

Continuous Level Transmitter

DCC

Application and function

The DCC continuous level transmitter is used in conjunction with the IGEMA DP411 measuring probe for the delivery of an output current proportional to the fill level 4-20 mA.

It is intended for use in steam boilers or other fluid tanks.

The product meets the requirements of EU Directive 2014/68/EU (PED).
Regulations applied: corresponding DIN EN standards.

Functioning of the DCC

The DCC water level transmitter works in conjunction with the Igema level probe DP411 on the basis of the capacitive fill level method of measurement, exploiting the dielectric properties of the medium. For the safe operation of this measuring method a minimum size of the dielectric constant of the substance to be measured is required.

The capacitive method of measurement enables the continuous determination of the fill level. The pre-saved limit values for 0% and 100% provide the value range for the calculation of the current fill level. After scaling the current value for the output on to the standard current interface 4-20 mA is converted into an analogue signal.

The evaluation device supplies power to the limiter probe, which is fitted in the boiler, and evaluates its signals. The serial number of the probe used must be entered in the evaluation device so that the evaluator can communicate with this probe.

The 4-20 mA signal is available on the terminal block of the DCC for further processing.

The power output can be routed via an additional relay or error signalling can be connected.



Technical basic equipment

- DCU in a plastic plug-in housing for fitting into switch cabinets
- Quick fitting with a spring catch for standard 35 mm carrier rail according to DIN EN 50022 or screw fixing on a mounting plate

Technical data

Mains connection	230V - 15% + 10% / 50Hz
Power consumption	3VA
Device fuse	63 mA/T
Protection class according to DIN EN 60529	IP40 ¹⁾
Allowable ambient temperature	0°C – 55°C
Power interface	4..20 mA
Current interface load	500 Ω

Power interface (not galv. separately)	Output current	4-mA ... 20-mA
	Load	max. 500 Ω
Additional relay	Switching voltage (max.)	250 VAC
	Switching current (max.)	4 A resistive Inductive/larger loads: use contactor

^{1) 1)} As per DIN EN 12952-11, 4.3.4 in the boiler area protection class IP54 is to be ensured (switch cabinet)

Length of connecting cable	max. 250m
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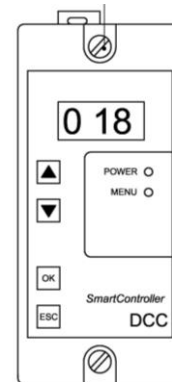
The DCC carries out a periodic self-test

It is expected that because of the non-linear boiler geometry the fill level (water quantity / volume) does not behave in a linear way to the fill depth / fill level!

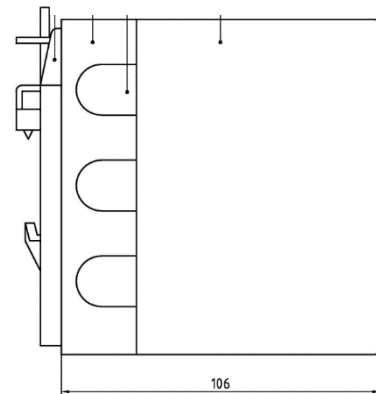
Digital Documentation



Front view



Side view



Socket with terminals

