

TDS limiter type FLB1

Application and function

The TDS limiter FLB1 is used for continuous control of the boiler water electrical conductivity.

The measurement of electrical conductivity is done by a measuring cell consisting of the TDS probe and the chamber wall of protection tube.

The product meets EC directive 2014/68/EC (PED).

Applied rules: corresponding DIN EN standards

Function FLB1

The controller continuously measures, at the electrode rod in the measuring cell, the electrical conductivity of the boiler water which is closely related to the level of TDS.

This measured value is compared with the set point of controller. If it is higher or equal than the set point, the controller relay is de-energised and will go to alarm to shut down the burner. The indicator lamp "STÖRUNG" (alarm) lights. If the measured value drops below 78 % of set point, the controller relay is energised. The indicator lamp "STÖRUNG" does not longer light.

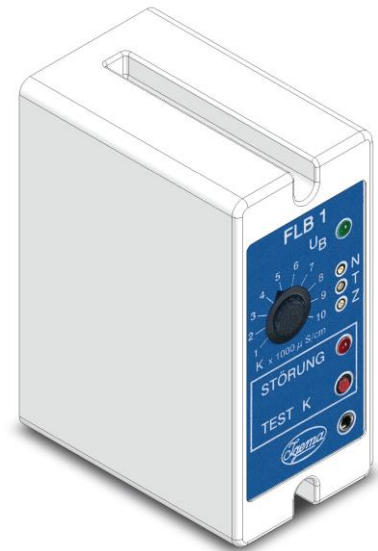
A performance check can be done by pressing and holding of the button "TEST K" (limit value).

In case of failure of the system, e.g. break of mains supply or short circuit, the controller goes in position of higher or equal value than the set point.

The indicator lamp "UB" shows that the power supply is on.

Technical basic equipment

- FLB1 is delivered in a plastic plug-in housing for installation in control panels
- Fixation on standard rail 35 mm according to DIN EN 50022 or directly screwed to chassis plate



• Fertigung überwacht

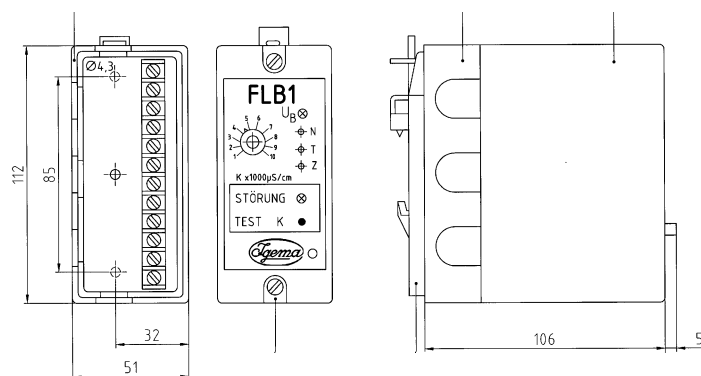


Technical data

| | |
|--------------------------------|-----------------------|
| Power supply | 230V ± 15% / 50-60 Hz |
| Input | ca. 4,5 VA |
| Fuse | 80 mA/T |
| Protection as per DIN EN 60529 | IP40 ¹⁾ |
| Allowable temperature | 0 – 60° C |

¹⁾ according to the German regulations VdTÜV-Wasserstand 100, 4.90
a protection of IP54 has to be maintained in the boiler area

| Max. operating data of contacts | | |
|---------------------------------------|--------------------------------|-----------------|
| Burner cut-off | Voltage | max. 250 Vac |
| | Current | max. 5 A ohmsch |
| Transmitter output | 4-20mA | |
| Electrical conductivity of the liquid | 0 µS/cm ≤ æ ≤ 10.000 µS/cm | |
| | 0 µS/cm ≤ æ ≤ 1.000 µS/cm | |
| Adjustable limit value „K“ at 25° C | 1.000 µS/cm ≤ æ ≤ 10.000 µS/cm | |
| | 100 µS/cm ≤ æ ≤ 1.000 µS/cm | |



- Trimmer **N** for zero adjustment
- Trimmer **T** for compensation of temperature
- Trimmer **Z** for line constant
- 1 = conductivity range of liquid
- 2 = Jack ø 3,6 mm, for connection of measuring instrument for adjustment

Installation example

