

6.5 Disposal

In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.

Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. If you have any questions, please contact the responsible authority or the distributor from which you purchased this device. Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

Thank you for your contribution to environmental protection.



7 Troubleshooting

See XPE Operating Instructions for a list of possible error messages and remedies.

Symptom	Countermeasure
Instrument hangs on startup.	<ul style="list-style-type: none">• Switch off the high-voltage power adapter of the AntiStatic Kit.• After successful startup, switch power adapter on again.
Lid drips.	<ul style="list-style-type: none">• Change ferrule, see [Installing new ferrule on liquid tube ► 28].
Liquid dosing head drips.	<ul style="list-style-type: none">• Check cap.• Make sure there is not too much air in tubing and check air connector module.
Liquid dosing does not work.	<ul style="list-style-type: none">• Check filter.• Check, that dosing head is installed correctly. If there is just a small gap between dosing head and its support, press it down slightly again.

7.1 Fault prevention

The following information helps avoiding potential problems with your instrument.

7.1.1 Storing dosing heads

Protect your dosing heads by storing them in the delivered plastic container. This prevents the powder from absorbing too much humidity.

In case of long-term storage:

- Check the instructions for storing a particular powder.
- Shake the dosing head so that the powder flows back to the powder container.
- Remove the powder container from the head and screw on the supplied spare cap.

7.1.2 Preventing electrostatic charge

When preparing sample vessels electrostatic charge may build up. Electrostatic charge may make correct dosing impossible or adversely affect the dosing result.

Possibilities for electrostatic charge:

- sample vessels made of plastic
- wearing latex gloves

AntiStatic Kit

We recommend using the AntiStatic Kit to prevent electrostatic charge. The following chapter describes the use of the AntiStatic Kit in the dosing procedure.

The instrument will be equipped with two ionizing electrodes (AntiStatic Kit) which are activated automatically when installing a new dosing head or tapping [**Start**]. The two electrodes remove most of the electrostatic charge from your sample containers.

Always make sure to install a dosing head before locating the sample vessel on the weighing pan. This way, ionizing is active when placing the container which constantly removes the electrostatic charge. In addition, we recommend you do not touch the upper edge of the container (close to the opening) when handling the sample vessels.

Checking the powder container of electrostatic charge

- 1 Install dosing head.
 - ⇒ The AntiStatic Kit is active.
- 2 Locate the sample vessel on the weighing pan.
- 3 Check that the distance between the dosing head and the vessel is at least 5 cm and the opening of the vessel is aligned with the dosing head exactly.
- 4 Close all doors of the draft shield.

- 5 Press [**→T←**] to reset the display to zero, this switches the AntiStatic Kit off.
- 6 Slowly lower the dosing head to about 3 mm above the vessel and simultaneously watch the weight display.
 - ⇒ If the displayed value remains stable (almost "0"), there is no electrostatic charge on the sample vessel.

Discharging the powder container

- 1 Install a dosing head or tap [**Start**].
 - ⇒ The AntiStatic Kit is active.
- 2 Grasp the sample vessel by its lower part and locate its upper edge in front of one of the two electrodes at a distance of about 50 mm for approximately 20 to 40 seconds.
Repeat this procedure as needed.
- 3 Relocate the vessel on the weighing pan not touching its upper part.

If your powder container is made of plastic material it may be impossible to completely remove electrostatic charge and the displayed value fluctuates.

- If the opening of the sample vessel is large enough, increase the distance between the dosing head and the container to more than 3 mm until the weight value in the displayed value remains stable.

8 Technical Data

Note

Also see XPE Operating Instructions for further information.

8.1 General data



CAUTION

Use only with a tested AC Adapter with SELV output current.
Ensure correct polarity

Power Supply

AC/DC Adapter:	Primary: 100-240 VAC, -15%/+10%, 50/60 Hz, 0.8 A Secondary: 12 VDC \pm 5%, 2.25 A (with electronic overload protection)
Balance:	Power supply to the balance: 12 VDC, 2.25 A max. 27 W
Power cable:	Design: 3-core, with country-specific plug

Protection and Standards

• Overvoltage category:	II
• Degree of pollution:	2
• Degree of protection:	Protected against dust and water
• Standards for safety and EMC:	See Declaration of Conformity
• Range of application:	For use only in dry interior rooms

Environmental conditions

• Height above mean sea level:	up to 4000 m
• Ambient temperature range:	5 to 40 °C
• Relative air humidity:	max. 80 % up to 31 °C, linearly decreasing to 50 % at 40 °C, noncondensing

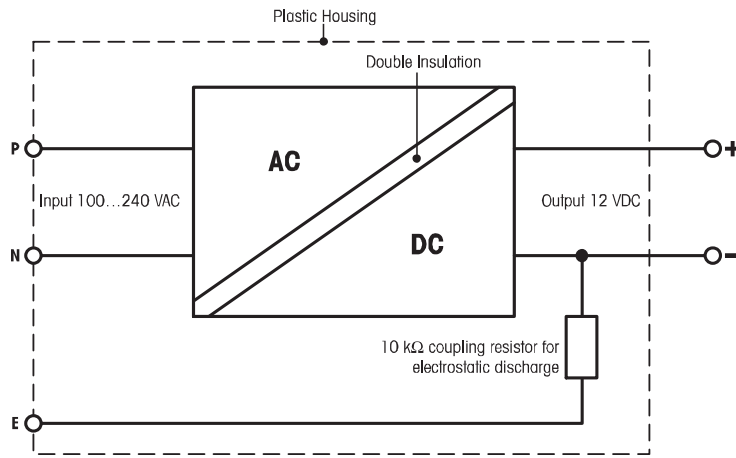
8.2 Explanatory notes for the METTLER TOLEDO AC adapter

The certified external power supply which conforms to the requirements for Class II double insulated equipment is not provided with a protective earth connection but with a functional earth connection for EMC purposes. This earth connection IS NOT a safety feature. Further information about conformance of our products can be found in the brochure "Declaration of Conformity" which is coming with each product.

In case of testing with regard to the European Directive 2001/95/EC the power supply and the instrument have to be handled as Class II double insulated equipment.

Consequently an earth bonding test is not required. Similarly it is not necessary to carry out an earth bonding test between the supply earth conductor and any exposed metalwork on the instrument.

Because the instruments are sensitive to static charges a leakage resistor, typically 10 kΩ, is connected between the earth connector and the power supply output terminals. The arrangement is shown in the equivalent circuit diagram. This resistor is not part of the electrical safety arrangement and does not require testing at regular intervals.

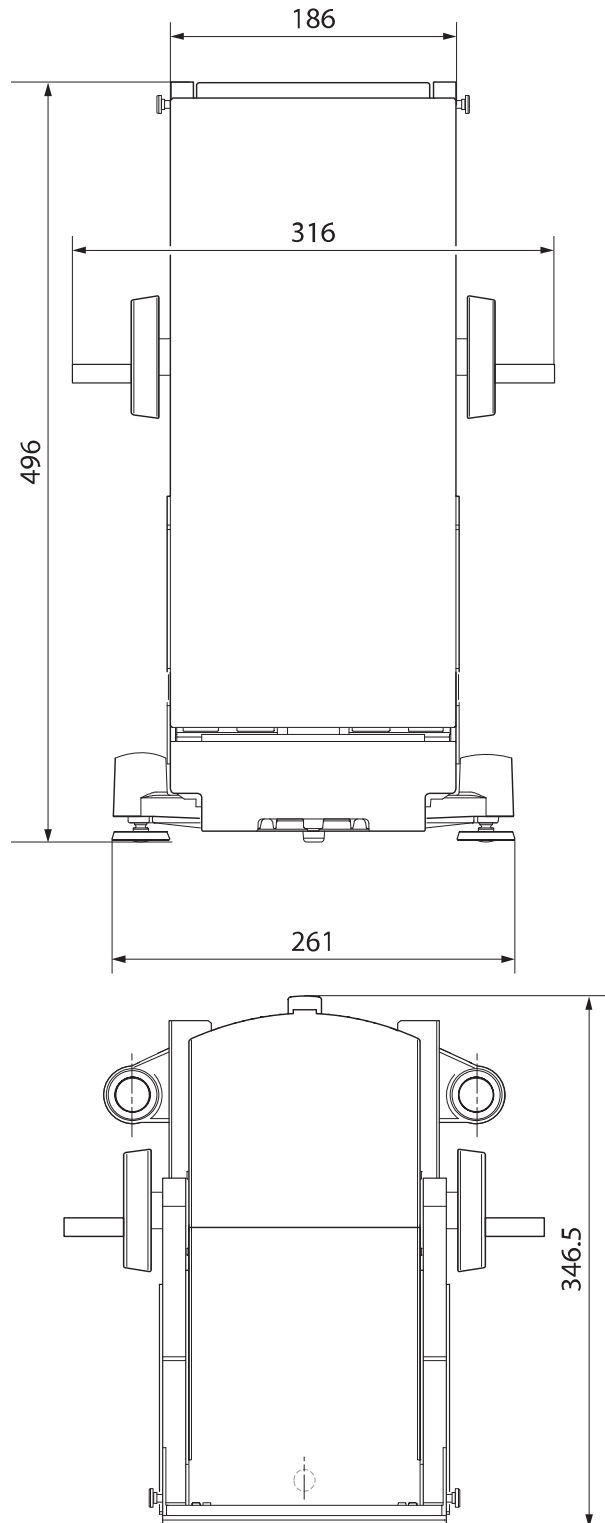


Equivalent circuit diagram

8.3 Powder module

Dimensions	
Max. height of sample vessel	178 mm
Min. height of sample vessel	31 mm
Minimum opening of sample vessel (diameter)	6 mm
Usable height of draft shield	180 mm
Height of instrument (with open front door)	675 mm*
Number of sample vessels	1
Weight of instrument (without terminal)	15.5 kg
Required Space	
Depth without terminal and front door	400 mm
Depth without terminal but with front door	500 mm
Depth with terminal	545 mm
Height	680 mm
Width	330 mm

Powder module



8.4 Liquid module

Tested solvents:

1,4-dioxane, 1-butanol, acetic acid, acetone, acetonitrile, benzene, chloroform, dichloromethane, ethanol, ethyl acetate, formic acid 98 %, hexane, isopropanol, methanol, pentane, toluene, water (H₂O)

Dosing Head	QLL1000
Dosing properties	
Limit values	
Dosing quantity offset (liquid; quantity)	20 mg (H ₂ O; 5 g)
Dosing quantity Repeatability (sd) (liquid; quantity)	10 mg (H ₂ O; 5 g)
Dosing time (liquid; quantity)	35 s (H ₂ O; 5 g)
Typical values	
Dosing quantity offset (liquid; quantity)	1 mg (H ₂ O; 5 g)
Dosing quantity Repeatability (sd) (liquid; quantity)	1 mg (H ₂ O; 5 g)
Dosing time (liquid; quantity)	30 s (H ₂ O; 5 g)

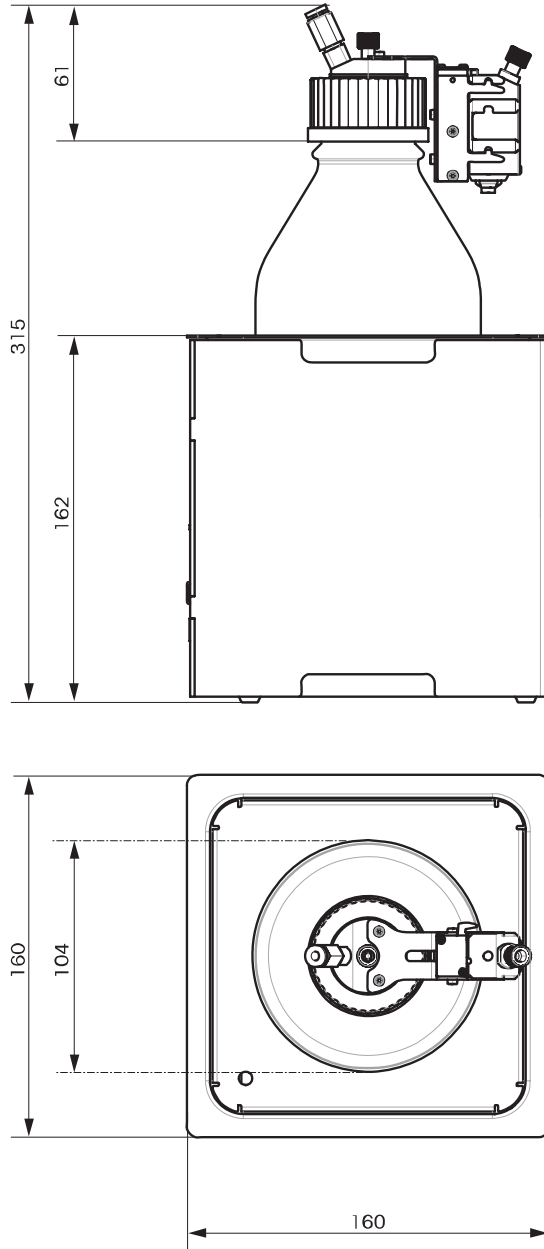
Tubing	Outer Diameter	Inner Diameter	Length
Liquid dosing head > Cap	3.2 mm	1.6 mm	700 mm
Inside the bottle			220 mm
Pump module > Bottle	4.0 mm	2.4 mm	660 mm

Inline Frit Filter	
Tubing Outer Diameter	3.2 mm
Filter pore size	10 µm

Materials: Wetted parts

	Bottle	Inline Frit Filter	Liquid bottle cap	Tubing	Body of dosing head	Micro dispensing valve	O-ring
Borosilicate glass	X						
PP		X	X				
PE			X				
FEP				X			
Stainless steel					X	X	
PEEK						X	
Sapphire						X	
Ruby						X	
FFMK (DuPont™ Kalrez®)							X

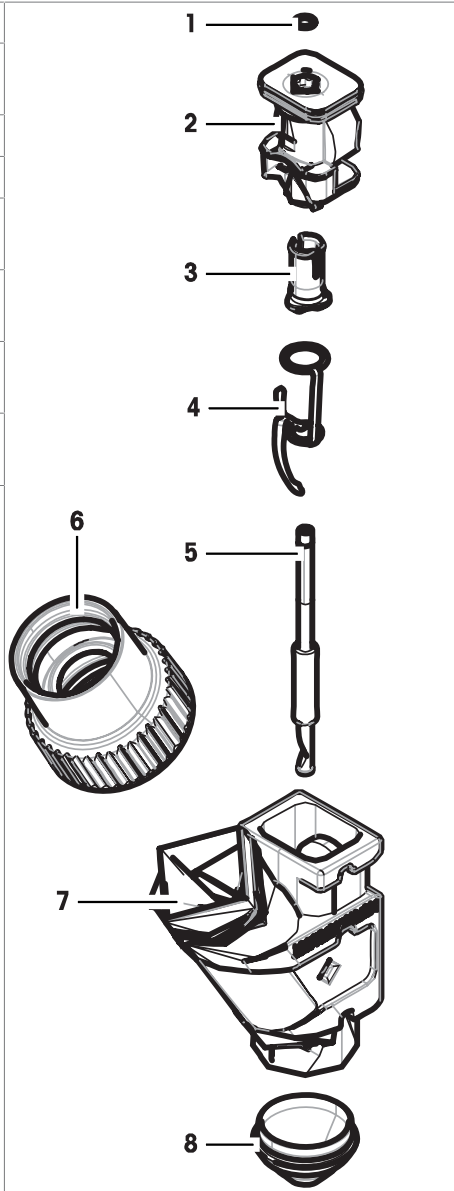
Pump module with bottle



8.5 Materials

8.5.1 Dosing head

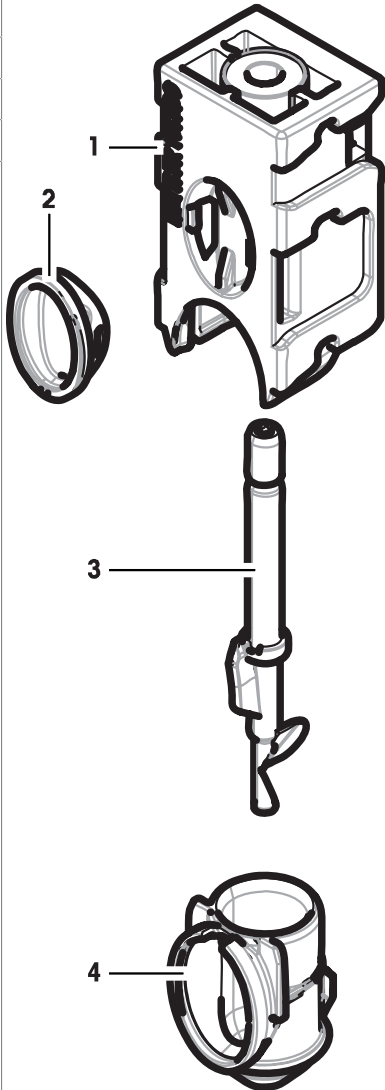
Nr.	Designation	Material
1	Sealing washer	POM (0326 Ultraform N2320 Copolymer)
2	Insert	POM
3	Bushing	POM
4	Scraper	Stainless steel (X10CrNi 18-8 (1.4310))
5	Indented pin	Stainless steel (X2CrNiMo 17-12-2 (1.4404))
6	Adapter cap	PP (6660 / Med Bormed HE7541 PH neutral)
7	Dosing head with flange	XXX (0604 TPX RT 18 (XM) transparent)
8	Cone	Stainless steel (X2CrNiMo 17-12-2 (1.4404))



The diagram shows an exploded view of the dosing head assembly. The components are numbered as follows: 1. Sealing washer, 2. Insert, 3. Bushing, 4. Scraper, 5. Indented pin, 6. Adapter cap, 7. Dosing head with flange, and 8. Cone. The assembly is shown in a vertical orientation, with the dosing head (7) at the top and the cone (8) at the bottom. The adapter cap (6) is shown to the left of the dosing head, and the indented pin (5) is shown to the right of the dosing head. The scraper (4) is shown to the right of the dosing head, and the bushing (3) is shown to the right of the dosing head. The insert (2) is shown to the right of the dosing head, and the sealing washer (1) is shown to the right of the dosing head.

8.5.2 Manual dosing head

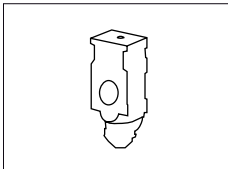
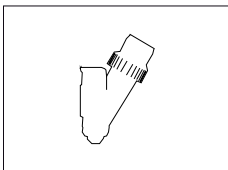
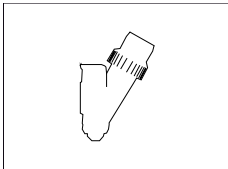
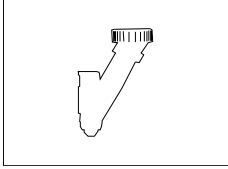
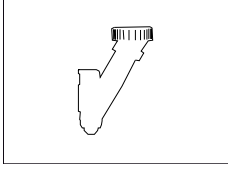
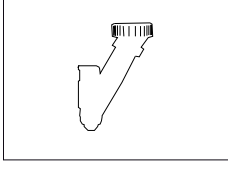
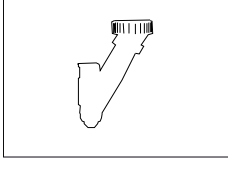
Nr.	Designation	Material
1	Body	PPR
2	Closing cap	PP
3	Dosing pin	PP
4	Cone body	PP

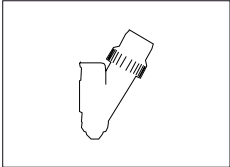
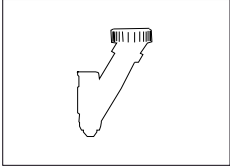
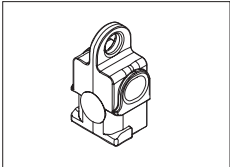


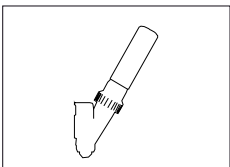
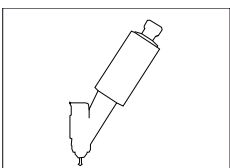
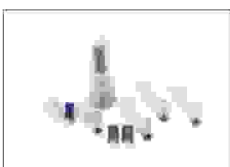



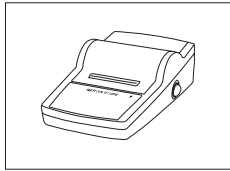
The diagram illustrates the assembly of the manual dosing head. It shows four main components: 1. The main body (PPR), which is a rectangular plastic housing with a handle and a dosing mechanism. 2. The closing cap (PP), a circular ring that fits onto the top of the body. 3. The dosing pin (PP), a long, thin rod with a curved tip and a small handle. 4. The cone body (PP), a circular component that fits into the bottom of the body. The components are shown in an exploded view, with lines indicating their relative positions and how they fit together.

9 Accessories and Spare Parts

9.1 Accessories

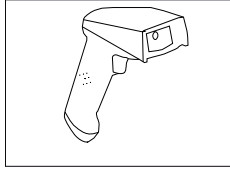
	Description	Part No.
Dosing heads		
	QH002-CNMW Sample dosing head for small dosing amounts (2 ml). bulk of 30 bulk of 60 bulk of 500	30083440 30098264 30244518
	QH010-CNMW standard dosing head for small vials 10 ml 10 pcs. 40 pcs	30132790 30132791
	QH008-BNMW standard dosing head for small vials 16 ml, 10 pcs.	11141533
	QH012-LNMW standard dosing head for large vials 120 ml, 10 pcs.	11141532
	QH012-LNLW Dosing head for high target amounts, 10 pcs.	11150145
	QH012-LNMX Dosing head for high density fast flowing powders, 10 pcs.	30112276
	QH012-LNCT Dosing head for high target amounts of difficult to dose powders, 10 pcs.	11150171
	QH012-LNLX Dosing head for bead and flux dispensing, 10 pcs.	11150155

	QH008-BNMP Dosing head for small target containers, 10 pcs.	11150120
	QH012-LNLT dosing head for compacting powders, 10 pcs.	11150170
	QA000-M Manual dosing head (set of 5) transponder for the information of often used solids	30303382
	Transport box with vials Vials 120 ml, large dosing head (QH012) transport containers	30036965
	Transport box with vials Vials 16 ml, small dosing head (QH008) transport containers.	30139824
	QA075-PNMW Special dosing head for powder test filled with test powder for 75 dosings, automatic repetition of 10 dosings	11141506
	QA000-W Special dosing head for "MinWeigh" test	11141507
	Starterkit Set of 10 different dosing heads.	30132792
Printers		
	CLS-631 Label printer for Quantos (RS232C/USB-A) Quantos label and ink ribbon kit • NetCom Kit needed.	11141820 30004309



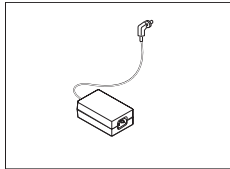
RS-P25 printer for Quantos (RS232C)	11141834
Ink ribbon (set of 2)	00065975
Standard paper (5 rolls)	00072456
Self-adhesive paper (3 rolls)	11600388
• NetCom Kit needed.	

Barcode reader

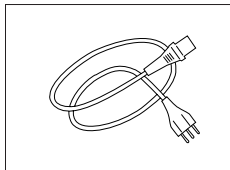


RS232C Barcode Reader	21901297
The following accessories are needed for operation (not included):	
RS232 F cable	21901305
Null modem adapter	21900924
Plus one of the following:	
AC adapter 5 V for EU	21901370
AC adapter 5 V for US	21901372
AC adapter 5 V for GB	21901371
AC adapter 5 V for AU	21901370
	+ 71209966

Power supplies

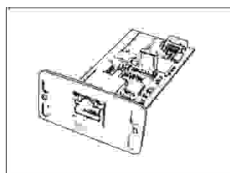


AC/DC adapter (without power cable) 100–240 V AC, 0.8 A, 50/60 Hz, 12 V DC 2.5 A	11107909
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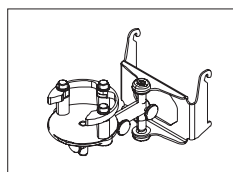
Country-specific 3-Pin power cable with grounding conductor.	
Power cable AU	00088751
Power cable BR	30015268
Power cable CH	00087920
Power cable CN	30047293
Power cable DK	00087452
Power cable EU	00087925
Power cable GB	00089405
Power cable IL	00225297
Power cable IN	11600569
Power cable IT	00087457
Power cable JP	11107881
Power cable TH, PE	11107880
Power cable US	00088668
Power cable ZA	00089728

Optional interfaces



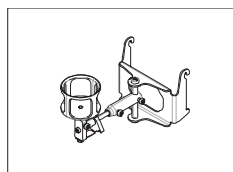
Ethernet Interface for connection to an Ethernet network	11132515
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ErgoClips



ErgoClip Quantos

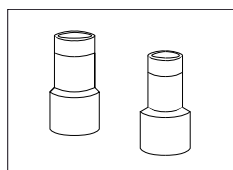
11141570



ErgoClip Vial

30260822

Various



Vial adapters (POM) for magazine set \varnothing 24 mm

10.3 mm \times 25 mm (5 pcs.)

11141571

12 mm \times 17 mm (5 pcs.)

11141575

15 mm \times 24 mm (5 pcs.)

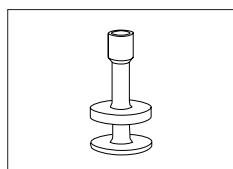
11141572

16.2 mm \times 20 mm (5 pcs.)

11141573

21 mm \times 25 mm (5 pcs.)

11141574



Capsule adapters (stainless steel) for magazine set \varnothing 24 mm

size 000

30006416

size 00

30006417

size 0

30006418

size 1

30006419

size 2

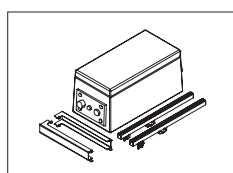
30006430

size 3

30006431

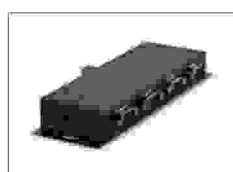
size 4

30006432



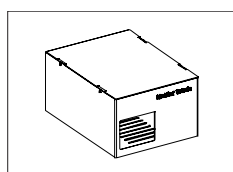
Integrable antistatic kit incl. pair of multiple point-electrode and power supply

11141829



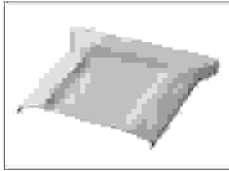
NetCom Kit

11141832



Cable Box

11141845

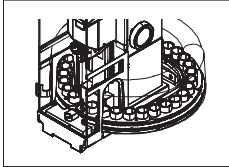


Grey drip tray

30038741

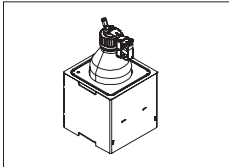
Special Accessories

The following Accessories must be mounted and installed by a METTLER TOLEDO service engineer.



Autosampler QS30

11141300



Liquid module

Pump module QL2

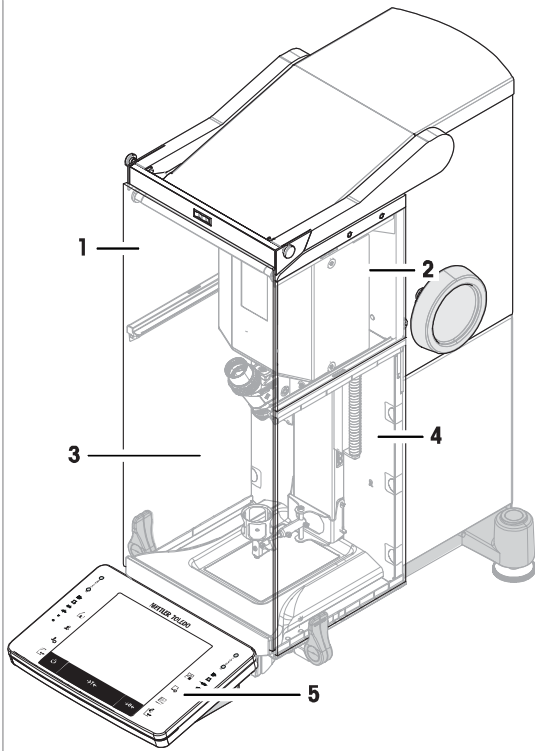
30008317

Liquid dosing head and bottle QLL1000

30008318

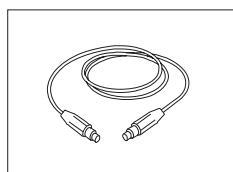
9.2 Spare parts

Spare parts powder module (Q2)

Drawing	Pos	Description	Part No.
	1	Front door powder module (Q2)	11141855
		Front door XPE56Q	30079864
	2	Side window left	30303176
	3	Side window right	30303177
	4	Side doors (conductive)	11106263
	5	Terminal complete with firmware	30087553

Description

Part No.



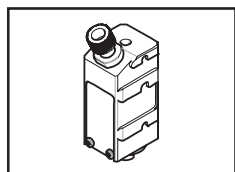
6-pole CAN cable
Length: 60 cm

30005904

Spare parts liquid dosing (QLL1000)

Description

Part No.



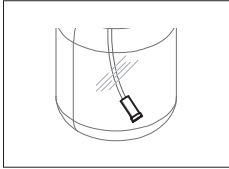
Liquid dosing head QL001

30080473

Liquid module spare part kit

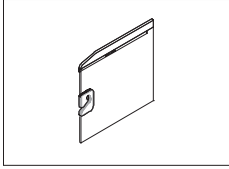
30025649

- Tubing Teflon® FEP OD 4, ID 2.4 (2m)
- Tubing Teflon® FEP OD 3.2, ID 1.6 (3m)
- Ferrule, flangeless 1/8" ETFE gb P300X (10 pcs.)
- Fitting, flangeless PEEK P347X (5 pcs.)
- Pin ISO 2338 4H8 x 20, A1 (5 pcs.)
- Tool micro dosing valve
- Suction filter PP for 1/8" OD 1



Suction filter PP for 1/8" OD.

30007832



Side windows (for liquid dosing)

Left
Right

11141854

11141853

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- Calibrate and operate your weighing equipment with security
- Comply with quality and compliance standards in laboratory and manufacturing

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Subject to technical changes.
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30259307B en

