$CO_2$ Incubator ICO with TwinDISPLAY
AtmoCONTROL software

Model sizes: 50 / 105 / 150 / 240
+18 °C to +50 °C
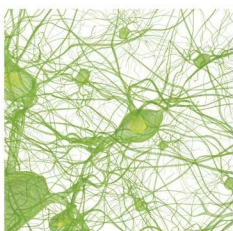Humidity 40 to 97 % rh
$CO_2$ concentration 0 to 20 %
$O_2$ concentration 1 to 20 %

**$CO_2$ INCUBATOR ICO** Safety at all times. When it comes to safety and user friendliness, the highly modern $CO_2$ incubator ICO is the perfect solution: Thanks to the battery-buffered ControlCOCKPIT, the operating display, logging and $CO_2$ 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 $CO_2$, $O_2$, 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).

## 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

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

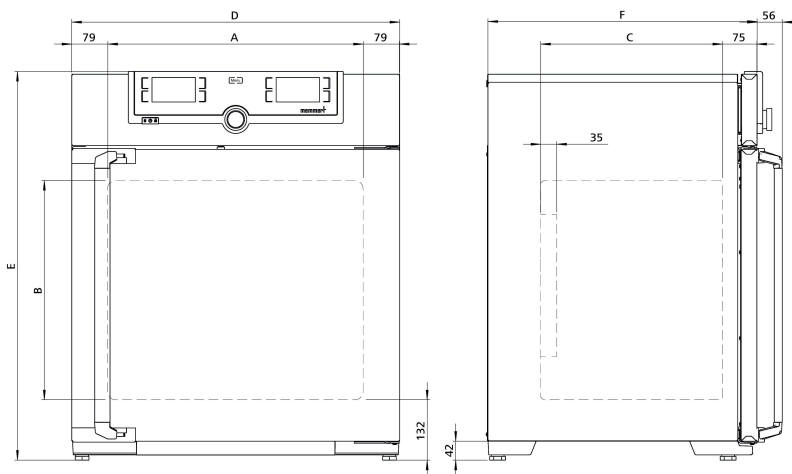| | |
|---|---|
| Interior: | Stainless steel, material 1.4301 (ASTM 304), deep-drawn, seamlessly welded |
| Housing: | Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchsceen; fully insulated stainless steel door and heated inner glass door |
| Automatic sterilisation: | Humidity and $CO_2$ sensor sterilised inside the $CO_2$ incubator |
| Connection: | Mains cable with plug (German type) |
| Installation: | 4 adjustable feet |
| Interfaces: | Ethernet / LAN    USB |

| Model sizes/Description | | | | 50 | 105 | 150 | 240 |
|---|---|---|---|---|---|---|---|
| **Stainless steel interior** | Volume | approx. l | | 56 | 107 | 156 | 241 |
| | Width | (A) | mm | 400 | 560 | | 600 |
| | Height | (B) | mm | 425 | 480 | 700 | 810 |
| | Depth (less 35 mm for fan) | (C) | mm | 330 | 400 | | 500 |
| | Max. number of perforated shelves | number | | 5 | 6 | 10 | 12 |
| | Max. loading per perforated shelf | kg | | | 15 | | |
| | Max. loading of chamber | kg | | 75 | 90 | 120 | 140 |
| **Textured stainless steel exterior** | Width | (D) | mm | 559 | 719 | | 759 |
| | Height (variable through adjustable feet) | (E) | mm | 795 | 850 | 1070 | 1180 |
| | Depth (without door handle, depth of handle +56 mm) | (F) | mm | 521 | 591 | | 691 |
| | Fully insulated heated stainless steel door | | | | ● | | |
| | Additional heated inner glass door | | | | ● | | |
| **Standard equipment** | Stainless steel shelves, perforated | number | | 1 | 2 | | |
| | Stainless steel water dish (not applicable with option K7) | number | | | 1 | | |
| | Works calibration certificate (measuring point chamber centre) at +37 °C, 5 % $CO_2$ for standard units | | | | ● | | |
| | 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 | | | | ● | | |
| | Works calibration certificate at +37 °C, 5 % $CO_2$ and 90 % rh (requires option K7); standard equipment for units with active humidity control | | | | ● | | |
| | $CO_2$ connection set: hose with coupling and clamp | | | | ● | | |
| | Standard sterilisation programme (without removing the sensors), humidity and $CO_2$ sensor sterilised inside the $CO_2$ incubator | | | | 60 minutes at 180 °C | | |
| | Membrane filter (in order to remove impurities and pollutants, all incoming gases pass through a membrane filter before they reach the chamber) | | | | ● | | |
| **Temperature** | Working temperature range | °C | | at least 5 above ambient temperature up to +50 | | | |
| | Setting temperature range | °C | | +18 to +50 | | | |
| | Setting accuracy | °C | | 0.1 | | | |
| | Temperature fluctuations with time at +37 °C | K | | +/- 0.1 | | | |
| | Temperature variation in chamber at +37 °C | K | | +/- 0.3 | | | |
| **Humidity** | 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 % | | | | ● | | |
| | Setting range active humidity control (with option K7) | % rh | | 40 to 97 and rh-Off | | | |
| | Setting accuracy | % rh | | 0.5 | | | |
| **$CO_2$ / $O_2$** | Digital electronic $CO_2$ control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation | | | | ● | | |
| | Setting range $CO_2$ | % $CO_2$ | | 0 to 20 | | | |
| | Variation in time $CO_2$ | % $CO_2$ | | +/- 0.2 | | | |
| | Setting accuracy $CO_2$ | % $CO_2$ | | 0.1 | | | |
| | Setting range $O_2$ | % $O_2$ | | 1 to 20 | | | |
| | Setting accuracy $O_2$ | % $O_2$ | | 0.1 | | | |
| **Further data** | Electrical load at 230/115 V, 50/60 Hz | approx. W | | 1100 | 1300 | 1500 | 1650 |

Prices for options are only valid when ordering new appliances.
Not all options/accessories are combinable with each other. Please contact us for individual combination requests.

| 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. mm | 730 | 800 | | 840 |
| | Height | | | approx. mm | 950 | 1030 | 1250 | 1360 |
| | Depth | | | approx. mm | 640 | 800 | | 900 |
| **Order No. CO$_2$ 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 continously regulated | | | C2 | | |
| Two gas connections with quick release connectors for automatic switch-over of gas cylinders; incl. two CO$_2$ connection sets: hose with coupling and clamp | | | 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 water (only for demineralised water with a conductivity of 5 to 10 µS/cm and a pH value between 5 and 7; from an external tank) by a self-priming pump; integral bacteria block by generating hot steam, dehumidifying via sterile filter (combination of options K7 and F7 for ICO50 not possible) | | | K7 | | |
| Control of oxygen concentration by N$_2$ inlet; adjustment range 1 % up to 20 % O$_2$ ; setting accuracy 0.1 % (requires option K7). Incl. N$_2$ connection set: hose with coupling and clamp | | | T6 | | |
| Peltier cooling unit enables a working temperature of +37 °C even at higher ambient temperatures of up to +35 °C | | | K5 | | |
| Capacitive humidity sensor for measuring and displaying the relative humidity | | | K6 | | |
| Entry port (silicone), 40 mm clear diameter, 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 | | |
| Heated inner door with partitioned glass doors; size 105/150/240 has 2/3/4 partitioned glass doors | | - | K4 | | |
| 4 - 20 mA current loop interface | Temperature controller, actual value (0 to +70 °C = 4 - 20 mA) | | V3 | | |
| | Humidity controller, actual value (0 to 100 % rh = 4 - 20 mA) (requires option K7 or K6) | | V7 | | |
| | CO$_2$ controller, actual value (0 to 25 % CO2 = 4 - 20 mA) | | V9 | | |
| | O$_2$ controller, actual value (0 to 25 % O2 = 4 - 20 mA) (requires option T6) | | V1 | | |
| Works calibration certificate for 5 %, 7 % and 10 % CO$_2$ (measured at +37 °C) special works calibration certificates upon request | | | D00106 | | |
| Works calibration certificate for one (freely selectable) temperature, humidity and CO$_2$ value according to customer specification (requires option K7) | | | D00131 | | |
| Works calibration certificate for one (freely selectable) temperature, humidity, CO$_2$ and O$_2$ value according to customer specification (requires option T6) | | | D00143 | | |
| Door hinged on the left | | | B8 | | |
| Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse) | | | H6 | | |
| MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6) | | | C3 | | |
| MobileALERT for up to 4 alarm notifications; notification by SMS. temperature and CO$_2$ alarm (standard), additionally humidity alarm (when equipped with option K7) and O$_2$ alarm (when equipped with option T6) | | | C4 | | |
| Door with lock and key (safety lock) | | | B6 | | |

| Accessories | 50 | 105 | 150 | 240 |
|---|---|---|---|---|
| Perforated stainless steel shelf | E35160 | E37418 | | E35158 |
| Water dish | | B38737 | | |
| Subframe (622 mm high) adjustable in height (sizes 150/240: should not be used for 2 stacked units) | B33504 | B33505 | | B33506 |
| Subframe (130 mm high); sizes 150/240: only in combination with the corresponding stacking sets for stacked appliances | B33507 | B33508 | | B33509 |
| Subframe, on castors (height 120 mm; stainless steel, material 1.4301) | | - | | B43598 |
| HEPA14-filter for chamber according to EN 1822, packed in sterile condition, incl. fixing unit | | B49800 | | |
| 3 HEPA14-filters (B49800) for chamber according to EN 1822, packed in sterile condition, incl. fixing unit | | B39698 | | |
| 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 | | |
| Central water supply, with filter cartridges for connection to the domestic water supply (requires option K7). Product information on demand | | ZWVR6 | | |
| Central water supply, without filter cartridges for connection to the domestic water supply (only for demineralised water with a conductivity of 5 to 10 µS/cm and a pH value between 5 and 7, requires option K7). Product information on demand | | ZWVR7 | | |
| Guarantee extension by 1 year | | GA3Q5 | | |
| Celltron benchtop shaker (not subject to discount) - accessories upon request (only in combination with E06726) | | - | | E06724 |
| Base plate with sticky stuff (not subject to discount) (only in combination with E06724) | | - | | E06726 |
| USB-Ethernet adapter | | E06192 | | |

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| Accessories | 50 | 105 | 150 | 240 |
|---|---|---|---|---|
| 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 | B33170 | | | |
| Stacking set (4 pcs) for stacking of appliances of same size | B29744 | - | | |
| Stacking set (consisting of stacking corners, one connecting plate for the rear, two wall brackets) for stacking of two units of same size | - | B42114 | - | |
| Stacking set (consisting of stacking corners, one connecting plate for the rear, two wall brackets) for stacking of two units of same size (only in connection with subframe B33509 or B43598) | - | | | B48129 |
| FDA conforming software AtmoCONTROL (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. Respective IQ/OQ documents available in German and English language (without surcharge) | FDAQ1 | | | |
| Integration of additional units (up to max. 31 units) into an already existent FDA-software licence | FDAQ2 | | | |
| External measuring instrument with additional measuring head for temperature and humidity measurement. Product information on demand | B04714 | | | |
| DAkkS calibration for one (freely selectable) temperature and humidity value according to method C (DKD-R 5-7) (requires option K7) | E48847 | | | |
| DAkkS calibration for further temperature and humidity values according to method C (DKD-R 5-7) (requires option K7) | E48848 | | | |
| 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 for one free-selectable $CO_2$ and temperature value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer. 475 € for further $CO_2$ and temperature values | D38898 | | | |
| IQ/OQ document with device-specific works test data for one free-selectable $CO_2$, humidity and temperature value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (requires option K7). 605 € for further $CO_2$, humidity and temperature values | D38897 | | | |
| On-site IQ/OQ for a freely selectable temperature and $CO_2$ value, including temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only) | DLQ102 | | | |
| Extension of DLQ102 by an additional freely selectable temperature and $CO_2$ value (not subject to discount) | DLQ102A | | | |
| On-site IQ/OQ for a freely selectable temperature, humidity and $CO_2$ value, including temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 (requires option K7) (excluding travel costs, not subject to discount, GER, AT, FR only) | DLQ103 | | | |
| Extension of DLQ103 by an additional freely selectable temperature, humidity and $CO_2$ value (requires option K7) (not subject to discount) | DLQ103A | | | |
| On-site IQ/OQ for a freely selectable temperature, $CO_2$ and $O_2$ value, including temperature distribution survey for 27 measuring points to DIN 12880:2007-05 (requires option T6) (excluding travel costs, not subject to discount, GER, AT, FR only) | DLQ104 | | | |
| Extension of DLQ104 by an additional freely selectable temperature, $CO_2$ and $O_2$ value (requires option T6) (not subject to discount) | DLQ104A | | | |
| On-site IQ/OQ for a freely selectable temperature, humidity, $CO_2$ and $O_2$ value, including temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 (requires option K7 and T6) (excluding travel costs, not subject to discount, GER, AT, FR only) | DLQ105 | | | |
| Extension of DLQ105 by an additional freely selectable temperature, humidity, $CO_2$ and $O_2$ value (requires option K7 and T6) (not subject to discount) | DLQ105A | | | |
| Individual on-site Performance Qualification (PQ) | DLQ200 | | | |
| Maintenance ICO/ ICOmed active humidity - carrying out and documentation according to Memmert maintenance plan (requires option K7) (excluding travel costs, not subject to discount, GER, AT, FR only) | S00312 | | | |
| Maintenance contract ICO/ ICOmed active humidity - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (requires option K7) (excluding travel costs, not subject to discount, GER, AT, FR only) | S00312J | | | |
| Maintenance ICO/ ICOmed passive humidity - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only) | S00323 | | | |
| Maintenance contract ICO/ ICOmed passive humidity - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only) | S00323J | | | |
| Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only) | S00205 | | | |
| Calibration of an additional temperature value (not subject to discount) | S00215 | | | |
| Calibration of one freely selectable temperature and humidity value (requires Option K7) (excluding travel costs, not subject to discount, GER, AT, FR only) | S00207 | | | |
| Calibration of an additional temperature and humidity value (requires option K7) (not subject to discount) | S00216 | | | |
| Calibration of one freely selectable temperature and humidity value including $CO_2$ (requires option K7) (excluding travel costs, not subject to discount, GER, AT, FR only) | S00211 | | | |
| Calibration of an additional temperature and humidity value including $CO_2$ (requires option K7) (not subject to discount) | S00217 | | | |

## MODEL VARIANTS

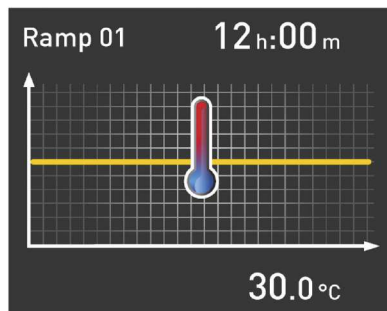| SingleDISPLAY<br>ControlCOCKPIT with one TFT display | TwinDISPLAY<br>ControlCOCKPIT with two TFT displays |
|---|---|
| **AVAILABLE APPLIANCES**<br>**UN / UF / IN / IF / IPPeco / IPP / UNm / UFm / INm / IFm / SN / SF / IFbw** | **AVAILABLE APPLIANCES**<br>**HPPeco / ICHeco / ICH / HCP / UNplus / UFplus / UF TS / UNpa / VO / INplus / IFplus / ICO / IPPecoplus / IPPplus / ICPeco / ICP / UNmplus / UFmplus / INmplus / IFmplus / SNplus / SFplus / ICOmed** |
| One high-resolution TFT colour display with touch-sensitive buttons for selection of functions | Two high-resolution TFT colour displays with touch-sensitive buttons for selection of functions |
| Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time | Available parameters on the Control COCKPIT: All parameters of the SingleDISPLAY and device-specific parameters like relative humidity, illumination and $CO_2$ |
| One temperature sensor Pt100 DIN class A in a 4-wire circuit | Two Pt100 sensors DIN class A in a 4-wire circuit for mutual monitoring, taking over functions in case of an error |
| | 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, HPP110eco, IPP110ecoplus, ICPeco, ICP, ICHeco, ICH) |
| AtmoCONTROL software[1] 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) | AtmoCONTROL software[1] on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port |
| | ControlCOCKPIT with USB port for uploading programmes, reading out protocol logs, activating the User-ID function |
| | Displaying of already logged protocol data on the ControlCOCKPIT (max 10,000 values correspond to approx. 1 week) |
| Ethernet interface on the rear of the appliance for reading out the protocol log and for online logging | Ethernet interface on the rear of the appliance for reading out the protocol log and for uploading programmes and for online logging |
| 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 | 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 and also for all other parameters such as relative humidity, $CO_2$ |
| PID microprocessor control with integrated auto-diagnostic system ||
| Structured stainless steel housing, scratch-resistant, robust and durable; rear of zinc-plated steel ||
| High-temperature connectors on the rear of the appliance for single-phase power connection according to country specific systems and IEC standards ||
| Internal data logger with a storage capacity of at least 10 years ||
| German, English, French, Spanish, Polish, Czech, Hungarian language settings available on the ControlCOCKPIT ||
| Digital backwards counter with target time setting, adjustable from 1 minute to 99 days ||
| 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 ||
| Adjustment of three calibration values for temperature and additional appliance specific parameters directly at the ControlCOCKPIT ||

## 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.

## 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.
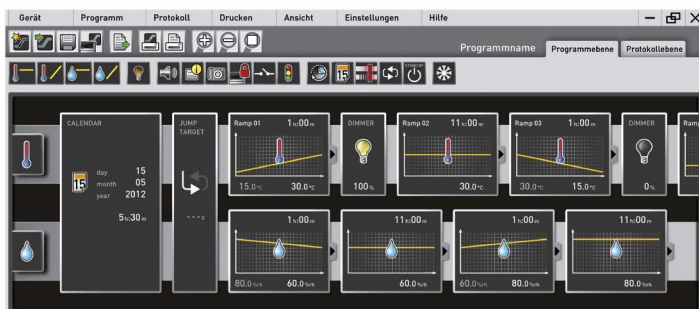


## Programme functions for appliances with SingleDISPLAY and TwinDISPLAY

- 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 for appliances with 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

# Device Modifications - Proven and Good

**The perfect extension for your Memmert appliance**
Our mission at Memmert is to provide you with the best possible solution for your individual application. With the increasing complexity of customer processes, a custom-fit modification of our appliances has many advantages for your application. Through modifications, process and set-up times can be significantly reduced or errors in the application can be completely ruled out by monitoring devices. Even small measures, such as individually adapted accessories, have a noticeable influence on the ergonomics and user-friendliness in the operation of the appliance.

You as a customer have the best ideas - and often already have a specific idea of how our products can be better used in your working environment.

Tell us about your thoughts and let us create an individual solution together with you! Please contact us and call us at +49 9122-925-0 or send us an email to sonderbau@memmert.com.

The Memmert customisation department team is looking forward to hearing from you!

# Versatile modifications for our standard appliances

### Mechanics

- Customised interior fittings
- Individual entry ports in all sizes and shapes
- Telescopic slide pull-outs for ergonomic loading

### Electronics

- Extended parameter monitoring e.g. by means of additional measuring sensors
- Optical and acoustic process monitoring e.g. by means of a traffic light system

### Software

- Additional interfaces for data evaluation
- Individual temperature, humidity and $CO_2$ parameters

### Accessories

- Tailor-made subframe and stacking options
- Modified grids and shelves
- Individual air filters

# Customised solutions for your requirements

**Our expertise as a development partner in plant and project business**
The Memmert customisation department has been active in the project business for over 20 years now and has proven itself in countless projects as a strong and reliable partner. The experts in customisation benefit from two aspects: Access to the complete capacities of an ultra-modern and specialised production line, as well as the entire technical know-how of the Memmert company in designing climate and temperature control appliances. Combined with the experience of our project managers, the Memmert customisation department is also able to find a solution for the most complex requirements.

**Special sizes**
Does your product not fit into a standard unit? We build appliances to measure!
Whether you need more volume in the interior or there is not enough space for installation at the installation location, we have the expertise to design your appliance individually. Ask us!

**Process and plant integration**
Integrate our technology seamlessly into your plant or your work organisation. We will find the right solution together for your process integration:

- Preparation for integration into your plant

- Integration of your processes into our appliances

- Inclusion of customer-specific installations

- Interface for semi-automatic assembly

**Project business**
Are you a project developer with ideas for innovative products and looking for a strategic cooperation? Take advantage of our know-how and manufacturing capacities for your project. Our customisation department will be pleased to hear from you!