memmert
Experts in Thermostatics

Incubators

PERFECTLY COORDINATED. PERFECTLY CONTROLLED.

INCUBATOR I

CO_2 INCUBATOR INCOmed

COMPRESSOR-COOLED INCUBATOR ICP

PELTIER COOLED INCUBATOR IPP

STORAGE COOLED INCUBATOR IPS

100% ATMOSAFE. MADE IN GERMANY.

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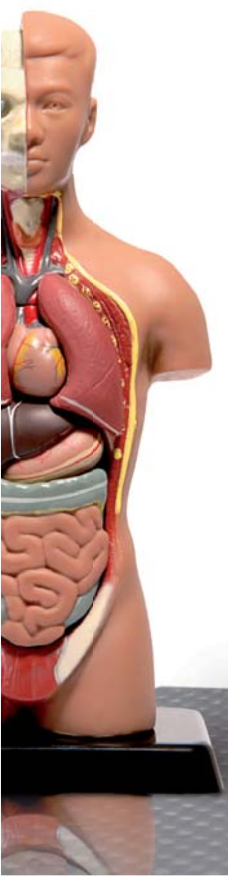
Incubator IN and IF with SingleDISPLAY
Incubator INplus and IFplus with TwinDISPLAY
Natural convection or forced air circulation
AtmoCONTROL software

Model sizes:
30 / 55 / 75 / 110 / 160 / 260 / 450 / 750
+30 °C to +80 °C

INCUBATOR I Memmert incubators I are at home in the world of research, medicine, pharmaceutics and food technology. Organic chamber loads require gentle heating. For this reason, the heating and control system are especially optimised for low temperatures of up to +80 °C. To prevent temperature overshoots, temperature is increased within a very narrow control range and kept exactly at the setpoint value. As required, the models IN with natural convection or IF with forced air circulation are available.



GENERATION 2012

INCUBATORS I

according to 12 880: 2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010

CE

<u>Standard equipment</u>

Interior: Stainless steel, material 1.4301 (ASTM 304) with all-round deep-drawn ribs to integrate the large-area heating with ceramic-metal sheath

Internals: Stainless steel grids (size 30 and 55: 1, size 75 to 750: 2)

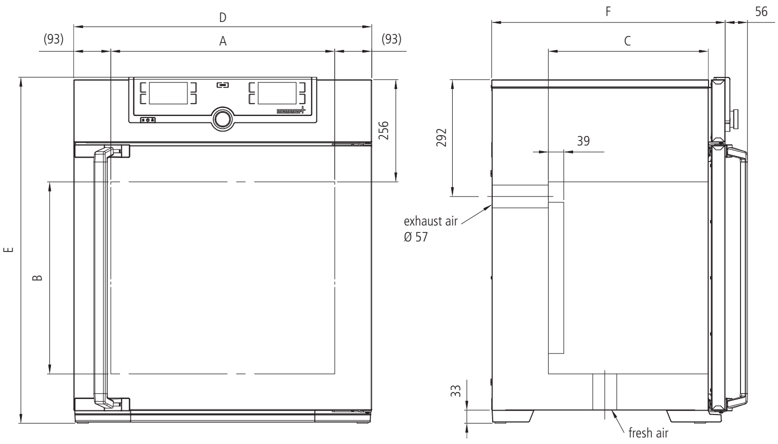
Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY with Multi-Touch-screen; fully insulated stainless steel door (from size 450 two leaves)

Fresh air: Admixture of pre-heated fresh air by electronically adjusted airflap

Connection: Mains cable with plug

Installation: 4 feet; size 450 and 750 on lockable castors

Interfaces: Ethernet LAN · USB (only TwinDISPLAY)



Model sizes/Description				30	55	75	110	160	260	450	750
Stainless steel interior	Volume		approx. l	32	53	74	108	161	256	449	749
	Width	(A)	mm	400	400	400	560	560	640	1040	1040
	Height	(B)	mm	320	400	560	480	720	800	720	1200
	Depth (less 39 mm for fan)	(C)	mm	250	330	330	400	400	500	600	600
	Stainless steel grids (standard equipment)		number	1	1	2	2	2	2	2	2
	Max. number of grids		number	3	4	6	5	8	9	8	14
	Max. loading per grid		kg	30	30	30	30	30	30	30	30
	Max. loading of chamber		kg	60	80	120	175	210	300	300	300
Textured stainless steel exterior	Width	(D)	mm	585	585	585	745	745	824	1224	1224
	Height (size 450, 750 with castors)	(E)	mm	707	787	947	867	1107	1186	1247	1726
	Depth (with door handle), door handle + 56 mm	(F)	mm	434	514	514	584	584	684	784	784
Further data	Power consumption at 230 V/115 V, 50/60 Hz		approx. W	800	1000	1250	1400	1600	1700	1800	2000
	Working-temperature range		°C	min. 5 K (IN/INplus) 10 K (IF/IFplus) above ambient temperature up to +80 °C							
	Setting temperature range		°C	+20 to +80							
	Setting accuracy		K	0.1							
Packing data	Net weight		approx. kg	44	55	64	72	80	96	160	192
	Gross weight (packed in carton)		approx. kg	55	67	76	86	96	114	185	242
	Width		approx. cm	69	70	70	83	83	93	134	134
	Height		approx. cm	86	94	111	104	127	134	141	189
	Depth		approx. cm	66	73	73	79	79	89	99	99
Order No. Incubators				IN30	IN55	IN75	IN110	IN160	IN260	IN450	IN750
				IN30plus	IN55plus	IN75plus	IN110plus	IN160plus	IN260plus	IN450plus	IN750plus
				IF30	IF55	IF75	IF110	IF160	IF260	IF450	IF750
				IF30plus	IF55plus	IF75plus	IF110plus	IF160plus	IF260plus	IF450plus	IF750plus

I = Incubator
N = Natural convection
F = Forced convection
plus = Model with TwinDISPLAY

Optionen	30	55	75	110	160	260	450	750
Interior lighting (up to size 260: 15 W, sizes 450/750: 2 x 15 W)	R0							
Interior socket can only be ordered with limited temperature range up to max. +70 °C, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually	R3							
Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap and silicone stopper, standard positions								
left centre/centre	F0							
left centre top	F1							
right centre/centre	F2							
right centre top	F3							
Other port, 23 mm clear diameter, can be closed by flap, in special positions (please, state location)								
left	F4							
right	F5							
rear	F6							
Other port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)	D6							
Other port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)	F7							
Other port, 57 mm clear diameter, in special positions in the back wall (please, state location)	F8							
Other port, 100 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)	F9							
Other port, 120 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)	D7							
4 – 20 mA current loop interface (0 to 90 °C ≙ 4 to 20 mA)								
Temperature controller, actual value	V3							
Temperature of a Pt100 sensor positioned flexibly in chamber (max. 3)	V6							
Fan speed monitoring – optional only for IFplus	V4							
Works calibration certificate for 3 temperatures: +37 °C, +52 °C, +70 °C	D00126							

Accessories	30	55	75	110	160	260	450	750
Stainless steel grids (standard equipment)	E28884	E20164		E20165		E28891	E20182	
Perforated stainless steel shelves	B29727	B03916		B00325		B29725	B00328	
Stainles steel tray (non-perforated) 15 mm rim (may affect the temperature distribution)	E02070	E02072		E02073		E29726	E02075	
Bottom drip tray (may affect the temperature distribution)	B04356	B04358		B04359		B29722	B04362	
Wall bracket (tubular frame for wall mounting)	B29755	B29756	B29757	B29758	B29759	–	–	–
Guarantee extension by 1 year	GA1Q5					GA2Q5		

Model variations of Generation 2012

SingleDISPLAY ControlCOCKPIT with one TFT display	TwinDISPLAY ControlCOCKPIT with two TFT displays
AVAILABLE APPLIANCES **UN / UF / IN / IF / SN / SF / IPP / IPS**	**AVAILABLE APPLIANCES** **UNplus / UFplus / UNpa / INplus / IFplus / SNplus / SFplus IPPplus / ICP / HPP / ICH**
Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time	Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time, relative humidity, illumination, CO_2
One temperature sensor Pt100 DIN class A in a 4-wire circuit	Two Pt100 sensors DIN class A in a 4-wire circuit for mutual monitoring, taking over functions in case of an error
	HeatBALANCE function for application specific adjustment of heat output distribution (balance) between the upper and lower heating groups in an adjustment range between -50 % and + 50 %
	ControlCOCKPIT with USB port for uploading programmes, reading out protocol logs, activating the User-ID function
	Displaying of already logged protocol data on the ControlCOCKPIT (max 10,000 values correspond to approx. 1 week)
Ethernet interface on the rear of the appliance for reading out the protocol log	Ethernet interface on the rear of the appliance for reading out the protocol log and for uploading and implementing programmes and for online logging
Double overtemperature protection: Electronic temperature monitoring with freely adjustable monitoring temperature, mechanical temperature limiter TB acc. to DIN 12 880.	Multiple overtemperature protection: Electronic temperature monitoring TWW/TWB (protection class 3.1 or 2 resp. 3.3 for units with active cooling) and mechanical temperature limiter TB (protection class 1) acc. to. DIN 12 880, AutoSAFETY automatically adjusts to the set value within a freely adjustable tolerance range. Setting individual MIN / MAX values for over/undertemperature alarm and also for all other parameters such as relative humidity, CO_2.

Structured stainless steel housing, rear of zinc-plated steel, ControlCOCKPIT for operation and adjustment of all parameters

High-temperature connectors on the rear of the appliance for single-phase power connection according to country specific systems and IEC standards

Internal data logger with a storage capacity of at least 10 years

German, English, French, Spanish language settings available on the ControlCOCKPIT

Digital timer, adjustable between 1 minute and 99 days, 23 hours

The SetpointWAIT function guarantees that the process time does not start until the set temperature is reached at all measuring points – optional for temperature values recorded by the freely positionable Pt100 sensors inside the chamber.

Adjustment of three calibration values for temperature and additional appliance specific parameters directly at the ControlCOCKPIT (e. g. relative humidity)