

Model VD 115 | Vacuum drying chambers for non-flammable solvents

A BINDER vacuum drying oven VD series gently dries materials with homogeneous temperature distribution. The patented expansion shelf technology from BINDER ensures optimal heat transfer. The shelves are easy to position where required and the inner chamber of the vacuum drying oven is easy to clean.

BENEFITS

- · Fast and gentle drying
- · Direct heat transfer through large thermal conducting plates
- · Safe work with one-of-a-kind safety concept
- · Coordinated, modular system with vacuum pump and vacuum module



Model 115



Model 115

MAIN FEATURES

- Temperature range: room temperature plus 15 °C to 200 °C
- APT.line™ preheating chamber technology
- · Controller with time-segment and real-time programming
- 2 aluminum expansion racks
- · Inert gas connection
- · Shatterproof, spring-mounted safety glass panel
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- · Computer interface: RS 422
- 2 relay outputs, 24 V DC (max. 0.4 A)

ORDERING INFORMATION

Interior volume [cu.ft.]	Voltage	Option model	Version	ArtNo.
Model VD 115				
4.4	230 V 1 ph 50/60 Hz	Standard	VD115-230V	9030-0031
4.1	120 V 1 ph 60 Hz	Standard	VD115UL-120V	9030-0037



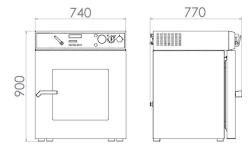
TECHNICAL DATA

Anticle Number 9009-0031 9039-0037 Performance Data Temperature Use Composition remperature to [**C] 200 200 Temperature variation at 100 **C [± K] 3.5 3.5 Temperature fluctuation [± K] 0.1 0.1 Packing-up time to 100 **C [min] 98 3.5 3.5 Vacuum Data Very Call and the 100 **C [min] 9.0 1.0 1.0 Electrical dead vacuum [mba] 0.01 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 <	Description	VD115-230V ¹	VD115UL-120V ¹	
Temperature range 15 °C above ambient temperature (°C) 200 200 Temperature variation at 100 °C [c K] 3.5 3.5 Temperature fluctuation [a K] 0.1 0.1 Heating-up fame to 100 °C [min] 56 66 Vacuum Data Vermitted end vacuum (mbar) 0.01 0.01 Leak rate [tamh] 0.01 0.01 0.01 Electrical data Vermitted end Vacuum (mbar) 20 0.01 Power frequency [42] 500 0.0 0.0 Nominal power [kW] 1,7 1,7 1,7 Unit base [A] 1,0 20 0.0 Nominal power [kW] 1,7 1,7 1,7 Unit base [A] 1,0 20 0.0 Nominal power [kW] 1,0 20 0.0 Nominal power [kW] 1,7 1,7 1,7 Unit base [A] 1,0 2.0 0.0 Nominal power [kW] 1,0 1,0 0.0 Name [A] 1,0 1,0 0.0 Name [A]<	Article Number	9030-0031	9030-0037	
Temperature variation at 100 °C [t K] 3.5 3.5 Temperature fluctuation [± K] 0.1 0.1 Vaccium Data 95 5 Vaccium Data Vaccium Data 0.01 0.01 Leak rate [park] 0.01 0.01 0.01 Leak rate [park] 0.01 0.01 0.01 Electrical data Vaccium Data 120 0.01 Power frequency [t-1] 0.06 0.0 0.0 Nominal power [kW] 1.7 1.7 0.0 Unit due [A] 1.0 2.0 0.0 Phase (Nominal voltage) [ph] 1.7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Performance Data Temperature			
Temperature fluctuation [x k] 0.1 0.1 Heating-up time to 10° C (min) 95 95 Yeacuum Data Vernitted and vacuum (inbar) 0.01 0.01 Leak rate (barh) 0.01 0.01 Electrical data Vernitted and vacuum (inbar) 200 120 Power frequency [ktz] 5060 60 Nominal power [ktW] 1,7 1,7 Unit tuse [A] 10 2 Phase (Nominal voltago) [ph] 1 1 Connections Vernit (vacuum connection with small flange [DN mm] 16 6 Measuring access port with small flange [DN mm] 16 6 6 Measuring access port with small flange [DN mm] 16 6 6 Measuring access port with small flange [DN mm] 16 70 70 Wellich mel (mm] 90 70 90 Height (mm] 90 90 90 Public (mm] 135 15 Wall clearance back [mm] 31 35 15 Vaewing window height [rm]<	Temperature range 15 °C above ambient temperature to [°C]	200	200	
Heating-up time to 100°C (min) 95 95 Vacuum Data Vacuum (mbar) 0.01 Leak rate (parh) 0.01 0.01 Electrical data Vacuum (mbar) 200 0.01 Power frequency [kz] 506 0.0 0.0 Nominal power [kW] 1,7 1,7 0.0 Unit use [A] 10 0.0 0.0 Phase (Nominal volee) [km] 16 0.0 0.0 Unit use [A] 10 0.0 0.0 Unit use [A] 10 0.0 0.0 Phase (Nominal volee) [km] 16 0.0 0.0 Connections Vacuum connection with small flange [DN mm] 16 0.0 0.0 0.0 Measuring access port with small flange [DN mm] 16 16 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Temperature variation at 100 °C [± K]	3.5	3.5	
Vacuum Data Permitted and vacuum [mbar] 0.01 0.01 Leak rate [barh] 0.01 0.01 Electrical clearh] 2.00 0.01 Electrical clate	Temperature fluctuation [± K]	0.1	0.1	
Pemilited and vacuum [mbar] 0.01 0.01 Leak rate [barh] 0.01 0.01 Electrical data Vacuation [mbar] 0.01 Readed Vollage [V] 200 120 Power frequency [Hz] 50/80 60 Nominal power [kW] 1.7 1.7 Unit fuse [A] 10 20 Phase (Nominal vottage) [ph] 16 1 Phase (Nominal vottage) [ph] 16 6 Rose unit gaccess port with small flange [DN mm] 16 6 Ressuring access port with small flange [DN mm] 16 6 Inert gas connection with flow limiter (RP") 36 38 Width eng firm] 740 740 Height net [mm] 90 90 Depth net [mm] 70 70 Wall clearance slock/se [mm] 135 15 Vewing window with [mm] 13 15 Vewing window with [mm] 16 16 Unit door 1 1 Urid tool 2 1 <th< td=""><td>Heating-up time to 100 °C [min]</td><td>95</td><td>95</td><td></td></th<>	Heating-up time to 100 °C [min]	95	95	
Leak rate [barh] 0.01 0.01 Electrical data Use of this per live of the part	Vacuum Data			
Electrical data Electrical data 230 120 Power frequency [rtz] 50/60 60 Nominal power [kty] 1/7 1/7 Unit fuse [A] 10 20 Phase (Nominal voltage) [ph] 1 1 Connections ************************************	Permitted end vacuum [mbar]	0.01	0.01	
Rated Voltage [V] 230 120 Power frequency [Nz] 5080 60 Nominal power [Nz] 1.7 1.7 Unif úse [A] 10 20 Phase (Nominal voltage) [ph] 1 4 Connections Vacuum connection with small flange [DN mm] 16 6 Measuring access port with small flange [DN mm] 16 6 Mering accomection with flow limiter (RP*) 38 36 Brieft gas connection with flow limiter (RP*) 30 30 User dimensions 40 40 User dimensions 90 90 Public learnene back [mm] 100 90 Wall clearance back [mm] 100 10 Wall clearance sidewise [mm] 15 15 Viewing window height [mm] 56 45 Viewing window height [mm] 60 50 Unit doors 1 1 Unit doors 6 50 Unit doors 60 50 Upen [mm] <td< td=""><td>Leak rate [bar/h]</td><td>0.01</td><td>0.01</td><td></td></td<>	Leak rate [bar/h]	0.01	0.01	
Power frequency [Hz] 50/60 60 Nominal power [kW] 1.7 1.7 Unit use [A] 10 20 Phase (Nominal votage) [ph] 1 1 Connections Versue (Nominal votage) [ph] 16 16 Connection with small flange [DN mm] 16 16 16 Measuring access port with small flange [DN mm] 16 16 16 Measuring access port with small flange [DN mm] 16 16 16 Measuring access port with small flange [DN mm] 16 16 16 Measuring access port with small flange [DN mm] 16 16 16 Measuring access port with small flange [DN mm] 16 16 16 Unter dimensions 70 3 3 3 Width net [mm] 40 74 40 40 Wall clearance sidewise [mm] 100 100 10 40 40 40 40 40 40 40 40 40 40 40 40 40 40 <th< td=""><td>Electrical data</td><td></td><td></td><td></td></th<>	Electrical data			
Nominal power [kV] 1.7 1.7 Unit fuse [A] 10 20 Phase (Nominal voltage) [ph] 1 1 Connections Vacuum connection with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 10 Width (mm] 740 74 74 Width (mm] 90 90 90 Wall clearance sidewise [mm] 100 100 100 100 100 100 100 100 100 100 100 100 100 100 <t< td=""><td>Rated Voltage [V]</td><td>230</td><td>120</td><td></td></t<>	Rated Voltage [V]	230	120	
Unit fue [A] 10 20 Phase (Nominal voltage) [ph] 1 1 Connections Vacuum connection with small flange [DN mm] 16 16 Vacuum connection with small flange [DN mm] 16 16 Inert gas connection with flow limiter (RP") 3/8 3/8 Outer dimensions Vacuum connection with flow limiter (RP") 740 740 Height net [mm] 740 740 740 Beight net [mm] 670 670 760 Beight net [mm] 670 670 670 Wall clearance back [mm] 135 135 135 Viewing window width [mm] 456 456 456 Viewing window height [mm] 135 456 456 Viewing window height [mm] 60 456 456 Viewing window height [mm] 50 50 456 Unit doors 50 50 50 Height [mm] 506 50 50 Height [mm] 506 506 50	Power frequency [Hz]	50/60	60	
Phase (Nominal voltage) [ph] 1 1 Connections Vacuum connection with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Inert gas connection with flow limiter (RP") 3/8 3/8 Outer dimensions ************************************	Nominal power [kW]	1.7	1.7	
Connections Vacuum connection with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Inert gas connection with flow limiter (RP") 3/8 3/8 Outer dimensions **** **** Wright net [mm] 740 740 Height net [mm] 900 900 Depth net [mm] 670 670 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 456 456 Viewing window height [mm] 1 1 Unit doors 1 1 Will Internal Dimensions 506 506 Will [mm] 506 506 Height [mm] 606 506 Depth [mm] 460 400 Measures 153 153 Heider (Light) [kig] 153 153 Permitted load [kig] 65 65	Unit fuse [A]	10	20	
Vacuum connection with small flange [DN mm] 16 16 Measuring access port with small flange [DN mm] 16 16 Inert gas connection with flow limiter (RP') 3/8 3/8 Outer dimensions ************************************	Phase (Nominal voltage) [ph]	1	1	
Measuring access port with small flange [DN mm] 16 16 Inert gas connection with flow limiter (RP°) 3/8 3/8 Outer dimensions ************************************	Connections			
Inert gas connection with flow limiter (RP") 3/8 3/8 Outer dimensions 740 740 Width net [mm] 900 900 Depth net [mm] 670 670 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors 1 1 Unit doors 1 1 Internal Dimensions 506 506 Width [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20	Vacuum connection with small flange [DN mm]	16	16	
Outer dimensions Width net [mm] 740 740 Height net [mm] 900 900 Depth net [mm] 670 670 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors Unit doors 1 1 Unit doors 506 506 Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20	Measuring access port with small flange [DN mm]	16	16	
Width net [mm] 740 740 Height net [mm] 900 900 Depth net [mm] 670 670 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors Unit doors 1 1 Internal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 400 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 90 20 Fixtures	Inert gas connection with flow limiter (RP")	3/8	3/8	
Height net [mm] 900 900 Depth net [mm] 670 670 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors Unit doors 1 1 Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20	Outer dimensions			
Depth net [rm] 670 Wall clearance back [rm] 100 Wall clearance sidewise [rm] 135 Viewing window width [rm] 456 458 Viewing window height [rm] 413 413 Doors Unit doors 1 1 Uniternal Dimensions 506 506 Width [rm] 506 506 6 Depth [rm] 460 460 460 Measures 115 115 115 Net weight of the unit (empty) [kg] 153 153 153 permitted load [kg] 65 65 65 Load per rack [kg] 20 20 Fixtures	Width net [mm]	740	740	
Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors Unit doors 1 1 Unit menal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Height net [mm]	900	900	
Wall clearance sidewise [mm] 135 135 Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors Unit doors 1 1 Internal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Depth net [mm]	670	670	
Viewing window width [mm] 456 456 Viewing window height [mm] 413 413 Doors Unit doors 1 1 Internal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Wall clearance back [mm]	100	100	
Viewing window height [mm] 413 413 Doors Unit doors 1 Unit doors 1 1 Internal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Wall clearance sidewise [mm]	135	135	
Doors Unit doors 1 1 Internal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Viewing window width [mm]	456	456	
Unit doors 1 1 Internal Dimensions Vidth [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Viewing window height [mm]	413	413	
Internal Dimensions Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures Fixtures 150 150	Doors			
Width [mm] 506 506 Height [mm] 506 506 Depth [mm] 460 460 Measures ************************************	Unit doors	1	1	
Height [mm] 506 506 Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Internal Dimensions			
Depth [mm] 460 460 Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Width [mm]	506	506	
Measures Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Height [mm]	506	506	
Interior volume [L] 115 115 Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Depth [mm]	460	460	
Net weight of the unit (empty) [kg] 153 153 permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Measures			
permitted load [kg] 65 65 Load per rack [kg] 20 20 Fixtures	Interior volume [L]	115	115	
Load per rack [kg] 20 20 Fixtures 20 20	Net weight of the unit (empty) [kg]	153	153	
Fixtures	permitted load [kg]	65	65	
	Load per rack [kg]	20	20	
Number of shelves (std./max.) 2/6 2/6	Fixtures			
	Number of shelves (std./max.)	2/6	2/6	

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



DIMENSIONS incl. fittings and connections [mm]



OPTIONS AND ACCESSORIES

Designation	Description	*	ArtNo.
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1127
Calibration certificate, pressure	for digital pressure display, measurement at 100 mbar or at specified pressure (range 20 – 900 mbar)	-	8012-0440
	for temperature, measurement in center of chamber at specified temperature	-	8012-1145
Calibration certificate, temperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-0919
ioporataro	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-0916
Digital pressure display	Measuring range from 1 mbar to atmospheric pressure, display accuracy 1 mbar	-	8012-0807
Door gasket	made of FKM, silicone-free	03	8012-0502
Electric access port	9-pin, vacuum-tight access port for transmitting electrical currents, voltages, or signals (max. 50 V / 2 A per pin; vacuum connection DN 16 ISO-KF)	-	8012-0262
	aluminum	-	8009-0372
Expansion rack	stainless steel 1.4571 (V4A)	06	8009-0103
	stainless steel expansion rack instead of standard aluminum expansion rack, incl. calibration	-	8012-0618
	RS 422 cable set and RS 232 / RS 422 interface converter for connection to 10-way plug distributor or for connection to a unit		
	120 V, 60 Hz option model	-	8012-0557
lata fa a a a a a constan	230 V, 50/60 Hz option model	-	8012-0556
RS 422 cable set and RS 422 / Ethernet interface converter for connection to 10-way plug distributor or for connection to a unit			
	120 V, 60 Hz option model	-	8012-0405
	230 V, 50/60 Hz option model	-	8012-0380
Interface converter, USB / RS422	RS 422 cable set and RS 422 / USB interface converter for connection to 10-way plug distributor or for connection to a unit (USB-powered converter)	-	8012-0665
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
RS 422 interface	modular plug distributor for 10 RS 422 interfaces	-	8012-0295
RS 422 interface, cable (15 m)	RS 422 connection cable (15 m) between plug distributor and RS 422 interface	-	5023-0036
RS 422 interface, cable (50 m)	RS 422 extension cable (50 m) between interface converter and unit or RS 232 / RS 422 plug distributor	-	5023-0117
	APT-COM™ communications software		
	version 2 to 3, GLP edition	19	9053-0016
	version 3, BASIC edition	19	9053-0014
Software	version 3, GLP edition	19	9053-0015
	version 3, STANDARD edition	19	9053-0013
	APT-COM™ communications software, price: for free		
	version 3, GLP DEMO Edition	19	9053-0008
Temperature measurement of the specimen	with flexible Pt 100 sensor and digital specimen temperature display	-	8012-0551

^{*} Notes > See last page



Designation	Description	*	ArtNo.
	to receive vacuum pumps, with switchable power socket		
Vacuum module	120 V, 13 A option model	-	8012-0275
	230 V, 16 A option model	-	8012-0132
Vacuum module with	nominal pumping speed 2.0 m³/h, final pressure 7 mbar, including all necessary parts for vacuum connection, ATEX conformity: II 3G IIC T3 X (only for inner chamber, areas coming in contact with media)		
chemical membrane oump VP 1.1	120 V option model	-	8012-0738
Jump VI III	230 V option model	-	8012-0735
/acuum module with	nominal pumping speed 3.4 m³/h, final pressure 1.5 mbar,		
chemical membrane	120 V option model	-	8012-0739
oump VP 2.1	230 V option model	-	8012-0736
Vacuum module with speed-controlled	nominal pumping speed 4.6 m³/h, final pressure 1.5 mbar, including all necessary parts for vacuum connection, digital vacuum controller (accurate to ≤1 mbar), ATEX conformity: II 3G IIC T3 X (only for inner chamber, areas coming in contact with media)		
chemical membrane oump VP 3.1	120 V option model	-	8012-0740
Jump VI 3.1	230 V option model	-	8012-0737
Vacuum pump connection kit	for vacuum pump VP 1.1, VP 2.1, VP 3.1; consisting of aluminum clamping ring, universal centering ring, small flange with hose nozzle, (2.5 m) rubber hose and 2 hose clamps	-	8012-0146
	Chemical membrane pump with nominal pumping speed 2.0 m³/h, final pressure 7 mbar, ATEX conformity: II 3G IIC T3 X (only for interior, areas coming in contact with media)		
/acuum pump VP 1.1	120 V option model	-	5013-0118
	230 V option model	-	5013-0117
	chemical membrane pump with nominal pumping speed 3.4 m³/h, final pressure 1.5 mbar, ATEX conformity: II 3G IIC T3 X (only for inner chamber, areas coming in contact with media)		
/acuum pump VP 2.1	120 V option model	-	5013-0120
	230 V option model	-	5013-0119
	Speed-controlled chemical membrane pump with nominal pumping speed 4.6 m³/h, final pressure 1.5 mbar, ATEX conformity: II 3G IIC T3 X (only for interior, areas coming in contact with media)		
/acuum pump VP 3.1	120 V option model	-	5013-0122
	230 V option model	_	5013-0121

^{*} Notes > See last page

SERVICES

Designation	Description	*	ArtNo.
Installation services			
Data Logger Kit installation service	unit function instructions for operation and programming of the controller	18	DL100500
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL100200
Preventive maintenance			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL200500
Calibration services			
Calibration digital pressure display	including certificate, measurement at specified pressure, range 20 – 900 mbar	14, 16, 17, 18	DL320000
Calibration temperature incl. certificate	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL300201
Temperature measurement 15 measuring points	including certificate, 15 measuring points at specified temperature	14, 16, 17, 18	DL300218
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL300209
Validation services			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL420300
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL440500
Qualification folder IQ/OQ	supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001	15, 18, 20	8012-0859
	<u> </u>		

^{*} Notes > See last page



Designation	Description	*	ArtNo.
Qualification folder IQ/OQ/PQ	supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ	15, 18	8012-0948
Warranty service			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	-	DL008041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	-	DL008042

^{*} Notes > See last page



NOTES

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. 01 02
- UL mark is not granted when this option is used. Heat resistant only to max. 200 °C.
- 03
- Only available on units rated for 230 V.
- Heating-up time may increase as a result of the lower heat conductivity.
- The additional heat input may affect the temperature behavior.
- Not in conjunction with the optional access port, door with window and interior lighting. 09
- Not available on 23-liter units.
- Not available on 23- or 53-liter units.
- 10 11 12 Only available on units rated for 230 V or 400 V.
- Installation and connections take place at unit location; transport within the company only upon consultation.
- We recommend a BINDER service contract to cover unit inspections, calibrations and validations.
- OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.
- Sensor calibration is performed in an accredited calibration laboratory.
- 17
- Calibration is performed according to the BINDER factory standard.

 Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not include a country-specific added fee (available on request).
- For additional accessories, refer to the Process documentation chapter.
- When ordering IQ/OQ qualification folders and associated IQ/OQ execution on one order, we offer a 15 % discount for both items.
 - When ordering IQ/OQ/PQ qualification folders and associated IQ/OQ/PQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ/PQ folder.