

Model KBF P 720 | Constant climate chambers with ICH-compliant light source

The KBFP constant climate chamber, equipped with ICH-compliant light source, is an expert when it comes to photostability tests and ensures clear test results in accordance with ICH Guideline Q1B. At the same time, the variable-position illumination cassettes offer homogeneous lighting conditions.

BENEFITS

- Safe thanks to climatic homogeneity that far exceeds the accuracy required by ICH guidelines, even with a fully loaded unit. The light spectrum is 100% compliant with ICH requirements.
- Reliable thanks to failsafe operation without compromise. The interior and Longlife evaporator plate are made entirely from stainless steel.
- · Smart, as a wide range of accessories makes it highly compatible for adaptation to specific customer requirements.
- Economical thanks to maximum effective volume which allows for 30% larger load compared to the competition.



Model 720

MAIN FEATURES

- Temperature range: o °C to +70 °C
- $\bullet~$ Temperature range with light: +10 °C to +60 °C
- Humidity range: 10 % to 80 % RH
- 3 positionable illumination cassettes with ICH-compliant UV/Vis light source
- APT.line™ preheating chamber technology
- Humidity regulation with capacitive humidity sensor and vapor humidification
- Inner chamber made of stainless steel
- BINDER Multi Management Software APT-COM™ Basic Edition
- Intuitive touchscreen controller with time-segment and real-time programming
- Internal data logger, measured values can be read out in open format via USB

- Unit self-test for comprehensive status analysis
- 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
- 4 stable castors, two with brakes
- 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. |
|---------------------|-------------------------|-------------------------|--------------|-----------|
| | 200230 V 1~ ph 50/60 Hz | Standard | KBFP720-230V | 9020-0330 |
| 700 | 200240 V 1~ ph 50/60 Hz | Standard KBFP720UL-240V | 9020-0331 | |



TECHNICAL DATA

| The present and a probe of the probability and a properties of the probability and a probability and | Description | KBFP720-230V1 | KBFP720UL-240V ¹ |
|--|---|---------------|-----------------------------|
| Temperature range with 100% Illumination (PC) | Article Number | 9020-0330 | 9020-0331 |
| Temperature range without Illumination Illumination IV 100 1 | Performance Data Temperature | | |
| Max. heat compensation at 4 o "C with illumination [N] 100 100 Performance Data Climate Verify the Compensation of the 100 Millumination of 120 Millumination assettes [N] 20.60 20.60 Temperature range with both Illumination at 25 N C and 60 % RM [k K] 1.2 1.2 Temperature variation with illumination at 25 N C and 60 % RM [k K] 1.2 1.2 Temperature fluctuation with illumination at 25 N C and 60 % RM [k K] 0.2 0.2 Temperature fluctuation with illumination at 26 N C and 75 % RM [k K] 10.75 10.75 Unuffully range without illumination at 26 N C and 75 % RM [k K] 10.80 10.80 Unuffully fluctuation with illumination at 35 N C and 60 % RM with illumination at 35 N C and 60 % RM with illumination at 35 N C and 60 % RM with illumination at 35 N C and 60 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM with illumination at 35 N C and 50 % RM w | Temperature range with 100% illumination [°C] | 1060 | 1060 |
| Performance Data Climate Performance Performance With 100% lithiunisation [**] 2060 2060 Temperature range with 100% lithiunisation cassettes [**] 1070 1.2 Temperature variation with illumination at 20°C and 60 % RH [x K] 1.2 1.2 Temperature fluctuation with illumination at 20°C and 60 % RH [x K] 0.2 0.2 Temperature fluctuation with illumination at 20°C and 60 % RH [x K] 0.2 0.2 Hundilty range with illumination at 20°C and 50 % RH [x K] 0.2 0.2 Hundilty range with illumination 24°C and 50 % RH [x K] 1080 1080 Hundilty range with out illumination 24°C and 55 % RH [x K] 2 2 Hundilty range with illumination 24°C and 55 % RH [x K] 2 2 Hundilty range with out illumination 24°C and 55 % RH [x K] 2 2 Hundilty range with out illumination 24°C and 55 % RH [x K] 2 2 Hundilty range with out illumination 32°C and 60 % RH [x K] 2 2 Hundilty range with out illumination 25°C and 60 % RH [x K] 2 2 Hundilty range with out illumination 25°C and 60 % RH [x K] 2 2 Horthold (100 min 20 min 20 min 20 min 20 min 20 min 20 m | Temperature range without illumination cassettes [°C] | 070 | 070 |
| Temperature range with 100% illumination cassettes PCI 1070 1070 Temperature variation with illumination assettes PCI 1.2 1.2 Temperature variation with illumination at 2 PC and 60 % RH [x] 1.2 1.2 Temperature fluctuation with illumination at 2 PC and 60 % RH [x] 0.2 0.2 Temperature fluctuation with illumination at 2 PC and 60 % RH [x] 1080 1080 Hundidity range without illumination at 2 PC and 60 % RH [x] MR I 2.0 2.0 Hundidity range without illumination at 2 PC and 60 % RH [x] MR I 2.0 2.0 Hundidity range without illumination at 2 PC and 60 % RH [x] MR II 2.0 2.0 Hundidity range without illumination at 2 PC and 60 % RH [x] MR II 2.0 2.0 Recovery time after 30 seconds door open at 2 PC and 60 % RH [x] MR II 2.0 2.0 Recovery time after 30 seconds door open at 2 PC and 60 % RH with illumination at 1 PC and 50 % RH with illumination at 1 PC and 50 % RH with illumination at 1 PC and 50 % RH with illumination at 1 PC and 50 % RH with illumination at 1 PC and 50 % RH with illumination at 2 PC and 60 % RH with illumination at 2 PC and 60 % RH [x] MR II M | Max. heat compensation at 40 °C with illumination [W] | 1000 | 1000 |
| Temperature range without illumination at asy "Cand 66 % RH [s X] 1.2 1.2 Temperature variation with illumination at asy "Cand 66 % RH [s X] 0.2 1.2 Temperature fluctuation with illumination at asy "Cand 66 % RH [s X] 0.2 0.2 Temperature fluctuation with illumination at asy "Cand 66 % RH [s X] 0.2 0.2 Temperature fluctuation with illumination at asy "Cand 66 % RH [s X] 0.2 0.2 Humidity range with illumination assetses, with illumination [x RH] 10.80 10.80 Humidity fluctuation with illumination ast asy "Cand 66 % RH [s X RH] 2 2 Humidity fluctuation with illumination ast asy "Cand 66 % RH [s X RH] 2 2 Humidity fluctuation with illumination ast asy "Cand 66 % RH [s X RH] 2 2 Humidity fluctuation with illumination ast asy "Cand 66 % RH [s X RH] 2 2 Humidity fluctuation with illumination ast asy "Cand 66 % RH [s X RH] 3 2 Recovery time after as seconds door open at asy "Cand 66 % RH with illumination assets as the condition of the condit | Performance Data Climate | | |
| Remperature variation with illumination at 25°C and 60 % RH [a K] 1.2 1.2 Temperature variation with illumination at 25°C and 60 % RH [a K] 0.2 0.2 Temperature fluctuation with illumination at 25°C and 60 % RH [a K] 0.2 0.2 Humidity range with illumination at 25°C and 60 % RH [a K] 10.80 10.80 Humidity range with unit illumination at 30°C and 55 % RH [a K] 2 2 Humidity fluctuation with illumination at 30°C and 55 % RH [a K] 2 2 Humidity fluctuation with illumination at 30°C and 55 % RH [a K] 2 2 Recovery time after 30 seconds door open at 25°C and 60 % RH with illumination and miniplumination at 30°C and 75 % RH with illumination and miniplumination of photo stability testing [kl/n² 9000 900 Recovery time after 30 seconds door open at 40°C and 75 % RH with illumination of photo stability testing [kl/n² 9000 900 Recovery time after 30 seconds door open at 40°C and 75 % RH with illumination of photo stability testing [kl/n²] 9000 900 CH compliant illumination for photo stability testing [kl/n²] 9000 900 CH compliant illumination for photo stability testing [kl/n²] 50,60 90,220 CH compliant illumination for photo stability testing [kl/n²] 50,60 | Temperature range with 100% illumination [°C] | 2060 | 2060 |
| Temperature variation with illumination at a o "C and 75 % RH [s K] 0.2 0.2 Temperature fluctuation with illumination at a o "C and 75 % RH [s K] 0.2 0.2 Temperature fluctuation with illumination at a o "C and 75 % RH [s K] 0.2 0.2 Humidity range with illumination (% RH) 1080 1080 Humidity Inductation with illumination at a co "C and 65 % RH [s K RH] 2 2 Humidity Inductation with illumination at a co "C and 75 % RH [s K RH] 2 2 Recovery time after 30 seconds door open at 25 "C and 66 % RH with illumination in ginn limin a a Becovery time after 30 seconds door open at 25 "C and 66 % RH with illumination in ginn limin at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % RH with illumination in ginn at a co "C and 75 % R | Temperature range without illumination cassettes [°C] | 1070 | 1070 |
| Remperature fluctuation with illumination at 25°C and 60 % RH [x K] 0.2 0.2 Itemperature fluctuation with illumination at 25°C and 60 % RH [x K] 0.2 0.2 Humidity range with illumination cassettes, with illumination [% RH] 1080 1080 Humidity fluctuation with illumination at 25°C and 60 % RH [x K RH] 2 2 Humidity fluctuation with illumination at 25°C and 60 % RH [x K RH] 2 2 Recovery time after 30 seconds door open at 25°C and 60 % RH with illumination in min i | Temperature variation with illumination at 25 °C and 60 % RH [± K] | 1.2 | 1.2 |
| Remperature fluctuation with illumination at 4 o °C and 75 % RH [c K] 0.2 0.2 Humidity range with illumination cassettes, with illumination [°R RH] 1080 1050 Humidity range without illumination at 25 °C and 60 % RH [c % RH] 2 2 Humidity fluctuation with illumination at 25 °C and 60 % RH with illumination at 26 °C and 75 % RH [c % RH] 2 2 Recovery time after 30 seconds door open at 25 °C and 60 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 °C and 60 °C and 75 | Temperature variation with illumination at 40 °C and 75 % RH [± K] | 1.2 | 1.2 |
| Humidity range with illumination (% RH) 1075 1075 Humidity fractuation with illumination (% RH) 1080 1080 Humidity fluctuation with illumination at 20°C and 60 % RH [a % RH) 2 2 Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min] 2 2 Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min] 3 3 Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min] 9000 9000 Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min] 9000 9000 CH compliant illumination Cassettes 9000 9000 CH compliant illumination for photo stability testing [k]*2 9000 9000 CH compliant illumination for photo stability testing [k]*2 1000 9000 9000 CH compliant illumination for photo stability testing [k]*2 1000 9000 9000 CH compliant illumination for photo stability testing [k]*2 1000 9000 9000 CH compliant illumination for photo stability testing [k]*2 9000 9000 9000 CH compliant illumination for photo stability testing [k]*3 | Temperature fluctuation with illumination at 25 °C and 60 % RH [± K] | 0.2 | 0.2 |
| Humidity range without illumination % RH | Temperature fluctuation with illumination at 40 °C and 75 % RH [± K] | 0.2 | 0.2 |
| Humidity fluctuation with illumination at 25 °C and 60 °K RH [2 °K RH] 2 2 2 | Humidity range with illumination cassettes, with illumination [% RH] | 1075 | 1075 |
| Humidity fluctuation with illumination at 40 °C and 75 % RH [± % RH] 2 2 2 2 2 2 2 2 2 | Humidity range without illumination [% RH] | 1080 | 1080 |
| Recovery time after 30 seconds door open at 25 °C and 60 °K RH with illumination [min] 4 4 Recovery time after 30 seconds door open at 40 °C and 75 °K RH with illumination [min] 5 5 Lightdata per Illumination Cassettes S 5 CH compliant illumination for photo stability testing [W/m²]*² 9000 9000 CH compliant illumination for photo stability testing [W/m²]*² 1.5 1.5 Electrical data S 200240 Power frequency [Hz] 50/60 90/60 Nominal power [kW] 3.5 3.5 Unit fuse [A] 16 16 Phase (Nominal voltage) 1- 1- Weavers 3.7 700 Measures 374 374 Interior volume [L] 700 700 New weight of the unit (empty) [kg] 374 374 Power titled load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 973 973 Interior vheight [mm] | Humidity fluctuation with illumination at 25 °C and 60 % RH [± % RH] | 2 | 2 |
| Min | Humidity fluctuation with illumination at 40 °C and 75 % RH [± % RH] | 2 | 2 |
| | Recovery time after 30 seconds door open at 25 °C and 60 % RH with illumination [min] | 4 | 4 |
| Ch compliant illumination for photo stability testing [lx]*** 9000 9000 Ch compliant illumination for photo stability testing [lx]*** 1.5 1.5 Electrical data Rated Voltage [V] 200230 200240 Power frequency [Hz] 50/60 50/60 Nominal power [kW] 3.5 3.5 Unit fuse [A] 16 16 Phase (Nominal voltage) 1° 1° Measures 1 700 700 Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 uoal per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Interior width [mm] 973 973 Interior leight [mm] 576 576 Doors | Recovery time after 30 seconds door open at 40 °C and 75 % RH with illumination [min] | 5 | 5 |
| 1.5 | Lightdata per Illumination Cassettes | | |
| Electrical data Electrical data Rated Voltage [V] 200230 200240 Power frequency [Hz] 50/60 50/60 Nominal power [kW] 3.5 3.5 Unit fuse [A] 16 16 Phase (Nominal voltage) 1~ 70 Measures 700 700 Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Interior width [mm] 973 973 Interior height [mm] 1250 1250 Doors 576 200 | ICH compliant illumination for photo stability testing [lx]*2 | 9000 | 9000 |
| Reted Voltage [V] 200230 200240 Power frequency [Hz] 50/60 50/60 Nominal power [kW] 3.5 3.5 Unit fuse [A] 16 16 Phase (Nominal voltage) 1~ 2 Measures 700 700 Net weight of the unit (empty) [kg] 374 374 374 Permitted load [kg] 150 150 150 150 Load per rack [kg] 45 45 45 45 Wall clearance back [mm] 100 | ICH compliant illumination for photo stability testing [W/m²]*2 | 1.5 | 1.5 |
| Power frequency [Hz] 50/60 50/60 Nominal power [kW] 3.5 3.5 Unit fuse [A] 16 16 Phase (Nominal voltage) 1~ 1~ Measures Vermitted (Description of the unit (empty) [kg] 700 700 Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Interior width [mm] 973 973 Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors Interior doors 2 2 | Electrical data | | |
| Nominal power [kW] 3.5 3.5 Unit fuse [A] 16 16 Phase (Nominal voltage) 1~ 1~ Measures Interior volume [L] 700 700 Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Interior width [mm] 973 973 Interior width [mm] 1250 1250 Interior height [mm] 1250 576 Doors Interior doors 2 2 2 | Rated Voltage [V] | 200230 | 200240 |
| Duit fuse [A] 16 16 16 18 18 18 18 18 | Power frequency [Hz] | 50/60 | 50/60 |
| Phase (Nominal voltage) 1~ 1- Measures 700 700 Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Interior width [mm] 973 973 Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors 2 2 | Nominal power [kW] | 3.5 | 3.5 |
| Measures 700 700 Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Internal Dimensions 973 973 Interior width [mm] 1250 1250 Interior depth [mm] 576 576 Doors 2 2 | Unit fuse [A] | 16 | 16 |
| Net weight of the unit (empty) [kg] 374 37 | Phase (Nominal voltage) | 1~ | 1~ |
| Net weight of the unit (empty) [kg] 374 374 Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Internal Dimensions Interior width [mm] 973 973 Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors Interior doors 2 2 2 | Measures | | |
| Permitted load [kg] 150 150 Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Interior bimensions 973 973 Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors 2 2 | Interior volume [L] | 700 | 700 |
| Load per rack [kg] 45 45 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Internal Dimensions Interior width [mm] 973 973 Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors Inner doors 2 2 2 | Net weight of the unit (empty) [kg] | 374 | 374 |
| Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 200 200 Internal Dimensions 973 973 Interior width [mm] 1250 1250 Interior depth [mm] 576 576 Doors 2 2 | Permitted load [kg] | 150 | 150 |
| Wall clearance sidewise [mm] 200 200 Internal Dimensions 973 973 Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors 2 2 | Load per rack [kg] | 45 | 45 |
| Internal Dimensions | Wall clearance back [mm] | 100 | 100 |
| Interior width [mm] 973 | Wall clearance sidewise [mm] | 200 | 200 |
| Interior height [mm] 1250 1250 Interior depth [mm] 576 576 Doors 2 2 | Internal Dimensions | | |
| Interior depth [mm] 576 576 Doors Inner doors 2 2 | Interior width [mm] | 973 | 973 |
| Doors 2 2 | Interior height [mm] | 1250 | 1250 |
| Inner doors 2 2 | Interior depth [mm] | 576 | 576 |
| | Doors | | |
| Jnit doors 2 2 | Inner doors | 2 | 2 |
| | Unit doors | 2 | 2 |

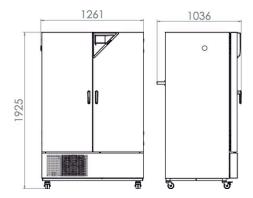
- 1 All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances 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.



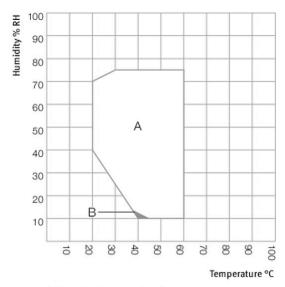
| Description | KBFP720-230V ¹ | KBFP720UL-240V1 |
|---|---------------------------|-----------------|
| Description | KBI F / 20-230V | KBIF/200L-240V |
| Article Number | 9020-0330 | 9020-0331 |
| Housing dimensions not incl. fittings and connections | | |
| Width net [mm] | 1250 | 1250 |
| Height net [mm] | 1925 | 1925 |
| Depth net [mm] | 890 | 890 |
| Environment-specific data | | |
| Energy consumption at 40 °C and 75 % RH [Wh/h] | 1850 | 1850 |
| Sound-pressure level [dB(A)] | 53 | 53 |
| Fixtures | | |
| Number of shelves (std./max.) | 3/12 | 3/12 |
| Number of illumination cassettes (std./max.) | 3/3 | 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]



CHARTS



- A: Guaranteed condensation-free range
- B: Deviations of technical data may be possible

Climate chart



OPTIONS

| Designation | Description | * | ArtNo. |
|---|--|----|-----------|
| | left | | |
| | 30 mm | 01 | 8012-1444 |
| | 50 mm | 01 | 8012-1474 |
| | 100 mm | 01 | 8012-134: |
| | right | | |
| Access port with silicone | 30 mm | 01 | 8012-1438 |
| plug | 50 mm | 01 | 8012-146 |
| | 100 mm | 01 | 8012-1338 |
| | top | | |
| | 30 mm | 01 | 8012-1450 |
| | 50 mm | 01 | 8012-1450 |
| | 100 mm | 01 | 8012-146 |
| Alarm output, zero- voltage | for temperature (± 2 °C) and humidity (± 5 % RH), accessible via 6-pin DIN socket (max. 24 V - 2.5 A), with audible signal that can be switched off | - | 8012-176 |
| Analog output 4-20 mA | for temperature and humidity values (output not adjustable) | - | 8012-173 |
| Calibration certificate, expanded | for temperature and humidity; for extending the measurement in center of chamber to include another test value | - | 8012-1190 |
| | temperature measurement incl. certificate and 27 measuring points at specified temperature | - | 8012-160 |
| Calibration certificate, temperature | temperature measurement incl. certificate, 15- 18 measuring points at specified temperature | - | 8012-158 |
| p 0. u.u | temperature measurement incl. certificate, 9 measuring points at specified temperature | - | 8012-156 |
| Calibration certificate, | Measurement in center of chamber at 25 °C / 60% RH or at specified test values | - | 8012-118 |
| temperature and humidity | temperature (according to DIN1288o) and humidity measurement incl. certificate, 27 temperature measuring points and 1 humidity measuring point, at 25 $^{\circ}$ C / 60 $^{\circ}$ RH or at specified values | - | 8012-161 |
| Class 3.3 independent temperature safety device | with visual alarm (DIN 12880) | - | 8012-1754 |
| Door lock | lockable door handle | - | 8012-166 |
| Light photometry | including certificate, illumination and irradiance for visible light, 25 measuring points on 3 measurement levels, as well as spectral distribution (385 – 785 nm) | - | 8012-154 |
| Pt 100 temperature sensor | additional flexible Pt 100, interior, for displaying the temperature on the unit display | _ | 8012-174 |
| RS 485 interface, 2-wire | Additional serial interface can be used parallel to Ethernet, for Multi Management Software APT-COM™ | - | 8012-174 |
| Shelf, reinforced | positioned at bottom level, max. load 45 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system | - | 8012-149 |
| * Notes > See last page | | | |

^{*} 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. | | |
| Edition | 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 |
| BINDER PURE AQUA SERVICE | System for preparation or complete desalination of tap water, complete set containing PURE AQUA 300 single-use cartridge, measuring device, and all necessary connecting parts | - | 8012-0759 |
| BINDER PURE AQUA SERVICE, accessories | Single-use, replacement cartridge for BINDER PURE AQUA System | - | 6011-0165 |
| pH-neutral detergent | concentrated, for gentle remove of residual contaminants; 1 kg | = | 8012-2250 |

^{*} Notes > See last page



| Designation | Description | * | ArtNo. |
|--|--|---|-----------|
| | IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, humidity, and light values | | |
| | Digital in PDF format | - | 7057-0003 |
| Oualification documents | Hard copy inside folder | | 7007-0003 |
| Qualification documents | IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, humidity, and light values | | |
| | Digital in PDF format | - | 7057-0007 |
| | Hard copy inside folder | - | 7007-0007 |
| Rack | stainless steel | - | 8012-2051 |
| Rack accessories | fasteners (1 set of 4) for additional security of racks | - | 8012-2280 |
| Rack, reinforced | stainless steel, with fasteners (1 set of 4) | - | 8012-0674 |
| | RS 422 cable set and RS 485 / RS 422 interface converter for connection to 10-way plug distributor | | |
| RS 485 / RS 422 interface converter | 115 V option model | - | 8012-0599 |
| | 230 V option model | - | 8012-0589 |
| Shelf, perforated | Stainless steel | - | 8012-2252 |
| | consisting of fresh- and waste-water containers (20 liters each), cabling and pump | | |
| Water supply set | external, for hanging from the back of the device | - | 8012-0643 |
| | external, free-standing | - | 8012-1846 |
| WLAN kit | The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service. | - | 8012-2262 |

^{*} Notes > See last page

SERVICES

| Designation | Description | * | ArtNo. |
|---|--|---------------|-----------|
| Maintenance contracts | | | |
| Installation services | | | |
| Maintenance services | | | |
| Calibration services | | | |
| Validation services | | | |
| Warranty service | | | |
| 1-year warranty extension | The warranty is extended by 1 year from the delivery date, wear parts are excluded | _ | DL50-0030 |
| 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 |
| 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 |
| 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 |
| Light photometry | including certificate, 25 measuring points on 3 measurement levels, intensity measurements for visible light and UVA, as well as spectral distribution (qualitative spectral measurements 250 – 785 nm) | 03, 04, 05 | DL30-0525 |
| 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 |
| Temperature and humidity calibration | Expansion –Temperature and humidity calibration with 1 measuring point in center of chamber with 1 specified pair of values, including certificate | 03, 04, 05 | DL30-0302 |
| reinperature and numberly calibration | Temperature and humidity calibration with 1 measuring point in center of chamber with 1 specified pair of values, including certificate | 03, 04, 05 | DL30-0301 |
| Temperature and humidity measurement according to DIN12880 | Temperature measurement in accordance with DIN 12880 with 27 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate | 03, 04, 05 | DL30-0427 |
| * Notes > See last nage | | | |

^{*} Notes > See last page



| Designation | Description | * | ArtNo. |
|---|--|---------------|-----------|
| Temperature and humidity measurement, 18-1 measuring points | Temperature measurement with 18 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate | 03, 04, 05 | DL30-0318 |
| Temperature and humidity measurement, 27-1 measuring points | Temperature measurement with 27 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate | 03, 04, 05 | DL30-0327 |
| Temperature and humidity measurement, 9-1 measuring points | Temperature measurement with 9 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate | 03, 04, 05 | DL30-0309 |
| Unit commissioning | Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work) | 05 | DL10-0300 |
| Unit instructions | Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming | 05 | DL10-0700 |

^{*} 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.

 Sensor calibration is performed in an accredited calibration laboratory.

 Calibration is performed according to the BINDER factory standard.

- 02 03 04
- 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).



Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.