

LEAKAGE PROBE CLS

Features

- Reliably detects container leaks
- High functional reliability
- Simple installation and start-up
- Compact device for stand-alone applications or process controlling
- Suitable for aggressive fluids
- Independent of temperature and density
- For conductive and non-conductive fluids
- DIBt-approved for storing substances hazardous to water according to the Water Resources Act
- Wear-free due to capacitive principle
- Position-independent installation
- Suitable for installation in hollow chamber plates

www.stuebbe.com/en/products-systems/instrumentation/

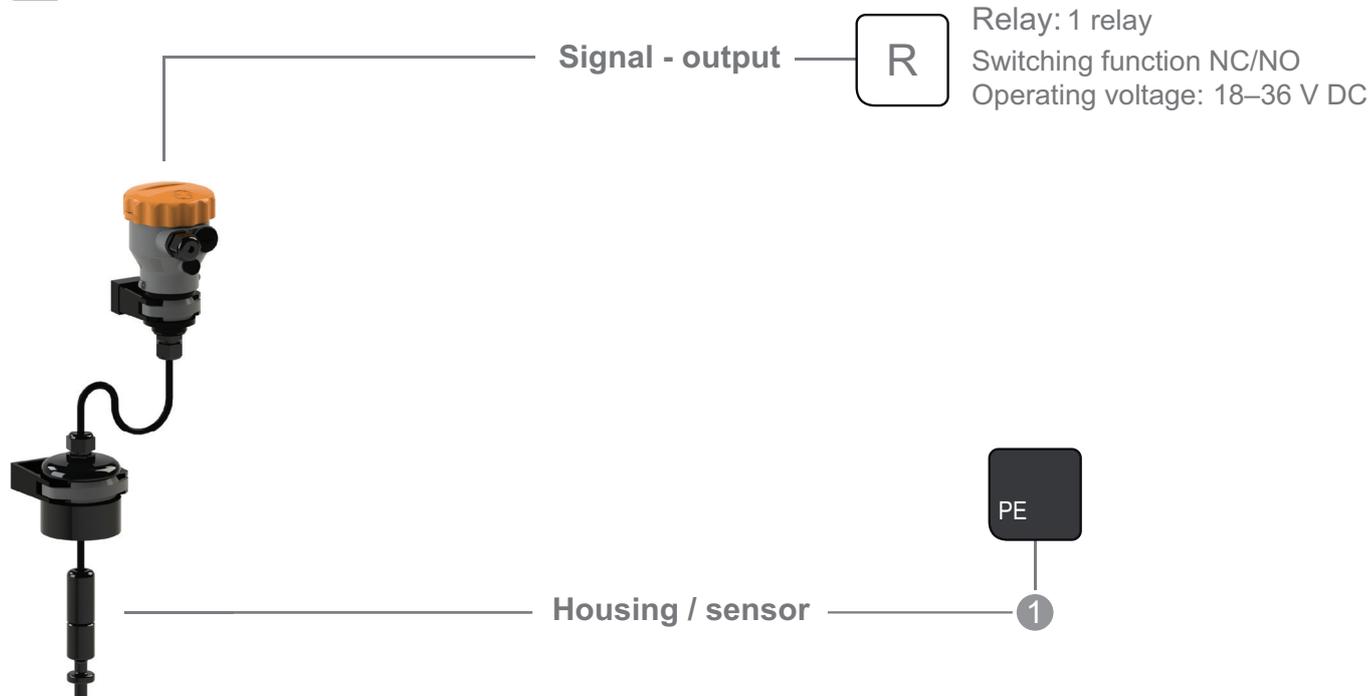
PE



CLS



Capacitive leakage probe



Connection Material (process connection)

- available
- not available

1 PE immersion probe
with 7m FEP cable *

* included in the delivery scope

Leakage probe CLS

Application

- The leakage probe, as part of an overfill prevention system, is used for signaling leaks in permanently installed containers with non-combustible fluids hazardous to waters.

Use

- The leakage probe with an integrated transducer is suitable for installation on open and closed containers.
- The probes may be exposed to the temperatures and pressure specified on the next page.
- For conductive and non-conductive fluids.

Supply

- The leakage probe is a compact device, i.e. it can be operated without external evaluation.
- The integrated electronics evaluate the filling level signal and transmit a switch signal. This switch signal can be used to directly actuate a downstream device (e.g. a warning device or PLC).

Function

- The system consists of a measuring transducer (integrated electronics) and two electrodes integrated in the tip of the level sensor (measuring and earth electrode) These generate an electric field, which is influenced by the dielectric properties of the environment.
- As soon as the environment no longer consists of air/gas but of stored fluid, a capacity change occurs that is converted into an output signal in the measuring transducer depending on a limit value.

Programming

- If necessary, 2 sensor sensitivity levels can be set on the device.

Stübbe resistance guide

- www.stuebbe.com/pdf_resistance/300051.pdf

Approvals

- DIBt: Approval no. Z-65.40-582

Testing

- Check the overfill prevention system for proper function and perfect condition at suitable intervals, however, at least once a year.

Operating pressure

- PN 0.8–1.1 bar (atmospheric)

Voltage supply

- $U_{in} = 18-36$ V DC

Cable connections

- Cable outside diameter: 7–13 mm
- Nominal cross-section: 1.5 mm²
- Cable length: 1–20 m

Probe cable

- Length: 7 m
- Cable outside diameter: 7 mm

Material with medium contact

Sensor material:

- PVC-U, PP, PE, PVDF

Probe housing, cap:

- polyethylene (PE-HD)

Probe rod:

- polyethylene (PE-HD)

Material without medium contact

Connection head:

- polypropylene (PP)

Correct cable:

- TPE-U (PUR)

Seal

- NBR
- Sealing, cable feedthrough: CR (Neoprene®)

Protection class

- IP 67 according to EN 60 529

Output signals

1 potential free change-over contact:

- $I_L = 3 \text{ A} / U_L = 250 \text{ V AC}$
 $I_L = 3 \text{ A} / U_L = 30 \text{ V DC}$

Drop-out signal

- Relay dropped out (closed-circuit current principle)

Switching delays

- max. 0.5 s

Ambient temperature

- -20–60 °C

Process temperature

- -20–60 °C

Relative humidity

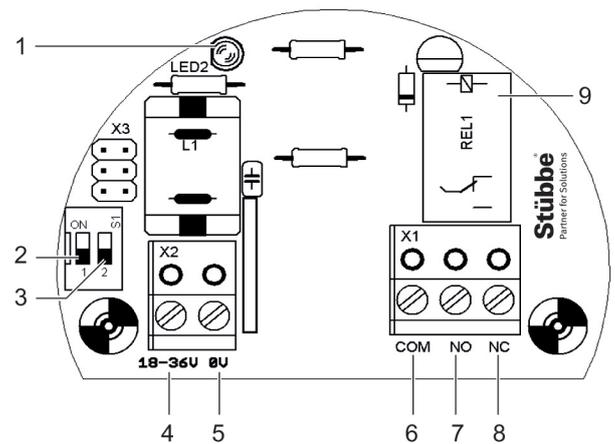
- 20–85 %

CLS components



No.	Description
1	Cable inlet
2	Connection head
3	Pipe clamp
4	Fastening cap
5	Sensor
6	FEP cable

Connection diagram CLS



Item	Description
1	LED2 (green)
2	Dip switch 1
3	Dip switch 2
4	Voltage supply (+)
5	Voltage supply (-)
6	Relay output COM
7	Relay output NO (closes when alarm is triggered)
8	Relay output NC (opens when alarm is triggered)
9	Relay

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