

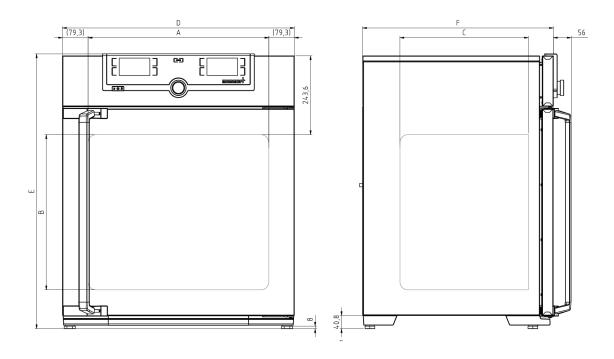
## CO<sub>2</sub> Incubator

# ICO105med

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 ICOmed. 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 myAtmoSAFE@memmert.com.



Working-temperature range  5 °C above ambient temperature up to +50 °C Standard sterilisation programme: 60 minutes at 180°C (without research temperature)  8 Eetting accuracy temperature  Temperature  2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring error  Humidity  Humidity control (standard)  Humidity limitation thanks to a Peltier element; when water dish is limits the value of relative humidity in the interior to 93 % rh +/- 2.5  8 Eetting accuracy humidity  O.5 % rh  Setting range active humidity control (with option K7)  Control of standard components  CO2 control  Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2  O 10 20 % CO2  Setting accuracy CO2  Adjustment range O2 (with option T6)  Setting accuracy O2  O.1 % O2  Control technology	Temperature	
Setting accuracy temperature  Temperature  2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring error  Humidity Humidity control (standard) Humidity limitation thanks to a Peltier element; when water dish is limits the value of relative humidity in the interior to 93 % rh +/- 2.5  Setting accuracy humidity 0.5 % rh  Setting range active humidity control (with option K7)  Control of standard components  CO2 control Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2 0,1%  Variation in time CO2 +/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2 0.1 % O2  Control technology  Control COCKPIT TwinDISPLAY, Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	-	5 °C above ambient temperature up to +50 °C Standard sterilisation programme: 60 minutes at 180°C (without removing the sensors)
temperature  Temperature  2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring error  Humidity  Humidity control (standard)  Humidity limitation thanks to a Peltier element; when water dish is limits the value of relative humidity in the interior to 93 % rh +/- 2.5  Setting accuracy humidity  0.5 % rh  Setting range active humidity control (with option K7)  Control of standard components  CO2 control  Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2  0 to 20 % CO2  Setting accuracy CO2  0,1%  Variation in time CO2  4/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2  0.1 % O2  Control technology  ControlCOCKPIT  TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Setting temperature range	+18 to +50 °C
Humidity Humidity control (standard) Humidity limitation thanks to a Peltier element; when water dish is limits the value of relative humidity in the interior to 93 % rh +/- 2.5  Setting accuracy humidity 0.5 % rh  Setting range active humidity control (with option K7)  Control of standard components  CO2 control Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2 0 to 20 % CO2  Setting accuracy CO2 0,1%  Variation in time CO2 4/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2 0.1 % O2  Control technology  Control COCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	•	0.1 °C
Humidity control (standard) Humidity limitation thanks to a Peltier element; when water dish is limits the value of relative humidity in the interior to 93 % rh +/- 2.5  Setting accuracy humidity  0.5 % rh  Setting range active humidity control (with option K7)  Control of standard components  CO2 control  Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2  0 to 20 % CO2  Setting accuracy CO2  0,1%  Variation in time CO2  4/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2  0.1 % O2  Control technology  Control COCKPIT  TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Temperature	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of ar error
Setting accuracy humidity  0.5 % rh  Setting range active humidity control (with option K7)  Control of standard components  CO2 control  Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2  Oto 20 % CO2  Setting accuracy CO2  O,1%  Variation in time CO2  Adjustment range O2 (with option T6)  Setting accuracy O2  O.1 % O2  Control technology  Control COCKPIT  TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Humidity	
Setting range active humidity control (with option K7)  Control of standard components  CO2 control  Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2  O to 20 % CO2  Setting accuracy CO2  O,1%  Variation in time CO2  Adjustment range O2 (with option T6)  Setting accuracy O2  O.1 % O2  Control technology  Control COCKPIT  TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Humidity control (standard)	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 $\%$
humidity control (with option K7)  Control of standard components  CO2 control Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2 0 to 20 % CO2  Setting accuracy CO2 0,1%  Variation in time CO2 +/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2 0.1 % O2  Control technology  Control COCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Setting accuracy humidity	0.5 % rh
CO2 control  Digital electronic CO2 control with dual beam NDIR system, with a fault indication, barometric pressure compensation  Adjustment range CO2  O to 20 % CO2  Setting accuracy CO2  O,1%  Variation in time CO2  Adjustment range O2 (with option T6)  Setting accuracy O2  O.1 % O2  Control technology  ControlCOCKPIT  TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	humidity control (with	40 to 97 % rh and rh-Off
Adjustment range CO2 0 to 20 % CO2  Setting accuracy CO2 0,1%  Variation in time CO2 +/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2 0.1 % O2  Control technology  ControlCOCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	option Krj	
Setting accuracy CO2 0,1%  Variation in time CO2 +/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2 0.1 % O2  Control technology  ControlCOCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Control of standard com	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic
Variation in time CO2 +/- 0.2 % CO2  Adjustment range O2 (with option T6)  Setting accuracy O2 0.1 % O2  Control technology ControlCOCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Control of standard com	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation
option T6)  Setting accuracy O2  0.1 % O2  Control technology ControlCOCKPIT  TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Control of standard com CO2 control Adjustment range CO2	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation  0 to 20 % CO2
Control technology ControlCOCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Control of standard com CO2 control  Adjustment range CO2 Setting accuracy CO2	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation  0 to 20 % CO2  0,1%
ControlCOCKPIT TwinDISPLAY. Adaptive multifunctional digital PID-microprocesso TFT-colour displays.	Control of standard com CO2 control  Adjustment range CO2 Setting accuracy CO2 Variation in time CO2 Adjustment range O2 (with	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation  0 to 20 % CO2  0,1%  +/- 0.2 % CO2
• •	Control of standard com CO2 control  Adjustment range CO2 Setting accuracy CO2 Variation in time CO2 Adjustment range O2 (with option T6)	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation  0 to 20 % CO2  0,1%  +/- 0.2 % CO2  1 to 20 % O2
Language setting German, English, Spanish, French, Polish, Gzech, Hungarian	Control of standard com CO2 control  Adjustment range CO2 Setting accuracy CO2 Variation in time CO2 Adjustment range O2 (with option T6) Setting accuracy O2  Control technology	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation  0 to 20 % CO2  0,1%  +/- 0.2 % CO2  1 to 20 % O2  TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition
Function SetpointWAIT the process time does not start until the set temperature is reached	Control of standard com CO2 control  Adjustment range CO2 Setting accuracy CO2 Variation in time CO2 Adjustment range O2 (with option T6) Setting accuracy O2  Control technology ControlCOCKPIT	Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation  0 to 20 % CO2  0,1%  +/- 0.2 % CO2  1 to 20 % O2  TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays.

Communication	n
Communication	

Adjustable parameters

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

summertime/wintertime

temperature (Celsius or Fahrenheit), fan speed, CO2, programme time, time zones,

Safe	ty
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AutoSAFETY	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
Autodiagnostic system	integral fault diagnostics for temperature, CO2 and humidity limit control
Alarm	visual and acoustic

#### **Heating concept**

6 sides large-area multi-function heating system on four sides with additional door and back heating to avoid condensation

### Standard equipment

Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Internals	2 perforated stainless steel shelf/shelves
Works calibation certificate	incl. works calibration certificate (measuring point chamber centre) at +37°C, 5 % CO2 for standard units
Internals	1 stainless steel water dish
Door	inner glass door with opening (8 mm Ø) to take gas sample

#### Stainless steel interior

Interior	material 1.4301 (ASTM 304), corrosion resistant
Volume	107 l
Dimensions	w <sub>(A)</sub> x h <sub>(B)</sub> x d <sub>(C)</sub> : 560 x 480 x 400 mm
Max. number of internals	6
Max. loading of chamber	90 kg
Max. loading per internal	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
Housing	rear zinc-plated steel

#### **Electrical data**

Voltage	230 V, 50/60 Hz
Electrical load	approx. 1500 W
Voltage	115 V, 50/60 Hz
Electrical load	approx. 1500 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-RegNo.	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





