

BINDER Inc.
North America

**Scientific Products
Pricelist 2010**

Issue 2/10




<div>Best conditions for your success</div>		20 liter = 0.7 cu ft	28 liter = 1 cu ft	53 liter = 1.9 cu ft	115 liter = 4.1 cu ft	150 liter = 5.4 cu ft	210 liter = 7.5 cu ft	240 liter = 8.5 cu ft	400 liter = 14.3 cu ft	700 liter = 24.1 cu ft	720 liter = 24.7 cu ft	-40 °C = -40 °F	-10 °C = 14 °F	-5 °C = 23 °F	(Ambient)+ 5 °C = 9 °F	60 °C = 140 °F	100 °C = 212 °F	180 °C = 356 °F	200 °C = 392 °F	250 °C = 482 °F	300 °C = 572 °F	350 °C = 660 °F	Temp Accuracy	RS Interface	Analog Output	Temperature Alarm	Temperature Safety Device	Fan	Inner Glass Door	Controller	Power Outlet in Chamber	
E	Oven with mechanical control																						1.5				1			Mechanical		
ED	Drying Oven w. gravity convection																						0.3	422	T	A	2			Timer/Ramp	LED	
FD	Drying Oven w. forced convection																						0.3		T	A	2	✓		Timer/Ramp	LED	
FED	Heating chamber																						0.3	422	T	A	2	⌚		TF/Ramp	LED	
FP	Temperature test chamber																						0.3	422	T		2	⌚		TF/program	LED	
FDL	Safety drying oven																						0.3	422		A/V	2	✓		TF/Ramp	Color Graphic	
MDL	Safety drying oven																						0.5	422		A/V	2	✓		program	LED	
VD	Vacuum drying oven																						0.4	422		V	2			TF/program	LED	
VDL	Safety vacuum drying oven																						0.4	422		V	2			TF/program	Mechanical	
B	Incubator with mechanical control																						1.0				1	✓		LED		
BD	Incubator																						0.1	422	T	V	3.1	✓		T	✓	
BF	Incubator																						0.1	422	T		3.1	⌚	✓	TF/Ramp	LED	✓
KB	Refrigerated incubator																						0.1	422	T	V/A	3.1	⌚	✓	TF/program	Color Graphic	✓
CB	CO ₂ incubator																						0.1	422	T/CO ₂	V/A	3.1	⊙	✓	program	LED	
C	CO ₂ incubator																						0.1		T/CO ₂	-	3.1	⊙	✓	TF	✓	
KBW	Plant growth chamber																						0.3	422	T	V/A	3.1	⌚	✓	TF/program	Color Graphic	✓
KBWF	Plant growth chamber																						0.5	422	T/H	V/A	3.1	✓		program	✓	
KBF	Constant climate chamber																						0.1	E	T/H		3.1	✓		Color Graphic	program	
KBF P	Photostability test chamber																						0.1	422		V	✓			Color Graphic	program	
KBF LQC	Constant climate chamber with LQC																						0.2	E		V	3.3			Color Graphic	program	
M	Temperature test chamber																						0.1	422	T		2	⌚		Color Graphic	program	
MK	Environmental simulation chamber																						0.3	E	T		2	✓		Color Graphic	program	

Table of contents

	Page
Conditions	3
BINDER Individual	4
Ovens and incubators with mechanical control	
E series	5
B series	5
Ovens	
ED series	6
FD series	9
FED series	11
Temperature test chambers	
FP series	14
M series	24
Safety drying ovens	
FDL series	17
MDL series	18
Vacuum drying ovens	
VD series	19
VDL series	22
Environmental simulation chambers	
MK series	26
Constant climate chambers	
KBF series	28
KBF P series	31
KBF LQC series	33
Incubators	
BD series	35
BF series	37
KB series	39
CO₂-incubators	
C series	44
CB series	46
Plant growth chambers	
KBW series	48
KBWF series	50
Communication, data recording, documentation	
Communication software APT-COM™ 3 DataControlSystem	52
Accessories	55

Prices and Delivery:

All prices are in US \$ and effective as of January 1st 2010. All business transactions are based on our general terms. Prices, equipment specification and services are effective at the time of publication and subject to change without notice. All prices are ex US warehouse. The prices for options apply exclusively for installation at our factory at the time of delivery. Subsequent installation is subject to additional cost.

This price list, terms and conditions are for the exclusive use and reference in the United States, Mexico, Belize, Nicaragua, Costa Rica, Guatemala, Honduras, Panama, Puerto Rico, Curacao, Trinidad, Tobago, Jamaica, El Salvador, Haiti, Dominican Republic and Canada only.
(Available at www.binder-world.us)

Please submit all payments in US \$ to the following account:

Citibank, N.A.

Lake Success Financial Center

1524 Union Turnpike New Hyde Park, NY 11040

Routing # 021000089

Account # 57843447

Warranty and Preventive Maintenance:

The basic warranty period is 12-month on all parts and labor of all APT.line™ products. BINDER offers an additional 12-month warranty if all service and maintenance is performed by BINDER or our Authorized Service stations during the first 24 months. Further details are included in our current General Terms of Payment and Delivery.

We offer maintenance agreements for all our products including calibration. The benefits for our customers are that all our products will continue to perform to specification and meet the standards of quality assurance systems like DIN EN ISO 9001. If you sign a maintenance agreement with BINDER within 3 month of the purchase date, we will extend our warranty to 36 months total starting at the purchase date. We offer further warranty extensions upon request.

Your satisfaction is important to us.

We will be there for your questions and requests before, during and after the sale.

Customer Service:

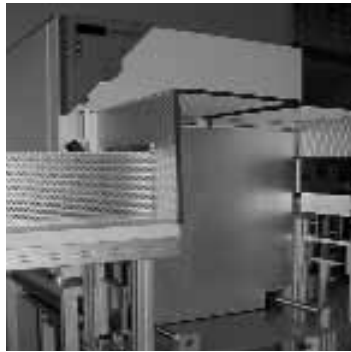
Toll Free: +1 (866) 885 9794
or outside the US: +1 (631) 224 4340
Fax: +1 (631) 224 4354
E-mail: US-Sales@binder-world.us
Internet: www.binder-world.us

Or our headquarters:

Phone: + 49 7462-2005-0
Fax: + 49 7462-2005-100
E-mail: info@binder-world.com
Internet: www.binder-world.com

Service Center:

US toll free: +1 (866) 816 8191
E-mail: Service@binder-world.us



Customized access port



Customized doors



Customized extension

BINDER backs up its solutions with a full team of specialists. BINDER Individual offers customers an expert team of application specialists, technical consultants, and engineers who can respond to questions on testing, testing requirements, and development. Our application specialists design customized solutions, backed by our expertise in many markets, industry sectors, and application areas.

BINDER units can perform numerous applications. Product specific options and accessories can be ordered which may significantly expand the range of applications.

This is why BINDER develops individual solutions in close cooperation with the customer.

BINDER has the ability to customize the equipment to meet the need of a specific industry or application.

All of our components come from a single source and therefore work perfectly together.

Your benefits:

Experienced engineers from the BINDER competence team offer you comprehensive services:

- Individual support, competent consulting
- Extensive application support
- Certified calibration and validation (plant calibration certificate)
- Full functioning guarantee, even for equipment that has been modified
- Complete documentation with extensive operating instructions
- Maintenance even beyond the product lifecycle
- Guaranteed spare part service

For products that fit perfectly – BINDER Individual

CONTACT

Toll Free: +1 (866) 885 9794

Fax: +1 (631) 224 4354

E-mail: BINDER-Individual@binder-world.us



Oven E 28 series

Standard equipment E series

- Temperature range 60 °C (140 °F) up to 230 °C (446 °F)
- Robust, space-saving small unit with hydraulic-mechanical control and adjustable ventilation
- Hydraulic-mechanical thermostat
- Timer 0 to 120 min
- Optional independent temperature safety device class 1 (DIN 12880)
- 2 chrome-plated racks included
- Units are stackable
- BINDER test certificate

Latest technical data at www.binder-world.us



Incubator B 28 series

Standard equipment B series

- Temperature range 30 °C (86 °F) up to 70 °C (158 °F)
- Mechanical control
- Hydraulic-mechanical thermostat
- Optional independent temperature safety device class 1 (DIN 12880)
- Inner glass door
- 2 chrome-plated racks included
- Units are stackable
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
E series									
E 28	1.0	9010-0001	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	22.8x15.8x16.7	15.8x11.0x9.8	49	940.00	I
E 28	1.0	9010-0003	1 phase, 230 V AC, 50 / 60 Hz - P1	with class 1 TC	22.8x15.8x16.8	15.8x11.0x9.9	49	1,084.00	I
E 28	1.0	9010-0106	115 V, 60 Hz - P3	Standard equipment	22.8x15.8x16.9	15.8x11.0x9.10	49	940.00	I
B series									
B 28	1.0	9010-0002	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	22.8x15.8x16.9	15.8x11.0x9.10	51	1,084.00	IV
B 28	1.0	9010-0004	1 phase, 230 V AC, 50 / 60 Hz - P1	with class 1 TC	22.8x15.8x16.10	15.8x11.0x9.11	51	1,240.00	IV
B 28	1.0	9010-0067	115 V, 60 Hz - P3	Standard equipment	22.8x15.8x16.11	15.8x11.0x9.12	51	1,084.00	IV

+ 50 mm (2 inch) for door handle

E and B series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For E 28					For B 28				
6004-0001		Rack, chrome-plated	50.00	XI	6004-0001		Rack, chrome-plated	50.00	XI
6004-0028		Shelf, perforated, stainless steel	65.00	XI	6004-0028		Shelf, perforated, stainless steel	65.00	XI



ED 53 series



ED 53 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- Digital temperature setting with an accuracy of one degree
- DS controller with integrated timer 0 to 99 h
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- Adjustable front ventilation flap slide and rear exhaust ø 50 mm (1.97 inch)
- Available with or without RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR
- Part 11 compliant APT-COM™ DataControlSystem software
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
ED 23	0.7	9010-0190	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	17.1x19.4x20.3	8.7x13x10.9	55	1,319.00	I
ED 23	0.7	9010-0191	1 phase, 230 V AC, 50 / 60 Hz - P1	with RS 422	17.1x19.4x20.3	8.7x13x10.9	55	1,519.00	I
ED 53	1.9	9010-0078	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x24.3x22.6	15.8x15.8x13	93	1,319.00	I
ED 53	1.9	9010-0079	1 phase, 230 V AC, 50 / 60 Hz - P1	with RS 422	25x24.3x22.6	15.8x15.8x13	93	1,519.00	I
ED 115	4.1	9010-0096	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	126	1,935.00	I
ED 115	4.1	9010-0097	1 phase, 230 V AC, 50 / 60 Hz - P1	with RS 422	32.8x27.6x25.4	23.6x18.9x15.8	126	2,153.00	I
ED 240	8.5	9010-0101	1 phase, 230 V AC, 50 / 60 Hz - P1	with RS 422	40.7x32.4x29.3	31.5x23.6x19.7	190	3,566.00	I
ED 400	14.3	9010-0075	3 phase, 400 V AC, 50 / 60 Hz - P2	with RS 422	48.6x40.2x30.1	39.4x31.5x19.7	276	4,515.00	I
ED 720	25.4	9010-0076	3 phase, 400 V AC, 50 / 60 Hz - P2	with RS 422	48.6x60.2x34.1	39.4x47.2x23.6	384	6,165.00	I
ED 23 UL	0.7	9010-0192	115 V, 60 Hz - P3	Standard equipment	17.1x19.4x20.3	8.7x13x10.9	55	1,319.00	I
ED 23 UL	0.7	9010-0193	115 V, 60 Hz - P3	with RS 422	17.1x19.4x20.3	8.7x13x10.9	55	1,519.00	I
ED 53 UL	1.9	9010-0131	115 V, 60 Hz - P4	Standard equipment	25x24.3x22.6	15.8x15.8x13	93	1,319.00	I
ED 53 UL	1.9	9010-0132	115 V, 60 Hz - P4	with RS 422	25x24.3x22.6	15.8x15.8x13	93	1,519.00	I
ED 115 UL	4.1	9010-0164	115 V, 60 Hz - P4	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	126	1,935.00	I
ED 115 UL	4.1	9010-0165	115 V, 60 Hz - P4	with RS 422	32.8x27.6x25.4	23.6x18.9x15.8	126	2,153.00	I
ED 240 UL	8.5	9010-0167	208 V 3ØY, 60 Hz - P6	with RS 422	40.7x32.4x29.3	31.5x23.6x19.7	190	3,566.00	I
ED 400 UL	14.3	9010-0168	208 V 3ØY, 60 Hz - P6	with RS 422	48.6x40.2x30.1	39.4x31.5x19.7	276	4,515.00	I
ED 720 UL	25.4	9010-0169	208 V 3ØY, 60 Hz - P6	with RS 422	48.6x60.2x34.1	39.4x47.2x23.6	384	6,165.00	I

+ 90 mm (3.5 inch) for door handle and exhaust duct

ED series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all ED models					For all ED models				
8012-0386	01	Access port with silicone plugs 10 mm (0.39 inch), top	297.00	XI	8012-0539	01	Access port with silicone plugs 30 mm (1.18 inch), top	390.00	XI
8012-0387	01	Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0536	01	Access port with silicone plugs 30 mm (1.18 inch), right side	390.00	XI
8012-0388	01	Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0537	01	Access port with silicone plugs 30 mm (1.18 inch), left side	390.00	XI
8012-0390	01	Access port with silicone plugs 10 mm (0.39 inch), back	297.00	XI	8012-0540	01	Access port with silicone plugs 30 mm (1.18 inch), back	390.00	XI

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all ED models					For ED 53				
8012-0545		Access port with silicone plugs 50 mm (1.97 inch), top	452.00	XI	6004-0002		Rack, chrome-plated	65.00	XI
8012-0541		Access port with silicone plugs 50 mm (1.97 inch), right side	452.00	XI	6004-0007		Rack, stainless steel	88.00	XI
8012-0542		Access port with silicone plugs 50 mm (1.97 inch), left side	452.00	XI	6004-0029		Shelf, perforated, stainless steel	88.00	XI
8012-0546		Access port with silicone plugs 50 mm (1.97 inch), back	452.00	XI	8012-0318		Door Lock	481.00	XI
8012-0547	16	Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI	8012-0494	04	Door gasket, FKM (Viton)	484.00	XI
8012-0721	17	Access port with silicone plugs 100 mm (3.94 inch), right side	733.00	XI	8012-0214		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
8012-0722	17	Access port with silicone plugs 100 mm (3.94 inch), left side	733.00	XI	For ED 53 UL				
8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI	8012-0234		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
8012-0469		Over temperature alarm, audible, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device for 230 V	588.00	XI	For ED 115				
8012-0032	05	Independent adjustable temperature safety device, class 3.1 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	415.00	XI	6004-0003		Rack, chrome-plated	102.00	XI
8012-0430	03	Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	6004-0008		Rack, stainless steel	135.00	XI
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points, for 23 liter units 15 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	6004-0030		Shelf, perforated, stainless steel	135.00	XI
8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00	IX	8012-0318		Door Lock	481.00	XI
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX	8012-0495	04	Door gasket, FKM (Viton)	516.00	XI
8012-0714		Data Logger Kit T 350: For the continuous temperature recording of 0 °C (32 °F) to 350 °C (662 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	8012-0215		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	For ED 115 UL				
For ED 23					8012-0235		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
6004-0050		Rack, chrome-plated	43.00	XI	For ED 240				
6004-0051		Rack, stainless steel	61.00	XI	6004-0004		Rack, chrome-plated	190.00	XI
6004-0052		Shelf, perforated, stainless steel	62.00	XI	6004-0009		Rack, stainless steel	235.00	XI
8012-0318		Door Lock	481.00	XI	6004-0031		Shelf, perforated, stainless steel	236.00	XI
8012-0493	04	Door gasket, FKM (Viton)	360.00	XI	8012-0319		Door Lock	481.00	XI
8012-0378		Door with window 180 x 180 mm (7.09 x 7.09 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I	8012-0496	04	Door gasket, FKM (Viton)	623.00	XI
For ED 23 UL					8012-0216		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 1 phase, 230 V AC, 50 / 60 Hz	1,294.00	I
8012-0379		Door with window 180 x 180 mm (7.09 x 7.09 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I	For ED 240 UL				
					8012-0236		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,294.00	I
					For ED 400				
					6004-0005		Rack, chrome-plated	213.00	XI
					6004-0011		Rack, stainless steel	325.00	XI
					6004-0032		Shelf, perforated, stainless steel	325.00	XI
					8012-0319		Door Lock	481.00	XI
					8012-0497	04	Door gasket, FKM (Viton)	748.00	XI
					8012-0269		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 3 phase, 400 V AC, 50 / 60 Hz	1,646.00	I
					For ED 400 UL				
					8012-0271		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,646.00	I

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For ED 720					For ED 720 UL				
6004-0006		Rack, chrome-plated	230.00	XI	8012-0272		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,680.00	I
6004-0010		Rack, stainless steel	353.00	XI					
6004-0033		Shelf, perforated, stainless steel	353.00	XI					
8012-0319		Door Lock	481.00	XI					
8012-0498	04	Door gasket, FKM (Viton)	897.00	XI					
8012-0270		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 3 phase, 400 V AC, 50 / 60 Hz	1,680.00	I					

ED series | Services

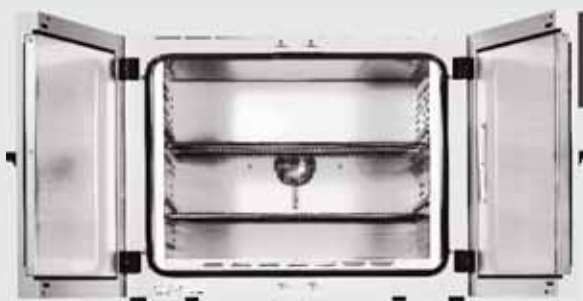
Validation service			
DL002031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	674.00 S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with Q ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



FD 53 series



FD 240 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- DS controller with integrated timer 0 to 99 h
- Digital temperature setting with an accuracy of one degree
- Independent adjustable temperature safety device class 2, providing full protection against chamber over-temperature, with visual alarm
- Adjustable front ventilation flap slide and rear exhaust ø 50 mm (1.97 inch)
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
FD 23	0.7	9010-0194	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	17.1x19.4x20.3	8.7x13x10.9	73	1,698.00	I
FD 53	1.9	9010-0082	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x24.3x22.6	15.8x15.8x13	97	1,698.00	I
FD 115	4.1	9010-0102	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	137	2,390.00	I
FD 240	8.5	9010-0104	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	212	3,915.00	I
FD 23 UL	0.7	9010-0196	115 V, 60 Hz - P3	Standard equipment	17.1x19.4x20.3	8.7x13x10.9	73	1,698.00	I
FD 53 UL	1.9	9010-0128	115 V, 60 Hz - P4	Standard equipment	25x24.3x22.6	15.8x15.8x13	97	1,698.00	I
FD 115 UL	4.1	9010-0129	115 V, 60 Hz - P4	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	137	2,390.00	I
FD 240 UL	8.5	9010-0130	208 V 3ØY, 60 Hz - P6	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	212	3,915.00	I

+ 90 mm (3.5 inch) for door handle and exhaust duct

FD series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all FD models					For all FD models				
8012-0386		Access port with silicone plugs 10 mm (0.39 inch), top	297.00	XI	8012-0545		Access port with silicone plugs 50 mm (1.97 inch), top	452.00	XI
8012-0387		Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0541		Access port with silicone plugs 50 mm (1.97 inch), right side	452.00	XI
8012-0388		Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0542		Access port with silicone plugs 50 mm (1.97 inch), left side	452.00	XI
8012-0390		Access port with silicone plugs 10 mm (0.39 inch), back	297.00	XI	8012-0546		Access port with silicone plugs 50 mm (1.97 inch), back	452.00	XI
8012-0539		Access port with silicone plugs 30 mm (1.18 inch), top	390.00	XI	8012-0547 ¹⁶		Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI
8012-0536		Access port with silicone plugs 30 mm (1.18 inch), right side	390.00	XI	8012-0721 ¹⁷		Access port with silicone plugs 100 mm (3.94 inch), right side	733.00	XI
8012-0537		Access port with silicone plugs 30 mm (1.18 inch), left side	390.00	XI	8012-0722 ¹⁷		Access port with silicone plugs 100 mm (3.94 inch), left side	733.00	XI
8012-0540		Access port with silicone plugs 30 mm (1.18 inch), back	390.00	XI	8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all FD models					For FD 53				
8012-0032	05	Independent adjustable temperature safety device, class 3.1 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	415.00	XI	6004-0002		Rack, chrome-plated	65.00	XI
8012-0430	03	Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	6004-0007		Rack, stainless steel	88.00	XI
8012-0469		Over temperature alarm, audible, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device for 230 V	588.00	XI	6004-0029		Shelf, perforated, stainless steel	88.00	XI
8012-0531		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI	8012-0318		Door Lock	481.00	XI
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points, for 23 liter units 15 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	8012-0494	04	Door gasket, FKM (Viton)	484.00	XI
8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00	IX	8012-0214		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX	For FD 53 UL				
8012-0714		Data Logger Kit T 350: For the continuous temperature recording of 0 °C (32 °F) to 350 °C (662 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	8012-0234		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	For FD 115				
For FD 23					6004-0003		Rack, chrome-plated	102.00	XI
6004-0050		Rack, chrome-plated	43.00	XI	6004-0008		Rack, stainless steel	135.00	XI
6004-0051		Rack, stainless steel	61.00	XI	6004-0030		Shelf, perforated, stainless steel	135.00	XI
6004-0052		Shelf, perforated, stainless steel	62.00	XI	8012-0318		Door Lock	481.00	XI
8012-0318		Door Lock	481.00	XI	8012-0495	04	Door gasket, FKM (Viton)	516.00	XI
8012-0493	04	Door gasket, FKM (Viton)	360.00	XI	8012-0215		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
8012-0378		Door with window 180 x 180 mm (7.09 x 7.09 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I	For FD 115 UL				
For FD 23 UL					8012-0235		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
8012-0379		Door with window 180 x 180 mm (7.09 x 7.09 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I	For FD 240				
					6004-0004		Rack, chrome-plated	190.00	XI
					6004-0009		Rack, stainless steel	235.00	XI
					8012-0345		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
					6004-0031		Shelf, perforated, stainless steel	236.00	XI
					8012-0319		Door Lock	481.00	XI
					8012-0496	04	Door gasket, FKM (Viton)	623.00	XI
					8012-0216		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 1 phase, 230 V AC, 50 / 60 Hz	1,294.00	I
					For FD 240 UL				
					8012-0236		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,294.00	I

FD series | Services

Validation service				
DL003031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	674.00	S1

* References:

01 Condensation may occur!

02 Only in combination with Q₂ control.

03 UL approval is not possible with this option.

04 Temperature resistant up to max. 200 °C only.

05 Only possible for units in 230 V.

06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!

07 Stainless steel influences heat conductivity.

08 The additional heat input can influence the temperature behaviour.

09 Pump is supplied ready for connection in separate packaging

10 Not available in combination with option access port and door with window and interior lighting.

11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.

12 For information about our service contracts, please see www.binder-world.us

13 The calibration is performed according to BINDER factory standard

14 The prices stated do not include travel costs. For the travel costs for your area, please see page 3.

15 Restricted humidity range < 30 % RH at 20 °C (68 °F)

16 Not for 23 Liter units possible

17 Not for 23 and 53 liter units possible

18 Only possible for units in 230 V / 400 V.



FED 53 series



FED 53 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- MS controller with several timer functions
- Controller timer functions: delayed ON, delayed OFF, temperature dependent delayed OFF
- Digital temperature setting with an accuracy of one degree
- Adjustable fan speed
- Front ventilation flap slide and rear exhaust duct Ø 50 mm (1.97 inch)
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
FED 53	1.9	9010-0210	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x24.3x22.6	15.8x15.8x13	97	2,230.00	I
FED 115	4.1	9010-0212	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	137	2,960.00	I
FED 240	8.5	9010-0214	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	212	4,337.00	I
FED 400	14.3	9010-0216	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	320	5,483.00	I
FED 720	25.4	9010-0218	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	430	7,298.00	I
FED 53 UL	1.9	9010-0211	115 V, 60 Hz - P4	Standard equipment	25x24.3x22.6	15.8x15.8x13	97	2,230.00	I
FED 115 UL	4.1	9010-0213	115 V, 60 Hz - P4	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	137	2,960.00	I
FED 240 UL	8.5	9010-0215	208 V 3ØY, 60 Hz - P6	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	212	4,337.00	I
FED 400 UL	14.3	9010-0217	208 V 3ØY, 60 Hz - P6	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	320	5,483.00	I
FED 720 UL	25.4	9010-0219	208 V 3ØY, 60 Hz - P6	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	430	7,298.00	I

+ 90 mm (3.54 inch) for door handle and exhaust duct

FED series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all FED models					For all FED models				
8012-0386		Access port with silicone plugs 10 mm (0.39 inch), top	297.00	XI	8012-0545		Access port with silicone plugs 50 mm (1.97 inch), top	452.00	XI
8012-0387		Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0541		Access port with silicone plugs 50 mm (1.97 inch), right side	452.00	XI
8012-0388		Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0542		Access port with silicone plugs 50 mm (1.97 inch), left side	452.00	XI
8012-0390		Access port with silicone plugs 10 mm (0.39 inch), back	297.00	XI	8012-0546		Access port with silicone plugs 50 mm (1.97 inch), back	452.00	XI
8012-0539		Access port with silicone plugs 30 mm (1.18 inch), top	390.00	XI	8012-0547		Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI
8012-0536		Access port with silicone plugs 30 mm (1.18 inch), right side	390.00	XI	8012-0721 ¹⁷		Access port with silicone plugs 100 mm (3.94 inch), right side	733.00	XI
8012-0537		Access port with silicone plugs 30 mm (1.18 inch), left side	390.00	XI	8012-0722 ¹⁷		Access port with silicone plugs 100 mm (3.94 inch), left side	733.00	XI
8012-0540		Access port with silicone plugs 30 mm (1.18 inch), back	390.00	XI					

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all FED models					For FED 115				
8012-0076		HEPA fresh-air filter, class H 14 (according to EN 1822, min. 99.995% for 0.1-0.3 µm particles)	1,226.00	VIII	6004-0003		Rack, chrome-plated	102.00	XI
8012-0531		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI	6004-0008		Rack, stainless steel	135.00	XI
8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI	6004-0030		Shelf, perforated, stainless steel	135.00	XI
8012-0032	05	Independent adjustable temperature safety device, class 3.1 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	415.00	XI	8012-0318		Door Lock	481.00	XI
8012-0433	03	Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	8012-0495	04	Door gasket, FKM (Viton)	516.00	XI
8012-0469		Over temperature alarm, audible, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device for 230 V	588.00	XI	8012-0188		Inert gas connection (gas inlet and outlet; Ø 10 mm (0.39 inch)). We recommend, in addition, the option mostly gas-tight version	386.00	VIII
8012-0156		Temperature measurement acc. to DIN 12880 at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	8012-0182	10	Mostly gas-tight version	925.00	VIII
8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00	IX	8012-0215		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX	8012-0198		Increased air change rate through high performance fan	1,155.00	I
8012-0714		Data Logger Kit T 350: For the continuous temperature recording of 0 °C (32 °F) to 350 °C (662 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	For FED 115 UL				
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	8012-0235		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
For FED 53					8012-0243		Increased air change rate through high performance fan	1,155.00	I
6004-0002		Rack, chrome-plated	65.00	XI	For FED 240				
6004-0007		Rack, stainless steel	88.00	XI	6004-0004		Rack, chrome-plated	190.00	XI
6004-0029		Shelf, perforated, stainless steel	88.00	XI	6004-0009		Rack, stainless steel	235.00	XI
8012-0318		Door Lock	481.00	XI	8012-0345		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
8012-0494	04	Door gasket, FKM (Viton)	484.00	XI	6004-0031		Shelf, perforated, stainless steel	236.00	XI
8012-0188		Inert gas connection (gas inlet and outlet; Ø 10 mm (0.39 inch)). We recommend, in addition, the option mostly gas-tight version	386.00	VIII	8012-0319		Door Lock	481.00	XI
8012-0182	10	Mostly gas-tight version	925.00	VIII	8012-0496	04	Door gasket, FKM (Viton)	623.00	XI
8012-0214		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I	8012-0338		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI
8012-0197		Increased air change rate through high performance fan	1,155.00	I	8012-0216		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 1 phase, 230 V AC, 50 / 60 Hz	1,294.00	I
For FED 53 UL					8012-0199		Increased air change rate through high performance fan	1,155.00	I
8012-0234		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I	For FED 240 UL				
8012-0242		Increased air change rate through high performance fan	1,155.00	I	8012-0236		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,294.00	I
					8012-0244		Increased air change rate through high performance fan	1,155.00	I
					For FED 400				
					6004-0005		Rack, chrome-plated	213.00	XI
					6004-0011		Rack, stainless steel	325.00	XI
					8012-0346		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	435.00	XI
					6004-0032		Shelf, perforated, stainless steel	325.00	XI
					8012-0319		Door Lock	481.00	XI
					8012-0497	04	Door gasket, FKM (Viton)	748.00	XI
					8012-0339		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI
					8012-0269		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 3 phase, 400 V AC, 50 / 60 Hz	1,646.00	I
					8012-0200		Increased air change rate through high performance fan	1,155.00	I

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For FED 400 UL					For FED 720				
8012-0271		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,646.00	I	8012-0340		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI
8012-0245		Increased air change rate through high performance fan	1,155.00	I	8012-0270		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 400 V 3N ~ 50 / 60 Hz	1,680.00	I
For FED 720					For FED 720 UL				
6004-0006		Rack, chrome-plated	230.00	XI	8012-0201		Increased air change rate through high performance fan	1,155.00	I
6004-0010		Rack, stainless steel	353.00	XI	8012-0272		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,680.00	I
8012-0374		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI	8012-0246		Increased air change rate through high performance fan	1,155.00	I
6004-0033		Shelf, perforated, stainless steel	353.00	XI					
8012-0319		Door Lock	481.00	XI					
8012-0498	04	Door gasket, FKM (Viton)	897.00	XI					

FED series | Services

Validation service				
DL004031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	674.00	S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



FP 53 series



FP 240 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- MP Controller, 2 programs with 10 sections each or alternatively switch over to 1 program with 20 sections
- The time interval of single program sections can be adjusted up to a maximum of 99:59 hours or 999:59 hours. This adjustment applies to all program sections
- Integrated week program timer with real time function
- Adjustable time functions and programmable temperature ramp function via program editor
- Digital temperature setting with an accuracy of one degree
- Adjustable fan speed
- Adjustable front ventilation flap slide and rear exhaust ø 50 mm (1.97 inch)
- Elapsed time indicator
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
FP 53	1.9	9010-0153	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x24.3x22.6	15.8x15.8x13	99	2,808.00 I
FP 115	4.1	9010-0255	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	137	3,610.00 I
FP 240	8.5	9010-0263	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	216	4,990.00 I
FP 400	14.3	9010-0265	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	320	6,347.00 I
FP 720	25.4	9010-0267	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	406	7,969.00 I
FP 53 UL	1.9	9010-0175	115 V, 60 Hz - P4	Standard equipment	25x24.3x22.6	15.8x15.8x13	99	2,808.00 I
FP 115 UL	4.1	9010-0262	115 V, 60 Hz - P4	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	137	3,610.00 I
FP 240 UL	8.5	9010-0264	208 V 3ØY, 60 Hz - P6	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	216	4,990.00 I
FP 400 UL	14.3	9010-0266	208 V 3ØY, 60 Hz - P6	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	320	6,347.00 I
FP 720 UL	25.4	9010-0268	208 V 3ØY, 60 Hz - P6	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	406	7,969.00 I

+ 90 mm (3.54 inch) door handle and exhaust duct

FP series | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all FP models				For all FP models			
8012-0386		Access port with silicone plugs 10 mm (0.39 inch), top	297.00 XI	8012-0540		Access port with silicone plugs 30 mm (1.18 inch), back	390.00 XI
8012-0387		Access port with silicone plugs 10 mm (0.39 inch), right side	297.00 XI	8012-0545		Access port with silicone plugs 50 mm (1.97 inch), top	452.00 XI
8012-0388		Access port with silicone plugs 10 mm (0.39 inch), left side	297.00 XI	8012-0541		Access port with silicone plugs 50 mm (1.97 inch), right side	452.00 XI
8012-0390		Access port with silicone plugs 10 mm (0.39 inch), back	297.00 XI	8012-0542		Access port with silicone plugs 50 mm (1.97 inch), left side	452.00 XI
8012-0539		Access port with silicone plugs 30 mm (1.18 inch), top	390.00 XI	8012-0546		Access port with silicone plugs 50 mm (1.97 inch), back	452.00 XI
8012-0536		Access port with silicone plugs 30 mm (1.18 inch), right side	390.00 XI	8012-0547		Access port with silicone plugs 100 mm (3.94 inch), top	733.00 XI
8012-0537		Access port with silicone plugs 30 mm (1.18 inch), left side	390.00 XI	8012-0721 17		Access port with silicone plugs 100 mm (3.94 inch), right side	733.00 XI
				8012-0722 17		Access port with silicone plugs 100 mm (3.94 inch), left side	733.00 XI

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all FP models					For FP 53				
8012-0076		HEPA fresh-air filter, Class H 14 (according to EN 1822, min. 99.999% for 0.3 µm particles)	1,226.00	I	6004-0002		Rack, chrome-plated	65.00	XI
8012-0531		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI	6004-0007		Rack, stainless steel	88.00	XI
8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI	6004-0029		Shelf, perforated, stainless steel	88.00	XI
8012-0195		Measurement of air change rate according to ASTM D5374, with definition and protocol according to ambient temperature (Measurement in factory)	940.00	IX	8012-0318		Door Lock	481.00	XI
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	8012-0494 ⁰⁴		Door gasket, FKM (Viton)	484.00	XI
8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00	IX	8012-0188		Inert gas connection (gas inlet and outlet; Ø 10 mm (0.39 inch)). We recommend, in addition, the option mostly gas-tight version	386.00	VIII
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX	8012-0182 ¹⁰		Mostly gas-tight version	925.00	VIII
8012-0504		Additional measuring channel for digital display of specimen temperature, with flexible PT 100 temperature sensor. Measuring data recorded through RS 422 port	428.00	VIII	8012-0054		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
8012-0032 ¹⁸		Independent adjustable temperature safety device, class 3.1 (DIN 12880) with visual alarm for 230 V / 400 V	415.00	XI	8012-0197		Increased air change rate through high performance fan	1,155.00	I
8012-0481 ⁰³		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	For FP 53 UL				
8012-0471		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off either automatically, or also manually 1 phase, 230 V AC (3 phase, 400 V AC), 50 / 60 Hz	1,762.00	XI	8012-0237		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
8012-0714		Data Logger Kit T 350: For the continuous temperature recording of 0 °C (32 °F) to 350 °C (662 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	8012-0242		Increased air change rate through high performance fan	1,155.00	I
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	For FP 115				
For all FP UL models					6004-0003		Rack, chrome-plated	102.00	XI
8012-0472		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off either automatically, or also manually 115 V (3 phase, 208 V AC), 60 Hz	1,762.00	XI	6004-0008		Rack, stainless steel	135.00	XI
					6004-0030		Shelf, perforated, stainless steel	135.00	XI
					8012-0318		Door Lock	481.00	XI
					8012-0495 ⁰⁴		Door gasket, FKM (Viton)	516.00	XI
					8012-0188		Inert gas connection (gas inlet and outlet; Ø 10 mm (0.39 inch)). We recommend, in addition, the option mostly gas-tight version	386.00	VIII
					8012-0182 ¹⁰		Mostly gas-tight version	925.00	VIII
					8012-0056		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	778.00	I
					8012-0198		Increased air change rate through high performance fan	1,155.00	I
					For FP 115 UL				
					8012-0238		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 115 V, 60 Hz	778.00	I
					8012-0243		Increased air change rate through high performance fan	1,155.00	I

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For FP 240					For FP 400 UL				
6004-0004		Rack, chrome-plated	190.00	XI	8012-0240		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,646.00	I
6004-0009		Rack, stainless steel	235.00	XI	8012-0245		Increased air change rate through high performance fan	1,155.00	I
8012-0345		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI					
6004-0031		Shelf, perforated, stainless steel	236.00	XI	For FP 720				
8012-0319		Door Lock	481.00	XI	6004-0006		Rack, chrome-plated	230.00	XI
8012-0496 <i>o4</i>		Door gasket, FKM (Viton)	623.00	XI	6004-0010		Rack, stainless steel	353.00	XI
8012-0338		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI	8012-0374		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
8012-0058		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 1 phase, 230 V AC, 50 / 60 Hz	1,294.00	I	6004-0033		Shelf, perforated, stainless steel	353.00	XI
8012-0199		Increased air change rate through high performance fan	1,155.00	I	8012-0319		Door Lock	481.00	XI
					8012-0498 <i>o4</i>		Door gasket, FKM (Viton)	897.00	XI
For FP 240 UL					8012-0340		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI
8012-0239		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,294.00	I	8012-0062		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 3 phase, 400 V AC, 50 / 60 Hz	1,680.00	I
8012-0244		Increased air change rate through high performance fan	1,155.00	I	8012-0201		Increased air change rate through high performance fan	1,155.00	I
					For FP 720 UL				
For FP 400					8012-0241		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 208 V 3ØY, 60 Hz	1,680.00	I
6004-0005		Rack, chrome-plated	213.00	XI	8012-0246		Increased air change rate through high performance fan	1,155.00	I
6004-0011		Rack, stainless steel	325.00	XI					
8012-0346		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	435.00	XI					
6004-0032		Shelf, perforated, stainless steel	325.00	XI					
8012-0319		Door Lock	481.00	XI					
8012-0497 <i>o4</i>		Door gasket, FKM (Viton)	748.00	XI					
8012-0339		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI					
8012-0060		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 3 phase, 400 V AC, 50 / 60 Hz	1,646.00	I					
8012-0200		Increased air change rate through high performance fan	1,155.00	I					

FP series | Services

Validation service				
DL005031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



FDL 115 series



FDL 115 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- All safety features according to EN 1539
- Temperature range 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- MP Controller, 2 programs with 10 sections each or alternatively switch over to 1 program with 20 sections
- The time interval of single program sections can be adjusted up to a maximum of 99:59 hours or 999:59 hours. This adjustment applies to all program sections
- Integrated week program timer with real time function
- Adjustable time functions and programmable temperature ramp function via program editor
- Digital temperature setting with an accuracy of one degree
- Elapsed time indicator
- Door gasket, FKM (Viton) heat resistant up to 200 °C (392 °F)
- Replaceable fresh-air filter cartridge. Class F6 (EU6 fine-particle filter for particle sizes 1 µm to 10 µm)
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- Fresh-air monitoring with visual and audible alarm and automatic deactivation of heating
- Rear exhaust connector Ø 100 mm (4 inch)
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
FDL 115	4.1	9010-0269	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x23.7x27	31.3x17.1x17.1	199	7,590.00	III

+ 50 mm (1.97 inch) for door handle

FDL series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For FDL 115					For FDL 115				
8012-0387	01	Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0499		Door gasket, silicone, resistant to high operating temperatures >200 °C (392 °F). Attention: Over 250 °C (482 °F) the sealing will age faster	68.00	XIII
8012-0388	01	Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0602		Specimen temperature display with clip sensor and 4-20 mA analog output (e.g. chart recorder connection), accessible via 6-pin DIN socket	2,190.00	III
8012-0536	01	Access port with silicone plugs 30 mm (1.18 inch), right side	390.00	XI	8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX
8012-0537	01	Access port with silicone plugs 30 mm (1.18 inch), left side	390.00	XI	8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00	IX
6004-0003		Rack, chrome-plated	102.00	XI	8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX
6004-0008		Rack, stainless steel	135.00	XI					
6004-0030		Shelf, perforated, stainless steel	135.00	XI					
8012-0318		Door Lock	481.00	XI					

FDL series | Services

Validation service				
DL006031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	674.00	S1

* References:
01 Condensation may occur!



MDL 115 series



MDL 115 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient temperature up to 350 °C (662 °F)
- All safety features according to EN 1539
- Heat load 9.0 kW
- Door gasket made of high temperature resistant silicone
- Rear exhaust connector Ø 100 mm (4 inch)
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments

Features:

- User friendly LCD screen
- Easy-to-read menu guide
- Integrated electronic chart recorder
- Variety of options for the graphic display of process parameters
- Real time clock
- Replaceable fresh-air filter cartridge, class F6 (EU6-fine particle filter for particle 1...10 µm)
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual and audible temperature alarm

- Fresh-air monitoring with visual and audible alarm and automatic deactivation of heating
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
MDL 115	4.1	9010-0200	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	32.8x31.5x27	23.6x17.1x17.1	199	12,200.00 III

+ 50 mm (1.97 inch) door handle

MDL series | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For MDL 115				For MDL 115			
6004-0003		Rack, chrome-plated	102.00 XI	8012-0332		Additional measuring channel for digital display of specimen temperature, with clip sensor. Measuring data recorded through RS 422 port. Attention: Not available in connection with option door flap for Coil-Coating tests (8012-0179)	770.00 III
6004-0008		Rack, stainless steel	135.00 XI	8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00 IX
6004-0030		Shelf, perforated, stainless steel	135.00 XI			Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00 IX
8012-0318		Door Lock	481.00 XI	8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00 IX
8012-0529		Keyboard lock	425.00 XI				
8012-0179		Door flap for coil-coating tests	2,388.00 III				
6014-0001		Replacement air filter (class F6/EU6 – for particle sizes between 1 µm and 10 µm), 100x520x22 mm (3.94x20.47x0.87 inch), with aluminum frame	228.00 XIII				

MDL series | Services

Validation service			
DL007031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00 S1



VD 53 series



VD 115 series

VD 23 complete system
with vacuum module and pump

Standard equipment

- Electronically controlled APT.line™ preheating chamber technology with 2 patented expansion racks assures temperature accuracy and reproducible results
- Temperature range 15 °C (27 °F) above ambient temperature up to 200 °C (392 °F)
- MP controller with 2 programs with 10 sections each, or alternatively 1 program with 20 sections
- Integrated week program timer with real time function
- Digital temperature setting with an accuracy of one degree
- Elapsed time indicator
- Precision-adjustable ventilation valve (at VD 23 the standard inert gas connection is also used as ventilation valve)
- Precision-adjustable inert gas valve with Cross-Flow-Technology
- All electrical components are decoupled from the interior chamber
- Spring mounted safety glass panel with shatter protection
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- Measuring port DN 16
- Analog pressure gauge (display pressure difference between the inner chamber and the ambient pressure)
- Electro polished inner chamber, suction and ventilation tubes, pressure container, expansion racks and ball valve are made of stainless steel
- Door gasket made of tempered silicone
- 2 x 24 V DC (max 0.4 A) switching outputs, switched via 2 control contact of the program editor
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- 2 patented, flexible aluminum expansion racks
- Available as complete system, with module and vacuum pump. Features:
 - Reduced sound level
 - Practical working height
 - Well balanced system
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
VD 23	0.8	9030-0029	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	20.3x25.8x19.7	11.2x11.2x11.2	139	6,800.00	II
VD 53	1.9	9030-0030	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x30.5x21.7	15.8x15.8x13	210	9,770.00	II
VD 115	4.1	9030-0031	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	29.1x35.4x26.4	19.9x19.9x17.7	338	13,518.00	II
VD 23 UL	0.8	9030-0035	115 V, 60 Hz - P3	Standard equipment	20.3x25.8x19.7	11.2x11.2x11.2	139	6,800.00	II
VD 53 UL	1.9	9030-0036	115 V, 60 Hz - P3	Standard equipment	25x30.5x21.7	15.8x15.8x13	210	9,770.00	II
VD 115 UL	4.1	9030-0037	115 V, 60 Hz - P4	Standard equipment	29.1x35.4x26.4	19.9x19.9x17.7	338	13,518.00	II

+ 100 mm (3.94 inch) door handle and connection

VD series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all VD models					For all VD models				
8012-0146		Connection kit consists of: clamping ring aluminum, centering ring, small flange with hose nozzle (2.5 m / 8.2 ft.) rubber hose and 2 hose clamps	191.00	X	8012-0551		Specimen temperature measurement via flexible PT 100 sensor with digital temperature display	2,167.00	XI
8012-0262		Measurement port for air-tight lead-through of measurement lines into the unit (9-pin)	979.00	X	8012-0442		Factory calibration certificate for digital specimen temperature display. Measurement at 100 °C (212 °F) or at specified testing temperature	341.00	IX
8012-0031		Factory calibration certificate. Measurement in center of chamber at 100 °C (212 °F) or at specified testing temperature	341.00	IX	5013-0117		VP 1.1 chemical membrane pump (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser 1 phase, 230 V AC, 50 / 60 Hz	3,375.00	X
8012-0044		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	148.00	IX	5013-0119		VP 2.1 chemical membrane pump (nominal air flow 3.4 m³/hour), final pressure 1.5 mbar, with separator and emission condenser 1 phase, 230 V AC, 50 / 60 Hz	5,850.00	X
8012-0440		Factory calibration certificate for digital pressure display. Measurement at 100 mbar or at specified pressure (range: 20-900 mbar)	341.00	IX	5013-0121		VP 3.1 speed-controlled chemical membrane pump (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser 1 phase, 230 V AC, 50 / 60 Hz	8,750.00	X
8012-0441		Factory calibration certificate for digital pressure display, extension. Each additional measurement at an additional pressure (range: 20-900 mbar)	125.00	IX					

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all VD UL models					For VD 53				
5013-0118		VP 1.1 chemical membrane pump (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser 115 V, 60 Hz	3,375.00	X	8009-0371		Expansion racks, aluminum	315.00	XI
5013-0120		VP 2.1 chemical membrane pump (nominal air flow 3.4 m³/hour), final pressure 1.5 mbar, with separator and emission condenser 115 V, 60 Hz	5,850.00	X	8009-0102 <i>o7</i>		Expansion racks, stainless steel	348.00	XI
5013-0122		VP 3.1 speed-controlled chemical membrane pump (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser 115 V, 60 Hz	8,750.00	X	8012-0617		Exchange and calibration to stainless steel expansion racks, standard equipment aluminum expansion racks will be replaced	454.00	XI
For VD 23					8012-0501		Door gasket, FKM (Viton)	756.00	XI
8009-0370		Expansion racks, aluminum	258.00	XI	8012-0549		Digital pressure display, measuring area from 1 mbar to atm. pressure, display accuracy 1 mbar	1,910.00	XI
8009-0101 <i>o7</i>		Expansion racks, stainless steel	289.00	XI	8012-0131		Vacuum module for installation of vacuum pumps, with switchable power socket (ON/OFF) (230 V / 16 A) 1 phase, 230 V AC, 50 / 60 Hz	1,695.00	X
8012-0616		Exchange and calibration to stainless steel expansion racks, standard equipment aluminum expansion racks will be replaced	427.00	XI	8012-0729 <i>o9</i>		Vacuum module with chemical membrane pump VP 1.1 (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 / 60 Hz	4,150.00	X
8012-0500		Door gasket, FKM (Viton)	632.00	XI	8012-0730 <i>o9</i>		Vacuum module with chemical membrane pump VP 2.1 (nominal air flow 3.4 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 / 60 Hz	6,150.00	X
8012-0548		Digital pressure display, measuring area from 1 mbar to atm. pressure, display accuracy 1 mbar	1,910.00	XI	8012-0731 <i>o9</i>		Vacuum module with speed-controlled chemical membrane pump VP 3.1 (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts, as well as digital vacuum controller (measuring precision ≤1 mbar) 1 phase, 230 V AC, 50 / 60 Hz	8,950.00	X
8012-0130		Vacuum module for installation of vacuum pumps, with switchable power socket (ON/OFF) (230 V / 16 A) 1 phase, 230 V AC, 50 / 60 Hz	1,654.00	X	For VD 53 UL				
8012-0723 <i>o9</i>		Vacuum module with chemical membrane pump VP 1.1 (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 / 60 Hz	4,100.00	X	8012-0274		Vacuum module for installation of vacuum pumps, with switchable power socket (ON/OFF) (115 V / 13 A) 115 V, 60 Hz	1,695.00	X
8012-0724 <i>o9</i>		Vacuum module with chemical membrane pump VP 2.1 (nominal air flow 3.4 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 / 60 Hz	6,100.00	X	8012-0732 <i>o9</i>		Vacuum module with chemical membrane pump VP 1.1 (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 115 V, 60 Hz	4,150.00	X
8012-0725 <i>o9</i>		Vacuum module with speed-controlled chemical membrane pump VP 3.1 (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts, as well as digital vacuum controller (measuring precision ≤1 mbar) 1 phase, 230 V AC, 50 / 60 Hz	8,900.00	X	8012-0733 <i>o9</i>		Vacuum module with chemical membrane pump VP 2.1 (nominal air flow 3.4 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 115 V, 60 Hz	6,150.00	X
For VD 23 UL					8012-0734 <i>o9</i>		Vacuum module with speed-controlled chemical membrane pump VP 3.1 (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts, as well as digital vacuum controller (measuring precision ≤1 mbar) 115 V, 60 Hz	8,950.00	X
8012-0273		Vacuum module for installation of vacuum pumps, with switchable power socket (ON/OFF) (115 V / 13 A) 115 V, 60 Hz	1,654.00	X					
8012-0726 <i>o9</i>		Vacuum module with chemical membrane pump VP 1.1 (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 115 V, 60 Hz	4,100.00	X					
8012-0727 <i>o9</i>		Vacuum module with chemical membrane pump VP 2.1 (nominal air flow 3.4 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts 115 V, 60 Hz	6,100.00	X					
8012-0728 <i>o9</i>		Vacuum module with speed-controlled chemical membrane pump VP 3.1 (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts, as well as digital vacuum controller (measuring precision ≤1 mbar) 115 V, 60 Hz	8,900.00	X					

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For VD 115					For VD 115 UL				
8009-0372		Expansion racks, aluminum	400.00	XI	8012-0275		Vacuum module for installation of vacuum pumps, with switchable power socket (ON/OFF) (115 V / 13 A) 115 V, 60 Hz	1,695.00	X
8009-0103	07	Expansion racks, stainless steel	463.00	XI					
8012-0618		Exchange and calibration to stainless steel expansion racks, standard equipment aluminum expansion racks will be replaced	475.00	XI	8012-0738	09	Vacuum module with chemical membrane pump VP 1.1 (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 115 V, 60 Hz	4,150.00	X
8012-0502		Door gasket, FKM (Viton)	881.00	XI					
8012-0550		Digital pressure display, measuring area from 1 mbar to atm. pressure, display accuracy 1 mbar	1,910.00	XI	8012-0739	09	Vacuum module with chemical membrane pump VP 2.1 (nominal air flow 3.4 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 115 V, 60 Hz	6,150.00	X
8012-0132		Vacuum module for installation of vacuum pumps, with switchable power socket (ON/OFF) (230 V / 16 A) 1 phase, 230 V AC, 50 / 60 Hz	1,695.00	X					
8012-0735	09	Vacuum module with chemical membrane pump VP 1.1 (nominal air flow 2.0 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 / 60 Hz	4,150.00	X	8012-0740	09	Vacuum module with speed-controlled chemical membrane pump VP 3.1 (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts, as well as digital vacuum controller (measuring precision ≤1 mbar) 115 V, 60 Hz	8,950.00	X
8012-0736	09	Vacuum module with chemical membrane pump VP 2.1 (nominal air flow 3.4 m³/hour), final pressure 7 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 / 60 Hz	6,150.00	X					
8012-0737	09	Vacuum module with speed-controlled chemical membrane pump VP 3.1 (nominal air flow 4.6 m³/hour), final pressure 1.5 mbar, with separator and emission condenser, including all necessary vacuum connection parts, as well as digital vacuum controller (measuring precision ≤1 mbar) 1 phase, 230 V AC, 50 / 60 Hz	8,950.00	X					

VD series | Services

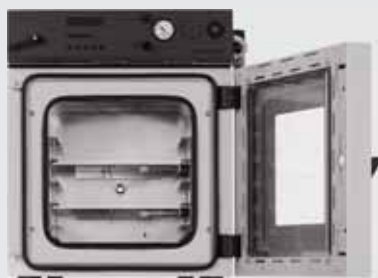
Validation service				
DL008031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	978.00	S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



VDL 23 series



VDL 53 series



VDL vacuum module with pump

Standard equipment

- Electronically controlled APT.line™ preheating chamber technology with 2 patented expansion racks assures temperature accuracy and reproducible results
- Temperature range 15 °C (27 °F) above ambient temperature up to 200 °C (392 °F)
- MP controller with 2 programs with 10 sections each, or alternatively 1 program with 20 sections
- Integrated week program timer with real time function
- Digital temperature setting with an accuracy of one degree
- Elapsed time indicator
- Spring mounted safety glass panel with shatter protection
- Precision-adjustable ventilation valve
- 2 patented, flexible aluminum expansion racks
- Precision-adjustable inert gas valve with Cross-Flow-Technology
- Safety features:
 - pressure control device for heating activated <125 mbar (3.69 inchHG)
 - Over pressure capsulated instrument panel with compressed air connection and maintenance unit
 - flame protection gasket
- Analog pressure gauge (display pressure difference between the inner chamber and the ambient pressure)
- Electro polished inner chamber, suction and ventilation tubes, pressure container, expansion racks and ball valve are made of stainless steel
- Door gasket made of tempered silicone
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- Measuring port DN 16
- Interface RS 422 for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- All electrical components are decoupled from the interior chamber
- Available as complete system, with module and vacuum pump. Features:
 - Reduced sound level
 - Practical working height
 - Well balanced system
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
VDL 23	0.8	9030-0038	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	20.3x25.8x19.7	11.2x11.2x11.2	139	12,055.00	II
VDL 53	1.9	9030-0039	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x30.5x21.7	15.8x15.8x13	210	13,150.00	II
VDL 115	4.1	9030-0040	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	29.1x35.4x26.4	19.9x19.9x17.7	338	16,938.00	II

+ 100 mm (3.94 inch) door handle and connection

VDL series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all VDL models					For all VDL models				
8012-0621		ATEX connection kit VP 4, consists of: straining ring aluminium, universal centering ring, transition piece adapter, antistatic vacuum hose, union nut, elbow	601.00	X	8012-0031		Factory calibration certificate. Measurement in center of chamber at 100 °C (212 °F) or at specified testing temperature	341.00	IX
8012-0622		ATEX connection kit VP 5, consists of: straining ring aluminium, universal centering ring, outer centering ring, transition piece adapter, union nut, antistatic vacuum hose, elbow	601.00	X	8012-0044		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	148.00	IX
8012-0262		Measurement port for air-tight lead-through of measurement lines into the unit (9-pin)	979.00	X	5013-0049 06		VP 4, mechanical and electrical membrane pump (nominal air flow 1.9 m³/hour), final pressure 12 mbar, with separator and emission condenser 1 phase, 230 V AC, 50 Hz	9,855.00	X
8012-0574		Specimen temperature measurement via flexible PT 100 sensor (EX-proof via measurement current feed-through), with digital temperature display	3,399.00	XI					

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$					
For VDL 23					For VDL 115								
8009-0370		Expansion racks, aluminum	258.00	XI	8009-0372		Expansion racks, aluminum	400.00	XI				
8009-0101	07	Expansion racks, stainless steel	289.00	XI	8009-0103	07	Expansion racks, stainless steel	463.00	XI				
8012-0616		Exchange and calibration to stainless steel expansion racks, standard equipment aluminum expansion racks will be replaced	427.00	XI	8012-0618		Exchange and calibration to stainless steel expansion racks, standard equipment aluminum expansion racks will be replaced	475.00	XI				
8012-0500		Door gasket, FKM (Viton)	632.00	XI	8012-0502		Door gasket, FKM (Viton)	881.00	XI				
8012-0690		Vacuum module (empty) for installation of vacuum pumps	1,588.00	X	8012-0692		Vacuum module (empty) for installation of vacuum pumps	1,629.00	X				
8012-0381	06	Vacuum module with membrane pump VP 4, mechanical and electrical membrane pump components EX-proof, ATEX approved (nominal air flow 1.9 m³/hour), final pressure 12 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 Hz	10,541.00	X	8012-0383	06	Vacuum module with membrane pump VP 4, mechanical and electrical membrane pump components EX-proof, ATEX approved (nominal air flow 1.9 m³/hour), final pressure 12 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 Hz	10,715.00	X				
For VDL 53					8012-0385	06	Vacuum module with membrane pump VP 5, mechanical and electrical membrane pump components EX-proof, ATEX approved (nominal air flow 3.7 m³/hour), final pressure 3 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 Hz	14,817.00	X				
8009-0371		Expansion racks, aluminum	315.00	XI	5013-0050	06	VP 5, mechanical and electrical membrane pump (nominal air flow 3.7 m³/hour), final pressure 3 mbar, with separator and emission condenser 1 phase, 230 V AC, 50 Hz	14,445.00	X				
8009-0102	07	Expansion racks, stainless steel	348.00	XI									
8012-0617		Exchange and calibration to stainless steel expansion racks, standard equipment aluminum expansion racks will be replaced	454.00	XI									
8012-0501		Door gasket, FKM (Viton)	756.00	XI									
8012-0691		Vacuum module (empty) for installation of vacuum pumps	1,629.00	X									
8012-0382	06	Vacuum module with membrane pump VP 4, mechanical and electrical membrane pump components EX-proof, ATEX approved (nominal air flow 1.9 m³/hour), final pressure 12 mbar, with separator and emission condenser, including all necessary vacuum connection parts 1 phase, 230 V AC, 50 Hz	10,575.00	X									

VDL series | Services

Validation service				
DL009031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	978.00	S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



M 53 series



M 720 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments

Features:

- User friendly LCD screen
- Easy-to-read menu guide

- Integrated electronic chart recorder
- Variety of options for the graphic display of process parameters
- Real time clock

- Adjustable ramp function via program editor
- Program-controlled ventilation flap
- High air-exchange rate through high-performance fan
- Adjustable fan speed
- Exhaust duct Ø 50 mm (1.97 inch)
- Temperature safety device class 2 (DIN 12880) with visual alarm

- Printer and communication interface RS 422 for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
M 53	1.9	9010-0201	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x30.7x22.6	15.8x15.8x13	135	5,930.00 VIII
M 115	4.1	9010-0202	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x34x25.4	23.6x18.9x15.8	196	7,054.00 VIII
M 240	8.5	9010-0203	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	40.7x38.7x29.3	31.5x23.6x19.7	289	8,268.00 VIII
M 400	14.3	9010-0204	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	48.6x46.6x30.1	39.4x31.5x19.7	382	9,998.00 VIII
M 720	25.4	9010-0205	3 phase, 400 V AC, 50 / 60 Hz - P2	Standard equipment	48.6x66.6x34.1	39.4x47.2x23.6	448	11,675.00 VIII

+ 90 mm (3.54 inch) door handle and exhaust duct

M series | Options and accessories

Cat. No.	* Description	Price US \$		Cat. No.	* Description	Price US \$	
For all M models				For all M models			
8012-0386	Access port with silicone plugs 10 mm (0.39 inch), top	297.00	XI	8012-0541	Access port with silicone plugs 50 mm (1.97 inch), right side	452.00	XI
8012-0387	Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0542	Access port with silicone plugs 50 mm (1.97 inch), left side	452.00	XI
8012-0388	Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0546	Access port with silicone plugs 50 mm (1.97 inch), back	452.00	XI
8012-0390	Access port with silicone plugs 10 mm (0.39 inch), back	297.00	XI	8012-0721 ¹⁷	Access port with silicone plugs 100 mm (3.94 inch), right side	733.00	XI
8012-0539	Access port with silicone plugs 30 mm (1.18 inch), top	390.00	XI	8012-0722 ¹⁷	Access port with silicone plugs 100 mm (3.94 inch), left side	733.00	XI
8012-0536	Access port with silicone plugs 30 mm (1.18 inch), right side	390.00	XI	8012-0531	Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI
8012-0537	Access port with silicone plugs 30 mm (1.18 inch), left side	390.00	XI	8012-0001	Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI
8012-0540	Access port with silicone plugs 30 mm (1.18 inch), back	390.00	XI	8012-0529	Keyboard lock	425.00	XI
8012-0545	Access port with silicone plugs 50 mm (1.97 inch), top	452.00	XI	8012-0222	HEPA fresh-air filter, Class H 14 (according to EN 1822, min. 99.995% for 0.1-0.3 µm particles)	1,226.00	VIII
				8012-0195	Measurement of air change rate according to ASTM D5374, with definition and protocol according to ambient temperature (Measurement in factory)	940.00	IX

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all M models					For M 115				
8012-0480		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	8012-0188		Inert gas connection (gas inlet and outlet; Ø 10 mm (0.39 inch)). We recommend, in addition, the option mostly gas-tight version	386.00	VIII
8012-0115		Additional PT 100 temperature sensor, flexibly installed, with external connection, including LEMO connector (3-pin)	592.00	XI	8012-0181	10	Mostly gas-tight version	925.00	VIII
8012-0334		Additional measuring channel for digital display of specimen temperature, with flexible PT 100 temperature sensor. Measuring data recorded through RS 422 port	428.00	VIII	For M 240				
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	6004-0004		Rack, chrome-plated	190.00	XI
8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00	IX	6004-0009		Rack, stainless steel	235.00	XI
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX	8012-0345		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
8012-0714		Data Logger Kit T 350: For the continuous temperature recording of 0 °C (32 °F) to 350 °C (662 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	6004-0031		Shelf, perforated, stainless steel	236.00	XI
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	8012-0319		Door Lock	481.00	XI
For M 53					8012-0496	04	Door gasket, FKM (Viton)	623.00	XI
6004-0002		Rack, chrome-plated	65.00	XI	8012-0059		2 doors with 1 window each 350 x 240 mm (13.78 x 9.45 inch) and interior lighting (30 W) 1 phase, 230 V AC, 50 / 60 Hz	1,111.00	VIII
6004-0007		Rack, stainless steel	88.00	XI	8012-0341		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI
6004-0029		Shelf, perforated, stainless steel	88.00	XI	For M 400				
8012-0318		Door Lock	481.00	XI	6004-0005		Rack, chrome-plated	213.00	XI
8012-0494	04	Door gasket, FKM (Viton)	484.00	XI	6004-0011		Rack, stainless steel	325.00	XI
8012-0055		Door with window 230 x 230 mm (9.06 x 9.06 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	622.00	VIII	8012-0346		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	435.00	XI
8012-0188		Inert gas connection (gas inlet and outlet; Ø 10 mm (0.39 inch)). We recommend, in addition, the option mostly gas-tight version	386.00	VIII	6004-0032		Shelf, perforated, stainless steel	325.00	XI
8012-0181	10	Mostly gas-tight version	925.00	VIII	8012-0319		Door Lock	481.00	XI
For M 115					8012-0497	04	Door gasket, FKM (Viton)	748.00	XI
6004-0003		Rack, chrome-plated	102.00	XI	8012-0061		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W) 3 phase, 400 V AC, 50 / 60 Hz	1,429.00	VIII
6004-0008		Rack, stainless steel	135.00	XI	8012-0342		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI
6004-0030		Shelf, perforated, stainless steel	135.00	XI	For M 720				
8012-0318		Door Lock	481.00	XI	6004-0006		Rack, chrome-plated	230.00	XI
8012-0495	04	Door gasket, FKM (Viton)	516.00	XI	6004-0010		Rack, stainless steel	353.00	XI
8012-0057		Door with window 320 x 260 mm (12.60 x 10.24 inch) and interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	645.00	VIII	8012-0374		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
					6004-0033		Shelf, perforated, stainless steel	353.00	XI
					8012-0319		Door Lock	481.00	XI
					8012-0498	04	Door gasket, FKM (Viton)	897.00	XI
					8012-0063		2 doors with 1 window each 470 x 290 mm (18.50 x 11.42 inch) and interior lighting (30 W)	1,429.00	VIII
					8012-0343		Reinforced inner chamber, including 2 reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	1,553.00	XI

M series | Services

Validation service				
DL010031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1

* References:

01	Condensation may occur!	08	The additional heat input can influence the temperature behaviour.	13	The calibration is performed according to BINDER factory standard
02	Only in combination with O ₂ control.	09	Pump is supplied ready for connection in separate packaging	14	The prices stated do not include travel costs. For the travel costs for your area, please see page 3.
03	UL approval is not possible with this option.	10	Not available in combination with option access port and door with window and interior lighting.	15	Restricted humidity range < 30 % RH at 20 °C (68 °F)
04	Temperature resistant up to max. 200 °C only.	11	Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.	16	Not for 23 Liter units possible
05	Only possible for units in 230 V.	12	For information about our service contracts, please see www.binder-world.us	17	Not for 23 and 53 liter units possible
06	Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!			18	Only possible for units in 230 V / 400 V.
07	Stainless steel influences heat conductivity.				



MK 53 (E2.1) series



MK 240 (E3) series



MK 720 (E3) series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range -40 °C (-40 °F) up to 180 °C (356 °F)
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
 - Features:
 - User friendly LCD screen
 - Easy-to-read menu guide
 - Integrated electronic chart recorder

- Variety of options for the graphic display of process parameters
- Real time clock
- Adjustable ramp function via program editor
- Access ports:
 - Serie MK 53 : access port Ø 80 mm (3.15 inch) top
 - MK 115, 240 series: access port Ø 50 mm (1.97 inch), left side
 - MK 720 series: 2 access ports Ø 80 mm (3.15 inch), right and left side
- Heated viewing window with LED interior lighting

- Temperature safety device class 2 (DIN 12880) with visual and audible temperature alarm
- Ethernet interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software (MK E3 models)
- RS 422 interface (MK 53)
- 1 stainless steel rack included
- BINDER test certificate

Latest technical data at www.binder-world.com

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
MK 53 (E2.1)	1.9	9020-0006	1 phase, 230 V AC, 50 Hz - P1	Standard equipment	29.1x48.9x31.3	15.8x15.8x13	331	12,600.00 VIII
MK 115 (E3)	4.1	9020-0146	3 phase, 400 V AC, 50 Hz - P2	Standard equipment	39.2x67.6x33.1	23.6x18.9x15.8	574	18,490.00 VIII
MK 240 (E3)	8.5	9020-0148	3 phase, 400 V AC, 50 Hz - P2	Standard equipment	44x67.4x37.2	28.9x27.6x17.4	750	21,259.00 VIII
MK 720 (E3)	25.4	9020-0156	3 phase, 400 V AC, 50 Hz - P2	Standard equipment	63.5x78.6x46.2	47.2x46x23.6	1257	27,690.00 VIII

+ 55 mm (2.17 inch) for door handle and connection

MK series | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all MK models				For all MK models			
8012-0508	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00 VIII	8012-0030		Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	341.00 IX
8012-0509	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00 VIII	8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00 IX
8012-0510	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00 VIII	8012-0447		Additional measuring channel for digital display of specimen temperature, with flexible PT 100 temperature sensor. Measuring data recorded through device interface	425.00 VIII
8012-0511	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00 VIII	8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00 X
8012-0512	01	Access port with silicone plugs 80 mm (3.14 inch), right side	707.00 VIII	8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00 X
8012-0513	01	Access port with silicone plugs 80 mm (3.14 inch), left side	707.00 VIII	For all MK (E3) models			
8012-0514	01 17	Access port with silicone plugs 100 mm (3.94 inch), right side	733.00 VIII	8012-0697		RS 422 interface	490.00 XI
8012-0515	01 17	Access port with silicone plugs 100 mm (3.94 inch), left side	733.00 VIII	8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00 XI
8012-0532	01 17	Access port with silicone plugs 125 mm (4.72 inch), right side	752.00 VIII	8012-0606		Door Lock	475.00 XI
8012-0533	01 17	Access port with silicone plugs 125 mm (4.72 inch), left side	752.00 VIII				
8012-0517		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00 VIII				
8012-0530		Keyboard lock	425.00 XI				

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all MK (E3) models					For MK 240 (E3)				
8012-0310		Temperature safety device for preventing too low and high temperatures, class 2	1,548.00	VIII	6004-0097		Rack, stainless steel	235.00	XI
8012-0660		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 3 relay outputs via 3 of the programmable controller's controller contacts 34 V / 3 A	970.00	XI	8012-0605		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
					8009-0447		Shelf, perforated, stainless steel	235.00	XI
					8012-0608		Notch-type access port in door, 100 x 35 mm (4 x 1.4 inch)	2,285.00	VIII
For MK 53 (E2.1)					For MK 720 (E3)				
6004-0007		Rack, stainless steel	88.00	XI	6004-0102		Rack, stainless steel	353.00	XI
6004-0029		Shelf, perforated, stainless steel	88.00	XI	8012-0684		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
8012-0531		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI	8009-0511		Shelf, perforated, stainless steel	353.00	XI
8012-0321		Door Lock	481.00	XI	8012-0683		Notch-type access port in door, 100 x 35 mm (4 x 1.4 inch)	2,299.00	VIII
For MK 115 (E3)									
6004-0008		Rack, stainless steel	135.00	XI					
8012-0709		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	226.00	XI					
6004-0030		Shelf, perforated, stainless steel	135.00	XI					
8012-0708		Notch-type access port in door, 100 x 35 mm (4 x 1.4 inch)	2,285.00	VIII					

MK (E3) series | Services

Validation service				
DL011031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1

* References:

01	Condensation may occur!	08	The additional heat input can influence the temperature behaviour.	13	The calibration is performed according to BINDER factory standard
02	Only in combination with O ₂ control.	09	Pump is supplied ready for connection in separate packaging	14	The prices stated do not include travel costs. For the travel costs for your area, please see page 3.
03	UL approval is not possible with this option.	10	Not available in combination with option access port and door with window and interior lighting.	15	Restricted humidity range < 30 % RH at 20 °C (68 °F)
04	Temperature resistant up to max. 200 °C only.	11	Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.	16	Not for 23 Liter units possible
05	Only possible for units in 230 V.	12	For information about our service contracts, please see www.binder-world.us	17	Not for 23 and 53 liter units possible
06	Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!			18	Only possible for units in 230 V / 400 V.
07	Stainless steel influences heat conductivity.				



KBF 240 series



KBF 720 (E5.2) series

Standard equipment

- Electronically controlled APT.line™ preheating chamber and refrigerating system assuring temperature accuracy and reproducible results
- Temperature range:
 - without humidity: 0 °C up to 70 °C (32 °F up to 158 °F)
 - with humidity: 10 °C up to 70 °C (50 °F up to 158 °F)
- Humidity range 10 % to 80 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments

Features:

- User friendly LCD screen
- Easy-to-read menu guide
- Integrated electronic chart recorder
- Variety of options for the graphic display of process parameters
- Real time clock
- Electronically controlled humidification and dehumidification system with capacitive humidity sensor
- Suitable for stability tests according to ICH guideline Q1A (R2)
- Inner glass door with sealing

- Independent adjustable temperature safety device class 3.1 (DIN 12880), with visual and audible temperature alarm
 - Access port with silicone plug Ø 30 mm (1.18 inch), left side
 - Safety connection kit for water supply and drainage, including water hose, total length 6 m (19.7 ft.)
 - Ethernet interface for GLP/GMP and the FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControl-System software
 - 2 stainless steel racks included
 - BINDER test certificate
- Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior* WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
KBF 115	4.1	9020-0139	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	34.7x41.2x25.5	23.6x19x13.8	284	15,800.00 VI
KBF 240	8.5	9020-0150	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	35.6x57.4x30.1	25.6x30.9x18.5	406	17,290.00 VI
KBF 720	25.4	9020-0108	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	48.6x71.5x34.1	39.4x46x23.6	694	22,300.00 VI
KBF 115 UL	4.1	9020-0184	208/240 V, 60 Hz - P5	Standard equipment	34.7x41.2x25.5	23.6x19x13.8	284	15,800.00 VI
KBF 240 UL	8.5	9020-0176	208/240 V, 60 Hz - P5	Standard equipment	35.6x57.4x30.1	25.6x30.9x18.5	406	17,290.00 VI
KBF 720 UL	25.4	9020-0168	208/240 V, 60 Hz - P5	Standard equipment	48.6x71.5x34.1	39.4x46x23.6	694	22,300.00 VI

+ 50 mm (1.97 inch) door handle and connection

KBF series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all KBF models					For all KBF models				
8012-0647	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00	XI	8012-0641		RS 422 connection for communication software APT-COM™ DataControlSystem	489.00	XI
8012-0648	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00	XI	8012-0643		External fresh water supply set consists of fresh and waste water canister with 20 liter each, cabling and pump	1,109.00	XI
8012-0649	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00	XI	8012-0625		BINDER PURE AQUA SERVICE consisting of disposable cartridge, hose set and measuring unit	642.00	XI
8012-0652	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00	XI	6011-0077		Disposable cartridge for BINDER PURE AQUA SERVICE	384.00	X
8012-0653	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00	XI	8012-0154		Factory calibration certificate for temperature and humidity. Measurement in center of chamber at 25 °C (77 °F) / 60 % RH or at specified values	427.00	IX
8012-0650	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00	XI	8012-0155		Extension to factory calibration certificate for temperature and humidity. Each additional measurement at an additional measuring point or set of values	228.00	IX
8012-0651	01	Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI	8012-0157		Temperature precision measurement according to DIN 12880 and 9-point humidity measurement / factory standard with measurement log and certificate, measured at 25 °C (77 °F) / 60 % RH or at specified values	2,692.00	IX
8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI					
8012-0609		Keyboard lock	425.00	XI					
8012-0637		Additional PT 100 temperature sensor, flexibly installed, with external connection, including DIN connector (6-pin)	592.00	XI					

Cat. No.	Description	Price €		Cat. No.	Description	Price €	
For all KBF models				For KBF 240			
8012-0716	Data Logger Kit TH 70: For the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Kit includes 1 data logger, 1 attachable combined humidity/temperature sensor with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,260.00	X	6004-0101	Rack, stainless steel	183.00	XI
8012-0717	Data Logger Kit TH 70/70: With two attachable combined sensors. One for the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Second one at the data logger for recording the environmental conditions. Kit includes 1 data logger, 2 attachable combined humidity/temperature sensors with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,660.00	X	8012-0638	Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
8012-0715	Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	6004-0040	Shelf, perforated, stainless steel	183.00	XI
8012-0720	Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	8012-0116	Interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	595.00	XI
For KBF 115				8012-0610	Safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI
6004-0112	Rack, stainless steel	135.00	XI	8012-0614	4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted	836.00	XI
6004-0115	Shelf, perforated, stainless steel	135.00	XI	8012-0615	Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00	XI
8012-0703	Safety device, class 3.3 (DIN 12880) with visual alarm	937.00	XI	8012-0640 ⁰⁸	Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug. Max. allowed operating temperature 50 °C (122 °F) 1 phase, 230 V AC, 50 / 60 Hz	655.00	XI
8012-0704	4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted.	836.00	XI	8012-0584	Door lock	481.00	XI
8012-0705	Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00	XI	For KBF 720			
				6004-0106	Rack, stainless steel	353.00	XI
				8012-0674	Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
				8009-0486	Shelf, perforated, stainless steel	353.00	XI
				8012-0117 ⁰¹	Interior lighting (30 W) 1 phase, 230 V AC, 50 / 60 Hz	884.00	XI
				8012-0668	Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	1,189.00	XI
				8012-0669	4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted.	836.00	XI
				8012-0670	Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00	XI
				8012-0672 ⁰⁸	Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug (IP66 protected) Max. allowed operating temperature 50 °C (122 °F). 1 phase, 230 V AC, 50 / 60 Hz	655.00	XI
				8012-0696	Door lock	481.00	XI

* References:

01 Condensation may occur in this area!

02 Only in combination with Q₂ control.

03 UL approval is not possible with this option.

04 Temperature resistant up to max. 200 °C only.

05 Only possible for units in 230 V.

06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!

07 Stainless steel influences heat conductivity.

08 The additional heat input can influence the temperature behaviour.

09 Pump is supplied ready for connection in separate packaging

10 Not available in combination with option access port and door with window and interior lighting.

11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.

12 For information about our service contracts, please see www.binder-world.us

13 The calibration is performed according to BINDER factory standard

14 The prices stated do not include travel costs. For the travel costs for your area, please see page 3.

15 Restricted humidity range < 30 % RH at 20 °C (68 °F)

16 Not for 23 Liter units possible

17 Not for 23 and 53 liter units possible

18 Only possible for units in 230 V / 400 V.

Cat. No.	*	Description	Price US \$	
Validation service				
DL014031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	978.00	S1

* *References:*

01 Condensation may occur in this area!

02 Only in combination with O₂ control.

03 UL approval is not possible with this option.

04 Temperature resistant up to max. 200 °C only.

05 Only possible for units in 230 V.

06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!

07 Stainless steel influences heat conductivity.

08 The additional heat input can influence the temperature behaviour.

09 Pump is supplied ready for connection in separate packaging

10 Not available in combination with option access port and door with window and interior lighting.

11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.

12 For information about our service contracts, please see www.binder-world.us

13 The calibration is performed according to BINDER factory standard

14 The prices stated do not include travel costs. For the travel costs for your area, please see page 3.

15 Restricted humidity range < 30 % RH at 20 °C (68 °F)

16 Not for 23 Liter units possible

17 Not for 23 and 53 liter units possible

18 Only possible for units in 230 V / 400 V.



KBF P 240 series



KBF P 720 series

Patented illumination system with
BINDER Synergy Light™

Standard equipment

- Electronically controlled APT.line™ preheating chamber and refrigerating system assuring temperature accuracy and reproducible results
- ICH-compliant illumination*:
2 (for KBF P 240) or 3 (for KBF P 720) variable positioned illumination cassettes with BINDER Q1B Synergy Light™ for unique homogenous light distribution
- Temperature range:
 - without illumination and humidity:
0 °C up to 70 °C (32 °F up to 158 °F)
 - with illumination and humidity:
10 °C up to 60 °C (50 °F up to 140 °F)
- Humidity range:
 - with illumination: 10 % to 75 % RH
 - without illumination: 10 % to 80 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program

segments

- Features:
- User friendly LCD screen
 - Easy-to-read menu guide
 - Integrated electronic chart recorder
 - Variety of options for the graphic display of process parameters
 - Real time clock
 - Electronically controlled humidification and dehumidification system with capacitive humidity sensor suitable for stability tests according to ICH guideline Q1A (R2)
 - Inner glass door with sealing
 - Independent adjustable temperature safety device class 3.1 (DIN 12880), with visual and audible temperature alarm
 - Access port with silicone plug Ø 30 mm (1.18 inch),

left side

- Safety connection kit for water supply and drainage, including water hose, total length 6 m (19.7 ft.)
- Ethernet interface for APT-COM™ DataControlSystem software
- 2 (for KBF P 240) or 3 (for KBF P 720) stainless steel racks included
- BINDER test certificate

*ICH-compliant illumination

ICH-compliant illumination integrated into variable positioned illumination cassettes with 3 cool white fluorescent tubes and 2 BINDER Q1B Synergy Light fluorescent tubes for photo-stability tests according to ICH guideline Q1B, Option 2

Latest technical data at www.binder-world.com

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior* WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
► limited quantity available, please contact BINDER Inc.at (866) 885 9794								
KBF P 720	25.4	9020-0068	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	48.6x71.5x34.1	39.4x46x23.6	761	on request
KBF P 240 UL	8.5	9020-0104	240 V, 60 Hz - P7	Standard equipment	40.7x45x29.4	31.5x23.6x19.7	406	on request

New models

KBF P 240	8.5	9020-0160	1 phase, 200-240 V AC, 50 / 60 Hz- P1	Standard equipment	35.6x57.4x30.1	25.6x30.9x18.5	472	20,990.00 VI
KBF P 720	25.4	9020-0143	1 phase, 200-240 V AC, 50 / 60 Hz- P1	Standard equipment	48.6 x 71.5 x 34.1	39.4 x 46 x 23.6	761	25,100.00 VI
KBF P 240 UL	8.5	9020-0106	208/240 V, 60 Hz- P5	Standard equipment	35.6x57.4x30.1	25.6x30.9x18.5	472	20,990.00 VI
KBF P 720 UL	25.4	9020-0169	208/240 V, 60 Hz- P5	Standard equipment	48.6 x 71.5 x 34.1	39.4 x 46 x 23.6	761	25,100.00 VI

+ 50 mm (1.97 inch) door handle and connection

KBF P series | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all KBF P models				For all KBF P models			
8012-0647	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00 XI	8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00 XI
8012-0648	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00 XI	8012-0609		Keyboard lock	425.00 XI
8012-0649	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00 XI	8012-0641		RS 422 interface for communication software APT-COM™ DataControlSystem	489.00 XI
8012-0652	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00 XI	8012-0637		Additional PT 100 temperature sensor, flexibly installed, with external connection, including DIN connector (6-pin)	592.00 XI
8012-0653	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00 XI	8012-0154		Factory calibration certificate for temperature and humidity. Measurement in center of chamber at (25 °C / 77 °F) / 60% RH or at specified values	427.00 IX
8012-0650	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00 XI				
8012-0651	01	Access port with silicone plugs 100 mm (3.94 inch), top	733.00 XI				

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all KBF P models					For KBF P 240				
8012-0155		Extension to factory calibration certificate for temperature and humidity. Each additional measurement at an additional measuring point or set of values	228.00	IX	6004-0101		Rack, stainless steel	183.00	XI
8012-0157		Temperature precision measurement according to DIN 12880 and 9-point humidity measurement / factory standard with measurement log and certificate, measured at (25 °C / 77 °F) / 60% RH or at specified values	2,692.00	IX	8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
8012-0643		External fresh water supply set consists of fresh and waste water canister with 20 liter each, cabling and pump	1,109.00	XI	6004-0040		Shelf, perforated, stainless steel	183.00	XI
8012-0625		BINDER PURE AQUA SERVICE consisting of disposable cartridge, hose set and measuring unit	642.00	XI	8012-0610		Safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI
6011-0077		Disposable cartridge for BINDER PURE AQUA SERVICE	384.00	X	8012-0614		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted.	836.00	XI
8012-0716		Data Logger Kit TH 70: For the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Kit includes 1 data logger, 1 attachable combined humidity/temperature sensor with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,260.00	X	8012-0615		Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00	XI
8012-0717		Data Logger Kit TH 70/70: With two attachable combined sensors. One for the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Second one at the data logger for recording the environmental conditions. Kit includes 1 data logger, 2 attachable combined humidity/temperature sensors with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,660.00	X	8012-0584		Door lock	481.00	XI
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	8012-0657		Replacement set illumination tubes for one illumination cassette, including 3 cool white fluorescent tubes and 2 BINDER Q1B Synergy Light™ fluorescent tubes	369.00	XIII
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	For KBF P 720				
					6004-0106		Rack, stainless steel	353.00	XI
					8012-0674		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
					8009-0486		Shelf, perforated, stainless steel	353.00	XI
					8012-0668		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	1,189.00	XI
					8012-0669		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted.	836.00	XI
					8012-0670		Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00	XI
					8012-0696		Door lock	481.00	XI
					8012-0699		Replacement set illumination tubes for one illumination cassette, including 3 cool white fluorescent tubes and 2 BINDER Q1B Synergy Light™ fluorescent tubes	570.00	XIII

KBF P series | Services

Validation service				
DL015031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	1,105.00	S1

* References:

01 Condensation may occur in this area!

02 Only in combination with O₂ control.

03 UL approval is not possible with this option.

04 Temperature resistant up to max. 200 °C only.

05 Only possible for units in 230 V.

06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!

07 Stainless steel influences heat conductivity.

08 The additional heat input can influence the temperature behaviour.

09 Pump is supplied ready for connection in separate packaging

10 Not available in combination with option access port and door with window and interior lighting.

11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.

12 For information about our service contracts, please see www.binder-world.us

13 The calibration is performed according to BINDER factory standard

14 The prices stated do not include travel costs. For the travel costs for your area, please see page 3.

15 Restricted humidity range < 30 % RH at 20 °C (68 °F)

16 Not for 23 Liter units possible

17 Not for 23 and 53 liter units possible

18 Only possible for units in 230 V / 400 V.



KBF LQC 240 series



KBF LQC 720 series



Light Quantum Control

Standard equipment

- Electronically controlled APT.line™ preheating chamber and refrigerating system assuring temperature accuracy and reproducible results
- variable positioned illumination cassettes with BINDER Q1B Synergy Light™ for unique homogenous light distribution² (for KBF LQC 240) or 3 (for KBF LQC 720)
- Light Quantum Control LQC, precise measurement and integration of light intensity and ultraviolet light intensity directly at the sample location, automatic deactivation after reaching the wanted light dosage
- Temperature range:
 - without light and humidity: 0 °C up to 70 °C (32 °F up to 158 °F)
 - with light and humidity: 10 °C up to 60 °C (50 °F up to 140 °F)
- Humidity range:
 - without illumination: 10 % to 80 % RH
 - with illumination: 10 % to 75 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
 - Features:
 - User friendly LCD screen
 - Easy-to-read menu guide
 - Integrated electronic chart recorder
 - Variety of options for the graphic display of process parameters
 - Real time clock
- Electronically controlled humidification and dehumidification system with capacitive humidity sensor suitable for stability tests according to ICH guideline Q1A (R2)
- Inner glass door with sealing
- Independent adjustable temperature safety device class 3.1 (DIN 12880), with visual and audible temperature alarm
- Access port with silicone plug Ø 30 mm (1.18 inch), left side
- Safety connection kit for water supply and drainage, including water hose, total length 6 m (19.7 ft.)
- Ethernet interface for APT-COM™ DataControlSystem software
- stainless steel racks included² (for KBF LQC 240) or 3 (for KBF LQC 720)
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior* WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
KBF LQC 240	8.5	9020-0177	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	36.4x57.5x31.5	25.6x30.9x18.5	474	28,300.00 VI
KBF LQC 720	25.4	9020-0171	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	49.2x75.8x34.9	38.3x49.2x22.7	825	31,900.00 VI
KBF LQC 240 UL	8.5	9020-0161	208/240 V, 60 Hz - P5	Standard equipment	36.4x57.5x31.5	25.6x30.9x18.5	474	28,300.00 VI
KBF LQC 720 UL	25.4	9020-0170	208/240 V, 60 Hz - P5	Standard equipment	49.2x75.8x34.9	38.3x49.2x22.7	825	31,900.00 VI

+ 50 mm (1.97 inch) door handle and connection

KBF LQC series | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all KBF LQC models				For all KBF LQC models			
8012-0647	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00 XI	8012-0609		Locking of controller keyboard	425.00 XI
8012-0648	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00 XI	8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00 XI
8012-0649	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00 XI	8012-0641		RS 422 connection for communication software APT-COM™ DataControlSystem	489.00 XI
8012-0652	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00 XI	8012-0637		Additional PT 100 temperature sensor, flexibly installed, with external connection, including DIN connector (6-pin)	592.00 XI
8012-0653	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00 XI	8012-0154		Factory calibration certificate for temperature and humidity. Measurement in center of chamber at 25 °C (77 °F) / 60% RH or at specified values	427.00 IX
8012-0650	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00 XI	8012-0155		Extension to factory calibration certificate for temperature and humidity. Each additional measurement at an additional measuring point or set of values	228.00 IX
8012-0651	01	Access port with silicone plugs 100 mm (3.94 inch), top	733.00 XI				

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all KBF LQC models				For KBF LQC 240			
8012-0157		Temperature precision measurement according to DIN 12880 and 9-point humidity measurement / factory standard with measurement log and certificate, measured at 25 °C (77 °F) / 60% RH or at specified values	2,692.00 IX	6004-0101		Rack, stainless steel	183.00 XI
8012-0643		External fresh supply set consists of fresh and waste water canister with 20 liter each, cabling and pump	1,109.00 XI	8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00 XI
8012-0625		BINDER PURE AQUA SERVICE consisting of disposable cartridge, hose set and measuring unit	642.00 XI	6004-0040		Shelf, perforated, stainless steel	183.00 XI
6011-0077		Disposable cartridge for BINDER PURE AQUA SERVICE	384.00 X	8012-0610		Safety device, class 3.3 (DIN 12880) with visual alarm	937.00 XI
8012-0741		External chart recorder for temperature and humidity	1,250.00 X			1 phase, 230 V AC, 50 / 60 Hz	
8012-0716		Data Logger Kit TH 70: For the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Kit includes 1 data logger, 1 attachable combined humidity/temperature sensor with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,260.00 X	8012-0614		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted	836.00 XI
8012-0717		Data Logger Kit TH 70/70: With two attachable combined sensors. One for the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Second one at the data logger for recording the environmental conditions. Kit includes 1 data logger, 2 attachable combined humidity/temperature sensors with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,660.00 X	8012-0615		Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00 XI
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00 X	8012-0584		Door lock	481.00 XI
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00 X	8012-0657		Replacement set illumination tubes for one illumination cassette, including 3 cool white fluorescent tubes and 2 BINDER Q1B Synergy Light™ fluorescent tubes	369.00 XIII
				For KBF LQC 720			
				6004-0106		Rack, stainless steel	353.00 XI
				8012-0674		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00 XI
				8009-0486		Shelf, perforated, stainless steel	353.00 XI
				8012-0668		Temperature safety device, class 3.3 (DIN 12880) with visual alarm	1,189.00 XI
				8012-0669		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted.	836.00 XI
				8012-0670		Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00 XI
				8012-0696		Door lock	481.00 XI
				8012-0699		Replacement set illumination tubes for one illumination cassette, including 3 cool white fluorescent tubes and 2 BINDER Q1B Synergy Light™ fluorescent tubes	570.00 XIII

KBF LQC series | Services

Validation service			
DL115031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	1,105.00 S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



BD 23 series



BD 53 series



BD 720 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient up to 100 °C (212 °F)
- Digital temperature setting with an accuracy of a tenth of a degree
- DS controller with integrated timer 0 to 99 h
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual alarm
- Adjustable ventilation by means of rear exhaust duct, Ø 50 mm (1.97 inch) with ventilation flap and front ventilation slide
- Inner glass door
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior* WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
BD 23	0.7	9010-0187	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	17.1x19.4x20.3	8.7x13x10.9	57	1,695.00	IV
BD 53	1.9	9010-0081	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x24.3x22.6	15.8x15.8x13	95	1,760.00	IV
BD 115	4.1	9010-0088	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	135	2,365.00	IV
BD 240	8.5	9010-0095	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	205	3,818.00	IV
BD 400	14.3	9010-0073	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	298	5,289.00	IV
BD 720	25.4	9010-0074	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	422	7,118.00	IV
BD 23 UL	0.7	9010-0189	115 V, 60 Hz - P3	Standard equipment	17.1x19.4x20.3	8.7x13x10.9	57	1,695.00	IV
BD 53 UL	1.9	9010-0179	115 V, 60 Hz - P3	Standard equipment	25x24.3x22.6	15.8x15.8x13	95	1,760.00	IV
BD 115 UL	4.1	9010-0181	115 V, 60 Hz - P3	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	135	2,365.00	IV
BD 240 UL	8.5	9010-0183	115 V, 60 Hz - P3	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	205	3,818.00	IV
BD 400 UL	14.3	9010-0176	115 V, 60 Hz - P3	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	298	5,289.00	IV
BD 720 UL	25.4	9010-0177	115 V, 60 Hz - P4	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	422	7,118.00	IV

+ 90 mm (3.54 inch) for door handle and exhaust duct

BD series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all BD models					For all BD models				
8012-0386	01	Access port with silicone plugs 10 mm (0.39 inch), top	297.00	XI	8012-0047	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00	XI
8012-0387	01	Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0397	01	Access port with silicone plugs 30 mm (1.18 inch), back	393.00	XI
8012-0388	01	Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0049	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00	XI
8012-0390	01	Access port with silicone plugs 10 mm (0.39 inch), back	297.00	XI	8012-0050	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00	XI
8012-0045	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00	XI	8012-0051	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00	XI
8012-0046	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00	XI	8012-0399	01	Access port with silicone plugs 50 mm (1.97 inch), back	458.00	XI
					8012-0053	01 16	Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI

Cat. No.	*	Description	Price US \$	
For all BD models				
8012-0077	08	Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug. Max. allowed operating temperature 50 °C (122 °F) 1 phase, 230 V AC, 50 / 60 Hz	663.00	XI
8012-0469		Over temperature alarm, audible, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device for 230 V	588.00	XI
8012-0115		Additional PT 100 temperature sensor, flexibly installed, with external connection, including LEMO connector (3-pin)	592.00	XI
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points, for 23 liter units 15 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX
8012-0030		Factory calibration certificate. Measurement in center of chamber at 37 °C (98.6 °F) or at specified testing temperature	341.00	IX
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX
8012-0432	03	Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI
8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X

BD series | Services

Validation service				
DL016031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	674.00	S1

Cat. No.	*	Description	Price US \$	
For BD 23				
6004-0050		Rack, chrome-plated	43.00	XI
6004-0051		Rack, stainless steel	61.00	XI
6004-0052		Shelf, perforated, stainless steel	62.00	XI
8012-0318		Door Lock	481.00	XI
For BD 53				
6004-0002		Rack, chrome-plated	65.00	XI
6004-0007		Rack, stainless steel	88.00	XI
6004-0029		Shelf, perforated, stainless steel	88.00	XI
8012-0318		Door Lock	481.00	XI
For BD 115				
6004-0003		Rack, chrome-plated	102.00	XI
6004-0008		Rack, stainless steel	135.00	XI
6004-0030		Shelf, perforated, stainless steel	135.00	XI
8012-0318		Door Lock	481.00	XI
For BD 240				
6004-0004		Rack, chrome-plated	190.00	XI
6004-0009		Rack, stainless steel	235.00	XI
6004-0031		Shelf, perforated, stainless steel	236.00	XI
8012-0319		Door Lock	481.00	XI
For BD 400				
6004-0005		Rack, chrome-plated	213.00	XI
6004-0011		Rack, stainless steel	325.00	XI
6004-0032		Shelf, perforated, stainless steel	325.00	XI
8012-0319		Door Lock	481.00	XI
For BD 720				
6004-0006		Rack, chrome-plated	230.00	XI
6004-0010		Rack, stainless steel	353.00	XI
6004-0033		Shelf, perforated, stainless steel	353.00	XI
8012-0319		Door Lock	481.00	XI

* References:

- 01

Condensation may occur!
- 02

Only in combination with Q₂ control.
- 03

UL approval is not possible with this option.
- 04

Temperature resistant up to max. 200 °C only.
- 05

Only possible for units in 230 V.
- 06

Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!
- 07

Stainless steel influences heat conductivity.
- 08

The additional heat input can influence the temperature behaviour.
- 09

Pump is supplied ready for connection in separate packaging
- 10

Not available in combination with option access port and door with window and interior lighting.
- 11

Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.
- 12

For information about our service contracts, please see www.binder-world.us
- 13

The calibration is performed according to BINDER factory standard
- 14

The prices stated do not include travel costs. For the travel costs for your area, please see page 3.
- 15

Restricted humidity range < 30 % RH at 20 °C (68 °F)
- 16

Not for 23 Liter units possible
- 17

Not for 23 and 53 liter units possible
- 18

Only possible for units in 230 V / 400 V.



BF 53 series



BF 400 series

Standard equipment

- Electronical controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (9 °F) above ambient up to 100 °C (212 °F)
- Digital temperature setting with an accuracy of a tenth of a degree
- MS controller with several timer functions
- Time functions:
 - 0 to 99 h 59 min delayed ON
 - 0 to 99 h 59 min delayed OFF
 - 0 to 99 h 59 min temperature-dependent
 - delayed OFF
- Adjustable fan speed
- Adjustable ventilation by means of rear exhaust duct, Ø 50 mm (1.97 inch) with ventilation flap and front ventilation slide
- Inner glass door
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual alarm
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- Adjustable intervals for printer
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
BF 53	1.9	9010-0235	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x24.3x22.6	15.8x15.8x13	95	2,450.00	IV
BF 115	4.1	9010-0237	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	141	3,199.00	IV
BF 240	8.5	9010-0239	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	230	4,715.00	IV
BF 400	14.3	9010-0241	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	320	5,844.00	IV
BF 720	25.4	9010-0243	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	397	7,654.00	IV
BF 53 UL	1.9	9010-0236	115 V, 60 Hz - P3	Standard equipment	25x24.3x22.6	15.8x15.8x13	95	2,450.00	IV
BF 115 UL	4.1	9010-0238	115 V, 60 Hz - P3	Standard equipment	32.8x27.6x25.4	23.6x18.9x15.8	141	3,199.00	IV
BF 240 UL	8.5	9010-0240	115 V, 60 Hz - P3	Standard equipment	40.7x32.4x29.3	31.5x23.6x19.7	230	4,715.00	IV
BF 400 UL	14.3	9010-0242	115 V, 60 Hz - P3	Standard equipment	48.6x40.2x30.1	39.4x31.5x19.7	320	5,844.00	IV
BF 720 UL	25.4	9010-0244	115 V, 60 Hz - P4	Standard equipment	48.6x60.2x34.1	39.4x47.2x23.6	397	7,654.00	IV

+ 90 mm (3.54 inch) door handle and exhaust duct

BF series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all BF models					For all BF models				
8012-0386	01	Access port with silicone plugs 10 mm (0.39 inch), top	297.00	XI	8012-0047	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00	XI
8012-0387	01	Access port with silicone plugs 10 mm (0.39 inch), right side	297.00	XI	8012-0397	01	Access port with silicone plugs 30 mm (1.18 inch), back	393.00	XI
8012-0388	01	Access port with silicone plugs 10 mm (0.39 inch), left side	297.00	XI	8012-0049	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00	XI
8012-0390	01	Access port with silicone plugs 10 mm (0.39 inch), back	297.00	XI	8012-0050	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00	XI
8012-0045	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00	XI	8012-0051	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00	XI
8012-0046	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00	XI	8012-0399	01	Access port with silicone plugs 50 mm (1.97 inch), back	458.00	XI

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all BF models					For BF 53				
8012-0053	01	Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI	6004-0002		Rack, chrome-plated	65.00	XI
8012-0469		Over temperature alarm, audible, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device for 230 V	588.00	XI	6004-0007		Rack, stainless steel	88.00	XI
8012-0077	08	Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug. Max. allowed operating temperature 50 °C (122 °F) 1 phase, 230 V AC, 50 / 60 Hz	663.00	XI	6004-0029		Shelf, perforated, stainless steel	88.00	XI
8012-0115		Additional PT 100 temperature sensor, flexibly installed, with external connection, including LEMO connector (3-pin)	592.00	XI	8012-0318		Door Lock	481.00	XI
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	For BF 115				
8012-0030		Factory calibration certificate. Measurement in center of chamber at 37 °C (98.6 °F) or at specified testing temperature	341.00	IX	6004-0003		Rack, chrome-plated	102.00	XI
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX	6004-0008		Rack, stainless steel	135.00	XI
8012-0482	03	Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	6004-0030		Shelf, perforated, stainless steel	135.00	XI
8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI	8012-0318		Door Lock	481.00	XI
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	For BF 240				
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	6004-0004		Rack, chrome-plated	190.00	XI
					6004-0009		Rack, stainless steel	235.00	XI
					6004-0031		Shelf, perforated, stainless steel	236.00	XI
					8012-0319		Door Lock	481.00	XI
					For BF 400				
					6004-0005		Rack, chrome-plated	213.00	XI
					6004-0011		Rack, stainless steel	325.00	XI
					6004-0032		Shelf, perforated, stainless steel	325.00	XI
					8012-0319		Door Lock	481.00	XI
					For BF 720				
					6004-0006		Rack, chrome-plated	230.00	XI
					6004-0010		Rack, stainless steel	353.00	XI
					6004-0033		Shelf, perforated, stainless steel	353.00	XI
					8012-0319		Door Lock	481.00	XI

BF series | Services

Validation service				
DL017031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	674.00	S1

* References:

01 Condensation may occur!

02 Only in combination with O₂ control.

03 UL approval is not possible with this option.

04 Temperature resistant up to max. 200 °C only.

05 Only possible for units in 230 V.

06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!

07 Stainless steel influences heat conductivity.

08 The additional heat input can influence the temperature behaviour.

09 Pump is supplied ready for connection in separate packaging

10 Not available in combination with option access port and door with window and interior lighting.

11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.

12 For information about our service contracts, please see www.binder-world.us

13 The calibration is performed according to BINDER factory standard

14 The prices stated do not include travel costs. For the travel costs for your area, please see page 3.

15 Restricted humidity range < 30 % RH at 20 °C (68 °F)

16 Not for 23 Liter units possible

17 Not for 23 and 53 liter units possible

18 Only possible for units in 230 V / 400 V.



KB 23 series



KB 53 series

Standard equipment (0.8 | 1.9 | 4.1 qu.ft.)

- Electronically controlled APT.line™ preheating chamber and patented DCT™ refrigeration system assuring temperature accuracy and reproducible results in both heating and cooling situations
- Temperature range: -5 °C to 100 °C (23 °F to 212 °F) (KB 23: 0 °C to 100 °C (32 °F to 212 °F))
- MP controller with 2 programs with 10 sections each, alternatively switchable to 1 program with 20 sections
- Integrated week program timer with real time function
- Adjustable ramp function via program editor
- Integrated week program timer with real time function
- Digital temperature setting with an accuracy of a tenth of a degree
- Adjustable fan speed
- Elapsed time indicator
- Independent adjustable temperature safety device, Class 3.1 (DIN 12880) with visual and audible alarm
- Inner glass door
- RS 422 interface for communication software APT-COM™ DataControlSystem, or switch over to printer output with RS 232 / RS 422 interface converter
- Adjustable intervals for printer
- Units up to 115 liters (4.1 cu.ft) are stackable
- 2 stainless steel racks
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
KB 23 (E3.1)	0.8	9020-0112	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	17.1x24.3x20.3	8.7x13x10.9	97	4,564.00	IV
KB 53 (E3.1)	1.9	9020-0114	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	25x33x22.7	15.8x15.8x13	159	4,939.00	IV
KB 115 (E3.1)	4.1	9020-0116	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	32.8x40.2x25.4	23.6x18.9x15.8	232	5,898.00	IV
KB 23 UL (E3.1)	0.8	9020-0113	115 V, 60 Hz - P3	Standard equipment	17.1x24.3x20.3	8.7x13x10.9	97	4,564.00	IV
KB 53 UL (E3.1)	1.9	9020-0115	115 V, 60 Hz - P3	Standard equipment	25x33x22.7	15.8x15.8x13	159	4,939.00	IV
KB 115 UL (E3.1)	4.1	9020-0117	115 V, 60 Hz - P3	Standard equipment	32.8x40.2x25.4	23.6x18.9x15.8	232	5,898.00	IV

+ 100 mm (3.94 inch) for door handle and connection (KB 23: 73 mm (2.87 inch))

► more KB series models in 8.5 | 14.3 | 25.4 qu.ft. see page 40

KB series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all KB models					For all KB models				
8012-0391	01	Access port with silicone plugs 10 mm (0.39 inch), top	301.00	XI	8012-0049	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00	XI
8012-0395	01	Access port with silicone plugs 10 mm (0.39 inch), back	301.00	XI	8012-0399	01	Access port with silicone plugs 50 mm (1.97 inch), back	458.00	XI
8012-0392	01	Access port with silicone plugs 10 mm (0.39 inch), right side	301.00	XI	8012-0053	01 16	Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI
8012-0393	01	Access port with silicone plugs 10 mm (0.39 inch), left side	301.00	XI	8012-0531		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI
8012-0045	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00	XI	8012-0001		Anti-slip rubber pads for safe stacking (1 set of 4 pieces)	53.00	XI
8012-0397	01	Access port with silicone plugs 30 mm (1.18 inch), back	393.00	XI					
8012-0046	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00	XI					
8012-0047	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00	XI					

Cat. No.	*	Description	Price US \$	
For all KB models				
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points, for 23 liter units 15 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX
8012-0030		Factory calibration certificate. Measurement in center of chamber at 37 °C (98.6 °F) or at specified testing temperature	341.00	IX
8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	IX
8012-0473	16	Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off program-controlled either automatically, or also manually 1 phase, 230 V AC, 50 / 60 Hz	1,762.00	XI
8012-0077	08 16	Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug. Max. allowed operating temperature 50 °C (122 °F) 1 phase, 230 V AC, 50 / 60 Hz	663.00	XI
8012-0115	16	Additional PT 100 temperature sensor, flexibly installed, with external connection, including LEMO connector (3-pin)	592.00	XI
8012-0434	03 16	Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X
For all KB UL models				
8012-0474	16	Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off program-controlled either automatically, or also manually 115 V, 60 Hz	1,762.00	XI
For KB 23				
6004-0051		Rack, stainless steel	62.00	XI
6004-0052		Shelf, perforated, stainless steel	62.00	XI
8012-0318		Door Lock	481.00	XI

Cat. No.	*	Description	Price US \$	
For KB 53				
6004-0007		Rack, stainless steel	88.00	XI
6004-0029		Shelf, perforated, stainless steel	88.00	XI
8012-0287		Fixed shelf (positioned at bottom level), with additional fixtures to enable shaker operation. Other positions available on request	325.00	XI
8012-0318		Door Lock	481.00	XI
8012-0450		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI
8012-0116		Interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	595.00	XI
For KB 53 UL				
8012-0455		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 115 V, 60 Hz	937.00	XI
8012-0361		Interior lighting (15 W) 115 V, 60 Hz	602.00	XI
For KB 115				
6004-0008		Rack, stainless steel	135.00	XI
6004-0030		Shelf, perforated, stainless steel	135.00	XI
8012-0288		Fixed shelf (positioned at bottom level), with additional fixtures to enable shaker operation. Other positions available on request	344.00	XI
8012-0318		Door Lock	481.00	XI
8012-0451		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI
8012-0116		Interior lighting (15 W) 1 phase, 230 V AC, 50 / 60 Hz	595.00	XI
For KB 115 UL				
8012-0456		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 115 V, 60 Hz	937.00	XI
8012-0361		Interior lighting (15 W) 115 V, 60 Hz	602.00	XI

KB series | Services

Validation service

DL018031	Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1
----------	---	--------	----

* *References:*

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



KB 240 series



KB 720 series

Standard equipment (8.5 | 14.3 | 25.4 qu.ft.)

- Electronically controlled APT.line™ preheating chamber and patented DCT™ refrigeration system assuring temperature accuracy and reproducible results in both heating and cooling situations
- Temperature range: -5 °C to 100 °C (23 °F up to 212 °F)
- MP controller with 2 programs with 10 sections each, alternatively switchable to 1 program with 20 sections
- Integrated week program timer with real time function
- Adjustable ramp function via program editor
- Digital temperature setting with an accuracy of a tenth of a degree
- Adjustable fan speed
- Elapsed time indicator
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- Inner glass door
- RS 422 interface for communication software APT-COM™ DataControlSystem
- Adjustable intervals for printer
- Access port with silicone plug Ø 30 mm (1.18 inch), left side
- 2 stainless steel racks
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
► limited quantity available, please contact BINDER Inc. at (866) 885 9794								
KB 400 UL	14.3	9020-0121	115 V, 60 Hz -P3	Standard equipment	34.8x72.8x28.2	25.6x51.5x18.5	477	on request
New models								
KB 240	8.5	9020-0162	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	35.6x57.4x30.1	25.6x30.9x18.5	375	8,460.00 IV
KB 400	14.3	9020-0178	2 phase, 200-240 V AC, 50 / 60 Hz- P1	Standard equipment	35.6x76.6x30.1	25.6x50x18.5	485	9,469.00 IV
KB 720	25.4	9020-0111	1 phase, 200-240 V AC, 50 / 60 Hz- P1	Standard equipment	48.6x71.5x34.1	39.4 x 46 x 23.6	681	12,874.00 IV
KB 240 UL	8.5	9020-0163	100-120 V, 60Hz -P4	Standard equipment	35.6x57.4x30.1	25.6x30.9x18.5	375	8,460.00 IV
KB 400 UL	14.3	9020-0179	100-120 V, 60Hz -P4	Standard equipment	35.6x76.6x30.1	25.6x50x18.5	485	9,469.00 IV
KB 720 UL	25.4	9020-0167	208/240 V, 60 Hz -P5	Standard equipment	48.6x71.5x34.1	39.4 x 46 x 23.6	681	12,874.00 IV

+ 85 mm (3.35 inch) for door handle and connection

KB series | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all KB models				For all KB models			
8012-0647	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00 XI	8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00 XI
8012-0648	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00 XI	8012-0637		Additional PT 100 temperature sensor, flexibly installed, with external connection, including DIN connector (6-pin)	592.00 XI
8012-0649	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00 XI	8012-0613		Ethernet interface for communication software APT-COM™ DataControlSystem	815.00 XI
8012-0652	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00 XI	8012-0030		Factory calibration certificate. Measurement in center of chamber at 37 °C (98.6 °F) or at specified testing temperature	341.00 IX
8012-0653	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00 XI	8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00 IX
8012-0650	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00 XI	8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00 IX
8012-0651	01	Access port with silicone plugs 100 mm (3.94 inch), top	733.00 XI				

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all KB models					For KB 400				
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	6004-0101		Rack, stainless steel	183.00	XI
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI
For KB 240					6004-0040		Shelf, perforated, stainless steel	183.00	XI
6004-0101		Rack, stainless steel	183.00	XI	8012-0639		Vibration compatible shelf / platform (positioned at bottom level) to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	386.00	XI
8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI	8012-0584		Door lock	481.00	XI
6004-0040		Shelf, perforated, stainless steel	183.00	XI	8012-0610		Temperature safety device, class 3.3 (DIN 12880) with visual alarm	937.00	XI
8012-0639		Vibration compatible shelf / platform (positioned at bottom level) to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	386.00	XI	8012-0626 ⁰³		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI
8012-0584		Door lock	481.00	XI	For KB 720				
8012-0610		Temperature safety device, class 3.3 (DIN 12880) with visual alarm	937.00	XI	6004-0106		Rack, stainless steel	353.00	XI
8012-0640 ⁰⁸		Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug. Max. allowed operating temperature 50 °C (122 °F) 1 phase, 230 V AC, 50 / 60 Hz	655.00	XI	8012-0674		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
8012-0626 ⁰³		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	8009-0486		Shelf, perforated, stainless steel	353.00	XI
8012-0627		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off program-controlled either automatically, or also manually	1,762.00	XI	8012-0673		Vibration compatible shelf / platform to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	511.00	XI
					8012-0668		Temperature safety device, class 3.3 (DIN 12880) with visual alarm	1,189.00	XI
					8012-0672 ⁰⁸		Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug. Max. allowed operating temperature 50 °C (122 °F) 1 phase, 230 V AC, 50 / 60 Hz	655.00	XI
					8012-0693 ⁰³		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI
					8012-0694		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off program-controlled either automatically, or also manually	1,762.00	XI
					8012-0696		Door lock	481.00	XI

KB series | Services

Validation service				
DL018031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1

* References:

- | | | | | | |
|----|---|----|--|----|---|
| 01 | Condensation may occur in this area! | 08 | The additional heat input can influence the temperature behaviour. | 13 | The calibration is performed according to BINDER factory standard |
| 02 | Only in combination with O ₂ control. | 09 | Pump is supplied ready for connection in separate packaging | 14 | The prices stated do not include travel costs. For the travel costs for your area, please see page 3. |
| 03 | UL approval is not possible with this option. | 10 | Not available in combination with option access port and door with window and interior lighting. | 15 | Restricted humidity range < 30 % RH at 20 °C (68 °F) |
| 04 | Temperature resistant up to max. 200 °C only. | 11 | Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation. | 16 | Not for 23 Liter units possible |
| 05 | Only possible for units in 230 V. | 12 | For information about our service contracts, please see www.binder-world.us | 17 | Not for 23 and 53 liter units possible |
| 06 | Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician! | | | 18 | Only possible for units in 230 V / 400 V. |
| 07 | Stainless steel influences heat conductivity. | | | | |



C 150 series



C 150 series

Standard equipment

- Air jacket system assuring temperature accuracy and reproducible results
- Temperature range 7 °C (13 °F) above ambient up to 50 °C (122 °F)
- Water pan with built-in condensation control maintains dry interior walls
- Standard compliant 180 °C (356 °F) hot air sterilization using an overnight cycletime (acc to. DIN 58947, Pharmacopoeias, ANSI)
- Weldless deep-drawn inner chamber made of stainless steel with integrated shelf support system
- Drift free infrared CO₂ measurement system
- Microprocessor with LED display for temperature and CO₂-concentration
- Various alarm and status displays
- Automatic diagnostic system with optical and audible alarm, as well as zero-voltage relay contact for central monitoring
- Lockable controller keyboard via 3 digit password
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- Gas mixing head
- Tightly-fitting inner glass door
- Door Lock
- Door hinged left or right, factory fitted
- Units are stackable with stacking adapter
- 3 perforated shelves made of stainless steel
- BINDER test certificate

Two BINDER CO₂-incubators, stacked:

Two incubators C 150 series, incl. stacking adapter, ensuring direct thermal decoupled stacking

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
Standard equipment									
C 150	5.4	9040-0040	1 phase, 230 V AC, 50 / 60 Hz - P1	right hinged door	26.8x32.2x32.1	19.7x23.6x19.7	209	7,090.00	V
C 150	5.4	9040-0059	1 phase, 230 V AC, 50 / 60 Hz - P1	left hinged door	26.8x32.2x32.1	19.7x23.6x19.7	209	7,090.00	V
C 150 UL	5.4	9040-0057	115 V, 60 Hz - P4	right hinged door	26.8x32.2x32.1	19.7x23.6x19.7	209	7,090.00	V
C 150 UL	5.4	9040-0060	115 V, 60 Hz - P4	left hinged door	26.8x32.2x32.1	19.7x23.6x19.7	209	7,090.00	V
C 150	5.4	9040-0058	1 phase, 100 V AC, 50 / 60 Hz - P4	right hinged door	26.8x32.2x32.1	19.7x23.6x19.7	209	7,090.00	V
C 150	5.4	9040-0061	1 phase, 100 V AC, 50 / 60 Hz - P4	left hinged door	26.8x32.2x32.1	19.7x23.6x19.7	209	7,090.00	V
Stack of 2 CO₂-incubators C 150 with standard equipment plus stacking adapter									
C 150	5.4	9040-0062	1 phase, 230 V AC, 50 / 60 Hz - P1	right hinged door	26.8x70.2x32.1	19.7x23.6x19.7	439	13,980.00	V
C 150	5.4	9040-0065	1 phase, 230 V AC, 50 / 60 Hz - P1	left hinged door	26.8x70.2x32.1	19.7x23.6x19.7	439	13,980.00	V
C 150 UL	5.4	9040-0063	115 V, 60 Hz - P4	right hinged door	26.8x70.2x32.1	19.7x23.6x19.7	439	13,980.00	V
C 150 UL	5.4	9040-0066	115 V, 60 Hz - P4	left hinged door	26.8x70.2x32.1	19.7x23.6x19.7	439	13,980.00	V
C 150	5.4	9040-0064	1 phase, 100 V AC, 50 / 60 Hz - P4	right hinged door	26.8x70.2x32.1	19.7x23.6x19.7	439	13,980.00	V
C 150	5.4	9040-0067	1 phase, 100 V AC, 50 / 60 Hz - P4	left hinged door	26.8x70.2x32.1	19.7x23.6x19.7	439	13,980.00	V

+ 54 mm (2.13 inch) for door handle and Instrument Triangle, 60 mm (2.36 inch) for connections

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all C models					For all C models				
8012-0559	01	Silicone access port on both sides closable with two silicone lids 30 mm (1.18 inch), left side	385.00	XI	8012-0408		BINDER Gas Supply Service external gastank changer for connection of 2 gastanks, either CO ₂ or N ₂ , with audible and visual alarm and zero-voltage alarm output	1,459.00	IX
8012-0560	01	Silicone access port on both sides closable with two silicone lids 30 mm (1.18 inch), right side	385.00	XI	8012-0014		Gastank connection kit for CO ₂ , consisting of a gastank pressure regulator, max. pressure 10 bar, with connection parts, and a (5 m / 16.4 ft.) hose	303.00	V
6004-0080		Shelf, perforated, stainless steel	261.00	V	8012-0742	03	4-20 mA analog output for temperature and CO ₂ measurements (e.g. chart recorder connection), with 6-pin DIN socket (output not adjustable)	836.00	XI
9051-0024		Base on castors	356.00	X	8012-0503		Cleaning kit for equipment maintenance and disinfection, consisting of pH-neutral detergent (1000 g / 2.21 lbs., concentrate), spray disinfectant (500 ml / 0.13 gal. ready-for-use solution) and lint-free cleansing tissues	71.00	X
9051-0027		Stacking adapter C 150 / CB 150 for direct thermal decoupled stacking of a CB 150 / C 150 combination	356.00	X	7001-0079		Manual for Primary Human Cell Culture	76.00	X
9051-0025		Stacking adapter for direct thermal decoupled stacking of two C 150 CO ₂ incubators	356.00	X					
8012-0228		Factory calibration certificate for temperature and CO ₂ . Temperature measurement in center / CO ₂ measurement performed using analyzed test gas at (37 °C / 98.6 °F) and 5 % CO ₂	427.00	IX					
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX					

C series | Services

Validation service				
DL020031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1

* References:

01	Condensation may occur!	08	The additional heat input can influence the temperature behaviour.	13	The calibration is performed according to BINDER factory standard
02	Only in combination with O ₂ control.	09	Pump is supplied ready for connection in separate packaging	14	The prices stated do not include travel costs. For the travel costs for your area, please see page 3.
03	UL approval is not possible with this option.	10	Not available in combination with option access port and door with window and interior lighting.	15	Restricted humidity range < 30 % RH at 20 °C (68 °F)
04	Temperature resistant up to max. 200 °C only.	11	Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.	16	Not for 23 Liter units possible
05	Only possible for units in 230 V.	12	For information about our service contracts, please see www.binder-world.us	17	Not for 23 and 53 liter units possible
06	Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!			18	Only possible for units in 230 V / 400 V.
07	Stainless steel influences heat conductivity.				



CB 53 series



CB 150 series



CB 210 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 7 °C (13 °F) above ambient temperature up to 60 °C (140 °F)
- MCS controller for Temperature and CO₂ concentration
 - Features:
 - User friendly LCD screen
 - Easy-to-read menu guide
 - Integrated electronic chart recorder
 - Variety of options for the graphic display of process parameters
 - Real time clock
- Standard compliant 180 °C (356 °F) hot air sterilization using an overnight cycletime (acc to. DIN 58947, Pharmacopoeias, ANSI)
- VENTAIR™ Jacket System
- Drift free infrared CO₂ measurement system
- Gas mixing head
- Permadyry™ system - condensation-free double-pan humidification system, maintains dry interior walls
- Weldless deep-drawn inner chamber made of stainless steel with integrated shelf support system
- Electronic self-diagnostic system for errors with optical and audible alarm, as well as relay contact for central monitoring
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- Tightly-fitting inner glass door
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- 3 perforated shelves made of stainless steel for CB 150, CB 210 with Standard equipment and O₂-Control
- 2 perforated shelves made of stainless steel for CB 53 with Standard equipment and O₂-Control
- Units are stackable with stacking adapter
- Door Lock
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
CO₂ incubator with standard equipment									
CB 53	1.9	9040-0069	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	7,380.00	V
CB 150	5.4	9040-0038	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	9,559.00	V
CB 210	7.5	9040-0039	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	13,490.00	V
CB 53 UL	1.9	9040-0070	1 phase, 100-120 V AC, 50/60 Hz - P3	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	7,380.00	V
CB 150 UL	5.4	9040-0042	115 V, 60 Hz - P4	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	9,559.00	V
CB 210 UL	7.5	9040-0043	115 V, 60 Hz - P4	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	13,490.00	V
CO₂ incubator with gastight, divided inner glass door and divided shelves**									
CB 53	1.9	9040-0073	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	7,795.00	V
CB 150	5.4	9040-0046	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	10,197.00	V
CB 210	7.5	9040-0047	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	15,760.00	V
CB 53 UL	1.9	9040-0074	1 phase, 100-120 V AC, 50/60 Hz - P3	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	7,795.00	V
CB 150 UL	5.4	9040-0050	115 V, 60 Hz - P4	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	10,197.00	V
CB 210 UL	7.5	9040-0051	115 V, 60 Hz - P4	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	15,760.00	V
CO₂ incubator with O₂-Control									
CB 53	1.9	9040-0071	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	9,790.00	V
CB 150	5.4	9040-0044	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	12,874.00	V
CB 210	7.5	9040-0045	1 phase, 230 V AC, 50 / 60 Hz - P1	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	17,250.00	V
CB 53 UL	1.9	9040-0072	1 phase, 100-120 V AC, 50/60 Hz - P3	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	9,790.00	V
CB 150 UL	5.4	9040-0048	115 V, 60 Hz - P4	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	12,874.00	V
CB 210 UL	7.5	9040-0049	115 V, 60 Hz - P4	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	17,250.00	V
CO₂ incubator with O₂-Control and gastight, divided inner glass door and divided shelves**									
CB 53	1.9	9040-0075	1 phase, 230 V AC, 50 / 60 Hz	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	10,570.00	V
CB 150	5.4	9040-0052	1 phase, 230 V AC, 50 / 60 Hz	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	13,513.00	V
CB 210	7.5	9040-0053	1 phase, 230 V AC, 50 / 60 Hz	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	19,380.00	V
CB 53 UL	1.9	9040-0076	1 phase, 100-120 V AC, 50/60 Hz - P3	Standard equipment	22.8x28.3x21.5	15.7x15.7x13.1	133	10,570.00	V
CB 150 UL	5.4	9040-0054	115 V, 60 Hz - P4	Standard equipment	26.8x36.2x28.4	19.7x23.6x19.7	236	13,513.00	V
CB 210 UL	7.5	9040-0055	115 V, 60 Hz - P4	Standard equipment	29.1x42.1x28.4	22.1x29.5x19.7	267	19,380.00	V

+ 54 mm (2.13 inch) for door handle and Instrument Triangle, 60 mm (2.36 inch) for connections

** CB 53 with 2 shelf levels with 2 regular shelves, CB 150 with 2 shelf levels with 2 divided shelves, CB 210 with 3 shelf levels with 3 divided shelves

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all CB models					For all CB models, except CB 53				
8012-0559	01	Silicone access port on both sides closable with two silicone lids 30 mm (1.18 inch), left side	385.00	XI	8012-0299		Current feedthrough (8-pin) for low voltage with LEMO socket (coverable) and LEMO plug (loading capacity max. 24 V AC/DC - 2A)	997.00	V
8012-0560	01	Silicone access port on both sides closable with two silicone lids 30 mm (1.18 inch), right side	385.00	XI	8012-0297		Internal CO ₂ gastank changer, for connecting two gas gastanks. Offers precise control over the current condition of CO ₂ supply to incubator by means of alarm messaging and incident reporting.	1,898.00	V
8012-0558	01	Silicone access port on both sides closable with two silicone lids 30 mm (1.18 inch), back	461.00	XI	8012-0307		Internal CO ₂ gastank changer, for connecting two gas gastanks, with external connection for up to one additional CO ₂ incubator. Offers precise control over the current condition of CO ₂ supply to incubator by means of alarm messaging and incident reporting	2,063.00	V
8012-0301		Keyboard lock	425.00	XI	8012-0298	02	Internal O ₂ and N ₂ gastank changer for connecting two gastanks of either gas	1,066.00	V
8012-0014		Gastank connection kit for CO ₂ , consisting of a gastank pressure regulator, max. pressure 10 bar, with connection parts, and a (5 m / 16.4 ft.) hose	303.00	V	For CB 53				
8012-0015		Gastank connection kit for O ₂ , consisting of a gastank pressure regulator, max. pressure 10 bar, with connection parts, and a (5 m / 16.4 ft.) hose	303.00	V	6004-0105		Shelf, perforated, stainless steel	237.00	V
8012-0016		Gastank connection kit for N ₂ , consisting of a gastank pressure regulator, max. pressure 10 bar, with connection parts, and a (5 m / 16.4 ft.) hose	303.00	V	9051-0031		Base on castors	324.00	X
8012-0408		BINDER Gas Supply Service external gastank changer for connection of 2 gastanks, either CO ₂ or N ₂ , with audible and visual alarm and zero-voltage alarm output	1,459.00	IX	9051-0032		Stacking adapter for direct thermal decoupled stacking of two CB 53 CO ₂ incubators	290.00	X
8012-0587		Ethernet interface instead of the RS 422 interface	815.00	IX	For CB 150				
8012-0351		4-20 mA analog output for temperature and CO ₂ measurements (e.g. chart recorder connection), with 6-pin DIN socket (output not adjustable)	836.00	XI	6004-0080		Shelf, perforated, stainless steel	261.00	V
8012-0300	03 08	Interior power socket with ON/OFF switch and LEMO connector (maximum power rating 230 V, 1N, 50 / 60 Hz) 1 phase, 230 V AC, 50 / 60 Hz	902.00	V	8012-0578		Divided shelf, for divided inner glass door (4 doors) stainless steel, suitable for interior chamber with integrated shelf support system (shelf runners)	368.00	V
8012-0232		Independent electronic safety system Intelligent Fail Safe. Unique safety plus for continuous monitoring of the CO ₂ control, preventing any unnoticed deviations of the CO ₂ concentration from the set point Note: Not possible with options access port or divided glass door	1,776.00	V	9051-0028		Base on castors	356.00	X
8012-0228		Factory calibration certificate for temperature and CO ₂ . Temperature measurement in center / CO ₂ measurement performed using analyzed test gas at (37 °C / 98.6 °F) and 5 % CO ₂	427.00	IX	9051-0020		Stacking frame vibration-free, on castors with stop brake, for direct and safe stacking of 2 CB incubators with wedge equipment	1,164.00	X
8012-0229		Factory calibration certificate for the O ₂ control option. O ₂ measurement performed using analyzed test gas at 1% O ₂	237.00	IX	9051-0026		Stacking adapter for direct thermal decoupled stacking of two CB 150 CO ₂ incubators	356.00	X
8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX	9051-0027		Stacking adapter C / CB for direct thermal decoupled stacking of a CB 150 / C 150 combination	356.00	X
7001-0079		Manual for Primary Human Cell Culture	76.00	X	8012-0571	08	CELLROLL. Modular and expandable roller bottle system for cell cultivation for 4 roller bottles	5,575.00	X
					For CB 210				
					6004-0082		Shelf, perforated, stainless steel	279.00	V
					8012-0607		Divided shelf, stainless steel for divided gas-tight inner glass door	430.00	V
					9051-0029		Base on castors	356.00	X
					9051-0023		Stacking frame vibration-free, on castors with stop brake, for direct and safe stacking of 2 CB incubators with wedge equipment	1,164.00	X
					9051-0030		Stacking adapter for direct thermal decoupled stacking of two CB 210 CO ₂ incubators	356.00	X
					8012-0572	08	CELLROLL. Modular and expandable roller bottle system for cell cultivation, for 6 roller bottles	6,531.00	X

CB series | Services

Validation service				
DL021031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	826.00	S1

* References:

01	Condensation may occur!	08	The additional heat input can influence the temperature behaviour.	13	The calibration is performed according to BINDER factory standard
02	Only in combination with O ₂ control.	09	Pump is supplied ready for connection in separate packaging	14	The prices stated do not include travel costs. For the travel costs for your area, please see page 3.
03	UL approval is not possible with this option.	10	Not available in combination with option access port and door with window and interior lighting.	15	Restricted humidity range < 30 % RH at 20 °C (68 °F)
04	Temperature resistant up to max. 200 °C only.	11	Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.	16	Not for 23 Liter units possible
05	Only possible for units in 230 V.	12	For information about our service contracts, please see www.binder-world.us	17	Not for 23 and 53 liter units possible
06	Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!			18	Only possible for units in 230 V / 400 V.
07	Stainless steel influences heat conductivity.				



KBW 240 series



KBW 240 series



KBW 720 series

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range:
 - without illumination: 0 °C up to 70 °C (32°F up to 158 °F)
 - with illumination 5 °C up to 60 °C (41 °F up to 140 °F)
- 2 variable positioned illumination cassettes with 5 daylight illumination tubes, each, in steps switchable
- The patented illumination system assures an unique homogeneous light distribution
- 2 stainless steel racks included
- MP controller with 2 programs with 10 sections each, alternatively switchable to 1 program with 20 sections
 - Features:
 - Integrated week program timer with real time function
 - Digital temperature setting with an accuracy of a tenth of a degree
 - Adjustable ramp functions via program editor
 - Adjustable fan speed
 - Elapsed time indicator
 - Access port Ø 30 mm (1.18 inch), left side
 - Inner glass door
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- RS 422 interface for communication software APT-COM™ DataControlSystem
- Interface converter
- Adjustable intervals for printer
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$	
KBW 240	8.5	9020-0164	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	35.6x57.5x30.1	25.6x30.9x18.5	446	13,200.00	VII
KBW 400	14.3	9020-0180	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	36.4x76.6x31.5	25.6x50x19.1	587	14,290.00	VII
KBW 720	25.4	9020-0172	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	49.2x75.8x34.9	38.3x49.2x22.7	818	20,898.00	VII

+ 100 mm (3.84 inch) for door handle and connection

KBW series | Options and accessories

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all KBW models					For all KBW models				
8012-0647	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00	XI	8012-0613		Ethernet interface for communication software APT-COM™ DataControlSystem	815.00	IX
8012-0648	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00	XI	8012-0156		Temperature measurement acc. to DIN 12880 (27 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate	1,410.00	IX
8012-0649	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00	XI	8012-0030		Factory calibration certificate. Measurement in center of chamber at 37 °C (98.6 °F) or at specified testing temperature	341.00	IX
8012-0652	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00	XI	8012-0022		Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	125.00	X
8012-0653	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00	XI	8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X
8012-0650	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00	XI	8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	XI
8012-0651		Access port with silicone plugs 100 mm (3.94 inch), top	733.00	XI					
8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00	XI					
8012-0637		Additional PT 100 temperature sensor, flexibly installed, with external connection, including DIN connector (6-pin)	592.00	XI					

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For KBW 240					For KBW 400				
6004-0101		Rack, stainless steel	183.00	XI	8012-0640		Switchable waterproof interior socket 230 V AC (max. 200 W), IP65 protected, with corresponding plug (IP66 protected) Max. allowed operating temperature 50 °C (122 °F). 1 phase, 230 V AC, 50 / 60 Hz	655.00	XI
6004-0040		Shelf, perforated, stainless steel	183.00	XI	8012-0654		FLUORA® growth lamps set as replacement for the standard tubes for 230 V	411.00	X
8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI	8012-0655		Arabidopsis fluorescent tubes set as replacement for the standard tubes for 230 V	411.00	VIII
8012-0639		Vibration compatible shelf / platform (positioned at bottom level) to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	386.00	XI	8500-0024		Replacement set of standard daylight illumination tubes for one illumination cassette	184.00	VIII
8012-0610		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI	8500-0022		Replacement set of FLUORA® illumination tubes for one illumination cassette	184.00	VIII
8012-0626		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	8500-0023		Replacement set of Arabidopsis illumination tubes for one illumination cassette	184.00	XI
8012-0679		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off either automatically, or also manually 1 phase, 230 V AC, 50 / 60 Hz	2,215.00	XI	8012-0584		Door lock	481.00	XI
8012-0654		FLUORA® growth lamps set as replacement for the standard tubes for 230 V	411.00	X	For KBW 720				
8012-0655		Arabidopsis fluorescent tubes set as replacement for the standard tubes for 230 V	411.00	VIII	6004-0106		Rack, stainless steel	353.00	XI
8500-0024		Replacement set of standard daylight illumination tubes for one illumination cassette	184.00	VIII	8009-0486		Shelf, perforated, stainless steel	353.00	XI
8500-0022		Replacement set of FLUORA® illumination tubes for one illumination cassette	184.00	VIII	8012-0674		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
8500-0023		Replacement set of Arabidopsis illumination tubes for one illumination cassette	184.00	XI	8012-0673		Vibration compatible shelf / platform to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	511.00	XI
8012-0584		Door lock	481.00	XI	8012-0668		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	1,189.00	XI
For KBW 400					8012-0669		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted.	836.00	XI
6004-0101		Rack, stainless steel	183.00	XI	8012-0695		Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off either automatically, or also manually 1 phase, 230 V AC, 50 / 60 Hz	1,695.00	XI
6004-0040		Shelf, perforated, stainless steel	183.00	XI	8012-0685		FLUORA® growth lamps set as replacement for the standard tubes for 230 V	524.00	X
8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI	8012-0686		Arabidopsis fluorescent tubes set as replacement for the standard tubes for 230 V	591.00	VIII
8012-0639		Vibration compatible shelf / platform (positioned at bottom level) to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	386.00	XI	8500-0025		Replacement set of standard daylight illumination tubes for one illumination cassette	184.00	VIII
8012-0610		Safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI	8500-0026		Replacement set of FLUORA® illumination tubes for one illumination cassette	184.00	VIII
8012-0626		Analog temperature output, 4-20 mA, with 6-pin DIN socket (output not adjustable)	836.00	XI	8500-0027		Replacement set of Arabidopsis illumination tubes for one illumination cassette	184.00	XI
8012-0679	os	Zero-voltage relay outputs accessible via 6-pin DIN socket. Additional module for controlling 2 relay outputs via 2 of the programmable controller's controller contacts. Outputs can be switched on and off either automatically, or also manually 1 phase, 230 V AC, 50 / 60 Hz	2,215.00	XI	8012-0696		Door lock	481.00	XI

* References:

01 Condensation may occur in this area!

02 Only in combination with O₂ control.

03 UL approval is not possible with this option.

04 Temperature resistant up to max. 200 °C only.

05 Only possible for units in 230 V.

06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!

07 Stainless steel influences heat conductivity.

08 The additional heat input can influence the temperature behaviour.

09 Pump is supplied ready for connection in separate packaging

10 Not available in combination with option access port and door with window and interior lighting.

11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.

12 For information about our service contracts, please see www.binder-world.us

13 The calibration is performed according to BINDER factory standard

14 The prices stated do not include travel costs. For the travel costs for your area, please see page 3.

15 Restricted humidity range < 30 % RH at 20 °C (68 °F)

16 Not for 23 Liter units possible

17 Not for 23 and 53 liter units possible

18 Only possible for units in 230 V / 400 V.



KBWF 240 series



KBWF 720 series

Patented BINDER
illumination system

Standard equipment

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range:
 - without illumination: 0 °C up to 70 °C (32 °F up to 158 °F)
 - with illumination: 10 °C up to 60 °C (50 °F up to 140 °F)
- Humidity range:
 - without illumination: 10 % - 80 % RF
 - with illumination: 10 % - 75 % RF
- 2 variable positioned illumination cassettes with 5 daylight illumination tubes, each, in steps switchable (KBWF 240), 3 variable positioned illumination cassettes with 5 daylight illumination tubes, each, in steps switchable (KBWF 720)
- The patented illumination system assures an unique homogeneous light distribution
- 2 stainless steel racks included for KBWF 240
3 stainless steel racks included for KBWF 720
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments for programming of day and night cycles
 - Features:
 - Integrated electronic chart recorder
 - Variety of options for the graphic display of process parameters
 - Real-time clock
- Controlled humidification and dehumidification system with capacitive humidity sensor
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- Access port Ø 30 mm (1.18 inch), left side
- Inner glass door
- Safety connection kit for water supply and drainage, including water hose, total length 6 m (19.7 ft.)
- RS 422 interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- BINDER test certificate

Latest technical data at www.binder-world.us

BINDER Mod. No.	Volume (cu.ft.)	BINDER Cat. No.	Voltage - Plug	Equipment	Exterior+ WxHxD (in.)	Chamber WxHxD (in.)	Net Wgt. (lbs)	Price US \$
KBWF 240	8.5	9020-0166	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Standard equipment	35.6x57.5x30.1	25.6x30.9x18.5	472	20,637.00 VII
KBWF 720	25.4	9020-0173	1 phase, 200-240 V AC, 50 / 60 Hz - P1	Fourth quarter 2010	49.2x75.8x34.9	38.3x49.2x22.7	825	24,800.00 VII

+ 100 mm (3.94 inch) for door handle and connection

KBWF series - new models | Options and accessories

Cat. No.	*	Description	Price US \$	Cat. No.	*	Description	Price US \$
For all KBWF models				For all KBWF models			
8012-0647	01	Access port with silicone plugs 30 mm (1.18 inch), right side	393.00 XI	8012-0613		Ethernet interface for communication software APT-COM™ DataControlSystem	815.00 XI
8012-0648	01	Access port with silicone plugs 30 mm (1.18 inch), left side	393.00 XI	8012-0643		External fresh water supply set consists of fresh and waste water canister with 20 liter each, cabling and pump	1,109.00 XI
8012-0649	01	Access port with silicone plugs 30 mm (1.18 inch), top	393.00 XI	8012-0625		BINDER PURE AQUA SERVICE consisting of disposable cartridge, hose set and measuring unit	642.00 XI
8012-0652	01	Access port with silicone plugs 50 mm (1.97 inch), right side	458.00 XI	6011-0077		Disposable cartridge for BINDER PURE AQUA SERVICE	384.00 X
8012-0653	01	Access port with silicone plugs 50 mm (1.97 inch), left side	458.00 XI	8012-0157		Temperature precision measurement according to DIN 12880 and 9-point humidity measurement / factory standard with measurement log and certificate, measured at 25 °C (77 °F) / 60 % RH or at specified values	2,692.00 IX
8012-0650	01	Access port with silicone plugs 50 mm (1.97 inch), top	458.00 XI	8012-0154		Factory calibration certificate for temperature and humidity. Measurement in center of chamber at 25 °C (77 °F) / 60 % RH or at specified values	427.00 IX
8012-0651	01	Access port with silicone plugs 100 mm (3.94 inch), top	733.00 XI				
8012-0620		Securing elements for additional fastening of racks (1 set of 4 pieces)	104.00 XI				

Cat. No.	*	Description	Price US \$		Cat. No.	*	Description	Price US \$	
For all KBWF models					For KBWF 240				
8012-0155		Extension to factory calibration certificate for temperature and humidity. Each additional measurement at an additional measuring point or set of values	228.00	IX	8012-0655		Arabidopsis fluorescent tubes set as replacement for the standard tubes for 230 V	408.00	X
8012-0716		Data Logger Kit TH 70: For the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Kit includes 1 data logger, 1 attachable combined humidity/temperature sensor with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,260.00	X	8500-0024		Replacement set of standard daylight illumination tubes for one illumination cassette	184.00	VIII
8012-0717		Data Logger Kit TH 70/70: With two attachable combined sensors. One for the continuous temperature and humidity recording of -40 °C (-40 °F) to 70 °C (158 °F) / 0% to 100 % RH. Second one at the data logger for recording the environmental conditions. Kit includes 1 data logger, 2 attachable combined humidity/temperature sensors with 2 m extension cable and 1 fixture for the connection at the BINDER unit	1,660.00	X	8500-0022		Replacement set of FLUORA® illumination tubes for one illumination cassette	184.00	VIII
8012-0715		Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C (428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	1,050.00	X	8500-0023		Replacement set of Arabidopsis illumination tubes for one illumination cassette	184.00	VIII
8012-0720		Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	320.00	X	8012-0584		Door Lock	475.00	XI
For KBWF 240					8012-0610		Safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	937.00	XI
6004-0101		Rack, stainless steel	183.00	XI	For KBWF 720				
6004-0040		Shelf, perforated, stainless steel	183.00	XI	6004-0106		Rack, stainless steel	353.00	XI
8012-0638		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	352.00	XI	8009-0486		Shelf, perforated, stainless steel	353.00	XI
8012-0639		Vibration compatible shelf / platform to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	386.00	XI	8012-0674		Reinforced rack, stainless steel, with 1 set of securing elements (1 set of 4 pieces), max. load 70 kg (154 lbs.)	466.00	XI
8012-0614		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted	836.00	XI	8012-0673		Vibration compatible shelf / platform to be mounted inside the chamber for shaker / spinner / roller operation (> 500 rpm to be supported)	511.00	XI
8012-0615		Zero-voltage relay alarm outputs for temperature (±2 °C) and humidity (±5 % RH), accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power rating 24 V AC/DC, 2.5 A)	1,316.00	XI	8012-0669		4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6-pin DIN socket. Outputs are adjusted automatically as the controller is adjusted	836.00	XI
8012-0654		FLUORA® growth lamps set as replacement for the standard tubes for 230 V	408.00	XI	8012-0670		Potential free alarm outputs for temperature and humidity, accessible via 6-pin DIN socket, with audible signal that can be switched off (maximum power 24 V AC/DC, 2.5 A)	1,316.00	XI
					8012-0685		FLUORA® growth lamps set as replacement for the standard tubes for 230 V	524.00	XI
					8012-0686		Arabidopsis fluorescent tubes set as replacement for the standard tubes for 230 V	591.00	X
					8500-0025		Replacement set of standard daylight illumination tubes for one illumination cassette	184.00	VIII
					8500-0026		Replacement set of FLUORA® illumination tubes for one illumination cassette	184.00	VIII
					8500-0027		Replacement set of Arabidopsis illumination tubes for one illumination cassette	184.00	VIII
					8012-0696		Door Lock	481.00	XI
					8012-0668		Temperature safety device, class 3.3 (DIN 12880) with visual alarm 1 phase, 230 V AC, 50 / 60 Hz	1,189.00	XI

KBWF series | Services

Validation service				
DL023031		Qualification folder IQ/OQ (supporting documentation for validation by the customer, consisting of IQ/OQ checklists, device circuit diagrams, QM certificate according to ISO 9001)	1,105.00	S1

* References:

01	Condensation may occur!	08	The additional heat input can influence the temperature behaviour.	13	The calibration is performed according to BINDER factory standard
02	Only in combination with O ₂ control.	09	Pump is supplied ready for connection in separate packaging	14	The prices stated do not include travel costs. For the travel costs for your area, please see page 3.
03	UL approval is not possible with this option.	10	Not available in combination with option access port and door with window and interior lighting.	15	Restricted humidity range < 30 % RH at 20 °C (68 °F)
04	Temperature resistant up to max. 200 °C only.	11	Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.	16	Not for 23 Liter units possible
05	Only possible for units in 230 V.	12	For information about our service contracts, please see www.binder-world.us	17	Not for 23 and 53 liter units possible
06	Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!			18	Only possible for units in 230 V / 400 V.
07	Stainless steel influences heat conductivity.				



Software package APT-COM™ 3 DataControlSystem for Windows to network up to 30 units or controllers with the communication interface RS 232, RS 422 or Ethernet for remote control, programming and data recording.

Versions of the APT-COM™ 3 DataControlSystem:

APT-COM™ 3 BASIC Edition

- Connection of 1 BINDER temperature chamber or measuring device with Ethernet interface, RS 232 or RS 422 to a PC
- Remote control of the connected temperature chamber
- Graphic recording of the controlled process parameter temperature, pressure, humidity, CO₂ or O₂ concentration
- Documentation of the controlled process parameter in a file protected against manipulation
- Documentation when exceeding an adjustable tolerance limit
- Documentation of all system interventions
- Simple password protection at start up
- Software lock for non-supervised running
- Manual output of measuring data in ASCII format to a printer or a spreadsheet file to handle them e.g. with table calculation programs. Data of any period can be selected.

APT-COM™ 3 STANDARD Edition

All functions of BASIC Edition plus:

- Central management of up to 40 connected units at the same time
- E-Mail notification for Limit over-/ under run using SMTP
- Time-directed automatic printouts (daily, weekly, monthly)
- HTTP web server, i.e., measuring data are periodically presented as a homepage and can be viewed via web browser
- Manual printout in HTML and E-Mail

APT-COM™ 3 GLP Edition

All functions of STANDARD Edition plus:

- Unlimited number of users with individual passwords
- GxP conformal password protection
- Compliant according FDA regulation 21 CFR Part 11 with respect to data safety and validation of overall system
- System overview (control room function "watch tool") over all units via TCP/IP protocol
- Different rights for user and administrator
- Remote alarm over telephone net or/and E-mail. Documentation and remote alarms when passing limits or in case of communication problems
- Documentation of the measurement data, safe against manipulation and in accordance to GLP/GMP
- Automatic data backup system (also on network drivers)
- Documentation of all system interventions with user name and Time Stamp

Recommended system requirements:

- Windows 2000, XP
- 512 MB RAM
- CD-ROM drive
- one free PCI slot with own interrupt (for optional COM-port extension)
- at least one free COM port with free interrupt
- Intel Pentium 4 min. 2 GHz or similar AMD
- 100 MB free hard disk memory (for program without measuring data)
- Graphic card with 16 MB local RAM
- Network card 100 Mbit Ethernet
- Hard disk with 7200 rpm minimum
- Screen resolution 1024x786, setting True Color (32 bit)
- 19" tube monitor or similar TFT screen

Additional system requirements for system validation acc. to GLP/GMP:

- APT-COM 3 GLP-Edition
- Windows 2000 or XP Professional with actual Service Pack and actual Microsoft patches
- Intel Chipset
- Intel network card
- at least UDMA-66 hard disk with 7200 rpm or RAID1
- Intermission free power supply for all PC components, and the mains unit of the converter e.g. via special battery buffered power installation or buffer unit attached to the PC system (recommended).

These system requirements are recommended when using all features of APT-COM™ 3 DataControlSystem GLP Edition. When using Editions Basic or Standard, lower system requirements may be sufficient. If the system characteristics are insufficient, processing speed of APT-COM 3 will remarkably decrease.

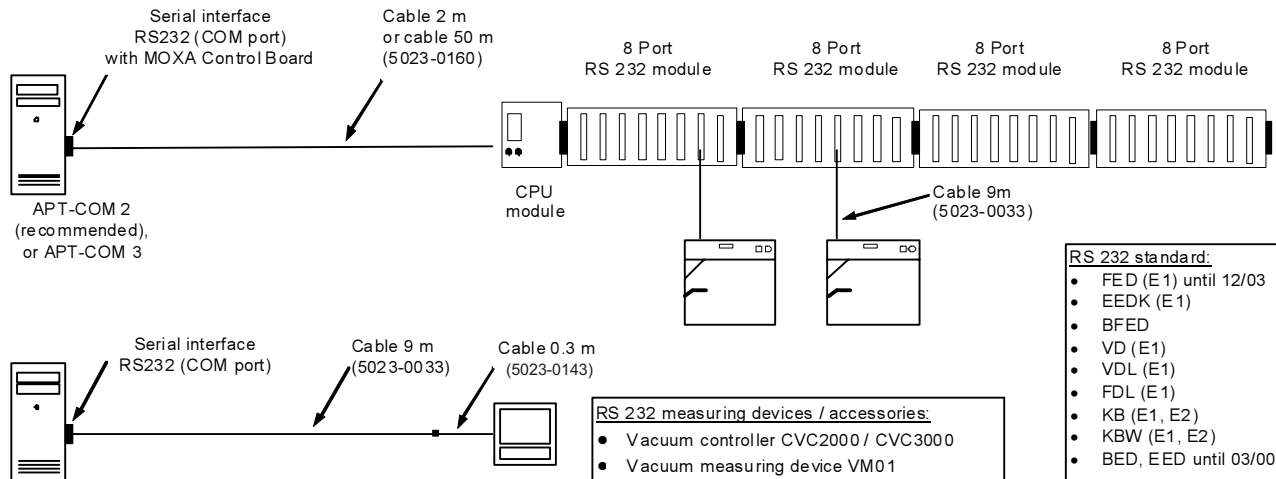
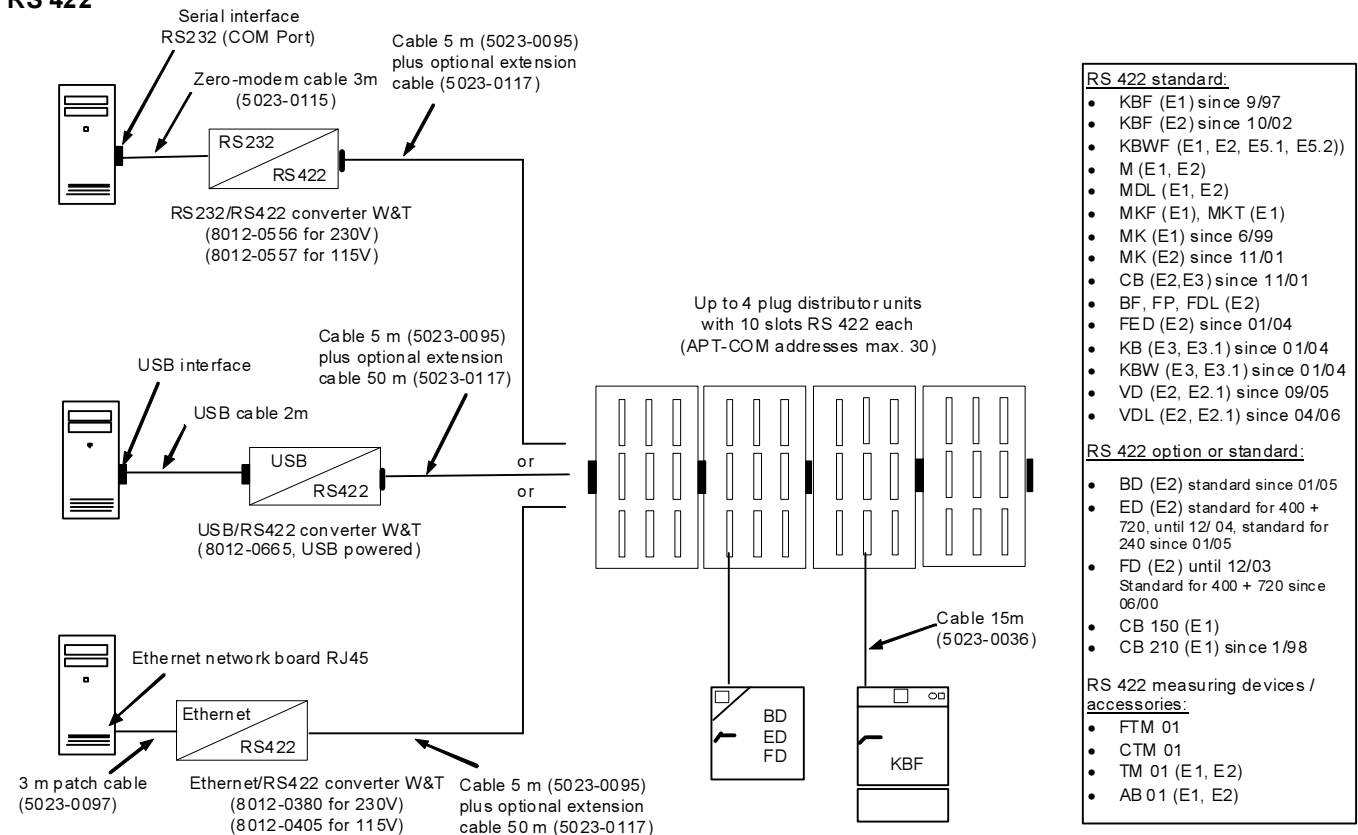
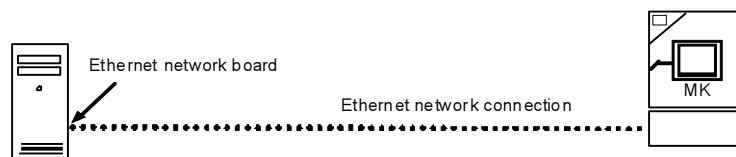
Standard equipment

Model	Version	Cat. No.	Price US \$	
Communication software APT-COM™ DataControlSystem	Version 3, GLP Edition	9053-0015	3,504.00	IX
Communication software APT-COM™ DataControlSystem	Version 3, STANDARD Edition	9053-0013	1,571.00	IX
Communication software APT-COM™ DataControlSystem	Version 3, BASIC Edition	9053-0014	150.00	IX
Communication software APT-COM™ DataControlSystem Update	Version 2 to version 3, GLP	9053-0016	1,348.00	IX
Demonstration software APT-COM™ DataControlSystem	Version 3, GLP Edition	9053-0008	for free	

Description	Voltage	Cat. No.	Price US \$	
Adapter cable RS 232, 3 m between vacuum controller in combination with speed controlled vacuum pump (VP3.1) of the VD series.		5023-0143	55.00	IX
Set of connection cables and interface converter RS 232 / RS 422 for connection to plug distributor with 10 interfaces or for only one unit.	for 230 V	8012-0556	562.00	IX
Set of connection cables and interface converter RS 232 / RS 422 for connection to plug distributor with 10 interfaces or for only one unit.	for 115 V	8012-0557	562.00	IX
Set of connection cables and interface converter RS 422 / USB for connection to plug distributor or for connection to one unit	BUS powered	8012-0665	498.00	IX
Set of connection cables and interface converter RS 422/Ethernet for connection to plug distributor or for connection to one unit.	for 230 V	8012-0380	1,140.00	IX
Set of connection cables and interface converter RS 422/Ethernet for connection to plug distributor with 10 interfaces or for only one unit.	for 115 V	8012-0405	1,140.00	IX
Modular plug distributor for 10 interfaces RS 422		8012-0295	430.00	IX
Connection cable RS 422, 15 m, between plug distributor and interface RS 422 of the unit (only with plug distributor usable)		5023-0036	154.00	IX
Connection cable RS 422, 50 m, between interface converter RS 232 / RS 422 and the plug distributor to expand the 5 m cable supplied with the cable set		5023-0117	508.00	IX

Service

Description	Cat. No.	Price US \$	
Validation service			
Qualification folder IQ/OQ for APT-COM™ GLP Edition (supporting documentation for validation by the customer, consisting of: IQ/OQ checklists, QM certificate according to ISO 9001)	DL040011	1,175.00	S1

Sample system APT-COM™ 3 DataControlSystem Standard-Edition:**RS 232****RS 422****Ethernet****Ethernet standard**

- MK (E3), MKF (E3), MKT (E3)
 - KBF (E5, E5.1, E5.2), KMF (E5.1), KBWF (E5)
- Ethernet option**
- KB (E5, E5.1), KBW (E5, E5.1)
 - KBWF (E5.1, E5.2)
 - CB (E3)
 - M (E2), MDL (E2)

For the transformation of alarm signals and for remote alarm in connection with the communication software APT-COM™ DataControlSystem, GLP edition the alarm box AB 01 and telephone dialing unit TWG 01 can be used.

Alarm box AB 01

Visual/acoustical alarm monitoring system for central monitoring of preset alarm set values in the APT-COM™ network. Through potential free contact (max. 24 V / 2.5 A) possibility of connection to telephone dialing unit (TWG 01 – see following item) or external central monitoring system. Activation of the alarm limits through the function “Monitoring” of the standardsoftware APT-COM™ DataControlSystem GLP-Edition from Version 2.0 (usable only in connection with the Version communication software APT-COM™ DataControlSystem GLP-Edition from V 2.0).

Consisting of: control device with interface RS 422, connection cable (2 m) for telephone dialing unit TWG 01 or central monitoring system and 15 m interface cable to plug distributor of the standardsoftware APT-COM™ DataControlSystem networks.

Description	Voltage	Cat. No.	Price US \$	
Alarm box AB 01	230 V 1N ~ 50 / 60 Hz	9052-0008	2,176.00	IX

Telephone dialing unit TWG 01








Telephone dialing unit for remote monitoring of alarm signals of the a.m. alarm box. Digital memory for variable voice messages. Possibility of dialing up to 4 different telephone numbers. Repeted alarm calls until the acknowledgement by resetting at the telephone dialing unit. Usable for IWF/MFW dialing systems.

Consisting of: Telephone dialing unit including low voltage power supply and connection cable (2 m) to a TAE connection for answering machine or fax machine. 4 connectors for EU, UK, Australien and USA are provided.

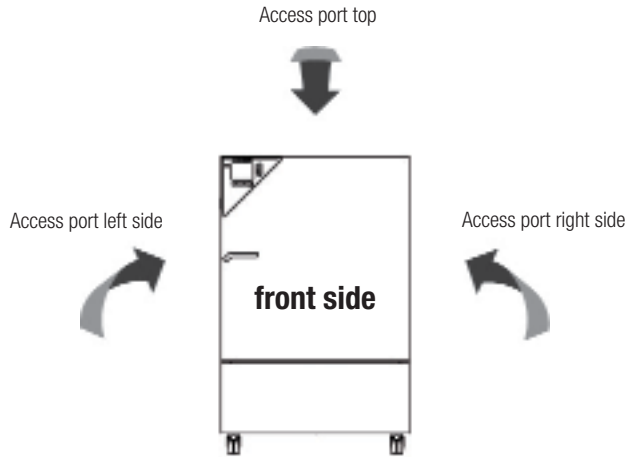
Description	Voltage	Cat. No.	Price US \$	
Telephone dialing unit TWG 01	230 V 1N ~ 50 / 60 Hz	9052-0005	542.00	IX

Description	Cat. No.	Price US \$	
for all models up to 115 l			
Sturdy trolley for various unit sizes, castors with locking brakes, tabletop made from microbiologically and chemically resistant material. Maximum load: 150 kg, Dimensions: 1000 x 800 x 780 mm (39.37 x 31.50 x 30.71 inch WxDxH). Assembly required. Detailed assembly instructions are included.	9051-0018	950.00	X
for all models starting 240 l			
Sturdy trolley for various unit sizes, castors with locking brakes, tabletop made from microbiologically and chemically resistant material. Maximum load: 250 kg, Dimensions: 1300 x 800 x 780 mm (51.18 x 31.50 x 30.71 inch WxDxH). Assembly required. Detailed assembly instructions are included.	9051-0019	1,150.00	X

These plugs are part of BINDER standard models.

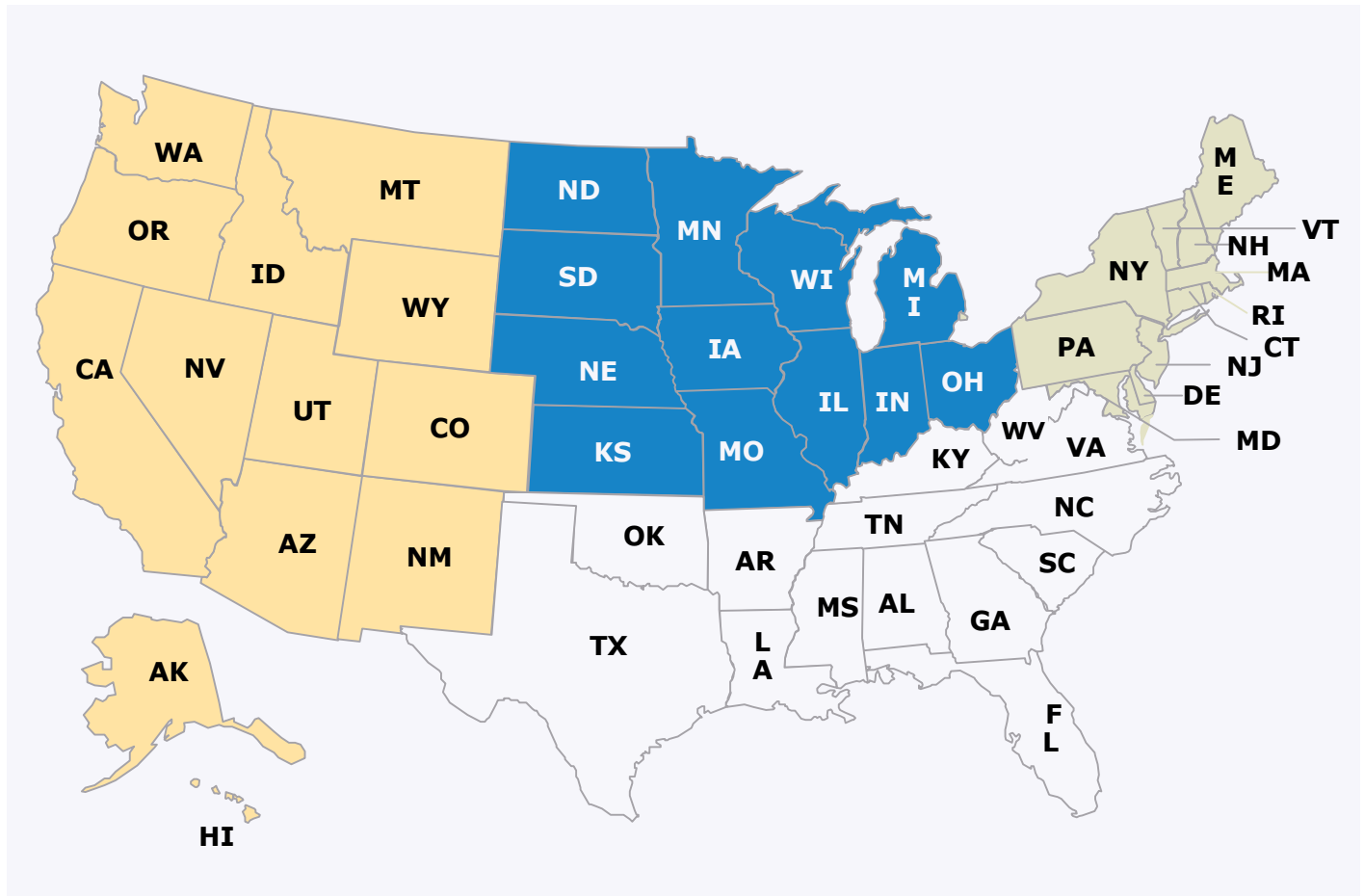
Code at listed models	Receptacle	Plug
P1		Shock proof plug (EU)
P2		CEE plug 5-poles
P3		NEMA 5-15P
P4		NEMA 5-20P
P5		NEMA 6-20P
P6		NEMA L21-20P
P7		NEMA L6-20P

View of optional access ports



* References

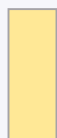
- 01 Condensation may occur in the access port area
- 02 Only in combination with O₂ control
- 03 UL-mark is not possible with this option
- 04 Temperature resistant up to max. 200 °C only
- 05 Only possible for units in 230 V
- 06 Attention: Pump supplied separately. Electrical connection of pump (230 V AC, 50 Hz) must be performed by an authorized professional electrician!
- 07 Stainless steel influences heat conductivity
- 08 The additional heat input can influence the temperature behaviour
- 09 Pump is supplied ready for connection in separate packaging
- 10 Not available in combination with option access port and door with window and interior lighting.
- 11 Installation and connection work is carried out where the device will be used, transportation within the company occurs only after consultation.
- 12 For information about our service contracts, please see www.binder-world.com
- 13 The calibration is performed according to BINDER factory standard
- 14 The prices stated do not include travel costs. For the travel costs for your area, please see the general price list
- 15 Restricted humidity range < 30 % RH at 20 °C (68 °F)
- 16 Not for 23 Liter units possible
- 17 Not for 23 and 53 liter units possible
- 18 Only possible for units in 230 V / 400 V



BINDER Inc. **Regional Sales Manager Coverage**



Regional Sales Manager Midwest
Deborah DiMuzio
(631) 224-4340 x 143
deborah.dimuzio@binder-world.com



Regional Sales Manager West
Joseph Quinn
(631) 224-4340 x 142
joseph.quinn@binder-world.com



Regional Sales Manager Northeast
David Craig
(631) 224-4340 x 141
david.craig@binder-world.com



Regional Sales Manager Southeast
Augusto J. Lecuona
(631) 224-4340 x 144
augusto.lecuona@binder-world.com