

controls

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# CHAPTER Accessories

### **Featured Products** in this Chapter



► H <sub>2</sub> OMII ''' Vent Drains,	
Type 4X	P. 1290
► H <sub>2</sub> OMIT <sup>™</sup> Thermoelectric	
Dehumidifier	P. 1292
► Pressure Compensation	
Device	P. 1295
► HOL-SEALERS™	

► INTERSAFE® Data Interface



#### **CHS Controls AB**

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EMC Accessories
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#### **H2OMIT® Vent Drains, Type 4X**







#### **Industry Standards**

Maintains UL/cUL Type 4, 4X rating when properly installed on a UL/cUL Type 4 or 4X enclosure.

UL 508A Listed; Type 4, 4X; File No. E61997 cUL Listed per CSA C22.2 No 94; Type 4, 4X; File No. E61997

NEMA/EEMAC Type 4, 4X

#### **Application**

H2OMIT® Vent Drains allow accumulated water to drain out the bottom of an enclosure. The UL-approved vent drains also function as an air pressure equalizer, reducing the harmful effects of temperature-induced vacuums that could pull water and moisture into the enclosure.

#### **Features**

- Uses gravity to remove collected liquids
- One-way mechanical shut-off when pressure is equalized prevents water and contaminants from entering the enclosure
- Helps reduce corrosion that can limit the life of internal electrical and electronic components
- Installs in a 7/8-in. hole in the bottom of enclosure with provided nut or in a 1/2-in. NPT/NPS threaded conduit hub
- Installs in the bottom of mild steel, aluminum, stainless steel or non-metallic enclosures
- Maintains enclosure's UL Type rating when properly installed

#### **Specifications**

#### **Stainless Steel Vent Drain**

- · Corrosion-resistant polyester material with a Type 304 stainless
- 2.00-in. long x 1.38-in outside diameter

#### Non-Metallic Drain Vent

- · Corrosion-resistant polyester material
- 2.00-in. long x 1.25-in. outside diameter

**Bulletin: H2O** 

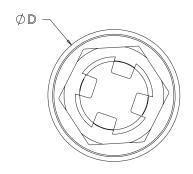
#### Standard Product

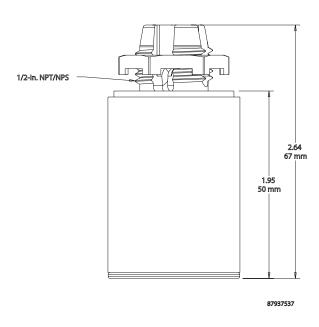
Catalog Number	Description	D (in.)	D (mm)	Quantity
AVDR4NM	Non-metallic Vent Drain	1.25	32	1
AVDR4SS4	Stainless Steel Vent Drain	1.38	35	1



#### **CHS Controls AB**











#### **H2OMIT®** Thermoelectric Dehumidifier







#### **Industry Standards**

UL 508A Listed; File No. E61997 cUL Listed per C22.2 No. 14; File No. E61997

CE

#### **Application**

The H2OMIT® Thermoelectric Dehumidifier removes moisture from the air within an enclosure, providing an inexpensive yet highly effective way to protect electronic and electrical components from condensation.

#### **Features**

- Reduces corrosion that can limit the life of internal electrical and electronic components
- Condenses moisture from internal enclosure air and standing liquids
- Built-in drain provision with plastic hose directs collected moisture to the Vent Drain (sold separately)
- Rotating side air vents direct recirculating air away from critical controls
- Mounts via DIN rail on internal panel or mounts directly onto the inside bottom of enclosure above the Vent Drain (sold separately)
- Can be used in mild steel, aluminum, stainless steel and nonmetallic enclosures

#### **Specifications**

- · High-impact ABS shell
- Operates on 24-Volt DC power
- 4.5 A max. (84 W)
- Runs continuously above 32 Fa (power supply not included)
- Removes 8 oz. of moisture in 24 hours
- Compact 6.00-in. x 5.50-in. x 5.75-in. design
- One Thermoelectric Dehumidifier includes:
  - Four feet of plastic hose
  - Two hose retainers
  - One double-ended hose retainer
  - Six inches of Velcro®
  - Seven-inch strip of DIN rail
  - Two mounting screws

Must be used with UL-certified drain to remove pooled liquid from enclosure.

<sup>a</sup>If continual operation is not desired, a Mechanical Hygrostat (AMHUM) can be wired to the thermoelectric dehumidifier and then set to turn the dehumidifier on at the desired relative humidity.

VELCRO is a trademark of Velcro Industries B.V.

**Bulletin: H2O** 

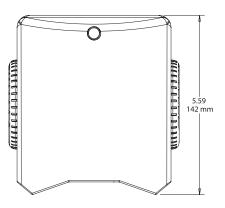
#### Standard Product

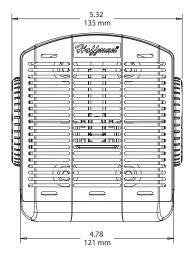
Catalog Number	Description
H20MITTER	Thermoelectric Dehumidifier

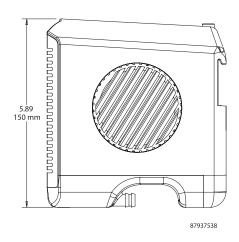


#### **CHS Controls AB**









#### Dew Point Temperature Percent Relative Humidity

Temp. (° F)	100%	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%
110	110	108	106	104	102	100	98	95	93	90	87	84	80	76	72	65	60	51	41
105	105	103	101	99	97	95	93	91	88	85	83	80	76	72	67	62	55	47	37
100	100	99	97	95	93	91	89	86	84	81	78	75	71	67	63	58	52	44	32
95	95	96	92	90	88	86	87	81	79	76	73	70	67	63	59	54	48	40	32
90	90	88	87	85	83	81	79	76	74	71	68	65	62	59	54	49	43	36	32
85	85	83	81	80	78	76	74	71	69	67	64	61	58	54	50	45	38	32	_
80	80	78	77	75	73	71	69	67	65	62	59	56	53	50	45	40	35	32	_
75	75	73	72	70	68	66	64	62	60	58	55	52	49	45	41	36	32	_	_
70	70	68	67	65	63	61	59	58	55	53	50	47	44	40	37	32	_	_	_
65	65	63	62	60	59	57	55	53	50	48	45	42	40	36	62	_	_	_	_
60	60	58	57	55	53	52	50	48	45	43	41	38	35	32	_	_	_	_	_
55	55	53	52	50	49	47	45	43	40	38	36	33	32	_	_	_	_	_	_
50	50	48	46	45	44	42	40	38	36	34	32	_	_	_	_	_	_	_	_
45	45	43	42	40	39	37	35	34	32	_	_	_	_	_	_	_	_	_	_
40	40	39	37	35	34	32	_	_	_	_	_	_	_	_	_	_	_	_	_
35	35	34	32	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
32	32		_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	

**Definition:** Dew Point is the temperature at which condensation forms. If the temperature of the enclosure is 85 F and the relative humidity is 80 percent, Dew Point is reached at a temperature of 78 F or below.

This means that moisture vapor will condense on any surface that is below the Dew Point temperature of 78 F.



#### **CHS Controls AB**



#### **Stainless Steel Pressure Compensation Device**





#### **Industry Standards**

CE NEMA Type 4X IEC/EN 60529, IP66

#### **Application**

Pressure differentials in a tightly sealed enclosure result from heat generated by electrical and electronic equipment within the enclosure and fluctuations of outside ambient temperature. Stainless steel pressure compensation devices provide IP66 protection in corrosive applications requiring slow pressure equalization. For optimal performance, install two plugs diagonally to each other.

#### **Features**

- Air permeability = 42 cubic feet/hour (1,200 liters/hour) at a pressure difference of min. 70 mbar
- Easy installation: drill one 1.60-in. (41-mm) diameter hole
- Sealing gasket (Nitrile Buna-N Rubber)

#### **Specifications**

- Type 316L stainless steel
- Semipermeable membrane inside the plug filters moisture and dust
- · Mounting thread M40 with union nut

#### Finish

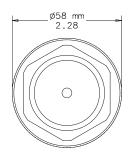
Machined Type 316L stainless steel

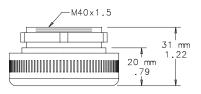
#### Bulletin: D85

#### Standard Product

Catalog Number	AxB in./mm	Depth in Enclosure in./mm	Operating/Storage Temperature °F	Operating/Storage Temperature°C
APCDSS6	2.28 x 1.22	0.35	-40 to 176	-40 to 80
	58 x 31	9		

A dimension = diameter





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#### **CHS Controls AB**

#### **Pressure Compensation Device**



#### **Finish**

Light-gray plastic. Polymeric material manufactured by DuPont™. DuPont is the trademark of E. I. duPont de Nemours and Company. **Bulletin: D85** 

#### Standard Product

Catalog Number	Depth in Enclosure in./mm	Operating/Storage Temperature °F	Operating/Storage Temperature°C
APCDABS	0.6	-49 to 158	-45 to 70
	15		

A dimension = diameter

#### **Industry Standards**

UL Type 1, 4, 4X; File No. E234324

IEC/EN 60529, IP66

#### **Application**

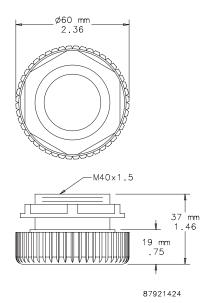
Pressure differentials in a tightly sealed enclosure result from heat generated by electrical and electronic equipment within the enclosure and fluctuations of outside ambient temperature. Pressure compensation devices provide IP66 protection in applications requiring slow pressure equalization. For optimal performance, install two plugs diagonally to each other.

#### **Features**

- Air permeability = 42 cubic feet/hour (1,200 liters/hour) at a pressure difference of min. 70 mbar
- Easy installation: drill one 1.60-in. (41-mm) diameter hole
- Sealing gasket (Nitrile Buna-N Rubber)

#### **Specifications**

- Semipermeable membrane inside the plug to filter moisture and
- Mounting thread M40 with union nut
- Plastic PA66

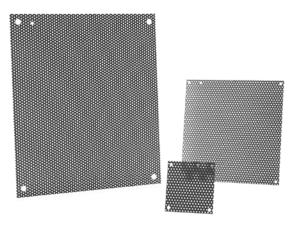


## controls

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#### **Perforated Panels**



Perforated panels are 16 gauge steel and accept self-tapping screws and eliminate the need to measure, mark and drill when mounting components. Use for mounting lightweight control components.

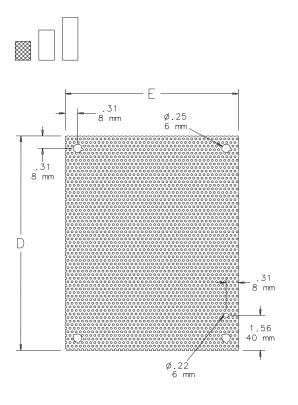
#### **Bulletin: PNLP**

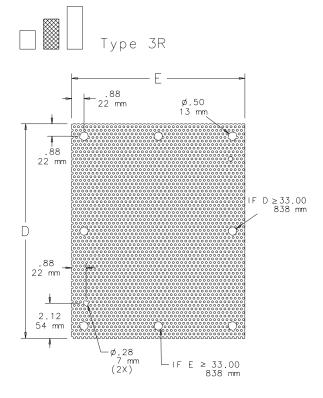
Catalog Number	Use in	Panel Size D x E (in.)	Panel Size D x E (mm)
A6N6PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	4.25 x 4.25	108 x 108
A8N6PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	6.25 x 4.25	159 x 108
A8N8PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	6.25 x 6.25	159 x 159
A10N8PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	8.25 x 6.25	210 x 159
A10N10PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	8.25 x 8.25	210 x 210
A12N10PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	10.25 x 8.25	260 x 210
A12N12PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	10.25 x 10.25	260 x 260
A14N12PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	12.25 x 10.25	311 x 260
A16N12PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	14.25 x 10.25	362 x 260
A20N12PP	Small Type 1 Panel Enclosures and Small Type 3R Boxes	18.25 x 10.25	464 x 260
A16N12MPP	Medium Type 1 Panel Enclosures	10.50 x 13.00	267 x 330
A16N16MPP	Medium Type 1 Panel Enclosures	14.50 x 13.00	368 x 330
A16N20MPP	Medium Type 1 Panel Enclosures	18.50 x 13.00	470 x 330
A18N18MPP	Medium Type 1 Panel Enclosures	16.50 x 15.00	419 x 381
A20N12MPP	Medium Type 1 Panel Enclosures	10.50 x 17.00	267 x 432
A20N16MPP	Medium Type 1 Panel Enclosures	14.50 x 17.00	368 x 432
A20N20MPP	Medium Type 1 Panel Enclosures	18.50 x 17.00	470 x 432
A24N16MPP	Medium Type 1 Panel Enclosures	14.50 x 21.00	368 x 533
A24N20MPP	Medium Type 1 Panel Enclosures	18.50 x 21.00	470 x 533
A24N24MPP	Medium Type 1 Panel Enclosures	22.50 x 21.00	572 x 533
A30N20MPP	Medium Type 1 Panel Enclosures	18.50 x 26.00	470 x 660
A30N24MPP	Medium Type 1 Panel Enclosures	22.50 x 26.00	572 x 660
A30N30MPP	Medium Type 1 Panel Enclosures	28.50 x 26.00	724 x 660
A36N24MPP	Medium Type 1 Panel Enclosures	22.50 x 32.00	572 x 813
A36N30MPP	Medium Type 1 Panel Enclosures	26.50 x 32.00	724 x 813
A16P12PP	Medium Type 3R Hinged-Cover Panel Enclosures	13.00 x 9.00	330 x 229
A16P16PP	Medium Type 3R Hinged-Cover Panel Enclosures	13.00 x 13.00	330 x 330
A20P16PP	Medium Type 3R Hinged-Cover Panel Enclosures	17.00 x 13.00	432 x 330
A18P18PP	Medium Type 3R Hinged-Cover Panel Enclosures	15.00 x 15.00	381 x 381
A20P20PP	Medium Type 3R Hinged-Cover Panel Enclosures	17.00 x 17.00	432 x 732
A24P20PP	Medium Type 3R Hinged-Cover Panel Enclosures	21.00 x 17.00	533 x 432
A24P24PP	Medium Type 3R Hinged-Cover Panel Enclosures	21.00 x 21.00	533 x 533
A30P24PP	Medium Type 3R Hinged-Cover Panel Enclosures	27.00 x 21.00	686 x 533
A36P24PP	Medium Type 3R Hinged-Cover Panel Enclosures	33.00 x 21.00	838 x 533
A30P30PP	Medium Type 3R Hinged-Cover Panel Enclosures	27.00 x 27.00	686 x 686
A36P30PP	Medium Type 3R Hinged-Cover Panel Enclosures	33.00 x 27.00	838 x 686
A36P36PP	Medium Type 3R Hinged-Cover Panel Enclosures	33.00 x 33.00	838 x 838

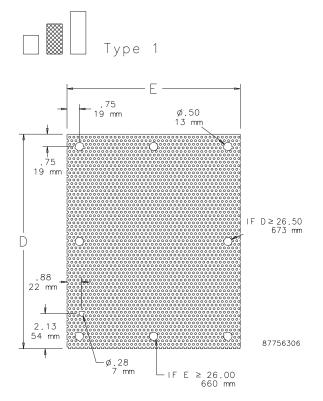


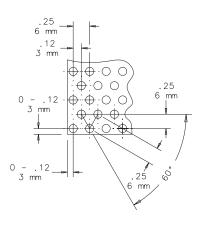
#### **CHS Controls AB**













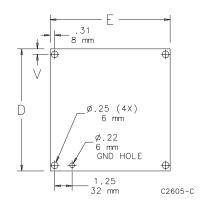


#### **Panels for Junction Boxes**



Steel panels are 14 gauge, finished with white polyester powder paint or with a conductive, corrosion-resistant coating. Stainless steel panels are 14 gauge Type 304 and have a commercial #2B finish which is protected on one side with a plastic film. Aluminum panels are 5052-H32 aluminum alloy 0.080-in. (2-mm) thick and protected on one side with a plastic film. Panel mounting hardware is furnished with all enclosures which accept these panels.

#### Bulletin: PNLJ, PNLWM



Catalog Number	Material	Panel Size D x E (in.)	Panel Size D x E (mm)	V (in.)	V (mm)
A6P4	Painted steel	4.88 x 2.88	124 x 73	0.31	8
A6P4G	Conductive steel	4.88 x 2.88	124 x 73	0.31	8
A6P4SS	Stainless Steel	4.88 x 2.88	124 x 73	0.31	8
A6P4AL	Aluminum	4.88 x 2.88	124 x 73	0.31	8
A6P6	Painted steel	4.88 x 4.88	124 x 124	0.31	8
A6P6G	Conductive steel	4.88 x 4.88	124 x 124	0.31	8
A6P6SS	Stainless Steel	4.88 x 4.88	124 x 124	0.31	8
A6P6AL	Aluminum	4.88 x 4.88	124 x 124	0.31	8
A8P6	Painted steel	6.75 x 4.88	171 x 124	0.25	6
A8P6G	Conductive steel	6.75 x 4.88	171 x 124	0.25	6
A8P6SS	Stainless Steel	6.75 x 4.88	171 x 124	0.25	6
A8P6AL	Aluminum	6.75 x 4.88	171 x 124	0.25	6
A8P8	Painted steel	6.75 x 6.88	171 x 175	0.25	6
A8P8AL	Aluminum	6.75 x 6.88	171 x 175	0.25	6
A10P8	Painted steel	8.75 x 6.88	222 x 175	0.25	6
A10P8G	Conductive steel	8.75 x 6.88	222 x 175	0.25	6
A10P8SS	Stainless Steel	8.75 x 6.88	222 x 175	0.25	6
A10P8AL	Aluminum	8.75 x 6.88	222 x 175	0.25	6
A10P10	Painted steel	8.75 x 8.88	222 x 226	0.25	6
A10P10G	Conductive steel	8.75 x 8.88	222 x 226	0.25	6
A10P10AL	Aluminum	8.75 x 8.88	222 x 226	0.25	6
A12P6	Painted steel	10.75 x 4.88	273 x 124	0.25	6
A12P6G	Conductive steel	10.75 x 4.88	273 x 124	0.25	6
A12P10	Painted steel	10.75 x 8.88	273 x 226	0.25	6
A12P10G	Conductive steel	10.75 x 8.88	273 x 226	0.25	6
A12P10SS	Stainless Steel	10.75 x 8.88	273 x 226	0.25	6
A12P10AL	Aluminum	10.75 x 8.88	273 x 226	0.25	6
A12P12	Painted steel	10.75 x 10.88	273 x 276	0.25	6
A12P12G	Conductive steel	10.75 x 10.88	273 x 276	0.25	6
A12P12SS	Stainless Steel	10.75 x 10.88	273 x 276	0.25	6
A14P8	Painted steel	12.75 x 6.88	324 x 175	0.25	6
A14P8G	Conductive steel	12.75 x 6.88	324 x 175	0.25	6
A14P12	Painted steel	12.75 x 10.88	324 x 276	0.25	6
A14P12G	Conductive steel	12.75 x 10.88	324 x 276	0.25	6
A14P12SS	Stainless Steel	12.75 x 10.88	324 x 276	0.25	6
A14P12AL	Aluminum	12.75 x 10.88	324 x 276	0.25	6
A16P10	Painted steel	14.75 x 8.88	375 x 226	0.25	6
A16P10G	Conductive steel	14.75 x 8.88	375 x 226	0.25	6
A16P14	Painted steel	14.75 x 12.88	375 x 327	0.25	6
A16P14G	Conductive steel	14.75 x 12.88	375 x 327	0.25	6
A16P14SS	Stainless Steel	14.75 x 12.88	375 x 327	0.25	6
A16P14AL	Aluminum	14.75 x 12.88	375 x 327	0.25	6
A18P16	Painted steel	16.75 x 14.88	425 x 378	0.25	6
A18P16G	Conductive steel	16.75 x 14.88	425 x 378	0.25	6
A18P16SS	Stainless Steel	16.75 x 14.88	425 x 378	0.25	6
A18P16AL	Aluminum	16.75 x 14.88	425 x 378	0.25	6



#### **CHS Controls AB**

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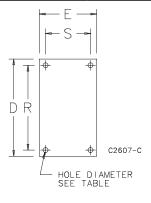
### **Composite Panels for Junction Boxes and UL/NEMA Wall-Mount Enclosures**

Manufactured from light-brown, reinforced phenolic laminate sheet stock. This material has exceptional strength and chemical resistance, which makes it ideally suited for the most corrosive environments. Composite panels are intended for use in corrosion-resistant enclosures. Panel sizes are available for junction boxes and UL/NEMA

size enclosures. Composite panels may be drilled and tapped but work equally as well with self-threading or thread-cutting screws. Refer to the table for recommended mounting specifications. **Bulletin: PNLC** 

#### Standard Product

	Panel Size				Panel
	DxE	R	S	Hole Dia.	Thickness
Catalog Number	in./mm	in./mm	in./mm	in./mm	in./mm
A6P4C	4.88 x 2.88	4.25	2.25	0.25	0.12
	124 x 73	108	57	6	3
A6P6C	4.88 x 4.88	4.25	4.25	0.25	0.12
	124 x 124	108	108	6	3
A8P6C	6.75 x 4.88	6.25	4.25	0.25	0.12
	171 x 124	159	108	6	3
A10P8C	8.75 x 6.88	8.25	6.25	0.25	0.12
	222 x 175	210	159	6	3
A12P10C	10.75 x 8.88	10.25	8.25	0.25	0.19
	273 x 226	260	210	6	5
A14P12C	12.75 x 10.88	12.25	10.25	0.25	0.19
	324 x 276	311	260	6	5
A16P14C	14.75 x 12.88	14.25	12.25	0.25	0.19
	375 x 327	362	311	6	5
A18P16C	16.75 x 14.88	16.25	14.25	0.25	0.19
	425 x 379	413	362	6	5
A20P16C	17.00 x 13.00	15.25	11.25	0.50	0.19
	432 x 330	387	286	13	5
A20P20C	17.00 x 17.00	15.25	15.25	0.50	0.19
	432 x 432	387	387	13	5
A24P20C	21.00 x 17.00	19.25	15.25	0.50	0.19
	533 x 432	489	387	13	5
A24P24C	21.00 x 21.00	19.25	19.25	0.50	0.19
	533 x 533	489	489	13	5
A30P24C	27.00 x 21.00	25.25	19.25	0.50	0.19
	686 x 533	641	489	13	5





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#### **Composite Panel Mounting Recommendations**

		Hole Size	Max. Insertion Torque (lb.)	Max. Insertion Torque (lb.)	Max. Load (lb. per screw)	Max. Load (lb. per screw)
Screw Type	Screw Size	in./mm	in 0.12 in. Material	in 0.19 in. Material	in 0.12 in. Material	in 0.19 in. Material
Machine (tapped hole)	8-32	.136	15	25	40	45
		3				
Machine (tapped hole)	10-32	.161	15	25	35	40
		4				
Machine (tapped hole)	1/4-20	.204	20	25	30	35
		5				
Thread Cutting Type T	8-32	.144	15	25	40	45
		4				
Thread Cutting Type T	10-32	.166	15	25	35	40
		4				
Thread Cutting Type T	1/4-20	.288	20	25	30	35
		7				
Sheet Metal A-B	8-32	.147	Not recommended	10	40	45
		4				
Sheet Metal A-B	10-32	.166	Not recommended	10	35	40
		4				
Sheet Metal A-B	1/4-20	.221	Not recommended	15	30	35
		6				



#### Junction Box and Wall-Mount Enclosure **Swing-Out Panel Kit**

Kits allow mounting standard Hoffman junction box and NEMA style panels (purchase separately) near the front of the enclosure for easy access to or reading of gauges, switches, pilot lights and other components. Kits consist of heavy-gauge brackets and hinges which are easily installed by drilling small holes in the sides of the enclosure and bolting the brackets in place. External screws are stainless steel; internal components are plated steel. All mounting hardware and instructions are provided. Sealing washers ensure the enclosure will meet original JIC or NEMA standards after installation.

Swing-Out Panel Kits do not fit single-door disconnect enclosures.



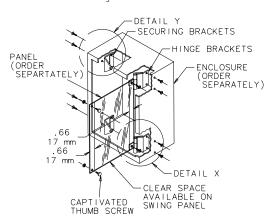
#### **Bulletin: A80**

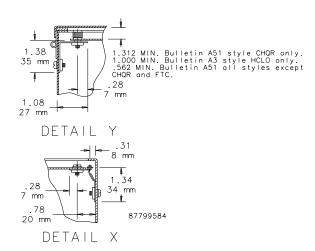
		Maximum	Maximum	
Catalog Number	Description	Load (lb.)	Load (kg)	Use In
AJCDFK	Junction Box Kit	25	11.3	- Junction boxes where A x B is 8.00 x 6.00 in. (203 x 152 mm) or larger
				- HCLO Type 3R enclosures where A x B is 16.00 x 12.00 in. (406 x 305 mm) or smaller
ANADFK	Wall-Mount Enclosure Kit	100	45.4	- One-door Type 4, 12 and 13 enclosures where A x B is 12.00 x 12.00 in. (305 x 305 mm) or larger
				- HCLO Type 3R enclosures where A x B is 16.00 x 16.00 in. (406 x 406 mm) or larger
				- HCR Type 3R enclosures where A x B is 16.00 x 12.00 (406 x 305 mm) or larger
				- Type 1 enclosures where A x B is 42.00 x 30.00 in. (1067 x 762 mm) or larger

Both kits maintain UL Type 4 rating when properly installed in a Hoffman enclosure.

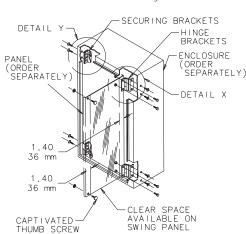
Maximum load includes the weight of the panel plus the weight of the components, with the weight of the components spread evenly over the panel.

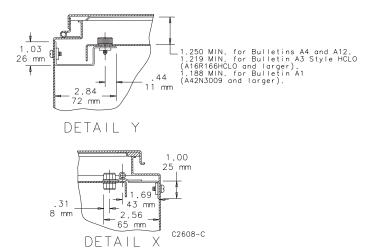
Junction Box Swing-Out Panel Kit





Wall-Mount Enclosure Swing-Out Panel Kit





Χ



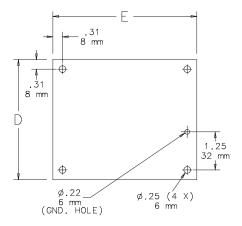
#### **CHS Controls AB**



#### Panels for Type 1 Enclosures and Small Type 3R **Enclosures**

Steel panels are 14 gauge, finished with white polyester powder paint. Panel mounting hardware is furnished with enclosure.

**Bulletin: PNLT1** 



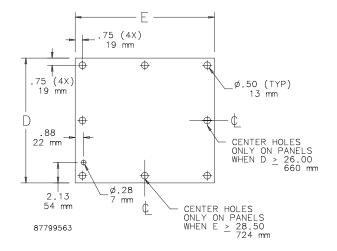
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Catalog Number	Panel Size D x E (in.)	Panel Size D x E (mm)
A6N4P	4.25 x 2.25	108 x 57
A6N6P	4.25 x 4.25	108 x 108
A8N6P	6.25 x 4.25	159 x 108
A8N8P	6.25 x 6.25	159 x 159
A10N8P	8.25 x 6.25	210 x 159
A10N10P	8.25 x 8.25	210 x 210
A12N10P	10.25 x 8.25	260 x 210
A12N12P	10.25 x 10.25	260 x 260
A14N12P	12.25 x 10.25	311 x 260
A16N12P	14.25 x 10.25	362 x 260
A20N12P	18.25 x 10.25	464 x 260

#### **Panels for Medium Type 1 Enclosures**

Steel panels are 14 or 12 gauge with a white polyester powder paint finish. Panel mounting hardware is furnished with enclosure. **Bulletin: PNLT1** 

Catalog Number	Panel Thickness (ga.)	Panel Size D x E (in.)	Panel Size D x E (mm)
A16N12MP	14	13.00 x 10.50	330 x 267
A20N12MP	14	17.00 x 10.50	432 x 267
A16N16MP	14	13.00 x 14.50	330 x 368
A20N16MP	14	17.00 x 14.50	432 x 368
A24N16MP	14	21.00 x 14.50	533 x 368
A18N18MP	14	15.00 x 16.50	381 x 419
A16N20MP	14	13.00 x 18.50	330 x 470
A20N20MP	14	17.00 x 18.50	432 x 470
A24N20MP	14	21.00 x 18.50	533 x 470
A30N20MP	14	26.00 x 18.50	660 x 470
A24N24MP	12	21.00 x 22.50	533 x 571
A30N24MP	12	26.00 x 22.50	660 x 571
A36N24MP	12	32.00 x 22.50	813 x 571
A30N30MP	12	26.00 x 28.50	660 x 724
A36N30MP	12	32.00 x 28.50	813 x 724





#### **CHS Controls AB**



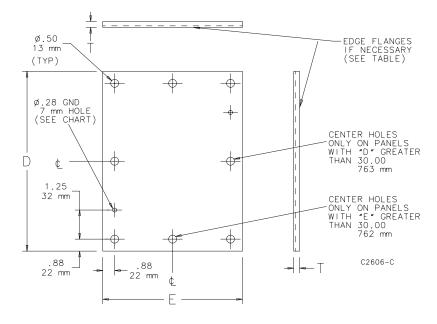
#### Panels for Type 3R, 4, 4X, 12 and 13 Enclosures

Steel panels are 12 gauge, finished with white polyester powder paint or a conductive, corrosion-resistant coating. Larger panels have flanges on two or four sides. Some larger steel panels are 10 gauge and include extra holes for panel lifting. Aluminum panels are 5052-H32 aluminum alloy. Larger panels have flanges on four sides. Aluminum panels are protected on one side with a plastic film. Stainless steel panels are Type 316 stainless steel. Panel mounting hardware is furnished with all enclosures which accept these panels. Bulletin: PNLFS, PNLJ, PNLWM

		Panel Size	Panel Size	Panel Gauge	Edge			Number
Catalog Number	Material	D x E (in.)	D x E (mm)	or Thickness	Flanges	T (in.)	T (mm)	of Holes
A12P24	Painted steel	9.00 x 21.00	229 x 533	12 ga.	None	_	_	4
A12P24G	Conductive steel	9.00 x 21.00	229 x 533	12 ga.	None			4
A16P12	Painted steel	13.00 x 9.00	330 x 229	12 ga.	None	_	_	4
A16P12G	Conductive steel	13.00 x 9.00	330 x 229	12 ga.	None			4
A16P12SS6 A16P12AL	Stainless Steel Aluminum	13.00 x 9.00 13.00 x 9.00	330 x 229 330 x 229	12 ga.	None None	_	_	4
A16P16	Painted steel	13.00 x 9.00 13.00 x 13.00	330 x 330	0.10 in./3 mm 12 ga.	None			4
A16P16G	Conductive steel	13.00 x 13.00	330 x 330	12 ga. 12 ga.	None	_	_	4
A16P16SS6	Stainless Steel	13.00 x 13.00	330 x 330	12 ga. 12 ga.	None		_	4
A16P16AL	Aluminum	13.00 x 13.00	330 x 330	0.10 in./3 mm	None	_	_	4
A18P18	Painted steel	15.00 x 15.00	381 x 381	12 ga.	None	_	_	4
A18P18G	Conductive steel	15.00 x 15.00	381 x 381	12 ga.	None	_	_	4
A20P12	Painted steel	17.00 x 9.00	432 x 229	12 ga.	None	_	_	4
A20P12G	Conductive steel	17.00 x 9.00	432 x 229	12 ga.	None	_	_	4
A20P16	Painted steel	17.00 x 13.00	432 x 330	12 ga.	None	_	_	4
A20P16G	Conductive steel	17.00 x 13.00	432 x 330	12 ga.	None	_	_	4
A20P16SS6	Stainless Steel	17.00 x 13.00	432 x 330	12 ga.	None	_	_	4
A20P16AL	Aluminum	17.00 x 13.00	432 x 330	0.10 in./3 mm	None	_	_	4
A20P20	Painted steel	17.00 x 17.00	432 x 432	12 ga.	None	_	_	4
A20P20G	Conductive steel	17.00 x 17.00	432 x 432	12 ga.	None	_	_	4
A20P20SS6	Stainless steel	17.00 x 17.00	432 x 432	12 ga.	None	_	_	4
A20P20AL	Aluminum	17.00 x 17.00	432 x 432	0.10 in./3 mm	None	_	_	4
A24P16	Painted steel	21.00 x 13.00	533 x 330	12 ga.	None	_	_	4
A24P16G	Conductive steel	21.00 x 13.00	533 x 330	12 ga.	None		_	4
A24P16SS6	Stainless Steel	21.00 x 13.00	533 x 330	12 ga.	None	_	_	4
A24P20	Painted steel	21.00 x 17.00	533 x 432	12 ga.	2	0.75	19	4
A24P20G	Conductive steel	21.00 x 17.00	533 x 432	12 ga.	2	0.75	19	4
A24P20SS6	Stainless Steel	21.00 x 17.00	533 x 432	12 ga.	2	0.75	19	4
A24P20AL	Aluminum	21.00 x 17.00	533 x 432	0.10 in./3 mm	4	0.75	19	4
A24P24	Painted steel	21.00 x 21.00	533 x 533	12 ga.	2	0.75	19	4
A24P24G	Conductive steel	21.00 x 21.00	533 x 533	12 ga.	2	0.75	19	4
A24P24SS6	Stainless Steel	21.00 x 21.00	533 x 533	12 ga. 0.10 in./3 mm	2 2	0.75	19	4
A24P24AL A30P16	Aluminum Painted steel	21.00 x 21.00	533 x 533 686 x 330		2	0.75 0.75	19 19	4
A30P16G	Conductive steel	27.00 x 13.00 33.00 x 27.00	838 x 686	12 ga. 12 ga.	2	0.75	19	4
A30P20	Painted steel	27.00 x 17.00	686 x 432	12 ga. 12 ga.	2	0.75	19	4
A30P20G	Conductive steel	27.00 x 17.00	686 x 432	12 ga. 12 ga.	2	0.75	19	4
A30P20SS6	Stainless Steel	27.00 x 17.00	686 x 432	12 ga.	2	0.75	19	4
A30P24	Painted steel	27.00 x 77.00	686 x 533	12 ga.	2	0.75	19	4
A30P24G	Conductive steel	27.00 x 21.00	686 x 533	12 ga.	2	0.75	19	4
A30P24SS6	Stainless Steel	27.00 x 21.00	686 x 533	12 ga.	2	0.75	19	4
A30P24AL	Aluminum	27.00 x 21.00	686 x 533	0.10 in./3 mm	2	0.75	19	4
A30P30	Painted steel	27.00 x 27.00	686 x 686	12 ga.	4	0.75	19	4
A30P30G	Conductive steel	27.00 x 27.00	686 x 686	12 ga.	4	0.75	19	4
A30P30SS6	Stainless Steel	27.00 x 27.00	686 x 686	12 ga.	4	0.75	19	4
A36P16	Painted steel	33.00 X 13.00	838 X 330	12 ga.	2	0.75	19	4
A36P16G	Conductive steel	33.00 x 13.00	838 x 330	12 ga.	2	0.75	19	4
A36P24	Painted steel	33.00 x 21.00	838 x 533	12 ga.	2	0.75	19	6
A36P24G	Conductive steel	33.00 x 21.00	838 x 533	12 ga.	2	0.75	19	6
A36P24SS6	Stainless Steel	33.00 x 21.00	838 x 533	12 ga.	2	0.75	19	6
A36P24AL	Aluminum	33.00 x 21.00	838 x 533	0.10 in./3 mm	2	0.75	19	6
A36P30	Painted steel	33.00 x 27.00	838 x 686	12 ga.	4	0.75	19	6
A36P30G	Conductive steel	33.00 x 27.00	838 x 686	12 ga.	4	0.75	19	6
A36P30SS6	Stainless Steel	33.00 x 27.00	838 x 686	12 ga.	4	0.75	19	6
A36P30AL	Aluminum	33.00 x 27.00	838 x 686	0.10 in./3 mm	4	0.75	19	6
A36P36	Painted steel	33.00 x 33.00	838 x 838	12 ga.	4	0.75	19	8
A36P36G	Conductive steel	33.00 x 33.00	838 x 838	12 ga.	4	0.75	19	8
A36P36SS6	Stainless Steel	33.00 x 33.00	838 x 838	12 ga.	4	0.75	19	8
A40P24 A40P24G	Painted steel Conductive steel	37.00 x 21.00	940 x 533	12 ga.	4	0.75	19	6
A40P24G A40P30		37.00 x 21.00	940 x 533	12 ga.	4	0.75 0.75	19	4 (no D dim. center hole)
A40P30 A40P30G	Painted steel Conductive steel	37.00 x 29.00 37.00 x 29.00	940 x 737 940 x 737	12 ga. 12 ga.	4	0.75	19 19	4 (no D dim. center noie) 4 (no D dim. center hole)
A42P24	Painted steel	39.00 x 29.00	991 x 533	12 ga. 12 ga.	2	0.75	19	4 (no p aim. center noie)
A42P24G	Conductive steel	39.00 x 21.00	991 x 533	12 ga. 12 ga.	2	0.75	19	6
A42P30	Painted steel	39.00 x 27.00	991 x 686	12 ga. 12 ga.	4	0.75	19	6
A42P30G	Conductive steel	39.00 x 27.00	991 x 686	12 ga. 12 ga.	4	0.75	19	6
A42P30SS6	Stainless Steel	39.00 x 27.00	991 x 686	12 ga. 12 ga.	4	0.75	19	6
A42P36	Painted steel	39.00 x 27.00	991 x 838	12 ga. 12 ga.	4	0.75	19	8
A42P36G	Conductive steel	39.00 x 33.00	991 x 838	12 ga.	4	0.75	19	8
A42P36SS6	Stainless Steel	39.00 x 33.00	991 x 838	12 ga.	4	0.75	19	8
A42P42	Painted steel	39.00 x 39.00	991 x 991	12 ga. 12 ga.	4	0.75	19	8



	ı	Panel Size	Panel Size	Panel Gauge	Edge	l .		Number	
Catalog Number	Material	D x E (in.)	D x E (mm)	or Thickness	Flanges	T (in.)	T (mm)	of Holes	
A42P42G	Conductive steel	39.00 x 39.00	991 x 991	12 ga.	4	0.75	19	8	
A48P24	Painted steel	45.00 x 21.00	1143 x 533	12 ga.	2	0.75	19	6	
A48P24G	Conductive steel	45.00 x 21.00	1143 x 533	12 ga.	2	0.75	19	6	
A48P30	Painted steel	45.00 x 27.00	1143 x 686	12 ga.	4	0.75	19	6	
A48P30G	Conductive steel	45.00 x 27.00	1143 x 686	12 ga.	4	0.75	19	6	
A48P36	Painted steel	45.00 x 33.00	1143 x 838	12 ga.	4	0.75	19	8	
A48P36G	Conductive steel	45.00 x 33.00	1143 x 838	12 ga.	4	0.75	19	8	
A48P36SS6	Stainless Steel	45.00 x 33.00	1143 x 838	12 ga.	4	0.75	19	8	
A48P36AL	Aluminum	45.00 x 33.00	1143 x 838	0.10 in./3 mm	4	0.75	19	8	
A48P42	Painted steel	45.00 x 39.00	1143 x 991	12 ga.	4	0.75	19	8	
A48P42G	Conductive steel	45.00 x 39.00	1143 x 991	12 ga.	4	0.75	19	8	
A48P48	Painted steel	44.00 x 44.00	1118 x 1118	10 ga.	4	0.88	22	8	
A48P48G	Conductive steel	44.00 x 44.00	1118 x 1118	10 ga.	4	0.88	22	8	
A54P42	Painted steel	50.00 x 38.00	1270 x 965	12 ga.	4	0.75	19	8	
A54P42G	Conductive steel	50.00 x 38.00	1270 x 965	10 ga.	4	0.75	19	8	
A60P24	Painted steel	57.00 x 21.00	1448 x 533	12 ga.	4	0.75	19	6	
A60P24G	Conductive steel	57.00 x 21.00	1448 x 533	12 ga.	4	0.75	19	6	
A60P30	Painted steel	57.00 x 27.00	1448 x 686	12 ga.	4	0.75	19	6	
A60P30G	Conductive steel	57.00 x 27.00	1448 x 686	12 ga.	4	0.75	19	6	
A60P36	Painted steel	57.00 x 33.00	1448 x 838	12 ga.	4	0.75	19	8	
A60P36G	Conductive steel	57.00 x 33.00	1448 x 838	12 ga.	4	0.75	19	8	
A60P36SS6	Stainless Steel	57.00 x 33.00	1448 x 838	12 ga.	4	0.75	19	8	
A60P36AL	Aluminum	57.00 x 33.00	1448 x 838	0.10 in./3 mm	4	0.75	19	8	
A60BFP42	Painted steel	56.00 x 38.00	1422 x 965	10 ga.	4	0.88	22	10	
A60BFP42G	Conductive steel	56.00 x 38.00	1422 x 965	10 ga.	4	0.88	22	10	
A60P48	Painted steel	56.00 x 44.00	1422 x 1118	10 ga.	4	0.88	22	12	
A60P48G	Conductive steel	56.00 x 44.00	1422 x 1118	10 ga.	4	0.88	22	12	
A60P60	Painted steel	56.00 x 56.00	1422 x 1422	10 ga.	4	0.88	22	10	
A60P60G	Conductive steel	56.00 x 56.00	1422 x 1422	10 ga.	4	0.88	22	10	
A72P36	Painted steel	69.00 x 33.00	1753 x 838	12 ga.	4	0.75	19	8	
A72P36G	Conductive steel	69.00 x 33.00	1753 x 838	12 ga.	4	0.75	19	8	
A72P60	Painted steel	68.00 x 56.00	1727 x 1422	10 ga.	4	0.88	22	12	
A72P60G	Conductive steel	68.00 x 56.00	1727 x 1422	10 ga.	4	0.88	22	12	
A72P72	Painted steel	68.00 x 68.00	1727 x 1727	10 ga.	4	0.88	22	10	
A72P72G	Conductive steel	68.00 x 68.00	1727 x 1727	10 ga.	4	0.88	22	10	



# controls

#### **CHS Controls AB**

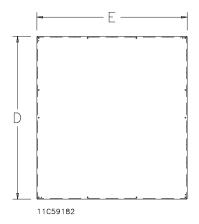


#### Panels for Large Bulletin A27, A28, A28S4 and A34 Multi-Door Enclosures

Extra panels for large enclosures (Bulletins A27, A28, A2854 and A34) can be ordered for panel assembly prior to receiving the enclosures (enclosures include panels). Panels are 12 gauge steel with .88-in. (22-mm) flanges on four sides. Finish is white polyester powder paint or a conductive, corrosion-resistant coating. Two extra holes are provided for lifting and installing panels. Mounting hardware included with enclosure.

**Bulletin: PNLFS** 

	1	1		ı	Fits	
		Panel Size	Panel Size	Number	Enclosure	
Catalog Number	Finish	D x E (in.)	D x E (mm)	of Holes	Height	
A72PM28	Painted steel	60.00 x 21.75	1524 x 552	8	72 in.	
A72PM28G	Conductive	60.00 x 21.75	1524 x 552	8	72 in.	
A72PM34	Painted steel	60.00 x 27.75	1524 x 705	8	72 in.	
A72PM34G	Conductive	60.00 x 27.75	1524 x 705	8	72 in.	
A72PM40	Painted steel	60.00 x 33.75	1524 x 857	8	72 in.	
A72PM40G	Conductive	60.00 x 33.75	1829 x 857	8	72 in.	
A72PM54	Painted steel	60.00 x 48.00	1524 x 1219	10	72 in.	
A72PM54G	Conductive	60.00 x 48.00	1524 x 1219	10	72 in.	
A72PM66	Painted steel	60.00 x 60.00	1524 x 1524	10	72 in.	
A72PM66G	Conductive	60.00 x 60.00	1524 x 1524	10	72 in.	
A72PM78	Painted steel	60.00 x 72.00	1524 x 1829	12	72 in.	
A72PM78G	Conductive	60.00 x 72.00	1524 x 1829	12	72 in.	
A84PM40	Painted steel	72.00 x 33.75	1829 x 857	8	84 in.	
A84PM40G	Conductive	72.00 x 33.75	1829 x 857	8	84 in.	
A84PM78	Painted steel	72.00 x 72.00	1829 x 1829	12	84 in.	
A84PM78G	Conductive	72.00 x 72.00	1829 x 1829	12	84 in.	
A86PM37	Painted steel	78.00 x 34.00	1981 x 864	8	86 in.	
A86PM37G	Conductive	78.00 x 34.00	1981 x 864	8	86 in.	
A86PM75	Painted steel	78.00 x 70.00	1981 x 1778	12	86 in.	
A86PM75G	Conductive	78.00 x 70.00	1981 x 1778	12	86 in.	
A90PM40	Painted steel	78.00 x 33.75	1981 x 857	8	90 in.	
A90PM40G	Conductive	78.00 x 33.75	1981 x 857	8	90 in.	
A90PM78	Painted steel	78.00 x 72.00	1981 x 1829	12	90 in.	
A90PM78G	Conductive	78.00 x 72.00	1981 x 1829	12	90 in.	





#### **CHS Controls AB**



#### **Panels for Free-Stand Type 1 Large One-Door Enclosures**

Panels for free-stand Type 1 large one-door standard and disconnect enclosures are 12 gauge steel. Panels have either polyester powder paint finish or a conductive, corrosion-resistant coating.

Bulletin: A26P, A38P

		Panel Size	Panel Size
Catalog Number	Finish	DxE(in.)	D x E (mm)
A37P21N	Painted steel	37.16 x 21.50	944 x 546
A37P21NG	Conductive	37.16 x 21.50	944 x 546
A49P21N	Painted steel	49.16 x 21.50	1249 x 546
A49P21NG	Conductive	49.16 x 21.50	1249 x 546
A61P21N	Painted steel	61.16 x 21.50	1553 x 546
A73P21N	Painted steel	73.16 x 21.50	1858 x 546
A73P21NG	Conductive	73.16 x 21.50	1858 x 546
A49P32N	Painted steel	49.16 x 32.00	1249 x 813
A49P32NG	Conductive	49.16 x 32.00	1249 x 813
A61P32N	Painted steel	61.16 x 32.00	1553 x 813
A61P32NG	Conductive	61.16 x 32.00	1553 x 813
A73P32N	Painted steel	73.16 x 32.00	1858 x 813
A73P32NG	Conductive	73.16 x 32.00	1858 x 813

#### **Panels for Free-Stand Type 1 Large Two-Door Enclosures**

Panels for free-stand Type 1 large two-door standard and disconnect enclosures are 10 gauge steel. Panels have either polyester powder paint finish or a conductive, corrosion-resistant coating.

Bulletin: A38P

		Panel Size	Panel Size	
Catalog Number	Finish	D x E (in.)	D x E (mm)	
A37P48N	Painted steel	37.16 x 48.00	944 x 1219	
A37P48NG	Conductive	37.16 x 48.00	944 x 1219	
A49P48N	Painted steel	49.16 x 48.00	1249 x 1219	
A49P48NG	Conductive	49.16 x 48.00	1249 x 1219	
A49P68N	Painted steel	49.16 x 68.00	1249 x 1727	
A49P68NG	Conductive	49.16 x 68.00	1249 x 1727	
A61P68N	Painted steel	61.16 x 68.00	1553 x 1727	
A61P68NG	Conductive	61.16 x 68.00	1553 x 1727	
A73P68N	Painted steel	73.16 x 68.00	1858 x 1727	
A73P68NG	Conductive	73.16 x 68.00	1858 x 1727	



#### **CHS Controls AB**



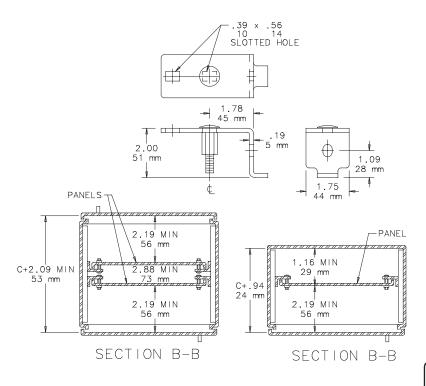
### Panels for Free-Stand Type 4, 4X and 12 Single- and Dual-Access One-Door Enclosures with Mounting Channel

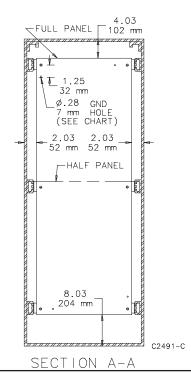
Panels for one-door, single-access and one-door, dual-access Free-Stand Type 12 Enclosures, Free-Stand Type 4 Enclosures and One-Door Type 4X Free-Stand Fiberglass Enclosures. Panels are 12 gauge steel and can be positioned anywhere along horizontal mounting channels (see dimension drawing Sections B-B for limitations). Half-length panels can be located in the upper or lower portion of the enclosure. Panels are finished with white polyester powder paint or a conductive, corrosion-resistant coating and furnished with plated mounting hardware.

Bulletin: PNL30, PNLFS

					Fits Enclosure	Fits Enclosure
Catalog Number	Description	Finish	Panel Size (in.)	Panel Size (mm)	AxB(in.)	A x B (mm)
A60P24F1	Full Panel	Painted steel	48.00 x 20.00	1218 x 508	60.00 x 24.00	1524 x 610
A60P24F1G	Full Panel	Conductive	48.00 x 20.00	1218 x 508	60.00 x 24.00	1524 x 610
A60P24F2	Half Panel	Painted steel	24.88 x 20.00	632 x 508	60.00 x 24.00	1524 x 610
A60P24F2G	Half Panel	Conductive	24.88 x 20.00	632 x 508	60.00 x 24.00	1524 x 610
A72P24F1	Full Panel	Painted steel	60.00 x 20.00	1524 x 508	72.00 x 24.00	1829 x 610
A72P24F1G	Full Panel	Conductive	60.00 x 20.00	1524 x 508	72.00 x 24.00	1829 x 610
A72P24F2	Half Panel	Painted steel	30.88 x 20.00	784 x 508	72.00 x 24.00	1829 x 610
A72P24F2G	Half Panel	Conductive	30.88 x 20.00	784 x 508	72.00 x 24.00	1829 x 610
A90P24F1	Full Panel	Painted steel	78.00 x 20.00	1981 x 508	90.00 x 24.00	2286 x 610
A90P24F1G	Full Panel	Conductive	78.00 x 20.00	1981 x 508	90.00 x 24.00	2286 x 610
A90P24F2	Half Panel	Painted steel	39.88 x 20.00	1013 x 508	90.00 x 24.00	2286 x 610
A90P24F2G	Half Panel	Conductive	39.88 x 20.00	1013 x 508	90.00 x 24.00	2286 x 610
A72P30F1	Full Panel	Painted steel	60.00 x 26.00	1524 x 660	72.00 x 30.00	1829 x 762
A72P30F1G	Full Panel	Conductive	60.00 x 26.00	1524 x 660	72.00 x 30.00	1829 x 762
A72P30F2	Half Panel	Painted steel	30.88 x 26.00	784 x 660	72.00 x 30.00	1829 x 762
A72P30F2G	Half Panel	Conductive	30.88 x 26.00	784 x 660	72.00 x 30.00	1829 x 762
A60P36F1	Full Panel	Painted steel	48.00 x 32.00	1219 x 813	60.00 x 36.00	1524 x 914
A60P36F1G	Full Panel	Conductive	48.00 x 32.00	1219 x 813	60.00 x 36.00	1524 x 914
A60P36F2	Half Panel	Painted steel	24.88 x 32.00	632 x 813	60.00 x 36.00	1524 x 914
A60P36F2G	Half Panel	Conductive	24.88 x 32.00	632 x 813	60.00 x 36.00	1524 x 914
A72P36F1	Full Panel	Painted steel	60.00 x 32.00	1524 x 813	72.00 x 36.00	1829 x 914
A72P36F1G	Full Panel	Conductive	60.00 x 32.00	1524 x 813	72.00 x 36.00	1829 x 914
A72P36F2	Half Panel	Painted steel	30.88 x 32.00	784 x 813	72.00 x 36.00	1829 x 914
A72P36F2G	Half Panel	Conductive	30.88 x 32.00	784 x 813	72.00 x 36.00	1829 x 914
A90P36F1	Full Panel	Painted steel	78.00 x 32.00	1981 x 813	90.00 x 36.00	2286 x 914
A90P36F1G	Full Panel	Conductive	78.00 x 32.00	1981 x 813	90.00 x 36.00	2286 x 914
A90P36F2	Half Panel	Painted steel	39.88 x 32.00	1013 x 813	90.00 x 36.00	2286 x 914
A90P36F2G	Half Panel	Conductive	39.88 x 32.00	1013 x 813	90.00 x 36.00	2286 x 914

Use combinations of panels for 3-5 door A 28 enclosures.





#### CHS Controls AB

CHS controls



#### Panels for Free-Stand Type 4, 4X and 12 Single- and Dual-Access Two-Door Enclosures with **Mounting Channel**

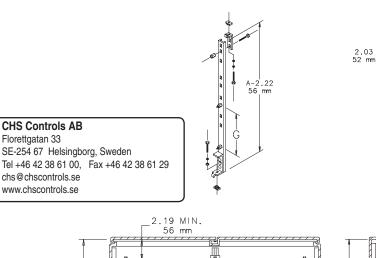
Panels for two-door single access and two-door dual access Free-Stand Type 4, 4X and 12 Enclosures with mounting channel are 10 gauge steel and can be positioned anywhere along horizontal mounting channels (see Sections B-B for limitations). Half-length panels can be located in the upper or lower portion of the enclosure. Some assembly is required.

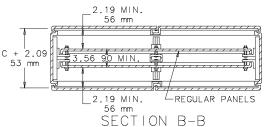
Panels are finished with white polyester powder paint or a conductive, corrosion-resistant coating and furnished with plated mounting hardware.

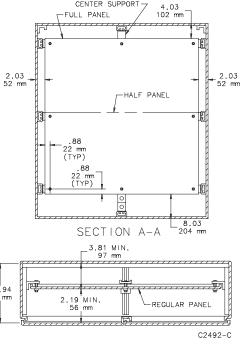
Center support is furnished with each full panel or half panel for two-door enclosures. The center support attaches to the top and bottom mounting channels and can be positioned from front to back in the enclosure. The center support can be used with heavy duty panel supports to support panels of various heights.

#### **Bulletin: PNL30, PNLFS**

		Fits Enclosure	Fits Enclosure				
Catalog Number	Description	A x B (in.)	A x B (mm)	Panel Size (in.)	Panel Size (mm)	G (in.)	G (mm)
A60P48F1	Full Panel	60.00 x 48.00	1524 x 1219	48.00 x 44.00	1219 x 1118	23.12	587
A60P48F1G	Full Panel	60.00 x 48.00	1524 x 1219	48.00 x 44.00	1219 x 1118	23.12	587
A72P48F1	Full Panel	72.00 x 48.00	1829 x 1219	60.00 x 44.00	1524 x 1118	29.12	740
A72P48F1G	Full Panel	72.00 x 48.00	1829 x 1219	60.00 x 44.00	1524 x 1118	29.12	740
A72P48F2	Half Panel	72.00 x 48.00	1829 x 1219	30.88 x 44.00	784 x 1118	29.12	740
A72P48F2G	Half Panel	72.00 x 48.00	1829 x 1219	30.88 x 44.00	784 x 1118	29.12	740
A90P48F1	Full Panel	90.00 x 48.00	2286 x 1219	78.00 x 44.00	1981 x 1118	38.12	968
A90P48F1G	Full Panel	90.00 x 48.00	2286 x 1219	78.00 x 44.00	1981 x 1118	38.12	968
A90P48F2	Half Panel	90.00 x 48.00	2286 x 1219	39.88 x 44.00	1013 x 1118	38.12	968
A90P48F2G	Half Panel	90.00 x 48.00	2286 x 1219	39.88 x 44.00	1013 x 1118	38.12	968
A72P60F1	Full Panel	72.00 x 60.00	1829 x 1524	60.00 x 56.00	1524 x 1422	29.12	740
A72P60F1G	Full Panel	72.00 x 60.00	1829 x 1524	60.00 x 56.00	1524 x 1422	29.12	740
A72P60F2	Half Panel	72.00 x 60.00	1829 x 1524	30.88 x 56.00	784 x 1422	29.12	740
A72P60F2G	Half Panel	72.00 x 60.00	1829 x 1524	30.88 x 56.00	784 x 1422	29.12	740
A72P72F1	Full Panel	72.00 x 72.00	1829 x 1829	60.00 x 68.00	1524 x 1727	29.12	740
A72P72F1G	Full Panel	72.00 x 72.00	1829 x 1829	60.00 x 68.00	1524 x 1727	29.12	740
A72P72F2	Half Panel	72.00 x 72.00	1829 x 1829	30.88 x 68.00	784 x 1727	29.12	740
A72P72F2G	Half Panel	72.00 x 72.00	1829 x 1829	30.88 x 68.00	784 x 1727	29.12	740
A90P72F1	Full Panel	90.00 x 72.00	2286 x 1829	78.00 x 68.00	1981 x 1727	38.12	968
A90P72F1G	Full Panel	90.00 x 72.00	2286 x 1829	78.00 x 68.00	1981 x 1727	38.12	968
A90P72F2	Half Panel	90.00 x 72.00	2286 x 1829	39.88 x 68.00	1013 x 1727	38.12	968
A90P72F2G	Half Panel	90.00 x 72.00	2286 x 1829	39.88 x 68.00	1013 x 1727	38.12	968







SECTION B-B

CENTER SUPPORT

C 24

controls



#### **Side-Mounted Panels**

Panels provide extra mounting space on the sides of enclosures. 12 gauge steel side-mounting panels are painted white. Conductive panels are steel with a conductive, corrosion-resistant coating. Panels attach securely to mounting channels. Plated steel mounting hardware is furnished.

#### Bulletin: PNL30, PNLFS

		Panel Size	Fits
		D x E	Enclosure A
Catalog Number	Description	in./mm	in./mm
A60SMP14	Painted steel	48.00 x 14.00	60.00
		1219 x 356	1524
A60SMP14G	Conductive	48.00 x 14.00	60.00
		1219 x 356	1524
A72SMP14	Painted steel	60.00 x 14.00	72.00
		1524 x 356	1829
A72SMP14G	Conductive	60.00 x 14.00	72.00
		1524 x 356	1829
A72SMP20	Painted steel	60.00 x 20.00	72.00
		1524 x 508	1829
A72SMP20G	Conductive	60.00 x 20.00	72.00
		1524 x 508	1829
A90SMP14	Painted steel	78.00 x 14.00	90.00
		1981 x 356	2286
A90SMP14G	Conductive	78.00 x 14.00	90.00
		1981 x 356	2286
A90SMP20	Painted steel	78.00 x 20.00	90.00
		1981 x 508	2286
A90SMP20G	Conductive	78.00 x 20.00	90.00
		1981 x 508	2286

A90SMP14 and A90SMP14G will not fit 18.06-in.deep two-door enclosures (FSD style) if regular panel is also installed.

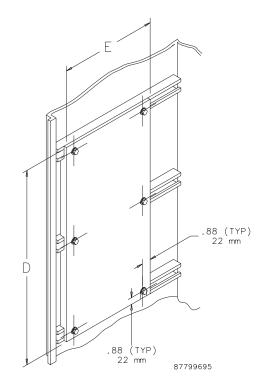
A90SMP20 and A90SMP20G will not fit 20.12-in. deep enclosures. Will not fit 24.12-in. deep two-door enclosures (FSD style) if regular panel is also installed.



Heavy Duty Panel Supports, sold in pairs, are used in place of the panel supports furnished with panels when heavy equipment will be installed on the panels. They extend to the bottom of the enclosure. Adjustable mounting studs allow mounting of different height panels or a combination of panels. Use mounting hardware furnished with panels.

#### Bulletin: A80

	Fits Enclosure A	Support Length	
Catalog Number	in./mm	in./mm	
A60FSHDPS	60.00	57.25	
	1524	1454	
A72FSHDPS	72.00	69.25	
	1829	1759	
A90FSHDPS	90.00	87.25	
	2286	2216	







#### **CHS Controls AB**



#### **Center Panel Supports**

Center panel supports are used with Free-Stand Type 12 (Bulletin A30) two-door enclosures. They permit the installation of panels, swing-out panels and rack-mounting angles sized for one-door enclosures. The Center Panel Support can be positioned from front to back of the enclosure.

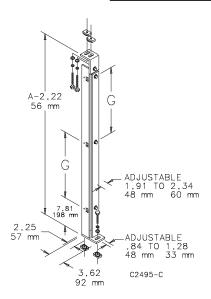
Bulletin: A80

#### Standard Product Panel Supports

Catalog Number	Fits Enclosure A (in.)	Fits Enclosure A (mm)	G (in.)	G (mm)
A60FSCPS	60.00	1524	23.12	587
A72FSCPS	72.00	1829	29.12	740
A90FSCPS	90.00	2286	38.12	968

#### **Accessory Width with Center Panel Supports**

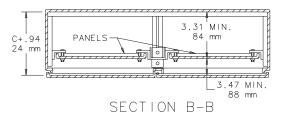
Two Door Enclosure Width	Two Door Enclosure Width	Accessory Width	Accessory Width
(in.)	(mm)	(in.)	(mm)
48.00	1219	24.00	610
60.00	1524	30.00	762
72.00	1829	36.00	914



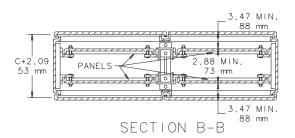


#### **CHS Controls AB**

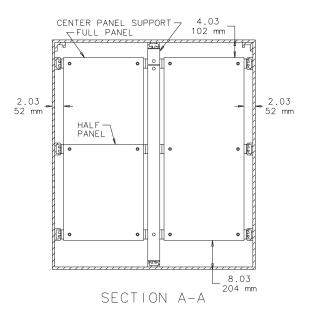
Center Panel Supports Enclosure Section Views



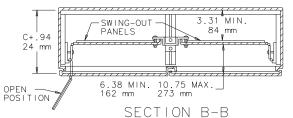
Showing two panels (for one-door enclosures)and center panel support mounted in two-door enclosure.



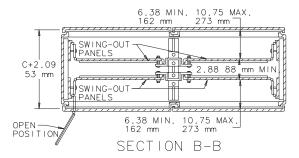
Showing four panels (for one-door enclosures) and two center panel supports mounted in two-door access enclosure.



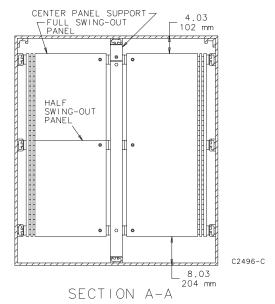
Panels shown are for one-door free-stand enclosures. Half panel fits in top or bottom half of enclosure.



Showing four swing-out panels and center panel support mounted in two-door enclosure.



Showing four swing-out panels and two center panel supports mounted in two-door dual access enclosure.



Showing swing-out panels installed in one-door enclosure.



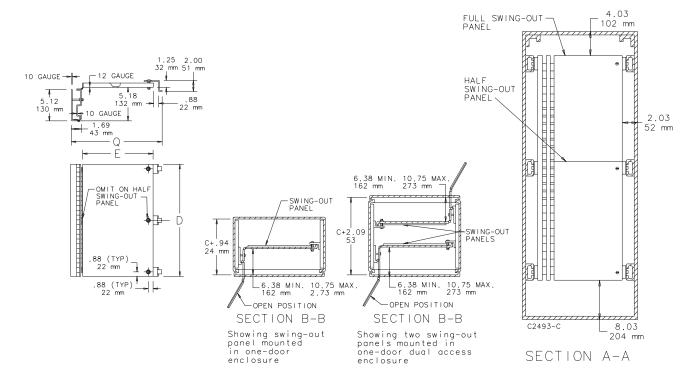
#### **CHS Controls AB**

### Swing-Out Panels for Free-Stand Type 4, 4X and 12 Enclosures with Mounting Channel

Panels for Free-Stand Type 12 Enclosures, Free-Stand Type 4 Enclosures and One-Door Type 4X Free-Stand Fiberglass Enclosures. Full-length and half-length swing-out panels are available. Half-length panels can be located in the upper or lower portion of the enclosures. Swing-out panels have a 10 gauge steel support frame and two heavy-gauge continuous hinges which permit the panel to swing completely out of the enclosure if it is located within approximately 10.75 in. (273 mm) of the door. These panels are 12 gauge steel and can be mounted on either side of the enclosure. Panels are finished with white polyester powder paint and furnished with plated mounting hardware.

#### **Bulletin: PNL30**

Catalog Number	Description	Panel Size D x E (in.)	Panel Size D x E (mm)	Fits Enclosure A x B (in.)	Fits Enclosure A x B (mm)	Q (in.)	Q (mm)
A72SP24F3	Full Panel	60.00 x 18.81	1524 x 478	72.00 x 24.00	1829 x 610	21.84	555
A72SP24F4	Half Panel	30.88 x 18.81	784 x 478	72.00 x 24.00	1829 x 610	21.84	555
A72SP30F3	Full Panel	60.00 x 24.81	1524 x 630	72.00 x 30.00	1829 x 762	27.84	707
A72SP30F4	Half Panel	30.88 x 24.81	784 x 630	72.00 x 30.00	1829 x 762	27.84	707
A72SP36F3	Full Panel	60.00 x 30.81	1524 x 783	72.00 x 36.00	1829 x 914	33.84	860
A72SP36F4	Half Panel	30.88 x 30.81	784 x 783	72.00 x 36.00	1829 x 914	33.84	860
A90SP36F3	Full Panel	78.00 x 30.81	1981 x 783	90.00 x 36.00	2286 x 914	33.84	860
A90SP36F4	Half Panel	39.88 x 30.81	1013 x 783	90.00 x 36.00	2286 x 914	33.84	860



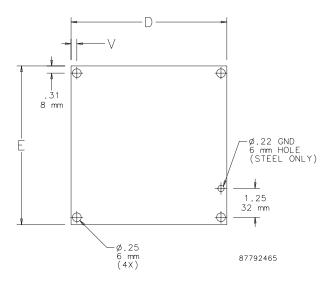
#### Panels for WiFi Cabinets and Small Wall-Mount **Enclosures**



Panels are available in both steel and wood. Steel panels are 14 gauge steel with a white polyester powder paint finish. Wood panels are 3/4-in. plywood and are unfinished. Wood panels are supplied with Fiberglass Hinged-Cover and POLYPRO® Type 4X WiFi Cabinets.

#### Bulletin: DWS12, PNLJ, PNLWM

	Panel Size	Panel Size		
Material	D x E (in.)	D x E (mm)	V (in.)	V (mm)
Steel	4.88 x 4.88	124 x 124	0.31	8
Wood	4.88 x 4.88	124 x 124	0.31	8
Steel	14.75 x 12.88	375 x 327	0.25	6
Wood	14.75 x 12.88	375 x 327	0.25	6
Steel	16.75 x 14.88	425 x 378	0.25	6
Wood	16.75 x 14.88	425 x 378	0.25	6
	Steel Wood Steel Wood Steel	Material         D x E (in.)           Steel         4.88 x 4.88           Wood         4.88 x 4.88           Steel         14.75 x 12.88           Wood         14.75 x 12.88           Steel         16.75 x 14.88	Material         D x E (in.)         D x E (mm)           Steel         4.88 x 4.88         124 x 124           Wood         4.88 x 4.88         124 x 124           Steel         14.75 x 12.88         375 x 327           Wood         14.75 x 12.88         375 x 327           Steel         16.75 x 14.88         425 x 378	Material         Dx E (in.)         Dx E (mm)         V (in.)           Steel         4.88 x 4.88         124 x 124         0.31           Wood         4.88 x 4.88         124 x 124         0.31           Steel         14.75 x 12.88         375 x 327         0.25           Wood         14.75 x 12.88         375 x 327         0.25           Steel         16.75 x 14.88         425 x 378         0.25





#### **Panels for Open Frame Racks**

#### **Rack Panel for 19-in. Racks**



Used to cover unused rack space in cabinets or open frame racks for a finished appearance. Can also be used for surface mounting small devices. Panels are flat with mounting slots spaced at 19-in. EIA standard spacing. Made of 12 gauge steel with RAL 9005 black polyester powder paint finish. Mounting hardware sold separately. **Bulletin: DOFRY** 

Catalog Number	Rack Units	E (in.)	E (mm)
P19RPP1UB	1	1.75	44
P19RPP2UB	2	3.50	89
P19RPP3UB	3	5.25	133
P19RPP4UB	4	7.00	178
P19RPP5UB	5	8.75	222
P19RPP6UB	6	10.50	267



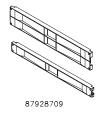
#### Tool-less (Snap-in) Blanking Panels for 19-in. Racks



These Tool-less 19-in. Blanking Panels provide easy tool-less installation and ensure proper airflow to equipment. Made of black composite material and can be used with tapped or square EIA universal spaced rack mounting angles.

**Bulletin: DACCY** 

		Rack	'	Pkg.
Catalog Number	Description	Units	Fits	Qty.
D19BPT1RU	Blanking Panel, 19 in.	1	19 in., universal rack spacing, tapped or square holes	10
D19BPT2RU	Blanking Panel, 19 in.	2	19 in., universal rack spacing, tapped or square holes	10





#### **CHS Controls AB**



#### **Rack Panels**



#### **Panels for Open Frame Racks**

Rack Panels are available in aluminum and painted steel. Aluminum Rack Panels are .125-in.-thick 5052-H32 alloy. Steel Rack Panels are 12 gauge steel and finished in RAL 7035 textured light-gray polyester powder paint. All panels are flat with oblong holes positioned at EIA standard spacing. Mounting hardware is sold separately.

Bulletin: P20

Catalog Number	Material	Rack Angle Size	Rack Units	
P19RP1UA	Aluminum	19 in.	1	
P19RP1UP	Steel	19 in.	1	
P19RP2UA	Aluminum	19 in.	2	
P19RP2UP	Steel	19 in.	2	
P19RP3UA	Aluminum	19 in.	3	
P19RP3UP	Steel	19 in.	3	
P19RP4UA	Aluminum	19 in.	4	
P19RP4UP	Steel	19 in.	4	
P19RP5UA	Aluminum	19 in.	5	
P19RP5UP	Steel	19 in.	5	
P19RP6UP	Steel	19 in.	6	
P19RP6UA	Aluminum	19 in.	6	
P19RP7UA	Aluminum	19 in.	7	
P19RP7UP	Steel	19 in.	7	
P19RP8UP	Steel	19 in.	8	
P19RP8UA	Aluminum	19 in.	8	
P19RP9UA	Aluminum	19 in.	9	
P19RP9UP	Steel	19 in.	9	
P19RP10UA	Aluminum	19 in.	10	
P19RP10UP	Steel	19 in.	10	
P19RP11UA	Aluminum	19 in.	11	
P19RP11UP	Steel	19 in.	11	
P19RP12UA	Aluminum	19 in.	12	
P19RP12UP	Steel	19 in.	12	
P19RP16UA	Aluminum	19 in.	16	
P19RP16UP	Steel	19 in.	16	
P23RP1UA	Aluminum	23 in.	1	
P23RP1UP	Steel	23 in.	1	
P23RP2UP	Steel	23 in.	2	
P23RP3UA	Aluminum	23 in.	3	
P23RP3UP	Steel	23 in.	3	
P23RP4UA	Aluminum	23 in.	4	
P23RP4UP	Steel	23 in.	4	
P24RP2UA	Aluminum	24 in.	2	
P24RP2UP	Steel	24 in.	2	
P24RP3UP	Steel	24 in.	3	
P24RP4UA	Aluminum	24 in.	4	
P24RP4UP	Steel	24 in.	4	
P24RP5UA	Aluminum	24 in.	5	
P24RP5UP	Steel	24 in.	5	
P24RP6UP	Steel	24 in.	6	
P24RP8UA	Aluminum	24 in.	8	
P24RP8UP	Steel	24 in.	8	



#### **CHS Controls AB**



### **Panel Lifting Hooks**



#### **Panel Support Kit**



#### **Panel Accessories**

Used to lift a large interior panel to position it in an enclosure lying on its back and to transport a panel from one location to another. Comfortable hand grip. Plated finish.

Bulletin: A80

Catalog Number	Description
APLH	Two lifting hooks with handles

Provide additional support for panels on which heavy components are mounted. Each panel support fits over a collar stud and is then adjusted so the weight of the panel is partially supported by the bottom of the enclosure. Locknuts prevent accidental change in adjustment. A polyethylene-covered base on each panel support distributes the panel weight and prevents damage to the interior finish. Constructed of heavy-gauge steel. White finish.

#### Bulletin: A80

Catalog Number	Description
APS3	Two panel supports for 1-door or 2-door enclosures where distance from bottom
	of panel to bottom of enclosure is less than 2.25 inches (57mm).
APS9	Two panel supports for free-standing or multi-door enclosures where distance
	from bottom of panel to bottom of enclosure is between 2.88 inches (73mm)
	and 8.50 inches (216mm).



#### **CHS Controls AB**

#### **Window Kits**

#### Steel and Stainless Steel Window Kits



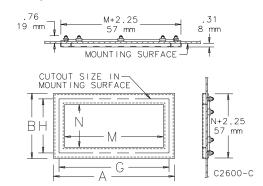
#### **Industry Standards**

UL 508A Component Recognized; Type 4, 4X (stainless steel version only), 12, 13; File No. E61997

CSA Type 4, 4X (stainless steel version only), 12,13; File No. 42186 NEMA/EEMAC 4, 4X (stainless steel version only), 12, 13 IEC 60529, IP66

and 13 enclosures in indoor or outdoor applications where corrosion is a problem. These kits are easily installed by making a cutout in the enclosure and attaching the window and frame in place. Frames are made from heavy-gauge steel with an ANSI 61 gray polyester powder finish over pretreated surfaces or from heavy-gauge Type 304 stainless steel with a brushed finish. The window is .25-in. (6mm) acrylic for steel kits or .25-in. (6-mm) polycarbonate material for stainless steel kits. Oil-resistant gasketing ensures a water-tight seal around the perimeter of the window and frame. All mounting hardware is furnished. Custom sizes, materials and finishes can be provided on special order. Consult factory for information.

Bulletin: A80SW, A80W



Steel Window Kits are designed to be used on Type 4 and 12 enclosures. Stainless Steel Window Kits are suitable for Type 4, 4X, 12

				Window Size	Window Size	Required Cutout	Required Cutout
Catalog Number	AxB in.	AxB mm	Material	M x N (in.)	M x N (mm)	Size G x H (in.)	Size G x H (mm)
APWK53NF	7.50 x 5.50	191 x 140	Steel	5.00 x 3.00	127 x 76	6.69 x 4.69	170 x 119
APWK53NFSS	7.50 x 5.50	191 x 140	Stainless Steel	5.00 x 3.00	127 x 76	6.69 x 4.69	170 x 119
APWK95NF	11.50 x 8.00	292 x 203	Steel	9.00 x 5.50	229 x 140	10.69 x 7.19	272 x 183
APWK95NFSS	11.50 x 8.00	292 x 203	Stainless Steel	9.00 x 5.50	229 x 140	10.69 x 7.19	272 x 183
APWK711NFSS	13.50 x 9.50	343 x 241	Stainless Steel	11.00 x 7.00	279 x 178	12.69 x 8.69	392 x 211
APWK133NF	15.50 x 5.50	394 x 140	Steel	13.00 x 3.00	330 x 76	14.69 x 4.69	373 x 119
APWK138NF	15.50 x 10.50	394 x 267	Steel	13.00 x 8.00	330 x 203	14.69 x 9.69	373 x 246
APWK138NFSS	15.50 x 10.50	394 x 267	Stainless Steel	13.00 x 8.00	330 x 203	14.69 x 9.69	373 x 246
APWK715NFSS	17.50 x 9.50	343 x 445	Stainless Steel	15.00 x 7.00	381 x 178	16.69 x 8.69	424 x 211
APWK175NF	19.50 x 8.00	495 x 203	Steel	17.00 x 5.50	432 x 140	18.69 x 7.19	475 x 183
APWK1711NF	19.50 x 13.50	495 x 343	Steel	17.00 x 11.00	432 x 279	18.69 x 12.69	475 x 322
APWK1711NFSS	19.50 x 13.50	495 x 343	Stainless Steel	17.00 x 11.00	432 x 279	18.69 x 12.69	475 x 322
APWK720NFSS	22.50 x 9.50	572 x 241	Stainless Steel	20.00 x 7.00	508 x 178	21.69 x 8.69	551 x 221
APWK2315NF	25.50 x 17.50	648 x 445	Steel	23.00 x 15.00	584 x 381	24.69 x 16.69	627 x 424
APWK2315NFSS	25.50 x 17.50	648 x 445	Stainless Steel	23.00 x 15.00	584 x 381	24.69 x 16.69	627 x 424
APWK724NFSS	26.50 x 9.50	673 x 241	Stainless Steel	24.00 x 7.00	610 x 178	25.69 x 8.69	653 x 221
APWK729NFSS	31.50 x 9.50	800 x 241	Stainless Steel	29.00 x 7.00	737 x 178	30.69 x 8.69	780 x 221
APWK2919NF	31.50 x 21.50	800 x 546	Steel	29.00 x 19.00	737 x 483	30.69 x 20.69	780 x 526
APWK2919NFSS	31.50 x 21.50	800 x 546	Stainless Steel	29.00 x 19.00	737 x 483	30.69 x 20.69	780 x 526
APWK3523NF	37.50 x 25.50	953 x 445	Steel	35.00 x 23.00	889 x 584	36.69 x 24.69	932 x 627

When determining if a window kit will fit in a door or cover, be sure to allow for gaskets, data pockets, door handles, latch rods and other parts attached to the door or cover.





#### **Frameless Window Kit**



#### **Window Kits**

Designed for use on many Type 12 and 13 enclosures. These kits are for indoor use in a temperature range of 55 F to 125 F (13 C to 52 C). For more severe conditions use Steel or Stainless Steel Window Kits. The window is scratch-resistant .12-in. (3-mm) polycarbonate. Special high-strength, double-sided tape is supplied as well as screw fasteners. Windows can be cut to smaller sizes. Allow .50-in. (13-mm) overlap on each side of window for tape.

**Bulletin: A80W** 

	Window Size	Maximum Cutout Size	
Catalog Number	in./mm	in./mm	
APWKE52	5.50 x 3.00	4.50 x 2.00	
	140 x 76	114 x 51	
APWKE96	9.62 x 7.19	8.62 x 6.19	
	244 x 183	219 x 157	
APWKE133	13.88 x 3.88	12.88 x 2.88	
	353 x 99	327 x 73	

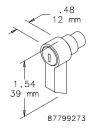
#### Wing Knobs for CONCEPT® Window Kits



Knobs are optional latching for hinged windows and hinged bezels. Knobs are black and available in locking and nonlocking versions. Keylocking knob maintains Type 12 rating only.

Bulletin: C2

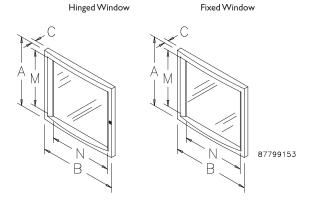
Catalog Number	Description
CWKL	Wing Knob, locking
CWKN	Wing Knob, nonlocking



#### CONCEPT® Fixed and Hinged Window Kits

Aesthetic die-cast aluminum frame has .188-in. (5-mm) thick, clear polycarbonate window. Pre-assembled kit is secured to front opening of enclosure by four mounting screws. Furnished window frame caps conceal mounting screws. Hinged window kit is hinged on left side and has a single-point slotted latch (optional locking or non-locking wing knob latch is also available). Textured finish, ANSI 61 gray or RAL 7035 light gray.

Bulletin: C2



Catalog Number	AxBxC in.	AxBxC mm	Finish	Description	Window Size M x N (mm)	Window Size M x N (in.)
CWF3136	12.20 x 14.17 x 1.26	310 x 360 x 32	ANSI 61	Fixed window kit	253 x 276	9.96 x 10.86
CWF3136LG	12.20 x 14.17 x 1.26	310 x 360 x 32	RAL 7035	Fixed window kit	253 x 276	9.96 x 10.86
CWH3136	12.20 x 14.17 x 1.34	310 x 360 x 34	ANSI 61	Hinged window kit	253 x 276	9.96 x 10.86
CWH3136LG	12.20 x 14.17 x 1.34	310 x 360 x 34	RAL 7035	Hinged window kit	253 x 276	9.96 x 10.86
CWF4045	15.75 x 17.72 x 1.30	400 x 450 x 33	ANSI 61	Fixed window kit	343 x 366	13.50 x 14.40
CWF4045LG	15.75 x 17.72 x 1.30	400 x 450 x 33	RAL 7035	Fixed window kit	343 x 366	13.50 x 14.40
CWH4045	15.75 x 17.72 x 1.38	400 x 450 x 35	ANSI 61	Hinged window kit	343 x 366	13.50 x 14.40
CWH4045LG	15.75 x 17.72 x 1.38	400 x 450 x 35	RAL 7035	Hinged window kit	343 x 366	13.50 x 14.40
CWF5557	21.65 x 22.44 x 1.42	550 x 570 x 36	ANSI 61	Fixed window kit	493 x 486	19.40 x 19.13
CWF5557LG	21.65 x 22.44 x 1.42	550 x 570 x 36	RAL 7035	Fixed window kit	493 x 486	19.40 x 19.13
CWH5557	21.65 x 22.44 x 1.50	550 x 570 x 38	ANSI 61	Hinged window kit	493 x 486	19.40 x 19.13



#### **CHS Controls AB**

Tel +46 42 38 61 00, Fax +46 42 38 61 29 chs@chscontrols.se www.chscontrols.se

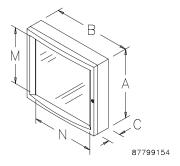


#### **Window Kits**

#### **CONCEPT® Deep Hinged Window Kit**

Kit is hinged on left side and has a single-point slotted latch (optional locking or non-locking wing knob latch is also available). Aesthetic die-cast aluminum frame has .188-in. (5-mm) thick, clear polycarbonate window. Two-inch space between enclosure front opening and window surface accommodates switches, lights, meters and other components. This kit can be used as an accessory window kit on larger standard Hoffman enclosure doors. Textured finish, ANSI 61 gray or RAL 7035 light gray.

Bulletin: C2



Catalog Number	AxBxC in.	AxBxC mm	Finish	Window Size M x N (mm)	Window Size M x N (in.)
CWHD3136	12.20 x 14.17 x 3.31	310 x 360 x 84	ANSI 61	253 x 276	9.96 x 10.86
CWHD3136LG	12.20 x 14.17 x 3.31	310 x 360 x 84	RAL 7035	253 x 276	9.96 x 10.86
CWHD4045	15.75 x 17.72 x 3.39	400 x 450 x 86	ANSI 61	343 x 366	13.50 x 14.40
CWHD4045LG	15.75 x 17.72 x 3.39	400 x 450 x 86	RAL 7035	343 x 366	13.50 x 14.40
CWHD5557	21.65 x 22.44 x 3.50	550 x 570 x 89	ANSI 61	493 x 486	19.40 x 19.13

#### **Type 12 Hinged Window Kit**



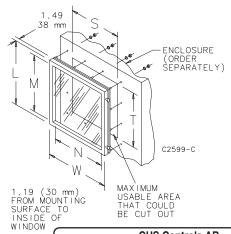
#### **Industry Standards**

UL 508A Component Recognized; Type 12; File No. E61997

CSA Type 12; File No. 42186 NEMA/EEMAC Type 12 IEC 60529, IP55

For use as a viewing window where access to components mounted behind the window is required. Window is .25-in. (6-mm) clear acrylic. Easily mounted by drilling the appropriate mounting holes. All mounting hardware is provided. Continuous gaskets on all openings maintain UL Type 12 integrity. Finish is ANSI 61 gray polyester powder paint.

Bulletin: A80W



## controls

	Window Size M x N	Overall L x W	S	T
Catalog Number	in./mm	in./mm	in./mm	in./mm
APWK1212H	10.28 x 10.28	12.00 x 12.00	10.44	10.44
	261 x 261	305 x 305	265	265
APWK1612H	14.28 x 10.28	16.00 x 12.00	10.44	14.44
	363 x 261	406 x 305	265	367
APWK2016H	18.28 x 14.28	20.00 x 16.00	14.44	18.44
	464 x 363	508 x 406	367	468
APWK2020H	18.28 x 18.28	20.00 x 20.00	18.44	18.44
	464 x 464	508 x 508	468	468
APWK2420H	22.28 x 18.28	24.00 x 20.00	18.44	22.44
	566 x 464	610 x 508	468	570
APWK3024H	28.28 x 22.28	30.00 x 24.00	22.44	28.44
	718 x 566	762 x 610	570	722



#### Type 4 and 4X Deep-Hinged Window Kits



#### **Industry Standards**

#### Stainless Steel

UL 508A Listed; Type 3R, 4, 4X, 12; File No. E61997 cUL Listed per CSA C22.2, No. 94; Type 3R, 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 3R, 4, 4X, 12 IEC 60529, IP66

#### Mild Steel

UL 508A Listed; Type 4, 12; File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 4, 12; File No. E61997

NEMA/EEMAC Type 4, 12

#### Application

Deep-hinged window kits provide protection, visibility and easy access to equipment and components installed behind the viewing area. Window kits are conveniently sized to allow direct mounting in the usable door area of Hoffman NEMA and CONCEPT® wall-mount enclosures, as well as any Hoffman enclosure with a suitably sized mounting surface. Deep-hinged window kits provide protection, visibility and easy access to equipment and components installed behind the viewing area. These kits have an aesthetic appearance, quarter-turn latching for easy access, .25-in. (6-mm) thick, clear polycarbonate material for viewing, 2.5-in. (64-mm) depth to allow for deep controls and a built-in gasket compression stop to facilitate flush mounting. Each kit comes with a mounting template and hardware to allow for easy installation and can be mounted either left or right hinged.

#### Specifications

- Manufactured from Type 316L stainless steel or painted mild steel
- Quarter-turn latches for quick access
- 0.25-in. (6-mm) thick, clear polycarbonate windows for easy
- 2.5-in. (64-mm) deep to allow for deep controls
- Built-in gasket compression stop on back of window kit facilitates flush mounting
- Designed for either left or right hinging
- Includes mounting template and mounting hardware
- Easy-to-remove clip-style hinge pin

#### **Finish**

- Stainless steel: Enclosures are unpainted; door and body have a smooth #4 brushed finish
- Mild steel: ANSI 61 gray polyester powder paint inside and out

#### **Window Kits**

#### **Accessories**

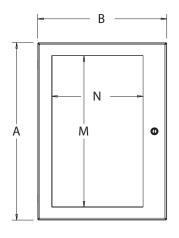
Touch-up Paint (ATPPY61)

#### **Options**

**Optional Handles CWHNL** - Nonlocking **CWHK** - Keylocking **CWHPTO** - Padlocking Bulletin: A80SW, A80W

Standard Product

			Window Size
			MxN
Catalog Number	AxBxC in./mm	Material	in./mm
AWDH1418N4	12.19 x 14.56 x 2.73	Steel	8.93 x 9.86
	310 x 370 x 69		227 x 250
AWDH1418N4SS	12.19 x 14.56 x 2.73	316L Stainless steel	8.93 x 9.86
	310 x 370 x 69		227 x 250
AWDH1612N4	14.19 x 8.14 x 2.73	Steel	10.91 x 3.39
	360 x 207 x 69		277 x 66
AWDH1612N4SS	14.19 x 8.14 x 2.73	316L Stainless steel	10.91 x 3.39
	360 x 207 x 69		277 x 66
AWDH2016N4	18.19 x 12.14 x 2.73	Steel	15.60 x 8.08
	462 x 308 x 69		396 x 205
AWDH2016N4SS	18.19 x 12.14 x 2.73	316L Stainless steel	15.60 x 8.08
	462 x 308 x 69		396 x 205
AWDH2416N4	22.19 x 12.14 x 2.73	Steel	19.60 x 8.08
	563 x 308 x 69		498 x 205
AWDH2416N4SS	22.19 x 12.14 x 2.73	316L Stainless steel	19.60 x 8.08
	563 x 308 x 69		498 x 205
AWDH2420N4	22.19 x 16.14 x 2.73	Steel	19.60 x 12.08
	563 x 410 x 69		498 x 307
AWDH2420N4SS	22.19 x 16.14 x 2.73	316L Stainless steel	19.60 x 12.08
	563 x 410 x 69		498 x 307
AWDH2430N4	22.19 x 26.14 x 2.73	Steel	19.60 x 20.89
	563 x 664 x 69		498 x 531
AWDH2430N4SS	22.19 x 26.14 x 2.73	316L Stainless steel	19.60 x 20.89
	563 x 664 x 69		498 x 531
AWDH3024N4	28.19 x 20.14 x 2.73	Steel	25.60 x 14.89
	716 x 512 x 69		650 x 378
AWDH3024N4SS	28.19 x 20.14 x 2.73	316L Stainless steel	25.60 x 14.89
	716 x 512 x 69		650 x 378
AWDH3624N4	34.19 x 20.14 x 2.73	Steel	31.60 x 14.89
	868 x 512 x 69		803 x 378
AWDH3624N4SS	34.19 x 20.14 x 2.73	316L Stainless steel	31.60 x 14.89
	868 x 512 x 69		803 x 378





## controls

#### **CHS Controls AB**





#### **Window Kits**

#### **Notes**





#### **Door Stop Kit**



#### Type 316 Stainless Steel Door Stop Kit



#### Large Enclosure Door Stop Kit



#### **Door Stops**

Designed for use on most standard Hoffman Type 4 and 12 enclosures to secure the door in the open position. Enclosures must have a "B" dimension of 16.00 in. (406 mm) or more and a door which opens horizontally. Door Stop Kit can be mounted at the top or bottom of the door opening after drilling two small holes in the body of the enclosure and two small holes in the door. The angle of the door is easily adjusted by means of a wingnut, and the stop arm slides neatly out of the way when the door is closed. All parts are plated. Maintains UL/CSA Type 4 and Type 12 if properly installed in a Hoffman enclosure. Door Stop Kit is not intended for use on CONCEPT® window door enclosures, or enclosures configured with a swing-out panel or swing-out rack frame.

**Bulletin: A80** 

Catalog Number	Description
ADSTOPK	Door Stop Kit

#### **Application**

Type 316 stainless steel door stop kit is available for use in applications that require the kind of corrosion protection that only Type 316 stainless steel can provide. Typical applications include water treatment, pulp, paper, petroleum, chemical, food and pharmaceutical processing, and packaging. Kit includes all mounting hardware. Secures doors in the open position. Can be mounted at either top or bottom of door. Can be installed on either left- or righthinged doors. Maintains an enclosure's Type 4X rating. Easy to install. Mounting hardware is Type 316 stainless steel. This door stop kit can only be mounted in wall-mount enclosures.

- Can be mounted at either top or bottom of door
- Can be installed on either left- or right-hinged doors
- Maintains an enclosure's Type 4X rating
- Easy to install

#### **Specifications**

 Kit, including mounting hardware, constructed of Type 316 stainless steel

**Bulletin: A4SY** 

Catalog Number	Description
ADSTOPKSS6	Type 316 stainless steel door stop kit

Designed for use with most standard, large mild and stainless steel enclosures to secure the door in the 90 degree open position. Door Stop Kit can be mounted at the top or bottom of the door opening after drilling two small holes in the door and enclosure. All parts are plated. Maintains UL/CSA Type 4 and Type 12 if properly installed in a Hoffman enclosure.

**Bulletin: A34Y** 

Catalog Number	Description
ALGDSTOP2	Large Enclosure Door Stop Kit



#### **CHS Controls AB**



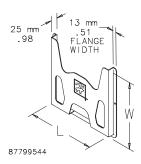
#### **Thermoplastic Data Pocket**



Provides a convenient place to store wiring diagrams, operation manuals and other documentation inside the enclosure. Adhesivebacked pockets mount inside the solid enclosure cover. Mounting hardware included. Thermoplastic pockets are dark gray and have cut-away areas for easy inspection of contents.

**Bulletin: UX1Y** 

#### **Data Pockets**



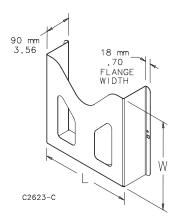
		Size L x W
Catalog Number	Description	in./mm
ADP1	Small pocket	6.00 x 6.00
		152 x 152
ADP2	Large pocket	12.00 x 12.00
		305 x 305

#### **Metal Data Pocket**



Three-inch (76-mm) deep Metal Data Pocket provides a convenient place to store wiring diagrams, operation manuals and other documentation inside the enclosure. Large enough to store 3-ring binders. Mounting hardware is included. Painted white and has cutaway areas for easy inspection of contents.

Bulletin: A34Y



	Fits A x B	Size L x W	_
Catalog Number	in./mm	in./mm	
ADP3	greater than or equal to	12.00 x 12.00	
	30.00 x 24.00	305 x 305	
	greater than or equal to		
	762 x 610		



#### **CHS Controls AB**



### **Data Pockets**

## External Data Pockets, Type 4/4X/12



Mild steel coated with polyester powder paint

## **Industry Standards**

### Mild Steel Models:

UL 508A Listed; Type 4, 12; File No. E61997 cUL Listed per C22.2 No. 94; Type 4, 12; File No. E61997

NEMA/EEMAC Type 4, 12 IEC 60529, IP66

### **Stainless Steel Models:**

UL 508A Listed; Type 4, 4X, 12; File No. E61997 cUL Listed per C22.2 No. 94; Type 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 4, 4X, 12 IEC 60529, IP66

### Application

Mounted on the exterior of an enclosure, Data Pockets allow access to system documentation without having to open the enclosure door.

Type 304 stainless steel **Features** 

- · Available in mild steel or stainless steel to match the enclosure
- Foam-in-place gasket to protect documentation from harsh environments
- Hinged front for easy access to contents
- Three sizes accommodate a wide variety of documents
- Sloped top sheds liquids and prevents accumulation of extraneous
- Optional wing knob and keylock inserts available for additional security

### **Specifications**

- 16 gauge steel or 16 gauge Type 304 stainless steel
- · Front of pocket hinges away from frame

Mild steel models are either ANSI 61 medium-gray or RAL 7035 lightgray polyester powder finish inside and out. Stainless steel models have brushed finish.

### **Accessories**

**Key Inserts** Wing Knob Latch **Bulletin: A70E** 

### Standard Product

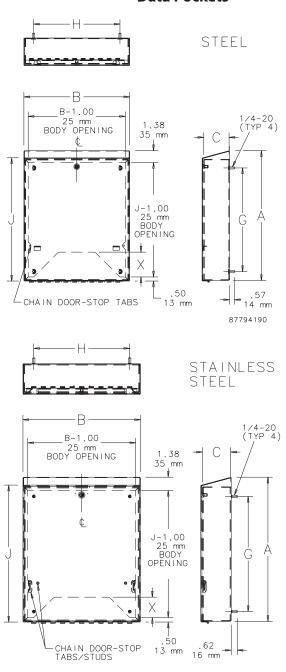
Catalog Number	AxBxC in.	AxBxC mm	Finish	G (in.)	G (mm)	H (in.)	H (mm)	J (in.)	J (mm)
ADPX4A	15.10 x 12.25 x 3.18	384 x 311 x 81	ANSI 61 paint	12.00	305	10.00	254	14.25	362
ADPX4ALG	15.10 x 12.25 x 3.18	384 x 311 x 81	RAL 7035 paint	12.00	305	10.00	254	14.25	362
ADPX4ASS	15.10 x 12.25 x 3.18	384 x 311 x 81	Brushed stainless steel	12.00	305	10.00	254	14.25	362
ADPX4B	6.83 x 6.25 x 2.18	173 x 159 x 55	ANSI 61 paint	4.00	102	4.00	102	6.25	159
ADPX4BLG	6.83 x 6.25 x 2.18	173 x 159 x 55	RAL 7035 paint	4.00	102	4.00	102	6.25	159
ADPX4BSS	6.83 x 6.25 x 2.18	173 x 159 x 55	Brushed stainless steel	4.00	102	4.00	102	6.25	159
ADPX4C	12.96 x 18.25 x 2.68	329 x 484 x 68	ANSI 61 paint	10.00	254	16.00	406	12.25	311
ADPX4CLG	12.96 x 18.25 x 2.68	329 x 484 x 68	RAL 7035 paint	10.00	254	16.00	406	12.25	311
ADPX4CSS	12.96 x 18.25 x 2.68	329 x 484 x 68	Brushed stainless steel	10.00	254	16.00	406	12.25	311



### **CHS Controls AB**



## **Data Pockets**



87928605



## **CHS Controls AB**



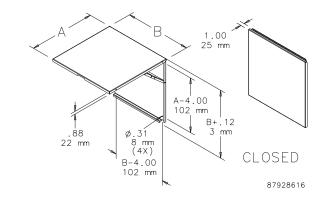
## **Stainless Steel Folding Shelf**



Supports instruments and test equipment used to install and maintain electrical components in an enclosure. Also ideally suited for supporting laptop computers, monitoring units and other equipment used with programmable controllers. The shelf can be installed on the inside or outside surface of larger Hoffman industrial enclosures (except PROLINE®). Automatically locks in the horizontal position when raised. When not in use, the shelf folds down and projects only 1 in. (25 mm) from the mounting surface. Constructed of 304 stainless steel with a brushed finish. Maintains UL/CSA Type 4, 4X and 12 rating when properly installed on a Hoffman enclosure.

## **Folding Shelves**

Catalog Number	Size AxB in./mm	Maximum Distributed Load Rating (lb.)	Maximum Distributed Load Rating (kg)
ACSHELF1212SS	12.00 x 12.00 305 x 305	150	68
ACSHELF1818SS	18.00 x 18.00 457 x 457	150	68
ACSHELF2424SS	24.00 x 24.00 610 x 610	150	68



## **Large Folding Shelf**

**Bulletin: A80** 

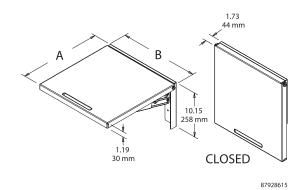


Supports instruments and test equipment used to install and maintain electrical components in an enclosure. Also ideally suited for supporting laptop computers, monitoring units and other equipment used with programmable controllers. The shelf can be installed on the inside or outside surface of larger Hoffman industrial enclosures (except PROLINE®). Automatically locks in the horizontal position when raised. When not in use, the shelf folds to 1.73 in. (44 mm) from the mounting surface. All parts are heavy gauge steel and painted white. Maintains UL/CSA Type 4 and 12 when properly intalled on a Hoffman enclosure.

Bulletin: A34Y, A80

Catalog Number	Size AxB in./mm	Maximum Distributed Load Rating (lb.)	Maximum Distributed Load Rating (kg)	Finish
AASHLF1218	18.00 x 12.00 457 x 305	150	68	White
AASHLF1818	18.00 x 18.00 457 x 457	150	68	White
AASHLF2424	24.00 x 24.00 610 x 610	150	68	White

Catalog numbers ACSHELF12 and ACSHELF18 have been obsoleted. Please use the shelves above as replacements.





### **CHS Controls AB**



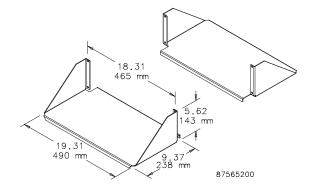
## **Shelves for Open Frame Racks**

### **Double-Sided Solid Aluminum Shelf**

Mounts on 19-in. open frame rack. Two shelves form double-sided shelf. Uses 4U rack space. Made of 0.090-in. thick aluminum with brushed finish.

Maximum load rating: 100 lb. (45.4 kg) per side, 200 lb. (90.7 kg) total **Bulletin: DACCY** 

	HxWxD	'	'	
Catalog Number	in./mm	Fits Rack	Includes	Rack Units
ESHDA19	5.62 x 19.31 x 9.37	19 in.	2 shelves	4
	143 y 490 y 238			



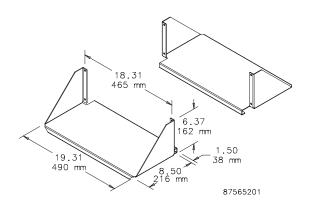
## **Double-Sided, Solid Aluminum, Heavy Duty** Shelf

Mounts on open frame rack. Two shelves form double-sided shelf. Uses 4U rack space. Made of 0.090-in. thick aluminum with brushed finish.

Maximum Load Rating: 150 lb. (68.0 kg) per side, 300 lb. (136.1 kg) total

### **Bulletin: DACCY**

	HxWxD	'		
Catalog Number	in./mm	Fits Rack	Includes	Rack Units
ESHDHDA19	6.37 x 19.31 x 10.00	19 in.	2 shelves	4
	162 x 490 x 254			

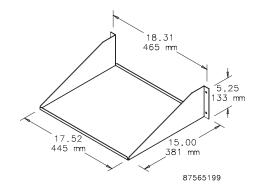


## **Single-Sided Solid Aluminum Shelf**

Mounts in a cabinet or on a 19-in. open-frame rack and can be wall mounted. Made of 0.090-in. thick aluminum with brushed finish. Maximum load rating: 100 lb. (45.4 kg)

### **Bulletin: DACCY**

	HxWxD	,	,
Catalog Number	in./mm	Fits Rack	Rack Units
ESHA19	5.25 x 18.31 x 15.00	19 in.	3
	133 x 465 x 381		

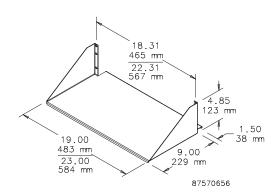


## Single-Sided Solid-Steel Shelf

Solid shelf mounts to either front or rear flange of open-frame rack. Uses 3U of rack space. Steel with textured black finish. Load rating: 150 lb. (68.0 kg)

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
ESH19S	4.85 x 19.00 x 10.50	19 in.	3
	123 x 483 x 267		
ESH23S	4.85 x 23.00 x 10.50	23 in.	3
	123 x 584 x 267		





## CHS Controls AB



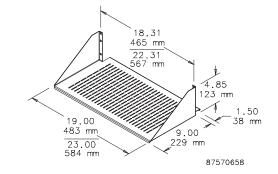
## **Shelves for Open Frame Racks**

## **Single-Sided Steel Vented Shelf**

Vented shelf mounts to either front or rear flange of open-frame rack. Steel with textured black polyester powder paint finish. Load rating: 150 lb. (68.0 kg)

### **Bulletin: DACCY**

	HxWxD	,	1
Catalog Number	in./mm	Fits Rack	Rack Units
ESH19V	4.85 x 19.00 x 10.50	19 in.	3
	123 x 483 x 267		
ESH23V	4.85 x 23.00 x 10.50	23 in.	3
	123 x 584 x 267		



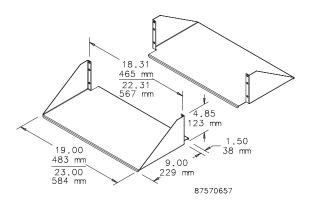
## **Double-Sided Solid-Steel Shelf**

Solid double-deep shelf mounts to both front and rear flanges of open frame rack. Steel with textured black polyester powder paint

Load rating: 300 lb. (136.1 kg)

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
ESHD19	4.85x 19.00 x 10.50	19 in.	3
	123 x 483 x 267		
ESHD23	4.85 x 23.00 x 10.50	23 in.	3
	123 x 584 x 267		



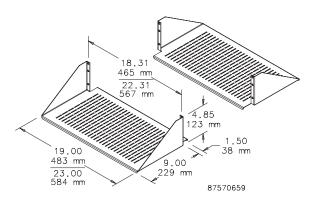
### **Double-Sided Steel Vented Shelf**

Vented, double-deep shelf mounts to both front and rear flanges of open frame rack. Steel with textured black polyester powder paint finish.

Load rating: 300 lb. (136.1 kg)

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
ESHDV19	4.85 x 19.00 x 10.50	19 in.	3
	123 x 483 x 267		
ESHDV23	4.85 x 23.00 x 10.50	23 in.	3
	123 x 584 x 267		

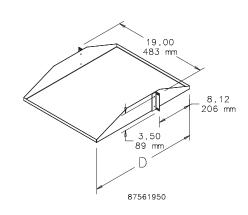


### **Center-Mount Steel Shelves**

19-in. shelf mounts to the front of the rack. Ideal for supporting monitors or computers. Designed to evenly distribute load across the rack. Manufactured from 16 gauge steel. Black, low-gloss, lighttextured polyester powder paint finish on all surfaces. Load rating: 100 lb. (45.4 kg)

### **Bulletin: DOFRC**

	HxWxD	'	
Catalog Number	in./mm	Style	Rack Units
ECMS1918	3.50 x 19.00 x 18.00	Solid	2
	89 x 483 x 457		
ECMS1922	3.50 x 19.00 x 22.00	Solid	2
	89 x 483 x 559		
ECMSV1918	3.50 x 19.00 x 18.00	Vented	2
	89 x 483 x 457		
ECMSV1922	3.50 x 19.00 x 22.00	Vented	2
	89 x 483 x 559		





### **CHS Controls AB**

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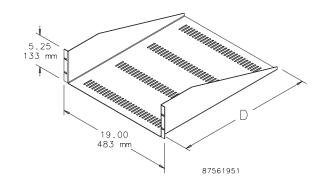
## **Shelves for Open Frame Racks**

### **Rack-Mount Steel Shelf**

19-in. Rack-Mount Shelf mounts to the front of the rack. Ideal for holding non-19-in. rack-mount equipment. Available with or without vents. Manufactured from 16 gauge steel. Black, low-gloss, lightly textured finish on all surfaces. Load rating: 100 lb. (45.4 kg)

### **Bulletin: DOFRC**

	HxWxD	'	
Catalog Number	in./mm	Style	Rack Units
EMS1918	5.25 x 19.00 x 18.00	Solid	3
	133 x 483 x 457		
EMS1922	5.25 x 19.00 x 22.00	Solid	3
	133 x 483 x 559		
EMSV1918	5.25 x 19.00 x 18.00	Vented	3
	133 x 483 x 457		
EMSV1922	5.25 x 19.00 x 22.00	Vented	3
	133 x 483 x 559		

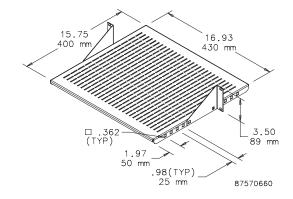


## **Adjustable Steel Vented Shelf**

Vented shelf adjustable front to back in 25-mm increments. Shelf mounts to either front or rear flange of open frame rack. Steel with textured black polyester powder paint finish. Load rating: 60 lb. (27.2 kg)

### **Bulletin: DACCY**

	H x W x D		
Catalog Number	in./mm	Fits Rack	Rack Units
ESHVA19	3.50 x 16.93 x 15.75	19 in.	2
	89 x 430 x 400		
ESHVA23	3.50 x 19.93 x 15.75	23 in.	2
	89 x 506 x 400		



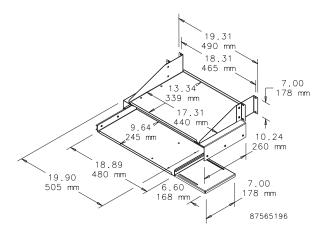
## **Pullout Keyboard Tray with Monitor Shelf**

Mounts to the front and back surfaces of a standard 3-in. open frame rack. Fits full-size keyboard. Includes mouse tray. Extends 10.5 in. (267 mm) beyond front of open frame rack. Keyboard tray slides out an additional 7 in. (178 mm). Uses 4U rack space. 16 gauge steel with RAL 9005 black polyester powder paint finish.

Monitor shelf load rating: 100 lb. (45.4 kg)

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
E19SKBM	7.00 x 19.90 x 10.24	19 in.	4
	178 x 505 x 260		



## **Pull-Out Shelf for Mini Keyboard**

Pull-Out Shelf for Mini Keyboard mounts either in a cabinet or on a 19-in. open-frame rack and fits a 16.25-in. (413-mm) wide keyboard. When closed, all parts slide between rack angles. Keyboard tray slides out 8.94 in. (227 mm). 16 gauge steel with RAL 9005 black polyester powder paint finish.

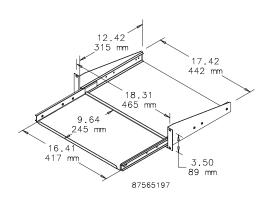
### **Bulletin: DACCY**

	HxWxD	'	
Catalog Number	in./mm	Fits Rack	Rack Units
P19KBSM	3.50 x 18.31 x 12.42	19 in.	2
	89 x 465 x 315		



### **CHS Controls AB**

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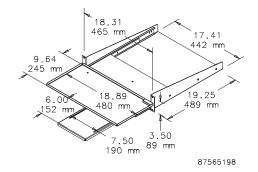


## **Pivoting Keyboard Shelf with Mouse Tray**

Mounts either in a cabinet or on a 19-in. open-frame rack. Shelf pulls out and pivots 90 degrees to access full-size keyboard. Shelf allows keyboard to slide between standard rack angles and includes mouse tray. 16 gauge steel with RAL 9005 black polyester powder paint finish. Keyboard tray extends 9.75 in. (248 mm) beyond front of rack angles or open-frame rack.

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
P19KBPVT	3.50 x 18.89 x 19.25	19 in.	2
	89 x 480 x 489		

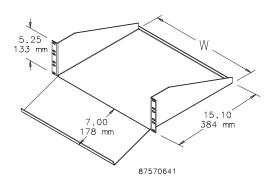


## **Steel Keyboard/Monitor Shelf**

Designed to accommodate a monitor and keyboard in an ergonomically engineered design. Shelf mounts to front flange of open-frame rack. Can mount in a cabinet if rack angles are adjusted back for door clearance. Uses 3U of rack space. 19-in. and 23-in. rack versions. Steel with textured black finish. Load rating: 200 lb. (91 kg)

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
ESH19KBM	5.25 x 17.38 x 15.10	19	3
	133 x 441 x 384		
ESH23KBM	5.25 x 21.38 x 15.10	23	3
	133 x 543 x 384		

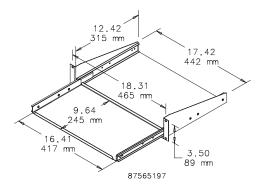


## **Pull-Out Shelf for Mini Keyboard**

Pull-Out Shelf for Mini Keyboard mounts either in a cabinet or on a 19-in. open-frame rack and fits a 16.25-in. (413-mm) wide keyboard. When closed, all parts slide between rack angles. Keyboard tray slides out 8.94 in. (227 mm). 16 gauge steel with RAL 9005 black polyester powder paint finish.

### **Bulletin: DACCY**

	HxWxD		
Catalog Number	in./mm	Fits Rack	Rack Units
P19KBSM	3.50 x 18.31 x 12.42	19 in.	2
	89 x 465 x 315		







## **Tool-less Shelf**

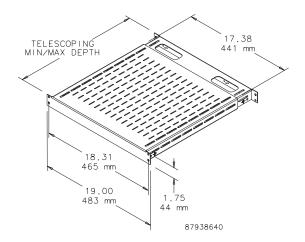


An easy-to-install tool-less vented 19-in. shelf. Mounts onto rack angles that have EIA-spaced square holes (.375 in.). Shelf slides open and provides a variable-sized, continuous surface for equipment. Back of shelf has oval cutouts for power and data cables. Accessory hole patterns at back of shelf fit small and large D-rings to help manage cable. Made of steel with a 150 lb. (68 kg) static load rating. Available with RAL 9005 black or RAL 7035 gray polyester powder coat finish.

**Bulletin: DACCY** 

			Minimum Depth	Maximum Depth
Catalog Number	Description	Finish	mm/in.	mm/in.
D19FVT69B	Shelf, vented, 19 in. tool-less	Black	495	851
			19.50	33.50
D19FVT69G	Shelf, vented, 19 in. tool-less	Gray	495	851
			19.50	33.50
D19FVT912B	Shelf, vented, 19 in. tool-less	Black	792	1151
			31.20	45.30
D19FVT912G	Shelf, vented, 19 in. tool-less	Gray	792	1151
			31.20	45.30

Minimum and maximum depth measured from rack angle to rack angle.



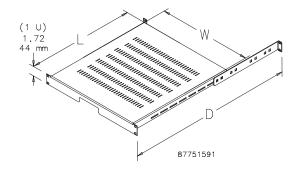
## **Rack-Mount Adjustable Shelf**



Mounts to front surface of front and back rack angles. Shelf is made of painted 14 gauge steel and the adjustable support brackets are clearplated 12 gauge steel. Adjustable to fit multiple-depth enclosures or rack angle placement. Both solid and vented models available. Fits 19- or 23-in. rack spacing. Requires only 1U of rack space. Shelf has RAL 7035 light-gray textured or RAL 9005 black textured polyester powder paint finish.

Load rating: 150 lb. (68 kg)

**Bulletin: DACCY** 



								Fits Enclosure	Fits Enclosure
Catalog Number	Type	Size	Finish	LxW(in.)	LxW(mm)	D max. (in.)	D max. (mm)	Depth Up To (in.)	Depth Up To (mm)
P19SH68	Solid	19 in.	Gray	19.68 x 17.32	500 x 440	30.71	780	31.50	800
P19SH68B	Solid	19 in.	Black	19.68 x 17.32	500 x 440	30.71	780	31.50	800
P19VSH68B	Vented	19 in.	Black	19.68 x 17.32	500 x 440	30.71	780	31.50	800
P19SH810	Solid	19 in.	Gray	27.56 x 17.32	700 x 440	38.58	980	39.37	1000
P19SH810B	Solid	19 in.	Black	27.56 x 17.32	700 x 440	38.58	980	39.37	1000
P19VSH810B	Vented	19 in.	Black	27.56 x 17.32	700 x 440	38.58	980	39.37	1000
P23SH68B	Solid	23 in.	Black	19.68 x 21.32	500 x 542	30.71	780	31.50	800
P23VSH68B	Vented	23 in.	Black	19.68 x 21.32	500 x 542	30.71	780	31.50	800
P23SH810B	Solid	23 in.	Black	27.56 x 21.32	700 x 542	38.58	980	39.37	1000
P23VSH810B	Vented	23 in.	Black	27.56 x 21.32	700 x 542	38.58	980	39.37	1000



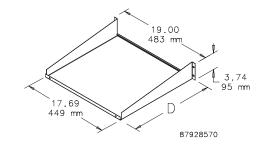


## **Single-Sided Shelf**



Mounts to 19-in. rack angles to house voice/data networking equipment. RAL 9005 black finish. Load rating: 75 lb. (34 kg) **Bulletin: DACCY** 

Catalog Number	H x W x D (in.)	H x W x D (mm)	Style	Rack Units
ESH198	3.74 x 19.00 x 8.00	95 x 483 x 203	Solid	2
ESH1915	3.74 x 19.00 x 15.00	95 x 483 x 381	Solid	2
ESH1915V	3.74 x 19.00 x 15.00	95 x 483 x 381	Vented	2
ESH1917	3.74 x 19.00 x 17.00	95 x 483 x 432	Solid	2

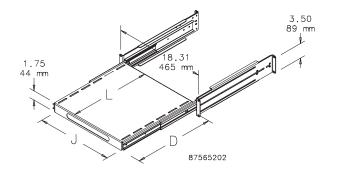


## **Sliding Equipment Shelf**

Steel Sliding Equipment Shelf mounts to front surface of front and back rack angles. Models fit 19- or 23-in. rack spacing. Adjusts to fit multiple-depth enclosures and rack angle placements. Shelf can be used on 2-post rack or cabinet with front rack angles only by reversing support bracket. Optional cable manager arm available. 14 gauge steel with 12 gauge supports with RAL 9005 black polyester powder paint finish. Load rating: 150 lb. (68.0 kg) with four corner mounting; 75 lb. (34.0 kg) with two-post or front-rack-angle cabinet

Optional Cable Manager Arm is recommended to help control cable movement as shelf slides in and out.

**Bulletin: DACCY** 



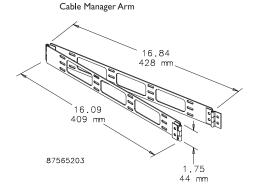
	'			'	'	'	Shelf	Shelf	=	
							Pullout	Pullout	Fits	Rack
Catalog Number	D (in.)	D (mm)	L (in.)	L (mm)	J (in.)	J (mm)	(in.)	(mm)	Rack	Units
P19SHP68B	37.40	950	16.72	425	16.20	412	17.00	432	19 in.	2
P19SHP810B	41.30	1050	24.59	625	16.20	412	19.00	483	19 in.	2
P23SHP68B	37.40	950	16.72	425	20.20	513	17.00	432	23 in.	2
P23SHP810B	41.30	1050	24.59	625	20.20	513	19.00	483	23 in.	2

## **Cable Manager Arm for Sliding Equipment** Shelf

Cable Manager Arm mounts to back of sliding equipment shelf on right or left side. Controls cable movement as shelf slides in and out. 14 gauge steel with RAL 9005 black polyester powder paint finish.

**Bulletin: DACCY** 

Catalog Number	Description	Use With
PHCB	Cable Manager Arm	Sliding Equipment Shelf





Rack Units



### **Shelves for Racks and Cabinets**

Catalog Number

## **Keyboard Compartment for 19-in. Racks**



Provides a convenient way to incorporate a keyboard with other 19-in. rack-mounted equipment. Uses 2 RU of space. Made of light-weight aluminum with brushed finish. Accommodates keyboard up to 16.50-in. (419-mm) wide. Mounting hardware included. **Bulletin: DACCY** 

19KBC2B	19	2	
	3.50 89 mm	17.06 433 mm 3.50 89 mm	

Fits rack width

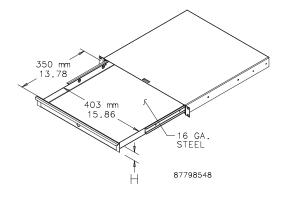
## **Rack-Angle Mounted Drawer**



Steel drawer for 19-in. rack-angle mounting mounts to the front surface of the rack angles. Integral steel box contains the drawer and protects surrounding internal equipment. Extends 13 in. (330 mm) on ball bearing slides. Front includes handle and key lock. Finish is RAL 7035 textured light-gray polyester powder paint. Mounting hardware is included.

Bulletin: P20

			Fits Rack	Rack
Catalog Number	H (mm)	H (in.)	Width	Units
P19DR1US	43	1.69	19 in.	1
P19DR2US	88	3.47	19 in.	2
P19DR3US	132	5.20	19 in.	3



## **Writing Surface for Rack-Angle-Mounted Drawer**



Steel cover mounts on top of the drawer and serves as a writing surface and drawer cover. Finish is RAL 7035 light-gray textured polyester powder paint. Illustration and one photo show writing surface mounted on drawer. Order drawer separately.

**Bulletin: P20** 



Catalog Number	Description		Fits	
P19WS	Steel writing surface an	d cover	Drawer (order separately)	
	riting surface shown bunted on drawer	8779459	4	



### **CHS Controls AB**



E(mm)

266

366

566

F (in.)

13.46

17.40

25.27

## 19-in. Fixed Shelf



14 gauge steel fixed shelf has large ventilation slots in shelf surface. Mounts between two pair of rack mounting angles that have accessory mounting legs. Shelves have RAL 7035 light-gray polyester powder paint finish. Plated mounting hardware is furnished.

D (mm)

508

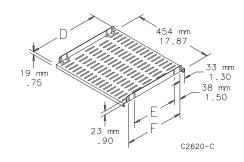
708

E(in.)

10.46

14.40

22.27



F(mm)

342

442

642

## **Pull-Out Shelves**

Bulletin: P20

**Catalog Number** 

A19SH5

A19SH6

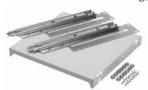
**A19SH8** 



D (in.)

16.06

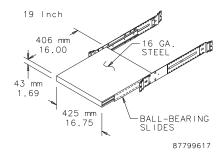
27.87

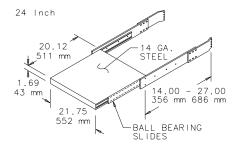


Pull-Out Shelves extend 17 in. (432 mm) on ball-bearing slides. 16 gauge pull-out shelf mounts to uprights in 19-in. electronic rack or 19-in. mini-rack using pull-out shelf bracket (EPSBKT) and has light-gray powder paint finish. Two screws captivate shelf to slides. 14 gauge steel pull-out shelf mounts between two pair of rackmounting angles that have accessory mounting legs and has white finish. Plated mounting hardware is furnished.

### Bulletin: DEC1, P20

Catalog Number	Description	Fits	
A19SHP6	Pull-out shelf	19-in. rack angles	
DL29SHP	Pull-out shelf	24-in. rack	
EPSBKT	Pull-out shelf bracket		





87799609

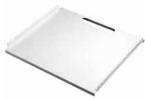
Fits Rack Width

19 (in.)

19 (in.)

19 (in.)

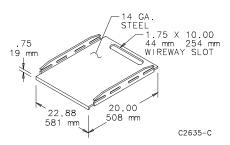




14 gauge steel fixed shelf has a large slot in rear of shelf surface for wire management. Mounts between two pair of rack mounting angles that have accessory mounting legs. Shelves are white. Plated mounting hardware is furnished.

**Bulletin: P20** 

Catalog Number	Fits Rack Width
DL29SH	24 (in.)



# controls

### **CHS Controls AB**



## **Drawers**



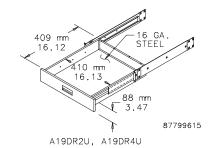
16 gauge steel drawer extends 17.00 in. (432 mm) on ball bearing slides. Drawer has polyester powder paint finish and recessed black pull handle. Drawers mount between two pair of rack-mounting angles that have accessory mounting legs. Includes provision for attaching a writing surface. Plated steel mounting hardware is furnished.

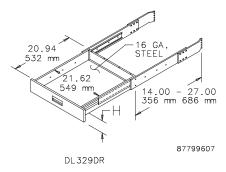
### Bulletin: P20, X20

	Н		
Catalog Number	in./mm	Color	Fits Rack Width
A19DR2U	3.47 88	RAL 7035 Light Gray	19 in.
A19DR4U	6.97 177	RAL 7035 Light Gray	19 in.

Enclosure must be at least 24-in. (600-mm) deep.

## **Drawers**





## **CONCEPT® Keyboard Box**



Keyboard box is designed to fit on an outside surface of an enclosure to provide a self-contained external Type 4 housing for a keyboard. The box attaches to the enclosure surface with 4 bolts. A large hole and rubber plug are provided for keyboard cord and plug. The hinged cover is supported with flexible cables in the open position. A left and a right mouse tray slides out from under the keyboard mounting surface. VELCRO® strips with pressure-sensitive adhesive are supplied to attach a keyboard. An internal mouse storage pracket is provided. The box and cover are 16 gauge steel with ANSI 61 gray polyester powder paint finish. Cover latches with a single quarterturn slotted latch. Optional CONCEPT latches also fit. VELCRO is a trademark of Velcro Industries B.V.

### **Bulletin: A80**

		Max. Keyboard Size W x D x H
Catalog Number	AxBxC in./mm	in./mm
CKBC24	10.00 x 23.30 x 4.79	20.20 x 8.00 x 2.34
	254 x 592 x 122	513 x 203 x 59



### **CHS Controls AB**



## 16 Gauge Gland Plate

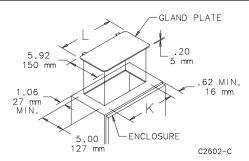


Constructed of 16 gauge steel. Gland plates will maintain UL/CSA Type 12 integrity while providing a removable cable egress and entry plate. Easily installed by cutting a rectangular opening in the enclosure. Finish is ANSI 61 gray polyester powder paint.

Bulletin: A80

## **Gland Plates**

	K	L	
Catalog Number	in./mm	in./mm	
DLGP610	9.00	9.94	
	229	252	
DLGP618	17.00	17.94	
	432	457	



## 12 Gauge Gland Plate



Constructed of 12 gauge steel and designed for use with 10 gauge and 12 gauge enclosures. Provides a removable cable egress and entry plate while maintaining UL/NEMA integrity of the enclosure. Gasket with pressure-sensitive adhesive is included to be applied after desired modifications are completed. Finish is ANSI 61 gray polyester powder paint. Maintains UL/NEMA Type 4 and Type 12 if properly installed in a Hoffman enclosure.

### Bulletin: A34Y

	Size	Opening Size	
Catalog Number	in./mm	in./mm	
AGP618	6.50 x 18.50	4.00 x 16.00	
	165 x 470	102 x 406	
AGP1218	12.50 x 18.50	10.00 x 16.00	
	318 x 470	254 x 406	
AGP1618	16.50 x 18.50	14.00 x 16.00	
	419 x 470	356 x 406	



### **CHS Controls AB**



## **Gland Plates**

## **Notes**



## **CHS Controls AB**



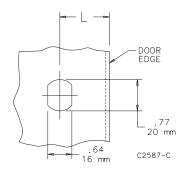
## **Lock Kit for Clamp Cover Junction Boxes**

Designed for field installation in standard clamp-cover junction boxes. Includes complete installation instructions. One hole must be drilled or punched in the cover to receive the cylinder lock. Punches for Hoffman locks and latches are available from Greenlee Punches. For more information on Greenlee punches, go to http://www. greenlee.textron.com/ Bulletin: A80

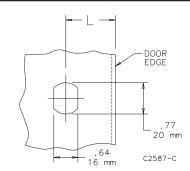
Locks

Catalog Number	L (in.)	L (mm)
ACLJIC	1.25	32

Accessories: Locks, Lockouts, Latches, Handles and Clamps



	L, for NEMA 12 Enclosure	L, for Medium 3R Hinged-Cover Enclosure
Catalog Number	in./mm	in./mm
ACLSN12	1.69	2.25
	43	57



Catalog Number	Description
APLKJIC	Plated steel
APLKJIC6SS	Type 316 stainless steel

## **Lock Kit for Type 3R and 12 Enclosures**



Designed for field installation in standard one-door Type 3R and 12 enclosures. Includes complete installation instructions. One hole must be drilled or punched in the door to receive the cylinder lock. Bulletin: A80

## **Padlock Kit for Junction Boxes**



Designed for field installation on standard LP, CH and CHNF junction boxes. Maintains water-tight and dust-tight seal. To install simply drill two holes in the cover and two holes in the body. Includes complete instructions. Padlock Kit is plated steel or Type 316 stainless steel. Bulletin: A80

## **Replacement Keys**



Fits PROLINE® Network Cabinet and Networking Wall-Mount Cabinet. **Bulletin: DACCY** 

Catalog Number	Key Code	Includes	Use with
E2233KEY	2233	2 Keys	PROLINE <sup>®</sup> , Net Series, D-BOX™, PC Cabinet, SOHO
E333KEY	333	2 Keys	ACCESSPLUS® II, L-BOX®



### **CHS Controls AB**



## Accessories: Locks, Lockouts, Latches, Handles and Clamps

### Lockouts

## **Safety Lockouts**



Provide a means of using multiple padlocks on a secured power source. Catalog number ASL6C includes a 10.00-in. (254-mm) plated steel chain. Manufactured from 10 gauge steel with six station holes. Red finish. Overall length is 5.06 in. (128 mm) and padlock holes are .38-in. (10-mm) in diameter.

Bulletin: A80

Catalog Number	Description	
ASL6	Without chain	
ASL6C	With chain	

## **Dual-Access Safety Lockouts**



Provide a means of using two padlocks on a secured power source. Either padlock can be removed enabling power to be interrupted and enclosure accessed. Catalog number ASLDAC includes a 10.00-in. (254-mm) plated steel chain. Lockouts are manufactured from 10 gauge steel and finished in red. Padlock holes are .38-in. (10-mm) in diameter. Padlock is not included.

**Bulletin: A80** 

Catalog Number	Description	
ASLDA	Without chain	
ASLDAC	With chain	



### **CHS Controls AB**

## Accessories: Locks, Lockouts, Latches, Handles and Clamps

### Latches

## T-Handle Latch and Keyed Cylinder Lock Kits



To install, simply remove the standard slotted latch and insert the kit. Complete installation instructions are furnished. Catalog number AL7A includes a Type L7 T handle and all hardware. Catalog number AL12AR includes a Type L12 cylinder lock, cam and all hardware. Latch and lock fit Type 1 enclosures and hingedcover pull boxes.

Bulletin: A80

Catalog Number	Description	
AL7A	T handle latch kit	
AL12AR	Cylinder lock kit	

## **Latch Kit for One-Door Type 12 Enclosures**



Designed for field installation on most standard one-door Type 12 enclosures. These latch kits will not fit Hoffman disconnect, CONCEPT® or PROLINE® enclosures. Each kit includes a handle, latch, latch rods, adjustable rod guides and all hardware. The latch rods can be adjusted to maintain the proper gasket compression by relocating the pins in the rod guides. When the pin is removed, the latch rod can also be removed. These kits are available with a key locking handle, a non-locking handle or a padlocking handle. All openings through the door are gasketed to assure a complete seal. Ends of latch rods have rollers for easier door closing.

Bulletin: A80

Catalog	Handle		·
Number	Type	<b>Opens</b>	Description
AL36A	Padlock	Either Clockwise or Counterclockwise	1-point Latch kit
AL2A	Keylock	Clockwise	1-point Latch kit
AL2ACCW	Keylock	Counterclockwise	1-point Latch kit
AL3A	Non- Locking	Clockwise	1-point Latch kit
AL36BR	Padlock	Either Clockwise or Counterclockwise	3-point Latch Kit where A is 16, 20, 24 or 30 in.
AL2BR	Keylock	Clockwise	3-point Latch Kit where A is 16, 20, 24 or 30 in.
AL2BCCW	Keylock	Counterclockwise	3-point Latch Kit where A is 16, 20, 24 or 30 in.
AL3BR	Non- Locking	Clockwise	3-point Latch Kit where A is 16, 20, 24 or 30 in.
AL36CR	Padlock	Either Clockwise or Counterclockwise	3-point Latch kit where A is 36, 42 or 48 in.
AL2CR	Keylock	Clockwise	3-point Latch kit where A is 36, 42 or 48 in.
AL2CCCW	Keylock	Counterclockwise	3-point Latch kit where A is 36, 42 or 48 in.
AL3CR	Non- Locking	Clockwise	3-point Latch kit where A is 36, 42 or 48 in.
AL36DR	Padlock	Either Clockwise or Counterclockwise	3-point Latch kit where A is 60 or 72 in.
AL2DR	Keylock	Clockwise	3-point Latch kit where A is 60 or 72 in.
AL2DCCW	Keylock	Counterclockwise	3-point Latch kit where A is 60 or 72 in.
AL3DR	Non- Locking	Clockwise	3-point Latch kit where A is 60 or 72 in.

See price list for factory installation charges. A is enclosure height.

## Latch Kits for Type 4 and 12 Enclosures



Top left to right: AL32, AL3S. Bottom left to right: AL32Y, AL35Y, AL31

Fits Type 4 and 12 enclosures which have external screw clamps. Requires only a quarter-turn (90 degrees) to open or close. An internal O-ring and external gasket assure a water-tight and dust-tight seal. Installation requires a hole punched or drilled in the door for each latch. Complete instructions are furnished. A square or triangular key is required for tamper-resistant latches. Latch is die-cast zinc with chrome finish.

### **Bulletin: A80**

Catalog Number	Description
AL31	Slotted insert
AL32	7-mm square insert
AL32Y	Key for AL32
AL35	7-mm triangle insert
AL35Y	Key for AL 35

## Toggle Latch for Type 4 and 4X Floor-Mount and Free-Stand Enclosures



Provides quick access to Type 4 and 4X floor-mount and free-stand enclosures with clamps. The 3/8-16 threaded, stainless steel toggle latches replace the standard stainless steel bolts. Operation of the toggle releases the door clamp so the door can be opened without tools. Two Type 316 stainless steel toggle assemblies included.

**Bulletin: A80** 

Catalog Number	Description
AFT44XSS	2 toggle latches



### **CHS Controls AB**

## Accessories: Locks, Lockouts, Latches, Handles and Clamps

### Handles

## **POWERGLIDE® Handles**



Easy-to-install medium-size POWERGLIDE Handles fit into existing handle holes. They are available in clockwise and counter-clockwise non-defeater models and a clockwise defeater model. The clockwise defeater model includes door hardware for Bulletin A25 enclosures.

Bulletin: A80

Bulletin: A80

Catalog Number	Description
	Medium POWERGLIDE Handle - Clockwise Opening
AL55CCW	Medium POWERGLIDE Handle - Counter-Clockwise Opening
AL55CWD	Medium POWERGLIDE Handle - Clockwise Opening with Defeater and Door Hardware

## **Handle Kit**



Non-metallic handle for small enclosures. Includes four rubber bumpers that mount on back of enclosure to protect exterior finish. All mounting hardware and complete installation instructions are provided.

Catalog Number	Description
DHDLK	Handle kit

## **Handles**



Attach to sides of enclosure to provide maximum operator control when using a pendant arm, swivel or swivel tilt.

### Bulletin: C2, CC1, CC2, DEC1, P1

Catalog Number	Description	Fits
ERCFH3U	132 mm	Desktop case
ERCFH4U	177 mm	Desktop case
ERCFH6U	266 mm	Desktop case
PUHKA	248 mm	PROLINE sloped fronts
PUHK	9.75 in.	PROLINE sloped fronts

## **POWERGLIDE® Defeater Handle Kit**



This clockwise defeater model includes door hardware for Bulletin A25 enclosures.

Bulletin: A80

Catalog Number	Description
AL55CWD	Medium POWERGLIDE Handle - Clockwise opening with defeater and door hardware

## controls

## **CHS Controls AB**

### Clamps

## **Fast-Operating Clamp-Cover Junction Box Clamp**



Provides quick access to enclosure or wireway interiors. Installs on standard clamp bracket used on Hoffman junction boxes, Type 12 trough and wireway, Type 4X wireway and similar custom enclosures. Clamps are available in plated steel or stainless steel.

1		
Bul	letin	: A80

Catalog Number	Description
AL23	Plated steel clamp
AL23SS	Stainless steel clamp

## **Fast-Operating Clamp Assembly**



Provides quick access to enclosures which have screw clamps. Install on clamp brackets used on single-door Type 4, 4X, 12 and 13 enclosures and similar custom order enclosures. The entire clamp assembly is Type 316 stainless steel.

Bulletin: A80

Catalog Number	Qty.	
AFC412SS	2	

## **Clamp Kits**



These kits provide replacement clamps for clamp-cover junction boxes and wall-mount enclosures. Each kit contains two clamps and all mounting hardware.

Bulletin: A80

Catalog Number	Material	Use with
AL15	Mild Steel	A12 enclosures
AL16	Stainless Steel	A4, A4S enclosures
AL17	Mild Steel	A51 junction boxes
AL18	Stainless Steel	A51S junction boxes

## **Clamp Block Kit**



Used on floor-mount and free-stand Type 4X stainless steel enclosures with clamps. Kit includes two sets of screws, two Type 316L clamp blocks and mounting hardware.

**Bulletin: A50Y** 

Catalog Number	Description
ACBK6SS	2 clamp blocks and screw sets

## **CHS Controls AB**

controls



## **Drip Shield Kit for Type 12 Enclosures**



## **Drip Shields**

Protects door hardware from dripping water and settling dust. Attaches quickly and easily to the enclosure with stainless steel screws and sealing washers (hardware is furnished). Stainless steel hinge pin and stainless steel door clamping assemblies are furnished to replace the standard hinge pin and door clamping assemblies. A tube of sealing compound is also supplied with each kit. Manufactured from 14 gauge steel with an ANSI 61 gray polyester powder paint finish over pretreated surfaces.

### **Bulletin: A80**

		Fits Enclosure	Fits Enclosure
<b>Catalog Number</b>	For	Size B (in.)	Size B (mm)
ADK12A	Single-Door Wall-Mount Enclosures	12.00	305
ADK16A	Single-Door Wall-Mount Enclosures	16.00	406
ADK20A	Single-Door Wall-Mount Enclosures	20.00	508
ADK24A	Single-Door Wall-Mount Enclosures	24.00	610
ADK30A	Single-Door Wall-Mount Enclosures	30.00	762
ADK36A	Single-Door Wall-Mount Enclosures	36.00	914
ADK42A	Two-Door Floor-Mount Enclosures	42.00	1067
ADK48A	Two-Door Floor-Mount Enclosures	48.00	1219
ADK60A	Two-Door Floor-Mount Enclosures	60.00	1524
ADK72A	Two-Door Floor-Mount Enclosures	72.00	1829

Two-Door Drip Shield kits are not designed for use on 48.00-in. (1219-mm) wide and 60.00-in. (1524-mm) wide Two-Door Type 12 Wall-Mount Enclosures.

## Stainless Steel Drip Shield Kit for Type 4 and **4X Wall-Mount Enclosures**



Easily installed on Type 4 and 4X wall-mount enclosures (excluding quick-release latch models). Protects door from dripping water and settling dust. Attaches quickly and easily to the enclosure with stainless steel screws and sealing washers (furnished). A tube of sealing compound is supplied with each kit. Manufactured from 14 gauge Type 316 stainless steel. Kits can be special ordered for other Hoffman enclosures. Consult factory for more information. Product maintains UL/CSA Type 4, 4X and 12 rating when properly installed on a Hoffman enclosure.

### **Bulletin: A4SY**

Catalog Number	Fits Enclosure Size B (in.)	Fits Enclosure Size B (mm)
ADK12SS6	12.00	305
ADK16SS6	16.00	406
ADK20SS6	20.00	508
ADK24SS6	24.00	610
ADK30SS6	30.00	762
ADK36SS6	36.00	914



### **CHS Controls AB**





## **HOL-SEALERS®** Hole Seals



### **Industry Standards**

### Steel Hole Seals

UL 508A Component Recognized; Type 3R, 4, 12, 13; File No. E61997

CSA File No. 42186; Type 3R, 4, 12, 13 NEMA/EEMAC Type 3R, 4, 12, 13 IEC 60529, IP66

### **Stainless Steel Hole Seals**

UL 508A Component Recognized; Type 3R, 4, 4X, 12, 13; File No. E61997

CSA File No. 42186; Type 3R, 4, 4X, 12, 13 NEMA/EEMAC Type 3R, 4, 4X, 12, 13 IEC 60529, IP66

### **Application**

Seal extra pushbutton holes, conduit openings and knockout openings against dust, dirt, oil and water with Hoffman HOL-SEALERS®. Seals will cover any size or shape of hole from .19-in. diameter to maximum diameter shown in table. Can be used on enclosure walls up to .31-in. (8-mm) thick.

### **Features**

- · Available in multiple colors and sizes
- · Oil-resistant gasket provided

### **Specifications**

### **Steel Models**

- 16 gauge galvanized steel backplate
- Plated stud (10-32x5/8) and wing nut

### **Stainless Steel Models**

- 16 gauge stainless steel backplate
- Seal, backplate, stud (10-24x5/8) and wing nut are 300 series stainless steel

### **Finish**

Steel seals have polyester powder paint finish over galvanized front

Stainless steel seals have polished front surface.

**Bulletin: A80HS** 



### **CHS Controls AB**



## **Standard Product**

Catalan Number	Madavial	Finish (Calau	r	Maximum Hole Diameter	Hol-Sealer Diameter
AS056M	Material Steel	Finish/Color ANSI 61 gray	For Micro	0.56	in./mm 0.80
AS056MSS	Stainless Steel	Stainless Steel	Micro	14 0.56	20 0.80
				14	20
AS056CB	Steel	Chrysler beige	Micro	0.56 14	0.80 20
AS056MFB	Steel	Ford brown	Micro	0.56 14	0.80 20
AS056MLG	Steel	Light gray	Micro	0.56	0.80
ASPBG	Steel	ANSI 61 gray	22.5-mm pushbutton holes	14 0.88	20 1.22
ASPBGSS	Stainless Steel	Stainless Steel	22.5-mm pushbutton holes	22 0.88	31 1.22
AS050	Steel		1/2-in. conduit holes	22 0.88	31 1.38
		ANSI 61 gray		22	35
AS050LG	Steel	Light gray	1/2-in. conduit holes	0.88 22	1.38 35
AS050SS	Stainless Steel	Stainless Steel	1/2-in. conduit holes	0.88 22	1.38 35
AS075	Steel	ANSI 61 gray	3/4-in. conduit holes	1.06	1.56
AS075SS	Stainless Steel	Stainless Steel	3/4-in. conduit holes	27 1.06	40 1.56
AS075LG	Steel	Light gray	3/4-in. conduit holes	27 1.06	40 1.56
				27	40
ASPB	Steel	ANSI 61 gray	30.5-mm pushbutton holes	1.25 32	1.75 44
ASPBSS	Stainless Steel	Stainless Steel	30.5-mm pushbutton holes	1.25 32	1.75 44
ASPBLG	Steel	Light gray	30.5-mm pushbutton holes	1.25	1.75
AS100	Steel	ANSI 61 gray	1-in. conduit holes	32 1.38	44 1.88
AS100SS	Stainless Steel	Stainless Steel	1-in. conduit holes	35 1.38	48 1.88
AS100LG	Steel	Light gray	1-in. conduit holes	35 1.38	48 1.88
				35	48
AS125	Steel	ANSI 61 gray	1 1/4-in. conduit holes	1.69 43	2.19 56
AS125SS	Stainless Steel	Stainless Steel	1 1/4-in. conduit holes	1.69 43	2.19 56
AS125LG	Steel	Light gray	1 1/4-in. conduit holes	1.69	2.19
AS150	Steel	ANSI 61 gray	1 1/2-in. conduit holes	43 2.00	56 2.50
AS150SS	Stainless Steel	Stainless Steel	1 1/2-in. conduit holes	51 2.00	64 2.50
AS150LG	Steel	Light gray	1 1/2-in. conduit holes	51 2.00	64 2.50
				51	64
AS200	Steel	ANSI 61 gray	2-in. conduit holes	2.50 64	3.00 76
AS200SS	Stainless Steel	Stainless Steel	2-in. conduit holes	2.50 64	3.00 76
AS200LG	Steel	Light gray	2-in. conduit holes	2.50 64	3.00 76
AS250	Steel	ANSI 61 gray	2 1/2-in. conduit holes	3.00	3.50
AS250SS	Stainless Steel	Stainless Steel	2 1/2-in. conduit	76 3.00	89 3.50
AS300	Steel	ANSI 61 gray	3-in. conduit holes	76 3.62	89 4.12
AS300SS	Stainless Steel	Stainless Steel	3-in. conduit holes	92 3.62	105 4.12
				92	105
AS350	Steel	ANSI 61 gray	3 1/2-in. conduit holes	4.12 105	4.62 117
AS350SS	Stainless Steel	Stainless Steel	3 1/2-in. conduit holes	4.12 105	4.62 117
AS400	Steel	ANSI 61 gray	4-in. conduit holes	4.62	5.12
AS400SS	Stainless Steel	Stainless Steel	4-in. conduit holes	117 4.62	130 5.12
				117	130



**CHS Controls AB** 

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## **HOL-SEALERS® Non-Metallic Hole Seals**



### **Industry Standards**

UL 508A Component Recognized; Type 3R, 4, 4X, 12, 13; File No. E61997

CSA File No. 42186: Type 3R, 4, 4X, 12, 13 NEMA/EEMAC Type 3R, 4, 4X, 12, 13 IEC 60529, IP66

### Application

Designed for use in corrosive environments to seal extra pushbutton holes, conduit openings and knockout openings against dust, dirt, oil and water. These hole seals are suitable for sealing enclosure openings in industries such as petroleum and chemical processing, wastewater processing, pulp and paper, outdoor monitoring and any other industry exposed to harsh environments.

### Innovative 3-in-1 self-centering design

- Thread self-centers on one hole size
- Nut orientation "A" self-centers on a second hole size (see Nut Orientation drawing)
- Nut orientation "B" self-centers on a third hole size

### **Features**

- Innovative 3-in-1 self-centering design reduces inventory requirements; 4 models cover 12 common industry cutouts ranging from 1/2 in. to 4 in.
- Non-metallic construction provides superior corrosion resistance for reliability in harsh environments
- UV stabilized; ideal for direct sunlight (avoids fiberbloom associated with fiberglass)
- Chemically resistant to a broad range of chemicals
- Durable and impact resistant; resists cracking
- Sold in quantities of 2 per catalog number
- Cost-effective alternative to stainless steel
- Polyester material has a UL 94 rating of 5VA
- · Easy to install; no tools required

### **Specifications**

- Thread and nut are constructed of non-glass-filled polyester
- · Oil-resistant gasket

### **Finish**

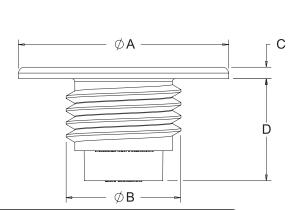
RAL 7035 light-gray textured finish

**Bulletin: A80HS** 

### Standard Product Non-Metallic Hole Seals

						Max. Hole	Outside	
			D	E	F	Diameter	Diameter	
Catalog Number	AxBxC in./mm	Qty.	in./mm	in./mm	in./mm	in./mm	in./mm	Torque (inlb.)
ASPB05075NM	1.56 x 0.85 x 0.12	2	1.28	1.48	.47	1.28	1.56	15
	40 x 22 x 3		32	38	12	33	40	
ASPB100125NM	2.19 x 1.19 x 0.12	2	1.18	2.14	.51	1.91	2.19	20
	56 x 30 x 3		30	54	13	49	56	
AS150200250NM	3.50 x 1.95 x 0.12	2	.95	3.42	.51	3.14	3.50	35
	89 x 49 x 3		24	87	13	80	89	
AS300350400NM	5.12 x 3.55 x 0.12	2	.81	5.05	.51	4.77	5.12	50
	130 x 90 x 3		21	128	13	121	130	

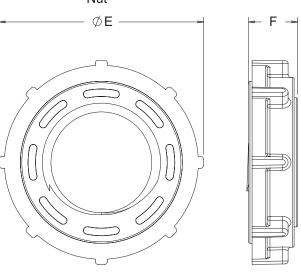
Seal Nut





**CHS Controls AB** 

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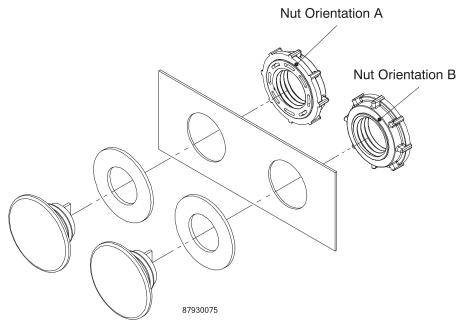


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## **HOL-SEALERS®** Fit These Hole Sizes

		Min. Hole	Min. Hole	Nut
Catalog Number	Fits	Dia. (inch)	Dia. (millimeter)	Orientation
ASPB05075NM	.5-in. conduit holes	.86	22	A
	22.5-mm pushbutton holes	.88	22	A
	.75-in. conduit holes	1.09	28	A
ASPB100125NM	30.5-mm pushbutton holes	1.20	31	A
	1-in. conduit holes	1.36	35	В
	1.25-in. conduit holes	1.70	43	A
AS150200250NM	1.5-in. conduit holes	1.95	50	A
	2-in. conduit holes	2.38	60	В
	2.5-in. conduit holes	2.88	73	A
AS300350400NM	3-in. conduit holes	3.50	89	A
	3.5-in. conduit holes	4.00	102	В
	4-in. conduit holes	4.50	114	A





## **Corrosion Inhibitors**



### **CHS Controls AB**

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## Life Expectancy and Usage

The normal useful life-span of Hoffman corrosion inhibitors is in excess of one year. However, inhibitor life expectancy is shortened by approximately 25 percent when exposed to temperatures above 104 F (40 C). This product is not recommended for use where temperature exceeds 199 F. Since Hoffman corrosion inhibitors are vapor-phase protective, all surfaces to be protected should be accessible to the vapors. The maximum distance the vapors can travel is approximately 1.50 ft. (.46 m). Protection of long, narrow enclosures can be achieved with tape or multiple inhibitors.

### Storage and Handling

Each Hoffman corrosion inhibitor is individually packaged in a resealable bag for maximum effectiveness at the time of usage. Corrosion inhibitors should be stored at temperatures not exceeding 120 F (45 C). Hoffman corrosion inhibitors are not returnable. When determining the proper corrosion inhibitor for your application, assume the enclosure volume to be protected is greater than calculated if (1) cabinet doors are opened frequently, (2) cabinet is located in an extremely corrosive area and/or (3) cabinet length divided by depth is greater than four.

### **AHCI1DV**

Foam device protects one cubic foot (28 liters) of enclosure volume for approximately one year.

Size: .25 x 1.25 x 3.00 in. (6 x 32 x 76 mm)

### **AHCI5E**

Emitter protects 5 ft.3 (142 liters) of enclosure volume for approximately two years from the date of manufacture. Emitters contain additional red metal (non-ferrous) inhibitors. Size: 2.31 in. (diameter) x 0.81 in. (high) (59 mm x 21 mm)

### **AHCI10E**

Emitter protects 10 ft.3 (283 liters) of enclosure volume for approximately two years from the date of manufacture. Emitters contain additional red metal (non-ferrous) inhibitors. Size: 2.31 in. (diameter) x 1.38 in. (high) (59 mm x 35 mm)

### AHCI60R

Tape protects 60 ft.3 of enclosure volume per roll. Use approximately 2.50 in. (63 mm) of tape per cubic foot (28 liters) of enclosure volume to be protected. Each roll of tape is packaged individually in a resealable bag. Size: .25 in. x .75 in. x 12.00 ft. (6 mm x 19 mm x 3.6 m)

### AHCI240R

Tape protects 240 ft.<sup>3</sup> of enclosure volume per roll. Use approximately 1.00 in. (25 mm) of tape per cubic foot (28 liters) of enclosure volume to be protected. Each roll of tape is packaged individually in a resealable bag

Size: .25 in. x 2.00 in. x 20.00 ft. (6 mm x 51 mm x 6.1 m)

### AHCI238S

Spray is a non-conductive, nonflammable, vapor-phase film and is non-toxic. It has essentially neutral pH value. Application provides instant protection against corrosion. Spray is water soluble and can be easily flushed away with water if desired. This product should be kept from freezing and has a shelf life of 2+ years in normal warehouse conditions.

**Bulletin: A80** 

### **Industrial Corrosion Inhibitors**

Hoffman

Hoffman corrosion inhibitors protect

Switch gear and relay cabinets

Tool chest interiors and contents

Interior components of electronic enclosures

Interiors of pipes, conduits and fuse boxes

Equipment stored at construction sites

Protects against salt and high humidity

Electrical and electronic equipment and controls

wireways

and storage

**Chief Advantages** 

**How They Work** 

or coating removal

Interior components of electrical enclosures, boxes, consoles and

Parts and components that are packaged in crates during shipping

Process control computers, instruments and recording devices

Puts protected equipment to use immediately without degreasing

Each inhibitor contains a special chemical combination that vaporizes

surfaces. These vapors reach every part of an enclosure, protecting all

interior components. Spraying, wiping or greasing are not required.

Protection is effective even in salt-water atmospheres. The AHCI5E

and AHCI10E emitters have additional red-metal inhibitors for further

Eliminates the need of oiling, plating or dipping metal

and condenses on all surfaces in an enclosed area. Vapors will

This eliminates precoating, special wraps and drying agents.

protection. Enclosures containing corrosion inhibitors must be

redeposit as needed in the event of condensation of moisture on

A-HCI23

## Standard Product

reasonably sealed.

Catalog Number	Enclosure Volume Protected (ft.3)	Enclosure Volume Protected (liters)	Package Qty.
AHCI1DV	1	28.32	50
AHCI5E	5	141.6	25
AHCI10E	10	283.2	12
AHCI60R	60 per roll	1699 per roll	3
AHCI240R	240 per roll	6797 per roll	1
AHCI238S	Corrosion Inhibitor Spray	Corrosion Inhibitor Spray	6

## Metal Protection Chart

Metal	Protected by Chemical	Unprotected by Chemical
Aluminum	Marked reduction of surface attack; no pitting	Severe surface attack; tarnish; pitting
Brass <sup>a</sup>	Decreased tarnish; very minor surface attack	Surface discoloration; pitting
Steel, Iron	No change	Severe corrosion
Copper <sup>a</sup>	Slight staining	Heavy corrosive attack
Zinc Plate	Slight discoloration	Severe corrosion
Tin Plate	Slight discoloration	Moderate corrosive attack

<sup>a</sup> AHCI5E and AHCI10E emitters are recommended for these materials



## **Corrosion Inhibitors**

## **Epoxy Patch Kit**



Applications include sealing rivets, bolts, metal joints, seams and welds, cement cracks, pipe couplings, joints and tees. Each kit has two tubes of material, application instructions and a mixing stick. When the resin and hardener are mixed, a gray epoxy is formed which cures at room temperature, has high adhesion and will not sag. It is resistant to oils, acids and chemicals.

**Bulletin: A80** 

Catalog Number	Description	
A307	Epoxy Patch Kit	

## **Touch-Up Paint**



Hoffman Touch-Up Paint is used to repair the finish of enclosures and panels. Furnished in 12-oz. spray cans.

### Bulletin: A80, DACCY, P20

Catalog Number	Color
ATPWE	White Enamel
ATPSG	Gray Enamel
ATPPY61	ANSI 61 Gray Polyester Powder
ATPDLB	DesignLine Beige Enamel
ATPMG	Slate Gray Enamel
ATPHS61	High Solids ANSI 61 Gray
ATPFG	Light Gray for fiberglass
ATPG7035	RAL 7035 Gray
ATPG7032	RAL 7032 Gray
ATPB7021	RAL 7021 Black
ATPB9005	RAL 9005 Black



## **CHS Controls AB**



## **Terminal Block Kit Assembly for Junction Boxes Overview**



### **Terminal Block Kits**

Provides a strong, versatile and easily installed means for mounting terminal blocks in Hoffman junction boxes and other enclosures. These kits can be installed in:

- 1. Oil-Tight Junction Boxes
- 2. Fiberglass Type 4X Enclosures
- 3. Hinged Cover Lift-Off Type 3R Enclosures (16 gauge only) These kits will NOT fit in Small Wall-Mount Enclosures or HCR Type 3R Enclosures.

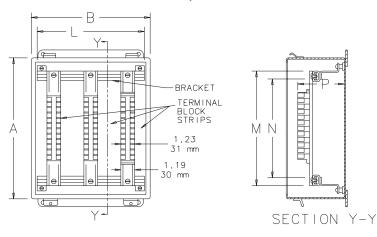
### **How To Order**

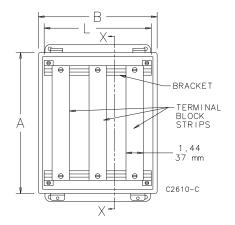
Terminal Kit Assemblies can be installed with the terminal straps or terminal strips parallel to the A dimension or the B dimension of the box. Each box requires one bracket assembly plus the desired number of terminal straps or terminal block strips. The bracket assembly and the terminal straps or terminal block strips must be ordered separately.

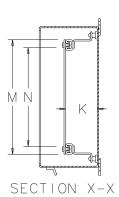
- 1. To select the correct terminal straps or terminal block strips, determine whether they will be mounted parallel to the A dimension or parallel to the B dimension of the box. Be sure to specify the quantity required.
- To select the correct bracket assembly, determine whether the brackets will be mounted parallel to the A dimension or to the B dimension of the box.

Component	Quantity	Comments
Bracket Assembly	1	Mount parallel to A or B dimension
Terminal Straps	As required for installation; specify when ordering	Use straps or strips
Terminal Block	As required for installation; specify when ordering	Use straps or strips
Strips		

Terminal Block Kit Assembly for Junction Boxes







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### **Terminal Block Kits**

## **Terminal Block Bracket Assemblies for Junction Boxes**

Each bracket assembly consists of two brackets which mount on the weldnuts in the box. White finish over pretreated surfaces.

	Enclosure Dimension	K	L
Catalog Number	Parallel to Brackets	in./mm	in./mm
A6JTMA	6	1.44	5.00
		37	127
A8JTMA	8	1.44	7.00
		37	178
A10JTMA	10	1.44	9.00
		37	229
A10JTMAXK	10	2.69	9.00
		68	229
A12JTMA	12	2.69	11.00
		68	279
A14JTMA	14	2.69	13.00
		68	330

## **Terminal Box Straps for Junction Boxes**

A terminal strap is a 12 gauge flat strap which mounts on top of the brackets. The straps can be positioned anywhere along the brackets and are held in place with spring locking nuts. White finish over pretreated surfaces. Terminal blocks are not included with terminal straps. Does not work with DIN rail-mounted terminal blocks.

Bulletin: A80

				Useable
	<b>Enclosure Dimension</b>	K	M	Space, N
Catalog Number	Parallel to Straps	in./mm	in./mm	in./mm
A8JS	8	1.44	5.75	4.62
		37	146	117
A10JS	10	1.44	7.75	6.62
		37	197	168
A12JS	12	1.44	9.75	8.62
		37	248	219
A14JS	14	2.69	11.70	10.62
		68	297	270
A16JS	16	2.69	13.70	12.62
		68	348	321

## **Terminal Block Strips for Junction Boxes**

A terminal block strip is a flat channel holding Buchanan 600V terminal blocks with tubular clamp contacts assembled on the channel. These terminal blocks will accept wire sizes from #22 through #10. The number of terminal blocks assembled on each channel is shown in the table. The terminal block strips can be positioned anywhere along the brackets and are held in place with spring locking nuts. The channel has a plated finish. Terminal blocks are included with terminal block strips. Marathon terminal blocks can be provided on special order. Other brands and sizes of terminal blocks are available on special order.

Bulletin: A80

	1			Useable	
	<b>Enclosure Dimension</b>	Terminal Blocks	M	Space, N	P
Catalog Number	Parallel to Strips	per Strip	in./mm	in./mm	in./mm
A8JBNS	8	8	5.75	4.62	3.00
			146	117	76
A10JBNS	10	12	7.75	6.62	3.00
			197	168	76
A12JBNS	12	16	9.75	8.62	3.00
			248	219	76
A14JBNS	14	20	11.75	10.62	4.25
			298	270	108
A16JBNS	16	24	13.75	12.62	4.25
			349	321	108





### **Terminal Block Kits**

## Terminal Block Kit Assembly for Type 4, 12 and 13 Enclosures Overview



Provide strong, versatile and easily installed terminal block mounting supports. These assemblies fit many single-door Hoffman enclosures. They also fit large Type 1 enclosures and the larger sizes of Hinged Cover Lift-Off Type 3R enclosures as well as most of the Two-Door Wall-Mounted Type 12 enclosures. Kits have white finish over pretreated surfaces. Terminal Block Kit Assemblies can be installed with straps parallel to the A dimension or the B dimension of the enclosure.

### **How To Order**

Each enclosure requires one bracket assembly plus the desired number of terminal straps. The bracket assembly and the terminal straps must be ordered separately.

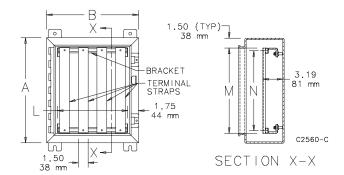
- To select the correct terminal straps, determine whether the terminal straps will be mounted parallel to the A dimension or the B dimension of the enclosure. Be sure to specify the quantity required.
- To select the correct bracket assembly, determine whether the brackets will be mounted parallel to the A dimension or the B dimension of the enclosure. Refer to the table.

One bracket is required for each row of collar studs parallel to the brackets. As a result, if the enclosure dimension is 24.00 in. (610 mm), 30.00 in. (762 mm) or 36.00 in. (914 mm) and if two brackets are needed to cover all of the collar studs order A\_\_\_NTMA2; if three brackets are needed to cover the studs order A\_\_\_NTMA3.

For example: If you have an A302406LP enclosure and want five terminal straps running vertically, order one A24NTMA2 bracket assembly plus five A30T straps. If you have an A483008LP enclosure and want six terminal straps running vertically, order one A30NTMA3 bracket assembly plus six A48T straps. If you have an A363006LP enclosure and want seven terminal straps running horizontally, order one A36NTMA2 bracket assembly plus seven A30T straps.

## Terminal blocks are not included. Be sure to order one bracket assembly plus the desired number of terminal straps for each enclosure.

Component	Qty Required	Comments
Bracket Assembly	1	Terminal blocks are not included
Terminal Straps	Depends on installation	Specify quantity when ordering
Terminal Strap Support Kit	One kit per strap	Optional



## Bracket Assembly for Type 4, 12 and 13 Enclosures

Each bracket assembly consists of two or three brackets which mount on the enclosure collar studs. Bulletin: A80

		Enclosure Dimension	Enclosure Dimension	'	
		Parallel	Parallel	Bracket	Bracket
Catalog Number	Number of Brackets	to Brackets (in.)	to Brackets (mm)	Length, L (in.)	Length, L (mm)
A12NTMA2	2	12.00	305	8.50	216
A16NTMA2	2	16.00	406	12.50	318
A20NTMA2	2	20.00	508	16.50	419
A24NTMA2	2	24.00	610	20.50	521
A24NTMA3	3	24.00	610	20.50	521
A30NTMA2	2	30.00	762	26.50	673
A30NTMA3	3	30.00	762	26.50	673
A36NTMA3	3	36.00	914	32.50	826



### CHS Controls AB



### **Terminal Block Kits**

## **Terminal Straps for Type 4, 12 and 13 Enclosures**

The terminal straps can be positioned anywhere along the brackets and are held in place with spring locking nuts. This feature makes wiring easy and simplifies the addition of terminal straps at a later date.

Bulletin: A80

	Enclosure Dimension				
	Parallel			Useable	Useable
Catalog Number	to Straps	M (in.)	M (mm)	Space, N (in.)	Space, N (mm)
A16T	16	13.00	330	11.75	298
A20T	20	17.00	432	15.75	400
A24T	24	21.00	533	19.75	502
A30T	30	27.00	686	25.75	654
A36T	36	33.00	838	31.75	806
A42T	42	39.00	991	37.75	959
A48T	48	45.00	1143	43.75	1111
A60T	60	57.00	1448	55.75	1416

## **Terminal Strap Support Kit**



Designed to provide a simple and versatile method of mounting terminal straps. The Z-shaped brackets are 1.50-in. (38-mm) high with white finish. Brackets can be attached to panels or to enclosure walls. A terminal strap is then installed on the brackets. Terminal straps must be ordered separately. Two brackets are furnished with each kit. Spacing between brackets will depend on the number and size of terminal blocks installed on the terminal strap. We recommend a maximum spacing of 15 in. (381 mm) for an average installation.

### **Bulletin: A80**

Catalog Number	Description
ATZ	Two Z-shaped brackets

Terminal strap NOT included.



## **CHS Controls AB**



## **DIN Type Rails**

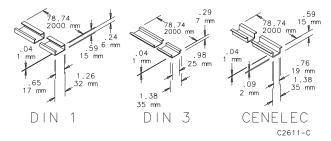


DIN Type Rails receive terminal blocks, relays, switches, filters, timers and various other electrical and electronic components manufactured by European, Japanese and U.S. firms. Available in three styles: (1) asymmetric, DIN 1 profile; (2) symmetric, DIN 3 profile; (3) heavy-duty CENELEC profile. All DIN rails are 78.74-in. (2000-mm) long and plated.

Bulletin: A80

## Grounding

Catalog Number	Description
ADNR1	DIN 1 mounting rail TS32
ADNR3	DIN 3 mounting rail TS35x7.5
ACENR1	CENELEC mounting rail TS35x15



## **Grounding Device**



Grounding lug is designed to provide a means of attaching a grounding conductor to an electrical enclosure. Will accept wire sizes 2 through 14. Grounding Straps can be used to provide electrical continuity between metal parts which must be electrically connected. Each strap consists of a length of braided copper with a ring terminal at both ends. Braid is insulated with green and yellow striped plastic.

**Bulletin: A80** 

			Length	Length		
		Approximate	Between Ring	Between Ring	Ring Terminal	Ring Terminal
Catalog Number	Description	Wire Size (AWG)	Terminals C-to-C (in.)	Terminals C-to-C (mm)	Hole Diameter (in.)	Hole Diameter (mm)
AGS808	Grounding Strap	#8	8.19	208	0.406	10
AGS816	Grounding Strap	#8	16.19	411	0.406	10
AGS408	Grounding Strap	#4	8.19	208	0.406	10
AGS416	Grounding Strap	#4	16.19	411	0.406	10
AGLK2	Grounding lug kit	2-14		_	_	

## **Grounding Bar System**





### **Industry Standards**

UL Component Recognized; File No. E61997

Three sizes of grounding bars and insulated mounting brackets are available. Bars are plated copper with M6 and M5 tapped holes to provide a common point for grounding equipment. Fits all enclosures if mounted vertically. See table for horizontal mounting.

Bulletin: P20

			Number of	Number of
		Length	<b>Holes and</b>	Holes and
Catalog Number	Description	mm/in.	Screws M6	Screws M5
PGS2K	Fits 400-mm deep frame	200	3/5	10/10
	front to back horizontally	7.87		
PGS4K	Fits 600-mm deep frame	400	9/11	20/20
	front to back horizontally	15.75		
PGS6K	Fits 800-mm deep frame	600	15/17	30/31
	front to back horizontally	23.62		

# controls

### **CHS Controls AB**



## Grounding

## **PROLINE®** Grounding Kit



The Grounding Kit allows a PROLINE® enclosure to be grounded to VDE specifications. Includes six 12 gauge wires 411-mm (16.19-in.) long with ring terminations and M6 mounting hardware.

Bulletin: P9

Catalog Number	Wire Size	Length Between Ring Terminals mm/in.	Ring Terminal Hole Diameter mm/in.	
PGK	12 ga.	411	7	
		16.19	.29	





## Electrical Interlocks

### **Electrical Interlocks**





### **Industry Standards**

UL 508A Component Recognized; File No. E61997

CSA Certified; File No. 42186

### Application

Provide positive internal safety lockout on electrical enclosures while the equipment is energized. Catalog numbers AEK115, AEK230 and AEK460 are used with standard Hoffman door latching mechanisms. When energized, these interlocks prevent the door handle from being turned to open the door. Fit either clockwise or counterclockwise handles in the following enclosures:

- 1. All two-door Type 4 and 12 enclosures
- 2. All Type 4X with 3-point latch enclosures
- 3. Free-standing Type 12 enclosures
- 4. All one-door Type 12 enclosures with latch kits installed

The interlocks will fit the following enclosures, but modifications are required. Consult the factory for more information.

- Two-door Type 12 enclosures for flange-mounted disconnects
- 2. Heavy duty free-standing Type 12 enclosures for flangemounted disconnects
- 3. Modular Type 12 enclosures for flange-mounted disconnects
- 4. Multi-door Type 12 enclosures

The interlocks will also fit most Hoffman custom enclosures with door latching mechanisms similar to the mechanisms used on the preceding enclosures. Electrical interlocks will not fit CONCEPT® enclosures or Bulletin A25 and A26 enclosures. Interlocks are not designed to be used in place of the standard door or cover latch.

Catalog numbers AEK115NDH, AEK230NDH and AEK460NDH are designed to be used on some Hoffman enclosures and boxes which have exterior latching only. When energized, these interlocks will prevent the enclosure door from being opened. They fit on the door or cover of the following enclosures and maintain UL Type 4, 4X and 12 when properly installed per Hoffman instructions:

- 1. One-door Type 4 and 4X enclosures
- 2. Two-door Type 4 and 4X enclosures
- 3. One-door Type 12 enclosures
- 4. Larger sizes of CH, CHS, CHNF, CHNFSS and CHAL junction boxes
- 5. Type 1 and large Type 1 enclosures

The interlocks also fit in most Hoffman custom enclosures and boxes which have doors or covers hinged similar to doors or covers on the preceding enclosures.

### Installation

AEK115, AEK230 and AEK460 mount on the inside of the enclosure door using the same screws which hold the door handle in place. The strike plate attaches to the existing latch assembly.

### **Specifications**

- · Rugged steel construction and plated finish
- Solenoids are rated for continuous duty and will stand up under heavy industrial use
- Packaged complete with a solenoid assembly, strike plate or bracket and instructions for field installation
- · Handles and latch mechanisms are not included.

Bulletin: A80

### Standard Product A-EK\_\_\_Style

Catalog Number	Volts @ 50/60 Hz	Normal/Inrush Amps @ 60 Hz	Normal/Inrush Amps @ 50 Hz
AEK115	110/120	.100/.63	.120/.69
AEK230	220/240	.050/.32	.060/.35
AEK460	440/480	.025/.16	.030/.18

### Standard Product AEK\_\_\_NDH Style

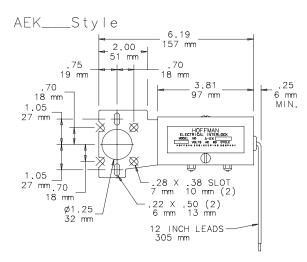
Catalog Number	Volts @ 50/60Hz	Normal/Inrush Amps @ 60 Hz	Normal/Inrush Amps @ 50 Hz	
AEK115NDH	110/120	.100/.63	.120/.69	
AEK230NDH	220/240	.050/.32	.060/.35	
AEK460NDH	440/480	.025/.16	.030/.18	

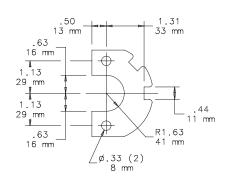


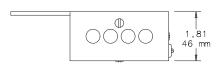
### **CHS Controls AB**

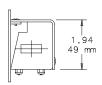


## **Electrical Interlocks**



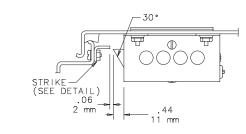


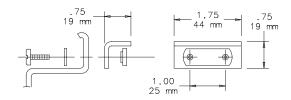




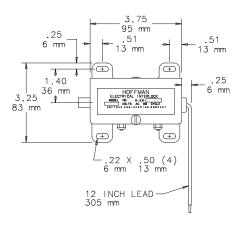


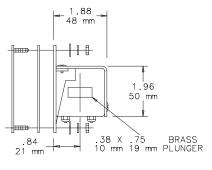
## AEK\_\_\_NDH Style





STRIKE DETAIL





C2603-C



## **CHS Controls AB**



## **Electrical Interlock Defeater**





### **Industry Standards**

UL 508A Component Recognized; File No. E61997

### **Electrical Interlocks**

Enables authorized personnel to enter an enclosure while the enclosure contents are energized. Defeater is a key-operated momentary contact switch with contacts normally closed. Turning the key disengages the circuit to the electrical interlock. Can be used with all 110/120 volt Hoffman electrical interlocks. A relay must be used in conjunction with switch for 220/240 volt and 440/480 volt applications.

### **Bulletin: A80**

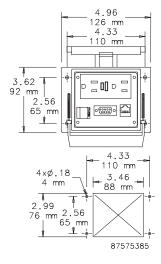
Catalog Number	Description	Amps @ 120V/60 Hz Normal/ Inrush	Amps @ 110V/50 Hz Normal/ Inrush
AEKDF	Electrical interlock	10 Max.	10 Max.
	defeater		

The panel interface connector provides a connection for a PLC or computer housed inside an enclosure without opening the enclosure door. It mounts on the outside of the enclosure. The HBE size 32 housing and hinged cover are die cast aluminum. The closed assembly is rated UL Type 4. The panel interface connector enclosure includes:

- A duplex receptacle
- A 9-pin D-sub pass-through connector
- An RJ 45 pass-through connector
- A 3-amp reset
- A covered terminal block with screw connections for the internal power connection

### **Bulletin: A80**

Catalog Number	Description	
AC4DB9RJ45GFI	Panel Interface Connector	





## **CHS Controls AB**



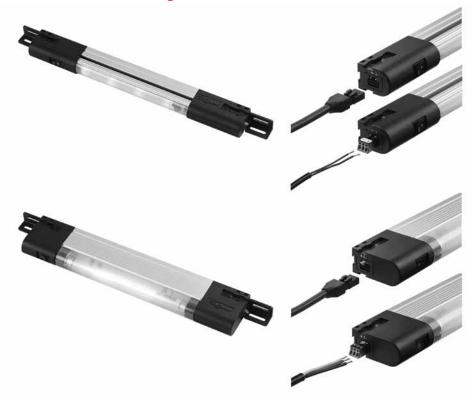
## **Electrical Interlocks**

## **Notes**





### **PANELITE™ Enclosure Lights Overview**



#### **Industry Standards**

UL 508A Component Recognized; File No. E61997 cUL Component Recognized per CSA C22.2 No 14; File No. E61997

CSA File No. 42186

Maintains UL/CSA Type 4, 4X and 12 enclosure rating when properly installed in a Hoffman enclosure.

#### Application

Versatile, slim-profile LED and fluorescent lights provide mounting flexibility and are easy to install in any enclosure. Terminal blocks on both ends of the light allow for easy wiring. Accessories include ganging cables, power cords and door switches, all provided with plug-and-play connectors for easy connection to the terminal blocks with an innovative terminal connection system. LED version provides superior lighting performance with minimal power consumption.

- Slim profile allows light to be tucked up out of the way for easy panel installation
- Versatile mounting tabs allow the light to be positioned horizontally or vertically; two-way mounting tabs can be installed on front or back of light for ideal orientation
- Mounting tabs provide easy access point for attachment hardware; light does not need to be disassembled for installation
- Includes mounting hardware for the following enclosure installations: PROLINE Frame, Enclosure Top, Panel Mount and Unistrut

- On/off switch incorporated in light; optional remote door switch accessory available to activate light when enclosure door is opened
- Up to five lights can be daisy-chained together
- Plug-and-play terminal connection system:
  - Pre-wired connection sockets on both ends of light allow use of Hoffman cable accessories
  - Optional terminal blocks snap into the connection sockets allowing customers to use own wiring methods; two terminal blocks provided with each light kit
  - Power supply can be wired manually with Hoffman PANELITE Power Cable with Leads or with Hoffman optional PANELITE Power Cord
  - Ganging cables are available in 2-, 4- and 6-ft. lengths to easily join up to five lights together using one power supply
  - Remote door switch for easy door activation eliminates need to mount light in the exact location required to activate the light

#### **Specifications**

- Extruded aluminum center support
- Black composite end caps
- Black composite mounting tabs
- Each light fixture includes two mounting tabs, two pre-wired connection sockets, two optional terminal blocks that snap into the connection sockets and enclosure attachment hardware (bulb not included with fluorescent light)



### **CHS Controls AB**



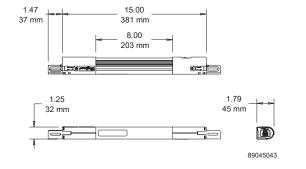
### **PANELITE™ LED Enclosure Light**



- 24 VDC operation for superior lighting performance with minimal power consumption
- 140-degree cone angle casts a broad covering of neutral light
- Center section rotates 120 degrees to re-direct light where needed
- Long life; 70 percent of initial luminance at 50,000 hours (at 25 C)
- High power LED emitters produce 470 Lumens for superior lighting performance; provides up to 50 percent more usable light than comparable length fluorescent lights
- Can be wired using optional PANELITE Cable Accessories or can be hard-wired with terminal blocks included in hardware kit
- Up to five lights can be daisychained together using hard-wired connection to power supply or catalog number LPC72 power cable with leads

**Bulletin: A80LT** 

				W	Х
Catalog Number	Description	VDC	Amps	in./mm	in./mm
LED24V15	LED Light, 15 in.	24	.5	15.00	8.00
				381	203

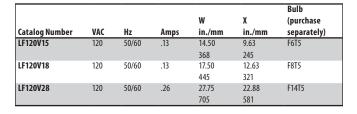


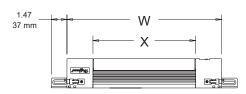
### PANELITE™ Fluorescent Enclosure Light

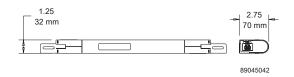


- 120 VAC, 50/60 Hz operation
- Can be wired using optional PANELITE™ Cable Accessories or can be hard-wired with terminal blocks included in hardware kit
- Available in 15-, 18- and 28-in. lengths with ability to daisy chain up to five lights together using one power supply
- Fluorescent bulb not included

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### **PANELITE™ Power Cords**



- Connects light to standard North American wall socket
- LF120VCORD is for 120 VAC Fluorescent lights (up to five lights can be daisy chained together using one power cord)
- LED24VCORD is for 24 VDC LED lights and includes a transformer to convert 100-240 VAC power supply (capable of powering only one LED light)
- Plugs directly into a connection socket on switch end of the light
- · Includes one cable

Power cord not required. Terminal blocks are provided with each light for wired connection to electric supply.

**Bulletin: A80LT** 

Catalog Number	Description	Length
LF120VCORD	Fluorescent Light Power Cord	72 in.
LED24VCORD	LED Light Power Cord	60 in.

### PANELITE™ Power Cable with Leads



- 72-in. power cord provides convenient connection to an electrical supply
- Eliminates need to run and tag individual wires into the light
- Compatible with PANELITE<sup>™</sup> LED and Fluorescent lights
- Plugs directly into connection socket on switch end of the light
- Includes one 16 AWG cable, black Power Cable not required. Terminal blocks are provided with each light for wired connection to electric supply.

**Bulletin: A80LT** 

Catalog Number	Length
LPC72	72 in.

### PANELITE™ Ganging Cables



- Ganging Cables provide convenient method for joining up to five lights together while utilizing one power supply
- Available in 24-, 48- and 72-in. lengths
- Plugs directly into connection socket on either end of the light
- Compatible with PANELITE™ LED and Fluorescent lights
- Includes one 16 AWG cable, black Ganging Cables not required. Terminal blocks are provided with each light for hard-wired connections.

**Bulletin: A80LT** 

Catalog Number	Length
LGCABLE24	24 in.
LGCABLE48	48 in.
LGCABLE72	72 in.

### **PANELITE™ Door Switch Cable**



- Easily connects PANELITE™ LED or Fluorescent Light to a Remote Door Switch
- T-connector allows the Door Switch Cable to be connected with a ganging cable or power supply to the switch end of the light
- Available in 18- and 72-in. lengths
- Includes one 18 AWG cable, black Door Switch Cables not required. Terminal blocks are provided with each light for hard-wired connection to remote door switch.

**Bulletin: A80LT** 

Catalog Number	Length
LDSWITCH18	18 in.
LDSWITCH72	72 in.



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### **PANELITE™ Remote Door Switches**



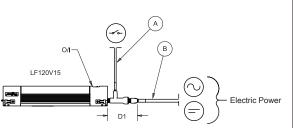
- Remote door switch activates the light when the enclosure door is opened
- Mounts on enclosure frame and includes mounting hardware
- Mounting plate is 14 gauge steel with a plated finish
- Can be hard-wired to the PANELITE™ LED or Fluorescent light or connected via the PANELITE Door Switch Cable

Bulletin: A80LT, P20

Catalog Number	Description
ALFSWD	Door switch assembly (order connection cable separately)
PLFSWD	Door switch assembly for PROLINE® (order connection cable separately)

## **PANELITE™ Wiring Options**

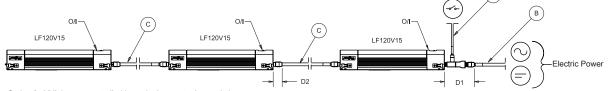
See the table on the drawing for cable clearance dimensions.



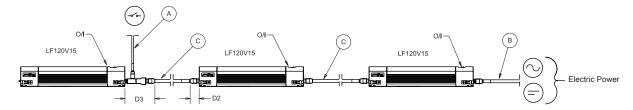
ITEM	CONNECTOR TYPE	LIGHT FIXTURE
Α	LDSWITCH18 LDSWITCH72	LF120V15 LF120V18 LF120V28 LED24V15
В	LF120VCORD LPC72	LF120V15 LF120V18 LF120V28
	LED24VCORD	LED24V15
С	LGCABLE24 LGCABLE48 LGCABLE72	LF120V15 LF120V18 LF120V28 LED24V15

PLUG	DIMENSION	'D' M <b>I</b> N
A + B	D1	127 MM 5.00 IN
С	D2	51 MM 2.00 <b>I</b> N
A + C	D3	127 MM 5.00 <b>I</b> N

Option 1: Each light is controlled by a remote door switch.



Option 2: All lights are controlled by a single remote door switch.



Option 3: The last light is controlled by a remote door switch. The first two lights are manually operated.

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CHS Controls AB

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www.chscontrols.se

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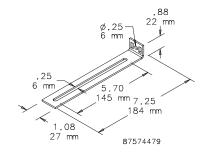


### **Mounting Bracket Kit for Light Package**

Kit simplifies mounting light package in Hoffman PROLINE® disconnect enclosures. Includes brackets, all mounting hardware and complete instructions.

**Bulletin: A80LT** 

Catalog Number	Description
PDLFBRKT	Mounting Bracket Kit



### **Remote Switches for Light Package**

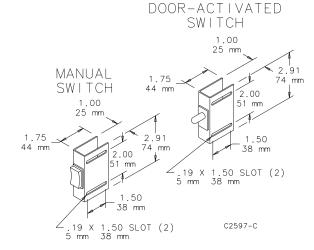


Remote switches for the PANELITE™ Enclosure Lights. Mounts on the frame and includes mounting hardware. Mounting plate is 14 gauge steel with a plated finish.

Bulletin: A80LT, P20

Catalog Number	Description
ALFSWM	Manual Switch
ALFSWD	Door-Activated Switch
PLFSWM	Manual Switch <sup>a</sup>
PLFSWD	Door-Activated Switch <sup>a</sup>

<sup>a</sup>For installation in PROLINE® Enclosures.





### **CHS Controls AB**





# **Lighting Packages Notes**

### **CHS Controls AB**





#### **Power Distribution Units**

### **Rack- and Panel-Mount Power Distribution Units (PDUs)**



#### **Industry Standards**

UL/cUL 60950 listed

UL 1449 (Surge protector models only)

EIA 310-D (19-in. rack-mount models only)

#### **Application**

Rack- and Panel-Mount PDUs not only provide convenient, reliable power to equipment mounted in cabinets or on open frame racks, they can also be configured to meet a wide range of design specifications.

#### **Features**

- Power on/off LED indicates whether power is available at the PDU
- External ground stud provided on single-phase models for secure grounding
- Circuit breakers provide additional equipment protection
- Circuits are isolated on dual circuit model; each has its own circuit breaker
- Reset button provides easy access to circuit breaker reset
- Surge protector models have an indicator LED to verify surge circuitry protection
- Rack-mount models mount directly to rack or with adapter bracket
- Rack-mount models designed for single-phase applications
- Panel-mount models can be mounted flush or with hanging bracket
- Panel-mount models available for both one- and three-phase applications
- Three-phase models have three 20 A, double-pole magnetic breaker/switches with an integral switch guard

#### **Specifications**

- Steel housing
- · Power cord with molded-on plug:
- 12-in. (305-mm) long single-phase model: 6 ft. (1.8 m)
- Other single-phase models: 15 ft. (4.6 m)
- Three-phase models: 10 ft. (3 m)

# Contact Hoffman for custom modifications and non-standard offerings.

#### **Finish**

Black, low-gloss textured paint.

**Bulletin: DPS** 

#### Standard Product Single-Phase Rack-Mount

	Surge	Amp	Load	Voltage	Joule		No. of			Rack
Catalog Number	Protection	Meter	Rating	(VAC)	Rating	Receptacle Location	Receptacles	Receptacle Style	Power Cord Plug	Units
DP1N190615	No	No	15A	120	_	Front	6	NEMA 5-15R	NEMA 5-15P	1
DP1N191415	No	No	15A	120	_	6 front, 8 back	14	NEMA 5-15R	NEMA 5-15P	1
DP1N191415M	No	Yes	15A	120	_	6 front, 8 back	14	NEMA 5-15R	NEMA 5-15P	1
DP1N191015S	Yes	No	15A	120	2000	2 front, 8 back	10	NEMA 5-15R	NEMA 5-15P	1
DP1N191020	No	No	20A	120	_	2 front, 8 back	10	NEMA 5-20R	NEMA 5-20P	1
DP1N191020S	Yes	No	20A	120	2000	2 front, 8 back	10	NEMA 5-20R	NEMA 5-20P	1
DP1N191020ST	Yes	No	20A	120	2000	2 front, 8 back	10	NEMA 5-20R	NEMA L5-20P Twist Lock	1
DP1N191420	No	No	20A	120	_	6 front, 8 back	14	NEMA 5-20R	NEMA 5-20P	1
DP1N191420T	No	No	20A	120	_	6 front, 8 back	14	NEMA 5-20R	NEMA L5-20P Twist Lock	1
DP1N190430X	No	No	30A	120	_	4 front, 4 back	8	Front, NEMA 5-15R - 15A;	NEMA L5-30P Twist Lock	2
								Back, NEMA L5-30R-30A		

Isolated circuits on dual-circuit models with separate circuit breakers.

#### Plugs and Receptacles

NEMA Type	Plug	Receptacle
NEMA 15 Amp, 120V, Duplex	5-15P	5-I5R
NEMA 20 Amp, I 20V, Duplex	5-20P	5-20R
NEMA 20 Amp, I20V, Twist Lock	L5-20P	L5-20R
30 Amp, 120/208V Wye, Twist Lock	L21-30P	L21-30R

IEC Туре	Inlet	Outlet
IEC 15 Amp, 125/250V	C-14	C-13
IEC 20 Amp, I 25/250V	C-20	C-19

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### CHS Controls AB



### **Power Distribution Units**

### Standard Product Single-Phase Vertical-Mount

	Length	Length	Surge	Amp	Load	Voltage	Joule	No. of		
Catalog Number	(in.)	(mm)	Protection	Meter	Rating	(VAC)	Rating	Receptacles	Receptacle Style	Power Cord Plug
DP1N120615	12.00	305	No	No	15A	120	_	6	NEMA 5-15R	NEMA 5-15P
DP1N160620S	16.00	406	Yes	No	20A	120	2000	6	NEMA 5-20R	NEMA 5-20P
DP1N481815	48.00	1219	No	No	15A	120	_	18	NEMA 5-15R	NEMA 5-15P
DP1N622415	62.00	1575	No	No	15A	120	_	24	NEMA 5-15R	NEMA 5-15P
DP1N622420	62.00	1575	No	No	20A	120	_	24	NEMA 5-20R	NEMA 5-20P
DP1N622420T	62.00	1575	No	No	20A	120	_	24	NEMA 5-20R	NEMA L5-20P Twist Lock
DP1N622420M	62.00	1575	No	Yes	20A	120	_	24	NEMA 5-20R	NEMA 5-20P
DP1N622420MT	62.00	1575	No	Yes	20A	120	_	24	NEMA 5-20R	NEMA L5-20P Twist Lock
DP1N622040DT	62.00	1575	No	No	20A per circuit	120	_	20, 10 per circuit, dual circuit	NEMA 5-20R	NEMA L5-20P Twist Lock
DP1E2663030MT	66.00	1676	No	Yes	30A	250	_	30	24 IEC C-13, 6 IEC C-19	NEMA L6-30P Twist Lock

Isolate circuits on dual circuit models with separate circuit breakers.

DP1E2663030MT is Ethernet metered; SNMP trap provides remote current monitoring via Ethernet.

#### Standard Product Three-Phase Vertical-Mount

	Length	Length	Amp	Load	Voltage				
Catalog Number	(in.)	(mm)	Meter	Rating	(VAC)	No. of Outlets per Phase	Total Outlets per PDU	Required Inlet Style	Power Cord Plug
DP3E662490T	66.00	1676	No	30A	208	8 IEC C-13 and 2 IEC C-19	24 IEC C-13 and 6 IEC C-19	IEC C-14 and C-20	NEMA L21-30P Twist Lock
DP3E662490MT	66.00	1676	Yes	30A	208	8 IEC C-13 and 2 IEC C-19	24 IEC C-13 and 6 IEC C-19	IEC C-14 and C-20	NEMA L21-30P Twist Lock
DP3E2663635MT	66.00	1676	Yes	35A	250	10 IEC C-13, 2 IEC C-19	30 IEC C-13, 6 IEC C-19	IEC C-14 and C-20	CA style 50A 250 Vac Twist Lock

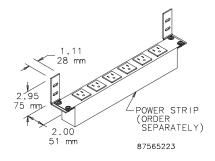
 $DP3E2663635MT\ is\ Ethernet\ metered; SNMP\ trap\ provides\ remote\ current\ monitoring\ via\ Ethernet.$ 

### **Rack-Mount PDU Bracket**

Allows rack-mount power strips to be mounted to cabinet sides without using up rack space. Made of plated steel. Includes two brackets and mounting hardware. Order power strip separately.

#### **Bulletin: DPS**

Catalog Number	Finish	Pkg. Qty.	
A19PSMB	Plated	2 brackets	



### **IEC Cord Sets**



Cord sets help minimize cord tangle, increasing airflow to equipment. **Bulletin: DPS** 

Catalog Number	Description	Pkg. Qty.
DP5E	0.5-m (1.64-ft.) IEC patch cord. 18/3 SJT Black. C-14 to C-13	10
DP10E	1-m (3.28-ft.) IEC patch cord, 18/3 SJT Black. C-14 to C-13	10

### **IEC C-13 Retaining Clip**



Secures the IEC C-14 inlet into the C-13 outlet. Helps to prevent inadvertently unplugging the cord set.

**Bulletin: DPS** 

Catalog Number	Description	Pkg. Qty.
DPCLIP	IEC C-13 Retaining Clip	10



### **CHS Controls AB**



### **Mounting Kits**

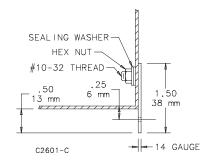
### **Mounting Bracket Kits**



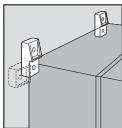
Mounting bracket kits are fieldinstallable. Composite kits are rated for 500 lb. (227 kg) maximum load. Kit includes four brackets and mounting hardware for all Type 1 Networking wall-mount and COMLINE® enclosures. DMFK1 and DMFK2 include two 14 gauge steel external mounting brackets and fasteners. Mounting bracket kit CMFK and CMFKSS each contain four 12 gauge steel or Type 304 stainless steel external mounting brackets and fasteners. Sealing washers are provided with each kit to maintain Type 4 or 12 rating after installation. Steel mounting brackets are plated.

Bulletin: A80

Catalog Number	Description
DMFK1	Mounting bracket kit
DMFK2	Mounting bracket kit
CMFK	Steel mounting kit
CMFKSS	Stainless steel mounting bracket kit
CMTGFT	Composite mounting bracket kit



### **ULTRX® Mounting Bracket Kit**



Kit is field-installable. Corrosionresistant fiberglass material. Type 316 stainless steel mounting hardware is included. Four mounting brackets per kit.

**Bulletin: UX1Y** 

Catalog Number	Description	Kit Qty.
UUMF	Mounting Bracket Kit	4
	43	-ø.41 2 mm
	11C5917	7

#### **Pole-Mount Kit**





Use to mount CONCEPT®, Networking and wall-mount enclosures to poles of various sizes and shapes. Simply attach the plated steel channel bar to the mounting holes at the back of the enclosure and wrap the stainless steel strap around the pole and through the bar. Kit includes two mounting channels, two straps suitable for 3-in. (76mm) to 12-in. (305-mm) diameter pole and mounting hardware.

#### **Bulletin: CWY**

Catalog Number	Fits Enclosure (in.)	Fits Enclosure (mm)
CPMK12	when B = 12.00	when B = 305
CPMK16	when B = 16.00	when B = 406
CPMK20	when B = 20.00	when B = 508
CPMK24	when B = 24.00	when B = 610
CPMK30	when B = 30.00	when B = 762



#### **CHS Controls AB**



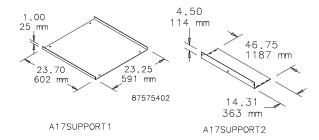
### **Mounting Kits**

### **Bottom Support Kit**

Bolt-in bottom support plate with mounting hardware. Coated with ANSI 61 gray polyester powder paint. Required when installing Hoffman floor stands or casters on A17 fiberglass free-standing enclosures.

#### **Bulletin: A17Y**

Catalog Number	Use With
A17SUPPORT1	A17 One-Door Fiberglass Enclosures
A17SUPPORT2	A17 Two-Door Fiberglass Enclosures

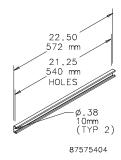


### **Unistrut Mounting Kit**

Bolt-in internal unistrut channel (8 pieces) with mounting hardware. Required to install Hoffman unistrut-mounted free-stand panels and accessories in two-door A17 fiberglass enclosures. Hoffman A17SUPPORT2 plate must also be installed to secure unistrut.

#### **Bulletin: A17Y**

Catalog Number	Use With
A17UNISTRUT	A17 Two-Door Fiberglass Enclosures



### **Enclosure Stabilizers**



Helps prevent injury to workers by stabilizing floor-mount enclosures which are not bolted down. To install, slip the stabilizer under the floor stand and tighten two thumb screws. Made from .19-in. (5-mm) steel plate. Bright orange finish.

#### **Bulletin: A80**

Catalog Number	Description
AENST	Two stabilizers



#### **CHS Controls AB**



### **Floor Stand Kit**



#### **Industry Standards**

Product maintains UL/CSA Type 4, 4X (stainless steel only) and Type 12 when properly installed on Hoffman Type 4 or Type 12 enclosures.

Kits are easily installed on most wall-mount Hoffman enclosures. Can also be used to elevate Hoffman free-stand enclosures.

To install, drill holes in the bottom of the enclosure and bolt the floor stands to the enclosure. It is not necessary to remove the wall-mount brackets from the enclosure.

#### Specifications

12 gauge steel floor stand has an ANSI 61 gray polyester powder finish over pretreated surfaces. Stainless steel floor stand is Type 304.

#### **Components**

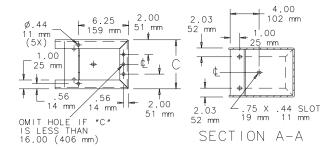
Each kit includes two stands. Two sets of floor stands are recommended for enclosures larger than double door free-stand enclosures.

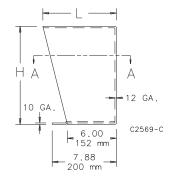
### **Mounting Kits**

#### **Ordering**

Special heights, depths, materials and finishes can be provided on custom order. Consult factory for information.

Bulletin: A4SY, A80





Catalog Number	Material	Height, H (in.)	Height, H (mm)	Width, C (in.)	Width, C (mm)	L (in.)	L (mm)
AFK0608	Steel	6.00	152	8.06	205	7.06	179
AFK0610	Steel	6.00	152	10.06	256	7.06	179
AFK0612	Steel	6.00	152	12.06	306	7.06	179
AFK0618	Steel	6.00	152	18.06	459	7.06	179
AFK1208	Steel	12.00	305	8.06	205	8.12	206
AFK1210	Steel	12.00	305	10.06	256	8.12	206
AFK1212	Steel	12.00	305	12.06	306	8.12	206
AFK1216	Steel	12.00	305	16.06	408	8.12	206
AFK1218	Steel	12.00	305	18.13	461	8.12	206
AFK1220	Steel	12.00	305	20.06	510	8.12	206
AFK1808	Steel	18.00	457	8.06	205	9.17	233
AFK1810	Steel	18.00	457	10.06	256	9.17	233
AFK1812	Steel	18.00	457	12.06	306	9.17	233
AFK1816	Steel	18.00	457	16.06	408	9.17	233
AFK2408	Steel	24.00	610	8.06	205	10.23	260
AFK2410	Steel	24.00	610	10.06	256	10.23	260
AFK2412	Steel	24.00	610	12.06	306	10.23	260
AFK2416	Steel	24.00	610	16.06	408	10.23	260
AFK1208SS	Stainless Steel	12.00	305	8.06	205	9.09	231
AFK1210SS	Stainless Steel	12.00	305	10.06	256	9.09	231
AFK1212SS	Stainless Steel	12.00	305	12.06	306	9.09	231
AFK1216SS	Stainless Steel	12.00	305	16.06	408	9.09	231
AFK1218SS	Stainless Steel	12.00	305	18.06	459	9.09	231
AFK1224SS	Stainless Steel	12.00	305	24.06	611	9.09	231
AFK2410SS	Stainless Steel	24.00	610	10.06	256	9.09	231
AFK2412SS	Stainless Steel	24.00	610	12.06	306	9.09	231



#### **CHS Controls AB**



## **Mounting Kits**

### **Notes**







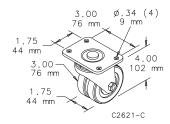
**Plate Casters** 

### **Legs and Casters**

Catalog Number	Description
DMCKC	Set of four casters, four mounting plates and hardware



Plate casters can be used on any enclosure to provide mobility. Casters have dual hard rubber wheels. Each caster has a 350-lb. (159kg) load rating. Caster plates are heavy gauge steel with a zinc plated finish. Casters have ball bearing swivels. A caster kit includes 4 swivel casters and necessary mounting hardware. Catalog number DMCKC caster kit also includes four caster skirts which partially conceal caster plate and mounting hardware. Caster skirts are painted medium gray. Bulletin: D10









A set of four casters (two locking, two non-locking) that mount directly to the bottom of a PROLINE® frame, 0-mm, or 100-mm Solid Base or a Console. (Do not use on plinth bases.) Casters elevate the enclosure 110 mm (4.33 in.) when installed. Caster frames are plated steel with ball-bearing pivots. Caster wheels are made of a black polyamide material. Kit includes M12 mounting hardware. Order separately.

#### Casters Maximum Load: 1000 lb. (453 kg)

Exercise care when using casters to move the cabinet. Avoid tipping and damage to the cabinet and its contents by slowly moving the cabinet on its casters across smooth, flat flooring. Avoid:

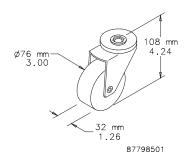
- · large cracks
- floor displacement
- seams
- gravel
- any other obstruction

Never use casters while transporting a cabinet by truck on roadways.

Contact Hoffman if further information is needed.

**Bulletin: P20** 

Catalog Number	Description
PC1M12	Set of 4 Casters



**CHS Controls AB** Florettgatan 33



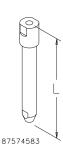
### **Legs and Casters**

### **Sanitary Leg Kits**

Sanitary leg kits provide space between the enclosure and the floor for better washdown accessibility. Available with fixed or independently adjustable legs. Adjustable leg shown. Maintains NEMA Type 4X rating when properly installed on a Hoffman enclosure.

#### **Bulletin: WSY**

	·	Size L	
Catalog Number	Description	in./mm	
WSASLKSS	Adj. Sanitary Leg kit	11.50-12.50	
		292-318	
WSFSLKSS	Fixed Sanitary Leg Kit	12.00	
		305	



### **Stainless Steel Legs**



Legs mount to the bottom of a solid base to elevate the enclosure 4 in. (100 mm) from the floor. The legs are made of Type 304 stainless steel and are appropriate for hose-down applications. Mounting hardware is included.

**Bulletin: P20S** 

Catalog Number	Description
PLEGSS	(4) Stainless Steel Legs





### **CHS Controls AB**



### **VELCRO®** Cable Wrap



Securely holds cable to cable manager and unfastens easily for cable maintenance. VELCRO® is 0.5-in. (12.7-mm) wide. Available in 8- and 12-in. (203- and 305-mm) lengths in both screw fastener and wrap styles. M5 self-tapping screw is used on Net Series or PROLINE®

VELCRO is a trademark of Velcro Industries B.V.

**Bulletin: DACCY** 

# M5 SELF-TAPPING SCREW .50 13 mm 50 Cable Wrap

87951397

Catalog Number	Description	L (in.)	L (mm)	Color	Pkg. Qty.	
ECWTD8B	Screw fastener style.	8.00	203	Black	10	
	Includes M5 mounting screw.					
ECWTD12B	Screw fastener style.	12.00	305	Black	10	
	Includes M5 mounting screw.					
ECW8B	Wrap style	8.00	203	Black	10	
ECW8R	Wrap style	8.00	203	Red	10	
ECW8BL	Wrap style	8.00	203	Blue	10	
ECW8Y	Wrap style	8.00	203	Yellow	10	
ECW12B	Wrap style	12.00	305	Black	10	
ECW12R	Wrap style	12.00	305	Red	10	
ECW12BL	Wrap style	12	305	Blue	10	
ECW12Y	Wrap style	12	305	Yellow	10	

**Fasteners** 

### **Tamper-Resistant Screws**



Designed for field installation on screw cover pull boxes and screw cover Type 3R enclosures (size 16.00 x 12.00 x 6.00 in. or smaller), consolets, pushbutton enclosures and Type 12 screw cover wiring trough. Each package consists of four Type 18-8 stainless steel screws and four nylon captivating washers. Driver bit must be ordered separately (functions in any handle or socket capable of holding 1/4in. hex insert bits).

### Bulletin: A80

Catalog Number	Description	Pkg. Qty.
ATRSK	Tamper-resistant screw (10-32)	4
ATRSDVR	Driver bit	1

### **Screw Packages**



Screw Packages are for mounting rack panels and equipment to rack angles.

Bulletin: A80, DACCY, X20

Catalog Number	Color	Description	Pkg. Qty.
ES1224	Silver	12-24 x 5/8 in. combo head	20
ES1224250	Silver	12-24 x 5/8 in. combo head	250
ES1224B	Black	12-24 x 5/8in. combo head	20
ES1224B250	Black	12-24 x 5/8 in. combo head	250
ASM5	Silver	M5 x 20 mm Combo Head	20
ASM6	Silver	M6 x 16 mm combo head	20
ASM5T	Silver	M5 x 12 mm thread-forming Phillips hex head screws	20
ASM6250	Silver	M6 x 16 mm combo head	250
AS1032	Silver	10-32 x 5/8 in. combo head	20
AS1032250	Silver	10-32 x 5/8 in. combo head	250
AS1032B	Black	10-32 x 5/8 in. combo head	20

Use ASM5T on PROLINE® frame or Net Series extruded holes.



### **CHS Controls AB**



### **Cage Nut Package**



Cage Nut Packages are for use with square-hole rack angles. Cage nuts are plated steel.

Bulletin: DACCY, P20

### **Fasteners**

Catalog Number	Color	Description	Pkg. Qty.
PM5CN	Silver	M5 cage nut	20
PM6CN	Silver	M6 cage nut	20
PM6CN250	Silver	M6 cage nut	250
P1032CN	Silver	10-32 cage nut	20
P1032CN250	Silver	10-32 cage nut	250
P1224CN	Silver	12-24 cage nut	20
P1224CN250	Silver	12-24 cage nut	250

### **Clip Nut Package**



Twenty plated clip nuts fit all rackmounting angles with .281-in. (7-mm) diameter holes (through-hole type).

Bulletin: A80, X20

Catalog Number	Description	Pkg. Qty.	Fits
AN1032	Clip Nut 10-32	20	.281-diameter mounting holes
ANM5	Clip Nut M5 (Metric)	20	.281-diameter mounting holes

### Clamping Nut Package



Twenty plated clamping nuts with top-grip nut retainers. Clamping nuts fit into mounting channels that are used on inside walls of Hoffman enclosures. Clamping nuts are included with all Hoffman accessories that attach to mounting channels. These clamping nuts can be used for mounting other equipment (brackets, etc.) to the enclosure walls.

#### **Bulletin: A80**

Catalog Number	Description	Thread	
APS1032CN	Package of 20	10-32	
APS1420CN	Package of 20	1/4-20	
APS51618CN	Package of 20	5/16-18	

#### **PROLINE® Fastener Packages** A-T-O



Use to fasten components to the grid system. PGF Packages include 20 front-loading clip nuts (M6) and 20 combination-drive washer-head bolts (M6).

Grounding Package is used with the rectangular holes in the PROLINE® frame to provide electrical continuity between the frame and the grid system. ASM5T Package is used with PROLINE frames having round holes. Package includes 20 M5 self-tapping screws.

Bulletin: DACCY, P20

Catalog Number	Description	Use in	Pkg. Qty.
ASM5T	M5 x 12 mm thread-forming Phillips hex head screws	Round holes	20
PGFM6	Standard Package - M6 cage nuts and bolts	Rectangular holes	20
PGFGM6	Grounding Package - M6 grounding cage nuts and bolts	Tapped holes	20

### **Fastener Package**



Kit includes a set of 8 cage nuts and screws. Used to mount 19-in. rack equipment to 9-mm square holes in uprights. Cage nuts are metric (M6). Screws are pan head Phillips metric M6x16.

Bulletin: DACCY, DEC1

Catalog Number	Color	Description
ECNSM6	Silver	M6 x 16 pan head posidrive screws.
		M6 cage nuts.



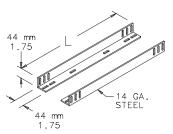
### CHS Controls AB





14 gauge steel chassis guides mount between two pairs of rack-mounting angles that have accessory mounting legs. Guides and mounting hardware are plated. (XSFG mount on one pair of Type RA rack-mounting angles that have accessory mounting legs.)

Bulletin: P20



3

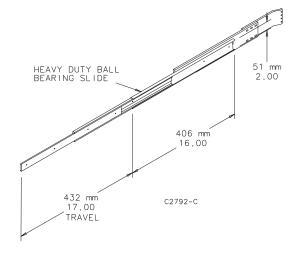
	Length		
Catalog Number	in./mm	Rack Units	
AG1U5	15.00	1	
	381.0		
AG1U6	21.00	1	
	533.4		
AG1U8	26.00	1	
	660.4		



Heavy-duty ball bearing, plated three-section Slides are 16-in. (406-mm) long and allow 17-in. (423-mm) extension. They are attached to supports that mount between two pairs of rack-mounting angles that have accessory mounting legs. Mounting hardware is furnished. Equipment 16.75-in. (425-mm) wide can be mounted between Slide assemblies installed on 19-in. rack angles. A pair of Slides can support up to 160 lb. at the extended position when load is distributed evenly along the 16-in. (406-mm) Slide length. Requires Rack Angle Adapter Bracket to fit PROLINE.

Needs to be used with the Rack Angle Adapter Bracket (PBRAA, PBRAA19 or PBRAA24).

Bulletin: P20



Catalog Number	Quantity
A16SL2U	2



### CHS Controls AB



### **Fan Speed Control, Rack-Mount**



#### **Industry Standards**

UL 508A Listed; File No. E249700 cUL Listed per CSA C22.2 No. 14; File No. E249700

### **Application**

These Hoffman Fan Speed Controls provide a means to optimize airflow in a cabinet or rack, balancing air volume requirements with noise level and power use. The AFANTSC Panel Mount Fan Speed Control adjusts fan speed automatically based on remote temperature sensor inputs. The A19FANSC 19-in. Rack-Mount Fan Speed Control allows manual control over fan speed. Both units are designed to work with Hoffman 3-, 6- and 10-in. Compact Cooling Fans and with 19-in. fan trays, as well as door- and top-mount fan trays. These fan speed controls are ideal for offices, classrooms and other acoustic noise-sensitive areas.

#### **Specifications**

- Continuously variable fan speed control knob with minimum speed adjustment
- Uses 1 RU rack space
- Steel construction
- Two NEMA 5-15R outlets provide power to fan
- Six-foot (1.83-m) power cord plugs into standard 120V 60 Hz outlet

AFANTSC: Light-gray polycarbonate control housing A19FANSC: RAL 9005 black polyester powder paint

**Bulletin: DTHRM** 

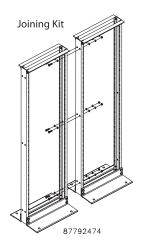
Catalog Number	Description	Application	Voltage and Frequency	Current Draw	Temperature Settings (C)	Temperature Settings (F)
A19FANSC	19-in. Rack-Mount Fan Speed Control	Fan speed adjusted manually	120V, 60 Hz	4A max.	Continously variable	Continously variable

### **Joining Kit**

Hardware kit to join two open-frame racks. Made of steel with plated finish.

#### **Bulletin: DOFRY**

Catalog Number	Description
EJ2DR	Joining Kit, Side-to-Side



### **Panel Adapter**

Adapts 23-in. open frame rack to accept 19-in. equipment. Offset provides flush mounting surface. Steel with plated finish. Furnished in pairs.

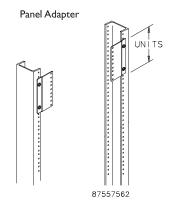
**Bulletin: DACCY** 

Catalog Number	Rack Units
ERB1U2319	1
ERB3U2319	3
ERB5U2319	5



#### **CHS Controls AB**

Subject to change without notice





### **Rack Unit Label**



Self-adhesive clear Mylar™ label with white numbers enables numbering along sides of open frame racks or rack angles. Numbers spaced one rack unit apart. Can be used for bottom-up or top-down numbering of rack units to simplify equipment installation. Each label provided in two pieces (numbers 1-29 and 30-58) for easier installation. Two labels per catalog number. Label shown mounted on rack angle. Mylar is a registered trademark of DuPont Tejin Films.

**Bulletin: DOFRY** 

	Installed Length	Width	
Catalog Number	in./mm	in./mm	
ARULABEL	101.50	.50	
	2578	13	

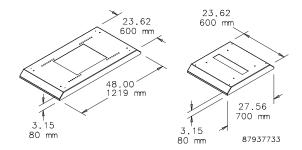
### **Mobile Base for Open Frame Racks**



Models for 19-in. 2- and 4-Post Open Frame Racks. Includes four non-locking casters. Will also accept standard levelers. Order catalog number PLM12 separately. The rack mounts on the base to provide greater stability with mobility. Made of steel with RAL 9005 black polyester powder paint finish. Mounting hardware included.

**Bulletin: DOFRY** 

Catalog Number	Fits
A19MB600	2-post open-frame racks
A19MB1000	4-post open-frame racks with depth adjustable
	between 17.7- and 29.5-in. (450- and 750-mm) in 0.98-in. (25-mm) increments





### **CHS Controls AB**



### 19-in. Rack-Mount/Desktop Case, Type 1



#### **Industry Standards**

NEMA Type 1 IEC 60529, IP20 **Exterior Dimensions** EIA 310-D / IEC 297-1 DIN 41494 Part 1

#### **Application**

Desktop cases house circuit boards and other electronic equipment in a rigid framework with easy front and rear access. Rack cases are 19-in. rack mountable with integral mounting provided in the front hezel

#### **Features**

- Removable top and bottom covers attach directly to case framework for maintenance convenience
- Bottom cover has multiple rows of holes for ventilation
- Front bezel includes mounting provisions for 19-in. rack mounting as well as mounting for front panel options for application flexibility
- Top and bottom of framework have mounting provisions for optional support rails for application flexibility. Mounting holes are spaced on 10-mm centers front to back.
- Case framework is assembled for quick installation. Top cover, bottom cover, anti-skid feet and mounting hardware are included.
- Mounting hardware for optional front and rear panels are included with case for installation convenience

#### **Specifications**

- One-piece aluminum die cast front bezel and rear bezel are connected front-to-back with aluminum extrusions to form a rigid structural framework
- Sides on 3U- and 4U-tall cases are the aluminum front-to-back extrusions. The 6U-tall case has two aluminum extrusions with a steel middle panel on each side.
- Covers are 1-mm steel and have grounding provisions

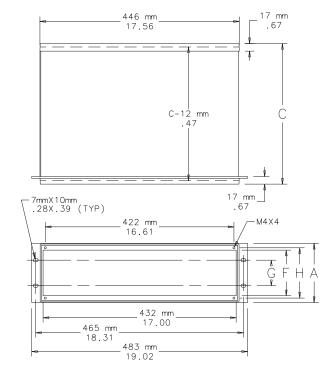
#### Finish

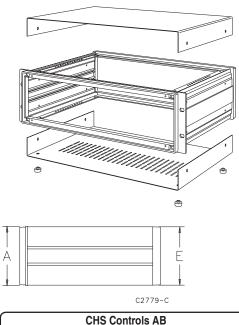
Framework has an RAL 7030 stone-gray textured finish. Top and bottom covers have an RAL 7035 light-gray textured finish on the outside and a plated finish on the inside.

**Bulletin: DEC1** 

#### **Standard Product**

	'	E	F	G	Н	'	
Catalog Number	AxBxC mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Rack Units	
ERC3U4837	133 x 483 x 375	131	103	57	110	3	
	5.20 x 19.00 x 14.80	5.14	4.04	2.25	4.33		
ERC4U4843	177 x 483 x 435	175	147	102	155	4	
	7.00 x 19.00 x 17.10	6.89	5.77	4.00	6.08		
ERC6U4843	266 x 483 x 435	264	235	190	243	6	
	10.50 x 19.00 x 17.10	10.39	9.27	7.50	9.58		









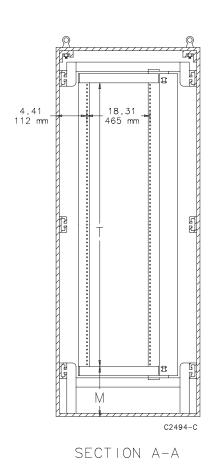
### **Swing-Out Rack Mounting Frames**

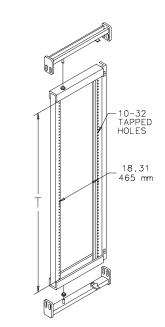
Full-length 10 gauge swing-out rack mounting frames are available for mounting 19-in. (483-mm) rack mounting equipment. The frame pivots within the enclosure to allow access to the back of the mounted equipment. The frames can be installed in 72.00-in. (1829-mm) and 90.00-in. (2286-mm) high enclosures that are 30.00-in. (762-mm) or 36.00-in. (914-mm) wide. They can be installed in 60.00-in. (1524-mm) or 72.00-in. (1829-mm) wide enclosures if a center panel support is used. Mounting holes are tapped with #10-32 threads spaced per EIA standard. The design features smooth operation and secure positioning anywhere along the horizontal mounting channels. Frame swings from the left side.

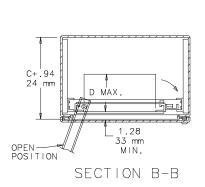
All frames are white and furnished with plated mounting hardware.

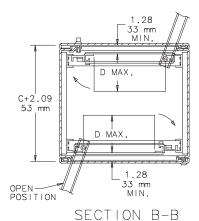
	Fits Enclosure				
	Size A x B	T	M	Dmax	Number
Catalog Number	in./mm	in./mm	in./mm	in./mm	of Units
A7230S0F19	72.06 x 30.06	57.88	9.09	16.25	33
	1830 x 764	1470	231	413	
A7236S0F19	72.06 x 36.06	57.88	9.09	24.25	33
	1830 x 916	1470	231	616	
A9036S0F19	90.06 x 36.06	75.28	9.34	24.25	43
	2287 x 916	1915	237	616	

One unit equals 1.75 inches (44mm).









# CHS controls

#### **CHS Controls AB**

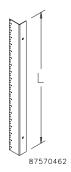


# 19-in. and 23-in. Rack Angles



Made of 14 gauge steel with square holes or 12 gauge steel with 10-32 tapped holes. Provides 19- or 23-in. rack spacing depending on frame width. Finished with flat black RAL 9005 polyester powder paint or plated. Furnished in pairs.

Bulletin: DNCY, DWDH1



					Fits Frame	Fits Frame	Rack		
Catalog Number	Rack Spacing	Hole Type	Finish	Use With	Height	Width	Units	L (mm)	L (in.)
ERA197THLN	19 in.	Square	Black	Networking Cabinet - SOHO	700mm	600mm	11	492	19.38
ERA197TPLN	19 in.	Tapped	Black	Networking Cabinet - SOHO	700mm	600mm	11	492	19.38
ERA1921TPL	19 in.	Tapped	Black	Seismic Cabinet	2100mm	700mm	45	2003	78.87
ERA192321TPL	19 & 23 in.	Tapped	Black	Seismic Cabinet	2100mm	800mm	45	2003	78.87
ERA1910TPL	19 in.	Tapped	Black	Network PC Cabinet	Bottom Section	_	19	848	33.37

### Rack Mounting Angles - U Style (Type RA)

For Free-Stand Enclosures, Type 12 (Bulletin A30), Free-Stand Enclosures, Type 4 (Bulletin A4L) and One-Door Free-Stand Fiberglass Enclosures, Type 4X (Bulletin A17).

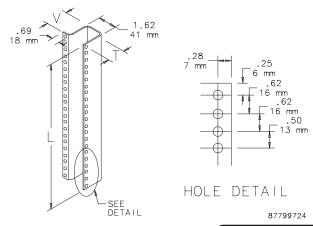
Pairs of full-length rack mounting angles are available for mounting 19-in. (483-mm) and 24-in. (610-mm) rack-mounted equipment. Type RA rack mounting angles are 14 gauge steel with mounting holes .281 in. (7 mm) in diameter and spaced per EIA standard RS-310-D universal spacing. Use clip nut package AN1032 to provide tapped holes at desired locations.

Angles and mounting hardware are plated. All mounting hardware is furnished. Includes two full-length angles.

#### **Bulletin: A80**

	Fits Enclosure	'	'	'	'	'	For Rack	
	AxB	K	L	M	T	V	Size	Number
Catalog Number	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	of Units
A60RA19TH	60.00 x 24.00	3.78	49.00	7.78	1.95	1.89	19.00	28
	60 x 24	96	1245	198	50	48	483	
A72RA19TH	72.00 x 24.00	3.66	61.25	7.66	1.95	1.89	19.00	35
	1829 x 610	93	1556	195	50	48	483	
A72RA24TH	72.00 x 30.00	3.66	61.25	7.66	2.45	2.39	24.00	35
	1829 x 762	93	1556	195	62	61	610	
A90RA19TH	90.00 x 24.00	3.91	78.75	7.91	1.95	1.89	19.00	45
	2286 x 610	99	2000	201	50	48	483	

One unit equals 1.75 inches (44 mm).

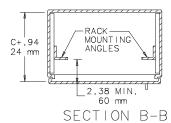




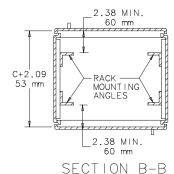
### **CHS Controls AB**



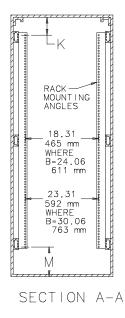
### Rack Mounting Angles Installed in Enclosures

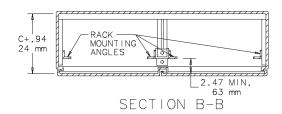


Showing rack mounting angles installed in single-door enclosure.

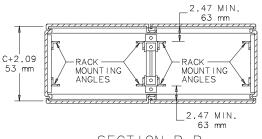


Showing two sets of rack mounting angles mounted in single-door dual access enclosure.



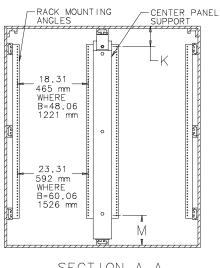


Showing two sets of rack mounting angles and center panel supports mounted in two-door enclosure.



SECTION B-B

Showing four sets of rack mounting angles and two center panel supports mounted in two-door dual-access enclosure.



SECTION A-A

C2497-C

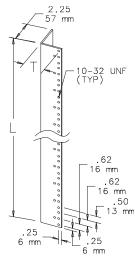




### **Rack Mounting Angles - L Style (Type RP)**

For Free-Stand Enclosures, Type 12 (Bulletin A30), Free-Stand Enclosures, Type 4 (Bulletin A4L) and One-Door Free-Stand Fiberglass Enclosures, Type 4X (Bulletin A17). Pairs of full-length or half-length rack mounting angles are available for mounting 19-in. (483-mm) and 24-in. (610-mm) rack-mounted equipment. Type RP rack mounting angles are 10 gauge steel with mounting holes tapped #10-32 thread and spaced per EIA standard RS-310-D universal spacing. Angles and mounting hardware are plated. All mounting hardware is furnished.

Bulletin: A80



C2626-C

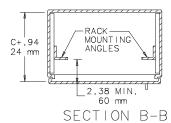
	'	Fits Enclosure	For Rack		'	'	'	
		AxB	Size	K	L	M	T	Number of Units
Catalog Number	Description	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	
A60RP24F5	Two full-length angles	60.00 x 24.00	19.00	3.78	49.00	7.78	1.94	28
		1524 x 610	483	96	1245	198	49	
A60RP24F6	Two half-length angles	60.00 x 24.00	19.00	3.59	26.25	7.59	1.94	15
		1524 x 610	483	91	667	193	49	
A72RP24F5	Two full-length angles	72.00 x 24.00	19.00	3.66	61.25	7.66	1.94	35
		1829 x 610	483	93	1556	195	49	
A72RP24F6	Two half-length angles	72.00 x 24.00	19.00	3.97	31.50	7.97	1.94	18
		1829 x 610	483	101	800	202	49	
A72RP30F5	Two full-length angles	72.00 x 30.00	24.00	3.66	61.25	7.66	2.44	35
		1829 x 762	610	93	1556	195	62	
A72RP30F6	Two half-length angles	72.00 x 30.00	24.00	3.97	31.50	7.97	2.44	18
		1829 x 762	610	101	800	202	62	
A90RP24F5	Two full-length angles	90.00 x 24.00	19.00	3.91	78.75	7.91	1.94	45
		2286 x 610	483	99	2000	201	49	
A90RP24F6	Two half-length angles	90.00 x 24.00	19.00	4.09	40.25	8.09	1.94	23
	2 2	2286 x 610	483	104	1022	205	49	

One unit equals 1.75 inches (44 mm).

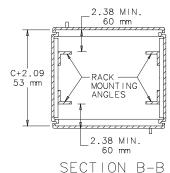




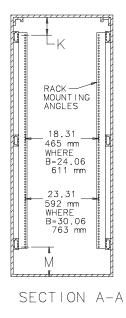
### Rack Mounting Angles Installed in Enclosures

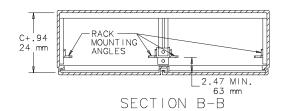


Showing rack mounting angles installed in single-door enclosure.

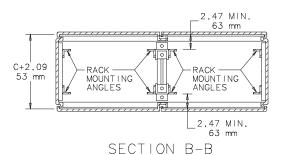


Showing two sets of rack mounting angles mounted in single-door dual access enclosure.

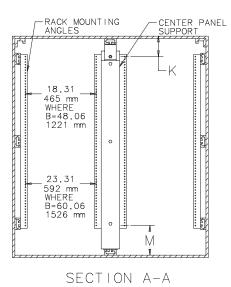




Showing two sets of rack mounting angles and center panel supports mounted in two-door enclosure.



Showing four sets of rack mounting angles and two center panel supports mounted in two-door dual-access enclosure.



C2497-C



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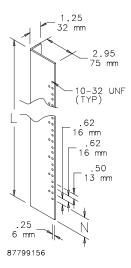


## **Rack Mounting Angle Kit - L Style**

Designed for mounting 19-in. (483-mm) rack-mount equipment in standard 24-in. (610-mm) wide one-door, wall-mount Type 4 and 12 enclosures. Heavy 10 gauge steel angles are tapped with #10-32 threads spaced to meet EIA RS-310-D. To install, drill small holes in the sides of the enclosure and bolt angles in place.

All mounting hardware and instructions are furnished. Sealing washers also are provided to maintain original enclosure standards rating after installation. Rack angles are zinc-plated. External screws are stainless steel. Special sizes, materials and finishes are available on custom order.

Bulletin: A80



		For Enclosure Size A x B	L	N	Number
Catalog Number	Description	in./mm	in./mm	in./mm	of Units
ARAK24	Two Angles	24.00 x 24.00	23.75	1.62	12
		610 x 610	603	41	
ARAK30	Two Angles	30.00 x 24.00	29.75	2.00	15
		762 x 610	756	51	
ARAK36	Two Angles	36.00 x 24.00	35.75	1.50	19
		914 x 610	908	38	

One unit equals 1.75 inches (44 mm).



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### INTERSAFE® Data Interface Ports, Type 4/4X/12



#### **Industry Standards**

#### **Mild Steel Painted Ports**

UL 508A Component Recognized; Type 4, 12; File No. E61997 cUL Component Recognized per CSA C22.2 No 94; Type 4, 12; File No. E61997

NEMA/EEMAC Type 4, 12 IEC 60529, IP66

#### **Stainless Steel Ports**

UL 508A Component Recognized; Type 4, 4X, 12; File No. E61997 cUL Component Recognized per CSA C22.2 No 94; Type 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 4, 4X, 12 IEC 60529, IP66

#### Clear-Cover (polycarbonate) Ports

UL 508A Component Recognized; Type 4X, 12; File No. E61997 cUL Component Recognized per CSA C22.2 No 94; Type 4, 4X, 12; File No. E61997

IEC 60529, IP66

#### Application

INTERSAFE® Data Interface Ports are mounted on an enclosure to allow programming access to devices inside without opening the enclosure door.

#### **Features**

- · Ready to use
- Frame and door assembly with aluminum back plate included with all models; 120 VAC receptacles and programming connectors are mounted to the plate in 72 standard configurations
- All standard configurations include a GFCI or standard duplex receptacle with a 5-A circuit breaker for added safety
- Door gasket (between the door and plate assemblies) and plate gasket (between the plate assembly and the enclosure) together provide a tight seal
- Template provided for accurate enclosure cutout dimensions
- Quarter-turn latch with screwdriver slot and padlock hasp on all steel and stainless steel door models for convenience and security
- Quarter-turn latch with screwdriver slot on polycarbonate models
- Disk drive enclosure provides access to one or two customersupplied disk drives without opening the cabinet
- Modifications and customization available to accommodate a wide variety of additional connectors

#### **Specifications**

- Door assembly and frame manufactured from 16 gauge steel or stainless steel
- Clear-cover models have a molded polycarbonate door
- Steel and stainless steel doors are welded and ground
- · Back plate is aluminum

- RAL 9005 black fine-textured polyester powder coating—mild steel door assemblies
- Brushed finish—stainless steel door assemblies
- Brushed finish—aluminum back plates

#### **Modification and Customization**

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.



#### **CHS Controls AB**



### **INTERSAFE® Data Ports for ControlNet Protocol**

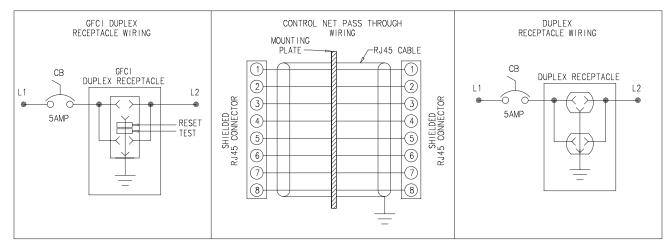


Left-hand image shows front view, GFCI Receptacle Models. Right-hand image shows Front front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table.

Bulletin: A70E

Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	Supports Devices Sold by the Following Manufacturers
HGF5CN	Steel	- 120 VAC GFCI receptacle - Shielded RJ45 - 5-amp circuit breaker	- Shielded RJ45 - 10-ft. shielded cable with male RJ45	_	Allen-Bradley
HGF5CNSS	Stainless Steel	- 120 VAC GFCI receptacle - Shielded RJ45 - 5-amp circuit breaker	- Shielded RJ45 - 10-ft. shielded cable with male RJ45	_	Allen-Bradley
HGF5CNCC	Composite	- 120 VAC GFCI receptacle - Shielded RJ45 - 5-amp circuit breaker	- Shielded RJ45 - 10-ft. shielded cable with male RJ45	_	Allen-Bradley
HDP5CN	Steel	- 120 VAC duplex receptacle - Shielded RJ45 - 5-amp circuit breaker	- Shielded RJ45 - 10-ft. shielded cable with male RJ45	_	Allen-Bradley
HDP5CNSS	Stainless Steel	- 120 VAC duplex receptacle - Shielded RJ45 - 5-amp circuit breaker	- Shielded RJ45 - 10-ft. shielded cable with male RJ45	_	Allen-Bradley
HDP5CNCC	Composite	- 120 VAC duplex receptacle - Shielded RJ45 - 5-amp circuit breaker	- Shielded RJ45 - 10-ft. shielded cable with male RJ45	_	Allen-Bradley





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### **INTERSAFE®** Data Interface Ports for Data Highway Plus Protocol

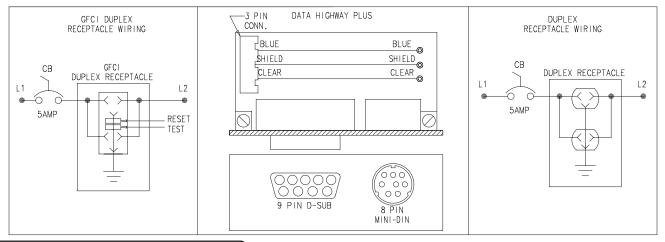


Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. **Bulletin: A70E** 

	'	<u> </u>			Supports Devices Sold by
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	the Following Manufacturers
HGF58MDH	Steel	- 120 VAC GFCI receptacle	Female 8-pin mini DIN	DB9F terminal block	Allen-Bradley
		- 8-pin mini DIN			
		- DB9F			
		- 5-amp circuit breaker			
HGF58MDHSS	Stainless Steel	- 120 VAC GFCI receptacle	Female 8-pin mini DIN	DB9F terminal block	Allen-Bradley
		- 8-pin mini DIN			
		- DB9F			
		- 5-amp circuit breaker			
HGF58MDHCC	Composite	- 120 VAC GFCI receptacle	Female 8-pin mini DIN	DB9F terminal block	Allen-Bradley
		- 8-pin mini DIN			
		- DB9F			
		- 5-amp circuit breaker			
HDP58MDH	Steel	- 120 VAC duplex receptacle	Female 8-pin mini DIN	DB9F terminal block	Allen-Bradley
		- 8-pin mini DIN			
		- DB9F			
		- 5-amp circuit breaker			
HDP58MDHSS	Stainless Steel	- 120 VAC duplex receptacle	Female 8-pin mini DIN	DB9F terminal block	Allen-Bradley
		- 8-pin mini DIN			
		- DB9F			
		- 5-amp circuit breaker			
IDP58MDHCC	Composite	- 120 VAC duplex receptacle	Female 8-pin mini DIN	DB9F terminal block	Allen-Bradley
		- 8-pin mini DIN			
		- DB9F			
		- 5-amp circuit breaker			









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### **INTERSAFE® Data Interface Ports for DeviceNet Protocol**

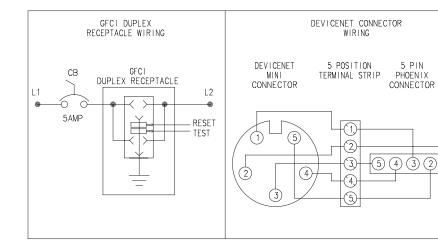


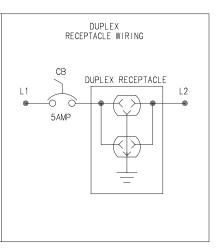
Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. **Bulletin: A70E** 

Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	Supports Devices Sold by
HGF5DN5P	Steel	- 120 VAC GFCI receptacle - 5-pin Phoenix Style - 5-pin mini receptacle	5-pin Phoenix Style terminal block	5-pin mini receptacle terminal block	the Following Manufacturers Allen-Bradley GE Fanuc
HGF5DN5PSS	Stainless Steel	- 5-amp circuit breaker - 120 VAC GFCI receptacle - 5-pin Phoenix Style - 5-pin mini receptacle - 5-amp circuit breaker	5-pin Phoenix Style terminal block	5-pin mini receptacle terminal block	Allen-Bradley GE Fanuc
HGF5DN5PCC	Composite	- 120 VAC GFCI receptacle - 5-pin Phoenix Style - 5-pin mini receptacle - 5-amp circuit breaker	5-pin Phoenix Style terminal block	5-pin mini receptacle terminal block	Allen-Bradley GE Fanuc
HDP5DN5P	Steel	- 120 VAC duplex receptacle - 5-pin Phoenix Style - 5-pin mini receptacle - 5-amp circuit breaker	5-pin Phoenix Style terminal block	5-pin mini receptacle terminal block	Allen-Bradley GE Fanuc
HDP5DN5PSS	Stainless Steel	- 120 VAC duplex receptacle - 5-pin Phoenix Style - 5-pin mini receptacle - 5-amp circuit breaker	5-pin Phoenix Style terminal block	5-pin mini receptacle terminal block	Allen-Bradley GE Fanuc
HDP5DN5PCC	Composite	- 120 VAC duplex receptacle - 5-pin Phoenix Style - 5-pin mini receptacle - 5-amp circuit breaker	5-pin Phoenix Style terminal block	5-pin mini receptacle terminal block	Allen-Bradley GE Fanuc











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## INTERSAFE® Data Interface Ports for DH+, ModBus Plus, Ethernet Protocol



Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. Bulletin: A70E

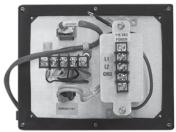


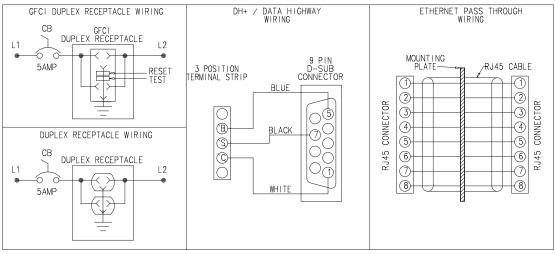
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					Supports Devices Sold by
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	the Following Manufacturers
HGF5ETHDH	Steel	- 120 VAC GFCI receptacle	DB9F terminal block	- RJ45	Allen-Bradley
		- RJ45		- 10-ft. cable with male RJ45	Group Schneider
		- DB9F			Computer peripherals
		- 5-amp circuit breaker			
HGF5ETHDHSS	Stainless Steel	- 120 VAC GFCI receptacle	DB9F terminal block	- RJ45	Allen-Bradley
		- RJ45		- 10-ft. cable with male RJ45	Group Schneider
		- DB9F			Computer peripherals
		- 5-amp circuit breaker			
HGF5ETHDHCC	Composite	- 120 VAC GFCI receptacle	DB9F terminal block	- RJ45	Allen-Bradley
		- RJ45		- 10-ft. cable with male RJ45	Group Schneider
		- DB9F			Computer peripherals
		- 5-amp circuit breaker			
HDP5ETHDH	Steel	- 120 VAC duplex receptacle	DB9F terminal block	- RJ45	Allen-Bradley
		- RJ45		- 10-ft. cable with male RJ45	Group Schneider
		- DB9F			Computer peripherals
		- 5-amp circuit breaker			
HDP5ETHDHSS	Stainless Steel	- 120 VAC duplex receptacle	DB9F terminal block	- RJ45	Allen-Bradley
		- RJ45		- 10-ft. cable with male RJ45	Group Schneider
		- DB9F			Computer peripherals
		- 5-amp circuit breaker			and have been been a
HDP5ETHDHCC	Composite	- 120 VAC duplex receptacle	DB9F terminal block	- RJ45	Allen-Bradley
	•	- RJ45		- 10-ft. cable with male RJ45	Group Schneider
		- DB9F			Computer peripherals
		- 5-amp circuit breaker			









### **INTERSAFE® Data Interface Ports for Ethernet Protocol**



Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table.

**Bulletin: A70E** 

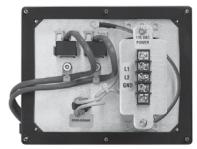


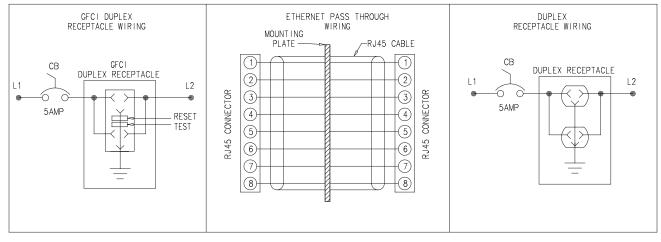
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					Supports Devices Sold by
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	the Following Manufacturers
HGF5ETHETH	Steel	- 120 VAC GFCI receptacle	- RJ45	- RJ45	Computer peripherals
		- RJ45	- 10-ft. cable	- 10-ft. cable	
		- RJ45			
		- 5-amp circuit breaker			
HGF5ETHETHSS	Stainless Steel	- 120 VAC GFCI receptacle	- RJ45	- RJ45	Computer peripherals
		- RJ45	- 10-ft. cable	- 10-ft. cable	
		- RJ45			
		- 5-amp circuit breaker			
HGF5ETHETHCC	Composite	- 120 VAC GFCI receptacle	- RJ45	- RJ45	Computer peripherals
		- RJ45	- 10-ft. cable	- 10-ft. cable	
		- RJ45			
		- 5-amp circuit breaker			
HDP5ETHETH	Steel	- 120 VAC duplex receptacle	- RJ45	- RJ45	Computer peripherals
		- RJ45	- 10-ft. cable	- 10-ft. cable	
		- RJ45			
		- 5-amp circuit breaker			
HDP5ETHETHSS	Stainless Steel	- 120 VAC duplex receptacle	- RJ45	- RJ45	Computer peripherals
		- RJ45	- 10-ft. cable	- 10-ft. cable	
		- RJ45			
		- 5-amp circuit breaker			
HDP5ETHETHCC	Composite	- 120 VAC duplex receptacle	- RJ45	- RJ45	Computer peripherals
		- RJ45	- 10-ft. cable	- 10-ft. cable	
		- RJ45			
		- 5-amp circuit breaker			









### INTERSAFE® Data Interface Ports for Ethernet/ProfiNet Protocol



Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table.

**Bulletin: A70E** 



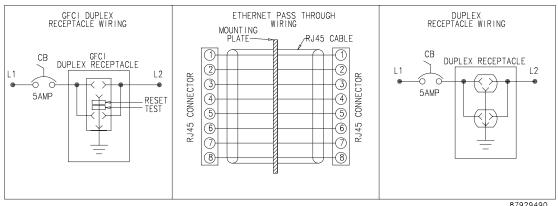
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					Supports Devices Sold by
Catalog Number	Material	Configuration	Configuration	Secondary Connector/Termination	the Following Manufacturers
HGF5ETH	Steel	- 120 VAC GFCI receptacle	- RJ45		Allen-Bradley
		- RJ45	- 10-ft. cable		GE Fanuc
		- 5-amp circuit breaker			Groupe Schneider
					Siemens
					Computer peripherals
HGF5ETHSS	Stainless Steel	- 120 VAC GFCI receptacle	- RJ45		Allen-Bradley
		- RJ45	- 10-ft. cable		GE Fanuc
		- 5-amp circuit breaker			Groupe Schneider
					Siemens
					Computer peripherals
HGF5ETHCC	Composite	- 120 VAC GFCI receptacle	- RJ45		Allen-Bradley
		- RJ45	- 10-ft. cable		GE Fanuc
		- 5-amp circuit breaker			Groupe Schneider
					Siemens
					Computer peripherals
HDP5ETH	Steel	- 120 VAC duplex receptacle	- RJ45		Allen-Bradley
		- RJ45	- 10-ft. cable		GE Fanuc
		- 5-amp circuit breaker			Groupe Schneider
					Siemens
					Computer peripherals
HDP5ETHSS	Stainless Steel	- 120 VAC duplex receptacle	- RJ45		Allen-Bradley
		- RJ45	- 10-ft. cable		GE Fanuc
		- 5-amp circuit breaker			Groupe Schneider
					Siemens
					Computer peripherals
HDP5ETHCC	Composite	- 120 VAC duplex receptacle	- RJ45		Allen-Bradley
		- RJ45	- 10-ft. cable		GE Fanuc
		- 5-amp circuit breaker			Groupe Schneider
					Siemens
					Computer peripherals









### **INTERSAFE® Data Interface Ports for Genius Protocol**

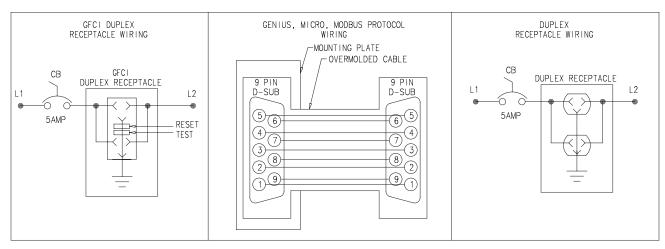


Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table.

**Bulletin: A70E** 

					Supports Devices Sold by
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	the Following Manufacturers
HGF5GEG	Steel	- 120 VAC GFCI receptacle	- DB9M		GE Fanuc
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HGF5GEGSS	Stainless Steel	- 120 VAC GFCI receptacle	- DB9M		GE Fanuc
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HGF5GEGCC	Composite	- 120 VAC GFCI receptacle	- DB9M		GE Fanuc
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5GEG	Steel	- 120 VAC duplex receptacle	- DB9M		GE Fanuc
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5GEGSS	Stainless Steel	- 120 VAC duplex receptacle	- DB9M		GE Fanuc
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5GEGCC	Composite	- 120 VAC duplex receptacle	- DB9M		GE Fanuc
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			





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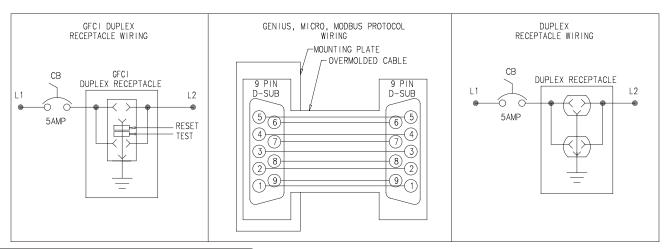
### **INTERSAFE® Data Interface Ports for Micro Protocol**



Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. Bulletin: A70E

					Supports Devices Sold by
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	the Following Manufacturers
HGF5TMM	Steel	- 120 VAC GFCI receptacle	- DB9M		Groupe Schneider
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HGF5TMMSS	Stainless Steel	- 120 VAC GFCI receptacle	- DB9M		Groupe Schneider
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HGF5TMMCC Composite	Composite	- 120 VAC GFCI receptacle	- DB9M		Groupe Schneider
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5TMM	Steel	- 120 VAC duplex receptacle	- DB9M		Groupe Schneider
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5TMMSS	Stainless Steel	- 120 VAC duplex receptacle	- DB9M		Groupe Schneider
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5TMMCC	Composite	- 120 VAC duplex receptacle	- DB9M		Groupe Schneider
		- DB9M	- 10-ft. cable		
		- 5-amp circuit breaker			







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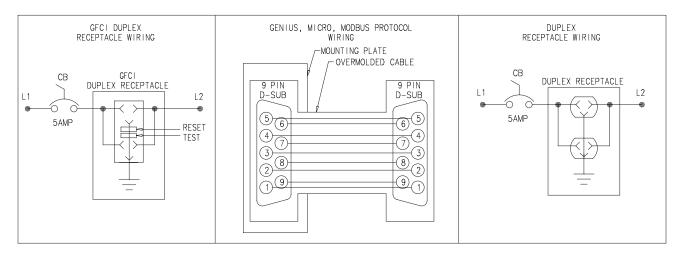
### **INTERSAFE® Data Interface Ports for Modbus Protocol**



Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. **Bulletin: A70E** 

Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	Supports Devices Sold by the Following Manufacturers
HGF5TMB	Steel	- 120 VAC GFCI receptacle - DB9M - 5-amp circuit breaker	-DB9M - 10-ft. cable		Groupe Schneider
IGF5TMBSS	Stainless Steel	- 120 VAC GFCI receptacle - DB9M - 5-amp circuit breaker	-DB9M - 10-ft. cable		Groupe Schneider
IGF5TMBCC	Composite	- 120 VAC GFCI receptacle - DB9M - 5-amp circuit breaker	-DB9M - 10-ft. cable		Groupe Schneider
IDP5TMB	Steel	- 120 VAC duplex receptacle - DB9M - 5-amp circuit breaker	-DB9M - 10-ft. cable		Groupe Schneider
IDP5TMBSS	Stainless Steel	- 120 VAC duplex receptacle - DB9M - 5-amp circuit breaker	-DB9M - 10-ft. cable		Groupe Schneider
HDP5TMBCC	Composite	- 120 VAC duplex receptacle - DB9M - 5-amp circuit breaker	-DB9M - 10-ft. cable		Groupe Schneider





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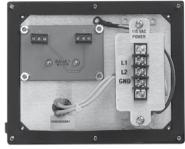
#### **INTERSAFE® Data Interface Ports for Profibus Protocol**

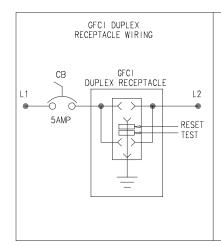


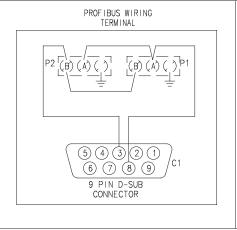
Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. **Bulletin: A70E** 

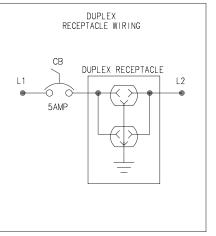
	'	'			Supports Devices Sold by
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	the Following Manufacturers
HGF5PB	Steel	- 120 VAC GFCI receptacle	9-pin Profibus terminal		Allen-Bradley
		- 9-pin Profibus			GE Fanuc
		- 5-amp circuit breaker			Siemens
HGF5PBSS	Stainless Steel	- 120 VAC GFCI receptacle	9-pin Profibus terminal		Allen-Bradley
		- 9-pin Profibus			GE Fanuc
		- 5-amp circuit breaker			Siemens
HGF5PBCC	Composite	- 120 VAC GFCI receptacle	9-pin Profibus terminal		Allen-Bradley
		- 9-pin Profibus			GE Fanuc
		- 5-amp circuit breaker			Siemens
HDP5PB	Steel	- 120 VAC duplex receptacle	9-pin Profibus terminal		Allen-Bradley
		- 9-pin Profibus			GE Fanuc
		- 5-amp circuit breaker			Siemens
HDP5PBSS	Stainless Steel	- 120 VAC duplex receptacle	9-pin Profibus terminal		Allen-Bradley
		- 9-pin Profibus			GE Fanuc
		- 5-amp circuit breaker			Siemens
HDP5PBCC	Composite	- 120 VAC duplex receptacle	9-pin Profibus terminal		Allen-Bradley
		- 9-pin Profibus			GE Fanuc
		- 5-amp circuit breaker			Siemens











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#### INTERSAFE® Data Interface Ports for SNP Protocol

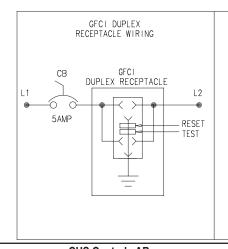


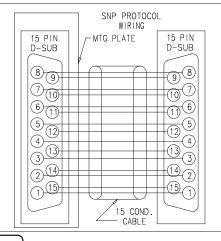
Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. **Bulletin: A70E** 

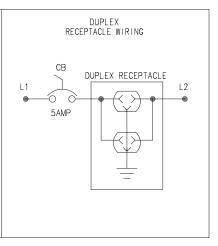
Catalog Number	Material	Configuration	Primary Connector/ Termination	Secondary Connector/ Termination	Supports Devices Sold by the Following Manufacturers
HGF5GESNP	Steel	- 120 VAC GFCI receptacle	- DB15M		GE Fanuc
Idradeanr	Steel	- DB15M	- 10-ft. cable		diranuc
			- 10-11. Cable		
	6.11.6.1	- 5-amp circuit breaker	DD4514		C.F.F.
IGF5GESNPSS	Stainless Steel	- 120 VAC GFCI receptacle	- DB15M		GE Fanuc
		- DB15M	- 10-ft. cable		
		- 5-amp circuit breaker			
HGF5GESNPCC	Composite	- 120 VAC GFCI receptacle	- DB15M		GE Fanuc
		- DB15M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5GESNP	Steel	- 120 VAC duplex receptacle	- DB15M		GE Fanuc
		- DB15M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5GESNPSS	Stainless Steel	- 120 VAC duplex receptacle	- DB15M		GE Fanuc
		- DB15M	- 10-ft. cable		
		- 5-amp circuit breaker			
HDP5GESNPCC	Composite	- 120 VAC duplex receptacle	- DB15M		GE Fanuc
		- DB15M	- 10-ft. cable		
		- 5-amp circuit breaker	10 111 20012		











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#### INTERSAFE® Data Interface Ports for USB Protocol, 10-ft. Cable



Left-hand image shows front view, GFCI Receptacle Models. Righthand image shows front view, Duplex Receptacle Models. Rear view with and without terminal cover are below the table. Bulletin: A70E

## CHS controls

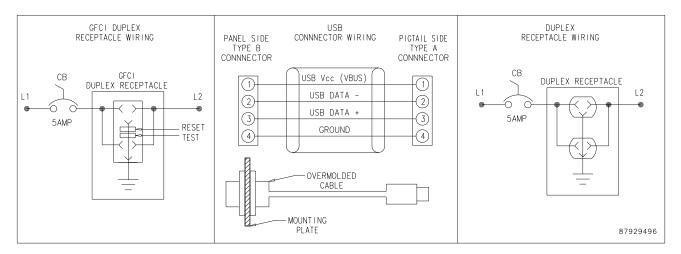
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Catalog Number	Material	Configuration	Primary Connector/Termination	Secondary Connector/Termination	Supports Devices Sold by the Following Manufacturers
HGF5USBUSB	Steel	- 120 VAC GFCI receptacle - USB Type A - USB Type A - 5-amp circuit breaker	- USB Type Ab- 10-ft. cable with female USB Type B connector	- USB Type A - 10-ft. cable with female USB Type B connector	Computer peripherals
HGF5USBUSBSS	Stainless Steel	- 120 VAC GFCI receptacle - USB Type A - USB Type A - 5-amp circuit breaker	- USB Type A - 10-ft. cable with female USB Type B connector	- USB Type A - 10-ft. cable with female USB Type B connector	Computer peripherals
HGF5USBUSBCC	Composite	- 120 VAC GFCI receptacle - USB Type A - USB Type A - 5-amp circuit breaker	- USB Type A - 10-ft. cable with female USB Type B connector	- USB Type A - 10-ft. cable with female USB Type B connector	Computer peripherals
HDP5USBUSB	Steel	- 120 VAC duplex receptacle - USB Type A - USB Type A - 5-amp circuit breaker	- USB Type A - 10-ft. cable with female USB Type B connector	- USB Type A - 10-ft. cable with female USB Type B connector	Computer peripherals
HDP5USBUSBSS	Stainless Steel	- 120 VAC duplex receptacle - USB Type A - USB Type A - 5-amp circuit breaker	- USB Type A - 10-ft. cable with female USB Type B connector	- USB Type A - 10-ft. cable with female USB Type B connector	Computer peripherals
HDP5USBUSBCC	Composite	- 120 VAC duplex receptacle - USB Type A - USB Type A - 5-amp circuit breaker	- USB Type A - 10-ft. cable with female USB Type B connector	- USB Type A - 10-ft. cable with female USB Type B connector	Computer peripherals









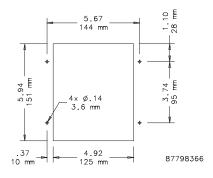
#### INTERSAFE® Type 4/4X/12 Data Interface Port Disk Drive Enclosure



This enclosure, available in both steel and stainless steel, allows access to one or two customer-supplied disk drives from outside the cabinet, allowing computer system use and updates without opening the cabinet.

**Bulletin: A70E** 

Catalog Number	Configuration	Description
HCP514B	CP2/514b	Steel 2 gang dual CD/DVD drive cover
HCP514BSS	CP2/514b	Stainless steel 2 gang dual CD/DVD drive cover



CUTOUT (NOT TO SCALE)

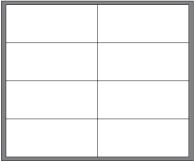
#### **To Order a Modified Configuration for INTERSAFE® Type 4/4X/12 Data Interface Ports**



- Choose the required connectors to a maximum of 8 plate sectors (refer to Plate Sector Diagram)
- Order connectors using the code in the Connector ID column of the INTERSAFE® Connectors table
- Hoffman will determine the layout of the connectors. If a specific layout is required, contact your local Hoffman Sales Office for a quotation.
- 5-amp circuit breakers will be provided with 120VAC receptacles unless otherwise specified
- To order, contact your local Hoffman sales representative

#### Configuration Example Plate Sectors, 8 Maximum

Customer Requires	Code	Sectors Used
(1) 6-pin mini DIN (female)	MD6	1
(1) RJ45 connector (female)	R45	1
(1) GFCI duplex receptacle with 3-amp circuit breaker	GF3	5



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#### **INTERSAFE® Connector 8M**



Connector Description	Connector Termination	Plate Sectors Used
8-pin mini DIN	Terminal Block	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 9FG**





Connector Description	Connector Termination	Plate Sectors Used
GE Fanuc Genius 9-pin female with	10 ft. cable to male 9-pin D-Sub with	1
bracket	bracket	

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 9FT**





Connector Description	Connector Termination	Plate Sectors Used
D-Sub 9-pin female	9-pin terminal	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 9M**





Connector Description	Connector Termination	Plate Sectors Used
D-Sub 9-pin male with cable	10 ft cable to female 9-pin D-Sub	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 9MT**





Connector Description	Connector Termination	Plate Sectors Used
D-Sub 9-pin male	9-pin terminal	1

Left-hand image shows front view. Right-hand image shows rear view.

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#### **INTERSAFE® Connector 15F**

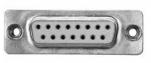




Connector Description	Connector Termination	Plate Sectors Used
D-Sub 15-pin female	10 ft. cable to male 15-pin D-Sub	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 15FT**





Connector De	scription	Connector Termination	Plate Sectors Used
D-Sub 15-pin fe	male with 15-pin terminal	15-pin terminal	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 15H**





Connector Description	Connector Termination	Plate Sectors Used
D-Sub 15-pin high density female	10 ft cable to male 15-pin high-density	1
(Monitor)	D-Sub	

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 15M**





Connector Description	Connector Termination	Plate Sectors Used
D-Sub 15-pin male	10-ft. cable to female 15-pin D-Sub	1

 $Left-hand\ image\ shows\ front\ view.\ Right-hand\ image\ shows\ rear\ view.$ 

#### **INTERSAFE® Connector 25F**





Connector Description	Connector Termination	Plate Sectors Use
D-Sub 25-pin female with cable	10 ft. cable to male 25-pin D-Sub	1

 $Left-hand\ image\ shows\ front\ view.\ Right-hand\ image\ shows\ rear\ view.$ 

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#### **INTERSAFE® Connector 25FT**



Connector Description	Connector Termination	Plate Sectors Used
D-Sub 25-pin female with 25-pin terminal	25-pin terminal	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 25M**



Connector Description	Connector Termination	Plate Sectors Used
D-Sub 25-pin male with cable	10-ft. cable to female 25-pin D-Sub	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector 25MT**



Connector Description	Connector Termination	Plate Sectors Used
D-Sub 25-pin male	25-pin terminal	2

Left-hand image shows front view. Right-hand image shows rear view.

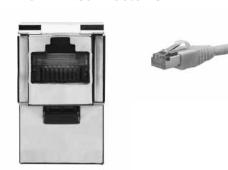
#### **INTERSAFE® Connector BNC**



Connector Description	Connector Termination	Plate Sectors Used
BNC	BNC female receptacle with 10-ft. cable to male BNC	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector CN**



Connector Description	Connector Termination	Plate Sectors Used
ControlNet shielded RJ45 female connector	10-ft. shielded cable with male RJ45	2

Left-hand image shows front view. Right-hand image shows rear view.

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#### **INTERSAFE® Connector DH**





Connector Description	Connector Termination	Plate Sectors Used
Data Highway Plus DB9F	Terminal block	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector DNM**



Connector Description	Connector Termination	Plate Sectors Used
DeviceNet Mini	Terminal block	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector DNP**





Connector Description	Connector Termination
DeviceNet Phoenix	Terminal block

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector DPO**





Connector Description	Connector Termination	Plate Sectors Used
Duplex receptacle with no circuit breaker	Terminal block	4

Left-hand image shows front view. Right-hand image shows rear view.

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#### **INTERSAFE® Connector DP3**



Connector Description	Connector Termination	Plate Sectors Used
Duplex receptacle with 3-amp circuit breaker	Terminal block	5

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector DP5**



Connector Description	Connector Termination	Plate Sectors Used
Duplex receptacle with 5-amp circuit breaker	Terminal block	5

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector ETH**



Connector Description	Connector Termination	Plate Sectors Used
RJ45 female connector	10-ft. cable with male RJ45	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector GEG**





Connector Description	Connector Termination	Plate Sectors Used
DB9 GE Genius	10-ft. cable	1

 $Left-hand\ image\ shows\ front\ view.\ Right-hand\ image\ shows\ rear\ view.$ 



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#### **INTERSAFE® Connector GFO**





Connector Description	Connector Termination	
GFCI receptacle	Terminal block	

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector GF3**







Connector Description	Connector Termination	Plate Sectors Used
GFCI receptacle with 3-amp circuit breaker	Terminal block	5

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector GF5**









Connector Description	Connector Termination	Plate Sectors Used
GFCI receptacle with 5-amp circuit breaker	Terminal block	5

Left-hand image shows front view. Right-hand image shows rear view.

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#### **INTERSAFE® Connector MCL**





Connector Description	Connector Termination	Plate Sectors Used
Micrologix	10-ft. cable	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector MCL8**



Connector Description	Connector Termination	Plate Sectors Used
Micrologix	10-ft. cable	1

Left-hand image shows front view. Right-hand image shows rear view. \\

#### **INTERSAFE® Connector MD6**



Co	onnector Description	Connector Termination
6-	-pin mini DIN (female)	10-ft. cable with female 6-pin mini DIN

 $Left-hand\ image\ shows\ front\ view.\ Right-hand\ image\ shows\ rear\ view.$ 

#### **INTERSAFE® Connector MD8**



Connector Description	Connector Termination	Plate Sectors Used
8-pin mini DIN (female)	10-ft. cable with male 8-pin mini DIN	1

 $Left-hand\ image\ shows\ front\ view.\ Right-hand\ image\ shows\ rear\ view.$ 

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#### **INTERSAFE®** Connector PB



Connector Description	Connector Termination	Plate Sectors Used
ProfiBus 9-pin	Terminal	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector R11**



Connector Description	Connector Termination	Plate Sectors Used
RJ11 female connector with male RJ12	10-ft. cable with male RJ12	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector RJS**





Connector Description	Connector Termination	Plate Sectors Used
RJ45 shielded female connector	10-ft. shielded cable with male RJ45	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector SNP**





Connector Description	Connector Termination	Plate Sectors Used
DB15F GESNP	DB15 male GESNP with 10-ft. cable	1

Left-hand image shows front view. Right-hand image shows rear view.

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#### **INTERSAFE® Connector SPO**





Connector Description	Connector Termination	Plate Sectors Used
Single receptacle with no circuit breaker	Terminal block with terminal cover	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector SP3**







Connector Description	Connector Termination	Plate Sectors Used
Single receptacle with 3-amp circuit breaker	Terminal block with terminal cover	2

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector SP5**







Connector Description	Connector Termination	Plate Sectors Used
Single receptacle with 5-amp circuit breaker	Terminal block with terminal cover	2

 $Left-hand\ image\ shows\ front\ view.\ Right-hand\ image\ shows\ rear\ view.$ 

#### **INTERSAFE® Connector TMB**





Connector Description	Connector Termination	Plate Sectors Used
DB9F Modbus	10-ft. cable	1

Left-hand image shows front view. Right-hand image shows rear view.



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#### **INTERSAFE® Connector TMM**





Connector Description	Connector Termination	Plate Sectors Used
DB9F Micro	10-ft. cable	1

Left-hand image shows front view. Right-hand image shows rear view.

#### **INTERSAFE® Connector USB**



Connector Description	Connector Termination	Plate Sectors Used
USB Type A, female input	10-ft. cable, USB Type B connector	1

Left-hand image shows front view. Right-hand image shows rear view.



#### CHS Controls AB





#### **EMC Accessories**

#### **Bonding Cable Clamps**



These cable clamps are used when securing cables. They provide the conductivity required to ground the shielding on EMC-shielded cable.

Bulletin: A80

Catalog Number	Max. Cable Diameter (in.)	Max. Cable Diameter (mm)
ABCC6	0.25	6
ABCC95	0.38	10
ABCC125	0.50	13
ABCC19	0.75	19

#### **EMC Cable Strain Reliefs**



These cable strain reliefs have provisions for grounding the EMC shielding of cables entering an enclosure while maintaining a NEMA Type 4 seal.

**Bulletin: A80** 

		Cable Diameter	Hole Diameter	
Catalog Number	Size	mm/in.	mm/in.	
ACSR4EMC	PG9	4-6	16	
		0.16 - 0.24	0.63	
ACSR6EMC	PG11	6 - 10	19	
		0.24 - 0.39	0.75	
ACSR10EMC	PG16	10 - 14	23	
		0.39 - 0.55	0.91	
ACSR14EMC	PG16	14 - 17	23	
		0.55 - 0.67	0.91	
ACSR17EMC	PG21	17 - 20	29	
		0.67 - 0.79	1.14	
ACSR19EMC	PG29	19 - 23	38	
		0.75 - 0.91	1.50	
ACSR22EMC	PG29	22 - 27	38	
		0.87 - 1.06	1.50	
ACSR25EMC	PG36	25 - 30	48	
		0.98 - 1.18	1.89	
ACSR29EMC	PG36	29 - 32	48	
		1.14 - 1.26	1.89	

#### **Bonding Straps**



Bonding straps assist in maintaining a constant voltage potential across a ground plane.

Bulletin: A80

	Length		
Catalog Number	mm/in.	Package Quantity	
ABS6	152	3	
	6.00		
ABS12	305	3	
	12.00		
ABS18	457	3	
	18.00		



#### **CHS Controls AB**





#### **EMC Accessories**

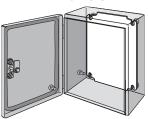
#### **Notes**





#### **INLINE®** Accessories

#### **INLINE®** Panels



Panels are 12 gauge steel with a white polyester powder paint or conductive finish. Ground hole is labeled. Sized for M6 fastener. Bulletin: A53, A54P

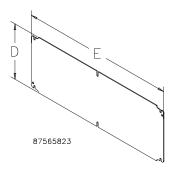
		Panel Size	Panel Size	Fits INLINE
Catalog Number	Material	D x E (mm)	D x E (in.)	Enclosure Size (mm)
LP1515	Painted Steel	131 x 131	5.16 x 5.16	150 x 150
LP1515G	Conductive	131 x 131	5.16 x 5.16	150 x 150
LP2015	Painted Steel	181 x 131	7.13 x 5.16	200 x 150
LP2015G	Conductive	181 x 131	7.13 x 5.16	200 x 150
LP2520	Painted Steel	231 x 181	9.10 x 7.13	250 x 200
LP2520G	Conductive	231 x 181	9.10 x 7.13	250 x 200
LP3025	Painted Steel	281 x 231	11.07 x 9.10	300 x 250
LP3025G	Conductive	281 x 231	11.07 x 9.10	300 x 250
LP3530	Painted Steel	331 x 281	13.04 x 11.07	350 x 300
LP3530G	Conductive	331 x 281	13.04 x 11.07	350 x 300
LP2040	Painted Steel	181 x 381	7.13 x 15.01	200 x 400
LP2040G	Conductive	181 x 381	7.13 x 15.01	200 x 400
LP2060	Painted Steel	181 x 581	7.13 x 22.89	200 x 600
LP2060G	Conductive	181 x 581	7.13 x 22.89	200 x 600

#### **INLINE® Landscape Panels**

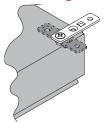
Panels are 12 gauge steel with a white polyester powder paint or conductive finish. They include a labeled ground hole sized for an M6 screw. Panels mount on studs provided in the enclosure or to optional DIN mounting brackets.

#### Bulletin: A54P

	Conductive	Panel Size	Panel Size
Catalog Number	Panel	D x E (mm)	DxE (in.)
LP2331	LP2331G	211 x 291	8.31 x 11.46
LP2346	LP2346G	211 x 441	8.31 x 17.36
LP2360	LP2360G	211 x 581	8.31 x 22.87
LP2377	LP2377G	211 x 751	8.31 x 29.57
LP2393	LP2393G	211 x 906	8.31 x 35.67



#### **Mounting-Bracket Kit**



Kit is field-installable on all solid-back-body enclosures. Hardware included. Four brackets per kit.

#### Bulletin: A54SY, A54Y

Catalog Number	Description
LMFK	Plated steel mounting-bracket kit
LMFKSS	Type 316L stainless steel mounting-bracket kit

#### **Lock Inserts**



Lock Inserts can replace the standard slotted quarter-turn latch. Inserts

have chrome finish. Key included.	
Bulletin: A54Y	

Catalog Number	Description
LLKSM7	Square 7 mm
LLKSM8	Square 8 mm
LLKDB	Daimler Benz
LLKDBM3	Double bit 3 mm
LLKSS	Slotted screw



#### **CHS Controls AB**



#### **INLINE®** Accessories

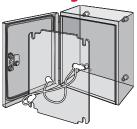
### **Wing Knob Latch**



Wing Knob Latch can replace the standard slotted, quarter-turn latch on all hinged-cover and windowcover enclosures. Latch is black die-cast zinc. Includes two keys and installation instructions. Reduces UL Type rating from 4 or 4X to 12. **Bulletin: A54Y** 

Catalog Number	Product Weight
LLKWK	0.2 lb.

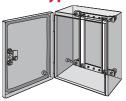
**Grounding Kit** 



Grounding Kit provides means to attach a grounding conductor to the enclosure. Kit includes two insulated copper wires with a ring terminal at each end, all installation hardware and instructions.

Catalog Number	Product Weight
LLGK	0.2 lb.

#### **DIN3 Type Rails**

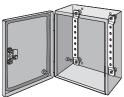


Rails furnish mounting surfaces for DIN3 mount snap-on devices. Rails attach vertically or horizontally to mounting brackets. Kit includes 4 rails and installation instructions. DIN3 Rail Mounting Brackets are required in order to mount rails.

**Bulletin: A54Y** 

Catalog Number	Fits INLINE Enclosure	L (mm)	L (in.)	Pkg. Qty.
LDR3P15	when A or B = 150 mm	125	4.92	4
LDR3P20	when A or $B = 200  \text{mm}$	175	6.89	4
LDR3P25	when A or $B = 250 \text{ mm}$	225	8.86	4
LDR3P30	when A or $B = 300  \text{mm}$	275	10.83	4
LDR3P31	when A or $B = 310 \text{ mm}$	285	11.22	4
LDR3P35	when A or $B = 350 \text{ mm}$	325	12.80	4
LDR3P40	when A or $B = 400 \text{ mm}$	375	14.76	4
LDR3P46	when A or B = 460 mm	435	17.13	4
LDR3P60	when A or $B = 600 \text{ mm}$	575	22.64	4
LDR3P77	when A or $B = 770 \text{ mm}$	745	29.33	4
LDR3P93	when A or B = 925 mm	900	36.43	4

#### **DIN Rail or Panel-Mounting Brackets**

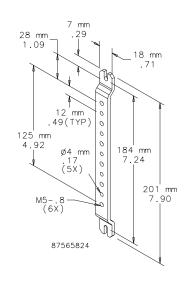


Use as a mounting framework to install DIN rails or a panel. Bracket is offset for additional space in front of or behind mounted equipment. Plated 12 gauge steel. Mounting hardware included. Brackets are required for DIN3 type rails.

#### **Bulletin: A54Y**

Catalog Number	Fits INLINE Enclosure	
LMK15	when A or B = 150 mm	
LMK20	when A or $B = 200 \text{ mm}$	
LMK23	when A or B = 230 mm	
LMK25	when A or B = 250 mm	
LMK30	when A or B = 300 mm	
LMK35	when A or B = 350 mm	

600-mm and longer enclosures require two sets of brackets for mounting panels.

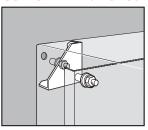




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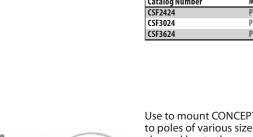
#### **CONCEPT® Panel Conversion Kit**





**Pole-Mount Kit** 

#### **Swing-Out Rack Frame**



## **Mounting Channels**



#### **CONCEPT® Accessories**

Panel Conversion Kit adapts enclosure for mounting standard NEMAstyle panels in CONCEPT® enclosures. Bracket attaches to rear collar stud. Kit includes four adapter plates and hardware for mounting panel.

#### **Bulletin: CWY**

Catalog	Number	Material	Fits CONCEPT Enclosure	
CCPM4		Steel	When A x B is equal to or less than 30.00 x 30.00 in. (762 x 762 mm)	

Swing-Out Rack Frames provide 120-degree swing-out access for 19-in. rack equipment. Welded rack frame mounts to front flange. Distance from frame to door surface is 1.32 in. (33 mm) for solid doors and 1.07 in. (27 mm) for window doors. Frame is painted steel ANSI 61 gray. Mounting hinge and latching hardware provided. Order separately clip nut package catalog number XNM5 and screws XSM5 (metric) or AN1032 and screws AS1032 (English). Swing-Out Rack Frame cannot be mounted on adjustable mounting kit.

#### **Bulletin: CWY**

Catalog Number	Material	Fits Enclosure A x B
CSF2424	Painted steel	24.00 x 24.00 in. (610 x 610 mm)
CSF3024	Painted steel	30.00 x 24.00 in. (762 x 610 mm)
CSF3624	Painted steel	36.00 x 24.00 in. (914 x 610 mm)

Use to mount CONCEPT®, Networking and wall-mount enclosures to poles of various sizes and shapes. Simply attach the plated steel channel bar to the mounting holes at the back of the enclosure and wrap the stainless steel strap around the pole and through the bar. Kit includes two mounting channels, two straps suitable for 3-in. (76mm) to 12-in. (305-mm) diameter pole and mounting hardware.

#### **Bulletin: CWY**

Catalog Number	Fits Enclosure (in.)	Fits Enclosure (mm)
CPMK12	when B = 12.00	when B = 305
CPMK16	when B = 16.00	when B = 406
CPMK20	when B = 20.00	when B = 508
CPMK24	when B = 24.00	when B = 610
CPMK30	when B = 30.00	when B = 762

Mounting Channels provide mounting framework for installing DIN rails and grid straps at various positions within the enclosure. Channels can be mounted vertically or horizontally to collar studs or to the slide mechanisms of the adjustable-depth mounting kit. Kit includes two channels.

#### **Bulletin: CWY**

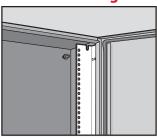
Catalog Number	Fits CONCEPT Enclosure	
CMC12	when A or B = 12.00 in. (305 mm)	
CMC16	when A or B = 16.00 in. (406 mm)	
CMC20	when A or B = 20.00 in. (508 mm)	
CMC24	when A or B = 24.00 in. (610 mm)	
CMC60	when A or B = 60.00 in. (1524 mm)	



#### **CHS Controls AB**



#### **Rack-Mount Angles**



#### **DIN3 Rail Kits**



#### **CONCEPT® Accessories**

Rack-Mount Angles are a mounting means for 19-in. rack equipment in 24-in. wide enclosures. L-shaped through-hole angles attach to enclosure flange or the adjustable-depth mounting kit. Holes are .281 in. (7 mm) in diameter. Clear plated 14 gauge steel construction. Mounting hardware included.

Order separately clip nut package catalog number XNM5 and screws XSM5 (metric) or AN1032 and screws AS1032 (English).

Catalog Number	Fits CONCEPT Enclosure	Rack Units
CRA12TH	when A = 24.00 in. (610 mm)	12
CRA16TH	when A = 30.00 in. (762 mm)	16

DIN3 Rail Kits supply mounting surfaces for DIN mount snap-on devices in either DIN 1, DIN 3 or CENELEC styles. Rails attach vertically or horizontally to rear collar stud or to mounting channels. Kit includes three rails and mounting hardware.

#### **Bulletin: CWY**

Catalog Number	Fits CONCEPT Enclosure
CDR3P12	when A or B = 12.00 in. (305 mm)
CDR3P16	when A or B = 16.00 in. (406 mm)
CDR3P20	when A or B = 20.00 in. (508 mm)
CDR3P24	when A or B = 24.00 in. (610 mm)



#### **CHS Controls AB**



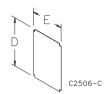
#### **CONCEPT® Accessories**

#### **CONCEPT® Panels**

These panels are taller and wider than corresponding NEMA-size panels. Panels are 14 or 12 gauge steel and painted white or have a conductive finish.

Panels have a formed flange along any side that is longer than 22.20 in. (564 mm). CP2420 and CP2424 have a flange on all four sides.

Bulletin: CWP, CWY



Catalog Number	Panel Type	Panel Size D x E (in.)	Panel Size D x E (mm)	Gauge
CP1212	Painted steel	10.20 x 10.20	259 x 259	14
CP1212G	Conductive	10.20 x 10.20	259 x 259	14
CP1612	Painted steel	14.20 x 10.20	361 x 259	14
CP1612G	Conductive	14.20 x 10.20	361 x 259	14
CP1616	Painted steel	14.20 x 14.20	361 x 361	12
CP1616G	Conductive	14.20 x 14.20	361 x 361	12
CP2016	Painted steel	18.20 x 14.20	462 x 361	12
CP2016G	Conductive	18.20 x 14.20	462 x 361	12
CP2014	Painted steel	18.20 x 12.20	462 x 310	14
CP2014G	Conductive	18.20 x 14.20	462 x 310	14
CP2416	Painted steel	22.20 x 14.20	564 x 361	12
CP2416G	Conductive	22.20 x 14.20	564 x 361	12
CP2020	Painted steel	18.20 x 18.20	462 x 462	12
CP2020G	Conductive	18.20 x 18.20	462 x 462	12
CP2420	Painted steel	22.20 x 18.20	564 x 462	12
CP2420G	Conductive	22.20 x 18.20	564 x 462	12
CP3020	Painted steel	28.20 x 18.20	716 x 462	12
CP3020G	Conductive	28.20 x 18.20	716 x 462	12
CP2424	Painted steel	22.20 x 22.20	564 x 564	12
CP2424G	Conductive	22.20 x 22.20	564 x 564	12
CP3024	Painted steel	28.20 x 22.20	716 x 564	12
CP3024G	Conductive	28.20 x 22.20	716 x 564	12
CP3624	Painted steel	34.20 x 22.20	869 x 564	12
CP3624G	Conductive	34.20 x 22.20	869 x 564	12
CP4824	Painted steel	46.20 x 22.20	1173 x 564	12
CP4824G	Conductive	46.20 x 22.20	1173 x 564	12
CP3030	Painted steel	28.20 x 28.20	716 x 716	12
CP3030G	Conductive	28.20 x 28.20	716 x 716	12
CP3630	Painted steel	34.20 x 28.20	869 x 716	12
CP3630G	Conductive	34.20 x 28.20	869 x 716	12
CP4230	Painted steel	40.20 x 28.20	1021 x 716	12
CP4230G	Conductive	40.20 x 28.20	1021 x 716	12
CP3636	Painted steel	34.20 x 34.20	869 x 869	12
CP3636G	Conductive	34.20 x 34.20	869 x 869	12
CP4236	Painted steel	40.20 x 34.20	1021 x 869	12
CP4236G	Conductive	40.20 x 34.20 40.20 x 34.20	1021 x 869	12
CP4836	Painted steel	40.20 x 34.20 46.20 x 34.20	1173 x 869	12
CP4836G	Conductive	46.20 x 34.20 46.20 x 34.20	1173 x 869	12
CP6036	Painted steel	46.20 x 34.20 58.20 x 34.20	1478 x 869	12
CP6036G	Conductive	58.20 x 34.20 58.20 x 34.20	1478 x 869	12
CP2442	Painted steel	22.20 x 40.20	1478 x 869 564 x 1021	12
CP2442G	Conductive	22.20 x 40.20 22.20 x 40.20	564 x 1021 564 x 1021	12
CP3048	Painted steel	22.20 x 40.20 28.20 x 46.20	716 x 1173	12
CP3048 CP3048G				12
CP3048G CP3060	Conductive	28.20 x 46.20	716 x 1173	12
	Painted steel	28.20 x 58.20	716 x 1478	
CP3060G	Conductive	28.20 x 58.20	716 x 1478	12
CP7236	Painted steel	70.20 x 34.20	1783 x 869	12

Catalog number CP4230 is used on CONCEPT disconnect enclosures.



#### **CHS Controls AB**



#### CONCEPT® Accessories

#### **CONCEPT® Swing-Out Panels**



Panels swing clear from the front of the enclosure to provide access to mounted internal equipment. For CSPB panels, maximum swing is 94 degrees. For CSP panels, maximum panel swing is 106 degrees. Distance from panel surface to door when in the latched position is 1.71 in. (43 mm) for solid doors and 1.45 in. (37 mm) for window doors. Kits include panel, brackets and hardware to mount to the front flange.

Swing-out panels also can be mounted on front-to-back adjustable rails. CSPB panels require adapter CSPBADB and front-to-back adjustable rails for front-to-back adjustment.

**Bulletin: CWY** 

#### **CSPB Panels**

	Fits	Fits		-
	Enclosure	Enclosure	Panel	Panel
Catalog Number	Size (in.)	Size (mm)	Size (in.)	Size (mm)
CSPB1212	12.00 x 12.00	305 x 305	9.72 x 9.75	247 x 248
CSPB1612	16.00 x 12.00	406 x 305	13.72 x 9.75	349 x 248
CSPB1616	16.00 x 16.00	406 x 406	13.72 x 13.75	349 x 349
CSPB1620	16.00 x 20.00	406 x 508	13.72 x 17.75	349 x 451
CSPB2016	20.00 x 16.00	508 x 406	17.72 x 13.75	450 x 349
CSPB2020	20.00 x 20.00	508 x 508	17.72 x 17.75	450 x 451
CSPB2024	20.00 x 24.00	508 x 610	17.72 x 21.75	450 x 553
CSPB2416	24.00 x 16.00	610 x 406	21.72 x 13.73	552 x 349
CSPB2420	24.00 x 20.00	610 x 508	21.72 x 17.75	552.452
CSPB2424	24.00 x 24.00	610 x 610	21.72 x 21.75	552 x 553
CSPB2430	24.00 x 30.00	610 x 762	21.72 x 27.75	552 x 705
CSPB3020	30.00 x 20.00	762 x 508	27.72 x 17.75	704 x 451
CSPB3024	30.00 x 24.00	762 x 610	27.72 x 21.75	704 x 553
CSPB3030	30.00 x 30.00	762 x 762	27.72 x 27.75	704 x 705
CSPB3624	36.00 x 24.00	914 x 610	33.72 x 21.75	857 x 553
CSPB3630	36.00 x 30.00	914 x 762	33.72 x 27.75	857 x 705
CSPB3636	36.00 x 36.00	914 x 914	33.72 x 33.75	857 x 857
CSPB4236	42.00 x 36.00	1067 x 914	39.72 x 33.75	1009 x 857
CSPB4824	48.00 x 24.00	1219 x 610	45.72 x 21.75	1161 x 553
CSPB4836	48.00 x 36.00	1219 x 914	45.72 x 33.75	1161 x 857
CSPB6036	60.00 x 36.00	1542 x 914	57.72 x 33.75	1466 x 857

#### **CSP Panels**

	Fits	Fits	Panel	Panel
Catalog Number	Enclosure (in.)	Enclosure (mm)	Size (in.)	Size (mm)
CSP1212	12.00 x 12.00	305 x 305	9.78 x 9.84	248 x 250
CSP1612	16.00 x 12.00	406 x 305	13.78 x 9.84	350 x 250
CSP1616	16.00 x 16.00	406 x 406	13.78 x 13.84	350 x 352
CSP1620	16.00 x 20.00	406 x 508	13.78 x 17.84	350 x 453
CSP2016	20.00 x 16.00	508 x 406	17.78 x 13.84	452 x 352
CSP2020	20.00 x 20.00	508 x 508	17.78 x 17.84	452 x 453
CSP2024	20.00 x 24.00	508 x 610	17.78 x 21.84	452 x 555
CSP2416	24.00 x 16.00	610 x 406	21.78 x 13.84	553 x 352
CSP2420	24.00 x 20.00	610 x 508	21.78 x 17.84	553 x 453
CSP2424	24.00 x 24.00	610 x 610	21.78 x 21.84	553 x 555
CSP3020	30.00 x 20.00	762 x 508	27.78 x 17.84	706 x 453
CSP3024	30.00 x 24.00	762 x 610	27.78 x 21.84	706 x 555
CSP3030	30.00 x 30.00	762 x 762	27.78 x 27.84	706 x 707
CSP3624	36.00 x 24.00	914 x 610	33.78 x 21.84	858 x 555
CSP3630	36.00 x 30.00	914 x 762	33.78 x 27.84	858 x 707
CSP3636	36.00 x 36.00	914 x 914	33.78 x 33.84	858 x 860

#### **CONCEPT® Adapter Bracket**

Adapter bracket for use with CONCEPT® B-style Swing-Out Panels and Adjustable-Depth Mounting Kits. Bracket enables the B-style swing-out panels to be mounted in infinite front-to-back positions within a CONCEPT enclosure.

#### **Bulletin: CWY**

Catalog Number	Material
CSPBADB	Steel

#### **Handles**



Handles can replace the standard slotted insert on all CONCEPT® wall-mount enclosures. The CONCEPT non-locking handle provides quick and easy access to the enclosure contents. Handle is black plastic. A zinc die-cast keylock handle is available for applications requiring quick access and security. A padlocking handle, also zinc die-cast, accommodates a padlock with up to a 5/16-in. locking bar. Each latch system can be converted from clockwise to counterclockwise opening. Kit includes all hardware.

#### **Bulletin: CWY**

Catalog Number	UL Rating	Description
CWHK	Maintains UL/CSA Type 12 when properly installed	Keylock handle
CWHNL	Maintains UL Type 3, 4, 4X, 12 when properly installed	Non-locking handle
CWHPT0	Maintains UL/CSA Type 3, 4, 12 when properly installed	Padlock handle

CWHNL is not suitable for 3-point latch operation.



#### **CHS Controls AB**

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#### **Door Stop Kit**



#### **CONCEPT® Accessories**

Door Stop Kit secures the door in the open position. Kit can be installed at the top or bottom of a door which opens horizontally. Door opening angle can be easily adjusted by means of a wing nut. Stop arm slides neatly out of the way when the door is closed. All parts are plated. Mounting hardware included.

- Door stop kits should not be installed on enclosures configured with a swing-out panel or swing-out rack frame
- Door stop kits cannot be used with CONCEPT window doors

#### Bulletin: A80

Catalog Number	Finish	
ADSTOPK	Plated Steel	

#### **Data Pockets**



Data Pockets provide convenient storage for wiring diagrams, operation manuals and other documentation inside an enclosure. Pocket mounts on studs located on the inside of a solid-door enclosure. Constructed of high-impact thermoplastic, pockets are dark gray and have cutout areas for easy access and visibility to contents. Mounting hardware included.

#### **Bulletin: UX1Y**

	Length x Width	
Catalog Number	in./mm	Fits CONCEPT Enclosure
ADP1	6.00 x 6.00	when A is less than or equal to 24
	152 x 152	and B is less than or equal to 24
ADP2	12.00 x 12.00	when A is greater than or equal to 30
	305 x 305	and B is greater than or equal to 20

Use ADP2 when A = 24 and B = 30

#### **Lock Inserts**



Lock inserts can be substituted for the standard 3-mm double-bit latch insert. Inserts have a chrome finish. Matching key is zinc diecast.

#### Bulletin: A4GY, CWY

Catalog Number	Description	
CLKTM7	Triangular 7-mm insert with key	
CLKSM7	Square 7-mm insert with key	
CLKDBM3	Double bit with key	
CLKSLOT	Slotted Insert no key	

#### **Mounting-Bracket Kits**



Mounting-Bracket Kits are field installable. Composite and stainless steel brackets are rated to Type 4X. Set of four (4) brackets can support 500 lb. maximum load. All hardware is included. Four brackets per kit.

Mounting brackets are required to maintain UL/CSA external mounting requirement.

#### Bulletin: A80

Catalog Number	Description	
CMFK	Steel	
CMFKSS	Stainless Steel	
CMTGFT	Composite	



#### **CHS Controls AB**



## **Hinge Pins**



#### **Door Bars**



#### **CONCEPT® Accessories**

**Accessories: CONCEPT® Accessories** 

Contact Customer Service to order new mild steel hinge pins for an existing product.

Bulletin: VM3

Catalog Number	Description	Qty.
GHPINMS	Hinge Pin	2

Non-metallic door bar includes pressure-sensitive tape adhesive. **Bulletin: CWY** 

Catalog Number	Description	Length	Qty.
ADB305MM	Door Bar	8 in (203 mm)	4

#### **CHS Controls AB**