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## HBC 10 control

/// Data Sheet

The HBC 10 control heated bath circulator heats up to a max. temperature of 250 °C. It has a high quality stainless steel bath with a volume of 7.5 – 10.5 liters. The TFT display is in color and illustrates all relevant parameters. With just one key, the internal temperature regulation can be switched to external temperature regulation. The large surface of the radiator allows for an optimum heat exchange and a gentle heating process of the medium. Push and turn buttons allow for intuitive menu navigation. The menu comes in different languages. The bath has a front drain valve for safe emptying. In order to drain the system, a hose is connected so there is no direct contact with the tempering fluid. With the unique WiCo Wireless Controller, the unit can be operated from a distance of up to 10 meters/3 ft.



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- Temperature range: 20 – 250 °C
- Temperature accuracy:  $\pm 0.1$  K
- Wireless controller (WiCo) enables safe operation, e.g. outside of a closed fume hood
- Large easy to read TFT display for temperature, pump speed, filling level and safety temperature
- Powerful, speed controlled pressure/suction pump
- Integrated cooling coil
- Adjustable safety circuit
- Safety classification III (FL) according to DIN 12876
- Electronic timer function: 0 – 99 h 59 min
- Visual and acoustic safety warnings
- Connection of a magnetic valve possible
- USB / RS 232 interface for PC control and documentation using labworldsoft®, as well as updating the device software through our website

#### Scope of delivery

- HBC 10 control
- Hose olive NW 12 (2 pcs.)
- CC1
- Screwdriver (use for safety circuit)
- OS 1.0 power supply (for WiCo)
- USB Cable - USB A to Micro-B, 2 m
- USB 2.0 cable Micro A – Micro B



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## Technical Data

|   |                                |
|---|--------------------------------|
| Appliance type  | Circulation thermostat         |
| Class designation acc. DIN 12876                        | III                            |
| Identification according to DIN 12876                   | FL                             |
| Heat output [W]   | 2500                           |
| Working temperature [°C]                                | room temp. +10K @1000rpm - 250 |
| Operating temperature min. (with external cooling) [°C] | -20                            |
| Temperature display                                     | yes                            |
| Temperature control                                     | PID                            |
| Working temperature sensor                              | PT 100                         |
| Safety temperature sensor                               | PT1000                         |
| Working temperature display                             | TFT                            |
| Safety temperature display                              | TFT                            |
| Temperature stability DIN 12876 [K]                     | ±0.01                          |
| Connection for ext. temperature sensor                  | PT 100                         |
| Display resolution [K]                                  | 0.01                           |
| Display for operation with ext. sensor                  | yes                            |
| Set temperature resolution [K]                          | 0.1                            |
| Warning function optical                                | yes                            |
| Warning function acoustic                               | yes                            |
| Warning function excess temperature                     | yes                            |
| Adjustable safety circuit [°C]                          | 0 - 260                        |
| Sub-level protection                                    | yes                            |
| Over-level protection                                   | yes                            |
| Filling volume [l]                                      | 8 - 11                         |
| Pump type   | Pressure- / suction pump       |
| Pump capacity adjustable                                | yes                            |
| Pump pressure max. (0 liters discharge flow) [bar]      | 0.61                           |
| Pressure pump (suction side) (0 liter flow) [bar]       | 0.45                           |
| Flow rate max. (0 bar back pressure) [l/min]            | 31                             |
| Pump connection   | M16x1                          |
| Cooling coil connection                                 | NW 8                           |
| Bath depth min. [mm]                                    | 150                            |
| Width bath opening [mm]                                 | 172                            |
| Depth bath opening [mm]                                 | 82                             |
| Calibration option                                      | yes                            |
| Technical data complies with the standard               | DIN 12876                      |
| Permissible ON time [%]                                 | 100                            |
| Multi-Interface   | yes                            |
| Alarm output (potential-free contact) max. [V AC/DC]    | 30                             |
| Alarm output (potential-free contact) max. [A]          | 1                              |
| Solenoid valve output [VDC]                             | 24                             |
| Solenoid valve output max. [A]                          | 0.8                            |
| Standby input [VDC]                                     | 5                              |
| Dimensions (W x H x D) [mm]                             | 275 x 456 x 506                |
| Weight [kg]   | 18.3                           |
| Permissible ambient temperature [°C]                    | 5 - 40                         |
| Permissible relative humidity [%]                       | 80                             |
| Protection class according to DIN EN 60529              | IP 21                          |



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|                  |           |
|------------------|-----------|
| RS 232 interface | yes       |
| USB interface    | Micro-USB |
| Voltage [V]      | 230       |
| Frequency [Hz]   | 50/60     |
| Power input [W]  | 2650      |