

# Model KBW 720 | Growth chambers with light

The BINDER climate chamber with illumination of the KBW series achieves homogeneous light distribution with its natural illumination. That allows this growth chamber to create constant lighting and temperature conditions.

## **BENEFITS**

- Patented lighting system ensures homogeneous light distribution
- Flexible positioning of illumination cassettes, three different light spectra, individually selectable
- · Integrated weekly program in real-time



Model 720



Model 400

## **MAIN FEATURES**

- Temperature range: o °C to +70 °C
- Temperature range with light: +5 °C to +60 °C
- 3 positionable illumination cassettes, each with 5 fluorescent tubes
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Intuitive touchscreen controller with time-segment and real-time programming with internal data recording
- Tight-sealing inner door made of safety glass (ESG)

- · Avoidance of glass corrosion by special TIMELESS coating
- 3 stainless steel racks
- Access port with silicone plug, 30 mm, left
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Door heating

## **ORDERING INFORMATION**

Interior volume [L]	Voltage	Option model	Version	ArtNo.
698	200240 V 1~ ph 50/60 Hz	Standard	KBW720-230V	9020-0340



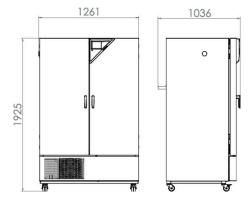
## **TECHNICAL DATA**

Antice Number         poso-rayso           Performance Data Temperature range with 2005 Illumination (PC)         5.—60           Temperature range with 2005 Illumination (EX)         0.0           Temperature variation with 2005 Illumination (EX)         0.5           Temperature variation with 1005 Illumination (EX)         0.5           Temperature variation without Illumination cassettes (EX)         0.5           Temperature variation without 1005 Illumination (EX)         0.4           Temperature variation without Illumination cassettes (EX)         0.5           Temperature variation without Illumination cassettes (EX)         0.0           Devilent tubes (IV)***         3860           Place (EX)***         3960           Flace (EX)**         3960           Flexible (EX)**         3960           Flexible (EX)**         3960           Flexible (EX)**         3960           Flexible (EX)**         3960	Description	KBW720-230V <sup>1</sup>
Performance Data Temperature         Commence of the period of the p	•	
Temperature arage with not's illumination (**)         a_70           Temperature variation with not's illumination is XI         b.0           Temperature variation with not's illumination assettes (*XI)         0.5           Temperature fluctuation with not's illumination casettes (*XI)         0.4           Temperature fluctuation with not's illumination assettes (*XI)         0.4           Update per llumination casettes (*XI)         38           Daylight tubes (*Yim*)***         380           Propright tubes (*Yim*)***         390           Propright tubes (*Yim*)***         390           Propright tubes (*Yim*)***         490           Propright tubes (*Yim*)***         490           Arabidepsis lamps (*Wi*)**         490           Arabidepsis lamps (*Wi*)**         490           Propright tubes (*Yim*)**         590           Arabidepsis lamps (*Wi*)*         490           Propright (*Yim*)**         490           Propright (*Yim*)*         590           Power (requery (*Yi*)*         590           Nominal power (*Wi         59           Nominal power (*Wi         59           Nominal power (*Wi         59           Not (*Yim*)*         59           Net (*Yim*)*         59           Not (*Yi		9020-0340
Temperature raspe without Illumination cassettes PCI         070           Temperature variation without Illumination [x]         0.5           Temperature fluctuation without Illumination cassettes [x]         0.1           Temperature fluctuation without Illumination cassettes [x]         0.1           Lipidata per Illumination Cassettes [x]         180           Davight tubes [Wim]**         380           Davight tubes [Wim]**         360           Fluora@ growth lamps [Uln**]*         360           Fluora@ growth lamps [Uln**]*         360           Arabidopsis lamps [Wim]**         400           Arabidopsis lamps [Wim]**         400           Ploura@ growth lamps [Uln**]*         300           Arabidopsis lamps [Wim]**         400           Ploura@ growth lamps [Uln**]*         400           Race vicing [Vim]**         506           Power frequency [x]         506           Rominal power [kWim]**         506           Normal power [kWim]**         507           Normal power [kWim]**         509           Normal power [k	•	5 60
Temperature variation with 100% illumination (r. K)         0.5           Temperature Ructuation with 100% illumination cassettes (t. K)         0.1           Temperature Ructuation with 100% illumination cassettes (t. K)         0.1           Temperature Ructuation with 100% illumination cassettes (t. K)         0.1           Lightidate per Illumination cassettes         Western 100% illumination cassettes (t. K)           Daylight tubes (t. L)**         38           Daylight tubes (t. L)**         3000           Floorage growth lamps (Wim*)**         43           Arabidopsis lamps (Mim*)**         43           Arabidopsis lamps (Mim*)**         4000           Rectical data         Western 100% illumination (assette (t. K))           Rectical data         500,300           Rectical data         4000           Rectical data         600           Rectical data         600           Nominal power (Wil)         500           Nominal power (Wil)         600           Nominal power (Wil)         600           Nex weight of the unit (empt) (k. k. k		
Temperature variation without illumination [x]         0.5           Temperature fluctuation without illumination [x]         0.4           Temperature fluctuation without illumination cassettes [x]         0.4           Lightedata per Illumination Cassettes [x]         3.8           Lightedata per Illumination Cassettes [x]         3.800           Daylight tubuse [Wim²]**         3.900           Fluora@ growth lamps [Wim²]**         4.900           Arabidopis tamps [Wim²]**         4.900           Arabidopis tamps [Wim²]**         4.900           Restricted dost         ****           Power frequency [k]         9.60           Nominal power [Wim²]**         9.60           Nominal power [Wim²]**         4.900           Nominal power [Wim²]**         9.60           Nominal power [Wim²]**		
Temperature fluctuation with soo's illumination [x x]         0.1           Temperature fluctuation without illumination cassettes [x x]         3.8           Lightidata per lillumination Cassettes         38.0           Daylight Lubes [N/**]**         30.0           Daylight Lubes [N/**]**         105.0           Fluora® growth lamps [M/**]**         45.0           Arabidopsis lamps [N/**]**         45.0           Arabidopsis lamps [N/**]**         40.0           Rated Voltage [V]         20.24           Rober (Pall)         50.6           Nominal power [kV]         27           Unit fuse [A]         6.0           Phase (Rominal voltage)         16           Value (A)         16           Phase (Rominal voltage)         27           Unit fuse [A]         59.8           Net weight of the unit fempty) [k]         37           Net weight of the unit fempty) [k]         79           Value (Legarce back [mn]         100           Wall clearance back [mn]         20           Wall clearance back [mn]         25.0           Wall clearance back [mn]         25.0           Unit doos         2.2           Doors         2.2           Unit doors         2.3		
Tightatuse fundation without illumination cassettes [x   1		
Deficitation per illumination Cassettes           Daylight tubes [Min*]**         38           Daylight tubes [Min*]**         39000           Hoursa's growth lamps [Min*]**         3600           Tubinas's growth lamps [Min*]**         3600           Arabidopais lamps [Min*]**         4000           Arabidopais lamps [Min*]**         4000           Electrical data         4000           Electrical data         4000           Power frequency [Mz]         30,60           Normal power [Min         4,70           Phase (Rominal voltage)         4,70           Phase (Rominal voltage)         4,70           New weight of the unit (empty) [Mg]         37           Permitted load [Mg]         69           Valid clearance back (imi)         40           Valid clearance back (imi)         40           Valid clearance back (imi)         90           Walid clearance back (imi)         90           Unit door         90           Electrical (imin         90		
Daylight tubes [kgl²         3900           Daylight tubes [kgl²         3900           Fluora® growth lamps [kgl/²²)         360           Fluora® growth lamps [kgl/²²)         3000           Arabidopsis lamps [kgl/²²]         4000           Arabidopsis lamps [kgl/²²]         3000           Arabidopsis lamps [kgl/²²]         2000           Red Voltage [V]         2000           Power fequency [Ft]         3000           Rominal power [kWl]         400           Rominal power [kWl]         500           Rominal power [kWl]         500     <		0.1
Daylight tubes [k]**         15000           Ribora® growth lamps [k]**         16000           Arabidoposis lamps [k]**         4000           Arabidoposis lamps [k]**         4000           Bletriad data         ************************************		
Floan® growth lamps [k]***         36           Arabidopsis lamps [k]***         43           Arabidopsis lamps [k]***         400           Electrical data         *****           Rated Voltage [v]**         200240           Power frequency [vt2]         50/60           Nominal power [kW]         2,7           Unit fuse [A]         6           Phase (Nominal voltage)         1-           Neares         ****           Interior volume [1]         698           Net weight of the unit (empty) [kg]         377           Pemilted load [kg]         50           Load per rack [kg]         45           Vall clearance back (mn)         50           Vall clearance back (mn)         50           Vall clearance back (mn)         70           Vall clearance back (mn)         50           Vall clearance sidewise [mn]         50           Vall clearance sidewise [mn] <td></td> <td></td>		
Fluera® growth lamps [k]**         a500           Arabidopsis lamps [k]***         4000           Arabidopsis lamps [k]***         4000           Edectrical data         200-240           Red Voltage [V]         200-220           Power frequency [Hz]         50/60           Nominal power [kW]         7.7           Passes (Nominal voltage)         16           Passes (Nominal voltage)         76           Net weight of the unit (empty) [kg]         37           Permitted load [kg]         50           Load per rack [kg]         45           Wall clearance back [m]         50           Wall clearance back [m]         50           Wall clearance back [m]         70           Wall clearance ba	Daylight tubes [lx]*2	13000
Arabidopsis lamps [Wm]**         43           Arabidopsis lamps [k]**         14000           Electrical data         200240           Roted Yoltage [V]         200240           Power frequency [Hz]         50/60           Nominal power [kW]         2.7           Unit Use [A]         16           Nase (Moninal voltage)         69           Measures         V           Interior volume [L]         698           Net weight of the unit (empty) [kg]         377           Permitted load [kg]         50           Val clearance back [km]         150           Wall clearance sidewise [mm]         160           Wall clearance sidewise [mm]         70           Width Imma         79           Height [mm]         70           Popty [mm]	Fluora® growth lamps [W/m²]*2	36
Arabidopis lamps [k]**         4900           Electrical data         2000-240           Power frequency [Hz]         2000-240           Nominal power [kW]         2.7           Unif use [A]         6           Phase (Nominal voltage)         10           Measures         10           Interior volume [L]         98           Net weight of the unit (empty) [kg]         377           Permitted load [kg]         50           Vall clearance back [m]         50           Vall clearance back [m]         60           Vall clearance back [m]         90           Height [m]         90           Eight [m]         90           Uniformity         90           Power [m]         90           Uniform [m]         90           Height [m]         90           Holiston [m]         90           Height [m]         90	Fluora® growth lamps [lx]*2	10500
Electrical data           Rated Voltage [V]         200240           Power frequency [Hz]         50/60           Nominal power [kW]         2.7           Unit fuse [A]         6           Phase (Nominal voltage)         1-           Measures         668           Interior volume [L]         659           Net weight of the unit (empty) [kgl         377           Permitted load [kgl         150           Ual clearance back [mm]         100           Wall clearance sidewing         100           Wall clearance sidewing         100           Wall clearance sidewing         970           Height [mm]         120           Depth (mm]         970           Height [mm]         20           Pobros         2           Unitedors         2           Unitedors         2           Unitedors         2           Unitedors         250           United (mm]         150           Height net [mm]         150 <t< td=""><td>Arabidopsis lamps [W/m²]*²</td><td>43</td></t<>	Arabidopsis lamps [W/m²]*²	43
Rede Votage (V)         200-2240           Power frequency (Iz)         50/60           Nominal power (RV)         27           Unit fuse (A)         40           Phase (Votinal Votage)         1-           Measures         Westernamental Votage           Interior volume (L)         68           Net weight of the unit (empty) (kg)         77           Permited load (kg)         50           Badd Jearneck (km)         100           Wall clearance back (mm)         100           Wall clearance back (mm)         70           Wall clearance back (mm)         70           Wall clearance sidewise (mm)         70           Breight (mm)         70           Breight (mm)         70           Breight (mm)         20           Brought (mm)	Arabidopsis lamps [lx]* <sup>2</sup>	14000
Power frequency [Hz]         50/60           Nominal power [kW]         2,7           Unit Use [A]         16           Phase (Nominal votage)         1 -           Measures         Fremited Nord [Misser]           Interior volume [L]         698           Net weight of the unit (empty) [kg]         377           Permited load [kg]         150           Load per rack [kg]         100           Wall clearance back [mm]         100           Wall clearance back [mm]         100           Wall clearance sidewise [mm]         970           Height [mm]         50           Depth [mm]         50           Dopth [mm]         50           Unit doors         2           Unit doors         2           Unit doors         2           Unit doors         2           Unit doors         150           Height net [mm]         150           Height net [mm]         150           Permited [mm]         150           Height net [mm]         150           Permited [mm]         150           Permited [mm]         150           Permited [mm]         150           Height net [mm]	Electrical data	
Nominal power [kW]         2.7           Unit fuse [A]         16           Phase (Nominal voltage)         1~           Measures         Interior volume [L]         698           Net weight of the unit (empty) [kg]         377           Permitted load [kg]         150           Load per rack [kg]         45           Wall clearance sidewise [mm]         100           Wall clearance sidewise [mm]         970           Height [mm]         970           Height [mm]         150           Doors         96           Nord Oors         2           Unit doors         2           Housing dimensions not incl. fittings and connections         2           Width net [mm]         1520           Housing dimensions not incl. fittings and connections         2           Width net [mm]         1520           Housing dimensions not incl. fittings and connections         2           Ferry consumption at 37 °C and with illumination [Wh/h]         80           Dough pressure level [dB(A)]         80           Found-pressure level [dB(A)]         52           Whene of shelves (std./max.)         3/12	Rated Voltage [V]	200240
Unit fuse [A]         16           Phase (Nominal voltage)         1-           Measures         1-           Net weight of the unit (empty) [kg]         698           Net weight of the unit (empty) [kg]         377           Permitted load [kg]         45           Uada per rack [kg]         45           Wall clearance back [mm]         100           Ual transpose         100           United [Min]         970           Height [mm]         1250           Depth [mm]         296           Unit doors         2           Unit doors         2           Unit doors         2           Unit doors         2           Unit defined [mm]         1250           Unit doors         2	Power frequency [Hz]	50/60
Phase (Nominal voltage)         1-           Measures         Fermited for volume [L]         698           Net weight of the unit (empty) [kg]         377           Permited load [kg]         45           Load per rack [kg]         45           Wall clearance back [mm]         100           Wall clearance sidewise [mm]         100           Wild themal Dimensions         70           Height [mm]         970           Depth [mm]         56           Dopth [mm]         56           Unit doors         2           Unit doors	Nominal power [kW]	2.7
Measures           Interior volume [L]         698           Net weight of the unit (empty) [kg]         377           Permitted load [kg]         150           Load per rack [kg]         45           Wall clearance sackwise [mm]         100           Wall clearance sidewise [mm]         90           Hottenal Dimensions         97           Height [mm]         97           Hottle [mm]         96           Hottle [mm]         192           With net [mm]         192           Peth net [mm]         96           Height net [mm]         96           Hottle [mm]         80           Environment-specific data         96           Environment-specific data         96           Environment [mm]         96           Hottle	Unit fuse [A]	16
Interior volume [L]         698           Net weight of the unit (empty) [kg)         377           Permitted load [kg]         150           Load per rack [kg]         45           Wall clearance back [mm]         100           Wall clearance sidewise [mm]         100           Width [mm]         97           Height [mm]         250           Depth [mm]         66           Doso         2           Unit doors         2           Unit doors         2           Unit doors         2           Width net [mm]         155           Height net [mm]         150           Height net [mm]         250           Height net [mm]         150           Height net [mm]         150           Height net [mm]         150           Height net [mm]         250           Height net [mm]         350           Height net [mm]         360           Environment-specific data         360           E	Phase (Nominal voltage)	1~
Net weight of the unit (empty) [kg]         377           Permitted load [kg]         150           Load per rack [kg]         45           Wall clearance back [mm]         100           Wall clearance sidewise [mm]         100           Internal Dimensions         Width [mm]           Height [mm]         970           Depth [mm]         56           Doors         970           Unit doors         2           Unit doors         2           Housing dimensions not incl. fittings and connections         2           Width net [mm]         1250           Height net [mm]         1250           Beth net [mm]         1925           Depth net [mm]         80           Environment-specific data         80           Environment-specific data         80           Sound-pressure level (dB(A))         59           Fixtures         100 (Microscopic (Std./max.)           Number of shelves (std./max.)         3/12	Measures	
Permitted load [kg]         150           Load per rack [kg]         45           Wall clearance back [mm]         100           Wall clearance sidewise [mm]         100           Internal Dimensions         Width [mm]           Weight [mm]         290           Depth [mm]         576           Doors         2           Unit doors         2           Housing dimensions not incl. fittings and connections         2           Width net [mm]         1250           Height net [mm]         1250           Height net [mm]         1925           Depth net [mm]         890           Environment-specific data         890           Environment-specific data         880           Sound-pressure level [dB(A)]         59           Fixtures         1912           Wumber of shelves (std./max.)         3/12	Interior volume [L]	698
Load per rack [kg]         45           Wall clearance back [mm]         100           Wall clearance sidewise [mm]         100           Internal Dimensions         Very Company of	Net weight of the unit (empty) [kg]	377
Wall clearance back [mm]         100           Wall clearance sidewise [mm]         100           Internal Dimensions         970           Width [mm]         1250           Depth [mm]         576           Doors         2           Unit doors         2           Housing dimensions not incl. fittings and connections         2           Width net [mm]         1250           Height net [mm]         1925           Depth net [mm]         890           Environment-specific data         890           Environment-specific data         880           Sound-pressure level [dB(A)]         59           Fixtures         3/12	Permitted load [kg]	150
Wall clearance sidewise [mm]         100           Internal Dimensions         70           Width [mm]         970           Height [mm]         1250           Depth [mm]         576           Doors	Load per rack [kg]	45
Internal Dimensions           Width [mm]         970           Height [mm]         1250           Depth [mm]         576           Doors         Internal Ordors           Unit doors         2           Housing dimensions not incl. fittings and connections         2           Width net [mm]         1250           Height net [mm]         1925           Depth net [mm]         890           Environment-specific data         880           Sound-pressure level [dB(A)]         59           Fixtures         3/12	Wall clearance back [mm]	100
Width [mm]         970           Height [mm]         1250           Depth [mm]         576           Doors         The control of the contr	Wall clearance sidewise [mm]	100
Height [mm]         1250           Depth [mm]         576           Doors	Internal Dimensions	
Depth [mm]576DoorsCommon toors2Unit doors2Housing dimensions not incl. fittings and connectionsUidth net [mm]1250Height net [mm]1925Depth net [mm]890Environment-specific dataSound-pressure level [dB(A)]880Sound-pressure level [dB(A)]59FixturesTixturesNumber of shelves (std./max.)3/12	Width [mm]	970
Doors Inner doors 2 Unit doors 2 Housing dimensions not incl. fittings and connections Width net [mm] 1250 Height net [mm] 1925 Depth net [mm] 890 Environment-specific data Energy consumption at 37 °C and with illumination [Wh/h] 880 Sound-pressure level [dB(A)] 59 Fixtures Number of shelves (std./max.) 3/12	Height [mm]	1250
Inner doors 2 Unit doors 2 Housing dimensions not incl. fittings and connections Width net [mm] 1250 Height net [mm] 1925 Depth net [mm] 890 Environment-specific data Energy consumption at 37 °C and with illumination [Wh/h] 880 Sound-pressure level [dB(A)] 59 Fixtures Number of shelves (std./max.) 3/12	Depth [mm]	576
Unit doors  Housing dimensions not incl. fittings and connections  Width net [mm] 1250  Height net [mm] 1925  Depth net [mm] 890  Environment-specific data  Energy consumption at 37 °C and with illumination [Wh/h] 880  Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Doors	
Housing dimensions not incl. fittings and connections  Width net [mm] 1250  Height net [mm] 1925  Depth net [mm] 890  Environment-specific data  Energy consumption at 37 °C and with illumination [Wh/h] 880  Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Inner doors	2
Width net [mm]1250Height net [mm]1925Depth net [mm]890Environment-specific data*********************************	Unit doors	2
Height net [mm] 1925  Depth net [mm] 890  Environment-specific data  Energy consumption at 37 °C and with illumination [Wh/h] 880  Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Housing dimensions not incl. fittings and connections	
Depth net [mm] 890  Environment-specific data  Energy consumption at 37 °C and with illumination [Wh/h] 880  Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Width net [mm]	1250
Environment-specific data  Energy consumption at 37 °C and with illumination [Wh/h] 880  Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Height net [mm]	1925
Energy consumption at 37 °C and with illumination [Wh/h] 880  Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Depth net [mm]	890
Sound-pressure level [dB(A)] 59  Fixtures  Number of shelves (std./max.) 3/12	Environment-specific data	
Fixtures Number of shelves (std./max.) 3/12	Energy consumption at 37 °C and with illumination [Wh/h]	880
Number of shelves (std./max.) 3/12	Sound-pressure level [dB(A)]	59
	Fixtures	
Number of illumination cassettes (std./max.) 3/3	Number of shelves (std./max.)	3/12
	Number of illumination cassettes (std./max.)	3/3

- 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. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.
- 2 Average value, measured at 25 °C with a spherical sensor (±10 %) by 12 cm below the light cassette. The values given in W/m2 refer to global radiation.



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



# **OPTIONS**

Designation	Description	*	ArtNo.
	left		
Access port with silicone plug	30 mm	01	8012-1445
	50 mm	01	8012-1475
	right		
	30 mm	01	8012-1439
	50 mm	01	8012-1469
	top		
	30 mm	01	8012-1451
	50 mm	01	8012-1457
	100 mm	01	8012-1463
Alarm output, zero- voltage	for temperature ( $\pm 2$ °C) and humidity ( $\pm 5$ % RH), accessible via 6-pin DIN socket (max. 24 V - 2.5 A), with audible signal that can be switched off	=	8012-1761
Analog output 4-20 mA	for temperature and humidity values (output not adjustable)	-	8012-1737
Arabidopsis illumination	Illumination cassettes equipped with Arabidopsis fluorescent tubes instead of daylight fluorescent tubes	-	8012-0686
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1121
	for temperature, measurement in center of chamber at specified temperature	-	8012-1140
Calibration certificate,	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1599
temperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1578
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1557
Class 3.3 independent temperature safety device	with visual alarm (DIN 12880)	-	8012-1100
Door lock	lockable door handle	-	8012-1778
FLUORA® illumination	Illumination cassettes equipped with FLUORA® fluorescent tubes instead of daylight fluorescent tubes	-	8012-0685
Light photometry	including certificate, illumination and irradiance for visible light and UV-A, 25 measuring points on 3 measurement levels, as well as spectral distribution (250 – 785 nm)	-	8012-0910
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-1746
RS 485 interface, 2-wire	Additional serial interface can be used parallel to Ethernet, for Multi Management Software APT-COM™	-	8012-1742
Shelf, reinforced	positioned at bottom level, max. load 45 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system	_	8012-1492
Zero voltage relay contacts	for controlling 3 relay contacts via program regulators, accessible via 6-pin DIN socket (max. 24 V - 2.5 A)	_	8012-0695

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



# **ACCESSORIES**

Designation	Description	*	ArtNo.
APT-COM™ 4 BASIC-	for simple logging and documentation requirements with up to 5 networked units.		
Edition	version 4, BASIC edition	-	9053-0039
APT-COM™ 4 GLP- Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.		
	version 4, GLP edition	-	9053-0042
APT-COM™ 4	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
PROFESSIONAL-Edition	version 4, PROFESSIONAL edition	-	9053-0040
pH-neutral detergent	l detergent concentrated, for gentle remove of residual contaminants; 1 kg		1002-0016
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, humidity, and light values		
	Digital in PDF format	-	7057-0003
Oualification documents	Hard copy inside folder	-	7007-000
Qualincation documents	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, humidity, and light values		
	Digital in PDF format	-	7057-0007
	Hard copy inside folder	-	7007-000
Rack	stainless steel	-	8012-2051
Rack accessories	fasteners (1 set of 4) for additional security of racks	-	8012-062
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	-	8012-067
RS 485 / RS 422 interface converter	RS 422 cable set and RS 485 / RS 422 interface converter for connection to 10-way plug distributor		
	115 V option model	-	8012-0599
	230 V option model	-	8012-0589
Shelf, perforated	Stainless steel	-	8009-048
* Notes > See last page			

Notes > See last page

# **SERVICES**

Designation	Description	*	ArtNo.
Installation services			
Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)		05	DL10-0300
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0700
Maintenance contracts			
Maintenance services			
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	05	DL20-0710
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one temperature/humidity/pressure value, including certificate	05	DL20-0930
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	05	DL20-0400
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	05	DL20-0820
Calibration services			
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	03, 04, 05	DL30-0101
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	03, 04, 05	DL30-0102
Radiometric light photometry	Radiometric measurement in the visible spectrum with determination and documentation of intensity distribution from an illumination cassette on 3 measurement levels, including certificate	03, 04, 05	DL31-0000

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



Designation	Description	*	ArtNo.
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0127
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0109
Validation services			
Execution of IQ/OQ incl. light photometry	Execution of IQ/OQ including light photometry in accordance with qualification folder	05	DL43-0400
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	DL44-0500
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	_	DL50-0030

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



#### **NOTES**

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. UL mark is not granted when this option is used.
- 02
- Sensor calibration is performed in an accredited calibration laboratory. 03
- Calibration is performed according to the BINDER factory standard.
- Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not include a country-specific added fee (available on request).

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