It's all about the details: Memmert options & accessories

IT'S ALL ABOUT THE DETAILS | ENTRY PORTS

OPTIONS F0 – F7 & D8

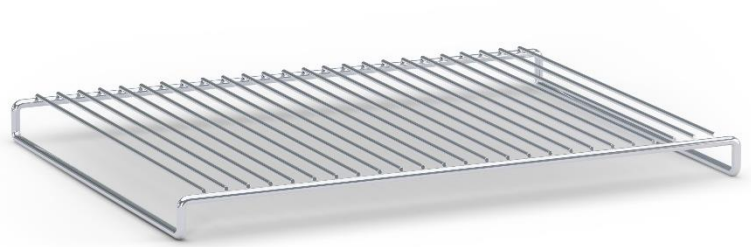
- Different sizes of entry ports can be realized at certain positions according to our general price list.
- Ports can only be installed in the shaded areas of the supplied entry port drawings.
- Used to feed through cables of various types, e.g., for temperature, gas and humidity measurements, power supplies for shakers, etc.

→ For all devices

→ More sizes are available from m360

IT’S ALL ABOUT THE DETAILS | STAINLESS STEEL GRID & SHELF

- Stainless steel grids and shelves are supplied with each device (one or two depending on the unit's size).
- Needed to load the sample to the unit (max. loading 20 kg).
- Depending on the unit's capacity, additional grids can be ordered.

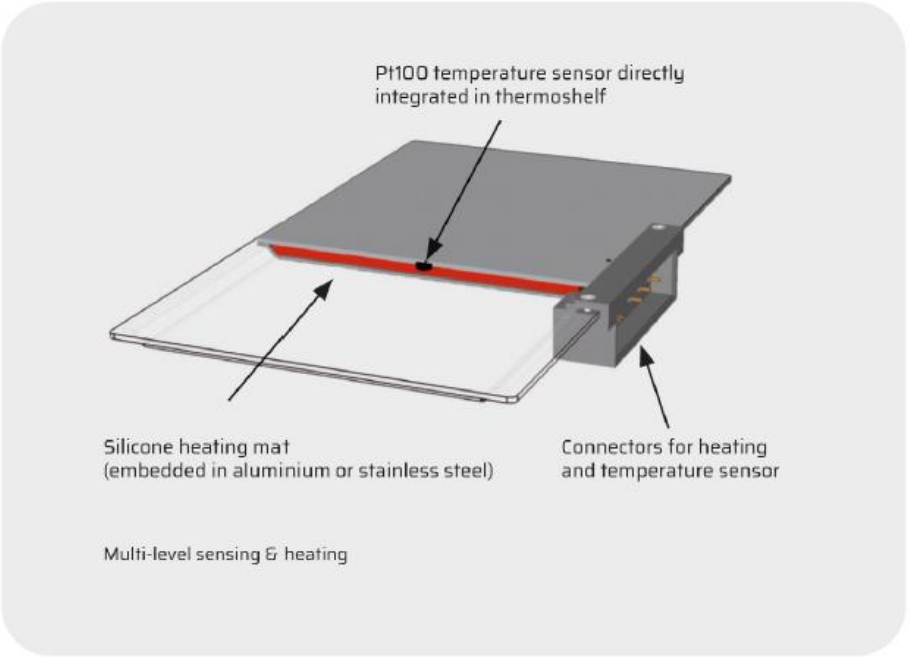


IT'S ALL ABOUT THE DETAILS | THERMOSHELVES

ACCESSORIES B00733/B00735 & B00741/B00744

Special – thermoshelf VO

- Directly heated thermal sheet to enable direct contact between the heating and the load, which ensures that the heat output is transferred directly to the load.
- Integrated large-area heating including local temperature sensing (Pt100, 4-wire-circuit).
- Individual overtemperature protection for each shelf MLOP (Multi-Level-Overtemperature-Control).
- Out of aluminum (W.-St. 3.3547 (ASTM B209)) or stainless steel (1.4404 (ASTM 316 L)).



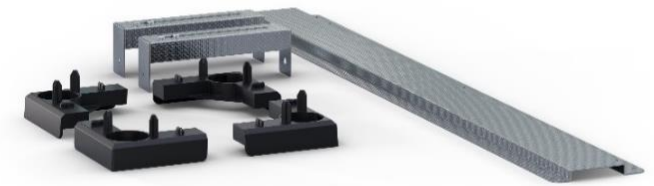
IT’S ALL ABOUT THE DETAILS | STACKING SETS

- For stacking of appliances of same size to save space in small laboratory environments.

→ Available for devices up to 110 liters and consist of 4 small stacking feed.

Special – stacking set HCP/ ICO/ ICOmed

- Due to the increased risk of overturning, size 150 and 240 appliances are also secured using a connecting plate and two adjustable wall brackets on the rear panel.



IT’S ALL ABOUT THE DETAILS | SUBFRAMES

Subframe, on castors
Size 30 to 75: height 660 mm
Size 110 to 160: height 560 mm

Subframe, adjustable in height
Size 30 to 75: height 600 mm
From size 110: height 500 mm

Subframe, adjustable in height
size 30 to 260: height 130 mm

IT’S ALL ABOUT THE DETAILS | REINFORCED CHAMBER

OPTION K1

Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (max. loading 60 kg).

- For devices HPPeco, ICH/ICHeco, ICP/ICPeco, U & IPPeco/ IPPecoplus
- Not possible for medical devices

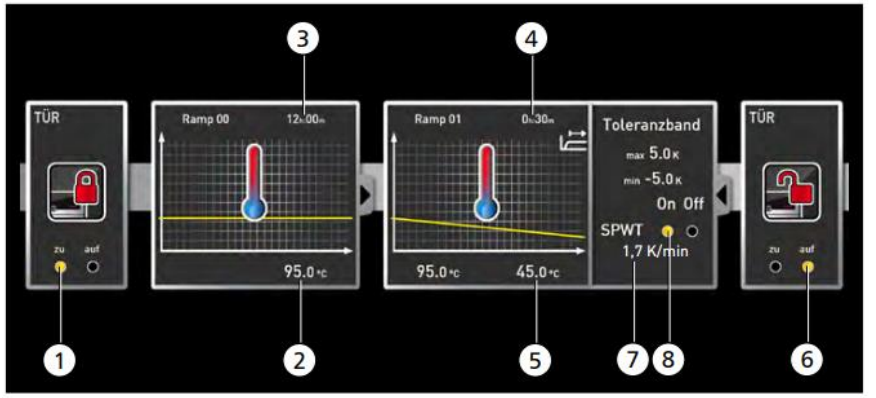
IT’S ALL ABOUT THE DETAILS | DOOR LOCK

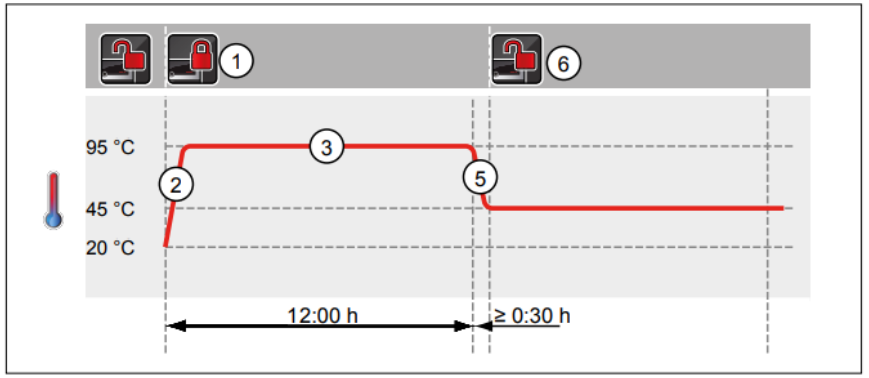
OPTIONS B6 & D4

B6 Door with lock and key (safety lock)

D4 Process-dependent programmable door lock

→ For all devices





IT'S ALL ABOUT THE DETAILS | PT100 SENSORS

OPTIONS A6 & H8

A6: Extended overtemperature protection by additionally integrated PT100 sensor for equipment with single display (UIS)

H8: Pt100 temperature sensor can be flexibly positioned in the interior or in the chamber load to measure temperatures locally (1 additional sensors)

→ The measured temperature will be indicated on the display and can be documented through AtmoCONTROL software. The temperature sensor values are represented as additional colored lines.

→ For devices with TwinDISPLAY

IT’S ALL ABOUT THE DETAILS | INTERIOR LIGHT& SOCKET

OPTION RO & R3

RO: Interior lighting for observing the load

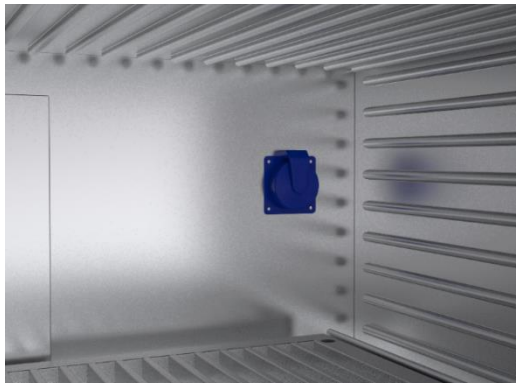
→ For devices UIS

- Customizable by m360 for IPPeco/ IPPecoplus & ICH

R3: Interior socket to be able to supply 230, for example an orbital shaker

→ For devices U, I, IPPeco/IPPecoplusHPPeco,ICH/ICHeco & ICP/ICPeco

- Only with limited temperature range - max. + 60 °C)
- Can be switched off only with the On/Off switch
- Moisture tight IP68 (requires option A8 against surcharge)

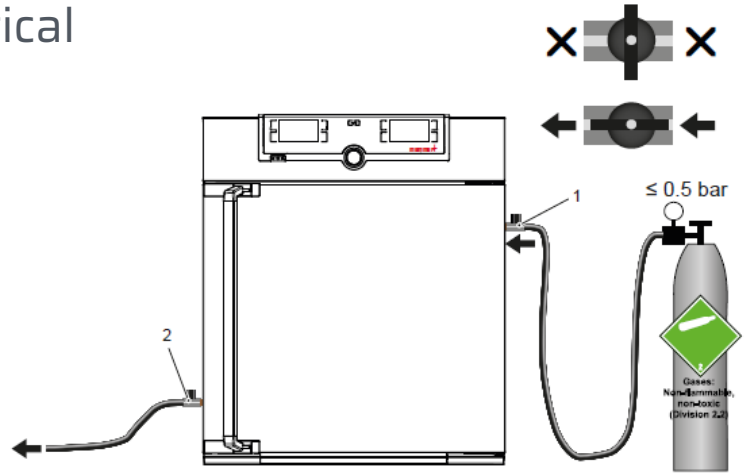


IT'S ALL ABOUT THE DETAILS | ALMOST GAS TIGHT CHAMBER AND GAS INLET

OPTIONS K2 & K3

- The internal chamber is built and welded almost completely hermetical and almost gas-tight (K2) with the possibility for gas inlet/outlet through two ball valves (K3).
- Ball valves can be used to flush the chamber with gas.

→ For devices U



Application

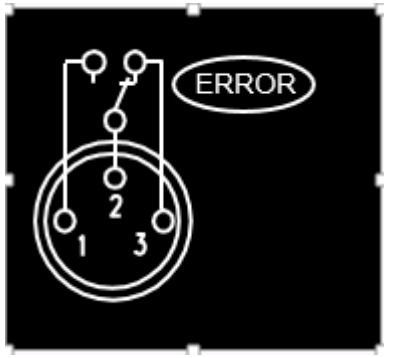
- Working in an almost hermetical environment: both to prevent the vapors from damaging the electronic part, and to avoid gas dispersion.
- Insertion of inert gas to work in an inert atmosphere to prevent or control small possible combustions (only with option K3).

IT'S ALL ABOUT THE DETAILS | POTENTIAL FREE CONTACT

OPTION H6

- A three-pole connector is mounted on the back of the device: the user can connect external monitoring systems or can use the voltfree contact to switch on and off external devices (24 V/ 2A).
- Contact 1 – 2 of the pole connector will be closed if everything is working fine (no alarm messages, no overtemperature).
- Contact 2 – 3 will be closed if one error happens, for example: overtemperature, supply failure, power failure, sensor or fuse fault

→ For all devices



IT'S ALL ABOUT THE DETAILS | MOBILE ALERT BOX

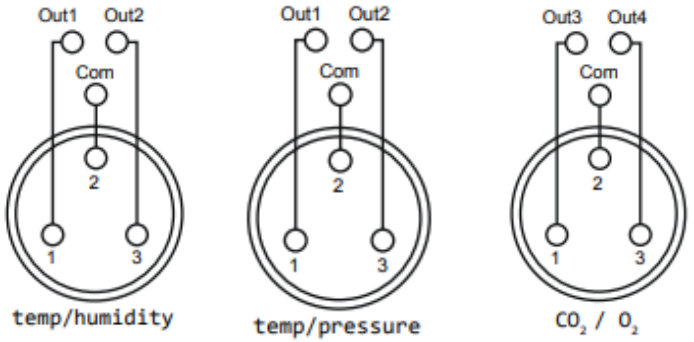
OPTION C3 & C4

C3: With a MobileAlertBox an individual error message can be sent via SMS to a cell phone

- Notification by SMS in case of any error of alarm of the device. It requires option H6.
- A potential-free switching output triggers the MobileAlertBox.

→ For devices UIS, ICP/ICPeco, IPPeco/IPPecoplus, HPPeco, ICH/ICHeco, CTC/TTC

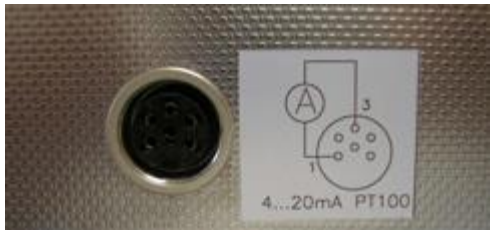
C4: The appliance features a separate potential-free switching output that triggers the MobileAlert Box for each parameter.



IT'S ALL ABOUT THE DETAILS |4 - 20 mA CURRENT LOOP INTERFACES

OPTIONS V3,V7,V9,V1

- Current loops are useful for accurately communicating analog signals over long distances.
- With this option it will be possible to "translate" the information in a common spoken language in the laboratory.
- This will allow the communication between different kind of equipment.



IT’S ALL ABOUT THE DETAILS | GLASS DOORS

OPTIONS B0 & B1

B0: Full-sight glass door (4-layer insulating glass)

B1: Full-sight glass door (4-layer insulating glass borsilicat)

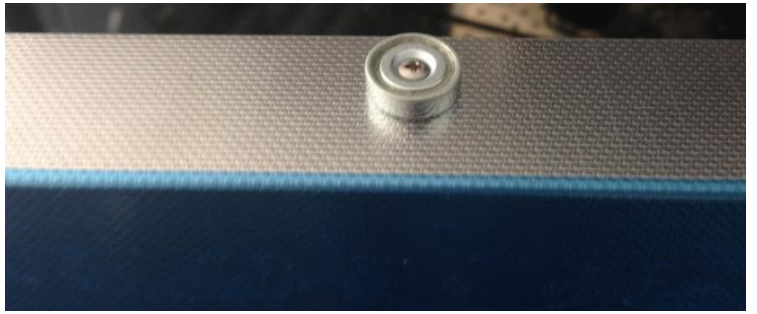
→ For devices U, UF TS, UNpa, CTC/TTC

IT'S ALL ABOUT THE DETAILS | DOOR OPEN RECOGNITION

OPTION V5

Door-open-recognition

- Only for units with TwinDISPLAY
- For devices HPPeco, ICH/ICHeco, ICP/ICPeco, IPPeco/ IPPecoplus, UF TS, UNpa
- Standard for devices ICHL/ICHLeco, HCP, ICO/ ICOmed, Ifbw



Leads to the following actions:

all units	indication in display and entry in the protocol file
UIS & UF TS	shuts down heating elements
UIS, UF TS, ICO/ICOmed & HCP	switch off chamber fan
ICHL/ ICHLeco, ICO/ICOmed, HCP & HPP	deactivates humidity control
ICHL/ ICHLeco	deactivates light
ICO/ ICOmed	deactivates gas supply CO_2 and N_2
ICP/ ICPeco & IPPeco/ IPPecoplus	no <u>further</u> action on device

IT’S ALL ABOUT THE DETAILS | FRESH AIR FILTER

OPTION R8

- Fresh-air filter (filtration efficiency 80 %) mounted at the device bottom (for devices with forced air circulation, sizes 30 - 260 require castor frame R9 or subframe)

→ “Cleans” the air entering the unit

→ For devices U & I

→ Depending on the use of the device, the filter must be replaced.

IT’S ALL ABOUT THE DETAILS | PLUG-IN TUBE EXTENSIONS

ACCESSORIES B29718 & B29719

- Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm)
- Straight or angled
- For exhaust air ducting (if necessary for connection by hose)

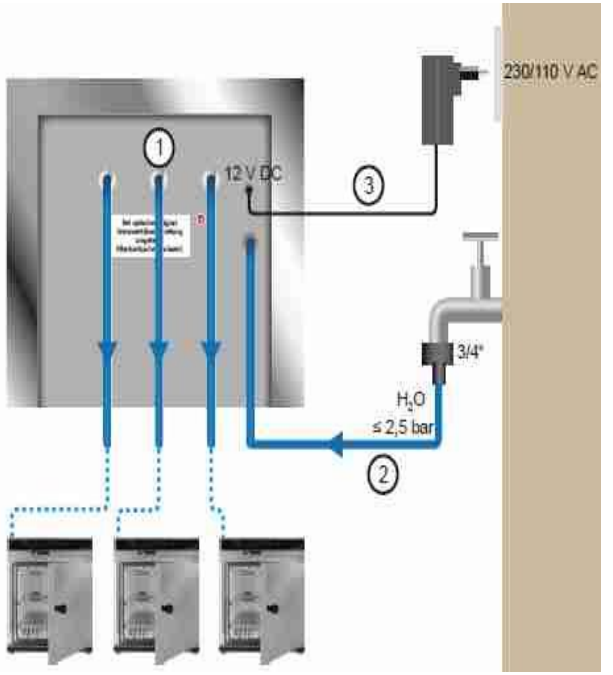
→ For devices UIS

IT'S ALL ABOUT THE DETAILS | CENTRAL WATER REGULATION

ACCESSORIES ZWVR6 & ZWVR7

- Central water supply, *with or without* filter cartridges for connection to the domestic water supply for humidity control
- For up to 3 connected appliances
- With Filter (for the use of tap water) without Filter (if central distilled water supply is available)
- Measurement system for ph-value to indicate replace of used filter

→ For devices HPPeco, HCP & ICH/ ICHeco



IT'S ALL ABOUT THE DETAILS | HEPA14 FILTER

ACCESSORY B49800

- HEPA14-filter for chamber according to EN 1822, packed in sterile condition, incl. fixing unit.
- This is the first European standard to translate theoretical filtration knowledge into a classification system for HEPA filters. EN 1822 also introduced the MPPS (Most Penetrating Particle Size) evaluation criterion.

→ For devices ICO/ ICOmed