

## Conductivity-Control

### chemical-free online condensate monitoring

In steam boiler systems, it is important that sufficient amount of condensate is present with good quality. With the help of Conductivity-Control, continuous conductivity monitoring and targeted discharge control of contaminated condensates are carried out. Its constant control increases the process reliability and energy efficiency of the steam boiler system.

#### at a glance

- range control of conductivity and temperature of the condensate
- triggering of alarm
- data storage in the electronic operating diary (flash drive)
- continuous measurement
- optional: possibly control of the discharge valve



#### advantages

- continuous monitoring of condensate flow
- if the threshold value is exceeded, the alarm and control of the discharge valve occur
- in case of the undercut of the threshold value, a service alarm occurs
- visualization of measured values and manual control via display
- optionally: networking with higher-level control centers and remote maintenance

Regardless of these automatic functions, the dump valve can be opened and closed at any time in manual process mode. Optionally, temperature-compensated conductivity, temperature and valve, process and alarm status can be transmitted to a remote control over an Ethernet network.

Conductance electrodes with different measurement ranges can be used. Thus, the conductivity range from 0.05  $\mu\text{S}/\text{cm}$  to 10  $\mu\text{S}/\text{cm}$  or from 1  $\mu\text{S}/\text{cm}$  to 1  $\text{mS}/\text{cm}$  can be realized.

The USB stick in the device is kept as an electronic logbook and stores measurement results, status and alarm messages.

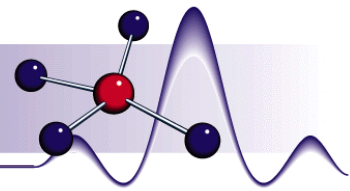
Conductivity-Control with the option of a control of the discharge valve can operate in two operating modes, which are selected via the main menu.

#### Manual mode:

The discharge valve is controlled by hand. There are no time restrictions on how long the discharge valve may be open. The user bears the responsibility for this. Conductance measurements and measured value display also take place in manual mode.

#### Automatic mode:

The discharge valve is controlled by Conductivity-Control according to the parameterized upper threshold value.



## Technical Data

Wall mounted	400 x 250 x 160 mm (B x H x T)
Weight	ca. 8 kg
Protection type housing	IP 54
Surrounding temperature	5 °C ... 50 °C
Relative humidity	20 % ... 80 %
Power supply	power supply unit 100 ... 240 Volt / 50 ... 60 Hz
Power consumption	15 V DC, ca. 20 Watt
Pipe connection	½ " internal thread
Thread depth	14 mm
Installation depth sensor with thread	74 mm
Sensor diameter	16 mm
Sensor electrode	stainless steel
Cable length to the conductive sensor	5 m (standard)
Sample pressure	max. 1 bar
Temperature range	max. 130 °C
Measuring range conductivity	0.05 µS/cm ... 10 µS/cm or 1 µS/cm ... 1 mS/cm
Conductivity measurement	temperature compensated to 25 °C
Threshold value conductivity	parameterizable within the measurement range
Time delay laying valve	parameterizable between 1 ... 600 min
Maximum opening time laying valve	parameterizable between 1 ... 600 min
Measurement cycle laying valve	continuous
Control laying valve	potential free contact, optionally relay for switching of supply voltage of laying valve
External signaling	potential free contact (threshold value exceeding), 4 ... 20 mA current loop, parameterizable (value conductivity)
Data storage	USB stick storage of measuring values in interval of 2 min storage of status indications
Optional	connection to higher-level control centers