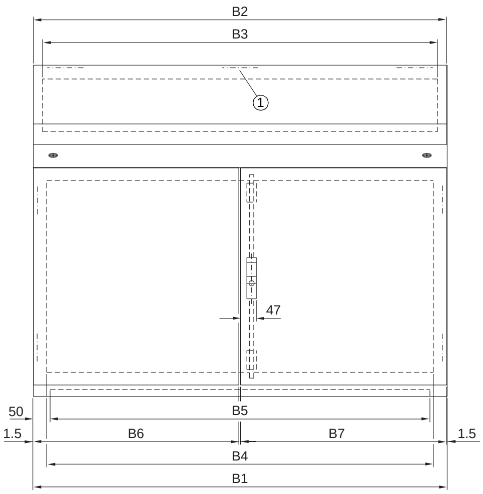
see page 200 – 201
or see index.

Mobile workstation
Plenty of space for tower PCs, printers and paper.
Part No. see page 267.

Desk section
For installing display and control components, keyboards etc. Part No. see page 231.

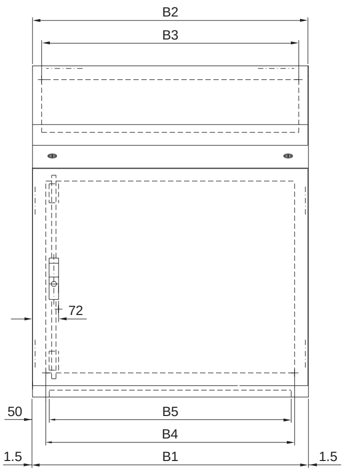
Drawer
for mouse and keyboard with a maximum width of 500 mm (19.69″). Part No. see page 231.

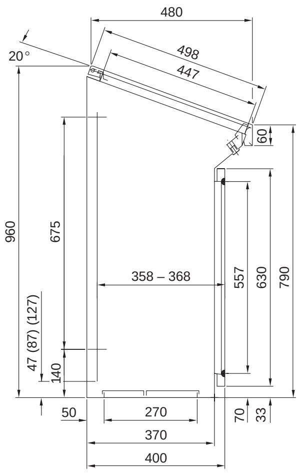
AP 2685.600 / AP 2686.600

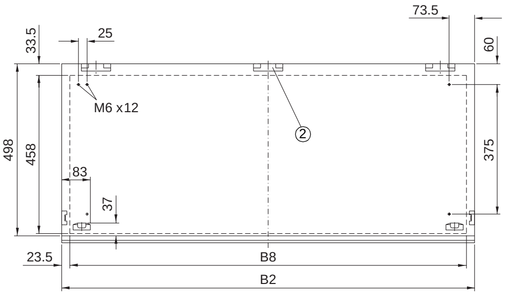

B2
B3
①
47
50
B5
1.5
B6
B7
1.5
B4
B1

① = Hinge does not apply to AP 2685.600

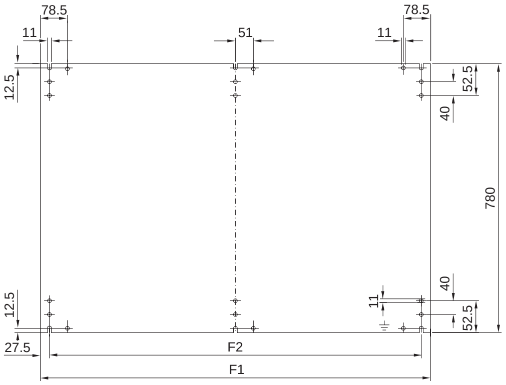
AP 2683.600 / AP 2684.600


B2
B3
72
50
B5
B4
1.5
B1
1.5


480
20°
498
447
60
960
675
358 – 368
557
630
790
47 (87) (127)
140
50
270
370
400
70
33


73.5
33.5
25
60
M6 x12
②
498
458
375
83
37
23.5
B8
B2

② = Hinge does not apply to AP 2683.600 / AP 2684.600


78.5
11
51
78.5
11
12.5
52.5
40
780
40
12.5
11
52.5
27.5
F2
F1

Supply includes:
Enclosure, solid rear and sides, door or double door at front, with locking rod,
Console lid with lid stay and stainless steel cam latched in the enclosure,
Two-piece gland panel,
Mounting panel, zinc-plated.

Height in mm (inches)	PU	960 (37.80)	960 (37.80)	960 (37.80)	960 (37.80)	Page
Width (B1) in mm (inches)		600 (23.62)	800 (31.50)	1000 (39.37)	1200 (47.24)	
Depth in mm (inches)		400/480 (15.75/18.90)	400/480 (15.75/18.90)	400/480 (15.75/18.90)	400/480 (15.75/18.90)	
Part No. AP	1	**2683.600**	**2684.600**	**2685.600**	**2686.600**	
B2 = Width		597 (23.50)	797 (31.68)	997 (39.25)	1197 (46.26)	
B3 = Clearance width, top		544 (21.42)	744 (29.29)	944 (37.17)	1144 (45.04)	
B4 = Clearance width, front		524 (20.63)	724 (28.50)	924 (36.38)	1124 (44.25)	
B5 = Clearance width, bottom		500 (19.69)	700 (27.56)	900 (35.43)	1100 (43.31)	
B6 = Width of door, left		–	–	495 (19.49)	595 (23.43)	
B7 = Width of door, right		–	–	497 (19.57)	597 (23.50)	
B8 = Punched length		500 (19.69)	700 (27.56)	900 (35.43)	1100 (43.31)	
F1 = Mounting panel width		530 (20.87)	730 (28.74)	930 (36.61)	1130 (44.49)	
F2 = Distance between mounting holes		475 (18.70)	675 (26.57)	875 (34.45)	1075 (42.32)	
Doors		1	1	2	2	
Weight kg (lbs)		52.0 (114.64)	65.2 (143.74)	79.5 (175.27)	90.3 (199.07)	

Accessories

Base/plinth SO	Height 100 mm (3.94″)	1	2865.000	2869.000	2867.000	2870.000	209
	Height 200 mm (7.87″)	1	2875.000	2878.000	2885.000	2886.000	209

Lock systems
Standard double-bit lock insert of locking rod may be exchanged for 27 mm (1.06″) lock inserts, version A, see page 246 and Ergoform-S lock system, see page 245.

To order the one-piece consoles in 1.4404 (Type 316L), the Part No. should end in .500. Delivery times available on request.

One-piece consoles AP

Stainless steel

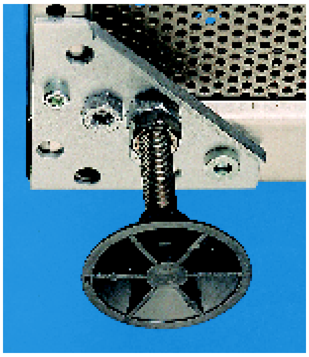
Accessories:

see page 200 – 201
or see index.

Material:
Type 304 stainless steel
Enclosure: 1.5 mm (16 ga)
Door or double door and console lid: 2.0 mm (14 ga)
Mounting panel:
3.0 mm (11 ga) sheet steel

Finish:
Enclosure, door and console lid: Brushed, 120 grain
Mounting panel: Zinc-plated

Protection category:
IP 55 to EN 60 529/10.91
Complies with UL and NEMA Type 12.

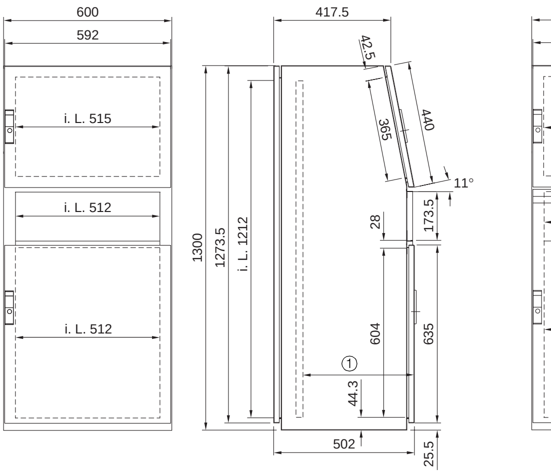


Levelling feet
for base/plinth to compensate for floor irregularities.
Part No. see page 214.

IP 67 mouse and mousepad
Part No. see page 266.

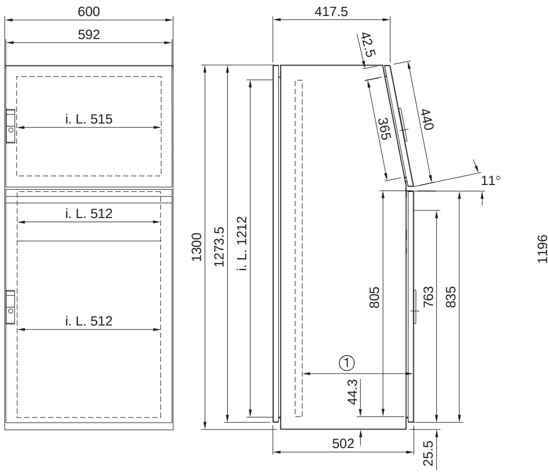
Wall console, stainless steel
mounted on the rear panel for an additional operating housing. Part No. see page 95.

AP 2688.600 front door, short


600
592
417.5
42.5
440
365
11°
i. L. 515
i. L. 512
i. L. 512
1300
1273.5
i. L. 1212
28
173.5
604
635
①
44.3
502
25.5

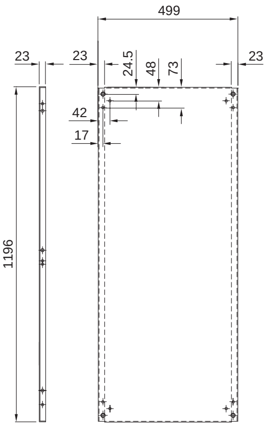
① = from 200 to 400 mm (7.87″ x 15.75″), adjustable in 25 mm (0.98″) increments

AP 2689.600 front door, tall


600
592
417.5
42.5
440
365
11°
i. L. 515
i. L. 512
i. L. 512
1300
1273.5
i. L. 1212
805
763
835
①
44.3
502
25.5

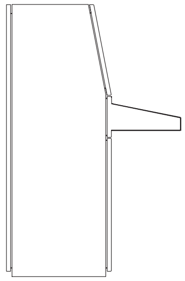
① = from 200 to 400 mm (7.87″ x 15.75″), adjustable in 25 mm (0.98″) increments

Mounting panel

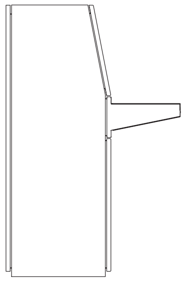

499
23
23
24.5
48
73
23
42
17
1196

i.L. = Clearance width

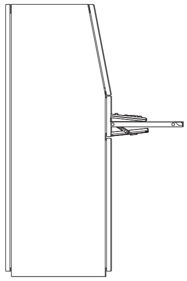
Order examples



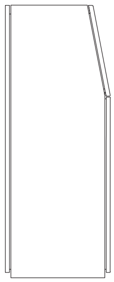
AP 2688.600
Front door, short
AP 2690.000
(desk section)



AP 2688.600
Front door, short
AP 2690.000
(desk section)



AP 2688.600
Front door, short
AP 2691.000
(keyboard drawer)



AP 2689.600
(front door, tall)

Configuration:
Enclosure, solid top and sides,
Rear door,
Three-piece gland panels,
Mounting panel.

AP 2688.600
Three-piece front:
Top door inclined by 11°, r/h hinge.
Empty space for
– Desk section AP 2690.000
– Keyboard drawer AP 2691.000.
Bottom door, r/h hinge.

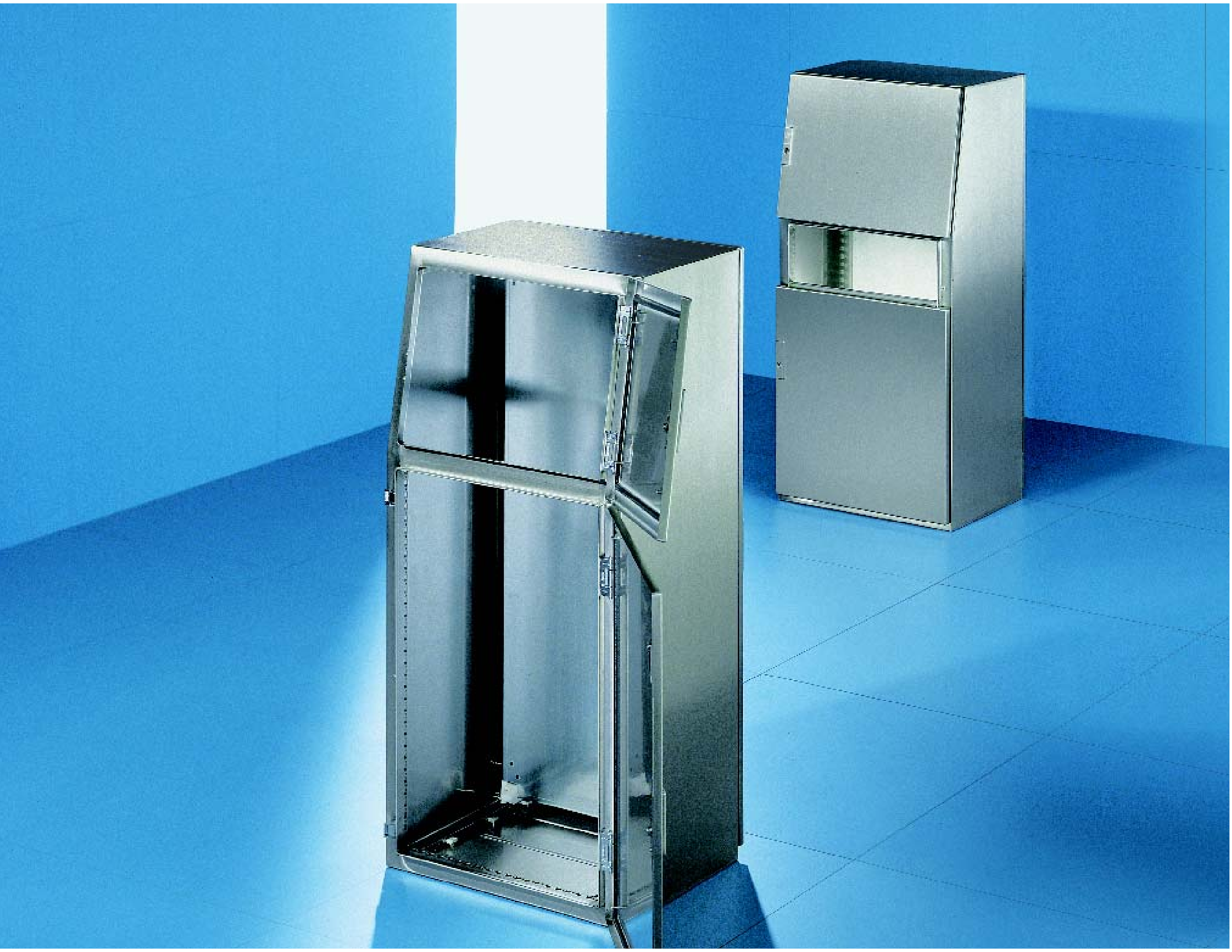
AP 2689.600
Two-piece front:
Top door inclined by 11°, r/h hinge.
Bottom door, r/h hinge.

		PU	Universal console		Page
			with short front door	with tall front door	
Width in mm (inches)			600 (23.62)	600 (23.62)	
Height in mm (inches)			1300 (51.18)	1300 (51.18)	
Depth in mm (inches)			500 (19.69)	500 (19.69)	
Part No. AP		1	**2688.600**	**2689.600**	
Weight kg (lbs)			83.3 (183.64)	84.5 (186.29)	
Essential accessories					
Desk section AP		1	2690.000	–	231
or Keyboard drawer AP		1	2691.000	–	231
Accessories for external mounting					
Base/plinth SO	Height 100 mm (3.94″)	1	2868.000	2868.000	209
	Height 200 mm (7.87″)	1	2876.000	2876.000	209
Base/plinth trim, modular SO		4	2908.000	2908.000	210

Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, version A, see page 246 and Ergoform-S lock system, see page 245.

For universal consoles in 1.4404 (Type 316L), the Part No. should end in .500. Delivery times available on request.

Stainless steel



Accessories:

see page 200 – 201
or see index.

Material:
Type 304 stainless steel
Enclosure: 1.5 mm (16 ga)
Door: 2.0 mm (14 ga)
Mounting panel:
Sheet steel 3.0 mm (11 ga), zinc-plated

Finish:
Brushed, 240 grain

Protection ratings:
IP 56 to EN 60 529/10.91
Complies with UL and NEMA Type 12.

Connector gland
for 3 cables up to Ø 6 mm (0.24″).
Part No. SZ 2400.500, see page 220.

Rail for EMC shielding bracket and strain relief
Part No. see Innovations 2003, page 28.

Mousepad support
For desk section, mouse and mousepad IP 67/NEMA 6.
Part No. see page 266.

Rittal system accessories . . .

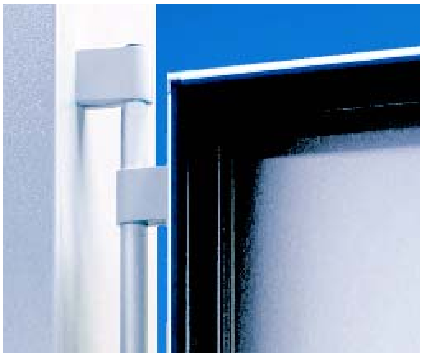
. . . for even more solutions

Solution diversity is our business. Thanks to many years of expertise, knowledge and our close contact with customers, we produce solutions that work. For example, system climate control that ensures reliability for electronics in cabinets and enclosures for human/machine interface. What is more, our extensive range of system accessories offers you new opportunities and possibilities.

Simply locate onto the connection plate of the Command Panel, see page 219.

Connector gland: Simply insert the pre-assembled cables and screw-fasten, see page 220.

Utility shelf for measuring tools, writing equipment, mouse, scanner, small parts etc. see page 229.

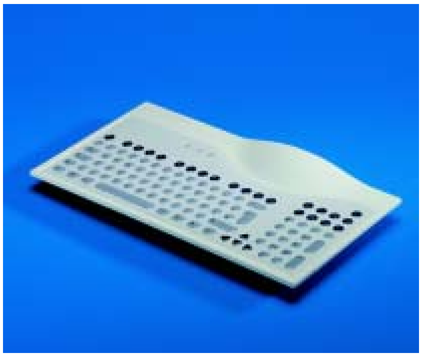


Handle set and conduit holder solve a variety of requirements, both individually and in combinations, see page 235.

System window – whenever stringent hygiene requirements apply, see page 241.

Interface door for secure accommodation of sockets, computer ports or drives, see page 240.

TFT monitor – quickly installed, ideal for industrial use, see page 265.



IP 65 desktop keyboard – for tougher conditions or when hygiene is an issue, see page 264.

Cable glands and other useful system accessories, see Innovations 2004, from page 22.

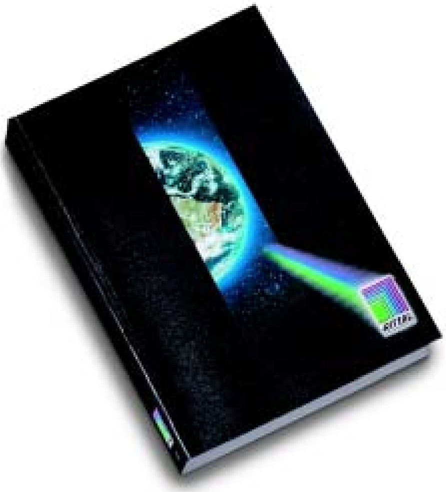
Climate control 202 – 205

VIP small air conditioners 202 – 203
Rear cooling panel, modular 204
Overview of climate control 205

Input/output devices 264 – 266

Accessories 206 – 273

Base/plinth 206 – 213
Base 214 – 219
Cable routing 220 – 223
For IW monitor housings 224 – 225
Wall/enclosure connectors 226 – 230
Front design 231 – 234
Handles 235 – 239
Interface door, interface box 240
Windows 241 – 243
Lock systems 244 – 249
Roof/interior installation 250 – 256
Component shelves/drawers 256 – 263
Mobile workstation 267
Lighting/power supply 268 – 269
Grounding/swing frames 270 – 271
19″ configuration 272 – 273



Even more diversity, even more ideas.
Enter our world of solutions. Clearly
documented in Rittal Handbook 30.

The new VIP SK small air conditioner were developed especially for cooling the VIP 6000 command panel. In addition, VIP small air conditioner also offer a space-saving, economical solution for the climate control of small enclosures where small heat loads are generated by the system.

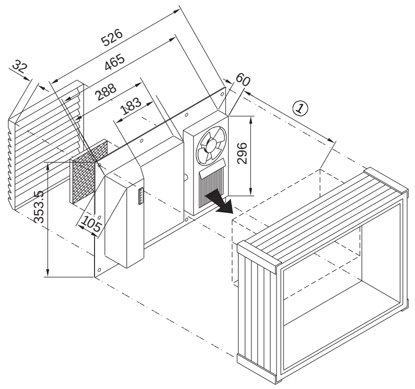
Specification:

- For optimum space utilization inside the VIP 6000 enclosure, we offer two cooling unit versions with the condenser mounted on the left or right, which are pre-mounted on the rear panel of the VIP enclosure.
- Customized solutions on other small enclosures are also possible.
- Optimum ratio of useful cooling output to cooling unit volume.
- Temperature control via internal electronics.
- Monitoring of the internal temperature of the enclosure via a floating contact on the terminal strip.

Configuration:

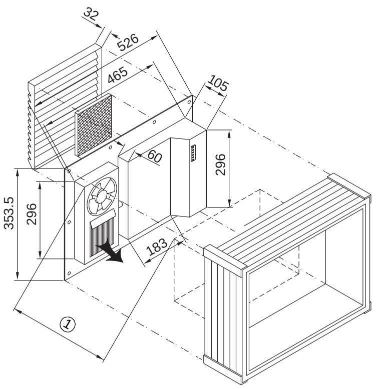
Fully wired ready for connection and pre-mounted on an aluminum rear panel to fit VIP 6000 operating housing 7 U.

SK 3201.100
Condenser version LEFT

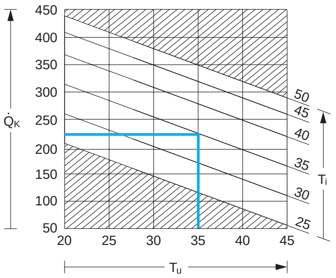


① = Distance from installed equipment at least 60 mm (2.36″)

SK 3202.100
Condenser version RIGHT

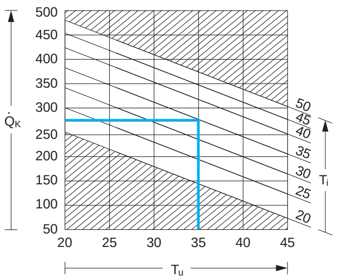


Performance diagram
SK 3201. . . . / SK 3202. . . .
(DIN 3168) (50 Hz)



T_u = Ambient temperature (°C)
$\dot{Q}_K$= Continuous useful cooling output (W)
T_i= Enclosure internal temperature (°C)

Performance diagram
SK 3201. . . . / SK 3202. . . .
(DIN 3168) (60 Hz)



T_u = Ambient temperature (°C)
$\dot{Q}_K$= Continuous useful cooling output (W)
T_i= Enclosure internal temperature (°C)

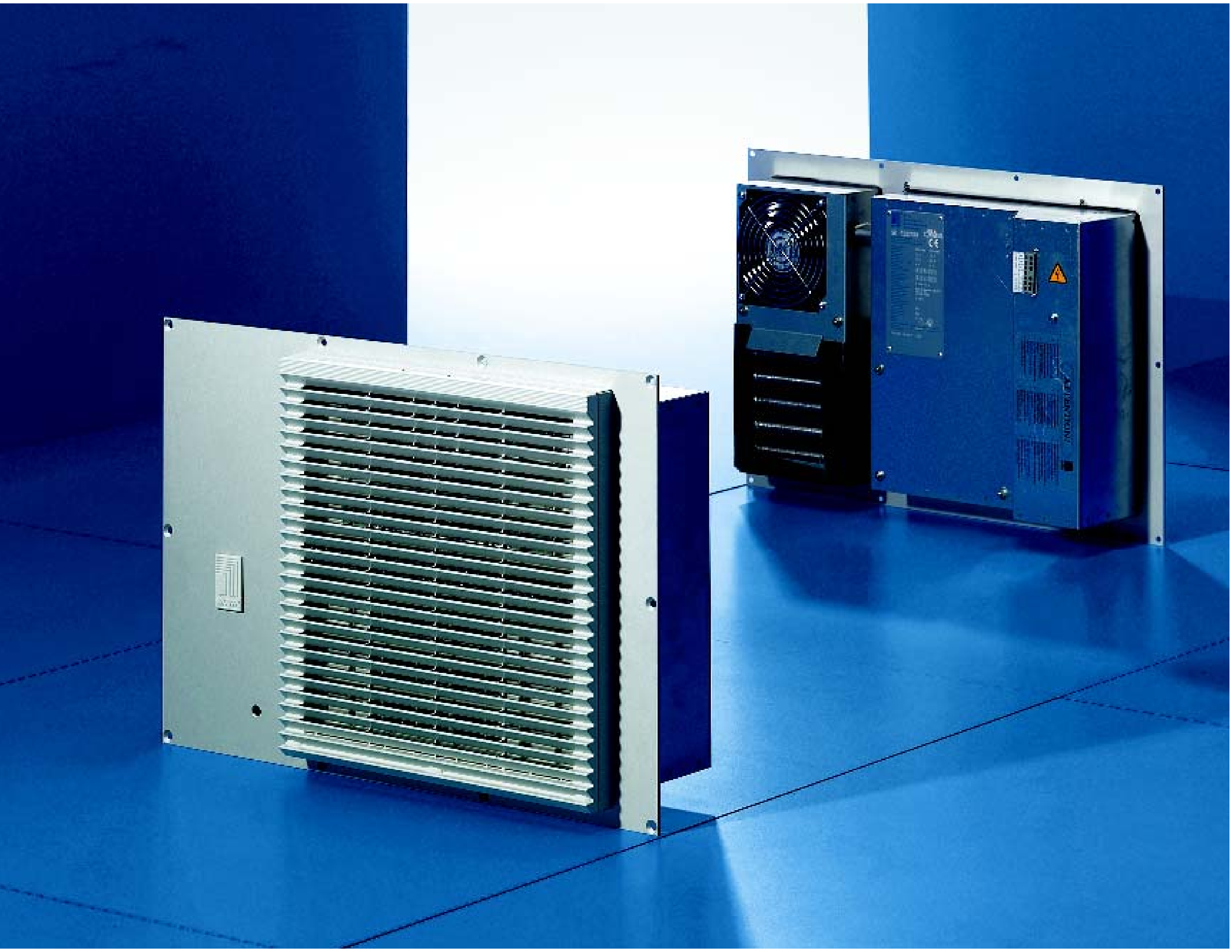
Part No. SK		**3201.100**	**3202.100**
Condenser design		left	right
Rated operating voltage V/Hz		230, 50/60	
Dimensions in mm (inches)	H W D	353,5 (13.92) 526 (20.71) 105 (4.13)	
Useful cooling output $\dot{Q}_K$ to DIN 3168	**L 35 L 35 L 35 L 45**	**225 W/ 270 W (770/920 BTU) 160 W/ 200 W (545/680 BTU)**	

Rated current max.		1.5 A/1.5 A
Start-up current		1.9 A/2.0 A
Pre-fuse T		4.0 A/4.0 A
Power consumption P_{el} to DIN 3168	L 35 L 35 L 35 L 45	285 W/ 300 W 315 W/ 325 W
Refrigeration factor $\varepsilon = \dot{Q}_K/P_{el}$	L 35 L 35	0.8 / 0.9
Refrigerant		R134a, 170 g (6 oz)
Permissible operating pressure p. max.		27 bar /392 psi
Temperature and setting range		+20°C to +45°C/+68° to 113°F
Protection category to EN 60 529/10.91	External circuit	IP 34; NEMA Type 2
	Internal circuit	IP 54; NEMA Type 12
Duty cycle		100 %
Type of connection		Terminal strip
Weight		10.5 kg/23.15 lbs
Color		Rear panel aluminum, vent grille RAL 7035
Air throughput of fans	External circuit	235 m^3/h / 270 m^3/h (137/158 cfm)
	Internal circuit	160 m^3/h / 180 m^3/h (94/105 cfm)
Temperature control		Electronic control (factory setting +35°C/+95°F)

Special voltages available on request. We reserve the right to make technical modifications.

Accessories	PU		Page
Temperature indicator	1	3114.100	HB 30, p. 570

VIP small air conditioner, useful cooling output 225 W/920 BTU



Accessories:

see page 200 – 201
or see index.

VIP small air conditioner have the following approvals:
- UL, CUL
- CE

Digital temperature indicator for visualisation of the enclosure internal temperature, see Handbook 30, page 570.

Spacer and built-in trim panel for problem-free installation of the temperature display. Part No. see page 234.

Rear cooling panel, modular

For VIP 6000 and Optipanel, externally mounted

Significantly increases the dissipation of heat loss from the enclosure.

Apart from cooling fins on the outside, this is achieved by a combination of cooling fins and screw channels on the inside, which ensure optimum heat absorption and dissipation.

The rear cooling panel consists of cooling modules and compensating panels, which are used depending on the enclosure width.

Material:
Extruded aluminum section,
natural anodized

Note:
When installing the pull-out keyboard CP 6002.100 (see page 263) in

- VIP 6000, design version 3.1, No. 1
- Optipanel, design version 2.1, No. 3

the 11 mm (0.43″) cooling fins protruding into the enclosure and screw channels may be milled off.

Please additionally specify on the order:

- With fitted pull-out keyboard CP 6002.100 + installation position.

+ Accessories:

Spring nuts M5, CP 6108.000, see page 255.
Cable tie attachment, CP 6059.500, see page 221.

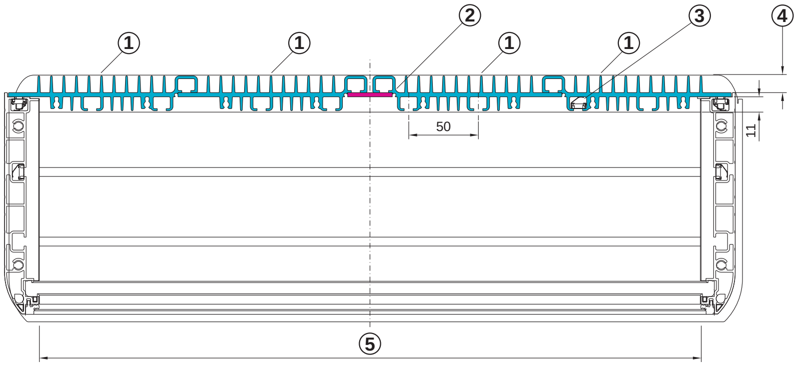
Rear cooling panel for retro-fitting existing enclosures.

To fit	Size	Part No. CP
VIP 6000	7 U x 19″	**6004.000**
	to specifications*	**6004.009**
Optipanel	7 U x 19″	**6004.100**
	to specifications*	**6004.109**

*Please additionally state on the order:
- Number and dimensions of front panels
- Number of cross members/sealing bars

or
- Part Number of enclosure.

Extended delivery times.



① Profile of rear cooling panel. Unless otherwise specified, the cooling fins are positioned vertically.
② Width compensating panel, mounted in the center with an even number of heat sinks, or on the right with an uneven number. By rotating the entire cooling panel through 180° this position may be modified individually.
③ Spring nut M5, CP 6108.000 for interior installation on screw channels
④ Overall depth of the enclosure is increased by 13 mm (0.51″)
⑤ Front panel width for determining the cooling modules and compensating panel

Rittal climate control systems . . .

. . . for process protection

Outstanding quality, favourable prices, exceptionally effective operating ratios and environmentally friendly – that's Rittal system climate control. These convincing criteria originate from a broad base: A consistent orientation towards customer requirements, highly skilled development teams, a platform-based strategy, and state-of-the-art production techniques.

Perfect Enclosure Climate Control
SK
Perfect Climate 2004
Comprehensive process cooling
Including new generation of fan-and-filter units
RITTAL
FRIEDHELM LOH GROUP

In our new brochure “Perfect Climate 2004”, you will find our entire range of products for comprehensive process protection through cooling, heating and monitoring.

Please request a copy of our latest brochure – see back page for contact information.

Base/plinth

Base/plinth components

front and rear for TS
Base/plinth component consisting of one trim panel and two pre-configured corner pieces. In 200 mm (7.87″) high base/plinth components, one trim panel is divided into two for cable entry.

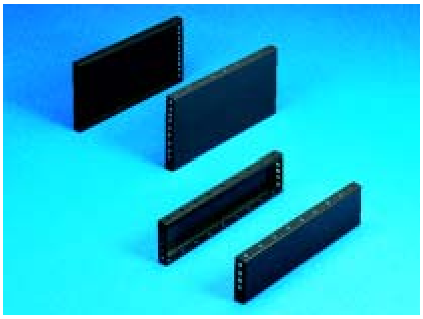
Configuration:
1 set =
2 base/plinth components,
4 cover caps,
4 screws and captive nuts M12
for mounting on the enclosure.

Accessories:

Base assembly plate SO 2817.000, see page 215.

For enclosure width mm (inches)	PU set	Part No. TS 100 mm (3.94″) high	Part No. TS 200 mm (7.87″) high
600 (23.62)	1	**8601.600**	**8602.600**

	Material	Color RAL
Components	Sheet steel	7022
Caps	Plastic	9005



Base/plinth trim

side, for TS
For mounting between the base/plinth components. With 200 mm (7.87″) height, two 100 mm (3.94″) base/plinth trims may also be used. In order to stabilize bayed base/plinth components, base/plinth trim (100 mm (3.94″) high) may be installed rotated through 90°.

Material:
Sheet steel

Configuration:
1 set =
2 base/plinth trim panels
including material for attaching
to the base/plinth components.

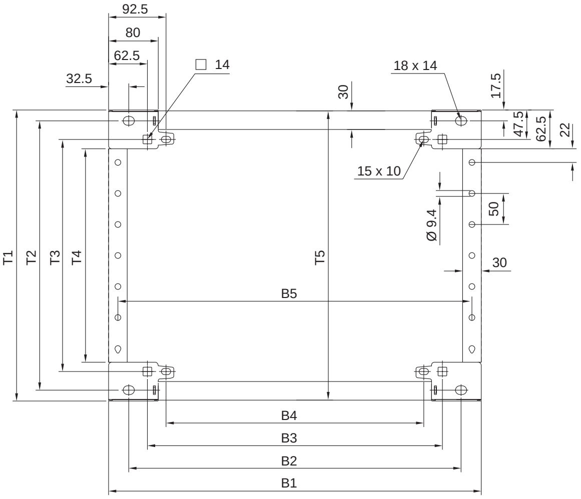
For enclosure depth mm (inches)	Color RAL	Part No. TS 100 mm (3.94″) high	Part No. TS 200 mm (7.87″) high
600 (23.62)	7022	**8601.060**	**8602.060**
800 (31.50)	7022	**8601.080**	**8602.080**

Accessories:

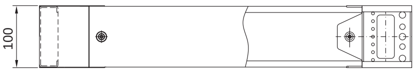
Assembly bolts for cable clamp rails SO 2819.000, see page 210.

As an alternative, can be used:

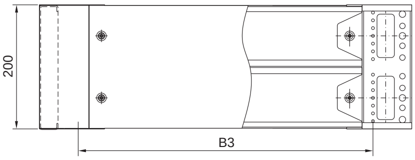
Base/plinth or
base/plinth, vented, in RAL 7035,
see Handbook 30, page 882.



Plinth, 100 mm (3.94″) high



Plinth, 200 mm (7.87″) high



Description of the hole patterns

B1/T1 = External dimensions

B2/T2 = For screw-fastening in the thread of the enclosure corner piece from below

B3/T3 = For screw-fastening via captive nuts to the enclosure base from below or above

All holes (B2 – B4 / T2 – T4) may be used for screw-fastening to the base.

Base/plinth components front/rear					
Width mm (inches)	B1	B2	B3	B4	B5
600 (23.62)	600 (23.62)	535 (21.07)	475 (18.70)	415 (16.34)	570 (22.44)
Base/plinth trim, side					
Depth mm (inches)	T1	T2	T3	T4	T5
600 (23.62)	569 (22.04)	534 (21.03)	474 (18.66)	444 (17.48)	568 (22.37)
800 (31.50)	769 (30.28)	734 (28.90)	674 (26.53)	644 (25.35)	768 (30.24)

Base/plinth trim

with brush strip for TS
The supplement to the modular base/plinth concept (see HB 30, page 878).
May also be exchanged for the front or rear trim panel of the base/plinth components 100 or 200 mm (3.94″ or 7.87″) high. By rotating the trim panel, the hammer-head strip for cable attachment may optionally be positioned at the top or bottom.

Material:
Sheet steel

Configuration:
Brush strip

Height	Width	Part No. TS	
		RAL 7022	RAL 7035
100 mm (3.94″)	600 mm (23.62″)	**8601.610**	**8601.615**

Accessories:

Cable ties for quick assembly,
see page 220.

Base/plinth trim PC

To continue the design of the
- bottom front door of PC enclosures based on TS,
- door of the IW enclosure.

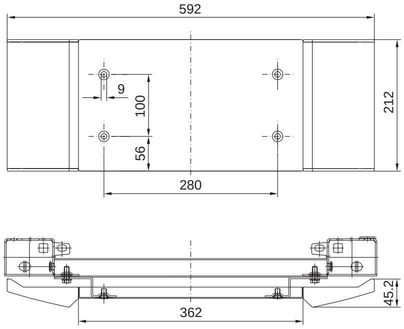
The base/plinth trim is screw-fastened to the corner pieces of the TS base/plinth components from the outside.

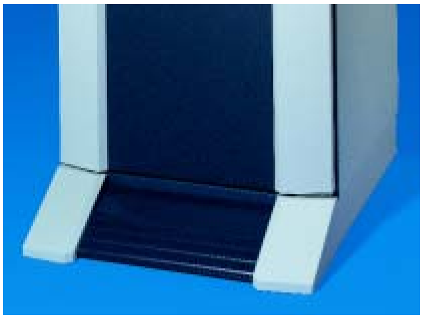
Configuration	Material	Color RAL
1 trim panel	Sheet steel	7015
2 designer trim panels	Extruded aluminum section	7035

Height	Width	Part No. PC
200 mm (7.87″)	600 mm (23.62″)	**8360.920**

Additional parts

Base/plinth components, front and rear and base/plinth trim, side,
see opposite page.





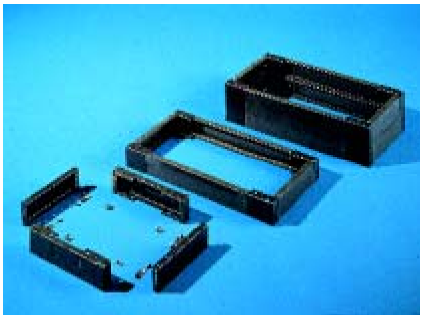
Base/plinth, stationary

Adapted to the design of the enclosure, Height 100 mm (3.94″), front projection, with numerous possibilities.

For depth	Part No. PC
600 mm (23.62″)	**8800.920**
836 mm (32.91″)	**8800.930**

Configuration	Version	Material	Color RAL
2 depth stays	With attachment facility for ● Twin castors PC 4634.500, see page 213, ● Levelling feet PS 4612.000, see page 214, ● Assembly bolts for cable clamp rails SO 2819.000, see page 210, ● Support bracket PS 4183.000, see Handbook 30, page 979.	Sheet steel 2.0 mm/14ga	7035 textured
	with 2 cover caps	Cast aluminum	7035
1 trim panel at the rear	For screw-fastening to depth stays	Sheet steel 2.0 mm (14ga)	7035 textured
1 trim panel at the front	for screw-fastening to depth stays	Aluminum section	7015

Base/plinth



Base/plinth, complete

Sheet steel
Consisting of:
Trim panels at the front and rear with fitted corner pieces and side trim panels.

Material:
Sheet steel

Color:
RAL 7022

Configuration	Height 100 mm (3.94″)	 200 mm (7.87″)
Corner pieces	4	4
Trim panels front / rear	2	1 x 200 mm (7.87″) 2 x 100 mm (3.94″)
Trim panels (sides)	2	4
Installation hardware including 4 screws and captive nuts M12 for mounting on the enclosure.		

Base/plinth for ES-PC/AP universal console

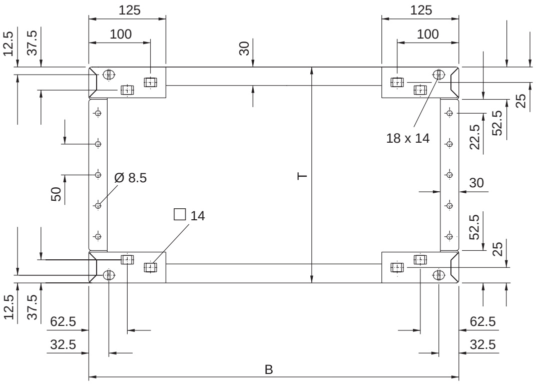
For enclosures Width mm (inches)	 Depth mm (inches)	Part No. SO 100 mm (7.87″) high	 200 mm (7.87″) high
600 (23.62)	500 (19.69)	**2807.200**	**2808.200**
600 (23.62)	600 (23.62)	**2813.200**	**2814.200**
600 (23.62)	800 (31.50)	**2846.200**	**2847.200**

Base/plinth for AP console systems/AP one-piece consoles

For enclosures/consoles Width mm (inches)	 Depth mm (inches)	Base/plinth depth mm (inches)	Part No. SO 100 mm (7.87″) high	 200 mm (7.87″) high
600 (23.62)	400 (15.75)	370 (14.57)	**2911.200**	**2912.200**
800 (31.50)	400 (15.75)	370 (14.57)	**2901.200**	**2902.200**
800 (31.50)	500 (19.69)	440 (17.32)	**2841.200**	**2842.200**
1000 (39.37)	400 (15.75)	370 (14.57)	**2891.200**	**2892.200**
1200 (47.24)	400 (15.75)	370 (14.57)	**2921.200**	**2922.200**
1200 (47.24)	500 (19.69)	440 (17.32)	**2851.200**	**2852.200**
1600 (62.99)	400 (15.75)	370 (14.57)	**2961.200**	**2962.200**
1600 (62.99)	500 (19.69)	440 (17.32)	**2863.200**	**2864.200**

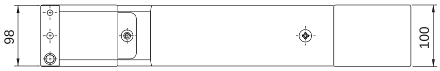
+ Accessories:

Assembly bolts for cable clamp rail,
see page 210.
Base assembly plate,
see page 215.

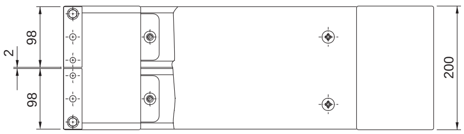


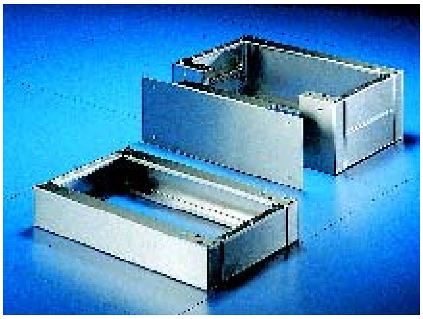
T = Enclosure depth – 50 mm (1.97″)
W = Enclosure width

Plinth, 100 mm (3.94″) high



Plinth, 200 mm (7.87″) high





Base/plinth, complete

Stainless steel
Consisting of:
Trim panels front and rear (for height 200 mm (7.87″) with corner pieces on one side and removable trim panel) and trim panels at the sides.

Material:
Type 304 stainless steel

Finish:
Brushed

Configuration	Height	
	100 mm (3.94″)	200 mm (7.87″)
Corner pieces	–	2*
Trim panels front/rear	2	2
Trim panels (sides)	2	4
Installation hardware including 4 screws and captive nuts M12 for mounting on the enclosure.		

* Corner pieces with removable trim panel, to be fitted optionally at the front or rear.

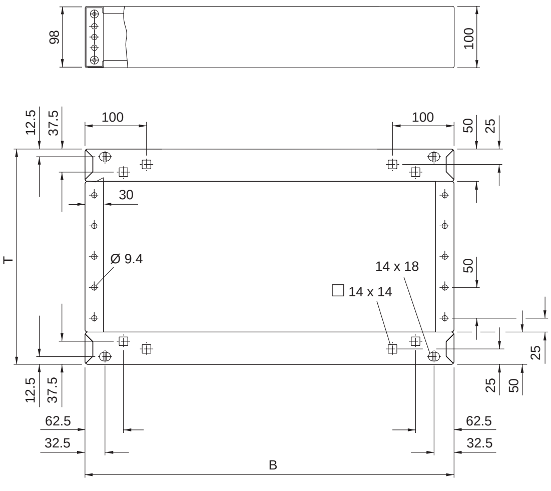
Accessories:

Levelling feet,
see page 214.
Base/plinth trim, modular
see page 210.

Base/plinth for PC/AP

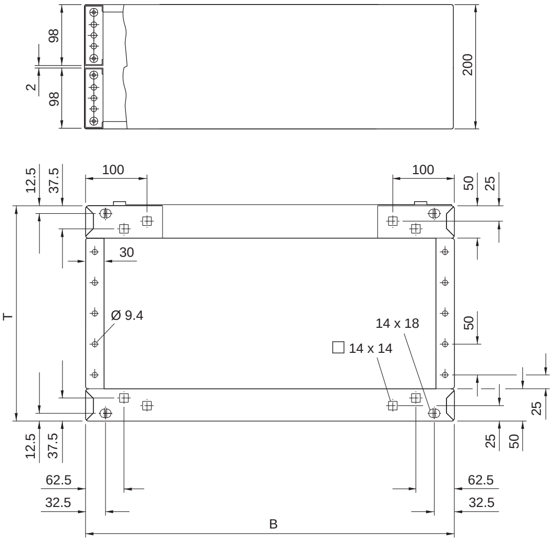
For enclosures		Part No. SO	
Width mm (inches)	Depth mm (inches)	100 mm (3.94″)	200 mm (7.87″)
600 (23.62)	400 (15.75)	**2865.000**	**2875.000**
600 (23.62)	500 (19.69)	**2868.000**	**2876.000**
600 (23.62)	600 (23.62)	**2855.000**	**2877.000**
800 (31.50)	400 (15.75)	**2869.000**	**2878.000**
1000 (39.37)	400 (15.75)	**2867.000**	**2885.000**
1200 (47.24)	400 (15.75)	**2870.000**	**2886.000**

Plinth, 100 mm (3.94″) high


98
100
12.5
37.5
100
100
50
25
30
Ø 9.4
14 x 18
□ 14 x 14
50
T
25
12.5
37.5
25
50
62.5
32.5
62.5
32.5
B

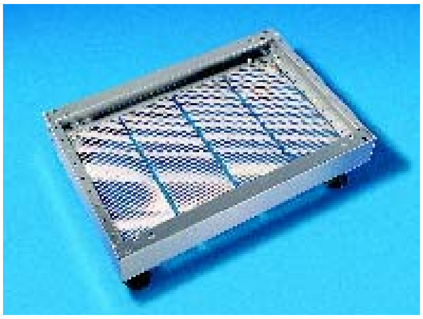
T = Enclosure depth – 50 mm (1.97″)
B = Enclosure width

Plinth, 200 mm (7.87″) high


98
2
98
200
12.5
37.5
100
100
50
25
30
Ø 9.4
14 x 18
□ 14 x 14
50
T
25
12.5
37.5
25
50
62.5
32.5
62.5
32.5
B

T = Enclosure depth – 50 mm (1.97″)
B = Enclosure width

Base/plinth



Base/plinth trim panel, modular

For cable entry in the base/plinth made from stainless steel, e.g. when using levelling feet.
A perforated plate segment is 175 mm (6.89″) wide. The system holes are suitable for accommodating cable ties SZ 2597.000, for tidy cable routing.

Material:
Type 304 stainless steel

Configuration:
4 base/plinth trim panels

For enclosure depth mm (inches)	Number of required base/plinth trim panels for base/plinth width* mm (inches)				Part No. SO
	600 (23.62)	800 (31.50)	1000 (39.37)	1200 (47.24)	
400 (19.69)	3	4	5	6	**2907.000**
500 (15.75)	3	4	5	6	**2908.000**
600 (23.62)	3	4	5	6	**2913.000**

* if the surface is to be completely sealed.

+ Accessories:

Cable ties for quick assembly,
see page 220.
Levelling feet,
see page 214.

Assembly bolts for base/plinth

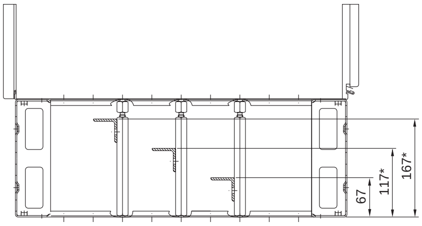
The lockable assembly bolt allows the installation of cable clamp rails and standard C rails.

Material:
Hexagon steel, zinc plated,
width across flats 19 mm (0.75″)

For base/plinth trim height mm (inches)	PU	Part No. SZ
100 (3.94)	10	**2819.000**
200 (7.87)	10	**2819.200**

+ Accessories:

Cable clamp rail,
see page 223.



* only for height 200 mm (7.87″)

4570.000

8800.390

Transport castors

For base/plinth, complete
For locating onto the base/plinth corner piece 100 (3.94″) or 200 mm (7.87″) high by raising or tilting.

Maximum permissible load per twin castor:
Static: 100 kg (220.46 lbs)
Dynamic: 75 kg (165.35 lbs)

Configuration:
1 set =
4 twin castors,
2 with, 2 without brakes.

Color:
RAL 7022

For	Ground clear-ance in mm (inches)	PU	Part No.
PC, ES, AP style base/plinth	60 (2.36)	1 set	**PS 4570.000**
TS style base/plinth	100 (3.94)	1 set	**TS 8800.390**

! Additional parts

Base/plinth, complete
see page 208,
Base/plinth components, front and rear,
see page 206.

Cross member

adjustable
To increase stability, the cross member is positioned 138 mm (5.43″) above the base frame of the enclosure at the front and rear. For deeper enclosures, the rear part may be extended and screw-fastened again. For screw-fastening to the floor and enclosure with mounting hole at the sides front and rear. The castors and levelling feet may be secured to the welded nuts M12.

Material:
Sheet steel, painted

Color:
RAL 7015

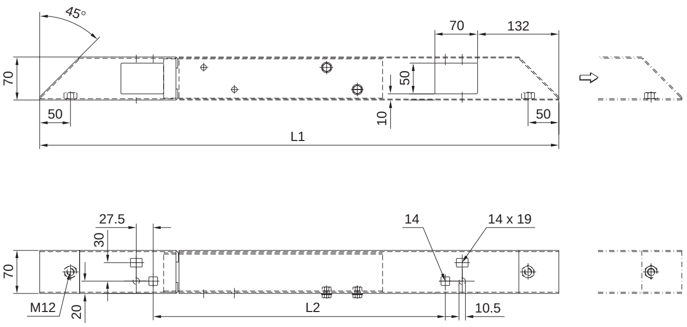
Note:
For mobile use, the cross member must be screw-fastened twice in the corners of the enclosure.

For	Encl. depth mm (inches)	L1	L2	PU	**Part No. TS/AP**
TS, PC, IW, ES	400 (15.75)	644	275	2	**8601.450**
	500 (19.69)	744	375		
	600 (23.62)	844	475	2	**8601.680**
	800 (31.50)	1044	675		
AP	400 (15.75)	634	320	2	**2697.450**
	500 (19.69)	734	390		

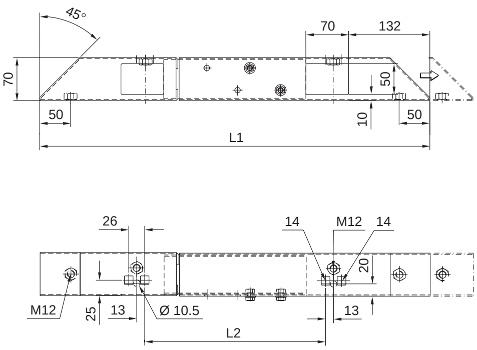
Accessories:

Attachment opportunities for
- Twin castors PC 4634.500, see page 213.
- Levelling feet PS 4612.000, see page 214.

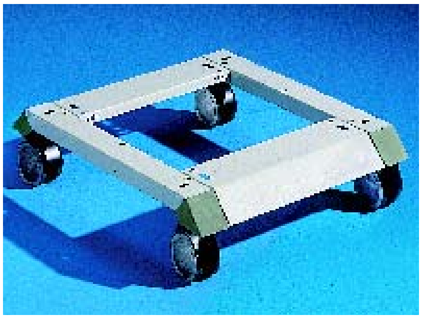
TS 8601.450 / .680

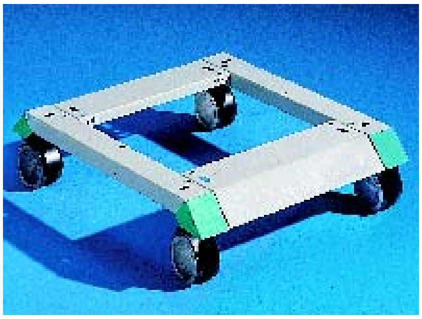

45°
70
132
70
50
50
10
50
L1
27.5
30
14
14 x 19
70
M12
20
L2
10.5

AP 2697.450


45°
70
132
70
50
50
10
50
L1
26
14
M12
14
20
M12
25
13
Ø 10.5
13
L2

Base/plinth





Base/plinth, mobile

For PC (based on ES)/AP enclosures,
Consisting of
2 axles of sheet steel each with 2 end caps of die-cast zinc with plastic cover,
4 twin castors,
2 with, 2 without brakes.
2 cross braces of sheet steel.
Not assembled.

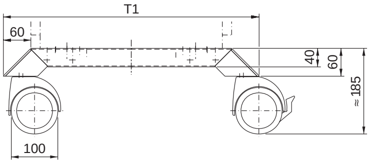
Load capacity per castor:
120 kg (264.55 lbs) static load

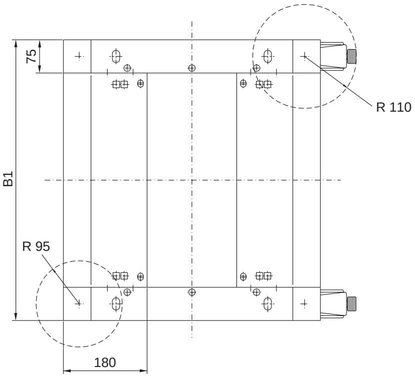
Total load:
360 kg (793.66 lbs) static load

Material:
Powder coated in RAL 7032/RAL 7035,
End cap RAL 7033/RAL 5018.

German registered design
No. M 92 01 858
German patent no. 42 00 315
IR design no. DM/023580
with validity for DE, FR, IT

For enclosures		**Part No. SO**	
Width mm (inches)	Depth mm (inches)	RAL 7032/7033	RAL 7035/5018
600 (23.62)	400 (15.75)	**2979.200**	–
60 (23.62)	500 (19.69)	**2980.200**	–
600 (23.62)	600 (23.62)	**2981.200**	**2981.235**
600 (23.62)	800 (31.50)	**2982.200**	**2982.235**
800 (31.50)	400 (15.75)	**2983.200**	–
800 (31.50)	500 (19.69)	**2984.200**	–





B1= Enclosure width
T1 = Enclosure depth + 150 mm (5.91″)

Base/plinth adaptor

for twin castors
Connection component for mounting twin castors
- PC 4634.500
- PC 4634.000
- DK 7495.000

on the TS base/plinth.

Material:
Sheet steel, zinc plated.

Configuration:
1 set =
4 base/plinth adaptors,
4 retaining screws M8 x 16 mm (0.63″),
4 hex nuts M8.

Note:
Floor clearance is increased by 3 mm (0.12″) with fitted twin castors.

PU	**Part No. TS**
1 set	**8800.290**

Additional parts

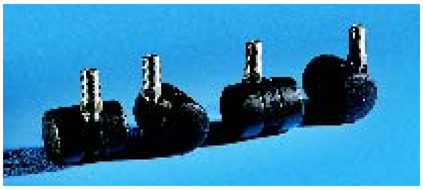
Base/plinth trim, side,
see page 206,
in all situations where a twin castor needs to be mounted.

Twin castors

For mobile use, easily fitted.
Mounting thread M12 x 20.

Suitable for use with	Maximum permissible static load (per castor):	Ground clearance mm (inches)	Lock	PU	Color	**Part No.**
TS, IW, PC enclosure system, pedestal base plate CP 6137.035 – CP 6137.535	40 kg (88.18 lbs)	50 (1.97)	4 without	1 set	Black	**PS 4611.000**
TS, IW, PC pedestals, CP 6141.XXX, pedestal base plate CP 6137.035 – CP 6137.535	75 kg (165.35 lbs)	85 (3.35)	2 with, 2 without	1 set	Black with grey running surface	**CP 6148.000**
TS, IW, ES, AP, AK, PC enclosure system, pedestal base plate CP 6137.035 – CP 6137.535	120 kg (266.54 lbs)	125 (4.92)	2 with, 2 without	1 set	Black	**PC 4634.500***
					Turquoise/ black	**PC 4634.000***

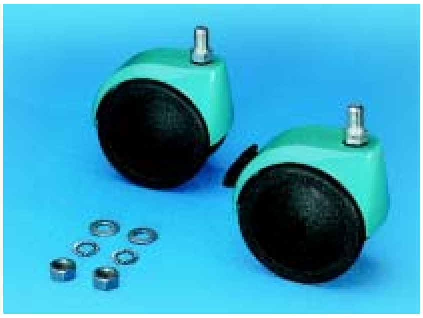
* For mounting on the TS base/plinth, the base/plinth adaptor for twin castors is required.



PS 4611.000

CP 6148.000

PC 4634.500



PC 4634.000

Reinforcement bracket

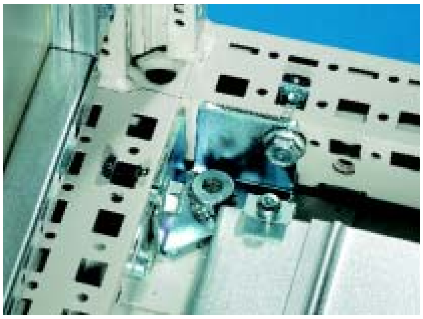
for TS base tray

For use as an additional stabiliser to the clamping straps when populated enclosures are screw-fastened via the base tray to the base/plinth or pallet for transportation purposes.

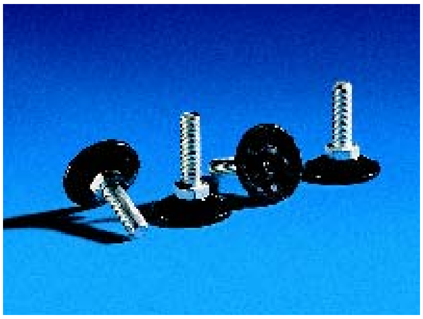
Material:
Sheet steel, zinc plated.

Configuration:
Installation hardware

PU	**Part No. TS**
4	**8800.830**



Base



Levelling feet

To compensate for height differences with floor irregularities.
Thread length 40 mm (1.57″).
Assembly thread M 12 for direct screw-fastening into the enclosure corner pieces.

Maximum permissible static load:
approx. 300 kg (661.38 lbs) per levelling foot.

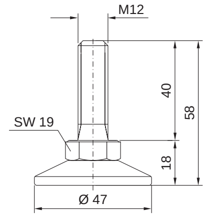
Floor clearance adjustable from:
18 mm – 43 mm (0.71″ – 1.69″)

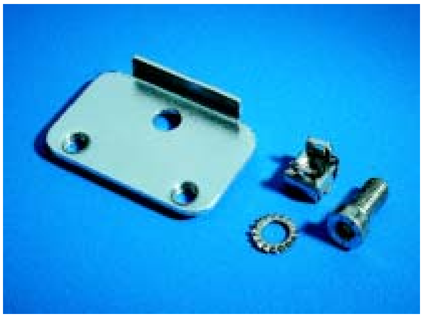
For:
- Baying system TS 8
- PC enclosure system
- Pedestal base plate CP 6137.035 – CP 6137.535
- Industrial workstations

Thread	PU	**Part No. PS**
M12	4	**4612.000**

Additional parts

For mounting on the TS base/plinth:
Base/plinth adaptor TS 8800.220,
see below.





Base/plinth adaptor for levelling feet

Connection component for fastening levelling feet PS 4612.000 to the base/plinth.

Material:
Sheet steel, zinc-plated.

PU	**Part No. TS**
4	**8800.220**

Levelling feet

For mounting beneath the base/plinth, complete, see page 208/209.
For unhindered access e.g. when cleaning the floor, and to compensate for floor irregularities.

Maximum permissible static load:
400 kg (881.84 lbs) / foot per foot

Floor clearance adjustable from:
M12: 55 mm – 125 mm (2.17″ – 4.92″)
M16: 45 mm – 120 mm (1.77″ – 4.72″)

Material:
Type 304 stainless steel

Thread	PU	**Part No. SO**
M12	1 set	**2889.000**
M16	1 set	**2890.000**

Configuration:
1 set =
4 levelling feet.
4 mounting panels,
including installation hardware.

German utility model
No. G 94 06 468

Levelling feet, 100 mm (3.94″) high

For mounting on TS, IW and ES-PC enclosures, for easier floor cleaning and to compensate for floor irregularities.
Height 100 mm (3.94″).

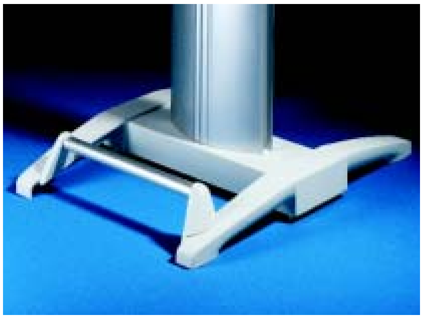
Maximum permissible static load:
350 kg (771.61 lbs) / foot per foot

Floor clearance adjustable from:
85 mm – 115 mm (3.35″– 4.53″)

Material:
Feet: Brass, nickel-plated
Threaded bolts and mounting panels:
Type 304 stainless steel

PU	**Part No. SO**
1 set	**2859.000**

Configuration:
1 set =
4 feet,
4 mounting panels with threaded bolts, including installation hardware to the enclosure.



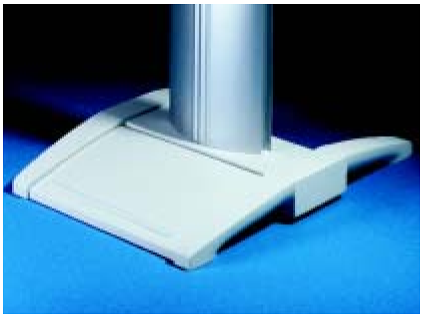
Foot rest

For relaxed, alternating working positions.

Material:
Connector pieces: Cast aluminum
Round tube section: Aluminum

Configuration:
Installation hardware

Color RAL	Weight kg (lbs)	**Part No. CP**
7035 textured/ natural anodized	0.6 (1.32)	**6145.100**



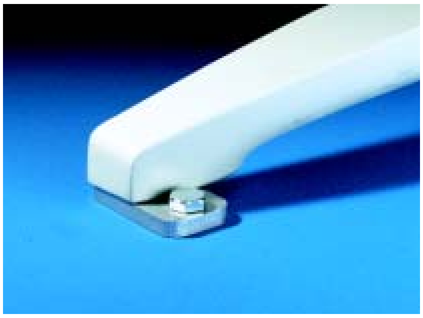
Trim panel

Facilitates variable positions when working standing up.

Material:
Cast aluminum

Configuration:
Installation hardware for screw-fastening between the cast feet front and rear.

Color RAL	Weight kg (lbs)	**Part No. CP**
7035 textured	1.6 (3.53)	**6144.100**



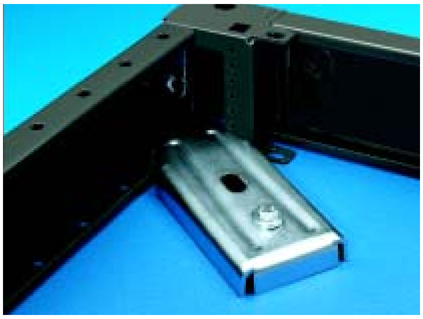
Base mount

Brackets for screw-fastening from below to the cast feet with posidrive raised countersunk screws M12.
Optionally with projection at the front, rear or sides, with 11 mm (0.43″) diameter hole for screw-fastening to the base.

Material:
Sheet steel, zinc plated.

Configuration:
Posidrive raised countersunk screws M12

Weight kg (lbs)	PU	**Part No. CP**
0.7 (1.54)	4	**6147.000**



Base assembly plate

For attaching the base/plinth to the floor without moving the enclosure or the bayed suite. For assembly screws up to 12 mm (0.47″) Ø.

Material:
Sheet steel, zinc plated.

PU	**Part No. SO**
10	**2817.000**

French patent no. 94 06 612
Dutch patent no. 193 235

Cable entry plates

for TS-PC
For simple, fast cable entry and sealing in conjunction with:

- Cable entry grommets
- Connector grommets.

These are used instead of segments of the standard, divided gland panels.

Material:
Type 304 stainless steel

Configuration:
Installation hardware

Enclosure width mm (inches)	Cutouts per plate	PU	**Part No. TS**
600 (23.62)	5	2	**8700.600***

*** For the cable entry plates in 1.4404 (Typ 316L), the order number should end in .605.**
Delivery times available on request.

Note:
EMC gland panels and accessories, see Handbook 30.

US patent no. 5,422,436
German patent no. 42 07 281
European patent no. 0560119
with validity for FR, GB, IT, NL
Japan. Patent no. 2533052

Cable entry grommets

In conjunction with the cable entry plate, simple and fast sealing of cables inserted in the base area of enclosures.

Material:
Body: Polypropylene
Cover: Thermoplastic elastomer

Protection ratings:
IP 55 to EN 60 529/10.91

Cables per grommet	max. Ø mm (inches)	**Part No. PS**
8	13 (0.51)	**4316.000**
3	21 (0.83)	**4317.000**
1	47 (1.85)	**4318.000**

Packs of 25

US patent no. 5,422,436
German patent no. 42 07 281
European patent no. 0560119
with validity for FR, GB, IT, NL
Japan. Patent no. 2533052

Connector grommets

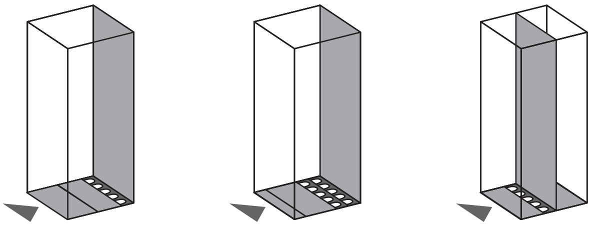
In conjunction with cable entry plates, for the entry of cables pre-assembled with connectors.

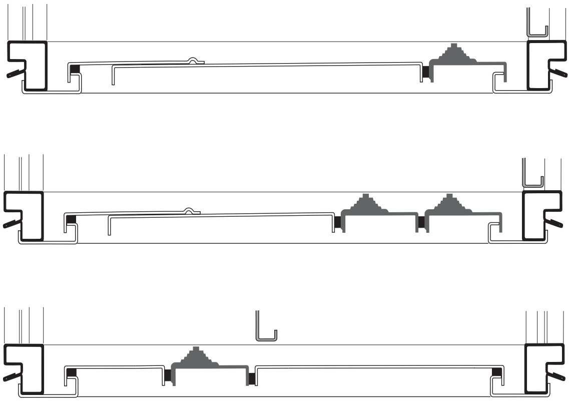
Suitable for cable diameters from 8 to 36 mm (0.31″ to 1.42″).

Material:
Outer cover: Polypropylene covered with thermoplastic elastomer
Seal: Cellular rubber

PU	**Part No. PS**
10	**4311.000**

German patent no. 44 05 328



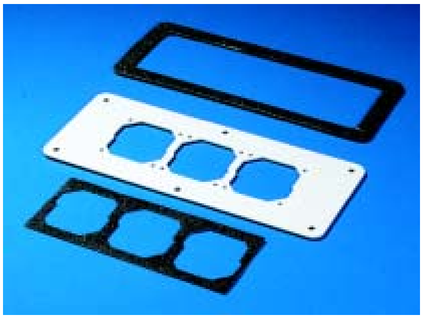


Three examples from a wide range of possibilities
The diagrams show three TS examples for the positioning of cable entry plates instead of segments of the three-piece gland panels supplied as standard. This facilitates positioning to fit the mounting panel.
Thanks to the enclosure symmetry, where dimensions permit, cable entry plates may also be inserted in the enclosure depth, right and left, parallel to the gland panels.

Foam rubber cable clamp strip

For simple, quick sealing of the cable entry between the gland panels. Particularly suitable for identical cable cross-sections.
Cross-section: 30 x 30 mm (1.8″ x 1.8″)

PU	**Part No. SZ**
3 m (118.11″)	**2573.000**



Metal gland panel

For individual cable entry, e.g. with:

- CP pillar, see page 148,
- IW enclosures, see page 156 – 159.

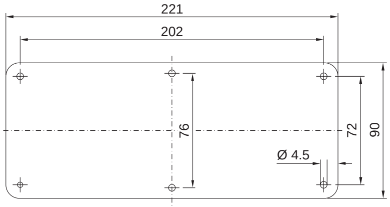
Material:
Sheet steel, painted

With cutout for	PU	**Part No. KL**	
		RAL 7035	RAL 7032
Connectors, solid	6	**1158.500**	**1158.000**
Connectors, 16-pole	6	**1158.560**	**1158.060**
Connectors, 24-pole	6	**1158.540**	**1158.040**
Module panels	6	**1158.530**	**1158.030**
Solid, with prepunched holes M20	1	–	**1581.100**

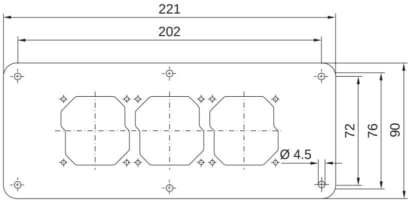
⊞ **Accessories:**

Module panels for individual cable entry, see Innovations 2003, page 11.

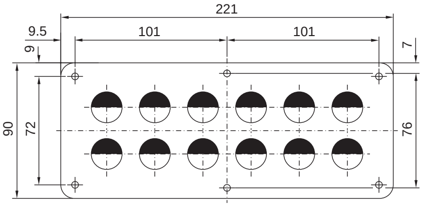
KL 1158.500
KL 1158.000



KL 1158.530
KL 1158.030



SZ 1581.100



Plastic cable gland panels

for pillar and IW

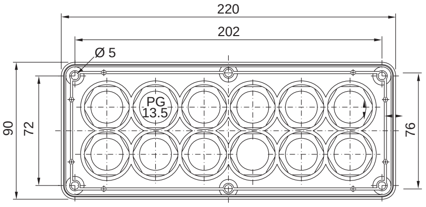
With prepunched PG holes for cable glands. Used for sealing standard gland panels.
Temperature range: suitable for use from –40°C to +70°C (–104°F to 158°F).

Material:
ABS

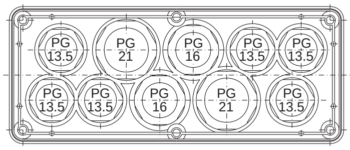
Color:
RAL 7032

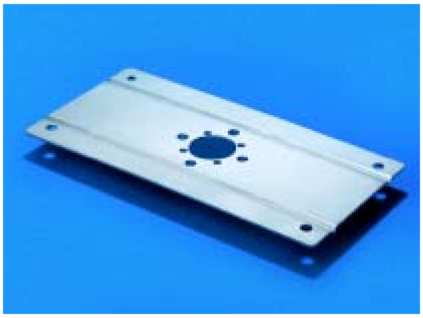
PG	Number of	PU	**Part No. KL**
13.5	12	5	**1581.000**
13.5 16 21	6 2 2	5	**1582.000**

KL 1581.000


220
202
Ø 5
PG 13.5
90
72
76

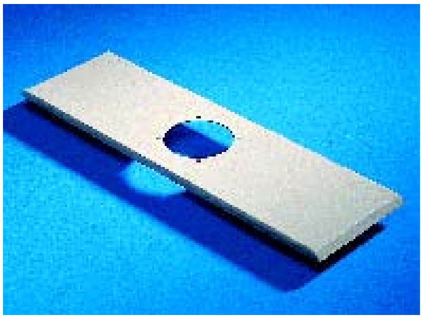
KL 1582.000


PG 13.5
PG 21
PG 16
PG 13.5
PG 13.5
PG 13.5
PG 13.5
PG 16
PG 21
PG 13.5



6143.310

6143.210



6503.000

Enclosure reinforcement

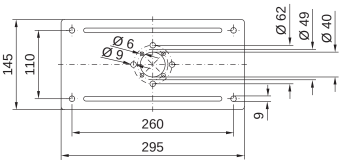
For external or internal reinforcement of enclosures of a corresponding size. Smaller enclosures may also be mounted directly without reinforcement.

Configuration:
Installation hardware for the enclosure and support section plus 2 seals.

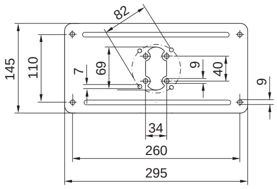
For Enclosure	Support arm connection	Material	Color RAL	Weight kg (lbs)	**Part No. CP**
B1 ≥ 300 mm (11.81″), T1 ≥ 150 mm (5.91″)	CP-S	Type 304 stainless steel	–	0.9 (1.98)	**6143.310**
B1 ≥ 300 mm (11.81″), T1 ≥ 150 mm (5.91″)	CP-L	Sheet steel	7035	0.9 (1.98)	**6143.210**
CP 6662.000 or AE (B1 = 600 mm (23.62″), T1 ≥ 210 mm (8.27″))	CP-XL	Sheet steel	7032	2.2 (4.85)	**6503.000**

B = Width / T = Depth

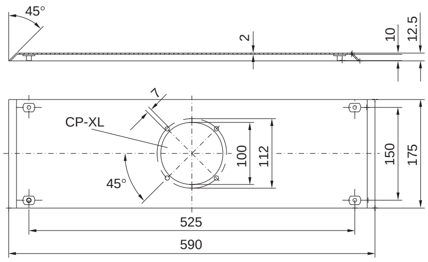
CP 6143.310

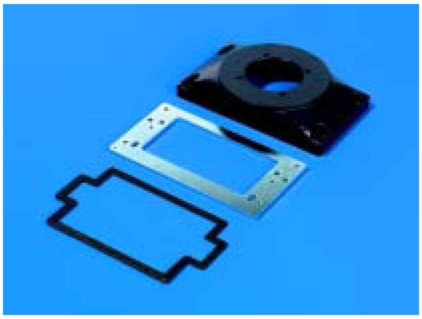

Ø 62
Ø 49
Ø 40
Ø 6
Ø 9
145
110
260
295
9

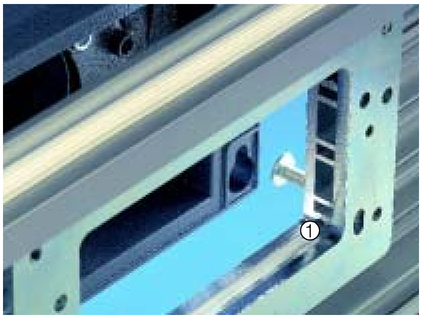
CP 6143.210


82
145
110
7
69
9
40
9
34
260
295

CP 6503.000


45°
2
10
12.5
7
CP-XL
45°
100
112
150
175
525
590





Connection plate

With reinforcement plate

- For easy location of the Command Panel onto the support arm or pedestal.
- Easily screw-fastened from the outside after drilling 4 holes Ø 7 mm (28″).
- More space for cable entry plus clamping bracket.

For assembling:

- VIP 6000 [1]
- Optipanel [2]
- Sheet steel Command Panel [3]

to:

Support arm system components	**CP-L**	**CP-XL**
Enclosure attachment	CP 6525.5X0	CP 6130.600
Housing coupling	CP 6525.0X0	CP 6130.000
Angle coupling	CP 6526.0X0	CP 6040.000
10° tilting adaptor	CP 6527.0X0	–
Tilting adaptor +/– 45°	CP 6529.0X0	–

① Pre-install screws, locate the enclosure, tighten the screws, and voila!

With support arm connection	Color RAL	Weight kg (lbs)	**Part No. CP**
CP-XL	7030	0.8 (1.76)	**6528.300**
CP-L	7030	0.7 (1.54)	**6528.200**
CP-L	7024	0.7 (1.54)	**6528.210**

Note:
The square support arm cutout can be prepared on request.

Material:
Connection plate: Cast aluminum
Reinforcement plate: Sheet steel 6 mm (0.24″)

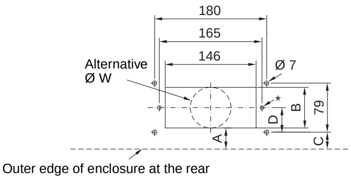
Configuration:
Seals and installation hardware.

[1] From a front panel width of 265 mm (10.43″).
The CP-XL version cannot be used in conjunction with installation depth 155 mm and 295 mm (6.10″ and 11.61″).

[2] From a front panel width of 220 mm (8.66″) and installation depth of 150 mm (5.91″).

[3] Mounting surface area, minimum W x D = 300 mm x 135 mm (11.81″ x 5.31″) (e.g. Command Panel housing with door).

Mounting cutout CP-L/CP-XL

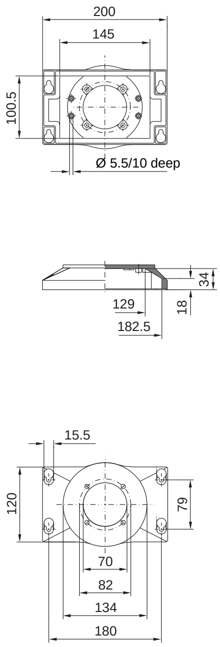

180
165
146
Alternative Ø W
Ø 7
*
B
D
79
A
C
Outer edge of enclosure at the rear

* Ø 6 mm (0.24″) only with metal enclosures for attaching the reinforcement plate.

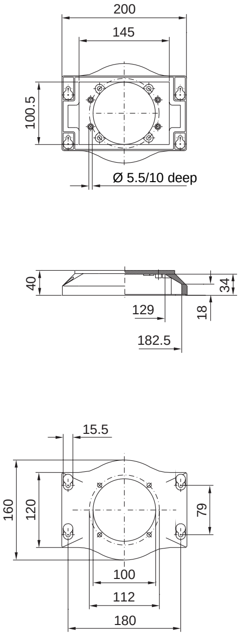
	Installation depth:	A	B	C
VIP 6000	155 mm (6.10″) to 185 mm (7.28″)	32	81	30.5
	295 mm (11.61″) to 438 mm (17.24″′)	174.5	81	173
Optipanel	150 mm (5.91″)	34	65.5	28
Metal enclosure	–	**	86	**

** Make the drilled holes/cutout in the center of the enclosure reinforcement plate.

CP-L


200
145
100.5
Ø 5.5/10 deep
34
129
18
182.5
15.5
120
79
70
82
134
180

CP-XL


200
145
100.5
Ø 5.5/10 deep
40
34
129
18
182.5
15.5
160
120
79
100
112
180

Cable management

Connector gland

For simple insertion of cables pre-assembled with connectors. Simply insert cables, and screw fasten! The high protection category of IP 65 is retained.

Technical specifications:

- For mounting on any sufficiently large surface, such as front panels.
- To fit 2 cables up to 8 mm (0.31″) diameter or 3 cables up to 6 mm (0.24″) diameter.
- For material thicknesses of up to 4 mm (0.16″), e.g. in front panels, sheet steel panels.
- Strain relief of the pre-assembled cables can be achieved with cable ties.

Material:
Plastic

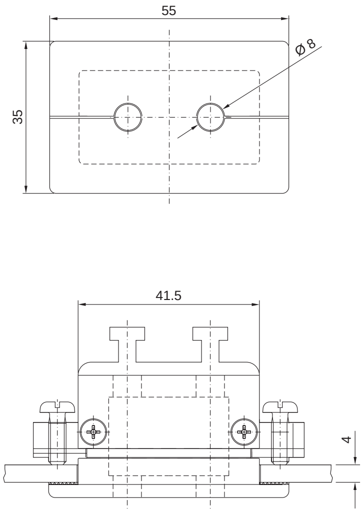
Configuration:
Installation hardware

To fit	Color RAL	PU	**Part No. SZ**
2 cables	9005	1	**2400.300**
3 cables	9005	5	**2400.500**

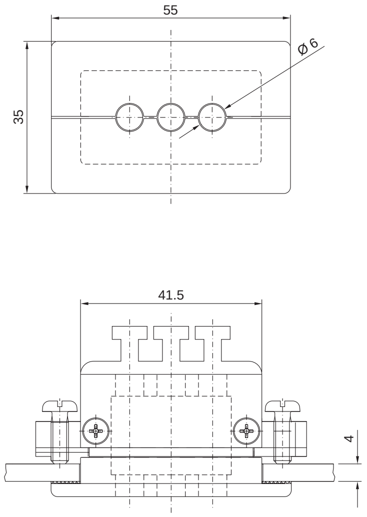
Rittal Service:

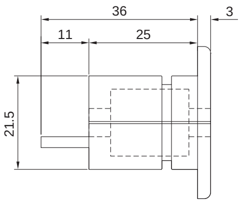
The cutouts may be made by our service centers.

SZ 2400.300

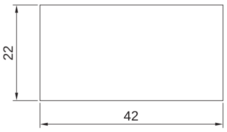


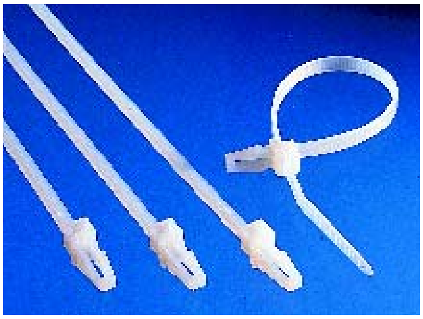
SZ 2400.500





Mounting cutout





Cable ties for quick assembly

The super-fast solution for fastening cables to the enclosure profile or mounting system parts. Simply clip into the round system holes.

Note:
Metal cable ties,
see Handbook 30, page 893.

Length mm (inches)	PU	**Part No. SZ**
150 (5.91)	100	**2597.000**

Cable tie fastener

For secure cable routing of all standard commercially available cable ties. The fastener is used with:

VIP 6000
- Secured in the screw channel by hammering down the split rivet.

Optipanel
- Secured in the T channel by rotating through 45°.

Material:
Polyamide 6.6

For	Attach-ment width mm (inches)	PU	**Part No. CP**
VIP 6000	4.8 (0.19)	100	**6059.000**
Optipanel	4.0 (0.16)	100	**6059.500**

Cable clamping bracket

For installing in the operating housing with mounting cutout CP-L, round CP-L, square and CP-XL.
Cable clamping optionally via:
- Cable clamps (see page 223) or
- Cable ties for quick assembly SZ 2597.000 (see page opposite).
- Commercially available cable ties.

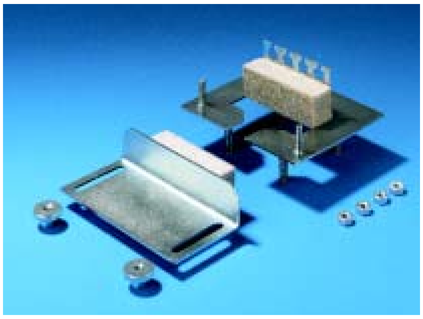
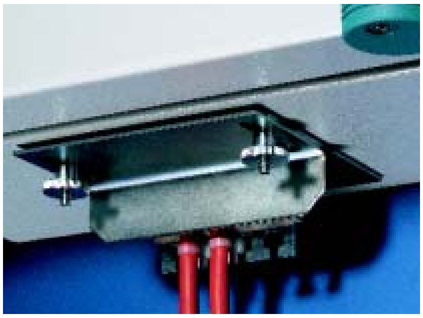
Bracket height = 25 mm (0.98″) with fitted C rail 40 mm (1.57″).

Material:
Sheet steel, zinc plated.

Configuration:
1 C rail and 2 self-tapping screws M5 x 10 mm (0.39″).

	Part No. CP
Cable clamping bracket	**6052.000**

Note:
Mounting cutout CP-L, round, see page 80.

Cable entry module CP-L, round

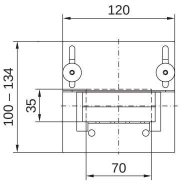
Use of the support arm cutout CP-L, round, only with enclosures mounted on the wall, for sealed cable entry. May also be mounted retrospectively with the cables already inserted.
Fitted with T-heads for cable clamping.
Particularly well-suited to cables with identical cross-sections.

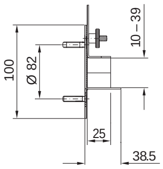
Material:
Sheet steel, zinc plated.

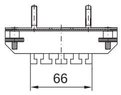
Configuration:
Installation hardware

Weight kg (lbs)	PU	**Part No. CP**
0.3 (0.66)	1 set	**6052.500**

Note:
Mounting cutout CP-L, round, see page 80.







Cable management

Cover plate

For secure sealing of a support arm connection in the enclosure which is not required.

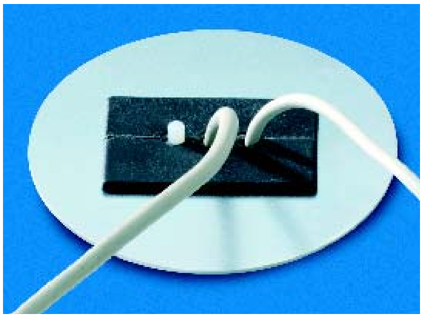
Material:
Sheet steel

Configuration:
Seal and installation hardware.

Note:
If with
- VIP 6000
- Optipanel
- Compact Panel

Command Panels there are already 2 support arm cutouts provided, a cover plate is included in the configuration of the enclosure.

Support arm connection	Color RAL	Weight kg (lbs)	**Part No. CP**
CP-S	painted 7024	0.1 (0.22)	**6505.200**
CP-L, round	Zinc plated	0.2 (0.44)	**6505.500**
CP-L, rectangular	Zinc plated	0.1 (0.22)	**6505.100**



Adaptor plate

for connector entry
For mounting on the worktop, prepared for turntable or enclosure attachment.

Material:
Sheet steel, zinc plated.

Configuration:
Seal and installation hardware.

PU	**Part No. IW**
1	**6902.660**

! Additional parts

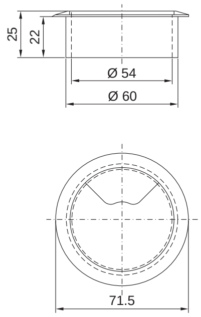
Connector gland
SZ 2400.300 or SZ 2400.500,
see page 220.

Cable gland IW

for worktops
To fit drilled holes 60 mm (2.36″). For the entry of cables with pre-assembled connectors, the sliding flap and cover are easily removed.

Material:
Plastic

Color RAL	PU	**Part No. IW**
7035	1	**6902.770**



Cable clamp rails (right angle section)

For strain relief with cable entry. Depth-variable mounting on a 25 mm (0.98″) increments on the horizontal enclosure section or in side base/plinth trim panels with assembly bolts, see page 210.

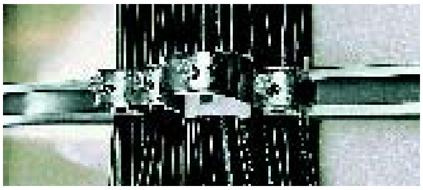
Material:
Sheet steel, zinc plated.

Configuration:
Installation hardware

For ES-PC/IW
AP universal console / base/plinth

Enclosure width mm (inches)	Length mm (inches)	PU	**Part No. PS**
400 (15.75)	385 (15.16)	2	**4193.000**
600 (23.62)	585 (23.03)	2	**4191.000**
800 (31.50)	785 (30.91)	2	**4192.000**
1000 (39.37)	985 (38.78)	2	**4336.000**
1200 (47.24)	1185 (46.65)	2	**4196.000**

(May also be used for AP base/plinths and for mounting on the mounting panel with AP)

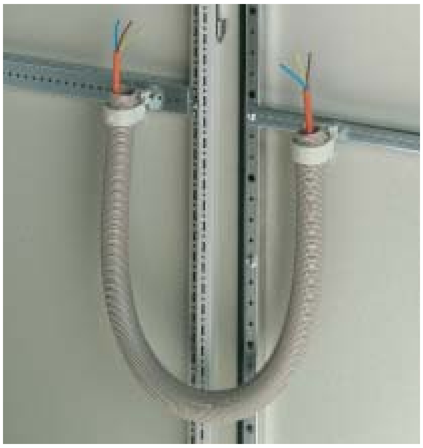


Cable clamps

For attaching cables to C rails, with plastic insert.

Material:
Sheet steel, zinc plated.

For cable diameter	PU	**Part No. DK**
6–14 mm (0.24″–0.55″)	25	**7077.000**
12–18 mm (0.47″–0.71″)	25	**7078.000**
18–22 mm (0.71″–0.87″)	25	**7097.000**
22–26 mm (0.87″–1.02″)	25	**7097.220**
26–30 mm (1.02″–1.18″)	25	**7097.260**
30–34 mm (1.18″–1.34″)	25	**7097.300**
34–38 mm (1.34″–1.50″)	25	**7097.340**
38–42 mm (1.50″–1.62″)	25	**7098.000**
56–64 mm (2.20″–2.52″)	25	**7099.000**



Cable conduit and holder

For secure cable routing e.g. from the enclosure or mounting panel to the door. Option of attaching the cable conduit holder tailored to system holes TS/IW/ES and to 19″ increments with no drilling required.
Attachment facility for standard commercially available cable ties is provided on the cable conduit holder, so that cables may be attached upon entry to/exit from the cable conduit.

Material:
Cable conduit: Polythene
Cable conduit holder: Polyamide

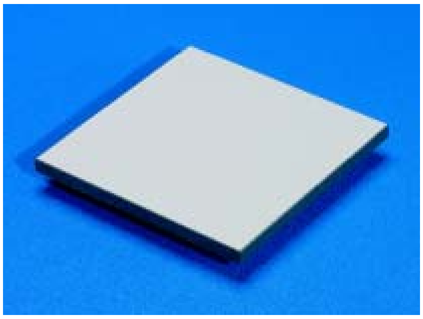
Cable conduit

Ø mm (inches)	PU	**Part No. SZ**
16 (0.63)	25 m (98.43″)	**2595.000**
29 (1.14)	25 m (98.43″)	**2589.000**
36 (1.42)	25 m (98.43″)	**2596.000**
48 (1.89)	25 m (98.43″)	**2590.000**

Cable conduit holder

For cable conduit Ø mm (inches)	PU	**Part No. SZ**
16 (0.63)	20	**2593.000**
29 (1.14)	20	**2591.000**
36 (1.42)	20	**2594.000**
48 (1.89)	20	**2592.000**

Cable conduit holder:
US patent no. 4,779,828
German patent no. 37 60 110
European patent no. 0 257 367
with validity for DE, ES, FR, GB, IT



Support plate

for screen

Rotatable in conjunction with turntable IW 6902.620.

Material:

Chipboard, plastic-laminated on both sides, similar to RAL 7035, with tough plastic edging, similar to RAL 7015.

Note:

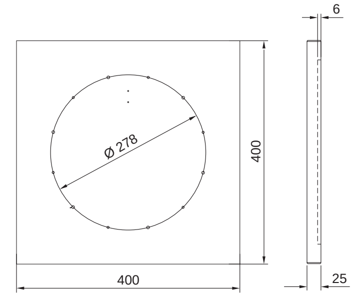
- Other sizes
- With drilled holes

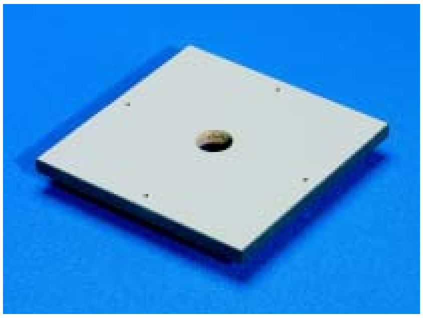
available upon request.

W x D mm (inches)	Height mm (inches)	**Part No. IW**
400 x 400 (15.75 x 15.75)	25 (0.98)	**6902.650**

Accessories:

Turntable,
see right-hand page.





Spacer plate

for monitor housing

Creates distance between the enclosure and worktop to prevent damage to the mouse and keyboard.

Material:

Chipboard, plastic-laminated on both sides, similar to RAL 7035, with tough plastic edging, similar to RAL 7015.

Note:

If a wider gap is required, 2 spacer plates may also be screw-fastened on top of one another.

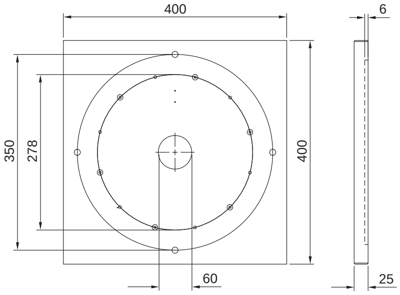
- Other sizes
- Other drilled holes

available upon request.

W x D mm (inches)	Height mm (inches)	**Part No. IW**
400 x 400 (15.75 x 15.75)	25 (0.98)	**6902.630**

Accessories:

Turntable,
see right-hand page.



Turntable

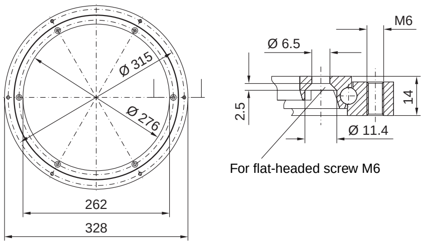
for spacer plate IW 6902.630 and support plate IW 6902.650.
Diameter: 328 mm (12.91″)
Height: 14 mm (0.55″)
Load capacity: 300 kg (661.38 lbs)

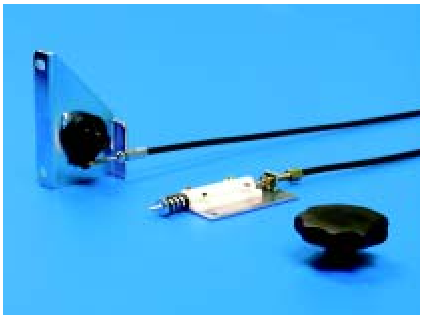
Rotation range:
350°, may be limited by 3 end stops.

Material:
Cast aluminum

Configuration:
Turntable including installation hardware.

Color	PU	Part No. IW
Black, powder-coated	1	**6902.620**

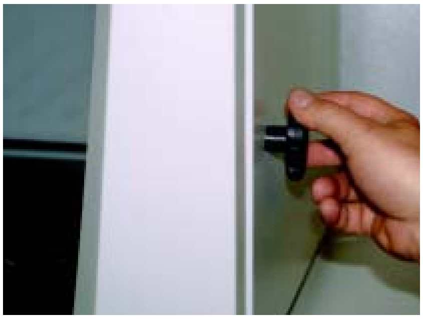




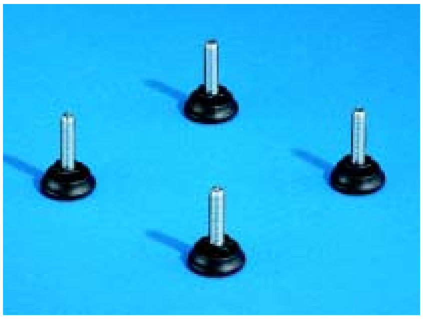
Rotational stop

Compression spring for automatic latching of turntable IW 6902.620.

PU	Part No. IW
1	**6902.680**



Released via the knob handle mounted on the side of the monitor housing.



Feet

for monitor housing
Thread length 29 mm (1.14″).

Max. static load per foot:
300 kg (661.38 lbs)

Thread	P. of	Part No. IW
M8	4	**6902.610**

Wall/enclosure connectors

Enclosure connectors

adjustable
For attaching compact operating housings, terminal boxes, compact enclosures etc. to vertical or horizontal surfaces or to other enclosures.

The two halves of the connector are pre-mounted on both enclosures or surfaces, pushed into one another, and attached or secured using the locking screw.

Frame connector

adjustable
For screw-fastening from the rotation point between Command Panel VIP 6000 with wide front frame to vertical or horizontal surfaces or other enclosures.

The two halves of the connector are pre-mounted on both enclosures or surfaces, pushed into one another, and attached or secured using the locking screw.

The locking screws in both connectors may be exchanged for standard commercially available clamping levers (M10 x 50 mm).

Rotation range:
±105° with 7.5° stepped increments.

Material:
Die-cast zinc, powder-coated

Configuration:
Installation hardware for both sides.

! Additional parts

Cross-brace for door,
see page 227.

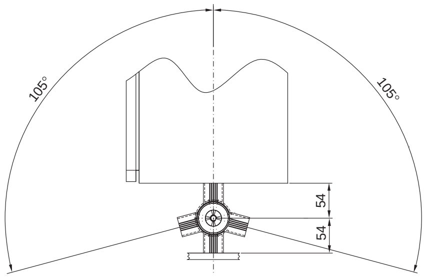
Enclosure connectors

Color RAL	Weight kg (lbs)	PU	**Part No. CP**
7035	1.9 (4.19)	1 set	**6016.200**

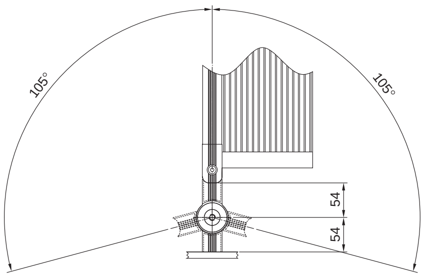
Frame connector

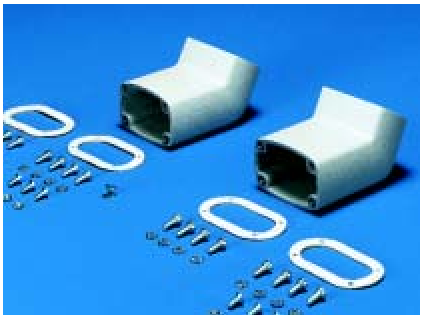
Color RAL	Weight kg (lbs)	PU	**Part No. CP**
7035	2 (4.41)	1 set	**6016.100**

Enclosure connectors



Frame connector





Enclosure duct connector

To fit narrow and combined frames in conjunction with the keyboard housing 105 mm (4.13″) deep.

- The angle between the operating and keyboard housing is 120°.
- At the same time, the duct connector is used for cable routing from the operating housing to the keyboard housing.

Material:
Aluminum

Configuration:
Installation hardware

Color RAL	Weight kg (lbs)	PU	**Part No. CP**
7035	2.0 (4.41)	1 set	**6006.000**

Technical details, see page 39.

Note:
When retro-fitting, appropriate mounting holes and cutouts must be made in the operating and keyboard housings for assembly purposes.

! Additional parts

Cross-brace for door,
see page 227.

Wall mounting bracket

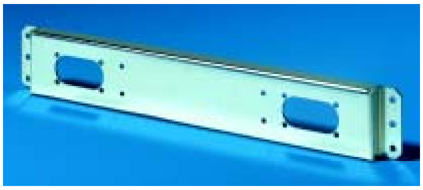
vertically hinged
For direct mounting of the Compact Panel on surfaces. Optional horizontal or vertical mounting of enclosures.

Rotation range:
180° adjustable in 7.2° increments.

Material:
Wall mounting bracket: Sheet steel
Knurled screw: Steel with plastic knurled handle

Configuration:
Knurled screw and installation hardware for mounting on the Compact Panel.

PU	**Part No. CP**
1 set	**6341.000**



Cross-brace for door

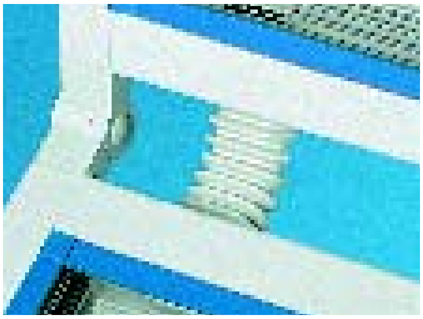
To stabilize heavy equipment installed on and in the door.
With punchings for enclosure duct connector, enclosure/frame connector, adjustable,
see page 226 and
enclosure surface connector,
see page 228.

Material:
Sheet steel, zinc plated, passivated.

Configuration:
Installation hardware for screw-fastening to the tubular door frame (TS/ES).

Application example:
Keyboard housing with duct connector mounted on the rear panel.

For door width	Weight kg (lbs)	**Part No. TS**
600 mm (23.62")	1.0 (2.20)	**8800.960**
800 mm (31.50")	1.5 (3.31)	**8800.980**



Cable tube, flexible

Suitable for cable routing from the operating housing to the keyboard housing. Suitable for use with
- Frame connector, adjustable
- Hinged frame connector
- Frame connector, rigid
- Enclosure bar connector

May be mounted on the following keyboard housings:
- Keyboard housing: 105 mm (4.13″)
- Keyboard housing: 44 mm (1.73″)
- Keyboard housing: 27 mm (1.06″)

with connection for flexible cable conduit (version 4.1, see page 28).

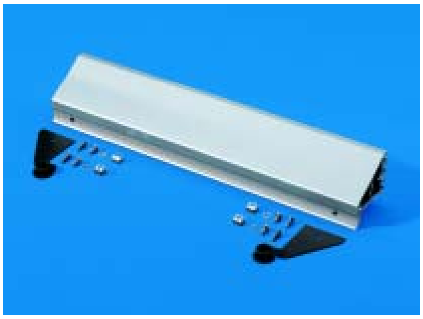
Corresponding cutouts are required for connecting the cable tube in the operating and keyboard housing.

A cable tube is included in the configuration to selection 4.5, see page 31.

Configuration:
Installation hardware

Keyboard housing VIP 6000 (page 23)	Color RAL	Weight kg (lbs)	**Part No. CP**
CP 6351.009, version 3.1, **2**, **4**	7035	0.3 (0.66)	**6017.000**
3, **7**	7035	0.3 (0.66)	**6017.100**

Wall/enclosure connectors



Enclosure surface connector

with smooth outer surface, uninterrupted by screw attachments. Mounting see spring nuts from the inside.

To accommodate:

- Support for keyboards (SM 2383.000)
- Optipanel keyboard housing for front panel width = 19″
  (Part No. CP 6384.009)
  H x W = H x 482.6 mm (19″)*
  Installation depth optionally 50 or 100 mm*.
  * Specify in addition to the Part No.

Material:
Extruded aluminum section, natural anodized,
Side cover, sheet steel RAL 7024.

Configuration:
Installation hardware

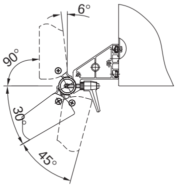
PU	**Part No. SM**
1 set	**2383.010**

Note:
Other widths available on request.

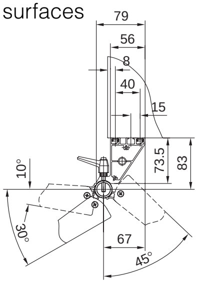
Accessories:

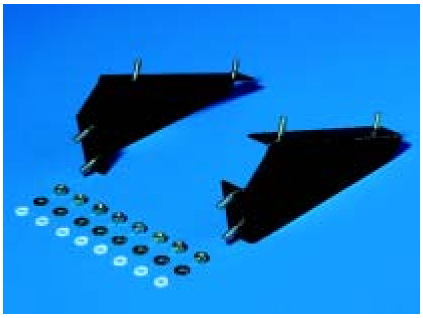
Cross-brace for door, see page 227 (required for reinforcement on surfaces).

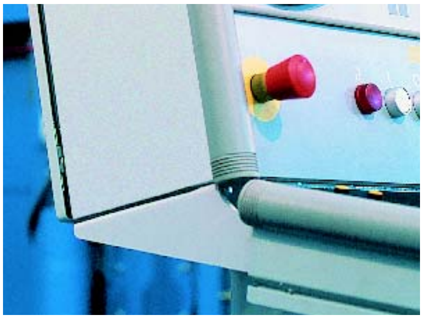
Mounting on surfaces



Mounting underneath surfaces







Connector for compact enclosures

Between

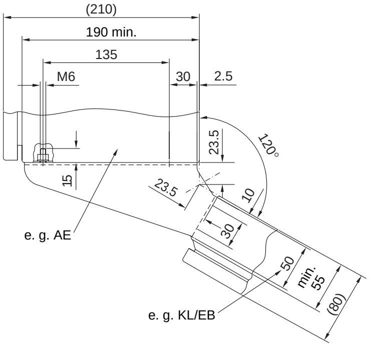
- Compact enclosure AE
  from depth 210 mm (8.27″)
  (see HB 30, page 66)
- Operating housings from depth 210 mm (8.27″)
  (see page 68/69)

and

- Terminal boxes KL
  from depth 80 mm (3.15″)
  (see HB 30, page 48)
- E-Box EB
  from depth 80 mm (3.15″)
  (see HB 30, page 56)

Material:
Sheet steel

Modifications available on request.
Terminal box, E-Box and compact enclosure available on request with front panel and handle strips mounted on the rear panel.

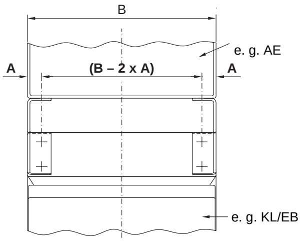


Color RAL	Weight kg (lbs)	**Part No. CP**
7024	0.74 (1.63)	**6005.100**

Configuration:
Installation hardware.

Note:
Installation holes will be required for retrofitting.

Drilling pattern for attaching the connector to both enclosures



Handle strips	min. dimension A mm (inches)
Without	15 (0.59)
With	35 (1.38)

Utility shelf CP

screw fastened

With support mat for:
Measuring tools, writing equipment, mouse, scanner, small parts etc.

For mounting
- Underneath*:
  - VIP 6000
  - Optipanel
  - Command Panel housing with door
  - Operating housing
  - IW worktop
- On surfaces (doors, rear panels) using rear assembly holes
- to TS system chassis with mounting flange 17 x 73 mm (0.67″ x 2.87″), locatable, without screw fastening,
  - For servicing work on the enclosure.

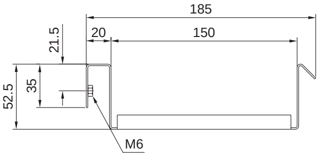
* For visual reasons, not drilled for assembly.

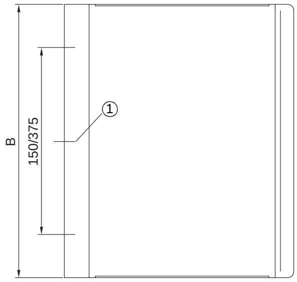
Material:
Sheet steel

Configuration:
Installation hardware

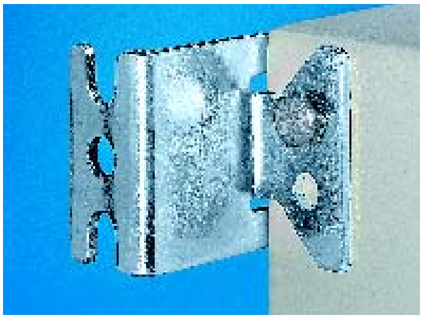
Width mm (inches)	Color RAL	**Part No. CP**
220 (8.66)	7035	**6514.110**
450 (17.72)		**6514.100**

Note:
When mounting beneath slimline operating housings with support arm connection at the bottom, please observe the enclosure attachment or coupling.





① = Additional central thread only for CP 6514.100

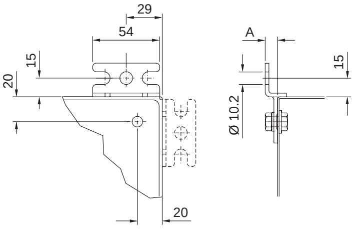


Wall mounting bracket

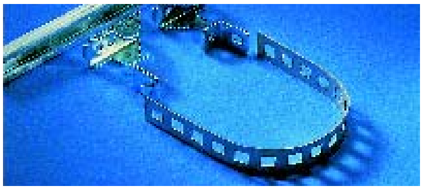
For fast, secure wall mounting using the rear holes in the enclosure.
40 mm (1.57″) distance from the wall permits cable routing behind the enclosure to the gland panel.

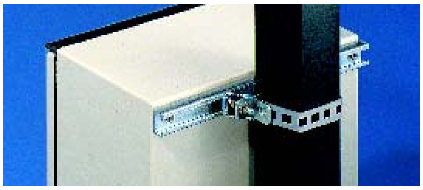
Note:
With stainless steel enclosures, additional holes are required in the rear of the enclosure for reasons of hygiene.

Material	Wall distance Dimension A	PU	**Part No. SZ**
Brass, nickel-plated	40 mm (1.57″)	1	**2503.000**
Sheet steel, zinc plated	10 mm (0.39″)	1	**2508.000**
Type 304 stainless steel (V2A)	10 mm (0.39″)	4	**2433.000**



Wall/enclosure connectors





Pole clamp

For reliable, convenient fastening to round or square poles.

For pole diameter/size:
Ø from 40 to 190 mm (1.57″ to 7.48″)
□ from 50 to 150 mm (1.97″ to 5.91″)

Material:
Cross rails, clamping section:
Sheet steel, zinc-plated, passivated
Clamping strap: Type 304 stainless steel (V2A)

	Part No. SZ
Pole clamp	**2584.000**

German patent no. 36 10 152

Configuration:
2 cross rails, 600 mm (23.62″) long
4 clamping sections,
2 clamping straps
4 clamping brackets,
4 screws and nuts M8
for mounting on the enclosure.

Wall bracket

For wall attachment of PC enclosures e.g. with heavy pull-out equipment on the roof side.

Material:
Sheet steel, zinc plated.

PU	**Part No. PS**
4	**4595.000**

Aluminum strip for AP

Prevents wiring plans etc. from slipping.

For console	Length mm (inches)	PU	**Part No. AP**
AP 2611.200 AP 2613.200 AP 2668.600	783 (30.83)	3	**2678.000**
AP 2641.200 AP 2643.200 AP 2672.600	1183 (46.57)	3	**2682.000**
AP 2666.600	583 (22.95)	3	**2676.000**

Keyboard drawer

For a maximum keyboard width of 500 mm (19.69″).
Drawer with mousepad at the front.
A high level of protection is retained, even with the flap open.

Configuration:
Installation hardware for mounting on the universal console*.

* Only suitable for installation in the universal console without mounting panel.

Protection ratings:
IP 55 to EN 60 529/10.91,
Complies with UL and NEMA Type 12.

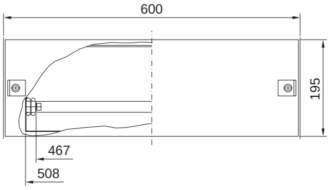
Material	Finish	**Part No.**
Sheet steel	RAL 7032[1]	**MC 4757.000**
Type 304 stainless steel[2]	Brushed	**AP 2691.000**

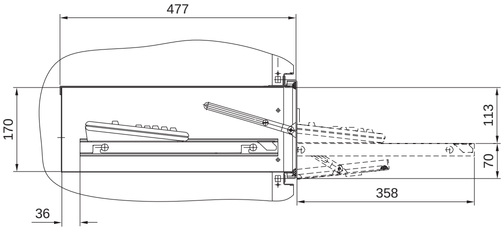
[1] To order in textured RAL 7035, please use the Part No. extension .500 when ordering. Delivery times available on request.

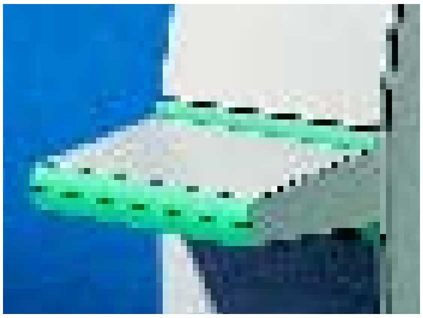
[2] To order keyboard drawer in 1.4404 (Type 316L) please add extension .500 to the Part No.
Delivery times available on request.

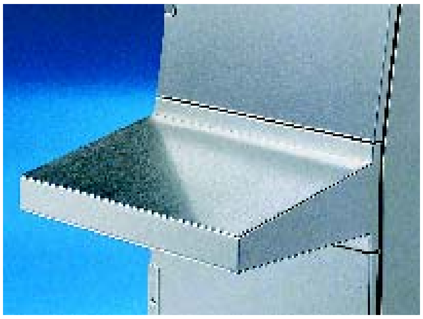
Accessories:

Plastic handle, version B and lock insert, version A, see page 245/246.









Desk section

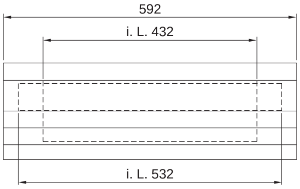
Solid sides and front, removable plates for top and bottom. May optionally be attached with the inclined or straight edge on top, by rotating through 180°.

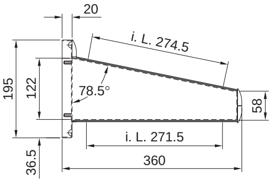
Configuration:
Installation hardware for mounting on the universal console.

Material	Finish	**Part No. AP**
Sheet steel	RAL 7032*/ 5018	**2696.200**

*** To order in textured RAL 7035, please use the Part No. extension .500 when ordering. Delivery times available on request.**

Protection ratings:
IP 55 to EN 60 529/10.91,
Complies with UL and NEMA Type 12.





Solid sides and front, removable plates for top and bottom. May optionally be attached with the inclined or straight edge on top, by rotating through 180°.

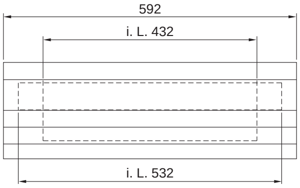
Configuration:
Installation hardware for mounting on the universal console AP 2688.600.

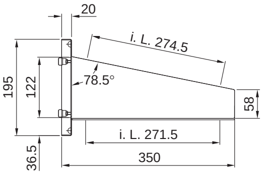
i.L. = Clearance width

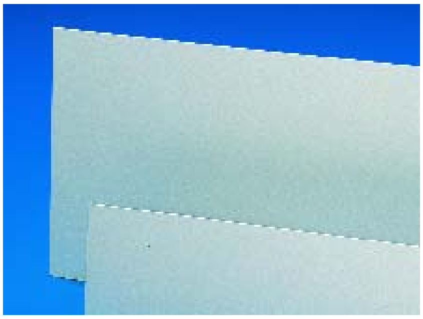
Material	Finish	**Part No. AP**
Type 304 stainless steel*	Brushed	**2690.000**

*** To order desk section in 1.4404 (Type 316L) please add extension .500 to the Part No. Delivery times available on request.**

Protection ratings:
IP 55 to EN 60 529/10.91,
Complies with UL and NEMA Type 12.







Aluminum front panels

For assembling operator panels.

Material:
3 mm (0.12″) aluminum, natural anodized.

Note:
When using several front panels in the operating housing
- VIP 6000
- Optipanel

cross members should be provided for sub-division, see page 234.

Rittal Service:

Other sizes and designs with studs, cutouts and engraving available on request.

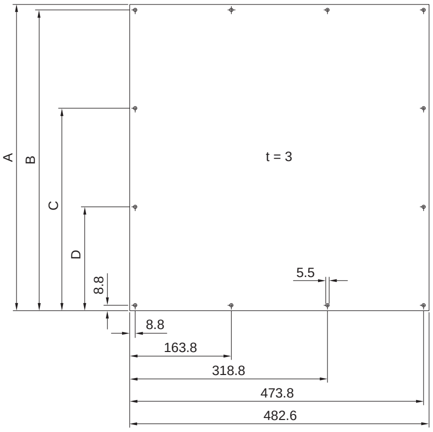
Additional parts

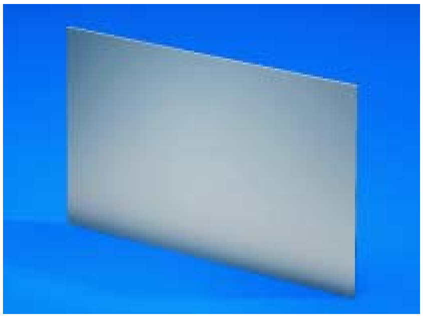
Mounting kit CP 6053.000, see page 233.

Height	Width	**Part No. CP**
155.0 mm (3.5 U)	19″	**6027.000**
177.0 mm (4 U)	19″	**6019.000**
310.3 mm (7 U)	19″	**6028.000**
493.8 mm* (7 + 3.5 U)	19″	**6029.000**

* The front panel height corresponds to CP 6027.000 plus CP 6028.000 and one cross member (+ 28 mm (1.10″)) for VIP 6000.

Part No. CP	A	B	C	D
6019.000	177.0 (6.97)	168.2 (6.62)	–	–
6027.000	155.0 (6.1)	146.2 (5.76)	–	–
6028.000	310.3 (12.22)	301.5 (11.87)	155.2 (6.11)	–
6029.000	493.8 (19.44)	485.0 (19.09)	326.2 (12.84)	167.5 (6.59)





6027.500

Front panels

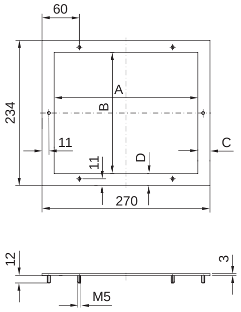
for Optipanel
270 x 234 mm (10.63″ x 9.22″) with threaded bolt M5 for Optipanel CP 6380.100.

Material:
3 mm aluminum, natural anodized.

Configuration:
Mounting kit

Mounting cutout	PU	**Part No. CP**
Without	1	**6027.500**
For Siemens Simatic OP 17	1	**6027.510**
For Siemens Simatic TP 170 A/B	1	**6027.520**
Acc. to specifications	1	**6027.509**

Part No. CP	A	B	C	D
6027.510	231.0 (9.09)	195.0 (7.68)	19.5 (0.77)	19.5 (0.77)
6027.520	197.5 (7.78)	141.5 (5.57)	36.25 (1.43)	46.25 (1.82)



Front panels, hinged

For VIP 6000 and Optipanel

Opening angle:
Optipanel: 125°
VIP 6000: 95°

Material:
Front panel: 3 mm aluminum, natural anodized
Extruded aluminum section: Natural anodised

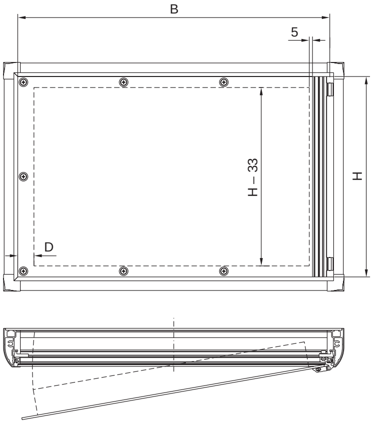
Configuration:
Hinge section, hinge strip, 2 end trims and installation hardware.

Front panel for	H x B	Version	**Part No. CP**
Optipanel	19″ x 7 U	Screw-fastened from the outside	**6027.100**
		Screw-fastened from the inside	**6027.110**[1]
		With cam	**6027.120**[1]
VIP 6000	19″ x 7 U	Screw-fastened from the outside	**6027.200**[2]
		Screw-fastened from the inside	**6027.210**[1] [2]
		With cam	**6027.220**[1] [2]

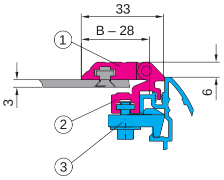
[1] Extended delivery times.
For other sizes, please add the extension .009 to the Part No.
[2] When ordering, please specify the color of the required end trim (see page 25)

Required distance from edge "D" to avoid collisions

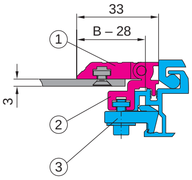
Installation depth:	Dimension "D"
Optipanel 50 mm (1.97″)	25 mm (0.98″)
Optipanel 100 mm (3.94″)	34 mm (1.34″)
Optipanel 150 mm (5.91″)	48 mm (1.89″)
VIP 6000 44 mm (1.73″)	25 mm (0.98″)
VIP 6000 105 mm (4.13″)	36 mm (1.42″)
VIP 6000 155 mm (6.10″)	52 mm (2.04″)



Mounting position Optipanel



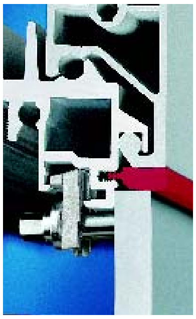
Mounting position VIP 6000



① = hinge strip
② = hinge section
③ = retaining claw

B = Width

For holes



For bolts

For screw clamp

Mounting kit

For installing
- Aluminum front panels
- Command panels
- Keyboards

in the Command Panel
- VIP 6000
- Optipanel

operating and keyboard housing.

For holes

For front panels	Thread	**Part No. CP**
Other	M 4	**6058.000**
Rittal and others	M 5	**6053.000**

Configuration:
Packs of 30 retaining clamps, captive nuts, screws and sealing washers.

For bolts

Thread	**Part No. CP**
M 4	**6058.500**
M 5	**6053.500**

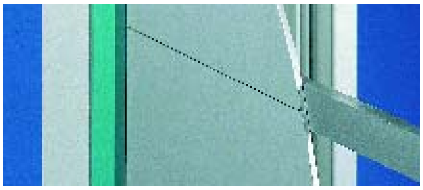
Configuration:
Packs of 10 retaining clamps and cap screws.

For screw clamp

For enclosure	**Part No. CP**
VIP 6000 and Optipanel	**6053.200**

Configuration:
Pack of 2 mounting straps, 4 retaining clamps and screws.

Front design



Sealing bar

For horizontal and/or vertical division of operating housings. The “slot-free” division produces a height gain of 28 mm (1.10″) (VIP 6000) or 22 mm (0.87″) (Optipanel) respectively.

Material:
Aluminum section 8 x 20 mm (0.79″)

Configuration:
Installation hardware

Note:
Sealing bar may not be used in conjunction with spacer trim.

For VIP 6000 and Optipanel

For front panel width	Part No. CP
19″	**6015.500**
As specified1)	**6015.509**

1) Please specify width of front panel.

Technical details,
see page 34 or 55.

Cross member

For horizontal and/or vertical division of the Command Panel front. With mounting channel on both sides to accommodate mounting kits, see page 233.

Configuration:
2 retaining claws,
2 screws with washers,
2 trim sections2).

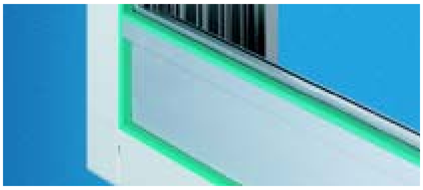
Material:
Extruded aluminum section

For front panel width	**Part No. CP** For VIP 6000	**Part No. CP** For Optipanel
19″	**6015.0002)**	**6386.000**
To specifications1)	**6015.0092)**	**6386.009**

1) Please specify width/height of front panel.

2) Trim type and trim color, see page 25. Please state on the order.

Technical details,
see page 34.



Spacer panel and built-in trim panel

For additional space with cable entry and for installing
- Switches/indicator lamps
- Emergency-off switches/keyswitches
- CD-ROM / disk drives
- Interfaces

etc.

For mounting (horizontally or vertically) on the enclosure, snap into position and screw-fasten from behind.

Other spacer panels and built-in trim panels, front panels and operator panels may be installed without an additional cross member.

Material:
Extruded aluminum section, natural anodized.

Configuration:
Installation hardware and end trim (VIP 6000), spacer trim (Optipanel).

For VIP 6000

For front panel width	Part No. CP
19″	**6015.300**
As specified1)	**6015.309**

Height corresponding to a front panel height of 103 mm (4.06″).

1) Please specify width of front panel.

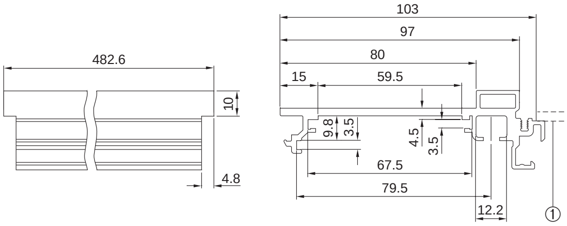
Trim color see page 25.
Please state on the order.

For Optipanel

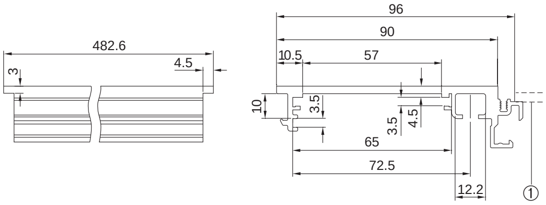
For front panel width	Part No. CP
19″	**6386.300**
As specified	**6386.309**

Height corresponding to a front panel height of 96 mm (3.78″).

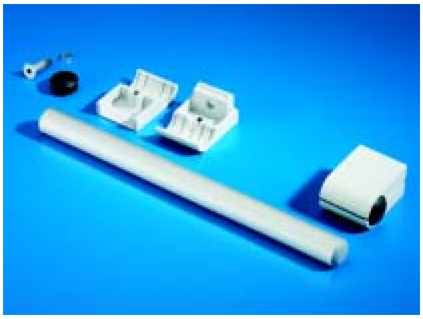
VIP 6000



Optipanel



① Other spacer panels and built-in trim panels, front panel or operator panel



Handle set

For vertical and horizontal mounting on all surfaces.
Overall length: 420 mm (16.54″).

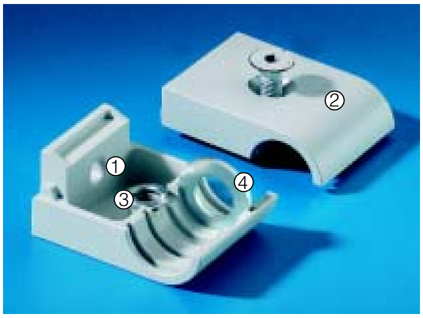
Material:
Handle tube: Aluminum, natural anodized.
Conduit holder: Die-cast zinc, RAL 7035

PU	**Part No. SZ**
4 conduit holders, 2 handle tubes	**2389.000**

Accessories:

Clipboard,
Ring board,
see page 239.

Conduit holder



For mounting on surfaces, horizontal or vertical, also suitable for height-adjustable and/or swivel mounting of enclosures.
For 25 mm (0.98″) dia. sections made from

- Steel, seamless DIN 2448
- Aluminum to DIN 1795

as a handle or for limiting support surfaces.

Consisting of:
① Assembly tray with one drilled hole and M8 screw and two pins as anti-twist guard.

② Clamping tray with tolerance compensation and screw for tightening the conduits.

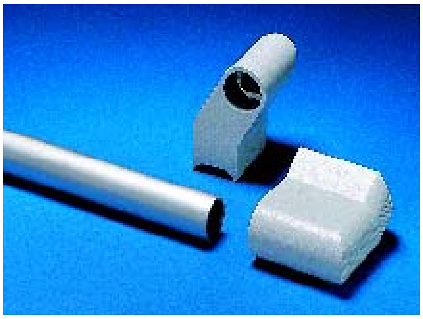
③ Washer, small, prevents tensioning of the conduits e.g. should it become necessary to remove the fitted ring board.

④ Washer, large, secures the unconstrained, rotating conduit between the two trays to prevent it from falling out.

Material:
Die-cast zinc

Color RAL	PU	**Part No. SZ**
7035	2	**2389.100**

Handles



Handle set VIP 6000 for wide frame

For mounting on the corner connectors of the enclosure frame.

Material:
Handle tube: Extruded aluminum section, natural anodized
Handle holder: Die-cast zinc, powder coated in RAL 7035

For horizontal mounting
on
- Operating housing
- Keyboard housing

With front panel width	PU	**Part No. CP**
19″	1 set	**6101.000**
As specified	1 set	**6101.009**[2]

Configuration:
Packs of 2 handle holders, 1 handle tube, 2 screws.

For vertical, side mounting
on
- Operating housing
- Keyboard housing

With front panel height	PU	**Part No. CP**
7 U	1 set	**6102.000**
7 + 3.5 U[1]	1 set	**6103.000**
As specified	1 set	**6102.009**[2]

[1] Divided by cross member for VIP 6000

[2] Please additionally state when ordering:
- Number and dimensions of front panels
- Number of cross members/sealing bars

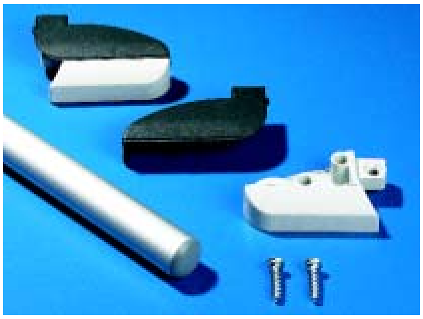
or
- Part Number of your enclosure.

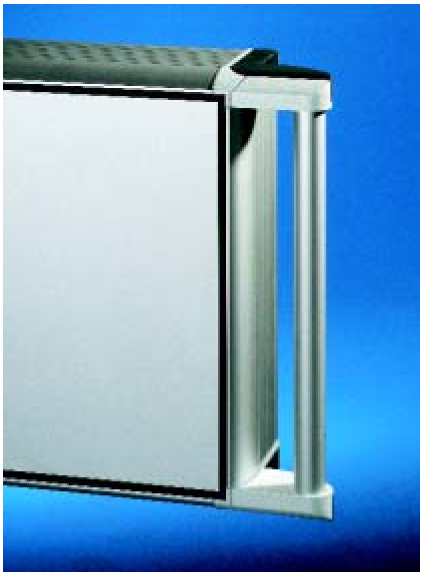
Configuration:
Packs of 4 handle holders, 2 handle tubes, 4 screws.

Accessories:

Clipboard,
Ring board,
see page 239.

Note:
Shorter heights and widths can be achieved by cutting the handle tube to length.





Handle set for Optipanel

For external mounting on corner pieces, also suitable for retro-fitting.

Material	Color RAL	Configuration*	
		horizontal	vertical
Handle tube, Ø 25 mm (0.98″), aluminum	Natural ano-dized	1	2
Handle holder, die-cast zinc, powder-coated	7035	2	4
Cover polyamide	7024	2	4

* Including screws

For horizontal mounting

With front panel width	PU	**Part No. CP**
482.6 mm (19″)	1 set	**6385.010**
As specified	1 set	**6385.019**[2)]

For vertical mounting

With front panel height	PU	**Part No. CP**
7 U	1 set	**6385.020**
7 U + 2 x 3.5 U[1)]	1 set	**6385.030**
As specified	1 set	**6385.029**[2)]

[1)] Divided by 2 cross members for Optipanel

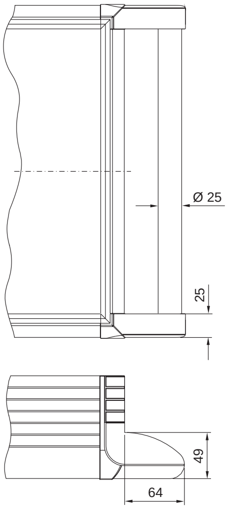
[2)] Please additionally state when ordering:
- Number/dimensions of front panel
- Number of cross members/sealing bars
- Part Number of enclosure.

Note:
Shorter heights and widths can be achieved by cutting the handle tube to length.

For enclosures with 100 mm (3.94″) depth, cannot be mounted on the same side as the
- Support arm connection
- Interface door (SZ 2482.200, see page 240)

Accessories:

Clipboard,
Ring board,
see page 239.



Handles

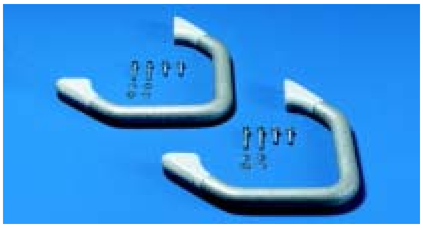
For horizontal or vertical attachment to the enclosure panel of:

- VIP 6000 with combined or narrow front frame,
- Optipanel or
- Other enclosures.

Mounting holes and surfaces without fins are required for assembly purposes. For the VIP 6000 version with fins, corresponding milling work may be carried out. With the operating/keyboard housing, please specify “Prepared for handle set CP 6107.XXX”.

Material	Color RAL
Handle holder, die-cast zinc	7035
Cover plugs, plastic	similar to 7035
Handle tube, aluminum, powder coated	similar to 9006

Note:
Also suitable for mounting on all surfaces.

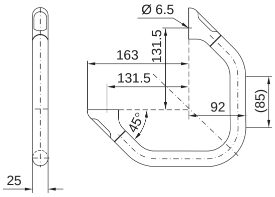


Corner handle

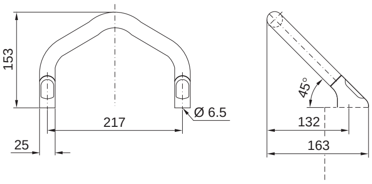
Configuration:
4 handle holders, 2 handle tubes, installation hardware.

PU	**Part No. CP**
1 set	**6107.000**

Mounting on enclosure corner



Mounting on straight surfaces (90° rotation of handle holder)



U handle

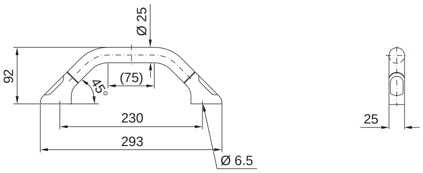
Configuration:
2 handle holders, 1 handle tube, installation hardware.

For front panel dimensions	PU	**Part No. CP**
≥ 7 U	1 set	**6107.100**
19″	1 set	**6107.200**

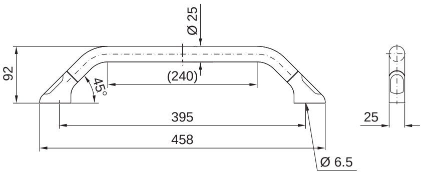
Accessories:

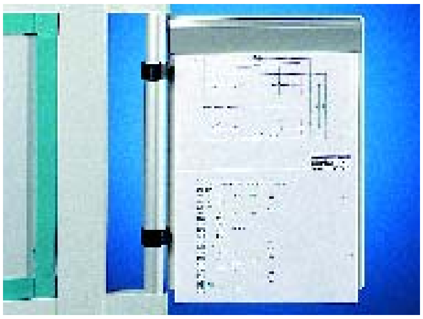
For CP 6107.200:
Clipboard,
Ring board,
see page 239.

CP 6107.100
Mounting on straight surfaces (for front panel size 7 U)



CP 6107.200
Mounting on straight surfaces (for front panel size 19″)





Clipboard

For securing operating instructions or plans (A4 size) at eye level. Prepared for mounting on the right-hand side; mounting on the left is also possible by unscrewing and moving the clip part.
For mounting purposes, a straight tube length of ≥ 200 mm (4.72″), 25 mm (0.98″) dia. is required.
Suitable for mounting on the U handle, see page 238.

Material:
Sheet steel
Clip part: Aluminum, natural anodized.

Height	Width	Color RAL	**Part No. CP**
315 mm (12.40″)	225 mm (8.56″)	7035	**6013.000**

Additional parts

Handle set,
see page 236/237.

Clipboard in conjunction with Command Panel VIP 6000:
German utility model no. 295 11 459
European patent no. 0 839 093 with validity for DE, FR, GB, IT

Ring board

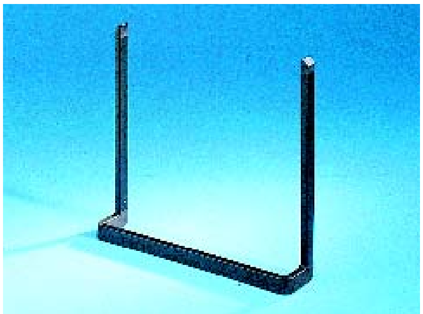
The alternative for attaching paper or plastic covers in A4 format, in either landscape or portrait format.
Board folded over on three sides and punched for mounting the installation hardware on the handle tube (length ≥ 200 mm (4.72″), Ø 25 mm (0.98″)).
Suitable for mounting on all four sides of the panel with handle set.
Suitable for mounting on the U handle, see page 238.

Material:
Sheet steel
Ring strip, 16 mm (0.63″): Sheet steel, plated

Size mm (inches)	Color RAL	**Part No. CP**
225 (8.86″) x 315 (12.4″)	7035	**6013.500**

Additional parts

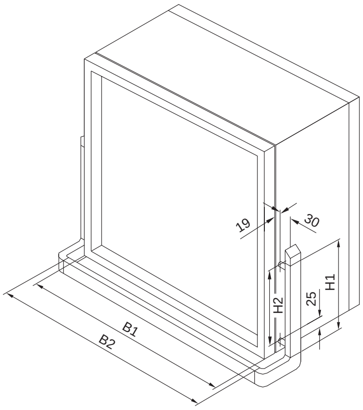
Handle set,
see page 236/237.



Handle frame for operating housing

Consisting of:
- Square aluminum tube
- Plastic corner bracket
- End caps
- Installation hardware

For operating housing with display panel front	**Part No. CP**	
	RAL 8019	RAL 7030
CP 6442.200 CP 6462.200	**6191.000**	**6194.000**
CP 6552.200	**6192.000**	**6195.000**
CP 6662.200	**6190.000**	**6193.000**



Dimensions of handle set in mm (inches)	**CP 6191.000** **CP 6194.000**	**CP 6192.000** **CP 6195.000**	**CP 6190.000** **CP 6193.000**
B1 = Width of operating housing	380 (14.96)	500 (19.69)	600 (23.62)
B2 = Width of horizontal square pipe (B1 + 48 (1.89))	428 (16.85)	548 (21.57)	648 (25.51)
H1 = Height of vertical square pipe	345 (13.58)	465 (18.31)	299 (11.77)
H2 = Hole distance between the attachment holes	295 (11.61)	415 (16.34)	249 (9.80)

B = Width

Interface door

Interface door

The compact alternative to the interface box.
For secure accommodation of all standard sockets, computer ports, 3 $^1/_2$″ or CD-ROM drives.
The cast aluminum door ensures a high mechanical load-bearing capacity, and guards against unauthorized access.

For:
- Optipanel from D = 100 mm (3.94″)
- Any sufficiently large surface.
- Use of all TS lock inserts (see HB 30, page 937).

Standard double-bit lock insert may be exchanged for lock inserts (see HB 30, page 937).

Material:
Door: Cast aluminum, finely textured
Cover plate: Sheet steel 2 mm (14 ga) zinc-plated

Color RAL	Weight kg (lbs)	**Part No. SZ**
7035	0.6 (1.32)	**2482.200**

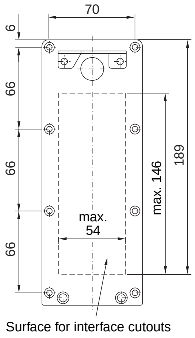
Configuration:
Seal and installation hardware double-bit lock.

Protection ratings:
IP 65 to EN 60 529/10.91

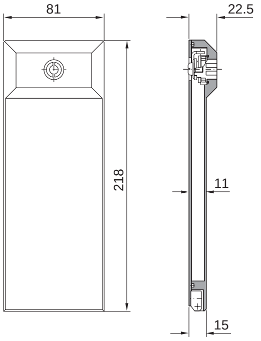
Rittal Service:
Cutouts are possible in the cover plate and enclosure.
Available without cover plate on request.

Note:
For side mounting in 100 mm (3.94″) deep Optipanels, a handle set (CP 6385.0XX, see page 237) may be mounted, although not in the same place.

View without door



View with door



Interface box

For secure accommodation for all common computer ports, 3 $^1/_2$″ disk drives and sockets. The lockable metal cover provides a high mechanical load-bearing capacity, protects against unauthorized access and ensures an increased shielding effect for the installed equipment.

Modifications such as
- Other sizes
- Acrylic covers
- Cutouts for connectors etc.

are possible.

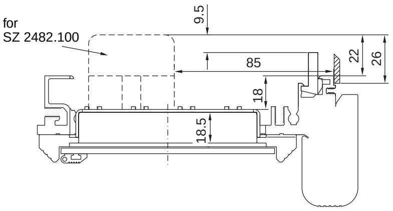
Material:
Frame: Extruded aluminum section, powder coated
Mounting tray: Sheet steel, 1.5 mm (16 ga), painted
Door: Aluminum, 3.0 mm (11 ga), natural anodized

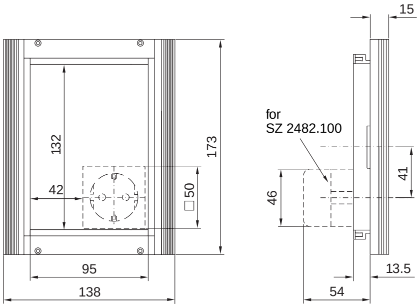
Grounding-pin socket	Color RAL	Weight kg (lbs)	**Part No. SZ**
Without	7035	0.8 (1.76)	**2482.000**
With	7035	0.8 (1.76)	**2482.100**

Configuration:
Frame with hinged door, Cam with security lock (No. 12321).
Mounting tray including seal and installation hardware.

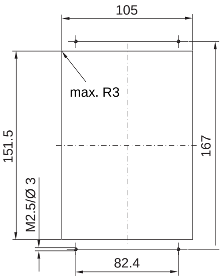
Rittal Service:
Upon request, the interface box can be supplied pre-installed in the operating housing. If required, please specify the desired installation position.

Mounting example in the VIP 6000:





Mounting cutout



Viewing window

The perfect solution for display and control elements in all areas where stringent hygiene standards are required.
Fitted as standard with internal 130° hinges and all-round seal. The double-bit lock insert may be exchanged for 27 mm (1.06″) lock inserts, version A and Ergoform-S handle SZ 2452.000.

Material:
Type 304 stainless steel
Single-pane safety glass

Protection ratings:
IP 54 to EN 60 529/10.91

Configuration:
With cam lock, including installation hardware.

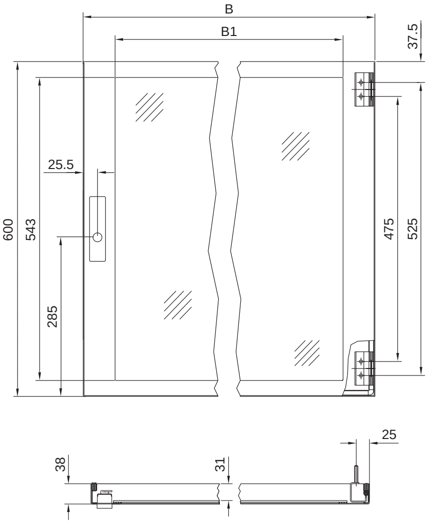
Height mm (inches)	Width mm (inches)	Depth mm (inches)	B1 mm (inches)	**Part No. FT**
600 (23.62)	522 (20.55)	38 (1.5)	408 (16.06)	**2793.560**
600 (23.62)	722 (28.43)	38 (1.5)	608 (23.94)	**2793.760**

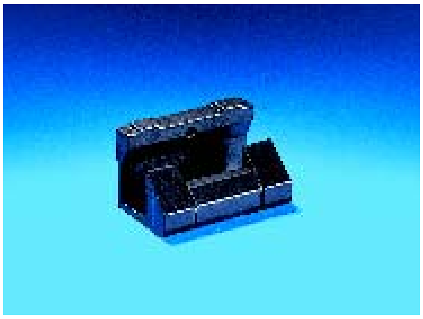
Rittal Service:

Other widths and heights available on request.

Accessories:

27 mm (1.06″) lock inserts,
version A,
see page 246.
Ergoform-S handle SZ 2452.000,
see page 245.





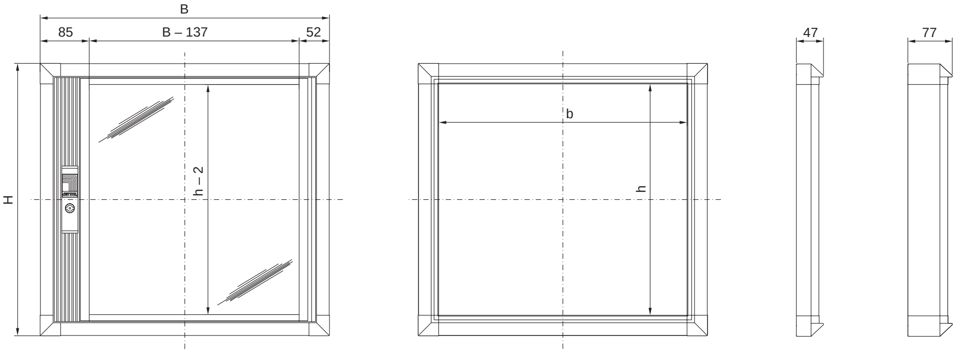
Hinge 180°

for PC enclosure stainless steel/AP universal console
For retrospective conversion of standard doors with 130° hinges.

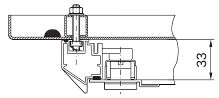
Configuration:
Installation hardware

Material	PU	**Part No. PS**
Type 304 stainless steel	6	**4156.000**
Aluminum	6	**4189.000**

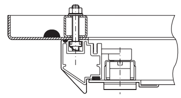
Window



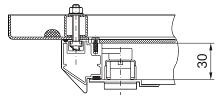
1



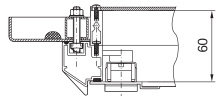
2



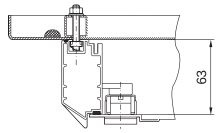
3



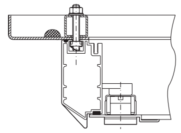
4



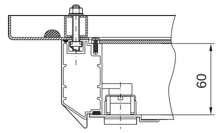
5



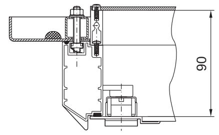
6

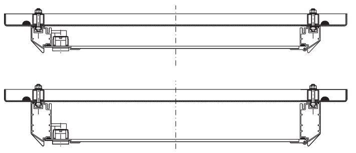


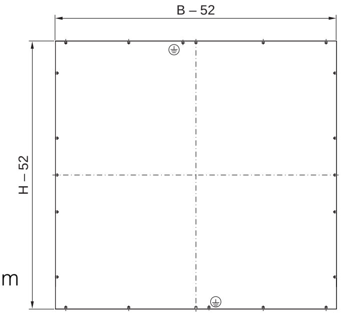
7



8







Viewing area (B –137) offset by 16.5 mm (0.65″) to the hinge side.

Mounting options:

	Mounting type		Installation depth behind system window in mm (inches)
	System window, 30 section	System window, 60 section	
1	On surface		33 (1.30)
2	Via cutout		–
3	Via cutout with display panel		30 (1.18)
4	Via cutout with spacer frame and display panel		60 (2.36)
5		On surface	63 (2.48)
6		Via cutout	–
7		Via cutout with display panel	60 (2.36)
8		Via cutout with spacer frame and display panel	90 (3.54)

To fit TS/ES/IW with width (mm (inches))	Window size (mm (inches))				**Part No. FT** 30 section	**Part No. FT** 60 section	**Part No. FT** Spacer frame	**Part No. FT** Display panel
	external		internal					
	H	B	h	b				
600 (23.62)	270 (10.63)	500 (19.69)	200 (7.87)	430 (16.93)	**2735.100**	**2736.100**	**2737.100**	**2738.100**
	370 (14.57)		300 (11.81)		**2735.110**	**2736.110**	**2737.110**	**2738.110**
	470 (18.50)		400 (15.75)		**2735.120**	**2736.120**	**2737.120**	**2738.120**
	570 (22.44)		500 (19.69)		**2735.130**	**2736.130**	**2737.130**	**2738.130**
	670 (26.38)		600 (23.62)		**2735.140**	**2736.140**	**2737.140**	**2738.140**
Other sizes**					**2735.009***	**2736.009***	**2737.009***	**2738.009***

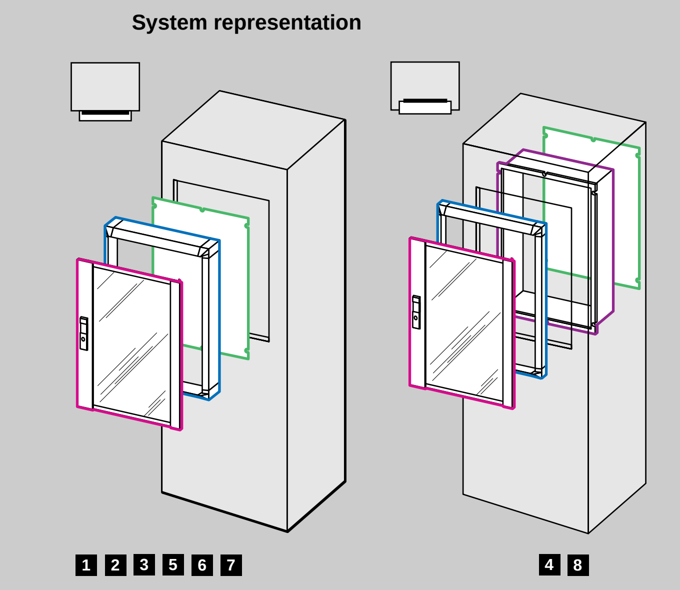
Lock systems
Standard double-bit lock insert may be exchanged for 27 mm (1,06″) lock inserts, type A, see page 246 and Ergoform-S lock system (except H = 270 mm (10.63″)), see page 245.

** Please also specify the external dimensions of the viewing window. ***** Delivery times available on request

Example 1: System window (30 profile) to fit door width 500 mm (19.69″) with Height H = 480 mm (18.90″) x Width W = 400 mm (15.75″) (h x w = 410 mm (16.14″) x 330 mm (12.99″))
Part No. FT 2735.009/H x W = 480 x 400 mm (18.90″ x 15.75″).

Example 2: Spacer frame for system window in example 1
Part No. FT 2737.009/to fit window H x W = 480 x 400 mm (18.90″ x 15.75″).

Example 3: Display panel for system window from example 1 or spacer frame from example 2
Part No. FT 2738.009/to fit window H x W = 480 x 400 mm (18.90″ x 15.75″).



The new generation, the system window, consists of the following components:

1. Base frame:
- Easily screw-fastened to the door using modified dimensions (tubular door frame may be used as a drilling template).
- Readily height-adjustable.
- Stabilizes the door cutout.
- Conceals the cut edge.
- The canopy
  - prevents dirt from falling on the seal,
  - protects the glass from being lifted out,
  - prevents the intrusion of dirt and moisture when opening the window.

2. Viewing window:
- Made from single-pane safety glass:
  - High level of resistance to solvents and scratches,
  - Anti-static,
  - Reduced risk of injury if broken.
- Integral cam lock with double-bit insert, easily exchanged for all standard lock inserts and semi-cylinders in the Ergoform-S lock system.
- Hinge with 180° opening angle, easily inserted.

3. Spacer frame:
- As an alternative to the deeper system window. Why not make use of the space inside the door?

4. Display panel:
- For screw-fastening to the base or spacer frame, with mounting slots. Pre-assemble the screws at the bottom of the frame, locate the plate, and tighten the screws.
- Easily machined for:
  - Holes and cutouts,
  - Labels,
  - Engraving,

Pre-wiring on the workbench.

Material:
System windows:
Extruded aluminum sections with die-cast zinc corner pieces and single-pane safety glass.

Spacer frame:
Extruded aluminum sections

Display panel:
3 mm (0.12″) aluminum, natural anodized

Finish:
Base frame and spacer frame:
Powder-coated in RAL 7030
Hinge and lock section: Anodized in E6 C-32 (bronze colored)
Other colors available on request.

Protection ratings:
IP 54 to EN 60 529/10.91

Accessories:

Ergoform-S lock system, Part No. see page 245.

System windows: Shown here mounted on the TS 8 enclosure.

Lock systems

Comfort handle for semi-cylinder

Prepared for the installation of commercially available semi-cylinders, 40 or 45 mm (1.57″ or 1.77″) total length, to DIN 18 254, and lock and push-button inserts.
see below.

Length: 302 mm (11.89″)

Color RAL	Part No. TS
7032	**8611.060**
7035	**8611.070**
8019	**8611.270**

! **Additional parts**

Handle adaptor for mounting on viewing door/designer door TS-PC/IW, see below.

Note:
Other versions,
see HB 30.

Comfort handle

With security lock insert E1.
Only for use with **VW/Audi.** Supplied without key.

Length: 295 mm (11.61″)

Other VW locks available on request.

Color RAL	Part No. TS
7032	**8611.040**

! **Additional parts**

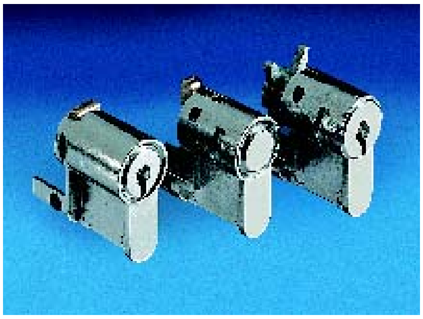
Handle adaptor for mounting on a viewing door/designer door TS-PC/IW, see below.

Handle adaptor for designer door TS-PC/IW

To compensate for the design chamfer between the vertical bar and comfort handle.

Material:
Plastic

Color RAL	Part No. PC
7035	**8611.300**



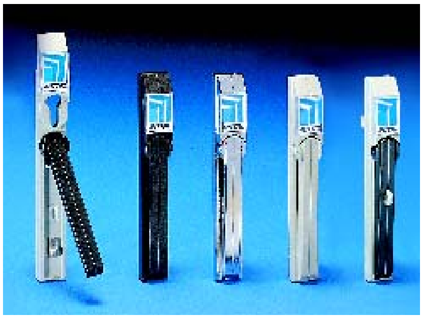
Lock and push-button inserts

For installation in

- Comfort handle for semi-cylinders, see above,
- Ergoform-S standard, see page 245.

Design	Part No. SZ
Security lock insert no. 3524 E	**2467.000***
Push-button insert	**2468.000**
Lock and push-button insert, lock no. 2123; no other lock is possible.	**2469.000***

* with 2 keys



Ergoform standard

Prepared for the installation of semi-cylinders with a total length of 40/45 mm (1.57″/1.77″) (to DIN 18 254) and all 27 mm (1.06″) lock inserts, type A, see page 246.

Material:
Die-cast zinc, powder-coated.

Design	**Part No. SZ**
RAL 7032 With brown handle	**2450.000**
Brown	**2451.000**
Matt nickel-plated	**2452.000**
RAL 7032	**2454.000**
RAL 7035	**2435.000**
RAL 7032* With brown handle and bracket	**2455.000**

* Hole diameter = 7 mm (0.28″) for padlock or multiple lock.

Ergoform special

With lock insert E1 (Volkswagen/Audi).
Only for use with **VW/Audi.** Supplied without key.
Other VW locks available on request.

Material:
Die-cast zinc, powder-coated.

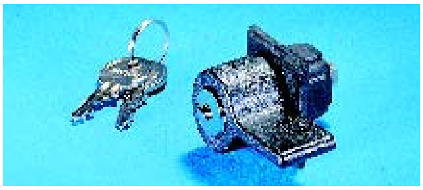
Design	**Part No. SZ**
RAL 7032 With brown handle	**2456.000**

Plastic handles

with cylinder insert.

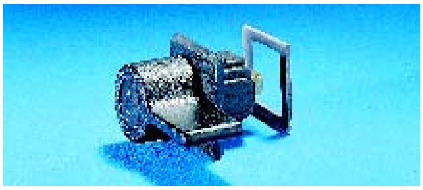
Lock no. 3524 E including installation hardware, seal and 2 keys.

Note:
The universal lock systems allows the installation of a suitable handle to suit almost any application or customer specification. The relevant product ordering page shows which handles can be fitted into each particular assembly.



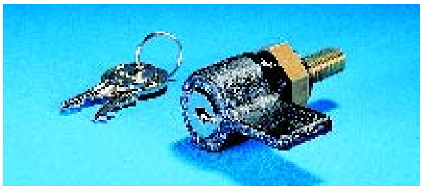
Version B

Color RAL	**Part No. SZ**
9011	**2576.000**
7030	**2439.000**



Version B,
but without cylinder insert.

Color RAL	**Part No. SZ**
9011	**2533.000**



Version C

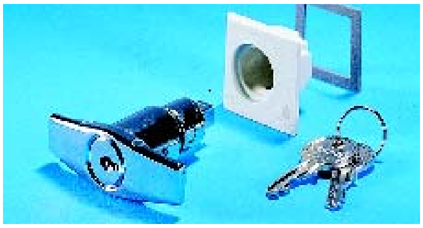
Color RAL	**Part No. SZ**
9011	**2485.000**

Lock systems

T handles

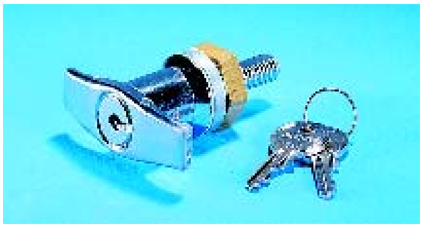
Material:
Die-cast zinc, chrome-plated.

Configuration:
Seal and 2 keys.



Version B

Version	Part No. SZ
With cylinder insert Lock no. 3524 E	**2575.000**
Without cylinder insert	**2572.000**

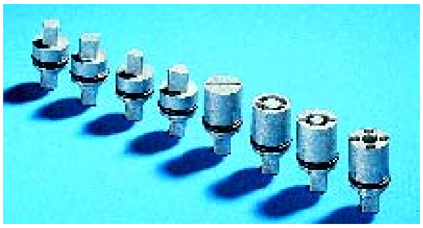


Version C

Version	Part No. SZ
With cylinder insert Lock no. 3524 E	**2535.000**
Without cylinder insert	**2536.000**

Lock inserts

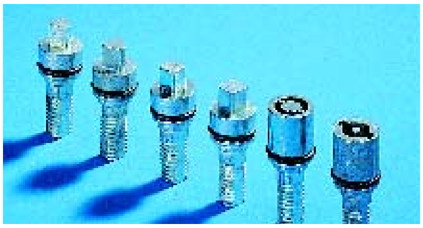
Note:
The universal lock systems allows the installation of a suitable handle to suit almost any application or customer specification. The relevant product ordering page shows which handles can be fitted into each particular assembly.



Version A

Material:
Die-cast zinc

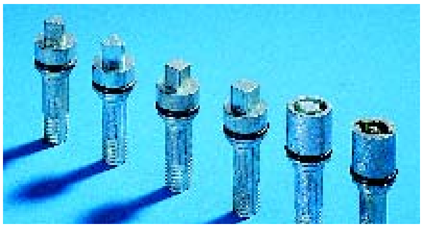
Length 27 mm (1.06″)	Part No. SZ
7 mm (0.28″) square	**2460.000**
8 mm (0.31″) square	**2461.000**
7 mm (0.28″) triangular	**2462.000**
8 mm (0.31″) triangular	**2463.000**
Screwdriver	**2464.000**
Daimler insert	**2465.000**
3 mm (0.12″) double-bit	**2466.000**
Fiat	**2307.000**
6.5 mm (0.26″) triangular (CNOMO)	**2460.650**



Version C

Material:
Die-cast zinc

Length 41 mm (1.61″)	Part No. SZ
7 mm (0.28″) square	**2523.000**
8 mm (0.31″) square	**2526.000**
7 mm (0.28″) triangular	**2527.000**
8 mm (0.31″) triangular	**2528.000**
Daimler insert	**2522.000**
3 mm (0.12″) double-bit	**2483.000**



Version D

Material:
Die-cast zinc

Length 47 mm (1.85″)	Part No. SZ
7 mm (0.28″) square	**2557.000**
8 mm (0.31″) square	**2558.000**
7 mm (0.28″) triangular	**2555.000**
8 mm (0.31″) triangular	**2556.000**
Daimler insert	**2554.000**
3 mm (0.12″) double-bit	**2484.000**

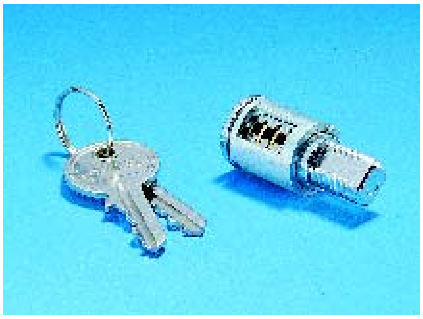
Cylinder inserts

Material:
Die-cast zinc

Version B

Lock no. 3524 E
with 2 keys.

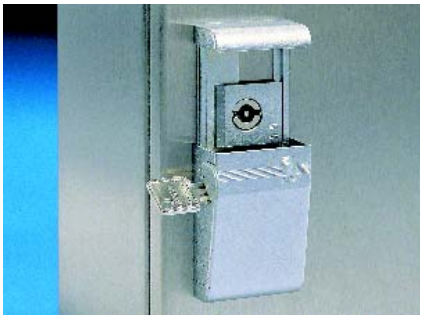
PU	**Part No. SZ**
1	**2571.000**



Version C

Lock no. 3524 E
with 2 keys.

PU	**Part No. SZ**
1	**2525.000**



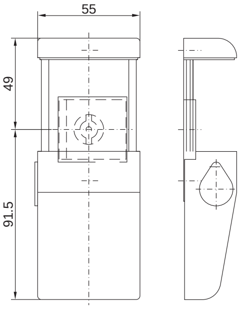
Semi-cylinder lock

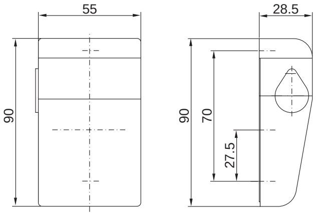
For sheet steel Command Panels and Command Panels with display panel front or VIP 6000 frame.
For retro-fitting to all single-door enclosures with cam lock. The cover plate is locked by semi-cylinders with a total length of 40/45 mm (1.57″/1.77″) (to DIN 18 254). An additional cover protects the cylinder against dirt. The protection category of the enclosure is not impaired.
Supplied without semi-cylinder.

Material:
Die-cast zinc

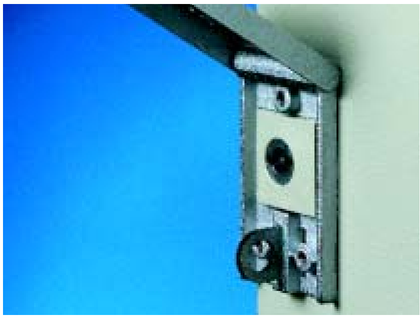
For AE	**Part No. CP**
Powder coated in textured RAL 7032	**2534.000**
Nickel-plated (matt)	**2534.500**

US patent no. 5,916,282
German patent no. 195 12 280
European patent no. 0778 913
with validity for GB, FR, IT
Jap. patent no. 3,088,465





Lock systems

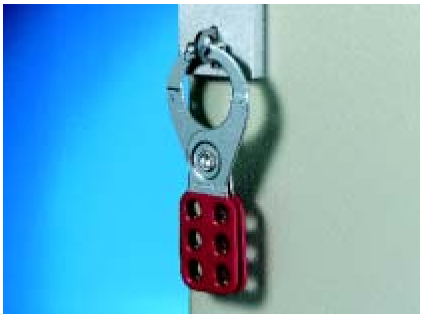


Lock cover

For padlocks or multiple locks.
For retrofitting on all sheet steel Command Panels and Command Panels with display panel front or VIP frame and with cam lock.

Material:
Die-cast zinc, chrome-plated.

PU	**Part No. SZ**
1	**2493.000**

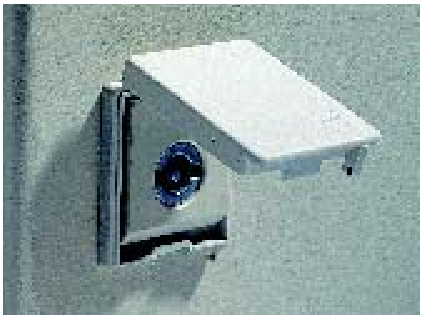


Multiple lock

Prevents unauthorized opening of the enclosure and accidental activation of the system.
The multiple lock is the ideal solution in cases where individual access for several persons is required for maintenance and repair purposes.
The multiple lock provides space for 6 padlocks.

Material:
Sheet steel, zinc-plated.

PU	**Part No. SZ**
2	**2493.500**



Lock cover

Prepared for a lead seal, suitable for use with all enclosure types with Rittal-specific locks, such as sheet steel Command Panels, Command Panels with display panel front or VIP 6000 frame.

Material:
Polyamide

Color RAL	PU	**Part No. SZ**
7032	2	**2476.000**

German registered design No. M 92 07 062

Enclosure keys

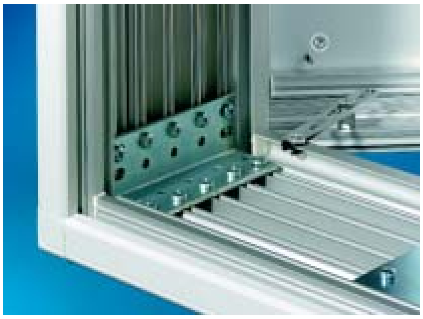
For lock inserts (one double-bit key is supplied with every enclosure).

Key	Part No. SZ
Double-bit key no. 5	**2531.000**
Security key no. 3524 E	**2532.000**
7 mm (0.28″) triangular key	**2545.000**
8 mm (0.31″) triangular key	**2546.000**
7 mm (0.28″) square key	**2547.000**
8 mm (0.31″) square key	**2548.000**
Daimler key	**2521.000**
Fiat Key	**2308.000**

Universal enclosure key

Double-bit, 8 mm (0.31″) square, 8 mm (0.31″) triangular (also for 7 mm (0.28″) inserts), with integral screwdriver.

	Part No. SZ
Universal enclosure key	**2549.000**



Door stop for VIP 6000, hinged

To secure the open panel.

- For mounting at the bottom.
- The installation height is only reduced by 10 mm (0.39″).
- Opening angle adjustable up to approx. 120°.

Material:
Sheet steel, zinc plated.

Configuration:
Installation hardware.

	Part No. CP
Door stop	**6045.000**

Stay

Door stop

To secure the door in the open position at angles of.

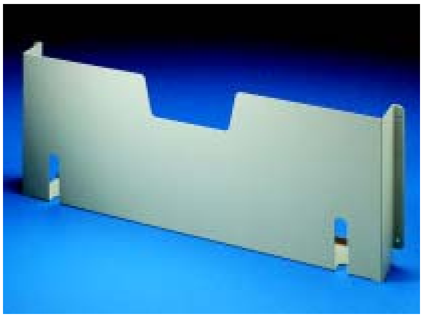
- 90°
- 110°
- 130°

For	PU	**Part No. PS/SZ**
TS/PC	5	**4583.000**
AP pedestals (not illustrated)	5	**2518.000**

Lifting roller for TS/PC

Lifts the door with heavy installed equipment (e.g. air conditioner) as a closing aid. For attaching to the tubular door frame.

PU	**Part No. PS**
10	**4538.000**

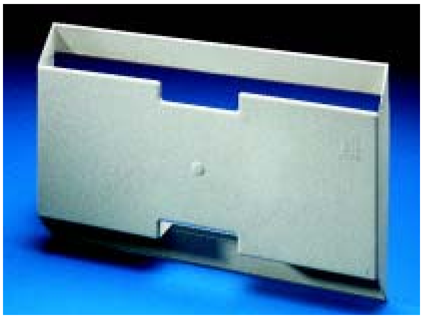


Wiring plan pockets of sheet steel for PC/IW

For fastening to tubular door frames at any height.

Color:
Similar to RAL 7044

To fit door width mm (inches)	Clearance opening in mm (inches)			**Part No. PS**
	H	W	D	
600 (23.62")	260 (10.24)	455 (17.91)	90 (3.54)	**4116.000**



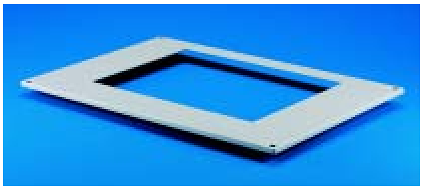
Wiring plan pockets made of plastic

For affixing to the inside surfaces of doors.

Material:
Polystyrene with self-adhesive fastening strips.

Color:
Similar to RAL 7044

For format	Clearance opening in mm (inches)			**Part No. SZ**
	H	W	D	
A3 landscape	287 (11.30)	438 (17.24)	45 (1.77)	**2513.000**
A4 portrait	256 (10.08)	228 (8.98)	17 (0.69)	**2514.000**
A5 landscape	176 (6.93)	228 (8.98)	17 (0.69)	**2515.000**



Roof plates TS

with cutout

For mounting:

- TopTherm roof-mounted cooling unit
- TopTherm roof-mounted fan
- TS vent attachment

The cutouts in the roof plate are arranged in such a way that the TopTherm roof-mounted cooling units are positioned centrally on the enclosure.

Material:
Sheet steel

Configuration:
Installation hardware

Color:
RAL 7035

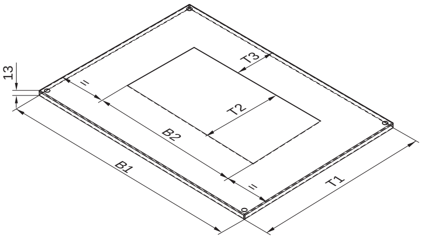
For enclosures W x D mm (inches)	To fit the mounting of TopTherm	Part No. TS
600 x 600 (23.62 x 23.62)	3382.XXX	**8801.300**
	3383.XXX 3384.XXX 3385.XXX	**8801.310**

+ Accessories:

Top-hat rails with integral increments of holes, to accommodate:

- Cable ties for quick assembly, see page 220
- Enclosure lights, see page 268

TopTherm roofmount air conditioners, see Climate Control Systems brochure, from page 46.
TopTherm roofmount fans, see Climate Control Systems brochure, page 154.
TS vent attachment, see Climate Control Systems brochure, page 178.



For mounting TopTherm	B1	B2	T1	T2	T3	Part No. TS
3382.XXX	567.5 (22.34)	475 (18.70)	567.5 (22.34)	260 (10.24)	129 (5.08)	**8801.300**
3383.XXX 3384.XXX 3385.XXX	567.5 (22.34)	490 (19.27)	567.5 (22.34)	390 (15.35)	61 (2.40)	**8801.310**

Partial mounting panel TS

for enclosure width 600 mm (23.62″)

For installation in:

- PC enclosure system based on TS (see page 172 – 175), behind the lower front door
- IW enclosures (see page 158 – 161), height 900 and 1000 mm (35.43″ and 39.37″)
- 600 mm (23.62″) wide/deep TS enclosures (see Handbook 30, from page 104).

Material:
Sheet steel, zinc-plated.

Configuration:
Installation hardware

H x W	Part No. TS
775 x 500 mm (30.51 x 19.69)	**8614.675**

Note:
For other partial mounting panels, see Handbook 30, page 968/969.

Interior installation

Hinge attachment

for partial mounting panel TS
(see page 251)
in 600 and 800 mm (23.62″ and 31.50″) wide enclosures.

Material:
Sheet steel, zinc plated.

Configuration:
2 hinges, including installation hardware.

PU	Part No. TS
1 set	**8614.100**

Additional parts

① Installation kit for swing frames, small see HB 30.

For enclosure width mm (inches)	Part No. SR
600 (23.62)	**2377.860**

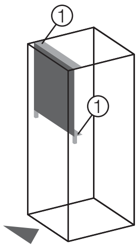
Accessories:

Depending on the installation position
② PS system chassis without mounting flange 23 x 73 mm (0.90″ x 2.87″) according to the enclosure depth, see HB 30, page 977.
Support brackets TS 8800.330, see HB 30, page 979.

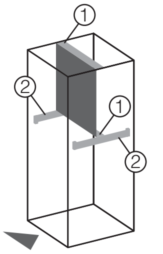
Examples

In the highest or lowest position.

At the front

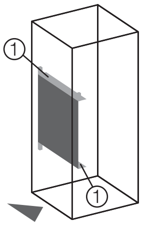


Set back

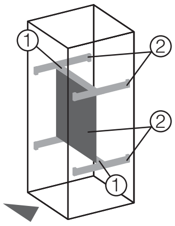


In a central position

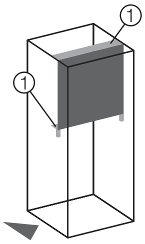
At the front



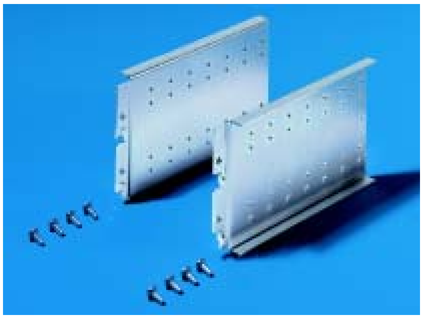
Set back



Side installation



Side installation of a partial mounting panel is identical to installation parallel to the front.



Retaining rail TS

locatable
Suitable for:
- Installation behind a PC enclosure, mounting compartment, small
- Mounting on the vertical section.

Integral 25 mm (0.98″) increments of holes
To accommodate:
- Mounting panel
- System chassis without mounting flange via support brackets TS

As a second mounting level with installed:
- Mounting panel infill
- Cable duct

Static load: max. 15 kg (33.07 lbs)

Material:
Sheet steel, 2.0 mm (14 ga), zinc-plated.

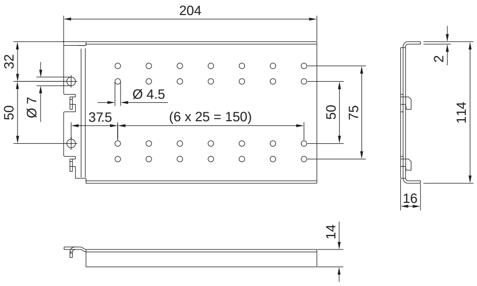
Configuration:
Installation hardware

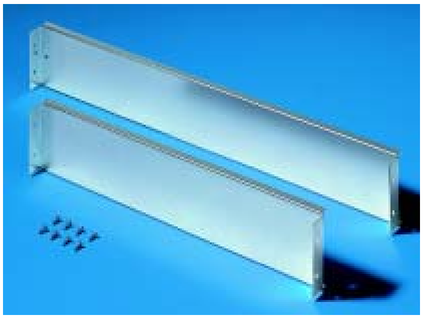
PU	Part No. TS
1 set	**8612.200**

Note:
For more rails, see Handbook 30.

Accessories:

PS system chassis without mounting flange see Handbook 30, page 977.
TS support bracket, see Handbook 30, page 979.





Mounting panel

For external mounting on:
- Retaining rail TS, locatable, depth-adjustable in 25 mm (0.98″) increments,
- System chassiss with mounting flanges, attached to the outer mounting level.

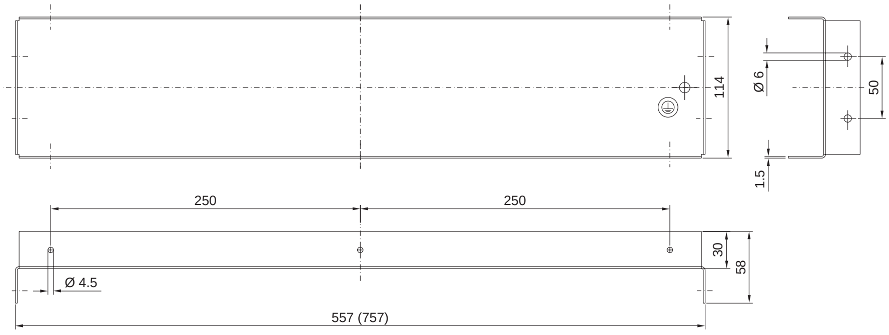
Material:
Sheet steel, 1.5 mm (16 ga), zinc-plated.

Configuration:
Installation hardware

Enclosure width mm (inches)	PU	Part No. TS
600 (23.62)	1	**8612.600**
800 (31.50)	1	**8612.800**

Accessories:

TS system chassis with mounting flange, see Handbook 30, page 974.



Mounting bracket/ mounting panel

For universal interior installation.
The following accessory components may be mounted with the mounting bracket for front panel width 19″:

VIP 6000 and Optipanel*
- C rail PS 4943.000
- Mounting panel KL 1565.700 / KL 1569.700
- Threaded block TS 8800.340 / TS 8800.350

VIP 6000
- Support strip PS 4596.000
- System bar PS 4171.000
- System chassis without mounting flange PS 4376.000
- System chassis with mounting flange PS 4370.000
- Mounting panel TS 8612.410

Material:
Sheet steel, zinc-plated.

	Part No. PS
Mounting bracket	**4597.000**
Mounting panel	**4532.000**

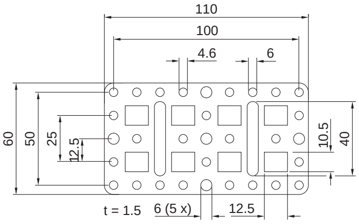
* from installation depth 100 mm (3.94″) (see Version 2.1, page 47) in conjunction with spring nut CP 6108.000 (page 255).

Configuration:
4 mounting brackets or mounting panels,
12 self-tapping screws M5 x 10 mm (0.39″).

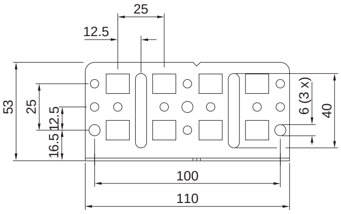
Accessories:

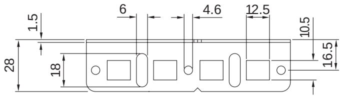
Screws for securing to the screw channels of the VIP 6000 Command Panel,
Part No. SZ 2504.000 (M5 x 10 mm (0.39″)),
PU = 500,
see page 255.

Mounting panel


110
100
4.6
6
60
50
25
12.5
10.5
40
t = 1.5
6 (5 x)
12.5

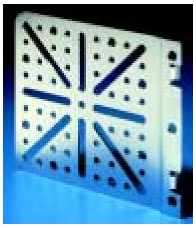
Mounting bracket

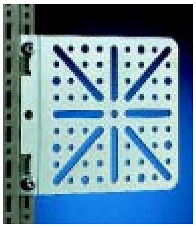

25
12.5
53
25
12.5
16.5
6 (3 x)
40
100
110


6
4.6
12.5
1.5
28
18
10.5
16.5

Mounting panels

Sheet steel, zinc plated.

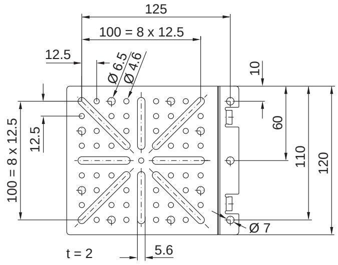


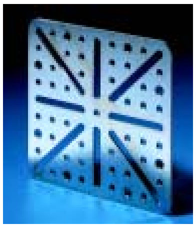


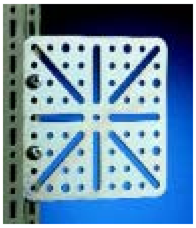
Locatable
on the vertical TS enclosure section or TS system chassis with mounting flange, 17 x 73 mm (0.67″ x 2.87″), on the inner and outer mounting level.

Configuration:
4 mounting panels,
8 screws BZ 5.5 x 13 mm (0.51″).

PU	**Part No. TS**
4	**8612.400**


125
100 = 8 x 12.5
12.5
Ø 6.5
Ø 4.6
10
60
110
120
100 = 8 x 12.5
12.5
Ø 7
t = 2
5.6

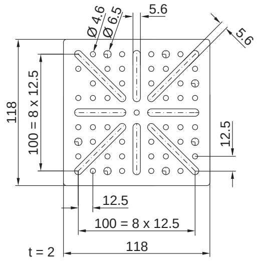


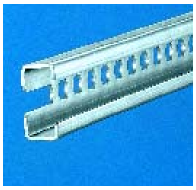


Screw-fastened, large
on all enclosures and mounting parts with system holes in 25 mm (0.98″) increments.

Configuration:
4 mounting panels,
8 screws BZ 5.5 x 13 mm (0.51″).

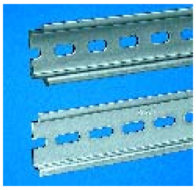
PU	**Part No. TS**
4	**8612.410**


Ø 4.6
Ø 6.5
5.6
5.6
118
100 = 8 x 12.5
12.5
12.5
100 = 8 x 12.5
118
t = 2



C rails

For more detailed information, please refer to Handbook 30.



Support rails TS 35

to EN 50 022

For more detailed information, please refer to Handbook 30.

Torx screws

M6 x 12 to fit:
- U nuts for system chassis (PS 4179.000)
- Captive nuts (PS 4164.000)
- Threaded blocks (PS 4162.000)

Torx drive for optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Torx screws

For the round holes 4.5 mm (0.18″) diameter in the enclosure section, systembars and system chassis without mounting flanges.

Self-tapping screws

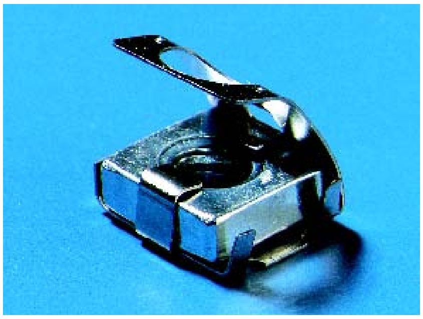
For the round holes 4.5 mm (0.18″) diameter in the enclosure section, system bars and system chassis without mounting flanges.

Self-tapping screws

Mark, drill and tighten in a single operation using electric or pneumatic tools.

For metal thickness: 0.8 – 3 mm
(22 ga – 11 ga)
Length: 16 mm (0.63″)
Usable length: 9.5 mm (0.37″)
Width across flats: 8 mm (0.31″)

Type of screw	Dimensions	PU	**Part No. SZ**
Torx screws	M6 x 12 mm (0.47″)	300	**2504.500**
Torx screws	BZ 5.5 x 13 mm (0.51″)	300	**2486.500**
Torx screws for stainless steel	BZ 5.5 x 13 mm (0.51″)	300	**2486.300**
Self-tapping screws:			
● Hex screws	M5 x 10 mm (0.39″)	500	**2504.000**
● Pan head screws, posidrive	M5 x 12 mm (0.47″)	500	**2489.000**
● Self-tapping screws	ST 4.8 x 16 mm (0.63″)	300	**2487.000**



Spring nut M5

For inserting into the channels of the Optipanel with installation depth 100 and 150 mm (3.94″ and 5.90″) for VIP 6000, from an installation depth of 185 mm. Easily positioned, the spring ensures reliable protection against unintentional displacement. Other interior installation, e.g. with mounting bracket PS 4597.000 (see page 254).

Material:
Sheet steel, zinc plated.

PU	**Part No. CP**
50	**6108.000**

Universal bracket

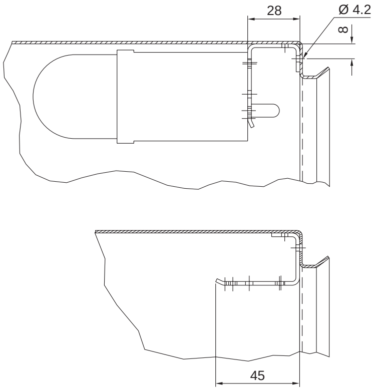
For installing
- Enclosure lighting
- Door operated switch without/with connection cable (SZ 2586.000 / PS 4315.300)
- Cable conduit holders SZ 2593.000 and SZ 2591.000
- Support rails for terminals in Command Panels and Command Panel housings with door

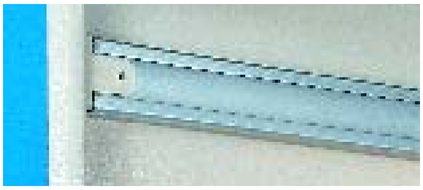
Mounting screws are concealed when the door is closed. Existing holes for system mounting blocks or hinges in AE may be used.

Material:
Sheet steel, zinc plated.

Configuration:
Installation hardware for the accessories listed.

PU	Part No. SZ
6	**2373.000**





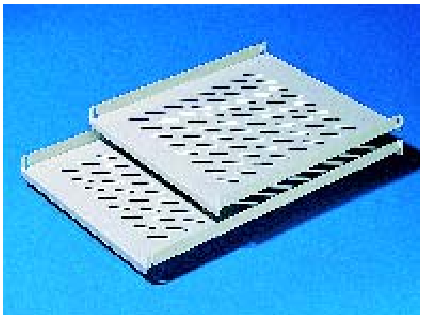
System mounting block for AE

As an accessory for additional interior installation, e.g. mounting of cable ties, PS system bars, top hat rails and C rails (e.g. for a second pair of mounting angles).

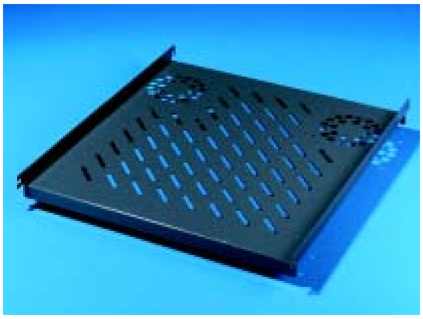
Configuration:
Installation hardware for the applications listed.

PU	Part No. SZ
20	**2574.000**

US patent no. 5,211,499
German patent no. 38 12 939
European patent no. 0338 342
with validity for AT, BE, DE, FR, GB, IT, NL, SE



For ES, PC



For TS

Component shelf, fixed installation

Corresponding to the enclosure depth, for direct mounting in the vertical system holes.
Simply locate into 4 pre-fitted screws and secure.

Load capacity:
50 kg (110.23 lbs)

Material:
1.5 mm (16 ga) sheet steel

For ES, PC, color RAL 7035

For depth* mm (inches)	Part No. PC
620 (24.41)	**4619.660**

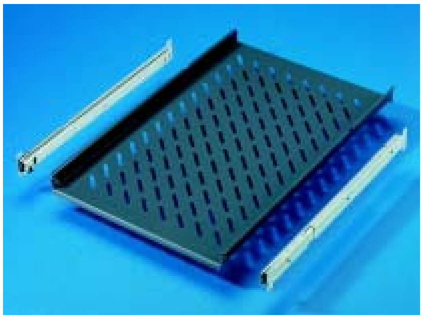
For TS, color RAL 7015

For depth* mm (inches)	Part No. PC
600 (23.62)	**8800.900**
800 (31.50)	**8800.910**

* for enclosures without mounting panel.

Accessories:

Fan expansion kit DK 7980.000,
see Handbook 30, page 959.



Component shelf, Pull-out

For direct attachment on the enclosure frame. Additional system bars are not required.

Material:
Sheet steel

Load capacity:
40 kg (88.18 lbs)

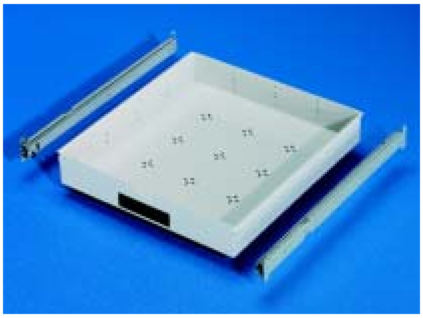
Configuration:
2 telescopic slides (supplied loose).

For depth mm (inches)	Color RAL	**Part No. IW**
600 (23.62)	7015	**6902.960**[1]
800 (31.50	7015	**6902.980**

[1] May also be mounted in 800 mm (31.50″) deep enclosures based on TS (rear attachment Pull-out).

Additional parts

When installing more than one extendible component shelf/drawer tray, the drawer extension lock is required for work safety to DIN EN 349, see page 258.



Drawer tray

Pull-out
Individual sub-division is possible using cross members.
Tray height: 83 mm (3.27″)

Material:
Sheet steel

Load capacity:
40 kg (88.18 lbs)

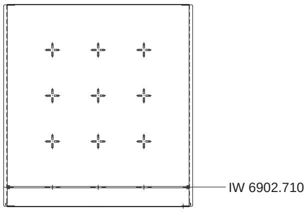
Configuration:
2 telescopic slides (supplied loose).

Note:
Suitable for installation in all enclosures without mounting panel, with W x D 600 x 600/800 mm (23.62″ x 23.62″/31.50″) based on TS (rear attachment of telescopic slides extendible).

For depth mm (inches)	Color RAL	**Part No. IW**
600 (23.62)	7035	**6902.700**

Accessories:

Cross members, see below.



Additional parts

When installing more than one extendible component shelf/drawer tray, the drawer extension lock is required for work safety reasons to DIN EN 349, see page 258.

Note:
When sub-dividing the drawer tray, one cross member is always needed for the entire width (IW 6902.710).

Cross members

for drawer tray
For individual sub-division of the drawer tray.

Material:
Aluminum, 3 mm (0.12″)

Configuration:
Plastic holder

For sub-division in	Color RAL	PU	**Part No. IW**
the full width	7035	4	**6902.710**
half the width	7035	6	**6902.720**

Note:
When sub-dividing the drawer tray, one cross member is always needed for the entire width (IW 6902.710), see drawing of drawer tray.

Component shelves

Telescopic slides

For location into the vertical frame section. Additional system chassis are not required. Fully extendible.

Material:
Sheet steel, zinc-plated.

Load capacity:
40 kg (88.18 lbs) per pair.

Configuration:
Installation hardware

PU	Part No. IW
1 pair	**6902.800**

Note:
In all enclosures, without mounting panel, with W x D 600 x 600/800 mm (23.62″ x 23.62″/31.50″) based on TS (rear attachment of telescopic slides extendible).

Drawer extension lock

for 600 mm (23.62″) wide enclosures based on TS 8

To increase work safety.
In conjunction with the catch(see below), prevents simultaneous extension of up to 5 IW drawers or IW component shelves and thereby ensures stability.

Material:
Sheet steel, zinc-plated.

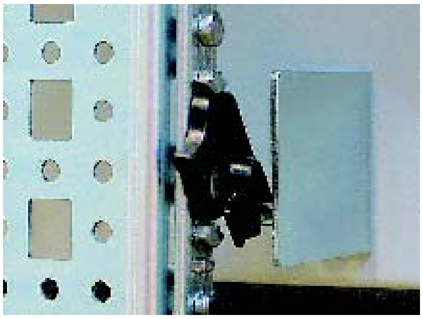
Configuration:
PS system chassis with mounting flange 23 x 73 mm (0.90″ x 2.87″) (to match the enclosure height) and installation hardware.

For enclosure height mm (inches)	PU	Part No. IW
900 (35.46)	1 set	**6902.730**
1000 (39.37)	1 set	**6902.740**

Note:
When installing more than one extendible component shelf/drawer tray, the drawer extension lock is required for work safety reasons.
1 PS system bars with mounting flange 23 x 73 mm (0.90″ x 2.87″) (to match the enclosure height) is required for mounting in taller enclosures.

! Additional parts

Catch for:
- Drawers
- Component shelves (see page 257).



Catch

for drawer extension lock

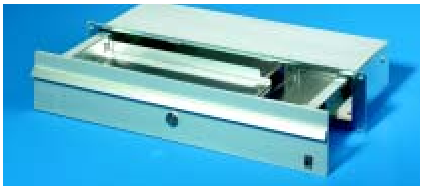
For IW	PU	Part No. IW
Drawers	5	**6902.750**
Component shelves	5	**6902.760**

Bracket, locatable for shelves

Simply locate into the vertical TS section. May be additionally secured with screws. Support surface for shelves: 200 mm (7.87″).

Material:
Sheet steel

PU	Color RAL	**Part No. IW**
3 sets	7035	**6902.690**



Keyboard drawer 19″/2 U

For installation in:

- VIP 6000 Command Panel* (all installation depths **1** to **9**, see page 23).
- Optipanel Command Panel* (installation depth **3** = 150 mm (5.91″), see page 47).
- Any sufficiently large surface. (e.g. door, side panel).
- 19″ systems.

Suitable for

- Accommodation of keyboards up to a maximum of (H x W x D) 32 x 390 x 139 mm (1.32″ x 15.35″ x 5.47″).
- Support of standard commercially available mouse or trackball.

Technical specifications:

- Drawer:
  - – with stop
  - – in the open position, a high level of mechanical protection and shielding effect is preserved
- Front panel
  - – With security lock (lock no. 12321)
  - – With handle strip
  - – With seal.

Width	Height U	Depth mm (inches)	**Part No. CP**
19″	2	150 (5.91)	**6002.000**

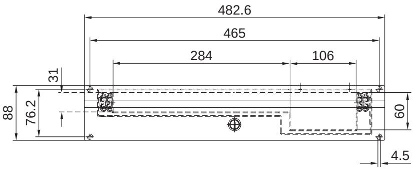
Material:
Drawer housing:
Sheet steel, zinc plated
Drawer and front panel:
Aluminum, natural anodized

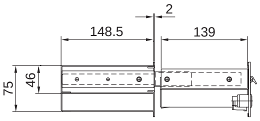
Configuration:
Installation hardware for installation in VIP 6000/Optipanel Command Panel.

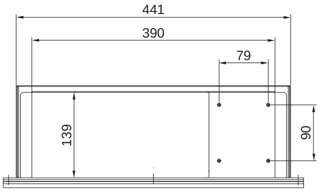
* **Note:**
For sub-division of the operating front:

- With VIP 6000, a cross member (recommended) or sealing bar is required (see page 24, version 3.2). At the same time, the end trim (see page 25, version 3.4 **2**) must be selected.
- With Optipanel, a cross member (see page 48, version 2.2 **1**) is required.

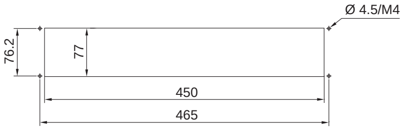
Accessories



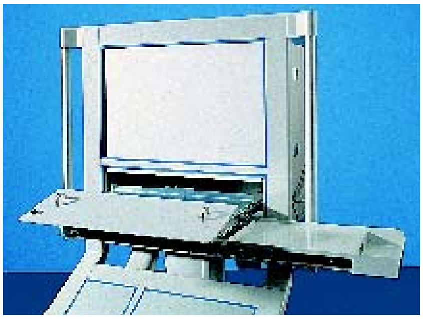




Mounting cutout
(for installation in surfaces)



Keyboard drawer



Keyboard drawer with mousepad support

For installation in:
- VIP 6000 Command Panel* (installation depth **4**, **6** or **8**, see page 23, 3.1)
- Any sufficiently large surface. (e.g. door, side panel).

Suitable for accommodating
- Keyboards up to a maximum of (H x W x D) 42 x 460 x 170 mm (1.65″ x 18.11″ x 6.69″).
- IP 67 mouse and mousepad (see page 266).
- Standard mouse and mousepad

Technical design:
- Drawer and enclosure:
  - With side pull-out mousepad support and tray
  - Even with the drawer open, a high level of mechanical protection and shielding effect is preserved

Width	Height U	Depth mm (inches)	Color RAL	**Part No. CP**
19″	3.5	261 (10.28)	7035	**6003.000**

- Front panel
  - Lockable, with 3 mm (0.12″) double-bit lock, may be exchanged for lock inserts 27 mm (1.06″), version A, see page 246, cylinder insert (SZ 2571.000) with lock no. 3524 E and E1 lock for VW/Audi,
  - Folds out as a wrist support
  - With seal.

Material:
Keyboard and drawer: Sheet steel
Front panel: Aluminum, natural anodized.

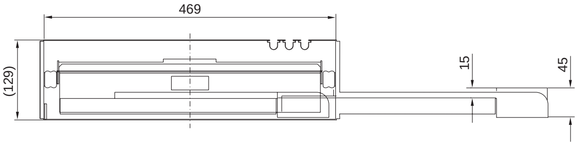
Configuration:
Installation hardware for installation in VIP 6000 Command Panel.

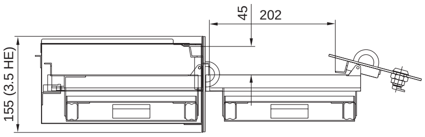
* **Note:**
For sub-division of the operating front a cross member (see page 24, version 3.2) is required. At the same time, the end trim (see page 25, version 3.4 **2**) must be selected.

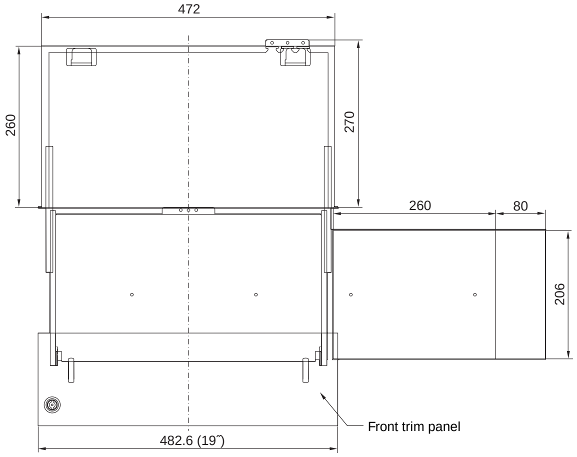
+ Accessories:

Mouse, mousepad IP67, see page 266.

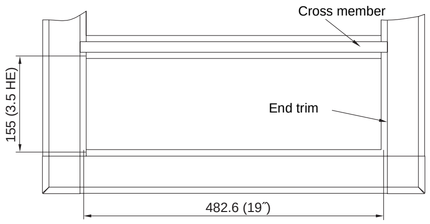
View without front trim panel



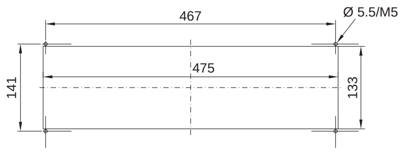




Installation in the VIP 6000



Mounting cutout
for installation in surfaces



Support for keyboards

for max. W x D 473 x 210 mm (18.62″ x 8.27″).
With cutout on both sides for:

- Flexible cable tube (CP 6017.100)
- Mounting holes for mousepad support, vertically hinged (SM 2383.020)

with nylon loop tape for attaching the keyboard.

For external mounting on:
Enclosure surface connector (SM 2383.010)

Material:
Side parts: Sheet steel
Front and rear:
Extruded aluminum section

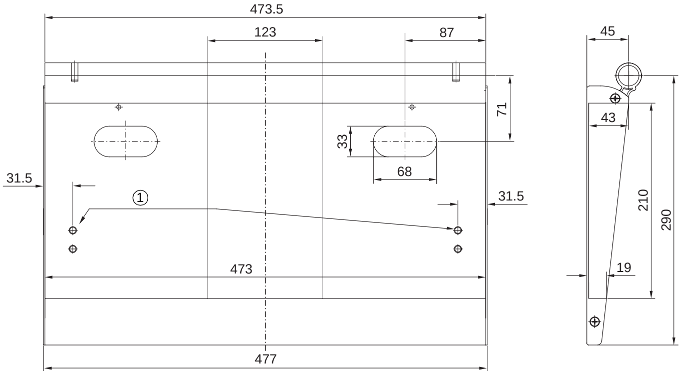
Configuration:
2 clamping screws, end caps and nylon loop tape.

	Color RAL	PU	**Part No. SM**
Side parts	7024	1 set	**2383.000**
Extruded aluminum section	Natural anodized		

Note:
Other widths available on request.
The support can also be ordered fully mounted on the Optipanel (see page 46 – 51) or VIP 6000 (see page 22 – 31) via the design code number.

Accessories:

Enclosure surface connector, see page 262.
Mousepad support, vertically hinged, see page 262.



① = prepared for mousepad support SM 2383.020

Enclosure surface connector

with smooth outer surface, uninterrupted by screw attachments. Mounting using spring nuts from the inside.

To accommodate:
- Support for keyboards (SM 2383.000)
- Optipanel keyboard housing for front panel width = 19″
  (Part No. CP 6384.009)
  H x W = H* x 19″
  Installation depth optionally 50 or 100 mm (1.97″ or 3.94″)*.
  * Specify in addition to the Part No.

Material:
Extruded aluminum section, natural anodized
Side cover: Sheet steel

Configuration:
Installation hardware

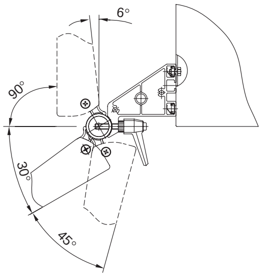
	Color RAL	PU	**Part No. SM**
Surface connector	Natural anodized	1 set	**2383.010**
Side covers	7024		

Note:
Other widths available on request.

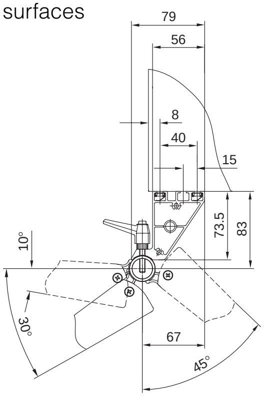
Accessories:

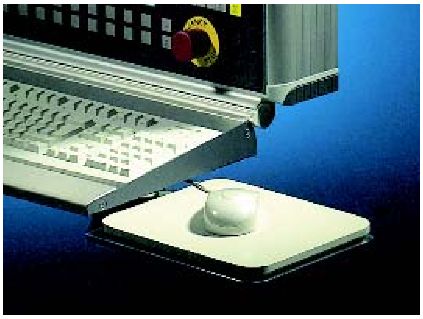
Cross-brace for door,
see page 227.

Mounting on surfaces



Mounting underneath surfaces





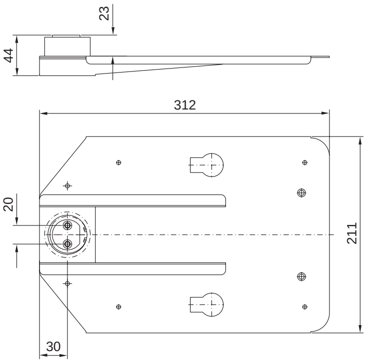
Mousepad support

vertically hinged
For mounting on the left/right, beneath support for keyboards. Latches home automatically, both when retracted and extended.
With mounting holes for:
- Mousepad IP 67 (SM 6444.X00)
- Mouse holder (SM 2382.000) to accommodate the IP 67, NEMA 6 mouse.

With cutouts for cable routing and holes for attachment via cable ties, for fast assembly (SZ 2597.000).

Material:
Sheet steel, zinc plated

Configuration:
Installation hardware



PU	**Part No. SM**
1	**2383.020**

Accessories:

Mouse/mousepad IP 67,
see page 266.
Mouse holder,
see page 266.
Cable ties for quick assembly,
see page 220.

Keyboard, pull-out

with integral trackball

Super-slimline keyboard with cursor keys and trackball. Due to the compact dimensions of the drawer housing, it is suitable for installation in all VIP 6000 and Optipanel Command Panels from an installation depth of 150 mm (5.91″).

For installation in:

- Command Panels VIP 6000 (see page 23) and Optipanel (see page 47) from an installation depth of 150 mm (5.91″)[1]
- 19″ systems
- Any sufficiently large surface. (e.g. door, side panel).

Technical specifications:

- Keyboard:
  H/W/D: 20 x 370 x 138.5 mm (0.79″ x 14.57″ x 5.45″)

  84 short-stroke keys, IBM-AT compatible (MF2), including cursor keys

  With integral 16 mm (0.63″) trackball

  German layout [2]

  Interface:
  2 x 6-pole PS/2
  DIN connector

  Input voltage: 5 V ± 10%

  Input current: 18 mA (5 V DC)

  Power consumption: max. 0.1 W

  Operating temperature: +5°C to +50°C (+41F to +122°F)

  Storage temperature: –10°C to +60°C (-14°F to +140°F)

  Humidity: max. 95% (no condensation)

- Drawer extension piece:

  Front panel, aluminum, 5 mm (0.20″), with handle strip. Film similar to RAL 7035

  Handle strip

  Seal

  with stop (snap-fastening)

  of sheet steel, zinc plated

- Drawer housing:

  H/W/D: 44 x 422 x 150 mm (1.73″ x 16.61″ x 5.91″)

  of sheet steel, zinc plated

  in the open state, a high level of mechanical protection and shielding effect is preserved

  Cable outlet on the underside in the right-hand part

- Front panel:

  H/W: 88 mm (2 U) x 19″

  made from aluminum, 5 mm (0.20″), with film similar to RAL 7035

  With cutout for keyboard extension

Protection ratings:
IP 65 to EN 60 529/10.91

Height	Width	Depth	PU	**Part No. CP**
88 mm (2 U)	19″	150 mm (5.91")	1	**6002.100**

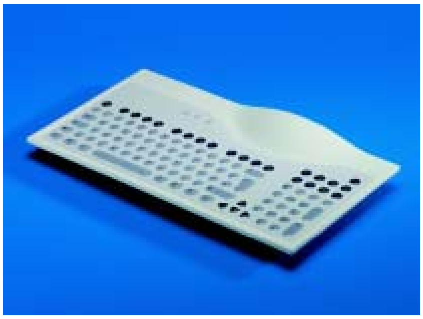
[1] For sub-division of the operating front, a cross member is required for:

- VIP 6000 (see page 24, version 3.2). At the same time, the end trim (see page 25, version 3.4) must be selected.
- Optipanel (see page 48, version 2.2).

[2] Other country versions available on request.

Note:
Lockable version available on request.

Keyboards



Desktop keyboard NEMA 12

Particularly well-suited to all areas with dusty or damp industrial atmospheres and places where hygiene is particularly crucial, such as in the food industry or medical technology.

- Sealed, wipeable surface finish.
- High level of mechanical and chemical resistance to DIN 42 115.
- Lenticular key caps and minimal typing force for optimum finger guidance and fast operation.

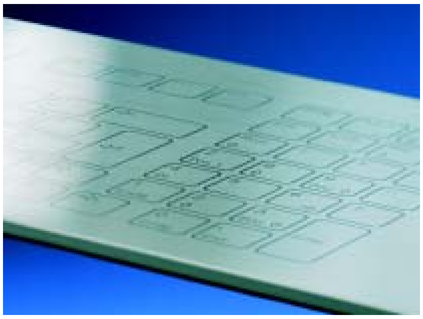
This makes it ideally suited for workstations where it is necessary to input large quantities of data.

Technical specifications:
H/W/D 220 x 410 x 25 mm
(8.66″ x 16.14″ x 0.98″)
105 keys
Actuation travel/force: 0.4 mm/2 N
(0.02″/17.7 lbf)
Service life: ≥ 1 million switching cycles
Operating temperature: –20°C to +70°C
(–4°F to +158°F)
German layout

	Part No. SM
Desktop keyboard	**6446.000**

Note:
Other country versions and USB connection available on request.

Configuration:
Connection cable with PS/2 connector (1.8 m (71″)).



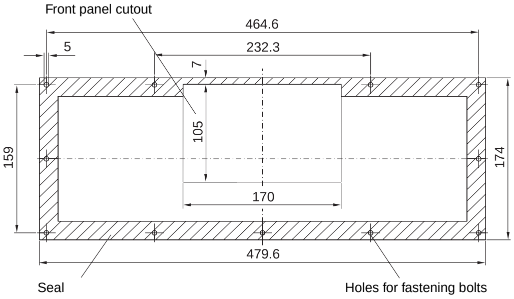
Stainless steel keyboard 19″/4 U

based on the piezo system
With this innovative technology, merely tapping lightly with your finger is sufficent to initiate switching. There are no edges, cracks or hollows, as with conventional keyboards. This makes it particularly suitable for use in the food industry.

For installation in:

- Console systems AP, see page 196 – 199
- PC enclosure systems, see page 180
- CP Premium Panel, see page 60.

Technical specifications:
Dimensions of front panel
H/W/D 177 x 19″ x 3.7 mm
(6.97″ x 19″ x 0.15″)
Installation depth 25 mm (0.98″)
For installation in desk sections, AP console systems, PC enclosure systems
Mounting version wtih threaded bolts at the rear 105 keys
Actuation travel/force: 0 mm/0.7 N (6.2 lbf)
Service life: ≥ 10 million switching cycles
Keypad: Abrasion-resistant electrolyte lettering
Operating temperature: –25°C to +75°C
(–13°F to +167°F)
PS/2 and USB connection
German layout



	Part No. SM
Stainless steel keyboard	**6446.010**

Protection ratings:
IP 67 to EN 60 529/10.91

Note:
Other country versions available on request.

Material:
Type 304 stainless steel
Type 316L (on request).

Configuration:
Connection cable (1.8 m (71″)) with PS/2 connector and hex nuts.

TFT monitor

Installation in flat for surfaces and Command Panels.

Particular benefits:

- Suitable for industrial use
- Reduced installation work due to integral front frame
- No additional ventilation required with horizontal or vertical installation.

The resistive touchscreen is ideally suited for operation with a pen, finger or glove.

Technical specifications:
Resolution max.:
15″: 1024 x 768 pixels,
VGA + XGA non-interlaced
17″: 1280 x 1024 pixels,
VGA + SXGA non-interlaced
Colors: 16.7 million
Brightness: 250 cd/m^2
Reading angle: 130° horizontal,
110° vertical
Contrast ratio: 300 : 1
MTBF backlight: 50000 h
Voltage: 12 V DC
On Screen Display (OSD) at rear
VGA input: 15 pin D-Sub
Operating temperature: 0°C to +50°C
(32°F to 122°F)

Protection ratings:
IP 65 to EN 60 529/10.91, front

Front frame:
Size:
15″: H/W 343 x 430 mm (13.50″ x 16.93″)
17″: H/W 354.8 x 482.6 mm (13.97″ x 19″)
Aluminum, powder coated in RAL 7035
Threaded bolts M5 at rear
(15″ = 12/17″ = 14)

Note:
Monitor fully fitted in the enclosure e. g. Optipanel, see from page 46, available on request.

Configuration:
Seal and hex nuts
(for installation in surfaces).

	Part No. SM
TFT monitor 15″ With anti-reflection coated safety glass screen	**6450.010**
TFT monitor 17″ With anti-reflection coated safety glass screen	**6450.020**
TFT monitor 15″ with touchscreen	**6450.030**
TFT monitor 17″ with touchscreen	**6450.040**

! Additional parts

Mounting kit CP 6053.500
(for installation in VIP 6000 and Optipanel), see page 233.

Power pack for TFT monitor

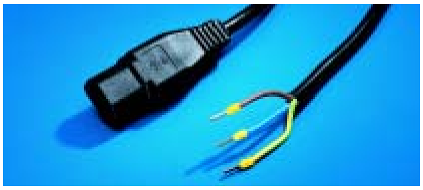
- With IEC 320 socket,
- With connection cable (1.5 m (59″)) and connector for connecting to the TFT monitor.

H/W/D 30 x 107 x 59 mm
(1.18″ x 4.21″ x 2.32″).

Technical specifications:
Input voltage: 100 – 240 V AC
Output voltage 12 V DC

Material:
Enclosure: Plastic

PU	Part No. SM
1	**6450.050**



Connection cable

for power pack
With IEC connector at one end,
Length: 1.5 m (59″).

PU	Part No. SM
1	**6450.060**

Mouse/mousepad

Mouse, mousepad IP67

An ideal input device for all areas where heavy contamination is unavoidable, or where exceptional standards of hygiene are required, for example in the food industry or medical technology.
Because the mouse detects positions inductively, there is no need for a trackball, and the housing can be completely sealed with a protective film. This achieves a high protection category of IP 67.
The mouse will only work in conjunction with the inductive mousepad IP 67.

Material:
Mousepad: Plastic PBT
Mouse: Plastic ABS

Technical specifications:

IP 67, NEMA 6 mouse
Mouse/mousepad connector:
DIN 7-pole

Mouse pad PS/2 interface
Mouse pad – PC connection:
PS/2 connector

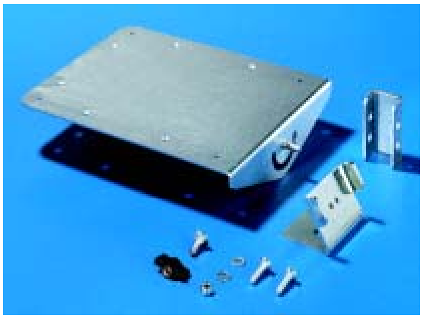
Temperature range: 0°C to +55°C
(32°F to 131°F)
Power consumption: < 20 mA
Cable lengths: 2000 mm (78.74″)
Operates under DOS, Windows 3.1/3.11, Windows 95/ 98/ME, Windows NT/2000

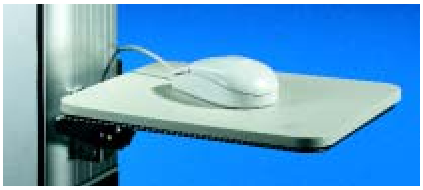
Accessories:

Connector gland (SZ 2400.500), see page 220.
Mousepad support, see below.

	H/W/D in mm (inches)	Color RAL	Part No. SM
Inductive mouse pad IP 67 PS/2 interface	205 x 250 x 15 (9.84 x 8.07 x 0.59)	gray similar to 7035	**6444.500***
Mouse IP 67 for mousepad SM 6444.000 / .500	–	gray similar to 7032	**6445.000**

*** German patent no. 198 51 619**





Mousepad support

For
- Operating housings
- Surfaces

To fit IP 67 mousepad SM 6444.000 and SM 6444.500. The angle of the mousepad support is individually adjustable.
Two holes are needed on the enclosure for attachment purposes.

Material:
Sheet steel, zinc plated

Configuration:
Installation hardware

Weight kg (lbs)	Part No. SM
1.0 (2.20)	**2381.000**

Accessories:

Mouse holder, see below.
Mouse, mousepad IP 67, see above.

Additional parts

Vertical handle set for wide frames, see page 236
(when mounting on the VIP 6000 with wide front frame).

Mouse holder

To match the mousepad support and for secure accommodation of a standard mouse or the IP 67 mouse SM 6445.000.

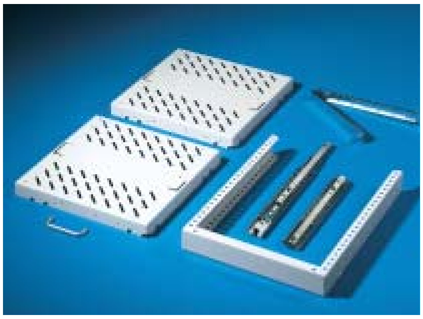
Material:
Sheet steel, zinc plated

Configuration:
Installation hardware

Weight kg (lbs)	Part No. SM
0.3 (0.66)	**2382.000**

Additional parts

Mouse pad support, see above.



Mobile workstation

for tower PCs, printers, UPS, servers etc.

Material:
Sheet steel

Load capacity:
75 kg (165.35 lbs)

Configuration:
Mobile workstation consisting of:
1 mounting frame
2 shelves, top/bottom
1 set telescopic slide
1 handle
1 cable support, hinged
Installation hardware.

Color RAL	PU	**Part No. PC**
7035	1	**4641.000**

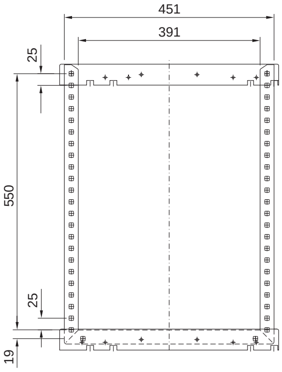
Accessories:

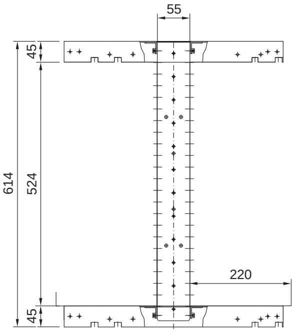
Fastening bolts DK 7115.000,
see Handbook 30, page 993.

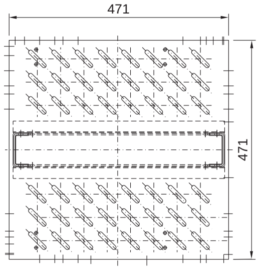
Additional parts

For enclosure depth mm (inches)	For installation in	
	IW, TS, PC based on TS 2 system chassis with mounting flanges, see page 272	ES, PC based on ES/PS 2 system chassis without mounting flanges[1], see HB 30, page 977
600 (23.62)	TS 8612.060	PS 4376.000
800 (31.50)	TS 8612.080	PS 4377.000

[1] plus 4 support brackets PS 4183.000, see HB 30, page 979,
8 threaded blocks M6 PS 4162.000, see HB 30, page 982,
8 screws M6 SZ 2504.500, see page 255.







Base

for mobile workstation

To accommodate additional equipment such as modems, power packs etc. or simply as a paper tray.
The shelf may be attached to the mobile workstation with height adjustment in 25 mm (0.98″) increments.

Material:
Sheet steel

Configuration:
Installation hardware

Color RAL	PU	**Part No. PC**
7035	1	**4642.000**

Accessories:

Fastening bolts DK 7115.000,
see Handbook 30, page 993.

Lights

System light

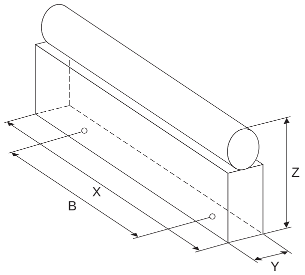
With door operated switch
Additionally with floating normally open contact for switching equipment such as fans, signal lights, contactors etc.
By using connector SZ 2507.400 (see HB 30, page 999), the jack may be used.

Protection ratings:
IP 20 to EN 60 529/10.91

Note:
For more lights, see Handbook 30, from page 997.

Accessories:

Assembly accessories for mounting system lights,
see HB 30, page 998.
Connection accessories,
see HB 30, page 999.



Technical specifications	X mm/ (inches)	Y mm/ (inches)	Z mm (inches)	B mm (inches)	Part No. SZ	
					Standard light	**Courtesy light**
14 kW, 230 V, 50 Hz	452 (17.80)	50 (1.97)	117(4.61)	275 (10.83)	**4138.150**	**4139.150**
18 kW, 230 V, 50 Hz	682 (26.85)	50 (1.97)	117(4.61)	400(1.57)	**4138.190**	**4139.190**
30 kW, 230 V, 50 Hz	987(38.86)	50 (1.97)	117(4.61)	600 (23.62)	**4138.350**	**4139.350**

with fluorescent lamp, socket G 13, length 375/604/908 mm (14.76″/23.78″/35.75″).
Light: Universal white

Equipment	**Standard light**	**Courtesy light**
Sockets and connectors for:		
– Power supply	●	●
– Through-wiring	●	●
Jack for normally open contact	●	●
Socket	●	●
Interference suppression via:		
– Radio interference suppression capacitor	●	
– Semi-electronic ballast with integral RC element		●
Rocker switch for manual actuation	●	●
Light cover		●

Signal pillars

Rittal has extended its versatile range with another useful component:

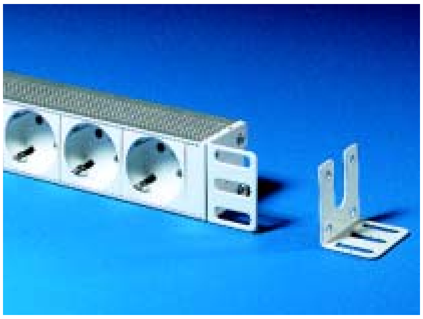
Perfect remote monitoring

- Problem-free remote monitoring of individual plant or machine controllers.
- Direct, fast intervention in the event of malfunctions and emergencies.

Flexible configuration

- Simple assembly and contact using bayonet fastener.
- Configuration of up to five components with the same voltage.
- The incandescent lamps are replaced in seconds – no need for tools.
- Components are available in a range of colors and voltages.

Simply order the signal pillar as well, and get everything you need from a single source!
More detailed information on the signal pillar can be found in Handbook 30, page 1000 – 1002.



Power strips

Variable attachment facilities using a bracket that may be fitted in four positions.

For mounting on:
- 19″ mounting angles
- Enclosure frame IW/TS/PC
- Any sufficiently large surface.

May be used on all sections in 25 mm (0.98″) increments without the need for additional mounting accessories. Unrestricted use of angular connectors is supported via positioning at a 45° angle.

Versions:

Rocker switch:
Illuminated, 2-pole, with safety bars to prevent unintentional contact.

Master/slave:
Electronic automatic switching unit, 2-pole. Switching threshold adjustable from 8 W to 30 W. Equipment with energy-saving or stand-by function cannot be used as the master.
Power consumption of master unit:
ON state: At least 8 W
OFF state: max. 35 W

Overvoltage protection and interference suppression filter
To protect connected equipment against:
- Voltage peaks in the mains
- High-frequency interference voltage from the mains and connected equipment.

The green ready light is extinguished in the event of disconnection or malfunctions. Connected equipment is disconnected from the mains (thermal disconnection).

Requirement category D
Surge current resistance per conductor: 2.5 kA
at U_{OC} = 2.5 kV
Maximum surge strength: 8.0 kA
Rated arrester voltage: 260 V

UPS strip
With red socket inserts to indicate the equipment protected by a UPS. Connection cable with IEC 320 connector
Cable: H05VV-F3G1.0/rated current: 10 A

RCCB protection
To protect human life. With residual-current circuit-breaker $I_{\Delta n}$ 30 mA to DIN 49440.

RCCB and line protection
To protect:
- Persons
- Cables from short-circuit and overload.

With residual-current circuit-breaker $I_{\Delta n}$ 30 mA to DIN 49 440.
Circuit-breaker 16 A/250 V~.

Technical description:
Rated voltage: 250 V
Rated current: 16 A

Connection cable 2 m (78.75″) long
H05VVW-F3G1.5

Material:
Aluminum section natural anodized,
Socket inserts polycarbonate.

Configuration:
Two mounting brackets and installation hardware.

Dimensions:
Height: 44 mm (1 U)
Length: 19″
Depth: 44 mm / 80 mm (1.73″ / 3.15″)

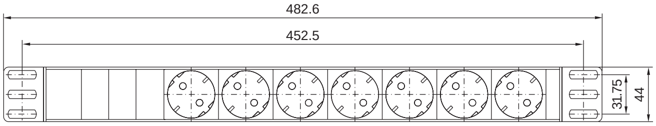
Standards:
Sockets:
DIN 49 440 / DIN VDE 0620 / 05.92
Overvoltage protection:
E DIN VDE 0675 part 6-6 /A1 and 6-6 /A2
EMC interference suppression filter:
EN 1332000: 1994

Note:
In other lengths and with other functional elements,
see HB 30, page 1006/1007.

Version	Number of sockets	Attachment			Mounting dimension (mm (inches))*	**Part No. DK**
		frames	Wallmount distributor, horizontal	19″ mounting angles		
Without switch	7	●	●	●	452.5 (17.81″)	**7240.210**
With switch	7	●	●	●	452.5 (17.81″)	**7240.220**
Overvoltage protection and interference suppressor filter	5	●	●	●	452.5 (17.81″)	**7240.230**
Master/slave	1 + 3	●	●	●	452.5 (17.81″)	**7240.250**
UPS strip	7	●	●	●	452.5 (17.81″)	**7240.260**
RCCB	5	●	●	●	452.5 (17.81″)	**7240.280**
RCCB and line protection	5	●	●	●	452.5 (17.81″)	**7240.290**

* Variable mounting distance within a range of 25 mm (0.98″), the dimension given is hole center to hole center of the mounting bracket.

K 7240.2XX / DK 7240.510



Grounding

Grounding straps

10 mm^2

For configuring a reliable grounding connection with perfect contact.

- with ring terminals in M6 and M8 to match the grounding screw
- length-optimized and ready to install.

For	Door/lid	Enclosure
KL, EB, AE 1032.XXX, AE 1035.XXX	M6	M6
AE, AP	M6	M8
TS, ES, PC, AP universal console, KEL	M8	M8

Connection	Length	PU	**Part No. SZ**
M6 – M6	200 mm (7.87″)	5	**2565.100**
M6 – M8	300 mm (11.81″)	5	**2565.110**
M8 – M8	300 mm (11.81″)	5	**2565.120**

As an alternative, can be used:

Ground straps,
see HB 30, page 1011 or
grounding strap, see below.

Grounding strap

Tin-plated copper, in various lengths and cross-sections with press-fitted contact rings. Grounding straps counteract the current displacement effect at high frequencies, while at the same time offering highly flexible connection opportunities.

For	Cross-section mm^2 (inches^2)	Length mm (inches)	PU	**Part No. SZ**
M6	10 (0.02)	200 (7.87)	10	**2412.210**
M8	16 (0.02)	200 (7.87)	10	**2412.216**
M8	25 (0.04)	200 (7.87)	10	**2412.225**
M6	10 (0.02)	300 (11.81)	10	**2412.310**
M8	16 (0.02)	300 (11.81)	10	**2412.316**
M8	25 (0.04)	300 (11.81)	10	**2412.325**

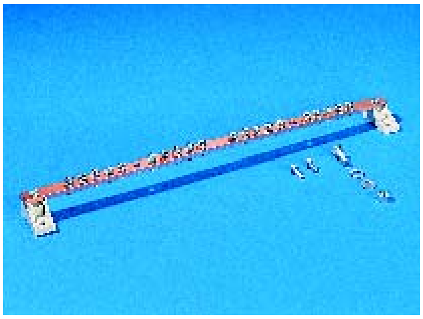
Accessories:

Central grounding point,
see HB 30, page 1012.

Contact washers

Toothed contact washers facilitate secure PE conductor connection. As a result, there is no need to manually strip paint in the connection area.

Size	PU	**Part No. SZ**
M5	100	**2343.000**
M6	100	**2334.000**
M8	100	**2335.000**



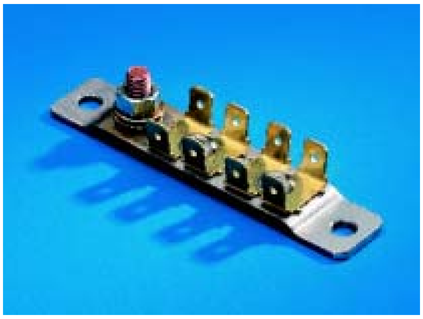
Grounding rail, horizontal (potential equalization rail)

With two isolators, 20 M5 earth connections and 2 ground connections for 25 mm^2 (0.04″)^2.
Current carrying capacity approx. 200 A.

Configuration:
Grounding rail made from E-Cu 57 to DIN 1759, DIN 40 500, 15 x 5 mm (0.2″),
20 connection points M5,
2 grounding connections 25 mm^2 (0.04″)^2,
2 isolators, including installation hardware.

Length	PU	**Part No. DK**
450 mm (17.72″)	1	**7113.000**

Note:
Other grounding accessories,
see HB 30.



Grounding plate

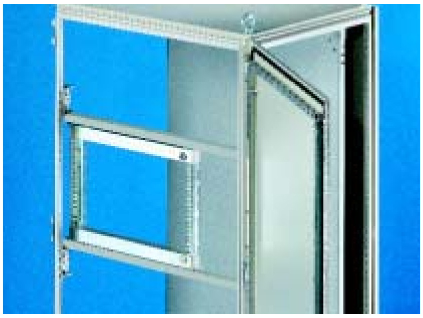
The grounding cable, e.g. coming from the support arm, is attached to the central grounding point. Up to eight control components may be grounded internally on the grounding plate using flat-pin connectors 6.3. This makes grounding inside the enclosure easier, and also reduces the amount of assembly work involved.

Mounting is achieved via attachment holes at a spacing of 75 mm (2.95″), in the case of the VIP 6000 and Optipanel using screw channels or spring nuts, and in the case of the TS 8 using in frame of holes.

Material:
Stainless steel

Configuration:
Installation hardware for panel and grounding bolts.

PU	**Part No. SZ**
1	**2570.500**



Swing frames

See Handbook 30,
Page 1014 – 1021.

19″ configuration

Mounting angles, 19″ for DK-TS

In two versions:

C-shaped
The integral U markings in the front facilitate systematic assembly within the 19″ attachment level.

Full inst. enclosure height mm (inches)	U	Part No. DK	
		C-shaped	**L-shaped**
600 (23.62)	11	–	**7827.061**
800 (31.50)	15	**7827.080**	**7827.081**
1000 (39.37)	20	**7827.100**	**7827.101**
1200 (47.24)	24	**7827.120**	**7827.121**
1400 (55.12)	29	**7827.140**	**7827.141**
1600 (62.99)	33	**7827.160**	**7827.161**

Packs of 2

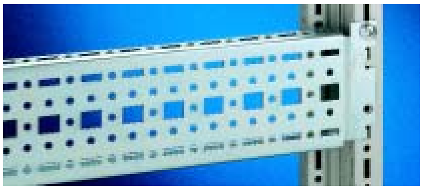
L-shaped
The L-shaped cross rails accommodate the installation kits of server systems. In order to attach slide rails or component shelves from the accessory range, adaptor DK 7827.300 is required. The integral U markings in the front facilitate systematic assembly within the 19″ attachment level.

Technical specifications:
2 mm (14 ga) sheet steel, with integral 19″ punchings and side round and square holes.
Zinc-plated, for conductive connection of the 19″ installed equipment.

Configuration:
Including installation hardware

+ Accessories:

L-shaped design:
Adaptor DK 7827.300,
see HB 30, page 1031.



TS system chassis with mounting flange 17 x 73 mm (0.67″ x 2.87″), notched

As divider kit for mounting angles, enclosure width 600 mm (23.62″), server racks
The system chassis with mounting flanges have a cutout in the middle and are prepared for combining with plug-in side walls. 3 rows of holes facilitate universal skeleton structures or partial assembly and the accommodation of mounting angles. One pack is sufficient for installing one or two 19″/metric attachment levels.

For enclosures		PU	**Part No. TS/DK**
Width mm (inches)	Depth mm (inches)		
600 (23.62)	600 (23.62)	4	**8612.060**
	800 (31.50)	4	**8612.080**
	900 (35.43)	4	**8612.090**

Material:
Sheet steel, zinc-plated.

Configuration:
4 depth rails, including installation hardware.

Assembly screws M5 x 16 mm (0.63″)/ M6 x 16 mm (0.63″)

For 19″ electronic equipment and blanking panels, including plastic washers.

Version	PU	**Part No. EL**
Phillips-head screw M5	100	**2099.500**
Cheese-head screw M6	100	**2093.200**
Phillips-head screw M6	100	**2089.000**

Torx screw M5 x 16 mm (0.63″)/ M6 x 16 mm (0.63″)

For optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Configuration:
Assembly screws with Torx screw head including plastic washers.

	Bit size	PU	**Part No. DK**
M5	Torx 25	100	**7094.500**
M6	Torx 30	100	**7094.600**

Captive nuts M5/M6

For the attachment of rack-mounted electronic equipment, 19″ installed equipment and blanking panels to mounting angles, 19″.

For use with metal thickness from 0.8 – 2.0 mm (22 – 14 ga). In areas of narrow tolerance, the captive nuts for metal thicknesses of 1.2 – 1.5 mm (18 – 16 ga) should be used. Optionally **with** or **without** contact of the installed equipment to the 19″ section/enclosure.

Captive nut M5

Design	PU	For metal thick-nesses mm (inches)	**Part No. EL**
With contact	50	0.8 – 2.0 (22 – 14 ga)	**2094.500**
Without contact	50	0.8 – 2.0 (22 – 14 ga)	**2092.500**

Captive nut M6

Design	PU	For metal thick-nesses mm (inches)	**Part No. EL**
With contact	50	0.8 – 2.0 (22 – 14 ga)	**2094.200**
Without contact	50	0,8 – 2.0 (22 – 14 ga)	**2092.200**
With contact	50	1.2 – 1.5 (18 – 16 ga)	**2094.300**
Without contact	50	1.2 – 1.5 (18 – 16 ga)	**2092.300**

Electronics

See Handbook 30, page 314 – 445.

19″ installation system

See Handbook 30, page 1014 – 1059.

Part No.	Page
1158.000	217
1158.030	217
1158.040	217
1158.060	217
1158.500	217
1158.530	217
1158.540	217
1158.560	217
1581.000	218
1581.100	217
1582.000	218
1648.600	185
1652.600	185
2089.000	273
2092.200	273
2092.300	273
2092.500	273
2093.200	273
2094.200	273
2094.300	273
2094.500	273
2099.500	273
2307.000	246
2308.000	249
2334.000	270
2335.000	270
2343.000	270
2373.000	256
2375.000	115
2375.020	115
2377.860	252
2381.000	266
2382.000	266
2383.000	261
2383.010	228, 262
2383.020	262
2389.000	235
2389.100	235
2400.300	220
2400.500	220
2412.210	270
2412.216	270
2412.225	270
2412.310	270
2412.316	270
2412.325	270
2433.000	229
2435.000	245
2439.000	245
2450.000	245
2451.000	245
2452.000	245
2454.000	245
2455.000	245
2456.000	245
2460.000	246
2460.650	246
2461.000	246
2462.000	246
2463.000	246
2464.000	246
2465.000	246
2466.000	246
2467.000	244
2468.000	244
2469.000	244
2476.000	248
2482.000	240
2482.100	240
2482.200	240
2483.000	246
2484.000	246
2485.000	245
2486.300	255
2486.500	255
2487.000	255
2489.000	255
2493.000	248
2493.500	248
2503.000	229
2504.000	255
2504.500	255
2508.000	229
2513.000	250
2514.000	250
2515.000	250
2518.000	250
2521.000	249
2522.000	246
2523.000	246
2525.000	247
2526.000	246
2527.000	246
2528.000	246
2531.000	249
2532.000	249
2533.000	245
2534.000	247
2534.500	247
2535.000	246
2536.000	246
2545.000	249
2546.000	249
2547.000	249
2548.000	249
2549.000	249
2554.000	246
2555.000	246
2556.000	246
2557.000	246
2558.000	246
2565.100	270
2565.110	270
2565.120	270
2570.500	271
2571.000	247
2572.000	246
2573.000	217
2574.000	256
2575.000	246
2576.000	245
2584.000	230
2589.000	223
2590.000	223
2591.000	223
2592.000	223
2593.000	223
2594.000	223
2595.000	223
2596.000	223
2597.000	220
2600.600	185, 187
2610.600	185, 187
2611.200	185, 187
2612.600	185, 186
2613.200	185, 187
2614.600	185, 186
2615.200	185, 186
2616.200	185, 186
2620.600	185, 187
2630.600	185, 187
2640.600	185, 187
2641.200	185, 187
2642.600	185, 186
2643.200	185, 187
2644.600	185, 186
2645.200	185, 186
2646.200	185, 186
2647.600	185, 186
2648.600	185, 186
2649.600	185, 186
2650.600	185, 187
2651.200	185, 187
2652.600	185, 186
2653.200	185, 187
2654.600	185, 186
2655.200	185, 186
2656.200	185, 186
2662.600	185, 186
2663.600	185, 186
2664.600	185, 186
2666.600	192
2668.600	192
2670.600	192
2672.600	192
2676.000	230
2678.000	230
2682.000	230
2683.600	196
2684.600	196
2685.600	196
2686.600	196
2688.600	198
2689.600	198
2690.000	231
2691.000	231
2694.600	194
2695.600	194
2696.200	231
2697.450	211
2735.100	242
2735.110	242
2735.120	242
2735.130	242
2735.140	242
2736.100	242
2736.110	242
2736.120	242
2736.130	242
2736.140	242
2737.100	242
2737.110	242
2737.120	242
2737.130	242
2737.140	242
2738.100	242
2738.110	242
2738.120	242
2738.130	242
2738.140	242
2793.560	241
2793.760	241
2807.200	208
2808.200	208
2813.200	208
2814.200	208
2817.000	215
2819.000	210
2819.200	210
2841.200	185, 208
2842.200	185, 208
2846.200	208
2847.200	208
2851.200	185, 208
2852.200	185, 208
2855.000	209
2859.000	214
2863.200	185, 208
2864.200	185, 208
2865.000	209
2867.000	209
2868.000	209
2869.000	209
2870.000	209
2875.000	209
2876.000	209
2877.000	209
2878.000	209
2885.000	209
2886.000	209
2889.000	214
2890.000	214
2891.200	208
2892.200	208
2901.200	185, 208
2902.200	185, 208
2907.000	210
2908.000	210
2911.200	208
2912.200	208
2913.000	210
2921.200	185, 208
2922.000	185
2922.200	208
2961.200	185, 208
2962.200	185, 208
2979.200	212
2980.200	212
2981.200	212
2981.235	212
2982.200	212
2982.235	212
2983.200	212
2984.200	212
3201.100	202
3202.100	202
4116.000	250
4138.150	268
4138.190	268
4138.350	268
4139.150	268
4139.190	268
4139.350	268
4156.000	241
4189.000	241
4191.000	223
4192.000	223
4193.000	223
4196.000	223
4311.000	216
4316.000	216
4317.000	216
4318.000	216
4336.000	223
4532.000	254
4538.000	250
4570.000	210
4583.000	250
4595.000	230
4597.000	254
4603.603	176
4603.703	176
4603.704	178
4603.913	176
4603.920	178
4609.703	176
4609.920	178
4611.000	213
4612.000	214
4614.000	177
4619.660	256
4634.000	213
4634.500	213
4641.000	267
4642.000	267
4650.000	180
4650.704	180
4757.000	231
6002.000	259
6002.100	263
6003.000	260
6004.000	204
6004.009	204
6004.100	204
6004.109	204
6005.100	228
6006.000	226
6013.000	239
6013.500	239
6015.000	234
6015.009	234
6015.300	234
6015.309	234
6015.500	234
6015.509	234
6016.100	226
6016.200	226
6017.000	227
6017.100	227
6019.000	232
6023.000	123
6027.000	232
6027.100	233
6027.110	233
6027.120	233
6027.200	233
6027.210	233
6027.220	233
6027.500	232
6027.509	232
6027.510	232
6027.520	232
6028.000	232
6029.000	232
6040.000	124
6045.000	249
6050.000	120
6050.500	120
6052.000	221
6052.500	221
6053.000	233
6053.200	233
6053.500	233
6058.000	233
6058.500	233
6059.000	221
6059.500	221
6100.000	120
6100.500	120
6101.000	236

Part No.	Page
6101.009	236
6102.000	236
6102.009	236
6103.000	236
6107.000	238
6107.100	238
6107.200	238
6108.000	255
6110.000	125
6110.100	126
6120.000	126
6130.000	123
6130.500	122
6130.600	122
6135.000	147
6136.000	145
6136.500	145
6137.035	146
6137.535	146
6139.000	138
6140.000	127
6141.000	142
6141.100	142
6141.200	143, 162
6142.000	134
6142.010	135
6142.020	135
6142.030	135
6142.100	135
6143.200	144, 145
6143.210	144, 218
6143.300	144, 145
6143.310	144, 218
6144.100	162, 215
6145.100	162, 215
6146.100	140, 141
6146.200	140, 141
6146.300	140
6146.400	140, 141
6147.000	162, 215
6148.000	140, 213
6150.000	124
6160.000	122
6170.000	125
6180.000	127
6190.000	239
6191.000	239
6192.000	239
6193.000	239
6194.000	239
6195.000	239
6200.000	120
6200.500	120
6205.000	120
6214.500	149
6214.XX0	148
6220.XX0	148
6340.000	58
6340.010	58
6340.020	58
6340.100	58
6340.110	58
6340.120	58
6340.200	58
6340.210	58
6340.220	58
6340.300	58
6340.310	58
6340.320	58
6340.400	58
6340.410	58
6340.420	58
6341.000	227
6380.000	52
6380.100	52
6385.010	237
6385.019	237
6385.020	237
6385.029	237
6385.030	237
6386.000	234
6386.009	234
6386.300	234
6386.309	234
6442.200	70
6444.000	266
6444.500	266
6445.000	266
6446.000	264
6446.010	264
6450.010	265
6450.020	265
6450.030	265
6450.040	265
6450.050	265
6450.060	265
6462.200	70
6501.000	88
6501.010	88
6501.020	88
6501.030	88
6501.040	90
6501.050	90
6501.060	90
6501.070	90
6501.080	89, 103
6501.090	89, 103
6501.100	89
6501.110	89
6501.200	88
6501.210	88
6501.220	88
6501.230	88
6501.240	88
6501.250	88
6501.260	88
6501.270	88
6501.280	88
6501.290	88
6501.300	88
6501.310	88
6501.320	88
6501.330	88
6501.340	88
6501.350	88
6503.000	218
6505.100	222
6505.200	222
6505.500	222
6508.000	108
6508.010	108
6508.100	109
6509.000	102, 137
6509.010	102, 137
6510.210	100
6510.310	100
6511.000	102, 144
6511.010	102
6513.000	102, 144
6513.010	102
6514.100	229
6514.110	229
6515.000	102, 144
6515.010	102
6519.000	102
6519.010	102
6520.000	105, 109
6520.010	105, 109
6520.500	105
6520.510	105
6521.000	113
6521.010	113
6522.000	114
6522.010	114
6523.000	114
6523.010	114
6524.000	115
6524.010	115
6524.200	113
6524.210	113
6525.000	109
6525.010	109
6525.100	109
6525.110	109
6525.200	107
6525.210	107
6525.500	106
6525.510	106
6525.600	106
6525.610	106
6526.000	112
6526.010	112
6527.000	111
6527.010	111
6527.100	111
6527.110	111
6528.000	104, 121
6528.100	103, 121
6528.200	219
6528.210	219
6528.300	219
6528.500	104, 121
6529.000	112
6529.010	112
6530.200	68
6531.200	68
6532.200	68
6533.200	68
6534.000	66
6535.000	66
6535.010	74
6536.000	66
6536.010	74
6537.000	66
6538.000	66
6538.010	74
6539.010	74
6540.200	68
6541.009	72
6542.000	66
6543.000	66
6544.000	66
6552.200	70
6660.000	92
6660.010	92, 144
6660.020	92, 144
6660.050	92, 144
6660.100	92
6660.110	92
6660.120	92
6660.200	92
6660.210	92
6660.220	92
6662.200	70
6663.000	94
6663.400	94
6663.500	94
6664.000	93
6664.100	93
6664.500	93, 144
6665.000	95
6665.500	95
6670.000	76
6672.000	76
6680.000	60
6680.010	60
6680.100	60
6680.110	60
6681.000	60
6681.100	60
6682.000	60, 61
6900.000	156
6900.100	156
6900.200	156
6900.400	158
6900.600	158
6901.000	156
6901.100	158
6901.200	158
6902.000	160
6902.010	160
6902.020	160
6902.030	160
6902.100	160
6902.110	160
6902.120	160
6902.130	160
6902.300	160
6902.310	162
6902.320	162
6902.400	160
6902.500	164
6902.510	164
6902.610	225
6902.620	225
6902.630	224
6902.640	110, 162
6902.650	224
6902.660	222
6902.670	91
6902.680	225
6902.690	259
6902.700	257
6902.710	257
6902.720	257
6902.730	258
6902.740	258
6902.750	258
6902.760	258
6902.770	222
6902.780	139
6902.800	258
6902.960	257
6902.980	257
7077.000	223
7078.000	223
7094.500	273
7094.600	273
7097.000	223
7097.220	223
7097.260	223
7097.300	223
7097.340	223
7098.000	223
7099.000	223
7113.000	270
7240.210	269
7240.220	269
7240.230	269
7240.250	269
7240.260	269
7240.280	269
7240.290	269
7827.061	272
7827.080	272
7827.081	272
7827.100	272
7827.101	272
7827.120	272
7827.121	272
7827.140	272
7827.141	272
7827.160	272
7827.161	272
8360.920	207
8366.000	172
8366.100	174
8366.200	174
8366.300	172
8366.400	172
8368.000	172
8368.100	174
8601.060	206
8601.080	206
8601.450	211
8601.600	206
8601.610	207
8601.615	207
8601.680	211
8602.060	206
8602.080	206
8602.600	206
8611.040	244
8611.060	244
8611.070	244
8611.270	244
8611.300	244
8612.060	272
8612.080	272
8612.090	272
8612.200	253
8612.400	254
8612.410	254
8612.600	253
8612.800	253
8614.100	252
8614.675	251
8700.600	216
8800.220	214
8800.290	212
8800.390	210
8800.830	213
8800.900	256
8800.910	256
8800.920	207
8800.930	207
8800.960	227
8800.980	227
8801.300	251
8801.310	251

Numerics

10° tilting adaptor
– CP-L, rectangular 111
– CP-L, round 111
– CP-S stainless steel 93
– CP-XL 123
25° / 60° tilting adaptor
– CP-XL 124
482.6 mm (19") mounting angles 272
90° support tube bracket
– CP-L 102

A

Adaptor
– for comfort handle 244
– for levelling feet 214
– for twin castors 212
Adaptor plate 222
Adjustment set for support section
– CP-XL 120
Aluminum strip for AP 230
Angle adaptor 90°
– CP-L to CP-S 89, 103
– CP-XL to CP-L 103, 121
Angle coupling, 90°
– CP-L, round 112
– CP-XL 124
Angle joint 90°
– CP-L 113
Angle piece 90°
– CP-L 115
– CP-XL 127
AP universal consoles
– Sheet steel 194
– Stainless steel 198
Assembly bolts for base/plinth 210
Assembly kit for externally mounted accessories 135
Assembly plate, floor 215
Assembly screws M5 x 16 mm (0.63″)/ M6 x 16 mm (0.63″) 273
Attachment
– CP-S 90
– Hinge attachment 252
– Pole clamp 230

B

Base
– for Industrial Workstations 143
– for operating housing 147
Base assembly plate 215
Base for mobile workstation 267
Base mount 215
– Swivel, CP-S stainless steel 94
Base plate, pedestal, large 146
Base plate, pedestal, small 145
Base/plinth
– Assembly bolts 210
– Complete 208
– Complete, stainless steel 209
– Mobile 212
Base/plinth adaptor for twin castors 212
Base/plinth components, front and rear for TS 206
Base/plinth trim panels, side for TS 206
Base/plinth trim with brush strip for TS 207
Base/plinth trim, modular 210
Bracket, locatable for shelves 259
Built-in trim panel and spacer panel 234
Busbar connection adaptor
– CP-L to CP-XL 104, 121

C

Cable clamp rails 223
Cable clamping bracket 221
Cable clamps 223
Cable conduit and holder 223
Cable entry grommets 216
Cable entry module CP-L, round 221
Cable entry plates 216
Cable gland 220
Cable gland IW 222
Cable gland panels
– Metal 217
– Plastic 218
Cable tie fastener 221
Cable ties for quick assembly 220
Cable tube, flexible 227
Captive nuts M5 / M6 273
Cast cross member 135
Castors 210, 213, 250
Castors, adaptor 212
Clamp rails for cables 223
Clamp strip, foam rubber 217
Climate control 202
Clipboard 239
Comfort handle 244
Comfort handle for semi-cylinder 244
Command panel
– Sheet steel 68
– Stainless steel 76
– with display panel front 70
– with wide VIP 6000 frame 72
Command panel housing with door
– Sheet steel 66
– Stainless steel 74
Compact Panel 58
– Accessories for wall mounting 227
Component shelf, pull-out 257
Component shelf, static installation 256
Component shelves, locatable bracket 259
Conduit
– CP-L 102
– CP-S 88
– CP-S stainless steel 92
– CP-XL 120
Conduit holder 235
Connection cable for power pack 265
Connection console
– CP-L, rectangular 108
Connection cover 222
Connection plate 219
Connection section
– CP-L 102
– CP-S 88
– CP-S stainless steel 92
– CP-XL 120
Connector for compact enclosures 228
Connector gland 220
Connector grommets 216
Connector strips 269
Connector, enclosure surface 228
Consoles 182, 186 – 199
Contact washers 270
Control consoles 182 – 199
Control unit 135
Cooling unit 202
Corner handle 238
Cover plate 222
Cross member with cast feet 135
Cross members 234
– adjustable 211
– for drawer tray 257
Cross-brace for door 227
Cylinder inserts 247

D

Desk section 231
– Stainless steel 231
– Steel 231
Desk units 187
Desktop keyboard IP 65 264
Door stay 250
Drawer 257
– for keyboards 231
– Tray 257
Drawer extension lock IW 258

E

Electric lifting pillar 134
Enclosure attachment
– CP-L, rectangular 106
– CP-L, rectangular, locatable 107
– CP-L, round 106
– CP-S stainless steel 93
– CP-XL, rectangular 122
– CP-XL, round 122
– Tilting, bottom-mounting CP-L, rectangular 110
– Tilting, CP-S configuration 91
Enclosure connector, adjustable 226
Enclosure flange 218
Enclosure keys 249
Enclosure reinforcement 218
Enclosure surface connector 228, 262
Enclosure systems
– PC 170 – 181
Entry grommets for cables 216
Entry grommets for connectors 216
Entry plates for cables 216
Ergoform special 245
Ergoform standard 245
Extension lock for drawers 258
Extension piece 231
Extension piece, drawer tray 257
Externally mounted accessories, assembly kit 135

F

Feet 214
– Height-adjustable 134
– Pedestal 142
Feet for monitor housing 225
Flat screen 265
Foam rubber cable clamp strip 217
Foot rest 215
Frame connector, adjustable 226
Front panels 232
– Aluminum 232
– Hinged 233

G

Gas pressurised spring 141
Gland panels
– Metal 217
– Plastic 218
Grommets for
– Cable entry 216
– Connector gland 216
Ground straps 270
Grounding plate 271
Grounding rail, horizontal
(potential equalisation rail 270
Grounding strap 270

H

Handle adaptor 244
Handle frame for operating housing 239
Handle set 235
– for Optipanel 237
– for VIP 6000 236
Handles 235 – 239, 244 – 246
Handles, plastic 245
Height-adjustable pedestal 134
Hinge 180° 241
Hinge attachment 252
Holder for mouse 266
Housing coupling
– CP-L, rectangular 109
– CP-L, round 109
– CP-S 90
– CP-S stainless steel 93
– CP-XL 123

I

Industrial workstations
– Accessories 224 – 225
– Enclosures with door versions 156
– Enclosures with drawers 158
– Monitor housing 164
– Pedestal 162
– Technical details 166 – 169
– Worktop attachment 139
– Worktops 160
Inserts for lock 244, 246 – 247
Interfaces
– Box 240
– Flap 240
Intermediate hinge
– CP-L 114
– CP-XL 126

K

Keyboard
– Desktop keyboard 264
– Pull-out 263
– Stainless steel 264
Keyboard drawer
– Sheet steel 231
– Stainless steel 231
– with mousepad support 260
Keyboard drawer 19″/2 U 259
Keyboard support 261

L

Levelling feet 214
– 100 mm high 214
Lifting pillar, electric 134
Light 268
Locatable bracket for shelves 259
Locating adaptor 219
Lock and push-button inserts 244
Lock cover 248
– for padlocks 248
Lock for drawer extension 258
Lock for support arm connection 222
Lock inserts 244, 246
Lock systems 244 – 249

M

Metal gland panel 217
Mobile base on castors 212
Mobile pedestal 145
Mobile workstation 267
Mobile workstation, base 267
Modular base/plinth trim 210
Modular pedestal, small 144
Monitor housing, spacer plate 224
Monitor housing, stay 225
Monitor, flat 265
Monitor, support plate 224
Mounting angles, 482.6 mm (19″) 272
Mounting bracket/mounting panel 254
Mounting component
– CP-L for signal pillars 115
Mounting kit 233
Mounting panel, partial mounting panel 251
Mounting panels 253, 254
Mounting rails, 482.6 mm (19″) 272
Mouse holder 266
Mouse, mousepad IP 67 266
Mousepad support 266
Mousepad support, vertically hinged 262
Mousepad, passive 177
Multiple lock 248

N

Nuts 273

O

One-piece consoles 184 – 199
Optipanel support plate 109

P

Panel lift 138
Partial mounting panel TS 251
PC
– Base/plinth trim 207
– Enclosure systems 170 – 181
Pedestals 142, 187
– Base plate 141
– Base plate, large 146
– Base plate, small 145
– for IW worktops 143
– for operating housing 147
– height-adjustable 134
– Mini 140
– mobile 145
– modular, small 144
Pillar 148
– Lifting pillar, electric 134
– small 148 – 149
Plastic cable gland panels 218
Plastic handles 245
Plastic wiring plan pocket 250
Plate
– Grounding plate 271
Plate, base assembly 215
Plates for cable entry 216
Pocket
– for wiring plan, plastic 250
– for wiring plan, sheet steel 250
Pole clamp 230
Potential equalisation rails 270
Power pack for TFT monitor 265
Power strips 269
Premium Panel stainless steel 60 – 63
Printer trolley 267
Pull-out rails 258
Pull-out shelf 257

R

Rails
– Clamp rails for cables 223
– Earth rails 270
– Mounting angles, 482.6 mm (19″) 272
– Support rails 253
– Telescopic slides 258
Rear cooling panel, modular 204
Reinforcement bracket for TS base tray 213
Reinforcement for enclosure 218
Reinforcement plate 218
Retaining rails TS 253
Ride-up roller 250
Ring board 239
Roof plates TS 251
Rotation range limiter 126
– CP-XL 126
Rubber cable clamp strip 217

S

Safety cylinder inserts 247
Screen, flat 265
Screen, support plate 224
Screws 255, 273
Sealing bar 234
Self-tapping screws 255
Semi-cylinder lock 247
Sheet steel wiring plan pockets 250
Shelf, component shelf,
static installation 256
Spacer plate for monitor housing 224
Spacing and built-in trim panel 234
Spring nut M5 255
Stainless steel
– Base mount, swivel, CP-S 94
– Base/plinth, complete 209
– Command panel 76
– Command panel housing with door 74
– Enclosure attachment CP-S 93
– Enclosure coupling CP-S 93
– Enclosure reinforcement 218

– Premium Panel 60 – 63
– Support section CP-S 92
– Tilting adaptor 10° CP-S 93
– Wall console CP-S 95
– Wall mounting bracket 229
– Wall/base mounting, rigid, CP-S 94
Stainless steel keyboard 19″ 264
Stay
– for VIP 6000, hinged 249
Stay, door 250
Stays
– for door 250
– for Industrial workstations 258
– for monitor housing 225
Straps, ground straps 270
Support
– for keyboards 261
– for mousepad 266
– for mousepad, vertically hinged 262
Support arm bracket 90°
– CP-L 102
Support arm system
– CP-L 96 – 115
– CP-L, fast selection 98 – 99
– CP-S, fast selection 84 – 87
– CP-S, stainless steel 92 – 95
– CP-S, steel 88 – 91
– CP-XL 116 – 127
– CP-XL, fast selection 118 – 119
Support arm, height adjustable, CP-L 100
Support plate for screen 224
Support section
– CP-L 102
– CP-S 88
– CP-S stainless steel 92
– CP-XL, open 120
– CP-XL, solid 120
– height-adjustable 141
Surface connector for enclosures 228, 262
System chassis with mounting flange TS, 17 x 73 mm (0.67″ x 2.87″) 272
System light 268
System mounting block for AE 256

T

T handles 246
Telescopic slides 258
TFT monitor 265
Tilt adjustment 140
Tilting adaptor ± 45°
– CP-L, round 112
Top mounted joint
– CP-L 114
– CP-XL 125
Torx screws 255
– M5 x 16 mm/M6 x 16 mm (0.63″) 273
– M6 x 12 mm (0.47″) 255
Transport castors 210
Tray, drawer tray 257
Trim for base/plinth 207
Trim panel 186, 215
Trolley, mobile workstation 267
TS partial mounting panel 251
TS retaining rails 253
TS roof plate 251
TS system chassis with mounting flange, 17 x 73 mm (0.67″ x 2.87″) 272
Tube
– CP-L 102
– CP-S 88
– CP-S stainless steel 92
– CP-XL 120
Turntable 225
Twin castors 213

U

U handle 238
Unit, control unit 135
Universal bracket 256
Universal enclosure key 249
Utility shelf CP 229

V

Viewing window 241
VIP small cooling unit 202

W

Wall bracket 230
Wall console
– CP-S stainless steel 95
Wall mounted hinge
– CP-L 113
– CP-XL 125
Wall mounting bracket 229
Wall mounting bracket, vertically hinged 227
Wall/base mounting
– CP-S 89
– CP-XL 122
– large, CP-L 105
– rigid, CP-S stainless steel 94
– small, CP-L 105
Wall-mounted cooling unit for VIP 6000 202
Washers, contact washers 270
Window
– Viewing window 241
Wiring plan pockets
– Plastic 250
– Sheet steel 250
Worktop attachment IW 139

RAL colors

Color RAL		Designation
🟥	3001	signal red
🟦	5002	ultramarine blue
🟦	5005	signal blue
🟩	5018	turquoise blue
⬛	7015	slate grey
⬛	7022	umber grey
⬛	7024	graphite grey
🟩	7030	stone grey
🟫	7032	pebble grey
🟩	7033	cement grey
⬜	7035	light grey
⬜	7044	silk grey
⬛	8019	grey brown
⬛	9005	jet black
⬜	9006	aluminum white
⬛	9011	graphite black
⬛	9017	traffic black

We reserve the right to further developments and technical modifications of our products. Such modifications, along with errors and printing errata, shall not constitute grounds for compensation. We refer customers to our Terms of Sale and Delivery.

Order forms VIP 6000

Order forms Optipanel

VIP 6000 ☐ RFQ / ☐ Order

Please copy this page and place it next to the brochure, to make your selection easier and faster.
Then fax the completed form to Rittal.
Fax #: 937-629-2815

From:

Name

Company

Address

Phone

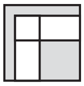
E-mail

1. Select frame

The frame type is determined from the Model No.

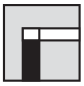
* Only possible wtih keyboard housings 105 mm (4.13″), 44 mm (1.73″) deep and support for keyboards (see selection 4.1).

Wide
VIP 6000 frame



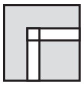
0

Combined
VIP 6000 frame*



1

Narrow
VIP 6000 frame*



2

6392.☐09

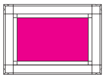
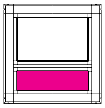
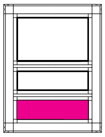
Part No. CP
Operating housing

6351.☐09

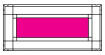
Part No. CP
Keyboard housing

2. Enter the panel dimensions

2.1 For operating housings CP 6392.X09
Please state the number of front panels/panels used, their height (H) x width (W) x depth (D) and the manufacturer/model.

	H x W x D	
	Manufacturer/model	
	H x W x D	
	Manufacturer/model	
	H x W x D	
	Manufacturer/model	

2.2 For keyboard housings CP 6351.X09
Please state the height (H) x width (W) x depth (D) of the keyboard/panel or the manufacturer/model.

	H x W x D	
	Manufacturer/model	

3. Determine the design of the operating housing.

Enter the code number for the required design, see page 22 – 27.

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8

4. Determine the design of the keyboard housing

Enter the code number for the required design, see page 28 – 31.

4.1	4.2	4.3	4.4	4.5

☐ Other modifications as per enclosed sheet.

Annual volume

Purchase quantities

Optipanel ☐ RFQ / ☐ Order

Please copy this page and place it next to the brochure, to make your selection easier and faster.
Then fax the completed form to Rittal.
Fax #: 937-629-2815

From:

Name ____________________

Company ____________________

Address ____________________

____

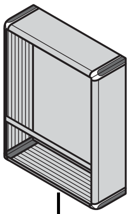
____

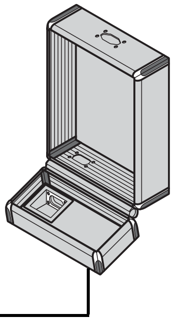
____

Phone ____________________

E-mail ____________________

Operating/keyboard housing





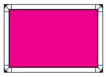
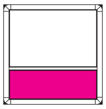
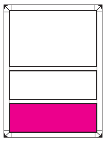
Part No. CP

6	3	8	2	.	0	0	9

1. Enter the panel dimensions

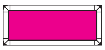
1.1 For operating housings

Please state the number of front panels/panels used, their height (H) x width (W) x depth (D) and the manufacturer/model.

	H x W x D	
	Manufacturer/model	
	H x W x D	
	Manufacturer/model	
	H x W x D	
	Manufacturer/model	

1.2 For keyboard housings

Please state the height (H) x width (W) x depth (D) of the keyboard/panel or the manufacturer/model.

	H x W x D	
	Manufacturer/model	

Standard dimensions for front panel H x W:
- 7 U x 19″
- 234 mm (9.21″) x 270 mm (10.63″)

see page 52.

2. Determine the design of the operating/ keyboard housing

Enter the code number for the required design, see page 46 – 51.

2.1	2.2	2.3	2.4	2.5

☐ Other modifications as per enclosed sheet.

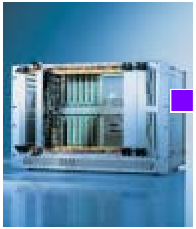
Annual volume ____________________

Purchase quantities ____________________

Global Rittal. Worldwide service.

Industrial enclosures

Small enclosures
Compact enclosures
Large enclosures
PC enclosures and case systems
Console systems
Industrial workstations
Command Panel systems
Stainless steel enclosures and support arm systems
EMC-shielded enclosures
Ex enclosures



Electronic packaging

System climate control

Power distribution

IT solutions

Communication systems

Rittal Corporation
One Rittal Place
Springfield, OH 45504
Phone: (937) 399-0500
Fax: (937) 390-5599
Toll-free: 1-800-477-4000
www.rittal-corp.com
Email: rittal@rittal-corp.com

Switch to perfection RITTAL®