



memmert
Experts in Thermostatics

Incubators

PERFECTLY COORDINATED. PERFECTLY CONTROLLED.



INCUBATOR I

CO₂ INCUBATOR ICO

CO₂ INCUBATOR INCOmed

COMPRESSOR-COOLED INCUBATOR ICP

PELTIER-COOLED INCUBATOR IPP

COOLED STORAGE INCUBATOR IPS

100% ATMOSAFE. MADE IN GERMANY.

www.memmert.com | www.atmosafe.net



Stable. Safe. Sensitive.

Memmert incubators for microbiology.
Energy efficient, precise, 100% AtmoSAFE.

Even slight temperature deviations in the working chamber of an incubator may cause a test to fail. For this reason, the heating and control system of Memmert incubators are perfectly adapted to each other. During heating up and cooling down as well as in running operation, all appliances precisely keep the desired parameters within the smallest tolerance limits. Not only at one measuring point, but in the entire working chamber. Each individual Memmert incubator complies with the strict requirements of DIN 12880:2007-05 and is equipped with a maximum of safety functions. Each individual Memmert incubator is 100% AtmoSAFE.



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Medical device class IIa for cultivation of cells or tissue, in-vitro fertilisation, gene expression

COMPRESSOR-COOLED INCUBATOR ICP **PAGE 16 TO 17**

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PELTIER-COOLED INCUBATOR IPP **PAGE 20 TO 21**

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Available for all products

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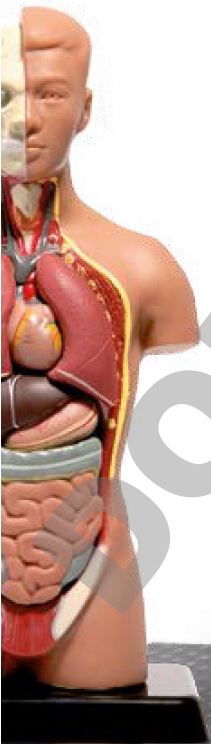
SingleDISPLAY and TwinDISPLAY

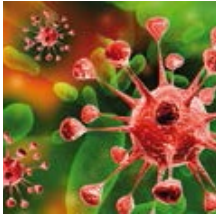


Incubator IN and IF with SingleDISPLAY
Incubator INplus and IFplus with TwinDISPLAY
Natural convection or forced air circulation
AtmoCONTROL software

Model sizes:
30 / 55 / 75 / 110 / 160 / 260 / 450 / 750
+30 °C to +80 °C

INCUBATOR I Memmert incubators I are at home in the world of research, medicine, pharmaceuticals and food technology. Organic chamber loads require gentle heating. For this reason, the heating and control system are especially optimised for low temperatures of up to +80 °C. To prevent temperature overshoots, temperature is increased within a very narrow control range and kept exactly at the setpoint value. As required, the models IN with natural convection or IF with forced air circulation are available.





As little air circulation as possible in the incubator

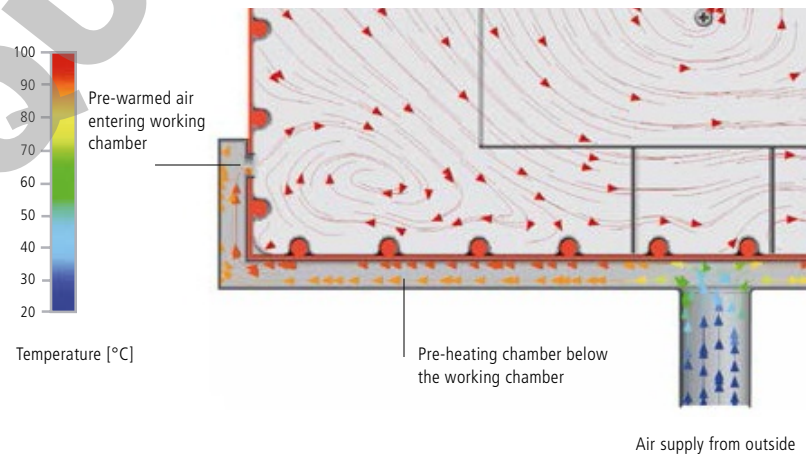
Forced air convection may destroy the protective layer from moist air that is generated during incubation over the samples. This would lead to dehydration of the culture. In a Memmert incubator, the perfect combination of all-round surface heating and temperature control system ensures that incubation generally takes place without forced air circulation. Provided the chamber is fully loaded and forced air circulation is required, it can be precisely adjusted in 10 % steps from 0 to 100 %.

Sterilisation

The chamber of the incubators INplus and IFplus, including all installations and sensors, can be sterilised at +160 °C in a 4-hour programme to guarantee optimum hygiene.

Fresh air is preheated

Temperature deviations caused by fresh air can influence sample characteristics or prolong drying. In Memmert incubators, the fresh air is therefore fed through a pre-heating chamber and seamlessly introduced into the working chamber.



+ Intended use as a medical device:

The intended use of incubators INplus/IFplus is warming of rinsing solutions and infusions. IF (with extended overtemperature protection – option A6) and IFplus are also accredited for warming non-sterile cloths and blankets.

INCUBATORS I

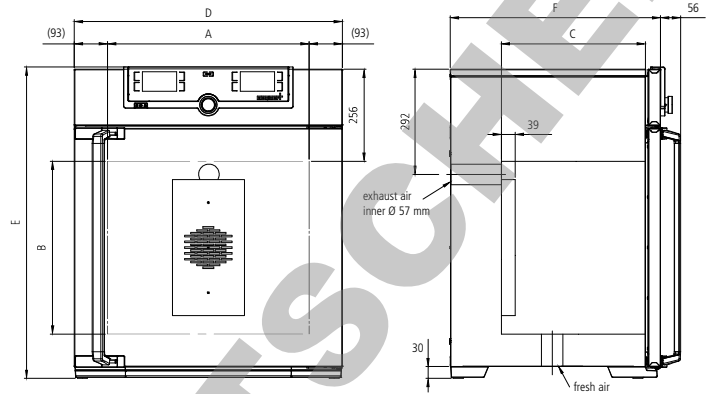
according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010
 Standard units are safety-approved and bear the test marks:



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304) with all-round deep-drawn ribs to integrate the large-area heating with ceramic-metal sheath
- Internals: Stainless steel grids (size 30 and 55: 1, size 75 to 750: 2)
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen; inner glass door, outside fully insulated stainless steel door (from size 450 two leaves)
- Fresh air: Admixture of pre-heated fresh air by electronically adjusted airflap
- Connection: Mains cable with plug (German type)
- Installation: 4 feet; size 450 and 750 mounted on lockable castors
- Interfaces:

| | | |
|----------|-----|--------------------|
| Ethernet | USB | (only TwinDISPLAY) |
| LAN | | |



| Model sizes/Description | | | 30 | 55 | 75 | 110 | 160 | 260 | 450 | 750 |
|-----------------------------------|--|------------|---|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|
| Stainless steel interior | Volume | approx. l | 32 | 53 | 74 | 108 | 161 | 256 | 449 | 749 |
| | Width | (A) mm | 400 | 400 | 400 | 560 | 560 | 640 | 1040 | 1040 |
| | Height | (B) mm | 320 | 400 | 560 | 480 | 720 | 800 | 720 | 1200 |
| | Depth (less 39 mm for fan) | (C) mm | 250 | 330 | 330 | 400 | 400 | 500 | 600 | 600 |
| | Stainless steel grids (standard equipment) | number | 1 | | 2 | | | | | |
| | Max. number of grids/shelves | number | 3 | 4 | 6 | 5 | 8 | 9 | 8 | 14 |
| | Max. loading per grid/shelf | kg | 20 | | | | | | | 30 |
| Textured stainless steel exterior | Width | (D) mm | 585 | 585 | 585 | 745 | 745 | 824 | 1224 | 1224 |
| | Height (size 450, 750 with castors) | (E) mm | 704 | 784 | 944 | 864 | 1104 | 1183 | 1247 | 1726 |
| | Depth (without door handle), door handle + 56 mm | (F) mm | 434 | 514 | 514 | 584 | 584 | 684 | 784 | 784 |
| Further data | Electrical load at 230 V, 50/60 Hz | approx. W | 1600 | 1000 | 1250 | 1400 | 1600 | 1700 | 1800 | 2000 |
| | Electrical load at 115 V, 50/60 Hz | approx. W | 800 | 900 | | | | | 1500 | 1800 |
| | Working-temperature range | °C | min. 5 (IN/INplus) 10 (IF/IFplus) above ambient temperature up to +80 | | | | | | | |
| | Setting temperature range | °C | +20 to +80 | | | | | | | |
| | Setting accuracy | °C | 0.1 | | | | | | | |
| Packing data | Net weight | approx. kg | 48 | 57 | 66 | 76 | 96 | 110 | 161 | 217 |
| | Gross weight (packed in carton) | approx. kg | 64 | 76 | 85 | 101 | 122 | 161 | 227 | 288 |
| | Width | approx. cm | 66 | 73 | 73 | 83 | 83 | 93 | 133 | 133 |
| | Height | approx. cm | 89 | 95 | 113 | 105 | 130 | 138 | 144 | 191 |
| | Depth | approx. cm | 65 | 67 | 67 | 80 | 80 | 93 | 105 | 105 |
| Order No. Incubators | | | IN30 | IN55 | IN75 | IN110 | IN160 | IN260 | IN450 | IN750 |
| I = Incubator | | | IN30plus | IN55plus | IN75plus | IN110plus | IN160plus | IN260plus | IN450plus | IN750plus |
| N = Natural convection | | | IF30 | IF55 | IF75 | IF110 | IF160 | IF260 | IF450 | IF750 |
| F = Forced convection | | | IF30plus | IF55plus | IF75plus | IF110plus | IF160plus | IF260plus | IF450plus | IF750plus |
| plus = Model with TwinDISPLAY | | | | | | | | | | |

| Options | 30 | 55 | 75 | 110 | 160 | 260 | 450 | 750 |
|--|----|----|----|-----|-----------------------|----------------|-----|-----|
| Voltage 115 V, 50/60 Hz | | | | | X2 | | | |
| Extended overtemperature protection by additionally integrated Pt100 sensor for independent temperature monitoring for models IN/IF | | | | | A6 | | | |
| Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids | | | | – | | | K1 | |
| Interior lighting for observing the load | | | | | R0 | | | |
| Interior socket can only be ordered with limited temperature range up to max. +70 °C, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68 (only with SingleDISPLAY) | | | | | R3 | | | |
| Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap and silicone stopper, standard positions | | | | | F0 F1 F2 F3 | | | |
| Entry port, 23 mm clear diameter, can be closed by flap, in special positions (please, state location) | | | | | left right rear | F4 F5 F6 | | |
| Entry port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | | | | | D6 | | |
| Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | | | | | F7 | | |
| Entry port, 57 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | | | | | F8 | | |
| Entry port, 100 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | | | | | F9 | | |
| 4 – 20 mA current loop interface (0 to 90 °C \pm 4 to 20 mA) | | | | | | V3 V6 | | |
| Temperature controller, actual value Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 1 SingleDISPLAY, max. 3 TwinDISPLAY) | | | | | | | | |
| Fan speed monitoring with switching off the heating and with alarm in case of failure optional only for IFplus | | | | | | V4 | | |
| Works calibration certificate for 3 temperatures: +37 °C, +52 °C, +70 °C Standard works calibration certificate (measuring point chamber centre) at +37 °C | | | | | | D00126 | | |

| Accessories | 30 | 55 | 75 | 110 | 160 | 260 | 450 | 750 |
|--|--------|--------|--------|--------|--------|--------|-----|--------|
| Stainless steel grid (standard equipment) | E28884 | E20164 | | E20165 | | E28891 | | E20182 |
| Additional reinforced stainless steel grid, max. loading 60 kg; from size 450 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber | | – | | E29767 | | E29766 | | B32190 |
| Perforated stainless steel shelf | B29727 | B03916 | | B00325 | | B29725 | | B00328 |
| Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber | | | | – | | | | B32191 |
| Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1 | E02070 | E02072 | | E02073 | | E29726 | | E02075 |
| Max. loading per slide-in drip tray (kg) | | 1,5 | | 3 | | 4 | | 8 |
| Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1) | | | | – | | | | B32763 |
| Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1 | B04356 | B04358 | | B04359 | | B29722 | | B04362 |
| Max. loading per bottom drip tray (kg) | | 1,5 | | 3 | | 4 | | 8 |
| Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1) | | | | – | | | | B34055 |
| Wall bracket for wall mounting | B29755 | B29756 | B29757 | B29758 | B29759 | | | – |
| Guarantee extension by 1 year | | | GA1Q5 | | | | | GA2Q5 |

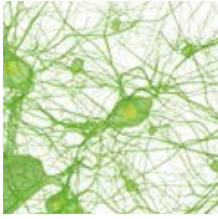


CO₂ Incubator ICO with TwinDISPLAY
Software AtmoCONTROL

Model sizes: 50 / 105 / 150 / 240
+18 °C to +50 °C
Humidity 40 to 97 % rh
CO₂ concentration 0 to 20 %
O₂ concentration 1 to 20 %

CO₂ INCUBATOR ICO Safety at all times. When it comes to safety and user friendliness, the highly modern CO₂ incubator ICO is the perfect solution: Thanks to the battery-buffered ControlCOCKPIT, the operating display, logging and CO₂ control remain fully functional even when there is a power failure. All parameters are logged in accordance with the FDA and, when individually adjusted ranges for CO₂, O₂, temperature and humidity are exceeded, notifications can be sent to a mobile phone in addition to an alarm.

The control technology is so finely tuned that the setpoint temperature is guaranteed to be reached without temperature overshoots. With its rounded corners, the interior is easy to clean and can be sterilised for 60 minutes at 180 °C (including all sensors).



Comfort options for every application

These are only a few of the numerous features that don't let anything open to be desired:

- Two gas connections with quick release connectors for automatic switch-over of gas cylinders
- Electropolished working chamber
- Electronic control for active humidification and dehumidification (40 to 97 % rh)
- Control of oxygen concentration by introducing nitrogen, adjustment range from 1 % to 20 % O₂

Unrivalled user friendliness

All parameters can be set easily and intuitively both with the ControlCOCKPIT or the AtmoCONTROL software. The shutter box can be opened, allowing fast access to controls. Maintenance is possible even if the appliances are stacked. The appliance has USB and Ethernet connections as well as a data logger with a ten-year storage capacity. Data can be read and programmes can be transferred by remote access.

Minimising vaporisation and condensation

The active humidity control minimises vaporisation in the interior and ensures short recovery times after the door has been opened. Together with the heating of the interior from all six sides including the heated inner glass door, it prevents the dangerous formation of condensation and offers maximum protection for cell and tissue cultures. The turbulence-free chamber ventilation ensures a constant and uniform atmosphere.

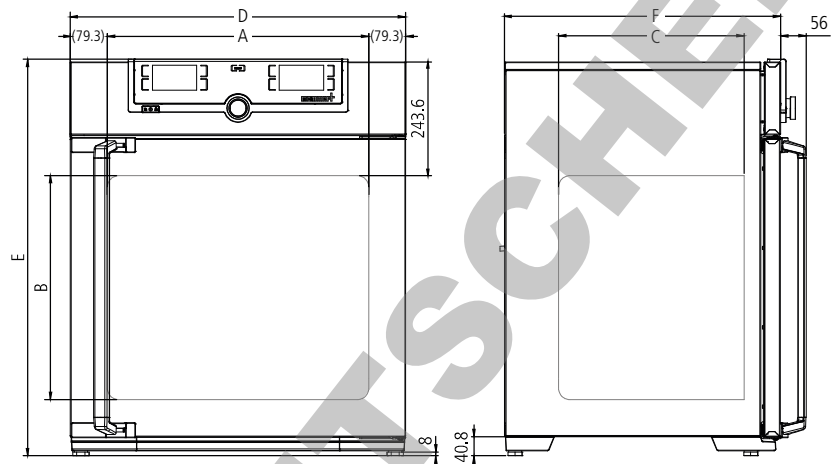
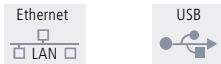


CO₂ INCUBATORS ICO**with standard sterilisation programme** (Humidity and CO₂ sensor sterilised inside the CO₂ incubator)

according to 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010

**Standard equipment**

- Interior:** Stainless steel, material 1.4301 (ASTM 304), deep-drawn, seamlessly welded
- Internals:** Perforated stainless steel shelves size 50: 1, sizes 105 – 240: 2; and 1 stainless steel water dish (all sizes)
- Housing:** Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; fully insulated stainless steel door and heated inner glass door
- Connection:** Mains cable with plug (German type)
- Installation:** 4 adjustable feet
- Interfaces:**



| Model sizes/Description | | | 50 | 105 | 150 | 240 |
|------------------------------------|--|--------------------------|---------------------------------------|--------------------------|--------------------------|--------------------------|
| Stainless steel interior | Volume | approx. l | 56 | 107 | 156 | 241 |
| | Width | (A) mm | 400 | 560 | 560 | 600 |
| | Height | (B) mm | 425 | 480 | 700 | 810 |
| | Depth (less 35 mm for fan) | (C) mm | 330 | 400 | 400 | 500 |
| | Stainless steel shelves, perforated (standard equipment) | number | 1 | 2 | 2 | 2 |
| | Max. number of perforated shelves | number | 5 | 6 | 10 | 12 |
| | Max. loading per perforated shelf | kg | 15 | | | |
| Stainless steel exterior | Max. loading of chamber | kg | 75 | 90 | 120 | 140 |
| | Width | (D) mm | 559 | 719 | 719 | 759 |
| | Height (variable through adjustable feet) | (E) mm | 791 | 846 | 1066 | 1176 |
| | Depth (without door handle, depth of door handle 56 mm) | (F) mm | 521 | 591 | 591 | 691 |
| | Fully insulated stainless steel door | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Additional heated inner glass door | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Further data | Electrical load at 230/115 V, 50/60 Hz | approx. W | 1000 | 1500 | 2000 | 2000 |
| | Working-temperature range | °C | 5 above ambient temperature up to +50 | | | |
| | Standard sterilisation programme: 60 minutes at 180 °C (without removing the sensors) | °C | +18 to +50 | | | |
| | Setting temperature range | °C | 0.1 | | | |
| | Setting accuracy | °C | +/- 0.1 | | | |
| | Temperature fluctuations with time at 37 °C (to DIN 12880:2007-05) | K | +/- 0.3 | | | |
| | Temperature variation in chamber at +37 °C (to DIN 12880:2007-05) | K | | | | |
| | Humidity limitation thanks to a Peltier element; when water dish is full and inserted, the Peltier element limits the value of relative humidity in the interior to 93 % rh +/- 2.5 % | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Setting range active humidity control | % rh | 40 to 97 and rh-Off | | | |
| | Setting accuracy humidity | % rh | 0.5 | | | |
| | Digital electronic CO ₂ control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Adjustment range CO ₂ | % CO ₂ | 0 to 20 | | | |
| | Variation in time CO ₂ | % CO ₂ | +/- 0.2 | | | |
| Setting accuracy CO ₂ | % O ₂ | 0.1 | | | | |
| Adjustment range O ₂ | % O ₂ | 1 to 20 | | | | |
| Setting accuracy O ₂ | % O ₂ | 0.1 | | | | |
| Standard accessories | Stainless steel water dish | | 1 | 1 | 1 | 1 |
| | Works calibration certificate (measuring point chamber centre) at +37 °C, 5 % CO ₂ for standard units | | | <input type="checkbox"/> | | |
| | Works calibration certificate at 37 °C, 5 % CO ₂ and 90 % rh (requires option K7); standard equipment for units with active humidity control | | | <input type="checkbox"/> | | |
| | Works calibration certificate at 37 °C, 5 % CO ₂ , 90 % rh and 10 % O ₂ (requires option K7 and option T6); standard equipment for units with O ₂ control | | | <input type="checkbox"/> | | |

| Model sizes/Description | | | 50 | 105 | 150 | 240 |
|--|---------------------------------|------------|--------------|---------------|---------------|---------------|
| Packing data | Net weight | approx. kg | 55 | 75 | 90 | 110 |
| | Gross weight (packed in carton) | approx. kg | 74 | 100 | 116 | 145 |
| | Width | approx. cm | 73 | 80 | 80 | 84 |
| | Height | approx. cm | 95 | 103 | 125 | 136 |
| | Depth | approx. cm | 64 | 80 | 80 | 90 |
| Order No. CO₂ Incubators | | | ICO50 | ICO105 | ICO150 | ICO240 |

| Options | 50 | 105 | 150 | 240 |
|---|----|-----|----------------------|-----|
| Voltage 115 V, 50/60 Hz | | | X2 | |
| Battery-buffered ControlCOCKPIT Uninterrupted supply for the entire display unit (ControlCOCKPIT) and therefore complete documentation of all parameters even when there is a power failure. The CO ₂ parameter is continuously regulated | | | C2 | |
| Two gas connections with quick release connectors for automatic switch-over of gas cylinders | | | T1 | |
| Electropolished interior | | | T2 | |
| Active microprocessor control for humidifying and dehumidifying (40 – 97 % rh), incl. digital indication and auto-diagnostic system ensures even more rapid reaching of set humidity and very short recovery times while avoiding condensate formation. Humidity supply with distilled water (from an external tank) by a self-priming pump; integral bacteria block by generating hotsteam, dehumidifying via sterile filter | | | K7 | |
| Control of oxygen concentration by N ₂ inlet; adjustment range 1 % up to 20 % O ₂ ; setting accuracy 0.1 %. (requires option K7) | | | T6 | |
| Peltier cooling unit enables a working temperature of 37 °C even at higher ambient temperatures of up to 35 °C (available as of the fourth quarter of 2016) | | | K5 | |
| Capacitive humidity sensor for measuring and displaying the relative humidity | | | K6 | |
| Entry port (silicone), 40 mm clear diameter, for introducing connections, moisture tight, can be closed by silicone stopper, at the back, centre right; not available for ICO50 with active humidity control (option K7) or humidity display (option K6) | | | F7 | |
| Inner door with partitioned glass doors (available as of the fourth quarter of 2016) | – | | K4 | |
| 4 – 20 mA current loop interface | | | V3 V7 V9 V1 | |
| Temperature controller, actual value (0 to +70 °C ± 4 to 20 mA) Humidity controller, actual value (0 – 100 % rh ± 4 – 20 mA) CO ₂ controller, actual value (0 – 25 % CO ₂ ± 4 – 20 mA) O ₂ controller, actual value (0 – 25 % O ₂ ± 4 – 20 mA) | | | | |
| Works calibration certificate for 5 %, 7 % and 10 % CO ₂ (measured at +37 °C) special works calibration certificates upon request | | | D00106 | |
| Start-up of ICO incubators and brief training (D, A, CH only), through MEMMERT service | | | K9 | |

| Accessories | 50 | 105 | 150 | 240 |
|--|--------|-----|--------|--------|
| Additional perforated stainless steel shelf | E35160 | | E37418 | E35158 |
| Additional water dish | B38737 | | B38000 | |
| Subframe (622 mm high) | B33504 | | B33505 | B33506 |
| Subframe (130 mm high) | B33507 | | B33508 | B33509 |
| HEPA-filter for chamber (filter class E11) according to EN 1822, packed in sterile condition, incl. fixing unit | | | B38739 | |
| CO ₂ pressure reducing valve to DIN 8546, incl. gas cylinder monitor | | | E02087 | |
| N ₂ pressure reducing valve to DIN EN ISO 2503, incl. gas cylinder monitor (requires option T6) | | | E06162 | |
| CO ₂ connection set, hose with coupling and clamp | | | B03881 | |
| Central water supply, with filter cartridges for connection to the domestic water supply, only in combination with option K7. Product information on demand | | | ZWVR6 | |
| Central water supply, without filter cartridges for connection to the domestic water supply (only for demineralised water in accordance with VDE 0510/DIN EN 50272), only in combination with option K7. Product information on demand | | | ZWVR7 | |
| Guarantee extension by 1 year | | | GA3Q5 | |
| Celltron benchtop shaker (accessories upon request) | – | | E06724 | |



CO₂ Incubator INCOmed
"Celsius" standard software

Model sizes: 108 / 153 / 246

+20 °C to +50 °C

Humidity 88 to 97 % rh

CO₂ content 0 up to 10 %

Humidity 40 to 97 % rh (humidity module)

CO₂ content 0 up to 20 % (CO₂ module)

O₂ content between 1 and 20 % (O₂ module)

CO₂ INCUBATOR INCOmed For cell cultivation and especially for in-vitro fertilisation, the precision and reliability of CO₂ incubators are of crucial importance. During cultivation, the slightest deviation in the CO₂ atmosphere, temperature or humidity can influence cell development. For this reason, Memmert has subjected its CO₂ incubators to a comprehensive evaluation process for their recognition as medical devices. All models INCOmed are classified as medical products of class IIa. The interior chamber including all installations and sensors can be sterilised at +160 °C in a 4-hour programme.



Customised models for every application

8 additional modules for every application

Put together your own customised INCOmed! *

- **COMFORT MODULE:** Two gas connections with quick release connectors, automatic switch-over between gas cylinders
- **HYGIENE MODULE:** Electropolished, seamless laser-welded chamber
- **COMMUNICATION MODULE:** USB interface, "Celsius" standard software for protocol logging, ring memory, printer interface
- **CO₂ MODULE:** Extended CO₂ range from 0 to 20 %
- **O₂ MODULE:** Control of oxygen concentration by introducing nitrogen, adjustment range from 1 % to 20 % O₂
- **PREMIUM MODULE:** Includes comfort, hygiene, communication and CO₂ module
- **HUMIDITY MODULE:** Active microprocessor humidification and dehumidification control (40 – 97 % rh)
- **IVF-MODULE:** Patented, consisting of 8 slide-in units, a total of 24 special racks with indentations for 24 Petri dishes resp. 48 Petri dishes, 4 racks for 3 special media tubes each

* combination of comfort module or Premium module and O₂ module not possible



IVF module for model INCO108med

In order to keep vaporisation, condensation and recovery times at a minimum during in-vitro fertilisation, the Petri dishes are cultivated in separate slide-in units. The slide-in units in the optional IVF module can be pulled out easily and with low vibration and are equipped with a pull-out lock.

Homogeneity in the chamber

Heating the working chamber from all six sides along with the electronic humidity control system and turbulence-free ventilation is decisive for temperature and humidity distribution. An aluminium thermal conduction layer supports homogeneity in the chamber and serves as a heat accumulator if there is a temporary power failure.

Short recovery times thanks to active humidity control

The INCOmed standard model features a humidity limiting system to reduce water tray generated maximum relative humidity inside the chamber from 97 % down to 88 %. To achieve an increase in usable volume, optimum hygiene and short recovery times after opening the door, the optional humidity module, an active humidification system with an adjustment range of 40 % to 97 % rh can be integrated, introducing sterile hot steam into the air stream.



CO₂ INCUBATORS INCOMed

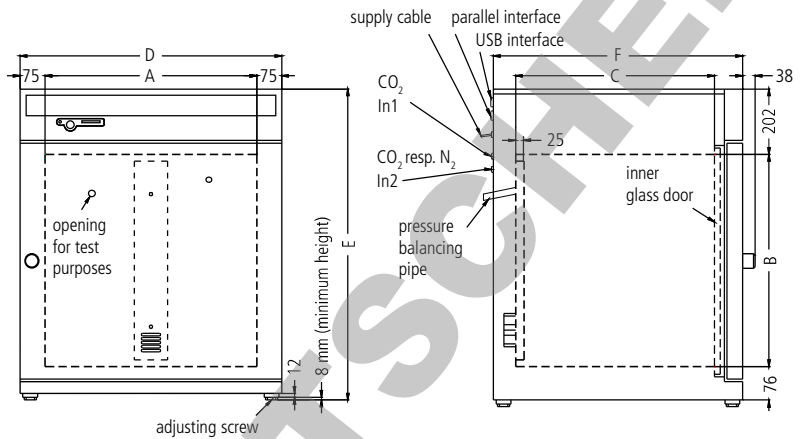
with automatic sterilisation (with all interior fittings incl. humidity and CO₂ sensor sterilised inside the CO₂ incubator!)

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn
- Internals: Perforated stainless steel shelves (size 108: 2, sizes 153/246: 3); stainless steel water dishes (sizes 108/153: 1 full width, size 246: 2 half width)
- Housing: Textured stainless steel, rear zinc-plated steel, aesthetic functional glass-stainless steel operating panel with multifunction display and input module; fully insulated heated stainless steel door and inner glass door
- Connection: Mains cable with plug (German type)
- Installation: 4 adjustable feet
- Interfaces: Optional with Communication resp. Premium module



| Model sizes/Description | | | 108 | 153 | 246 |
|--------------------------|---|-------------------|---------------------------------------|--------------------------|--------------------------|
| Stainless steel interior | Volume | approx. l | 108 | 153 | 246 |
| | Width | (A) mm | 560 | 480 | 640 |
| | Height | (B) mm | 480 | 640 | 640 |
| | Depth (less 25 mm for fan) | (C) mm | 400 | 500 | 600 |
| | Provision for grids or shelves half width / full width | number | - / 4 | - / 6 | 2 x 6 / 6 |
| Stainless steel exterior | Width | (D) mm | 710 | 630 | 790 |
| | Height (variable through adjustable feet) | (E) mm | 778 | 938 | 938 |
| | Depth (without door handle, depth of door handle 38 mm) | (F) mm | 550 | 650 | 750 |
| | Fully insulated, heated stainless steel door | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Extra internal glass door | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Ventilation | Uniform atmosphere and temperature distribution through enclosed non-turbulent ventilation system, fully covered by the sterilisation process | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Temperature | Electronic microprocessor temperature controller with Pt100 and auto-diagnostic system | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Temperature sensors Pt100 Class A in 4-wire circuit for uninterrupted operation on failure of one Pt100 with warning indication | | | double | double |
| | Temperature range (during sterilisation the temperature is fixed at +160 °C – set value) | °C | +20 (at least 8 above ambient) to +50 | | |
| | Temperature fluctuations with time (to DIN 12880:2007-05) | K | ≤ ± 0.1 | | |
| | Temperature variation in chamber at +37 °C (to DIN 12880:2007-05) | K | ≤ ± 0.3 | | |
| Sterilisation | STERICard for automatic chamber sterilisation cycle 4 h at +160 °C (not for sterilising the load) | | | <input type="checkbox"/> | <input type="checkbox"/> |
| CO ₂ | Digital electronic CO ₂ control with autozero, NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Setting accuracy / Adjustment range | % CO ₂ | | 0.1 / 0 to 10 | |
| Humidity | Capacitive humidity sensor (sterilisable) | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Standard water dishes | number | 1 | | 2 |
| | Adjustable humidity limit control (88 – 97 %) incl. digital indication and auto-diagnostic system with visual and acoustic fault indication (air supply via sterile filter) ensures rapid reaching of set humidity and short recovery times while avoiding condensate formation | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Monitor | Microprocessor temperature monitor acting as overtemperature protection (protection class 3.1), with Pt100 incorporating fault diagnostics with visual and audible alarm | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Digital over- and undertemperature monitor | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Temperature monitoring band automatically linked to the setpoint (ASF) | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Relay for reliable heating cut-off in case of fault | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Mechanical temperature limiter (TB) | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | Audible alarm: Over- and undertemperature, over-CO ₂ and empty gas cylinder, open door, underhumidity and empty water tank (with optional Humidity module) | | | <input type="checkbox"/> | <input type="checkbox"/> |

| Model sizes/Description | | | 108 | 153 | 246 |
|--|---|------------|------------------|--------------------------|------------------|
| Timer functions | Real-time/weekly programmer with group function (e.g. Monday – Friday) | | | <input type="checkbox"/> | |
| Setup | Calibration (no separate PC required), Temperature: 3-point calibration on controller, CO ₂ : 3-point calibration at 5 %, 7 % and 10 %, Auto-zero-function of NDIR CO ₂ -sensor after every sterilisation and cyclically every 24 h, Humidity: 2-point calibration at 20 % and 90 % | | | <input type="checkbox"/> | |
| | Setting of language for dialogue and display DE / EN / ES / FR / IT | | | <input type="checkbox"/> | |
| Further data | Electrical load at 230 V, 50/60 Hz | approx. W | 1000 | 1500 | 2000 |
| Standard accessories | Perforated stainless steel shelves (full width) | number | 2 | | 3 |
| | Stainless steel water dishes, 40 mm high | number | | 1 (full width) | 2 (half width) |
| | Works calibration certificate (measuring point chamber centre at +37 °C) | | | <input type="checkbox"/> | |
| Packing data | Net weight/Gross weight (packed in carton) | approx. kg | 70/95 | 80/106 | 110/132 |
| | Width/Height/Depth | approx. cm | 83/105/80 | 83/130/80 | 93/114/93 |
| Order No. CO₂ Incubators | | | INC108med | INC153med | INC246med |

| Options | 108 | 153 | 246 |
|---|-----|--------|-----|
| Comfort module: two gas connections with quick release connectors, automatic switch-over of gas cylinders | | T1 | |
| Hygiene module: electropolished interior, seamlessly welded by laser | | T2 | |
| Communication module: USB and printer interface, "Celsius" standard software for protocol logging, ring memory | | T3 | |
| CO₂ module: extended CO ₂ range from 0 to 20 % | | T4 | |
| Premium module: includes Comfort, Hygiene, Communication and CO ₂ module | | T5 | |
| Humidity module: active microprocessor control for humidifying and dehumidifying (40 – 97 % rh), incl. digital indication and auto-diagnostic system ensures even more rapid reaching of set humidity and very short recovery times while avoiding condensate formation; recommended for applications with set O ₂ values of less than 10 %. Humidity supply with distilled water (from an external tank) by a self-priming pump (standard humidity limit control and water dishes are omitted) | | K7 | |
| O₂ module: control of oxygen concentration by N ₂ inlet; adjustment range 1 % up to 20 % O ₂ ; setting accuracy 0.1 %. (Combination of comfort module or Premium module and O ₂ module not possible). For applications with a set O ₂ -value of less than 10 %, the humidity module is highly recommended | | T6 | |
| IVF-module: patented, consisting of 8 slide-in units, a total of 24 special racks with indentations for 24 Petri dishes (60 mm diam.) resp. 48 Petri dishes (35 mm diam.), 4 racks with indentations for 3 special media tubes each; racks with indentations for 4-well dishes on demand; only for INCO108med with the options T3, K7 and F7; works calibration certificate (measuring point chamber centre) at +37 °C, 5 %, 6 % and 7 % CO ₂ as well as 90 % rh; 5 % O ₂ for IVF unit equipped with option T6 | C1 | | – |
| Entry port (silicone), 40 mm clear diameter, for introducing connections, moisture tight, can be closed by silicone stopper, at the back, either centre right or centre left (please, state location) | | F7 | |
| 4-part partitioning of interior with 4-part gas baffle (replacement of 3 full-width shelves by 6 half-width shelves) | | – | K4 |
| Voltage 115 V, 50/60 Hz | | X2 | |
| Door hinged on the left | | B8 | |
| Stacking version for 2 units of equal size (bottom unit modification) | | G3 | |
| Potential-free contact (24 V/2 A) with socket to NAMUR NE 28 for external monitoring (setpoint temperature / CO ₂ reached) | | H5 | |
| Works calibration certificate for 5 %, 7 % and 10 % CO ₂ (measured at +37 °C) | | D00106 | |
| Start-up of INCOMed incubators and brief training (D, A, CH only), through MEMMERT service | | K9 | |

| Accessories | 108 | 153 | 246 |
|--|--------|--------|--------|
| Additional perforated stainless steel shelf, full width | B00325 | B00321 | B03813 |
| Additional perforated stainless steel shelf, half width | | – | B02742 |
| Additional stainless steel grid, full width | E20165 | E20166 | E29766 |
| Additional water dish (half width model 246) | B02787 | B02784 | B02786 |
| Subframe (622 mm high) | B02792 | B02732 | B02793 |
| Subframe (130 mm high for 2 stacked incubators) | B02794 | B02740 | B02795 |
| HEPA-filter for chamber according to EN 1822, packed in sterile condition, incl. fixing unit | | B04459 | |
| STERICard (additional or as replacement) for automatic chamber sterilisation cycle (not for sterilising load) | | E04337 | |
| CO ₂ pressure reducing valve to DIN 8546, incl. gas cylinder monitor | | E02087 | |
| N ₂ pressure reducing valve to DIN EN ISO 2503, incl. gas cylinder for O ₂ module | | E06162 | |
| CO ₂ connection set, hose with coupling and clamp | | B03881 | |
| Central water supply, with filter cartridges for connection to the domestic water supply, only in combination with humidity module. Product information on demand | | ZWVR6 | |
| Central water supply, without filter cartridges for connection to the domestic water supply (only for demineralised water in accordance with VDE 0510/DIN EN 50272), only in combination with humidity module. Product information on demand | | ZWVR7 | |
| Guarantee extension by 1 year | | GA2Q5 | |
| Celltron benchtop shaker (accessories upon request) | | E06724 | |

Further options/accessories see pages 28 - 30



Compressor-cooled incubator ICP
with TwinDISPLAY
AtmoCONTROL software

Model size: 55

0 °C to +60 °C

Model sizes: 110 / 260 / 450 / 750

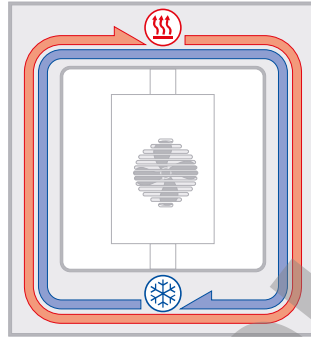
-12 °C to +60 °C

COMPRESSOR-COOLED INCUBATOR ICP Ideal at temperatures around zero and below! If rapid and precise alternation between heating up and cooling down times in ramp operation is required, cooled incubators with compressor cooling prove to be in peak form – yet still work extraordinarily quiet. Due to the finely adjusted control technology, temperatures exactly reach the set point values without energy-intensive bursts of power.



Completely enclosed working chamber

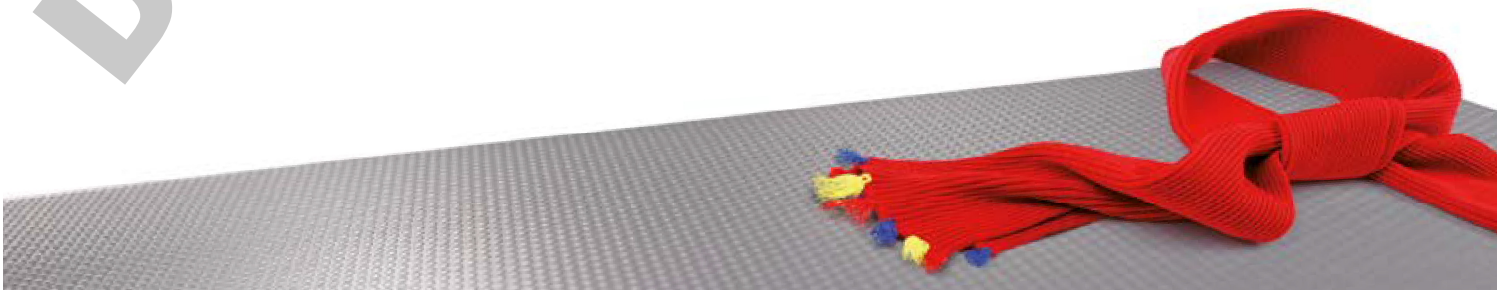
Cooling and heating units are situated outside the working chamber inside the air jacket temperature control system surrounding the entire chamber interior ensuring quick and precise temperature control. The motor-driven forced air circulation, adjustable in 10 % steps via the ControlCOCKPIT ensures optimum temperature distribution.



ICP air jacket temperature control system

Integrated energy saving function

The cooling unit works extremely energy-efficiently, as there is no continuous heating against cooling. An intelligent DEFROST function enables defrosting as required.



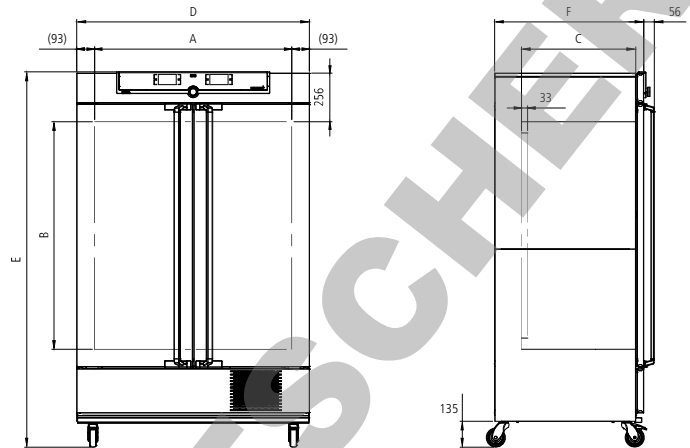
COMPRESSOR-COOLED INCUBATORS ICP

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010



Standard equipment

| | | | | | | | |
|---------------|---|----------|-----|--|--|-----|--|
| Interior: | Stainless steel, material 1.4301 (ASTM 304) | | | | | | |
| Internals: | Stainless steel grids (size 55: 1 grid, sizes 110 to 750: 2 grids) | | | | | | |
| Housing: | Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; fully insulated stainless steel door (from size 450 two leaves) | | | | | | |
| Connection: | Mains cable with plug (German type) | | | | | | |
| Installation: | mounted on lockable castors | | | | | | |
| Interfaces: | <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Ethernet</td> <td>USB</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>LAN</td> <td></td> </tr> </table> | Ethernet | USB | | | LAN | |
| Ethernet | USB | | | | | | |
| | | | | | | | |
| LAN | | | | | | | |



| Model sizes/Description | | | 55 | 110 | 260 | 450 | 750 |
|---|--|------------|-------------------------------|---------------|---------------|---------------|---------------|
| Stainless steel interior | Volume | approx. l | 53 | 108 | 256 | 449 | 749 |
| | Width | (A) mm | 400 | 560 | 640 | 1040 | 1040 |
| | Height | (B) mm | 400 | 480 | 800 | 720 | 1200 |
| | Depth (less 33 mm for fan) | (C) mm | 330 | 400 | 500 | 600 | 600 |
| | Stainless steel grids (standard equipment) | number | 1 | 2 | | | |
| | Max. number of grids/shelves | number | 4 | 5 | 9 | 8 | 14 |
| | Max. loading per grid/shelf | kg | | 20 | | 30 | |
| | Max. loading of chamber | kg | 80 | 150 | 200 | | |
| Textured stainless steel exterior | Width | (D) mm | 585 | 745 | 824 | 1224 | 1224 |
| | Height (with castors) | (E) mm | 1153 | 1233 | 1552 | 1613 | 1950 |
| | Depth (without door handle), door handle + 56 mm | (F) mm | 514 | 584 | 684 | 784 | 784 |
| Further data | Electrical load at 230/115 V, 50/60 Hz | approx. W | 1200 | | | | |
| | Working-temperature range (not suitable for long-term storing at sub-zero temperatures. During permanent operation, the glass door may ice over) | °C | -12 to +60 (ICP 55 0 to +60) | | | | |
| | Setting temperature range | °C | -12 to +60 (ICP 55 -5 to +60) | | | | |
| | Setting accuracy | °C | 0.1 | | | | |
| Packing data | Net weight | approx. kg | 89 | 113 | 157 | 217 | 249 |
| | Gross weight (packed in carton) | approx. kg | 111 | 141 | 214 | 282 | 319 |
| | Width | approx. cm | 76 | 88 | 93 | 133 | 133 |
| | Height | approx. cm | 133 | 141 | 176 | 170 | 215 |
| | Depth | approx. cm | 68 | 81 | 93 | 105 | 105 |
| Order No. Compressor-Cooled Incubators | | | ICP55 | ICP110 | ICP260 | ICP450 | ICP750 |

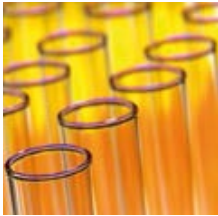


Peltier-cooled incubator IPP with SingleDISPLAY
Peltier-cooled incubator IPPplus with TwinDISPLAY
AtmoCONTROL software

Model sizes: 30 / 55 / 110 / 260 / 750
0 °C to +70 °C

PELTIER-COOLED INCUBATOR IPP Heating and cooling seamlessly with one system thanks to Peltier technology. In this respect, cooled incubators IPP not only contribute to climate protection, but it also achieves an additional decrease in operating costs of up 90 % compared to compressor technology. This perfect development from the environmentally friendly and energy-saving heating/cooling technology by Memmert convinces by outstanding control precision and extremely small fluctuations.

DOMINIQUE DUTSCHER



Extremely quiet and vibration-free

The fact that no compressor is required saves space and brings peace and quiet to the laboratory. As Peltier-cooled incubators IPP are almost vibration-free, they can also be applied in entomology. If defined humidity is also required, an alternative would be the constant climate chamber HPP, which is also equipped with Peltier technology.

No condensation in the interior chamber

Due to the closed Peltier cooling system, no outside air is exchanged. Physically derived, unavoidable formation of condensation during the cooling process does not take place in the interior chamber but on the outside heat sink. In addition, the in the Peltier elements integrated fans ensure a rapid transport of energy as well as an optimal temperature distribution.

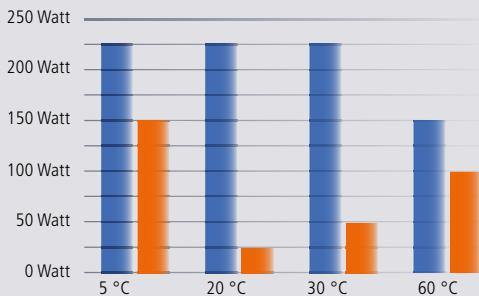
Energy-saving heating/cooling technology combination

In contrast to compressor systems, Peltier technology is particularly economical at temperatures close to the ambient temperature, since energy is only required during heating or cooling. Therefore heating and cooling function are particularly precisely adjusted to each other.

Comparison compressor technology and Peltier technology

Reduction in energy consumption up to 90 %

- Compressor technology
- Peltier technology



DOMINIQUE DUTSCHER

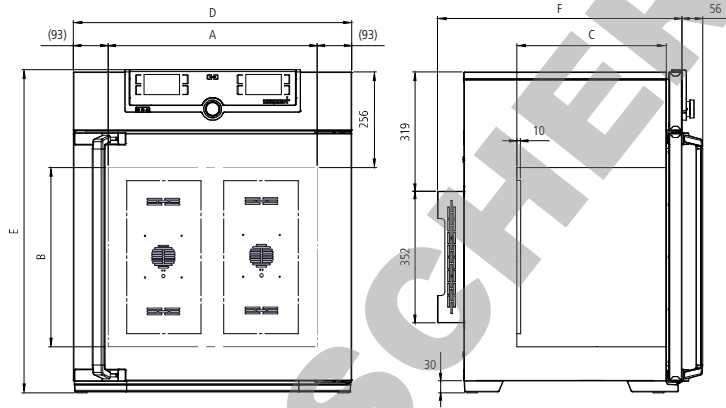
PELTIER-COOLED INCUBATORS IPP

according to DIN 12880:2007-05 , EN 61010-1 (IEC 61010-1), 61010-2-010



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn
- Internals: Stainless steel grids (sizes 30 and 55: 1, sizes 110 to 750: 2)
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen
- Double doors: Outside stainless steel, fully insulated, inside glass (size 750 two-leaves)
- Connection: Mains cable with plug (German type)
- Installation: 4 feet; size 750 mounted on lockable castors
- Interfaces:



Number of Peltier elements in the rear:
 Sizes 30 to 55: 1
 Size 110: 2
 Size 260: 3
 Size 750: 6

| Model sizes/Description | | | 30 | 55 | 110 | 260 | 750 |
|-----------------------------------|--|------------|--|-----|-----|------|------|
| Stainless steel interior | Volume | approx. l | 32 | 53 | 108 | 256 | 749 |
| | Width | (A) mm | 400 | 400 | 560 | 640 | 1040 |
| | Height | (B) mm | 320 | 400 | 480 | 800 | 1200 |
| | Depth (less 10 mm for fan – Peltier) | (C) mm | 250 | 330 | 400 | 500 | 600 |
| | Stainless steel grids (standard equipment) | number | 1 | | 2 | | |
| | Max. number of grids/shelves | number | 3 | 4 | 5 | 9 | 14 |
| | Max. loading per grid/shelf | kg | 20 | | | 30 | |
| Max. loading of chamber | kg | 60 | 80 | 150 | 200 | | |
| Textured stainless steel exterior | Width | (D) mm | 585 | 585 | 745 | 824 | 1224 |
| | Height (size 750 with castors) | (E) mm | 704 | 784 | 864 | 1183 | 1726 |
| | Depth (without door handle), door handle + 56 mm | (F) mm | 524 | 604 | 674 | 774 | 874 |
| Further data | Electrical load at 230/115 V, 50/60 Hz | approx. W | 140 | 275 | 550 | 820 | 1100 |
| | Working-temperature range without light | °C | 0 (at least 20 below ambient temperature) to +70 | | | | |
| | Working-temperature range with light | °C | +10 to +40 | | | | |
| | Setting temperature range | °C | 0 to +70 | | | | |
| | Setting accuracy | °C | 0.1 | | | | |
| Packing data | Net weight | approx. kg | 40 | 52 | 78 | 114 | 230 |
| | Gross weight (packed in carton) | approx. kg | 56 | 71 | 103 | 165 | 301 |
| | Width | approx. cm | 66 | 73 | 83 | 93 | 133 |
| | Height | approx. cm | 89 | 95 | 105 | 138 | 191 |
| | Depth | approx. cm | 65 | 67 | 80 | 93 | 105 |

Order No. Peltier-Cooled Incubators

IPP = Peltier-Cooled Incubators
 plus = Model with TwinDISPLAY

| IPP30 | IPP55 | IPP110 | IPP260 | IPP750 |
|-----------|-----------|------------|------------|------------|
| IPP30plus | IPP55plus | IPP110plus | IPP260plus | IPP750plus |

| Options | 30 | 55 | 110 | 260 | 750 |
|--|----|----|-----|-----|--|
| Voltage 115 V, 50/60 Hz | | | X2 | | |
| Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids | | | – | | K1 |
| Light module cold white 6,500 K: light strips arranged on the side walls of the interior, 10 strips for model 110, 14 for model 260/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY) | | – | | T7 | |
| Light module cold white 6,500 K + warm white 2,700 K: LED light strips – 10 strips for model 110, 14 for models 260/750 – (5 resp. 7 alternating cold white light strips and 5 resp. 7 warm white light strips) on the side walls of the interior, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY) | | – | | T8 | |
| Light module warm white 2,700 K: light strips arranged on the side walls of the interior, 10 strips for model 110, 14 for model 260/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY) | | | | T9 | |
| Interior socket, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68 | | | | R3 | |
| Entry port, 23 mm clear diameter, for introducing connections, can be closed by flap, standard positions (F0 und F2 not for model sizes 110 und 260 with light module) | | | | | left centre/centre left centre top right centre/centre right centre top |
| Entry port, 23 mm clear diameter for introducing connections, can be closed by flap (please, state location) | | | | | left right rear |
| Entry port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | | | | F0 F1 F2 F3 |
| Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | | | | F4 F5 F6 |
| 4 – 20 mA current loop interface (-10 to +80 °C \pm 4 – 20 mA) | | | | | D6 |
| | | | | | D7 |
| | | | | | F7 |
| Temperature controller, actual value Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 1 SingleDISPLAY, max. 3 TwinDISPLAY) | | | | | V3 V6 |
| Works calibration certificate for 3 temperatures: +5 °C, +37 °C, +60 °C Standard works calibration certificate (measuring point chamber centre) at +10 °C and +37 °C | | | | | D00129 |

| Accessories | 30 | 55 | 110 | 260 | 750 |
|---|--------|--------|--------|--------|--------|
| Stainless steel grid (standard equipment) | E28884 | E20164 | E20165 | E28891 | E20182 |
| Additional reinforced stainless steel grid, max. loading 60 kg; size 750 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber | | – | E29767 | E29766 | B32190 |
| Perforated stainless steel shelf | B29727 | B03916 | B00325 | B29725 | B00328 |
| Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber | | | – | | B32191 |
| Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1 | E02070 | E02072 | E02073 | E29726 | E02075 |
| Max. loading per slide-in drip tray (kg) | | 1.5 | 3 | 4 | 8 |
| Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1) | | | – | | B32763 |
| Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1 | B04356 | B04358 | B04359 | B29722 | B04362 |
| Max. loading per bottom drip tray (kg) | | 1.5 | 3 | 4 | 8 |
| Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1) | | | – | | B34055 |
| Guarantee extension by 1 year | | GA1Q5 | | | GA2Q5 |



Cooled storage incubator IPS
with SingleDISPLAY
AtmoCONTROL software

Model sizes: 260 / 750
+14 °C to +45 °C

COOLED STORAGE INCUBATOR IPS Save energy and reduce the strain on the climate at the same time! If microbiological cultures, BOB5 samples, drinks containers or cosmetics need to be stored over a long period at constant temperatures, cooled storage incubators IPS with energy-efficient Peltier technology are the perfect choice: absolute reliability, precision, durability and eco-friendliness.





Considerable potential for savings in acquisition and operating costs

Temperature changes are not always necessary for long-term storage or incubating. So why design heating, cooling and controlling systems for rapid heating up and cooling down times? The performance of the IPS was tailor-made for permanent operation at constant temperatures close to room temperature. The advantage: Acquisition costs and operating costs are considerably reduced in comparison to conventional cooled incubators with compressor technology, as well as to a large Peltier-cooled incubator.



Ideal for high ambient temperatures

Thanks to Peltier elements integrated for cooling the working chamber, the chamber load won't break into sweat even at high ambient temperatures. Constant and precise incubation at room temperature is guaranteed.



Low in vibration and durable for absolutely safe long-term storage

Like the cooled incubator IPP, the IPS offers all the advantages of Peltier technology to the user. Its interior chamber that is completely insulated from the environment minimises the risk of drying out of the samples. It is practically noise-free and not only reduces stress on the chamber load but also soothes the nerves of employees thanks to its quiet operation.



Glimpse into a Memmert storage incubator:
Peltier elements guarantee perfect climate inside the chamber.



DOMINIQUE DUTSCHER

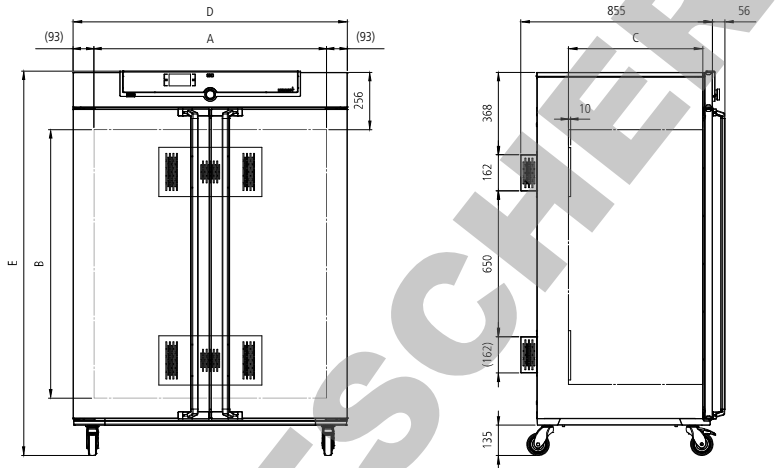
COOLED STORAGE INCUBATORS IPS

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn
- Internals: 2 stainless steel grids
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY (TFT colour display) with touchscreen
- Double doors: Outside stainless steel, fully insulated, inside glass (size 750 two leaves)
- Connection: Mains cable with plug (German type)
- Installation: 4 feet; size 750 mounted on lockable castors
- Interfaces:
 - Ethernet
 - LAN



| Model sizes/Description | | | 260 | 750 |
|--|---|------------|---------------|---------------|
| Stainless steel interior | Volume | approx. l | 256 | 749 |
| | Width | (A) mm | 640 | 1040 |
| | Height | (B) mm | 800 | 1200 |
| | Depth (less 10 mm for fan – Peltier) | (C) mm | 500 | 600 |
| | Stainless steel grids (standard equipment) | number | 2 | |
| | Max. number of grids/shelves | number | 9 | 14 |
| | Max. loading per grid/shelf | kg | 20 | 30 |
| | Max. loading of chamber | kg | 300 | |
| Textured stainless steel exterior | Width | (D) mm | 824 | 1224 |
| | Height (size 750 with castors) | (E) mm | 1186 | 1726 |
| | Depth (without door handle), door handle + 56 mm | (F) mm | 774 | 874 |
| Further data | Electrical load at 230/115 V, 50/60 Hz | approx. W | 550 | |
| | Working-temperature range/Setting temperature range | °C | +14 to +45 | |
| | Setting accuracy | °C | 0.1 | |
| Packing data | Net weight | approx. kg | 113 | 230 |
| | Gross weight (packed in carton) | approx. kg | 164 | 301 |
| | Width | approx. cm | 93 | 133 |
| | Height | approx. cm | 138 | 191 |
| | Depth | approx. cm | 93 | 105 |
| Order No. Cooled storage Incubators | | | IPS260 | IPS750 |

| Options | 260 | 750 |
|--|--|----------------------|
| Voltage 115 V, 50/60 Hz | | X2 |
| Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids | – | K1 |
| Interior socket, ampacity 230 V/2.2A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68 | | R3 |
| Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap, standard positions | left centre/centre left centre top right centre/centre right centre top | F0 F1 F2 F3 |
| Entry port, 23 mm clear diameter, can be closed by flap, in special positions (please, state location) | left right rear | F4 F5 F6 |
| Entry port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | D6 |
| Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location) | | F7 |
| 4 – 20 mA current loop interface (0 to +70 °C \pm 4 – 20 mA) | | V3 |
| Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (SingleDISPLAY) | Temperature controller, actual value | V6 |
| Works calibration certificate for a freely selectable temperature value Standard works calibration certificate (measuring point chamber centre) at +18 °C and +25 °C | | D00131 |

| Accessories | 260 | 750 |
|---|--------|--------|
| Stainless steel grid (standard equipment) | E28891 | E20182 |
| Additional reinforced stainless steel grid, max. loading 60 kg; size 750 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber | E29766 | B32190 |
| Perforated stainless steel shelf | B29725 | B00328 |
| Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber | – | B32191 |
| Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1 | E29726 | E02075 |
| Max. loading per slide-in drip tray (kg) | 4 | 8 |
| Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1) | – | B32763 |
| Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1 | B29722 | B04362 |
| Max. loading per bottom drip tray (kg) | 4 | 8 |
| Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1) | – | B34055 |
| Guarantee extension by 1 year | | GA2Q5 |

SOFTWARE AtmoCONTROL

AtmoCONTROL – The innovative control and logging software

Parameters such as temperature and humidity as well as the process time can be set directly at the ControlCOCKPIT.

Ramp programming is done via the control and logging software AtmoCONTROL, which features a completely new software design.

Drag, drop & go!

Numerical and graphic programming of complex processes is a thing of the past. Today, programming is done via AtmoCONTROL by means of the mouse or touchpad on your notebook. Even the most complex ramp programmes are created within minutes. Simply drag & drop the graphical symbols for the desired parameters to the input field and change the values according to your wishes with a mouse click.



Programme functions

SingleDISPLAY and TwinDISPLAY

- Reading out, managing and organising the data logger
- Saving the log memory in various formats
- Online monitoring of up to 32 connected appliances
- Optical alarms when the alarm limits individually set at the ControlCOCKPIT are exceeded
- Automatic alarm to one or several e-mail addresses

Additional functions

TwinDISPLAY

- Intuitive programming and archiving of ramps and programme sequences
- Synchronous visualisation of the created programme sequence during programming
- Application-specific repeat functions (loops) can be inserted within a temperature control programme in any place
- Simple creation of repeating weekly programmes
- Programming, managing and transferring programmes via Ethernet interface or USB port

SPECIAL EQUIPMENT FOR MODELS U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH

| Options for models Modelle U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH | 30 | 55 | 75 | 110 | 160 | 260 | 450 | 750 | 1060 | 50 | 105 | 150 | 240 |
|---|----|----|----|-----|-----|--------------------------|-----|-----|------|----|-----|-----|-----|
| Door with lock (safety lock); for models UF TS per side; standard with SN/SF and SNplus/SFplus 450 and 750 (not for models ICO) | | | | | B6 | | | | | | | | – |
| Door hinged on the left; for models UF TS per side | | | B8 | | | | | – | | | | B8 | |
| Potential-free contact (24 V/2 A) with socket to NAMUR NE 28 for external monitoring (indicates when setpoint is reached); models ICO: when set points of temperature and CO ₂ are reached | | | | | | | | H5 | | | | | |
| Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse) | | | | | | | | H6 | | | | | |
| Potential-free contact (24 V/2 A) with socket to NAMUR NE 28, for signal generation, controlled by programme segment, for free-selectable functions to be activated (e.g. activation of audible and visual signals, exhaust motors, fans, stirrers, etc.). Only for units with TwinDISPLAY; max. 2 contacts on 1-phase appliances; max. 4 contacts on 3-phase appliances (not for models ICO) | | | | | | 2 contacts 4 contacts | | H72 | | | | | – |
| Process-dependent door lock (only for units with TwinDISPLAY); for models UF TS see page 11 of oven brochure; not for models ICO | | | | | D4 | | | | | | | | – |
| Door-open-recognition (only for units with TwinDISPLAY); for models UF TS per side; standard with ICO, ICH C, ICH L | | | | | | | | V5 | | | | | – |
| Flexible Pt100 for positioning in chamber or in load with socket, 4-pin, according to NAMUR NE 28, for external temperature recording (load temperature) max. 3 sensors; not for models ICO | | | | | H4 | | | | | | | | – |
| Flexible Pt100 temperature sensor, positioned flexibly in chamber or load, for local temperature measurement (up to 3 additional sensors are possible). The measured temperature can, if required, be indicated on the display, recorded in the integral data store, and can be documented via the AtmoCONTROL software. Not for models ICO | | | | | H8 | | | | | | | | – |
| MobileALERT, notification by SMS in case of any error or alarm of the device. Requires option H6 "floating contact for alarm" | | | | | | | | C3 | | | | | – |
| MobileALERT for up to 4 alarm notifications; standard: temperature and CO ₂ alarm, additionally humidity alarm (when equipped with option K7) and O ₂ alarm (when equipped with option T6) | | | | | – | | | | | | | | C4 |
| Temperature restriction (for UN/UF/UNplus/UFplus and models UF TS) Temperatures: +60, +70, +80, +95, +100, +120, +160, +180, +200, +220 or +250 °C (Please, indicate upon ordering) | | | | | A8 | | | | | | | | – |
| Castor frame (2-part), height 140 mm (not for models UF TS and ICO) | | | | R9 | | | | | | | | | – |

SPECIAL EQUIPMENT FOR MODELS U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH

| Accessories for models U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH | 30 | 55 | 75 | 110 | 160 | 260 | 450 | 750 | 1060 | 50 | 105 | 150 | 240 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|--------|--------|
| USB-Ethernet adapter | | | | | | | | | | | | | E06192 |
| Ethernet connection cable 5 m for computer interface | | | | | | | | | | | | | E06189 |
| USB User-ID stick (with User-ID licence): Oven-linked authorisation licence (User-ID-programme) on Memory-stick, prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number (only for units with TwinDISPLAY) | | | | | | | | | | | | | B33170 |
| USB stick with documentation software AtmoCONTROL and operation manual for products with SingleDISPLAY (the standard equipment of appliances with TwinDISPLAY includes one USB stick with AtmoCONTROL) | | | | | | | | | | | | | B33172 |
| Set of height adjustable feet (4 pcs) – standard on models ICO | | | | | | B29768 | | | – | | | | B29768 |
| Stacking set (4 pcs) for stacking of appliances of same size (not for models 160, 260, 450, 750, 1060, ICO150 and ICO240) | | | | | | B29744 | | | – | | | B29744 | – |
| Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), straight, for exhaust air ducting (if necessary for connection by hose), only models U, I, S not for models UF TS | | | | | | | | B29718 | | | | | – |
| Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), angled, for exhaust air ducting (if necessary for connection by hose), only models U, I, S not for models UF TS | | | | | | | | B29719 | | | | | – |
| Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots – technical clarification required | B29728 | B29730 | B29732 | B29734 | B29736 | B29738 | B29740 | | B29742 | | | | – |
| Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots – technical clarification required; for models UF TS see page 11 of oven brochure; not for models ICO | B29729 | B29731 | B29733 | B29735 | B29737 | B29739 | B29741 | | B29743 | | | | – |
| Subframe, adjustable in height (size 30 to 75: height 600 mm, size 110 to 450: height 500 mm); not for models ICO and UFTS | B29745 | B29747 | B29747 | B29749 | B29749 | B29751 | B29753 | | | | | | – |
| Subframe, on castors (size 30 to 75: height 660 mm, size 110 to 160: height 560 mm); not for models ICO and UFTS | B29746 | | B29748 | | B29750 | | | | | | | | – |
| Subframe, adjustable in height, height 130 mm, for example for units with fresh air filter; not for models ICO and UFTS | B33657 | | B33659 | | B33661 | | B33664 | | | | | | – |
| Software conforming to FDA AtmoCONTROL. Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit (only for units with TwinDISPLAY) | | | | | | | | | | | | | FDAQ1 |
| Integration of additional units (up to max. 15 units) into an already existent FDA-software licence (only for units with TwinDISPLAY) | | | | | | | | | | | | | FDAQ2 |
| IQ document with device-specific works test data, OQ/PQ check list as support for validation by customer | | | | | | | | | | | | | D00124 |
| IQ/OQ document with device-specific works test data, incl. temperature distribution survey for one free-selectable temperature value. 9 measuring points (size 30), 27 measuring points (sizes 55 – 1060) to DIN 12880:2007-05 (further temperature values on demand), PQ check list as support for validation by customer | D00125 | | | | | | | | | | | | D00127 |
| IQ/OQ document with device-specific works test data, incl. temperature distribution survey for one free-selectable temperature and humidity value. 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models HPP and ICH) | | | | | D00136 | | | | | D00136 | | | – |
| IQ/OQ document with device-specific works test data, incl. temperature distribution survey for one free-selectable temperature, humidity and light value. 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models HPP with light and ICH L) | | | | | D00137 | | | | | D00137 | | | – |
| IQ/OQ check list with device-specific works test data for one free-selectable CO ₂ , humidity and temperature value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models ICH C and ICO, on models ICO a free-selectable humidity value is only possible with option K7) | | | | | D38897 | | | | | D38897 | | | D38897 |
| IQ/OQ check list with device-specific works test data for one free-selectable CO ₂ and temperature value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models ICH C and ICO, on models ICO a free-selectable humidity value is only possible with option K7) | | | | | | | | | | | | | D38898 |
| External measuring instrument with sensors for daylight and UV-light. Product information on demand (models HPP, ICH L, IPPplus) | | | | | | B04713 | | | | | | | – |
| Ditto with additional measuring head for temperature and humidity measurement. Product information on demand (models HPP, ICH L, IPPplus) | | | | | | B04714 | | | | | | | – |

SPECIAL EQUIPMENT FOR MODELS VO, VOcool, INCOmed, HCP, TTC, CTC

| Options for models VO, VOcool, INCOmed, HCP, TTC, CTC | Sizes: 200 / 400 / 500 108 / 153 / 246 256 |
|--|--|
| Interface Ethernet instead of USB including software | W4 |
| RS232 interface instead of USB | W6 |
| Computer interface RS485 (for networking a max. of 16 ovens) instead of RS232 | V2 |
| Door with lock (safety lock, not available for VO, VOcool, TTC/CTC) | B6 |
| Flexible Pt100 for positioning in chamber or in load with socket, 4-pin, according to NAMUR NE 28, for external temperature recording (load temperature); for VO and VOcool on demand | H4 |
| Additional Pt100 temperature sensor, positioned flexibly in chamber or load, for local temperature measurement (up to 3 additional sensors are possible). The measured temperature can, if required, be indicated on the multifunction display, recorded in the integral ring store, and can be documented via the "Celsius" software or on an attached printer. (Not available for VO, VOcool, TTC and CTC) | H8 |
| Potential-free contact (24 V/2 A) with socket, according to NAMUR NE 28 for external monitoring (indicates when setpoint is reached) | H5 |
| Potential-free contact (24 V/2 A), with socket, according to NAMUR NE 28 for combination error message (e.g. supply failure, sensor fault, fuse) | H6 |
| Potential-free contact (24 V/2 A), with socket, according to NAMUR NE 28, triple, for signal generation, controlled by programme segment for a total of 3 freely selected functions to be activated (e.g. acoustic and visual signals, exhaust motors, fans, stirrers etc.) | H7 |
| MobileALERT, notification by SMS in case of any error or alarm of the device. Requires option H6 "floating contact for alarm" | C3 |

| Accessories for models VO, VOcool, INCOmed, HCP, TTC, CTC | Sizes: 200 / 400 / 500 108 / 153 / 246 256 |
|---|--|
| USB connection cable for computer interface | E03643 |
| Parallel/USB converter cable with integrated power supply unit to connect HP printers with USB interface to MEMMERT units | E05300 |
| Documentation package consisting of parallel USB converter cable including PCL3-compatible HP colour inkjet printer with USB interface (HP OfficeJet 6000 or successor) for direct connection of printer to Memmert unit | B04432 |
| Temperature profile write/read unit for programming via PC, for writing to and reading from the chip card, up to 40 ramps | E05284 |
| Additional chip card, blank, formatted (32 kB MEMoryCard XL for a maximum of 40 ramps). Not available for INCOmed models | E04004 |
| Oven-linked authorisation card (User-ID-Card) prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number | E04159 |
| Software conforming to FDA "Celsius FDA Edition". Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit | E05019 |
| Integration per additional unit (up to max. 15 units) into an already existent FDA-software licence (E05019) | FDAQ4 |
| IQ check list with device-specific works test data as support for validation by customer | D00103 |
| OQ check list with device-specific works test data for one free-selectable temperature value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05 as support for validation by customer | D00104 |
| OQ check list with device-specific works test data for one free-selectable temperature value incl. temperature distribution survey for 5 measuring points to DIN 12880:2007-05 as support for validation by customer valid for one thermoshelf; ditto for further thermoshelves VO on demand (VO and VOcool only) | D00117 |
| OQ check list with device-specific works test data for one free-selectable humidity and temperature value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05 as support for validation by customer (models HCP and CTC) | D00104 |
| OQ check list with device-specific works test data for one free-selectable CO ₂ , humidity and temperature value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05 as support for validation by customer (models INCOmed) | D00104 |
| External measuring instrument with sensors for daylight and UV-light, with additional measuring head for temperature and humidity. Product information on demand (models INCOmed and HCP) | B04714 |

MODEL VARIANTS

| SingleDISPLAY ControlCOCKPIT with one TFT display | TwinDISPLAY ControlCOCKPIT with two TFT displays |
|---|---|
| <p>AVAILABLE APPLIANCES</p> <p>UN / UF / IN / IF / SN / SF / IPP / IPS</p> | <p>AVAILABLE APPLIANCES</p> <p>UNplus / UFplus / UF TS / UNpa / INplus / IFplus / SNplus / SFplus ICO / IPPplus / ICP / HPP / ICH</p> |
| <p>One high-resolution TFT colour display with touch-sensitive buttons for selection of functions</p> | <p>Two high-resolution TFT colour displays with touch-sensitive buttons for selection of functions</p> |
| <p>Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time</p> | <p>Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time, relative humidity, illumination, CO₂</p> |
| <p>One temperature sensor Pt100 DIN class A in a 4-wire circuit</p> | <p>Two Pt100 sensors DIN class A in a 4-wire circuit for mutual monitoring, taking over functions in case of an error</p> |
| <p>AtmoCONTROL software for reading out, managing and organising the data logger via Ethernet interface (temporary trial version can be downloaded). USB stick with AtmoCONTROL software available as accessory (on demand)</p> | <p>HeatBALANCE function for application specific adjustment of heat output distribution (balance) between the upper and lower heating groups in an adjustment range between -50 % and +50 % (not valid for models 30, HPP110, IPP110plus, ICP, ICH)</p> <p>AtmoCONTROL software on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port</p> |
| | <p>ControlCOCKPIT with USB port for uploading programmes, reading out protocol logs, activating the User-ID function</p> |
| | <p>Displaying of already logged protocol data on the ControlCOCKPIT (max 10,000 values correspond to approx. 1 week)</p> |
| <p>Ethernet interface on the rear of the appliance for reading out the protocol log and for online logging</p> | <p>Ethernet interface on the rear of the appliance for reading out the protocol log and for uploading programmes and for online logging</p> |
| <p>Double overtemperature protection: Electronic temperature monitoring with freely adjustable monitoring temperature, for models U, I, S with option A6 TWW/TWB (protection class 3.1 or 2), mechanical temperature limiter TB acc. to DIN 12880</p> | <p>Multiple overtemperature protection: Electronic temperature monitoring TWW/TWB (protection class 3.1 or 2 resp. 3.3 for units with active cooling) and mechanical temperature limiter TB (protection class 1) acc. to DIN 12880, AutoSAFETY automatically adjusts to the set value within a freely adjustable tolerance range. Setting individual MIN / MAX values for over/undertemperature alarm and also for all other parameters such as relative humidity, CO₂</p> |
| <p>PID microprocessor control with integrated auto-diagnostic system</p> | |
| <p>Structured stainless steel housing, scratch-resistant, robust and durable; rear of zinc-plated steel</p> | |
| <p>High-temperature connectors on the rear of the appliance for single-phase power connection according to country specific systems and IEC standards</p> | |
| <p>Internal data logger with a storage capacity of at least 10 years</p> | |
| <p>German, English, French, Spanish language settings available on the ControlCOCKPIT</p> | |
| <p>Digital backwards counter with target time setting, adjustable from 1 minute to 99 days</p> | |
| <p>The SetpointWAIT function guarantees that the process time does not start until the set temperature is reached at all measuring points – optional for temperature values recorded by the freely positionable Pt100 sensors inside the chamber</p> | |
| <p>Adjustment of three calibration values for temperature and additional appliance specific parameters directly at the ControlCOCKPIT</p> | |



memmert
Experts in Thermostatics

HEATING AND DRYING OVENS

UNIVERSAL OVEN U
PASS-THROUGH OVEN UF TS
PARAFFIN OVEN UNpa
STERILISER S
VACUUM OVEN VO
COOLED VACUUM OVEN VOcool

INCUBATORS

INCUBATOR I
CO₂ INCUBATOR ICO
CO₂ INCUBATOR INCOmed
COMPRESSOR-COOLED INCUBATOR ICP
PELTIER-COOLED INCUBATOR IPP
COOLED STORAGE INCUBATOR IPS

CLIMATE CHAMBERS

CONSTANT CLIMATE CHAMBER HPP
HUMIDITY CHAMBER HCP
CLIMATE CHAMBER ICH
ENVIRONMENTAL TEST CHAMBER CTC/TTC

WATERBATHS / OILBATHS

WATERBATH W
OILBATH O

YOUR MEMMERT PARTNER

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