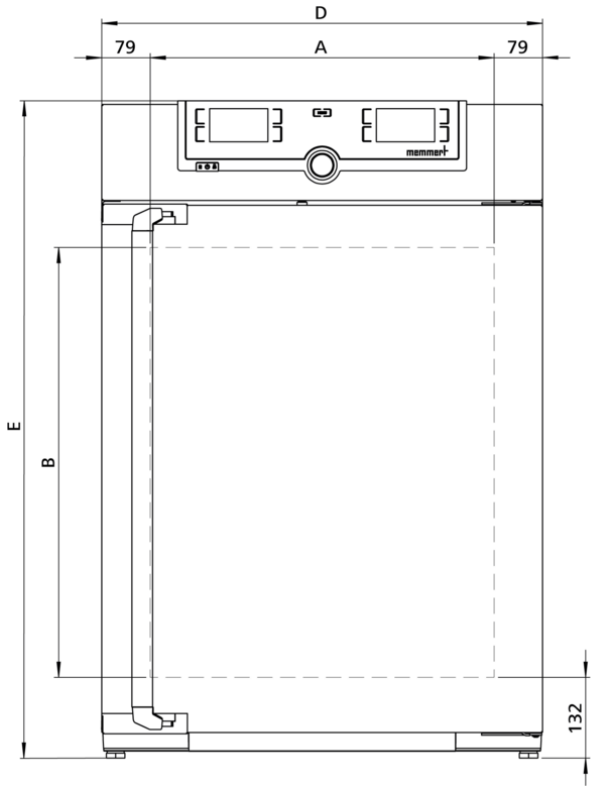
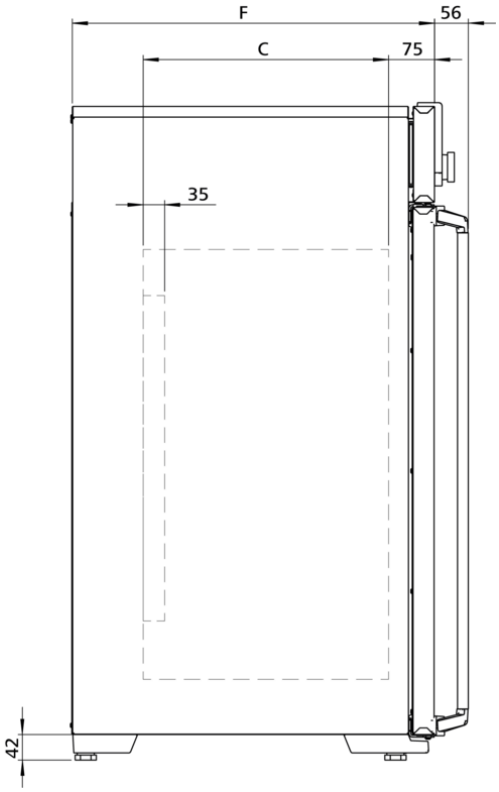
ICO150

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_2 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.





Temperature

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

Humidity

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 %
Setting accuracy humidity	0.5 % rh
Setting range active humidity control (with option K7)	40 to 97 % rh and rh-Off

Control of standard components

CO₂ control	Digital electronic CO_2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation
Adjustment range CO₂	0 to 20 % CO_2
Setting accuracy CO₂	0,1%
Variation in time CO₂	+/- 0.2 % CO_2
Adjustment range O₂	1 to 20 % O_2
Setting accuracy O₂	0.1 % O_2

Control technology

ControlCOCKPIT	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays.
Language setting	German, English, Spanish, French, Polish, Czech, Hungarian, Italian, Chinese
Function SetpointWAIT	the process time does not start until the set temperature is reached
Adjustable parameters	temperature (Celsius or Fahrenheit), CO_2, programme time, time zones, summertime/wintertime

Communication

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

Safety

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 and CO_2
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

Works calibration certificate	Works calibration certificate at +37 °C, 5 % CO_2 and 90 % rh (requires option K7); standard equipment for units with active humidity control
Works calibration certificate	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	incl. works calibration certificate (measuring point chamber centre) at +37°C, 5 % CO_2 for standard units
Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Door	inner glass door with opening (8 mm Ø) to take gas sample
Standard equipment	CO_2 connection set: hose with coupling and clamp
Standard accessories	Membrane filter (in order to remove impurities and pollutants, all incoming gases pass through a membrane filter before they reach the chamber)
Internals	2 perforated stainless steel shelf/shelves
Internals	1 stainless steel water dish

Stainless steel interior

Dimensions	$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 560 x 700 x 400 mm (d less 35 mm for fan)
Interior	material 1.4301 (ASTM 304), corrosion resistant
Volume	156 l
Max. number of internals	10
Max. loading of chamber	120 kg
Max. loading per internal	15 kg

Textured stainless steel casing

Dimensions	$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 719 x 1070 x 591 mm (d +56mm door handle)
Housing	rear zinc-plated steel

Electrical data

Voltage **Electrical load**	230 V, 50/60 Hz approx. 1500 W
Voltage **Electrical load**	115 V, 50/60 Hz 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-Reg.-No.	DE 66812464
Dimensions approx incl. carton	w x h x d: 800 x 1250 x 800 mm
Net weight	approx. 90 kg
Gross weight carton	approx. 116 kg

Standard units are safety-approved and bear the test marks