

INFORS HT Shakers

Accessories list



Table of contents

About this Accessories List.....	3
Clamps and Other Holders.....	4
Stainless Steel Clamps.....	4
Plastic Clamps.....	4
Holder for Microtiter and Deep-Well Plates.....	5
Test Tube Holders.....	6
Box for Microtiter Plates.....	9
Sticky Stuff.....	9
Trays.....	10
Overview Tray Sizes.....	10
M-Trays (Multitron and Multitron Standard).....	10
N-Trays (Minitron).....	13
W-Trays (Celltron).....	14
Various.....	15
Communication.....	15
Accessories for Humidity Control.....	16
Cables.....	16
Cable Grommets.....	17

About this Accessories List

INFORS HT offers a wide range of accessories designed to enhance and streamline your work processes. All accessories can be ordered either directly with the device or separately, providing you with the flexibility to customize your setup as needed. In our accessories lists, you'll discover the variety of accessories that have been specially developed to complement and enhance the functionality of your device.

Models Covered

This accessories list covers the following models:

- Multitron 4
- Multitron Standard 2
- Minitron 2
- Celltron

Order Information

Accessories can be ordered from an authorized dealer or directly from the manufacturer. For the contact details of our representatives worldwide, visit our website: ➡ <https://www.infors-ht.com/en/contact/>.

Our highly committed team is always on hand to help you choose the right products and answer any questions you may have.

Please always provide the following data when ordering accessories:

- Article number
- Required quantity. Note that, unless otherwise stated, the supplied quantity is always one piece. Hoses are sold per meter.



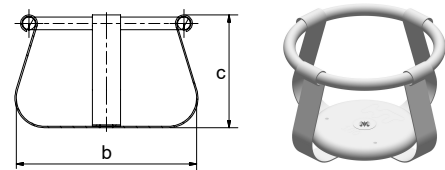
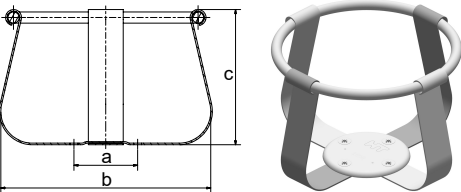
Contact
Worldwide



Clamps and Other Holders

Stainless Steel Clamps

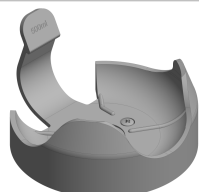
- Clamps for Erlenmeyer, Fernbach and Thomson Optimum Growth flasks that can be screwed onto universal trays
- Material: stainless steel (sterilisation in autoclave possible)

	Article No.	Flask type	Flask size, mL	a, mm	b, mm	c, mm	Qty. max. M-tray	Qty. max. N-tray
	31274	Erlenm.	25	---	~ 42	35	118	54
	31279	Erlenm.	50	---	~ 51	35	116	54
	31271	Erlenm.	100	---	~ 64	40	78	34
	31275	Erlenm.	250	---	~ 85	60	45	18
	31280	Erlenm.	500	40	~ 105	70	27	10
	31272	Erlenm.	1000	40	~ 132	85	18	8
	31273	Erlenm.	2000	80	~ 166	110	11	5
	31277	Erlenm.	3000	80	~ 185	120	8	4
	31278	Erlenm.	4000	80	~ 205	130	7	3
	31281	Erlenm.	5000	80	~ 220	150	6	3
	31282	Erlenm.	6000	80	~ 225	150	nA*	nA*
		Thoms.	7000				5	2
	31283	Fernb.	1800	80	~ 201	56.5	7	4
	31284	Fernb.	2800	80	~ 205	101.5	7	3

* Erlenmeyer flasks 6000 mL are too high for use with INFORS HT shakers.

Plastic Clamps

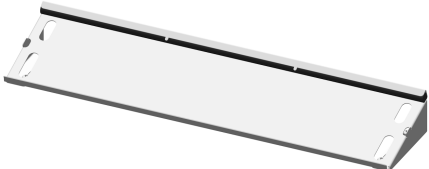
- Clamps for Erlenmeyer flasks that can be screwed onto universal trays
- Material: POM Co polymer (sterilisation in autoclave not possible)

	Article No.	Flask type	Flask size
	31285	Erlenmeyer	100 mL
	31287	Erlenmeyer	500 mL

Holder for Microtiter and Deep-Well Plates

The holder for microtiter and deep-well plates allow fixation of microtitre and deep-well plates with dimensions of 85.1 mm x 127 mm.

- Can be screwed onto a universal table tray or placed on the Sticky Stuff adhesive matting.
- Material: aluminium and CR rubber (sterilisation in autoclave not possible)

	Article No.	Description
	31396	Holder for 3 microtiter and deep-well plates, straight
	31393	Holder for 3 microtiter and deep-well plates, angled Note that the holder is supplied with two different rubber cords (Ø 10 mm and 12 mm). This makes it possible to fix plates of different sizes.

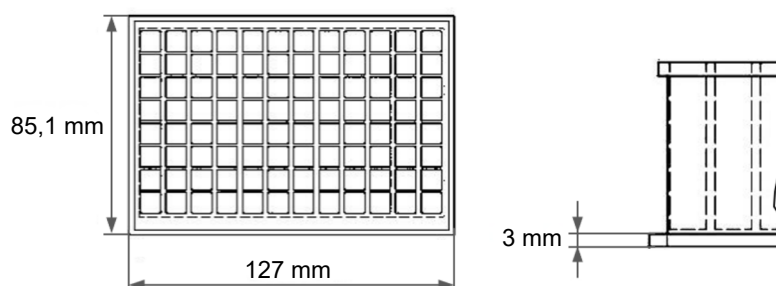
Tray Capacity

The maximum number of holders (straight and angled) that can be mounted on a universal tray is as follows:

- M-Tray universal (Multitron, 31288): 7 pieces
- N-Tray universal (Minitron, 31321): 4 pieces

Dimensions Plates

The holders are designed for standard microtitre and deep-well plates with dimensions 85.1 mm x 127 mm. To ensure sufficient clamping force can be achieved, plates with a web height of at least 3 mm must be used.



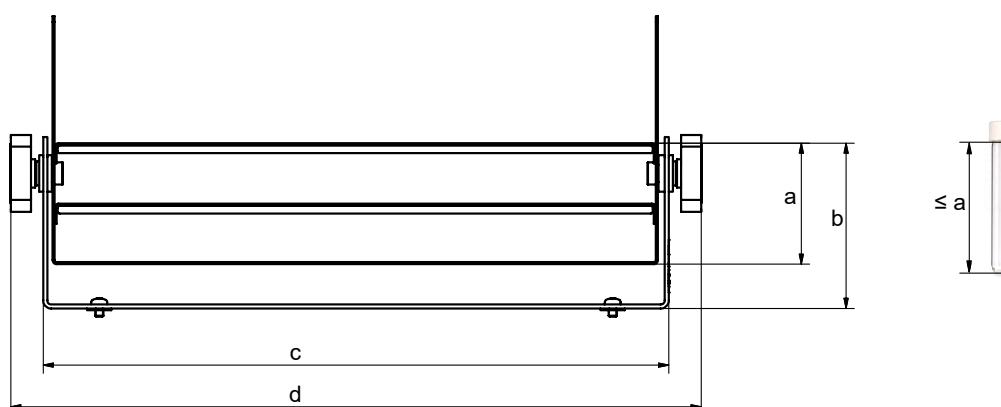
Test Tube Holders

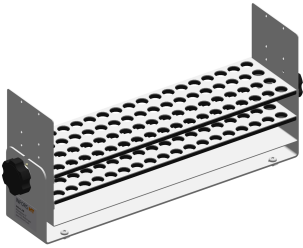
Test tube holders are used to securely affix different sized test tubes.

- Can be screwed onto a universal table tray or placed on the Sticky Stuff adhesive matting.
- All test tube holders contain a tiltable holder, which enables incubation of tubes horizontally as well as in an angle of up to 45°.
- Perforated inserts made of foam rubber ensure a reliable hold and prevent rattling noises.
- Unless otherwise stated, all holders have a footprint (length x width) of 310 mm x 68 mm.
- Sterilisation in autoclave: not possible

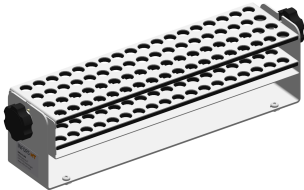
Holders for Glass Test Tubes

The following test tube holders are intended for standard glass test tubes with consistent diameter. Note that the length of the tube from bottom to lower rim of the cap must be greater than measure "a" in the figure below.

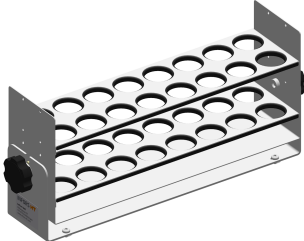
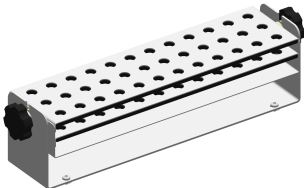


Large Holders for Long Test Tubes	Article No.	Outside-Ø of tubes	Nr. of tubes	a, mm	b, mm	c, mm	d, mm
	31347	12 mm	72 pcs	60	82	310	342
	31352	14 mm	64 pcs	90	112	310	342
	31354	16 mm	36 pcs	90	112	310	342
	31356	18 mm	39 pcs	90	112	310	342
	31358	20 mm	36 pcs	125	147	310	342
	31359	22 mm	33 pcs	125	147	310	342
	31360	25 mm	20 pcs	125	147	310	342
	31361	30 mm	16 pcs	125	147	310	342

Small Holders for Long Test Tubes	Article No.	Outside-Ø of tubes	Nr. of tubes	a, mm	b, mm	c, mm	d, mm
	31346	18 mm	24 pcs	90	145	200	232

Large Holders for Short Test Tubes	Article No.	Outside-Ø of tubes	Nr. of tubes	a, mm	b, mm	c, mm	d, mm
	31348	12 mm	72 pcs	45	82	310	342
	31353	14 mm	64 pcs	60	82	310	342
	31355	16 mm	36 pcs	75	97	310	342
	31357	18 mm	39 pcs	75	97	310	342

Holder for Plastic Tubes and Centrifuge Tubes

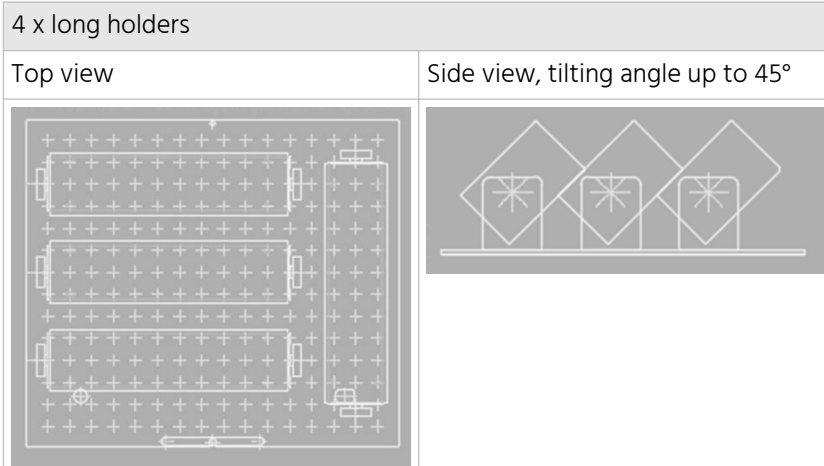
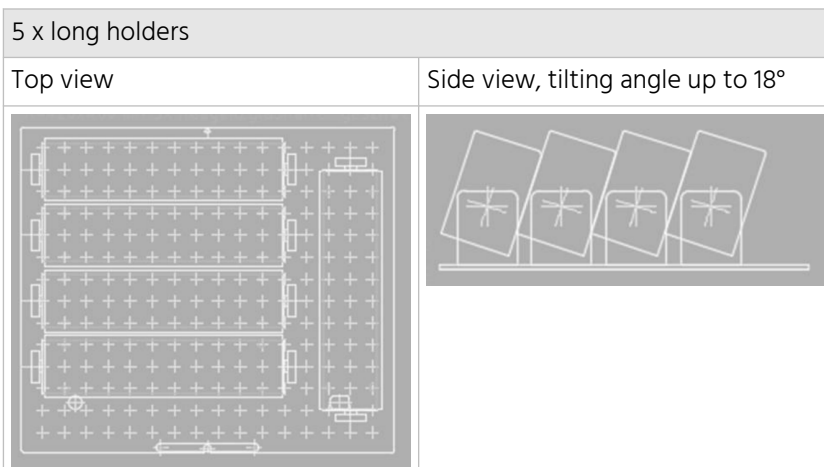
	Article No.	Outside-Ø of tubes / Type	Nr. of tubes	a, mm	b, mm	c, mm	d, mm
	31362	30 mm (50 mL centrifuge tube, e.g. Falcon, TPP)	16	90	112	310	342
	66335	Eppendorf vials 1.5 mL	36	40	85	310	342
	80229	98 mm (600 mL TPP culture tubes)	3	125	---	352	375

Tray Capacity

The maximum number of long test tube holders (342 mm) that can be mounted on a universal tray is as follows:

- M-Tray universal (Multitron, 31288): 9 pieces
- N-Tray universal (Minitron, 31321): 5 pieces

Be aware that in case of maximum loads (9 holders on M-Tray, 5 holders on N-Tray), the holders are standing so close to each other that the tilting angle is limited to a maximum of 18°. Refer to the following example of the N-Tray:



Box for Microtiter Plates

The box for microtiter plates is used for low-vapour cultivation of microtiter plates and deep-well plates. It protects cultures from drafts in the incubation chamber and also offers a stable container in which cultures can be transported. The box for microtiter plates can be screwed onto a universal table tray or placed on the Sticky Stuff adhesive matting.

The box for microtitre plates consists of an aluminium container with a removable lid into which a replaceable paper filter is integrated. A microtitre insert with screw-mounted pins is used for mounting microtitre plates and deep-well plates. After removing the quickload spacers, the box for microtitre plates can be sterilised in an autoclave.

	Article No.	Description
	66399	Box for microtiter plates Size (length x width x height): 465 mm x 280 mm x 115 mm



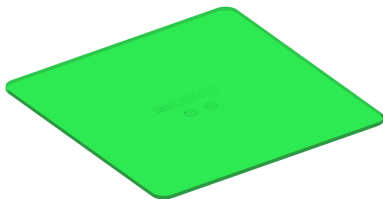
Replacement filters can be obtained from lab suppliers:

- Europe: Whatman qualitative filter papers, grade 1, 185 mm, 100 pieces, VWR Art.-Nr.: 512-1007
- USA/Canada: Cole Parmer; Whatman 1442-185 42 ashless quantitative filter paper, 2.5 µm, 18.5 cm; 100/box

Sticky Stuff

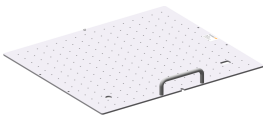
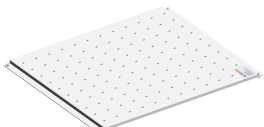
The Sticky Stuff adhesive matting allows a variety of cultivation vessels to be easily attached to shaker trays.

- Compatible with all vessels with a flat bottom
- Reliable fixation even with high shaking speeds (up to 350 min⁻¹, depending on shaking throw and vessel size)
- Easy cleaning and regeneration with water

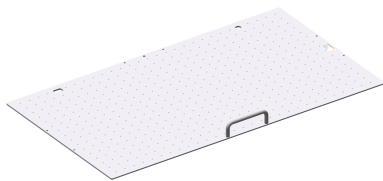
	Article No.	Description
	78113	Sticky Stuff adhesive matting Size: (length x width x height): 200 mm x 200 mm x 3 mm

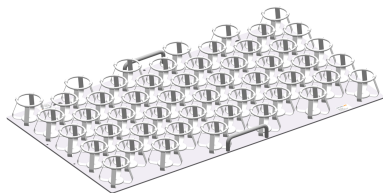
Trays

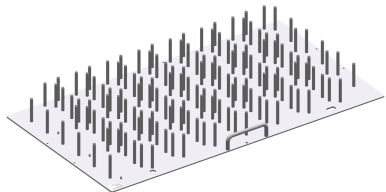
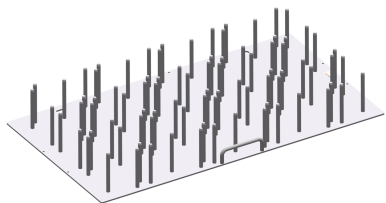
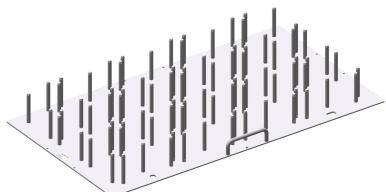
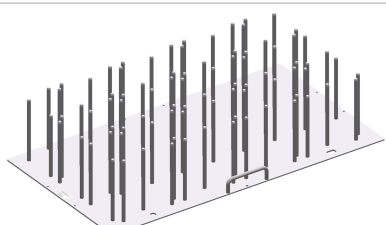
Overview Tray Sizes

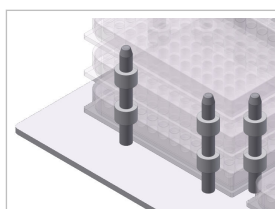
	M-Tray	N-Tray	W-Tray
Image (example)			
Size	850 mm x 470 mm	480 mm x 420 mm	370 mm x 300 mm
Material	Anodized aluminium	Anodized aluminium	Stainless steel
Compatible devices	<ul style="list-style-type: none"> ■ Multitron ■ Multitron Standard 	<ul style="list-style-type: none"> ■ Minitron 	<ul style="list-style-type: none"> ■ Celltron

M-Trays (Multitron and Multitron Standard)

Universal Tray	Article No.	Description
	31288	<p>M-Tray universal</p> <p>The universal tray features drill holes on a grid and can be equipped freely with various brackets and holders. The capacity is 10 % to 20 % lower than the one of dedicated trays.</p>

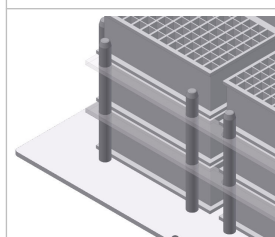
Tray with Steel Clamps	Article No.	Description
	31293	M-Tray for 197 x 25 mL Erlenmeyer flasks
	31298	M-Tray for 131 x 50 mL Erlenmeyer flasks
	31290	M-Tray for 91 x 100 mL Erlenmeyer flasks
	31294	M-Tray for 48 x 250 mL Erlenmeyer flasks
	31299	M-Tray for 31 x 500 mL Erlenmeyer flasks
	31291	M-Tray for 19 x 1000 mL Erlenmeyer flasks
	31292	M-Tray for 13 x 2000 mL Erlenmeyer flasks
	31296	M-Tray for 9 x 3000 mL Erlenmeyer flasks
	31297	M-Tray for 8 x 4000 mL Erlenmeyer flasks
	31300	M-Tray for 6 x 5000 mL Erlenmeyer flasks

Tray with Pin Holders	Article No.	Description
	31302	M-Tray for microtiter plates (3 layers, 72 microtiter plates) and deep-well plates (2 layers, 48 deep-well plates) Delivered with ring spacers ¹ (144 x)
	62396	M-Tray for deep-well plates (3 layers, 72 deep-well plates) Delivered with quickload spacers ² (18 x)
	31493	M-Tray for microtiter plates (4 layers, 96 microtiter plates) Delivered with quickload spacers ² (27 x)
	27297	M-Tray for microtiter plates (6 layers, 144 microtiter plates) Delivered with quickload spacers ² (49 x)



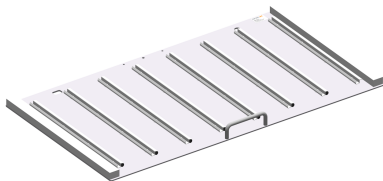
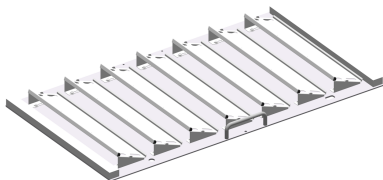
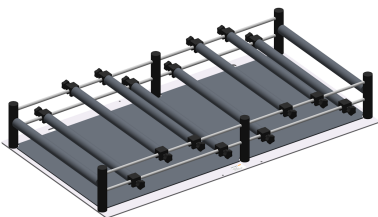
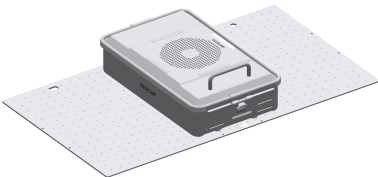
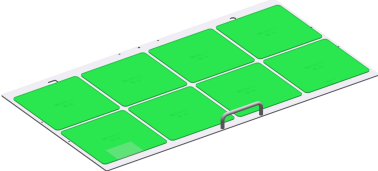
¹ **Ring spacers:** Single plastic rings (10 mm high) that are placed between the plates to improve gas transfer.

- Single plates can be individually removed.
- Microtiter plates and deep-well plates can be mixed on a tray.

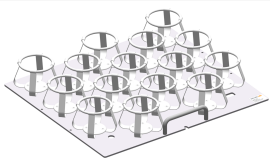
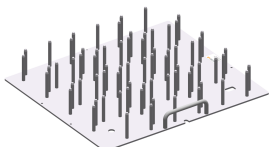
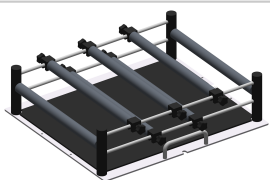
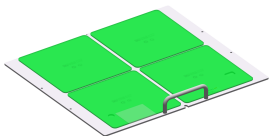


² **Quickload spacers:** Long plastic strips (4 mm high) that are placed between the plates to improve gas transfer.

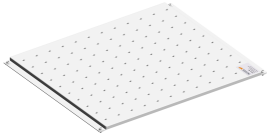
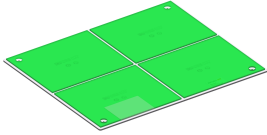
- Plates can be removed only in whole layers.
- Mixing of microtiter and deep-well plates is not possible.

Tray with Clamping Assembly	Article No.	Description
	31304	M-Tray for 21 microtiter plates, straight Note: This type of holder allows horizontal positioning of the microtiter plates.
	31305	M-Tray for 21 microtiter plates, angled (M-Tray equipped with 7 x 31393) Note: This type of holder allows inclined (20°) positioning of the microtiter plates.
Tray with Sliding Bars	Article No.	Description
	31319	M-Tray with 8 fixing bars
	31318	Fixing bar for M-Tray, one piece
Tray with Box for Microtiter Plates	Article No.	Description
	68692	M-Tray with 3 x box for microtiter plates
	70085	M-Tray with 1 x box for microtiter plates
Tray with Sticky Stuff	Article No.	Description
	78114	M-Tray with Sticky Stuff

N-Trays (Minitron)

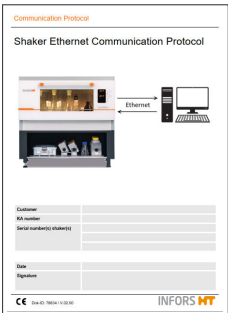
Universal Tray	Article No.	Description
	31321	N-Tray universal Note: The universal tray features drill holes on a grid and can be equipped freely with various brackets and holders. The capacity is 10 % to 20 % lower than the one of dedicated trays.
Tray with Steel Clamps	Article No.	Description
	31326	N-Tray for 105 x 25 mL Erlenmeyer flasks
	31330	N-Tray for 69 x 50 mL Erlenmeyer flasks
	31323	N-Tray for 46 x 100 mL Erlenmeyer flasks
	31327	N-Tray for 25 x 250 mL Erlenmeyer flasks
	31331	N-Tray for 15 x 500 mL Erlenmeyer flasks
	31324	N-Tray for 10 x 1000 mL Erlenmeyer flasks
	31325	N-Tray for 6 x 2000 mL Erlenmeyer flasks
	31329	N-Tray for 5 x 3000 mL Erlenmeyer flasks
Tray with Pin Holders	Article No.	Description
	28925	N-Tray for microtiter plates (3 layers, 36 microtiter plates) and deep-well plates (2 layers, 24 deep-well plates) Delivered with ring spacers ¹ (144 x)
Tray with Clamping Assembly	Article No.	Description
	31333	N-Tray for 12 microtiter plates, straight Note: This type of holder allows horizontal positioning of the microtiter plates.
Tray with Sliding Bars	Article No.	Description
	31340	N-Tray with 5 fixing bars
	31339	Fixing bar for N-Tray, one piece
Tray with Sticky Stuff	Article No.	Description
	78115	N-Tray with Sticky Stuff

W-Trays (Celltron)

Universal Tray	Article No.	Description
	70310	W-Tray universal The universal tray features drill holes on a grid and can be equipped freely with various brackets and holders.
Tray with Sticky Stuff	Article No.	Description
	78116	W-Tray with Sticky Stuff

Various

Communication

	Article No.	Description	Devices
	7001600	<p>Profibus DP gateway</p> <p>The Profibus DP gateway is used to connect the shaker to a PLC via Profibus. For stacked devices, one gateway is required per device unit.</p>	<ul style="list-style-type: none"> ■ Multitron ■ Minitron
	7001843	<p>Modbus TCP gateway</p> <p>The Modbus TCP gateway is used to connect the shaker to a PLC via Modbus. For stacked devices, one gateway is required per device unit.</p>	<ul style="list-style-type: none"> ■ Multitron ■ Minitron
	78834	<p>Shaker ethernet communication protocol (valid for 1 tower)</p> <p>License required to connect the shaker to a 3rd party software, including protocol description (not required if Profibus DP gateway or Modbus TCP gateway is used).</p>	<ul style="list-style-type: none"> ■ Multitron ■ Minitron ■ Multitron Standard

Accessories for Humidity Control

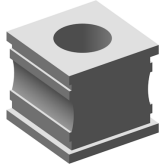
	Article No.	Description	Devices
	80569	Container (glass bottle) 5 L for hygienic humidity control, equipped with sterile filter and supply hose	<ul style="list-style-type: none"> ■ Multitron ■ Minitron
	US: I85201.02 Europe: AV.562-2L	Water specially developed for the use in incubators to provide a sterile culture environment <ul style="list-style-type: none"> ■ Sterile distilled water (0.1 µm filter sterilized) ■ pH: 7 to 9 ■ Conductivity: 1 to 20 µS/cm ■ Resistivity: 0.05 to 1 MΩ-cm Note: the water for incubators is only available in the USA and in Europe.	<ul style="list-style-type: none"> ■ Multitron ■ Minitron

Cables

	Article No.	Description	Devices
	70835	Power cable 3 m CH plug (90°)	All devices
	70836	Power cable 3 m Euro plug (90°)	
	22018	Power cable 2.5 m UK plug straight	
	16798	Power cable 2 m US/CA plug (90°)	
	76599	Power cable 3 m type K plug (90°)	
	73912	Power cable 3 m AR/AU/CN/NZ plug (90°)	

Cable Grommets

The following grommets can be used with the optional cable pass-through for Multitron devices.

	Article No.	Description	Devices
	79470	Cable grommet 4 x 4 mm, grey	■ Multitron
	78729	Cable grommet 4 x 5 mm, grey	
	71070	Cable grommet 2 x 4 mm, grey	
	71071	Cable grommet 2 x 5 mm, grey	
	71823	Cable grommet 4 mm, grey	
	75244	Cable grommet 5 mm, grey	
	79206	Cable grommet 11 mm, grey	
	76173	Cable grommet 2 x 6 mm, grey	



YOUR DISTRIBUTOR