

# Cooltrol data K conductive blowdown units

The pre-assembled, ready-to-connect blowdown unit with conductive sensor is used for automatic control of the salt content in the circulating water of cooling and humidifier circuits. The functions of the control system include blowdown, enabling of the circulation pump and control of up to three dosing pumps (1x volume-controlled for hardness stabilizer, 2x time-controlled with monthly timer for biocide 1 and 2). Thanks to the built-in micro SD card (4 GB), data logging is possible in accordance with the 42nd BImSchV.

## BENEFITS

- Operating message for one of the four functions (blowdown, circulation pump, volume- or time-proportional dosing)
- Warning/fault messages are immediately visible due to the colour change in the display
- Blowdown valve (motorized ball valve) is closed when de-energized, no risk of the system running empty in the event of a power failure
- Data from micro SD card easy to read out

## APPLICATIONS

- For controlling cycles of concentration in open cooling circuits or air humidifiers and for controlling up to three dosing pumps (1x volume-controlled for hardness stabilizer, 2x time-controlled with monthly timer for biocide 1 and 2)



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## DESCRIPTION

### Blowdown unit

- Cooltrol data controller in wall-mounted plastic housing for fully automatic operation
- Micro SD card (4 GB) with adapter to SD card for reading and saving operating data via laptop
- Piping incl. shut-off ball valves in inlet and outlet, pressure gauge and sampling valve
- Conductive measuring probe with cast-in temperature sensor (temperature compensation to 25 °C in the controller), installation fitting, protective insulated PVC housing and cable (2 m) connected to terminal strip
- Motorized ball valve MKB for controlled blowdown (housing nickel-plated brass, ball stainless steel, seal EPDM)
- Unit pre-assembled on plastic plate ready for connection

### Control system

- Operation via four operating keys, German and English plain text menu guidance
- Graphic display 2.8" (128 x 64 pixels) with color background (RGB-LED) and scrolling menu display
- Blowdown functions (incl. pre-blowdown and automatic blowdown interlock), circulation pump enable and control of up to three dosing pumps (1x volume-controlled, 2x time-controlled with monthly timer)
- Data and alarm history memory with display of date and time, measured value or event (warning / fault), stored as csv file on micro SD card
- Internal clock, battery buffered, automatic changeover summer / winter time
- Connection possibility for conductive (LFK) and inductive (LFI) measuring probes
- Flow rate and volume recording of water meters (make-up and blowdown), operating hours counter
- Multi-range power supply (100-240 V / 50-60 Hz / 30 W)

### Available inputs

- Pulse inputs for flow rate make-up and blowdown
- Empty tank signal for volume- and time-proportional dosing (hardness stabilizer / biocide 1 + 2)
- Remote release of controller
- Conductivity measurement and temperature measurement (4 - 20 mA each)

### Available outputs

- Control blowdown valve (conductivity-dependent)
- Control of volume- and time-proportional dosing (hardness stabilizer / biocide 1 + 2)
- Enable circulation pump during pre-blowdown, biocide dosing and blowdown interlock
- Adjustable warning and fault message (also display turns orange in case of warning and red in case of fault)
- Operating message for one of the four functions (blowdown, circulation pump enabling, volume- and time-proportional dosing)
- Conductivity measurement (4 - 20 mA)

## CONDITIONS OF USE

The unit may only be used to control or measure conductivity in open cooling circuits and humidifiers and for dosing biocides in water-bearing systems.

Operating pressure	0.2 – 6.0 bar
Operating temperature	0 – 40 °C

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### TECHNICAL DATA OF SERIES

Controller	Cooltrol data
Cabel length	2 m
Reference temperature	25 °C
Protection class	IP 65
Output blowdown valve	Mains voltage, max. 4 A
Dosing output volume-proportional dosing	open collector
Dosing output time-proportional dosing 1 and 2	floating, max. 250 V AC / 3 A
Warning output	floating, max. 250 V AC / 3 A
Fault output	floating, max. 250 V AC / 3 A
Operating signal	floating, max. 250 V AC / 3 A
Current output	4 - 20 or 0 - 20 mA active

Product name	Measuring range mS/m	Blowdown valve	Hydraulic connection supply / return / blowdown	Item number
<b>Cooltrol data K (MKB 15) K = 1.0</b>	10 – 500	MKB 15	DN 20 / DN 20 / DN 15	170 156
<b>Cooltrol data K (MKB 20) K=1.0</b>	10 – 500	MKB 20	DN 20 / DN 20 / DN 20	170 163
<b>Cooltrol data K (MKB 25) K=1.0</b>	10 – 500	MKB 25	DN 25 / DN 25 / DN 25	170 162
<b>Cooltrol data K (MKB 15) K=0.1</b>	0.5 – 10	MKB 15	DN 20 / DN 20 / DN 15	170 170
<b>Cooltrol data K (MKB 20) K=0.1</b>	0.5 – 10	MKB 20	DN 20 / DN 20 / DN 20	170 173
<b>Cooltrol data K (MKB 25) K=0.1</b>	0.5 – 10	MKB 25	DN 25 / DN 25 / DN 25	170 172