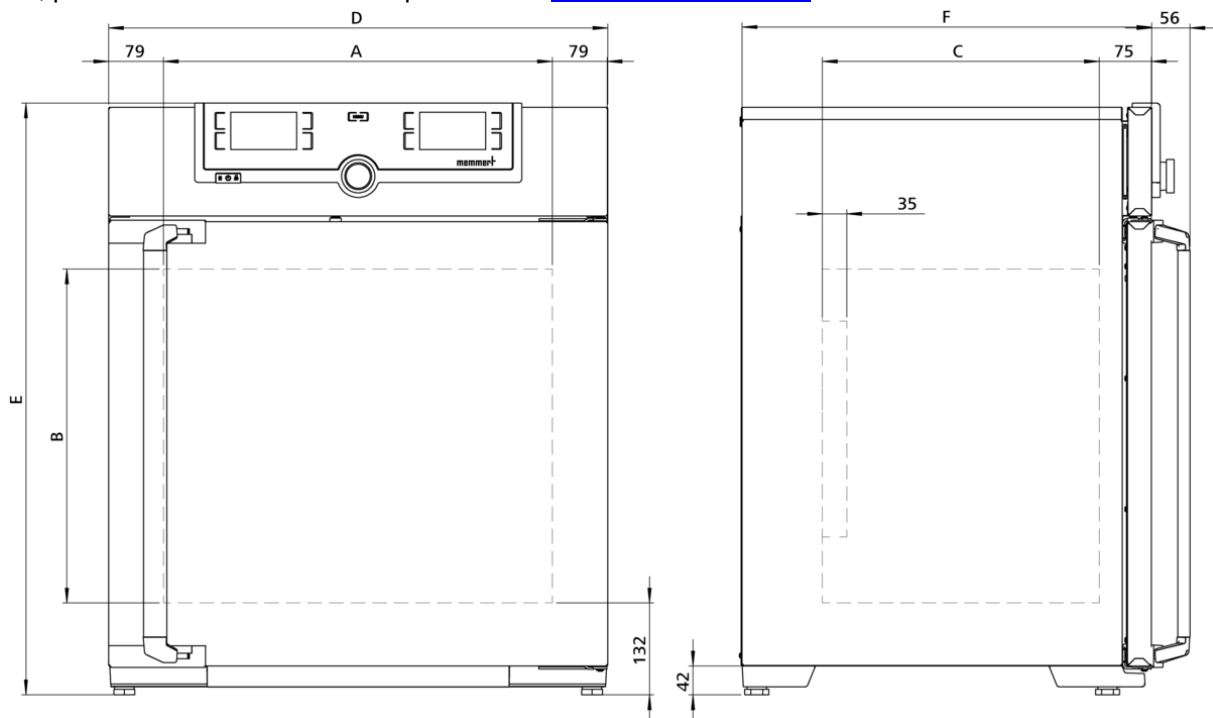


### ICO105

Safety at all times: High-end functions for the protection of cell cultures, bacteria cultures or tissue cultures.



On this page, you can find all the essential technical data on the Memmert CO<sub>2</sub> incubator ICO. Our customer relations team will be pleased to help if you want further information. If you should require a customised special solution, please contact our technical specialists at [sales@memmert.com](mailto:sales@memmert.com).



## Temperature

|   |   |
|---|---|
| <b>Working-temperature range</b>          | 5 °C above ambient temperature up to +50 °C<br>Standard sterilisation programme: 60 minutes at 180°C (without removing the sensors) |
| <b>Setting temperature range</b>          | +18 to +50 °C   |
| <b>Setting accuracy temperature</b>       | 0.1 °C  |
| <b>Temperature sensor</b>                 | 2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error                      |
| <b>Temperature variation in chamber</b>   | at + 37 °C +/- 0.3 K  |
| <b>Temperature fluctuations with time</b> | at 37 °C +/- 0.1 K  |

## Humidity

|   |   |
|---|---|
| <b>Humidity control (standard)</b>                            | 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 % |
| <b>Setting accuracy humidity</b>                              | 0.5 % rh  |
| <b>Setting range active humidity control (with option K7)</b> | 40 to 97 % rh and rh-Off  |

## Control of standard components

|   |  |
|---|--|
| <b>CO<sub>2</sub> control</b>           | Digital electronic CO <sub>2</sub> control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation |
| <b>Adjustment range CO<sub>2</sub></b>  | 0 to 20 % CO <sub>2</sub>  |
| <b>Setting accuracy CO<sub>2</sub></b>  | 0,1%   |
| <b>Variation in time CO<sub>2</sub></b> | +/- 0.2 % CO <sub>2</sub>  |
| <b>Adjustment range O<sub>2</sub></b>   | 1 to 20 % O <sub>2</sub>   |
| <b>Setting accuracy O<sub>2</sub></b>   | 0.1 % O <sub>2</sub>   |

## Control technology

|                              |   |
|------------------------------|---|
| <b>ControlCOCKPIT</b>        | TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays. |
| <b>Language setting</b>      | German, English, Spanish, French, Polish, Czech, Hungarian  |
| <b>Function SetpointWAIT</b> | the process time does not start until the set temperature is reached  |
| <b>Adjustable parameters</b> | temperature (Celsius or Fahrenheit), CO <sub>2</sub> , programme time, time zones, summertime/wintertime                |

## Communication

|                      |  |
|----------------------|--|
| <b>Interface</b>     | Ethernet LAN, USB  |
| <b>Documentation</b> | programme stored in case of power failure  |
| <b>Programming</b>   | AtmoCONTROL software on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port |

## Safety

|                              |  |
|------------------------------|--|
| <b>AutoSAFETY</b>            | additionally integrated over- and undertemperature protection "ASF", automatically following the setpoint value at a preset tolerance range, alarm in case of over- or undertemperature, heating function is switched off in case of overtemperature, cooling function in case of undertemperature |
| <b>Autodiagnostic system</b> | integral fault diagnostics for temperature and CO <sub>2</sub>   |
| <b>Alarm</b>                 | visual and acoustic  |

## Heating concept

|                |  |
|----------------|--|
| <b>6 sides</b> | large-area multi-function heating system on four sides with additional door and back heating to avoid condensation |
|----------------|--|

## Standard equipment

|                                      |   |
|--------------------------------------|---|
| <b>Works calibration certificate</b> | Works calibration certificate at +37 °C, 5 % CO <sub>2</sub> and 90 % rh (requires option K7); standard equipment for units with active humidity control                                    |
| <b>Works calibration certificate</b> | Works calibration certificate at +37 °C, 5 % CO <sub>2</sub> , 90 % rh and 10 % O <sub>2</sub> (requires option K7 and option T6); standard equipment for units with O <sub>2</sub> control |
| <b>Works calibration certificate</b> | incl. works calibration certificate (measuring point chamber centre) at +37°C, 5 % CO <sub>2</sub> for standard units   |
| <b>Door</b>                          | fully insulated stainless steel door with 2-point locking (compression door lock)   |
| <b>Door</b>                          | inner glass door with opening (8 mm Ø) to take gas sample   |
| <b>Standard equipment</b>            | CO <sub>2</sub> connection set: hose with coupling and clamp  |
| <b>Standard accessories</b>          | Membrane filter (in order to remove impurities and pollutants, all incoming gases pass through a membrane filter before they reach the chamber)   |
| <b>Internals</b>                     | 2 perforated stainless steel shelf/shelves  |
| <b>Internals</b>                     | 1 stainless steel water dish  |

## Stainless steel interior

|                                  |   |
|----------------------------------|---|
| <b>Dimensions</b>                | $w_{(A)} \times h_{(B)} \times d_{(C)}$ : 560 x 480 x 400 mm (d less 35 mm for fan) |
| <b>Interior</b>                  | material 1.4301 (ASTM 304), corrosion resistant                                     |
| <b>Volume</b>                    | 107 l   |
| <b>Max. number of internals</b>  | 6   |
| <b>Max. loading of chamber</b>   | 90 kg   |
| <b>Max. loading per internal</b> | 15 kg   |

## Textured stainless steel casing

|            |   |
|------------|---|
| Dimensions | w <sub>(D)</sub> x h <sub>(E)</sub> x d <sub>(F)</sub> : 719 x 850 x 591 mm (d +56mm door handle) |
| Housing    | rear zinc-plated steel  |

## Electrical data

|                 |                 |
|-----------------|-----------------|
| Voltage         | 230 V, 50/60 Hz |
| Electrical load | approx. 1300 W  |
| Voltage         | 115 V, 50/60 Hz |
| Electrical load | approx. 1300 W  |

## Ambient conditions

|                          |   |
|--------------------------|---|
| Set Up                   | The distance between the wall and the rear of the appliance must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from walls or nearby appliances must not be less than 5 cm. |
| Ambient temperature      | 10 °C to 35 °C  |
| Humidity rh              | max. 70 %, non-condensing   |
| Altitude of installation | max. 2,000 m above sea level  |
| Overvoltage category     | II  |
| Pollution degree         | 2   |

## Packing/shipping data

|                                |  |
|--------------------------------|--|
| Transport information          | The appliances must be transported upright |
| Customs tariff number          | 8419 8998                                  |
| Country of origin              | Federal Republic of Germany                |
| WEEE-Reg.-No.                  | DE 66812464                                |
| Dimensions approx incl. carton | w x h x d: 800 x 1030 x 800 mm             |
| Net weight                     | approx. 75 kg                              |
| Gross weight carton            | approx. 100 kg                             |

Standard units are safety-approved and bear the test marks

