

# Model BD 720 | Standard-Incubators with natural convection

The BD Avantgarde. Line series is specially designed for gentle incubation of organisms, as well as conditioning of heat-sensitive media. The new design of the units and the homogeneous temperature distribution ensure the very best results.

#### **BENEFITS**

- Excellent temporal and spatial temperature accuracy
- · High process reliability
- 100 °C disinfection routine



Model 720



Model 56

#### **MAIN FEATURES**

- Temperature range: +5 °C above ambient temperature to +100 °C
- High temperature accuracy thanks to APT.line™ technology
- · Natural convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- Inner door made of tempered safety glass

- 2 chrome-plated racks
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm
- Ergonomic handle design
- USB port for recording data

#### **ORDERING INFORMATION**

Interior volume [L]	Voltage	Option model	Version	ArtNo.
Interior volume [L]	230 V 1~ ph 50/60 Hz	Standard	BD720-230V	9010-0331
/3/	240 V 1~ ph 50/60 Hz	Standard	BD720UL-240V	9010-0332

### **TECHNICAL DATA**

Description	BD720-230V1	BD720UL-240V <sup>1</sup>
Article Number	9010-0331	9010-0332
Performance Data Temperature		
Temperature range +5 °C above ambient temperature to [°C]	100	100
Temperature variation at 37 °C [± K]	0.7	0.7
Temperature fluctuation at 37 °C [± K]	0.1	0.1
Heating-up time to 37 °C [min]	70	70
Recovery time after 30 seconds door open at 37 °C [min]	23	23

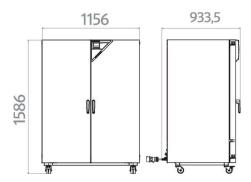
<sup>1</sup> All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.



Description	BD720-230V1	BD720UL-240V <sup>1</sup>
Article Number	9010-0331	9010-0332
Electrical data		
Rated Voltage [V]	230	240
Power frequency [Hz]	50/60	50/60
Nominal power [kW]	1.65	1.75
Unit fuse [A]	16	16
Phase (Nominal voltage)	1~	1~
Measures		
Interior volume [L]	737	737
Net weight of the unit (empty) [kg]	170	170
Permitted load [kg]	315	315
Load per rack [kg]	45	45
Wall clearance back [mm]	160	160
Wall clearance sidewise [mm]	100	100
Internal Dimensions		
Width [mm]	960	960
Height [mm]	1280	1280
Depth [mm]	600	600
Doors		
Inner doors	2	2
Unit doors	2	2
Housing dimensions not incl. fittings and connections		
Width net [mm]	1165	1165
Height net [mm]	1590	1590
Depth net [mm]	870	870
Environment-specific data		
Energy consumption at 37 °C [Wh/h]	78	78
Fixtures		
Number of shelves (std./max.)	2/16	2/16

<sup>1</sup> All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

## **DIMENSIONS** incl. fittings and connections [mm]





## **OPTIONS**

Designation	Description	*	ArtNo.
	back		
	10 mm	01	8012-0390
	30 mm	01	8012-0397
	50 mm	01	8012-0399
	left		
	10 mm	01	8012-038
	30 mm	01	8012-004
	50 mm	01	8012-005
ccess port with silicone lug	right		
	10 mm	01	8012-038
	30 mm	01	8012-004
	50 mm	01	8012-0050
	top		
	10 mm	01	8012-038
	30 mm	01	8012-004
	50 mm	01	8012-004
	100 mm	01	8012-005
Alarm function for overheating	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device	-	8012-0979
Analog output 4-20 mA	for temperature values (output not adjustable)	02	8012-094
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1110
	for temperature, measurement in center of chamber at specified temperature	-	8012-1129
Calibration certificate,	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-092
emperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-0918
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-091
Clock	battery-backed	-	8012-098
Door lock	lockable door handle	-	8012-102
thernet interface	for Multi Management Software APT-COM™	_	8012-098
nner chamber, einforced	max. total load 350 kg	-	8012-182
Pt 100 temperature Sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-094
Notes > See last page			

<sup>\*</sup> Notes > See last page

## **ACCESSORIES**

Designation	Description	*	ArtNo.
APT-COM™ 4 BASIC-	for simple logging and documentation requirements with up to 5 networked units.		
Edition	version 4, BASIC edition	-	9053-0039
APT-COM™ 4 GLP- Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.		
	version 4, GLP edition	-	9053-0042
APT-COM™ 4	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
PROFESSIONAL-Edition	version 4, PROFESSIONAL edition	-	9053-0040
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016

<sup>\*</sup> Notes > See last page



Designation	Description	*	ArtNo.
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit		
	Digital in PDF format	-	7057-0001
Ovalification desuments	Hard copy inside folder	-	7007-0001
Qualification documents	$IQ/OQ/PQ$ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder $IQ/OQ$ ; parameters: temperature, $CO_2$ , $O_2$ – or pressure, depending on unit		
	Digital in PDF format	-	7057-0005
	Hard copy inside folder	-	7007-0005
NI-	chrome plated	-	8012-2045
Rack	stainless steel	-	6004-0163
Rack, heavy load	Stainless steel, max. load per rack 70 kg	-	6004-0246
Shelf, perforated	Stainless steel	-	6004-0195

<sup>\*</sup> Notes > See last page

## **SERVICES**

Designation	Description	*	ArtNo.
Installation services			
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	05	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0500
Maintenance contracts			
Maintenance services			
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	05	DL20-0710
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	05	DL20-0910
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	05	DL20-0200
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	05	DL20-0810
Calibration services			
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	03, 04, 05	DL30-0101
Cambiation certificate, temperature	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	03, 04, 05	DL30-0102
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0127
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0109
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	05	DL40-0100
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	DL44-0500
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	_	DL50-0010

<sup>\*</sup> Notes > See last page



#### **NOTES**

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. UL mark is not granted when this option is used.
- 02
- Sensor calibration is performed in an accredited calibration laboratory. 03
- Calibration is performed according to the BINDER factory standard.
- 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).

## **BINDER GmbH**

Tuttlingen, Germany TEL +49 7462 2005 0 FAX +49 7462 2005 100 info@binder-world.com www.binder-world.com

BINDER Asia Pacific (Hong Kong) Ltd.

Kowloon, Hong Kong, P.R. China TEL +852 39070500 FAX +852 39070507 asia@binder-world.com www.binder-world.com

**BINDER Environmental Testing** Equipment (Shanghai) Co., Ltd. Shanghai, P.R. China TEL +86 21 685 808 25 FAX +86 21 685 808 29 china@binder-world.com www.binder-world.com

**Representative Office for CIS** 

Moscow, Russia TEL +7 495 988 15 16 FAX +7 495 988 15 17 russia@binder-world.com www.binder-world.com

**BINDER Inc.** 

Bohemia, NY, USA TEL +1 631 224 4340 FAX +1 631 224 4354 usa@binder-world.com www.binder-world.us