

# Model C 170 | CO<sub>2</sub> incubators with hot air sterilization

## BENEFITS

- Hot air sterilization at 180 °C minimizes the risk of contamination
- Stable pH-values thanks to drift-free CO<sub>2</sub> IR sensor technology
- Saturated relative humidity up to 95 % RH
- Easy cleaning thanks to seamless, deep-drawn inner chamber



Model 170



Model 170

## MAIN FEATURES

- Temperature range: room temperature plus 7 °C to 50 °C
- Humidity range: 90...95 % RH
- Auto-sterilization with hot air at 180 °C
- Humidification system with condensation protection
- CO<sub>2</sub> gas-mixing jet with Venturi effect
- CO<sub>2</sub> sensor with infrared technology
- Tightly-sealed inner door made of tempered safety glass
- Seamless, deep-drawn inner stainless steel chamber
- 3 perforated stainless steel shelves
- Units are stackable with stacking adapter
- Troubleshooting system with visual and audible alarms
- Zero-voltage alarm contact

## ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	Art.-No.
Model C 170				
168	230 V 1~ 50/60 Hz	Door hinged right	C170-230V-R	9040-0112
		Door hinged left	C170-230V-L	9040-0115
	120 V 1~ 60 Hz	Door hinged right	C170UL-120V-R	9040-0113
		Door hinged left	C170UL-120V-L	9040-0116

## TECHNICAL DATA

Description	C170-230V-R	C170-230V-L	C170UL-120V-R	C170UL-120V-L
<b>Article Number</b>	<b>9040-0112</b>	<b>9040-0115</b>	<b>9040-0113</b>	<b>9040-0116</b>
Performance Data Temperature				
Temperature range 7 °C above ambient temperature to [°C]	50	50	50	50
Temperature uniformity at 37 °C [± K]	0.3	0.3	0.3	0.3
Temperature fluctuation [± K]	0.1	0.1	0.1	0.1

## Data Sheet Model C 170

Description	C170-230V-R	C170-230V-L	C170UL-120V-R	C170UL-120V-L
<b>Article Number</b>	<b>9040-0112</b>	<b>9040-0115</b>	<b>9040-0113</b>	<b>9040-0116</b>
Recovery time after 30 seconds door open at 37 °C [min]	6	6	6	6
Recovery time after 30 seconds door open at 5 Vol.-% CO <sub>2</sub> [min]	5	5	5	5
<b>Performance Data Climate</b>				
Humidity range [% RH]	90...95	90...95	90...95	90...95
<b>Gas Data - CO<sub>2</sub>-Data</b>				
CO <sub>2</sub> range	0...20 Vol.-% CO <sub>2</sub>	0...20 Vol.-% CO <sub>2</sub>	0...20 Vol.-% CO <sub>2</sub>	0...20 Vol.-% CO <sub>2</sub>
CO <sub>2</sub> measurement	IR	IR	IR	IR
<b>Electrical data</b>				
Rated Voltage [V]	230	230	120	120
Power frequency [Hz]	50/60	50/60	60	60
Nominal power [kW]	1.1	1.1	1.1	1.1
Unit fuse [A]	10	10	10	10
Phase (Nominal voltage)	1~	1~	1~	1~
<b>Measures - Outer dimensions</b>				
Width net [mm]	740	740	740	740
Height net [mm]	870	870	870	870
Depth net [mm]	715	715	715	715
Wall clearance back [mm]	100	100	100	100
Wall clearance sidewise [mm]	50	50	50	50
<b>Measures - Doors</b>				
Inner doors	1	1	1	1
Unit doors	1	1	1	1
<b>Measures - Internal Dimensions</b>				
Width [mm]	560	560	560	560
Height [mm]	600	600	600	600
Depth [mm]	500	500	500	500
<b>Measures</b>				
Interior volume [L]	168	168	168	168
Net weight of the unit (empty) [kg]	110	110	110	110
Load per rack [kg]	10	10	10	10
<b>Environment-specific data</b>				
Energy consumption at 37 °C	90 Wh/h	90 Wh/h	90 Wh/h	90 Wh/h

## OPTIONS AND ACCESSORIES

Designation	Description	*	Art.-No.
<b>Access port with silicone plug</b>	30 mm, back	01	8012-0558
	30 mm, left	01	8012-0559
	30 mm, right	01	8012-0560
<b>Analog output, 4 – 20 mA</b>	for temperature and CO <sub>2</sub> values (outputs not adjustable)	02	8012-0742
<b>Base</b>	with casters	–	9051-0029
<b>Calibration certificate, expanded</b>	each measurement at additional measuring point or testing temperature	–	8012-0022

\* Notes › See last page

Designation	Description	*	Art.-No.
<b>Calibration certificate, temperature</b>	for temperature, measurement in center of chamber at specified temperature	-	8012-0030
	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-0921
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-0918
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-0915
<b>Calibration certificate, temperature and CO<sub>2</sub></b>	for temperature and CO <sub>2</sub> , temperature measurement in center of chamber, CO <sub>2</sub> measurement performed using test gas at 37 °C and 5 % CO <sub>2</sub>	-	8012-0228
<b>Door lock</b>	lockable door handle	-	8012-1014
<b>Ethernet interface</b>	for communication software	-	8012-0604
<b>Gas cylinder connection set</b>	for CO <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	8012-0014
<b>Gas tank changer</b>	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO <sub>2</sub> , N <sub>2</sub> or O <sub>2</sub> ), with audible and visual alarms, as well as zero-voltage alarm output	-	8012-0408
<b>Magnetic Pouch (A4)</b>	insert pouch with magnetic strip	-	1007-0065
<b>pH-neutral detergent</b>	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
<b>Shelf, perforated</b>	stainless steel	-	6004-0142
<b>Stacking adapter, flat</b>	for thermally decoupled stacking of two identical units	-	9051-0036

\* Notes › See last page

## SERVICES

Designation	Description	*	Art.-No.
<b>Installation services</b>			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL100200
Instruction	unit function instructions for operation and programming of the controller	18	DL100500
<b>Preventive maintenance</b>			
Preventive maintenance	Execution of equipment inspection according to maintenance plan	14, 18	DL200400
<b>Calibration services</b>			
Calibration CO <sub>2</sub>	including certificate, CO <sub>2</sub> measurement with analyzed test gas at 5 % or at specified value	14, 16, 17, 18	DL300401
Calibration temperature	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL300101
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL300118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL300127
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL300109
<b>Validation services</b>			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL410200
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL440500
Qualification folder IQ/OQ	supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001	15, 18, 20	8012-0875
Qualification folder IQ/OQ/PQ	supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ	15, 18	8012-0962
<b>Warranty service</b>			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	-	DL020041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	-	DL020042

\* Notes › See last page

## NOTES

- 01 Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.
- 02 UL mark is not granted when this option is used.
- 03 Heat resistant only to max. 200 °C.
- 04 Only available on units rated for 230 V.
- 05 Attention: The pump is delivered separately. The electric connection for the pump (230 V/1~/50 Hz) must be carried out by an authorized electrician.
- 06 Heating-up time may increase as a result of the lower heat conductivity.
- 07 The additional heat input may affect the temperature behavior.
- 08 The pump (packaged separately) is ready for connection.
- 09 Not in conjunction with the optional access port, door with window and interior lighting.
- 10 Not available on 23-liter units.
- 11 Not available on 23- or 53-liter units.
- 12 Only available on units rated for 230 V or 400 V.
- 13 Installation and connections take place at unit location; transport within the company only upon consultation.
- 14 We recommend a BINDER service contract (see the chapter on BINDER Service) to cover unit inspections, calibrations and validations.
- 15 OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.
- 16 Sensor calibration is performed in an accredited calibration laboratory.
- 17 Calibration is performed according to the BINDER factory standard.
- 18 Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not include a country-specific added fee (available on request).
- 19 For additional accessories, refer to the Process documentation chapter.
- 20 When ordering IQ/OQ qualification folders and associated IQ/OQ execution on one order, we offer a 15 % discount for both items.  
When ordering IQ/OQ/PQ qualification folders and associated IQ/OQ/PQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ/PQ folder.
- 21 ATEX conformity:  
Pumping chamber (pumped gases): II 2G IIC T3 X  
Environment with inert purge gas: II 2G IIB T4 X  
Environment without inert purge gas: II 3G IIB T4 X  
Motor: II 2G Ex d IIB T4 Gb

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