



**memmert**  
Experts in Thermostatics

# Incubators

PERFECTLY COORDINATED. PERFECTLY CONTROLLED.



INCUBATOR I

CO<sub>2</sub> INCUBATOR ICO

CO<sub>2</sub> INCUBATOR INCOmed

COMPRESSOR-COOLED INCUBATOR ICP

PELTIER-COOLED INCUBATOR IPP

COOLED STORAGE INCUBATOR IPS

100% ATMOSAFE. MADE IN GERMANY.

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CO<sub>2</sub> Incubator INCOmed  
 "Celsius" standard software

Model sizes: 108 / 153 / 246

+20 °C to +50 °C

Humidity 88 to 97 % rh

CO<sub>2</sub> content 0 up to 10 %

Humidity 40 to 97 % rh (humidity module)

CO<sub>2</sub> content 0 up to 20 % (CO<sub>2</sub> module)

O<sub>2</sub> content between 1 and 20 % (O<sub>2</sub> module)

**CO<sub>2</sub> INCUBATOR INCOmed** For cell cultivation and especially for in-vitro fertilisation, the precision and reliability of CO<sub>2</sub> incubators are of crucial importance. During cultivation, the slightest deviation in the CO<sub>2</sub> atmosphere, temperature or humidity can influence cell development. For this reason, Memmert has subjected its CO<sub>2</sub> incubators to a comprehensive evaluation process for their recognition as medical devices. All models INCOmed are classified as medical products of class IIa. The interior chamber including all installations and sensors can be sterilised at +160 °C in a 4-hour programme.



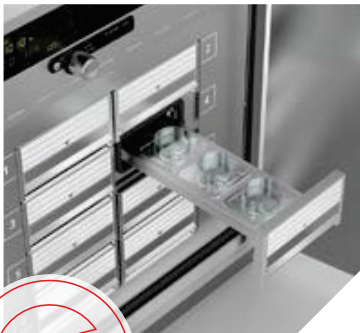
## Customised models for every application

8 additional modules for every application

Put together your own customised INCOmed! \*

- **COMFORT MODULE:** Two gas connections with quick release connectors, automatic switch-over between gas cylinders
- **HYGIENE MODULE:** Electropolished, seamless laser-welded chamber
- **COMMUNICATION MODULE:** USB interface, "Celsius" standard software for protocol logging, ring memory, printer interface
- **CO<sub>2</sub> MODULE:** Extended CO<sub>2</sub> range from 0 to 20 %
- **O<sub>2</sub> MODULE:** Control of oxygen concentration by introducing nitrogen, adjustment range from 1 % to 20 % O<sub>2</sub>
- **PREMIUM MODULE:** Includes comfort, hygiene, communication and CO<sub>2</sub> module
- **HUMIDITY MODULE:** Active microprocessor humidification and dehumidification control (40 – 97 % rh)
- **IVF-MODULE:** Patented, consisting of 8 slide-in units, a total of 24 special racks with indentations for 24 Petri dishes resp. 48 Petri dishes, 4 racks for 3 special media tubes each

\* combination of comfort module or Premium module and O<sub>2</sub> module not possible



## IVF module for model INCO108med

In order to keep vaporisation, condensation and recovery times at a minimum during in-vitro fertilisation, the Petri dishes are cultivated in separate slide-in units. The slide-in units in the optional IVF module can be pulled out easily and with low vibration and are equipped with a pull-out lock.

## Homogeneity in the chamber

Heating the working chamber from all six sides along with the electronic humidity control system and turbulence-free ventilation is decisive for temperature and humidity distribution. An aluminium thermal conduction layer supports homogeneity in the chamber and serves as a heat accumulator if there is a temporary power failure.

## Short recovery times thanks to active humidity control

The INCOmed standard model features a humidity limiting system to reduce water tray generated maximum relative humidity inside the chamber from 97 % down to 88 %. To achieve an increase in usable volume, optimum hygiene and short recovery times after opening the door, the optional humidity module, an active humidification system with an adjustment range of 40 % to 97 % rh can be integrated, introducing sterile hot steam into the air stream.



**CO<sub>2</sub> INCUBATORS INCOMed**

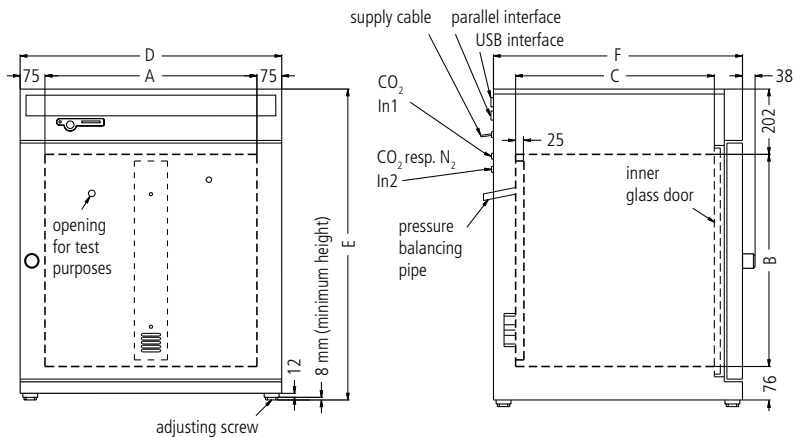
**with automatic sterilisation** (with all interior fittings incl. humidity and CO<sub>2</sub> sensor sterilised inside the CO<sub>2</sub> incubator!)

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010



**Standard equipment**

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn
- Internals: Perforated stainless steel shelves (size 108: 2, sizes 153/246: 3); stainless steel water dishes (sizes 108/153: 1 full width, size 246: 2 half width)
- Housing: Textured stainless steel, rear zinc-plated steel, aesthetic functional glass-stainless steel operating panel with multifunction display and input module; fully insulated heated stainless steel door and inner glass door
- Connection: Mains cable with plug (German type)
- Installation: 4 adjustable feet
- Interfaces: Optional with Communication resp. Premium module



Model sizes/Description			108	153	246
Stainless steel interior	Volume	approx. l	108	153	246
	Width (A)	mm	560	480	640
	Height (B)	mm	480	640	640
	Depth (less 25 mm for fan) (C)	mm	400	500	600
	Provision for grids or shelves half width / full width	number	- / 4	- / 6	2 x 6 / 6
Stainless steel exterior	Width (D)	mm	710	630	790
	Height (variable through adjustable feet) (E)	mm	778	938	938
	Depth (without door handle, depth of door handle 38 mm) (F)	mm	550	650	750
	Fully insulated, heated stainless steel door			<input type="checkbox"/>	
	Extra internal glass door			<input type="checkbox"/>	
Ventilation	Uniform atmosphere and temperature distribution through enclosed non-turbulent ventilation system, fully covered by the sterilisation process			<input type="checkbox"/>	
Temperature	Electronic microprocessor temperature controller with Pt100 and auto-diagnostic system			<input type="checkbox"/>	
	Temperature sensors Pt100 Class A in 4-wire circuit for uninterrupted operation on failure of one Pt100 with warning indication			double	
	Temperature range (during sterilisation the temperature is fixed at +160 °C – set value)	°C	+20 (at least 8 above ambient) to +50		
	Temperature fluctuations with time (to DIN 12880:2007-05)	K	≤ ± 0.1		
	Temperature variation in chamber at +37 °C (to DIN 12880:2007-05)	K	≤ ± 0.3		
Sterilisation	STERICard for automatic chamber sterilisation cycle 4 h at +160 °C (not for sterilising the load)			<input type="checkbox"/>	
CO <sub>2</sub>	Digital electronic CO <sub>2</sub> control with autozero, NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation			<input type="checkbox"/>	
	Setting accuracy / Adjustment range	% CO <sub>2</sub>	0.1 / 0 to 10		
Humidity	Capacitive humidity sensor (sterilisable)			<input type="checkbox"/>	
	Standard water dishes	number	1		2
	Adjustable humidity limit control (88 – 97 %) incl. digital indication and auto-diagnostic system with visual and acoustic fault indication (air supply via sterile filter) ensures rapid reaching of set humidity and short recovery times while avoiding condensate formation			<input type="checkbox"/>	
Monitor	Microprocessor temperature monitor acting as overtemperature protection (protection class 3.1), with Pt100 incorporating fault diagnostics with visual and audible alarm			<input type="checkbox"/>	
	Digital over- and undertemperature monitor			<input type="checkbox"/>	
	Temperature monitoring band automatically linked to the setpoint (ASF)			<input type="checkbox"/>	
	Relay for reliable heating cut-off in case of fault			<input type="checkbox"/>	
	Mechanical temperature limiter (TB)			<input type="checkbox"/>	
	Audible alarm: Over- and undertemperature, over-CO <sub>2</sub> and empty gas cylinder, open door, underhumidity and empty water tank (with optional Humidity module)			<input type="checkbox"/>	

Model sizes/Description			108	153	246
Timer functions	Real-time/weekly programmer with group function (e.g. Monday – Friday)			□	
Setup	Calibration (no separate PC required), Temperature: 3-point calibration on controller, CO <sub>2</sub> : 3-point calibration at 5 %, 7 % and 10 %, Auto-zero-function of NDIR CO <sub>2</sub> -sensor after every sterilisation and cyclically every 24 h, Humidity: 2-point calibration at 20 % and 90 %			□	
	Setting of language for dialogue and display DE / EN / ES / FR / IT			□	
Further data	Electrical load at 230 V, 50/60 Hz	approx. W	1000	1500	2000
Standard accessories	Perforated stainless steel shelves (full width)	number	2	3	
	Stainless steel water dishes, 40 mm high	number	1 (full width)		2 (half width)
	Works calibration certificate (measuring point chamber centre at +37 °C)			□	
Packing data	Net weight/Gross weight (packed in carton)	approx. kg	70/95	80/106	110/132
	Width/Height/Depth	approx. cm	83/105/80	83/130/80	93/114/93
<b>Order No. CO<sub>2</sub> Incubators</b>			<b>INC108med</b>	<b>INC153med</b>	<b>INC246med</b>

Options			108	153	246
<b>Comfort module:</b> two gas connections with quick release connectors, automatic switch-over of gas cylinders				T1	
<b>Hygiene module:</b> electropolished interior, seamlessly welded by laser				T2	
<b>Communication module:</b> USB and printer interface, "Celsius" standard software for protocol logging, ring memory				T3	
<b>CO<sub>2</sub> module:</b> extended CO <sub>2</sub> range from 0 to 20 %				T4	
<b>Premium module:</b> includes Comfort, Hygiene, Communication and CO <sub>2</sub> module				T5	
<b>Humidity module:</b> 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; recommended for applications with set O <sub>2</sub> values of less than 10 %. Humidity supply with distilled water (from an external tank) by a self-priming pump (standard humidity limit control and water dishes are omitted)				K7	
<b>O<sub>2</sub> module:</b> control of oxygen concentration by N <sub>2</sub> inlet; adjustment range 1 % up to 20 % O <sub>2</sub> ; setting accuracy 0.1 %. (Combination of comfort module or Premium module and O <sub>2</sub> module not possible). For applications with a set O <sub>2</sub> -value of less than 10 %, the humidity module is highly recommended				T6	
<b>IVF-module:</b> patented, consisting of 8 slide-in units, a total of 24 special racks with indentations for 24 Petri dishes (60 mm diam.) resp. 48 Petri dishes (35 mm diam.), 4 racks with indentations for 3 special media tubes each; racks with indentations for 4-well dishes on demand; only for INCO108med with the options T3, K7 and F7; works calibration certificate (measuring point chamber centre) at +37 °C, 5 %, 6 % and 7 % CO <sub>2</sub> as well as 90 % rh; 5 % O <sub>2</sub> for IVF unit equipped with option T6			C1	–	
Entry port (silicone), 40 mm clear diameter, for introducing connections, moisture tight, can be closed by silicone stopper, at the back, either centre right or centre left (please, state location)				F7	
4-part partitioning of interior with 4-part gas baffle (replacement of 3 full-width shelves by 6 half-width shelves)			–		K4
Voltage 115 V, 50/60 Hz				X2	
Door hinged on the left				B8	
Stacking version for 2 units of equal size (bottom unit modification)				G3	
Potential-free contact (24 V/2 A) with socket to NAMUR NE 28 for external monitoring (setpoint temperature / CO <sub>2</sub> reached)				H5	
Works calibration certificate for 5 %, 7 % and 10 % CO <sub>2</sub> (measured at +37 °C)				D00106	
Start-up of INCOmed incubators and brief training (D, A, CH only), through MEMMERT service				K9	

Accessories			108	153	246
Additional perforated stainless steel shelf, full width			B00325	B00321	B03813
Additional perforated stainless steel shelf, half width				–	B02742
Additional stainless steel grid, full width			E20165	E20166	E29766
Additional water dish (half width model 246)			B02787	B02784	B02786
Subframe (622 mm high)			B02792	B02732	B02793
Subframe (130 mm high for 2 stacked incubators)			B02794	B02740	B02795
HEPA-filter for chamber according to EN 1822, packed in sterile condition, incl. fixing unit				B04459	
STERICard (additional or as replacement) for automatic chamber sterilisation cycle (not for sterilising load)				E04337	
CO <sub>2</sub> pressure reducing valve to DIN 8546, incl. gas cylinder monitor				E02087	
N <sub>2</sub> pressure reducing valve to DIN EN ISO 2503, incl. gas cylinder for O <sub>2</sub> module				E06162	
CO <sub>2</sub> connection set, hose with coupling and clamp				B03881	
Central water supply, with filter cartridges for connection to the domestic water supply, only in combination with humidity module. Product information on demand				ZWVR6	
Central water supply, without filter cartridges for connection to the domestic water supply (only for demineralised water in accordance with VDE 0510/DIN EN 50272), only in combination with humidity module. Product information on demand				ZWVR7	
Guarantee extension by 1 year				GA2Q5	
Celltron benchtop shaker (accessories upon request)				E06724	

Further options/accessories see pages 28 - 30