

PRODUCT SPECIFICATION - ICO50

CO₂ Incubator ICO50



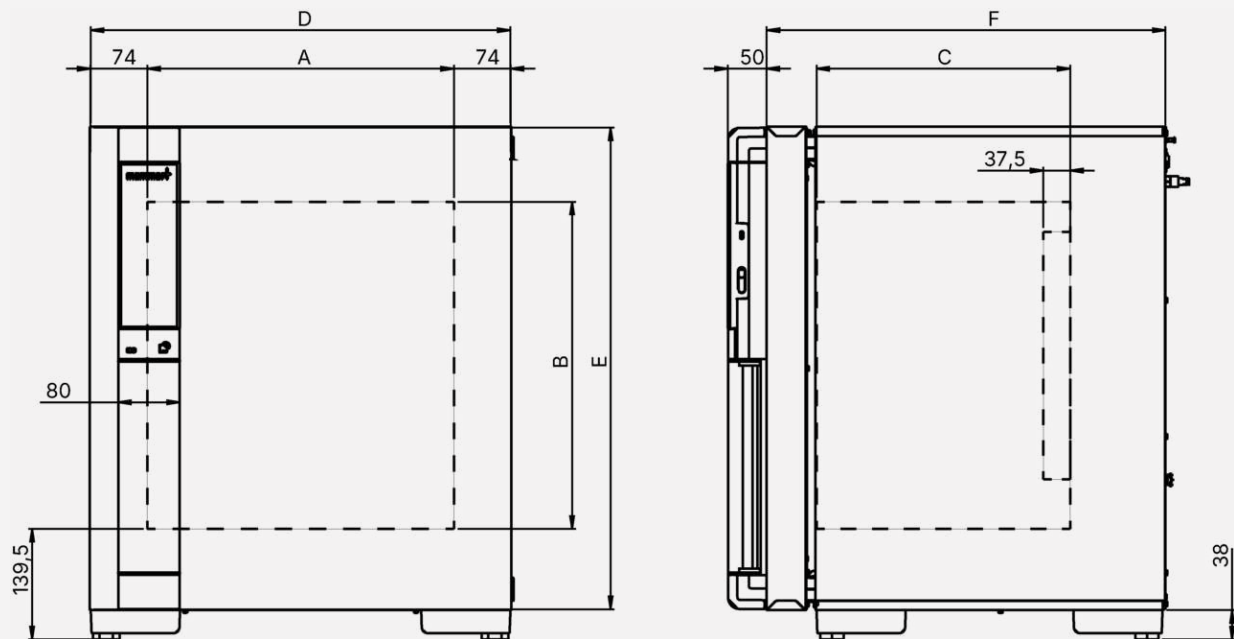
ICO CO₂ Incubator – The perfect environment for superior cell growth.

The Memmert ICO CO₂ incubator is designed to provide stable, homogeneous cultivation conditions for delicate cell cultures across research, development and clinical applications.

Precise temperature control, active humidification and dehumidification plus optimised airflow management ensure condensation-free stability inside the working chamber at 37 °C and 95 % RH.

Features

- Condensation-Free at 37 °C / 95 % rH
- Modern Connectivity
- Memmert Quality
- ACT Label Certified



Temperature

Working temperature range	°C	at least 5 above room temperature to +50
		Standard sterilisation programme: 60 minutes at 180 °C (without removing the sensors)
Setting temperature range	°C	+20 to +50
Setting accuracy	°C	0.1
Spatial temperature variation	+37 °C K	± 0.3
Temporal temperature variation	+37 °C K	± 0.1
Temperature control system		Large-area multi-zone multifunctional all-round heating with additional door, seal and rear wall heating

Humidity

Setting range	% rh	40 to 98 and rh-Off
Setting accuracy	% rh	0.1
Humidification system		<ul style="list-style-type: none"> Passive humidification by means of an integrated water tank with condensate recirculation via a magnetically guided sealing lip. Humidity limitation via Peltier element. Active closed-loop humidity control (option K7) with capacitive sensor for precise measurement and complete documentation. Humidification via self-priming micro-dosing pump with hot steam generation, dehumidification via powerful diaphragm pump.

CO₂

Setting range	% CO ₂	0 to 20
Temporal fluctuation	% CO ₂	± 0.2
CO ₂ control system		Precise CO ₂ control with dual-beam NDIR technology, integrated monitoring and pressure-compensated measurement. Filtered CO ₂ supply for high process reliability.

O₂ (only with option T6)

Setting range	% O ₂	1 to 20
Setting accuracy	% O ₂	0.1
O ₂ control system		Anaerobic O ₂ control for targeted oxygen reduction via nitrogen inlet. Zirconium oxide sensor with integrated monitoring and error display. Filtered N ₂ supply for safe process conditions.

Features

Control unit		6.86" IPS touch display (480 × 1280 pixels) with multi-touch function for graphical display of actual/setpoint values and parameter curves.
Adjustable parameters		<ul style="list-style-type: none"> • Temperature • CO₂ • Relative humidity (requires option K7) • O₂ (requires option T6)
Adjustable device functions		<ul style="list-style-type: none"> • Time zones • Display brightness • DistanceView (1–4 freely selectable parameters, adjustable activation time) • Network settings (IP, subnet, DHCP) • Language and volume settings (buzzer/key tone) • Power failure behaviour • Timer Function
Language setting		English (standard), German, French, Spanish, Portuguese, Chinese, Arabic, Hindi, Polish, Czech, Hungarian, Russian, Italian, Serbian
Timer		<ul style="list-style-type: none"> • Timer - Process time starts immediately when the programme starts • Timer SetpointWAIT - Process time only starts after all setpoint values have been reached • Timer on Event - Process time starts at a defined point in time
Calibrate		Three freely selectable values for temperature, humidity and CO ₂
Interfaces		<ul style="list-style-type: none"> • USB-C • Ethernet LAN

Safety

Parameter monitoring		Dual Pt1000 sensor, DIN Class A, for mutual monitoring and automatic takeover in the event of a fault
Alarm		visual and acoustic
Behaviour during a power failure		<p><u>Manual mode:</u></p> <ul style="list-style-type: none"> • Power failure less than 24 hours: Active process is terminated, parameters remain stored. • Power failure longer than 24 hours: Operation continues with previously set parameters <p><u>Programme mode (power failure >1h):</u></p> <ul style="list-style-type: none"> • Failure less than 1 hour: programme continues with remaining runtime • Failure longer than 1 hour: programme is stopped; query required to continue

Standard equipment

Works calibration certificate		+37 °C, 5 %CO ₂
	Option K7	+37 °C, 5 %CO ₂ , 90 %rh
	Option T6	+37 °C, 5 %CO ₂ , 90 %rh, 10 %O ₂
Door		fully insulated stainless steel doors with 2-point locking (compression door lock) and inner glass door
Standard option		Door-open detection
Type standard insert		Stainless steel perforated shelf
Number of slide-in units		1
Other standard accessories		<ul style="list-style-type: none"> • CO₂ connection set, hose with connection coupling and hose clamp • Water dish (Basic equipment) • Water tank including connecting hose (requires Option K7) • Preset sterilisation programme: 60 minutes at +180 °C (without removing the sensors)

Stainless steel interior

Volume	l	56
Width	mm	400
Height	mm	425
Depth	mm	330
Max. number of grids/shelves	number	4
Max. loading of chamber	kg	50
Max. loading of grids/shelves	kg	15

Textured stainless steel casing

Width	mm	548
Height	mm	628
Depth	mm	519
Installation		4 adjustable appliance feet

Electrical data

Electrical load	230 V	W	1200
	115 V	W	1200

Ambient conditions

Ambient temperature	°C	+10 to +35	
Air humidity		max. 70% non-condensing	
Altitude of installation		2000 metres above sea level	
Overvoltage category		II	
Pollution degree		2	
Distance to neighbouring appliances / wall clearances	top	mm	200
	back	mm	150
	lateral	mm	50

Packing/shipping data

Transportinformation		The appliances must be transported upright	
Customs tariff number		8419 8998	
Country of origin		DE	
WEEE reg. no.		DE 66812464	
Packaging	Width	mm	655
	Height	mm	893
	Depth	mm	755
Weight	Net	kg	53
	Gross	kg	66

Standard units are safety-approved and bear the test marks:

