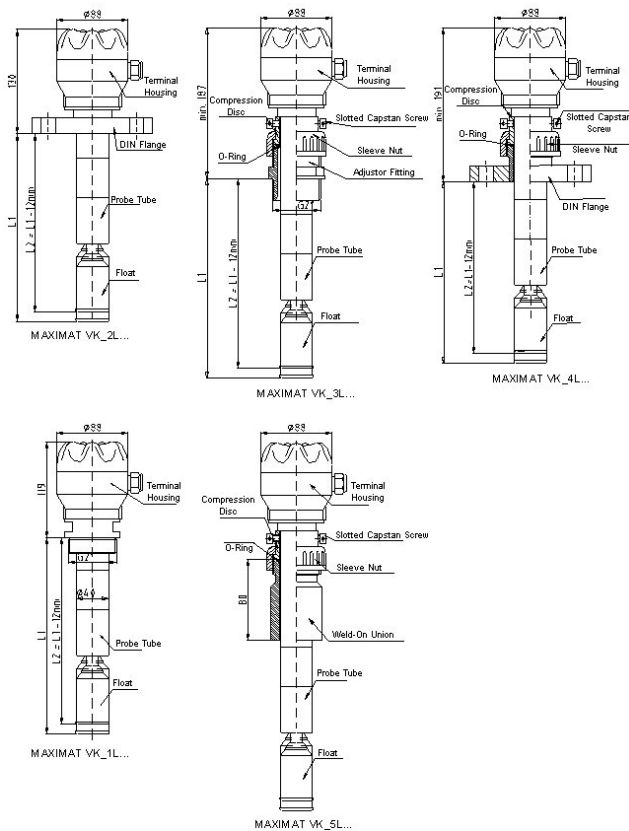


Operating Instructions

MAXIMAT VK Level Monitor for Overfill Inhibiting



Safety Precautions

- Installation, initial start-up and maintenance may only be performed by trained personnel! All applicable European and national regulations regarding installation of electrical equipment must be adhered to.
- The device must be disconnected from all sources of power during installation and maintenance work!
- The device may only be operated under the conditions specified in the operating instructions!
- **Connect the device to the MAXIMAT SHR C measuring transducer only** (see operating instructions **SU0133** to this end)!

Functions Description

In combination with the MAXIMAT SHR C measuring transducer, the MAXIMAT VK level monitor for overfill inhibiting is used as a fill-level limit switch for permanently installed containers used for the storage of non-flammable, water endangering liquids.

It is equipped with a self-monitoring measuring circuit in combination with the MAXIMAT SHR C measuring transducer using 2-wire connection.

Technical Data

Terminal housing:	PBT, fibre-glass reinforced
Degree of protection per EN 60 529:	IP 65
Process interface:	G2" threaded plug DN 40 PN 10 flange G2" weld-on union
Materials:	PVC, PP, PVDF, PE-HD
Length L:	min. 200 mm max. 1000 mm
Liquid medium density:	min. 0.7 g/cbm
Operating temperature:	-20 to +60° C
Operating pressure:	atmospheric, 0.8 to 1.1 bar
Switching point:	
Repetition accuracy:	approx. 2 mm
Measuring Circuit	
Ready to operate:	> 18 to 40 mA
Overfill alarm:	> 10 to 18 mA
Broken cable:	< 7 mA
Short-circuit:	> 39 to 110 mA
Measuring voltage:	approx. 12 V DC

Range of Applications

In combination with the MAXIMAT SHR C measuring transducer, the MAXIMAT LW-VK leakage sensor is suitable for use with liquids with a density of greater than 0.7 grams per cubic centimetre.

CE Mark

In accordance with low-voltage directive (73/23/EWG), EMC directive (89/336/EWG) and

- EN 50 082-2:1995
- EN 55 011 (class A):1998

DIBT Approval

Approval no. **Z-65.11-122** for overfill inhibitors and leakage sensors in accordance with WHG §19

Note:

The accompanying "General Building Supervisory Approval no. Z-65.11-133" is an integral part of the operating instructions, and all stipulations contained therein must be adhered to!



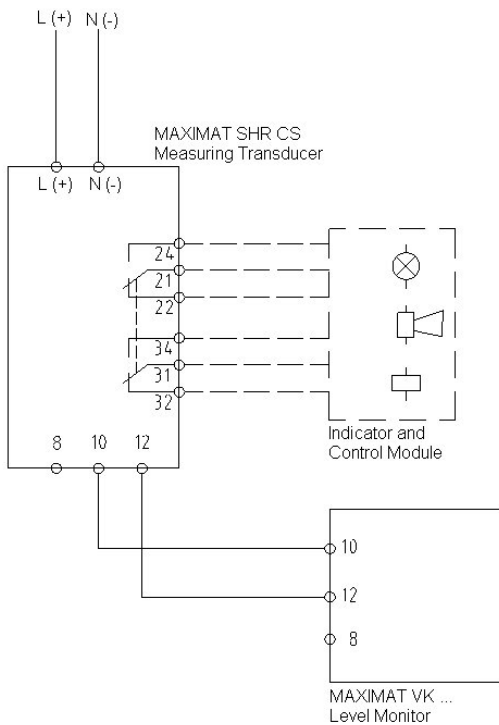
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MAXIMAT VK Level Monitor for Overfill Inhibiting

Electrical Connection:

Control Voltage Supply with Overcurrent Protection



Use a 2-conductor control cable to connect the leakage sensor to the measuring transducer.

Minimum cross-sections:

to 50 m	0.5 square mm
to 100 m	0.75 square mm
to 250 m	1 square mm
to 500 m	1.5 square mm

Adjustment Instructions

The maximum allowable fill-level of any given tank can be determined, for example, in accordance with TrbF 280 no. 2.2. Triggering level A is then calculated in accordance with attachment 1, or the approval guidelines for overfill inhibitors (ZG-ÜS). Dribbling quantities and switching delay times must be taken into consideration. Switching delay time can be adjusted at the MAXIMAT SHR C measuring transducer within a range of 0.3 to 3 seconds.

Installation length L determines the fill-level monitor's triggering point.

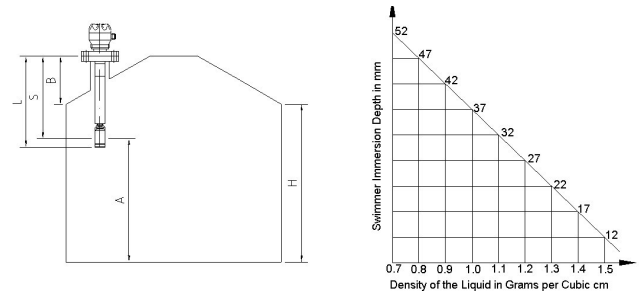
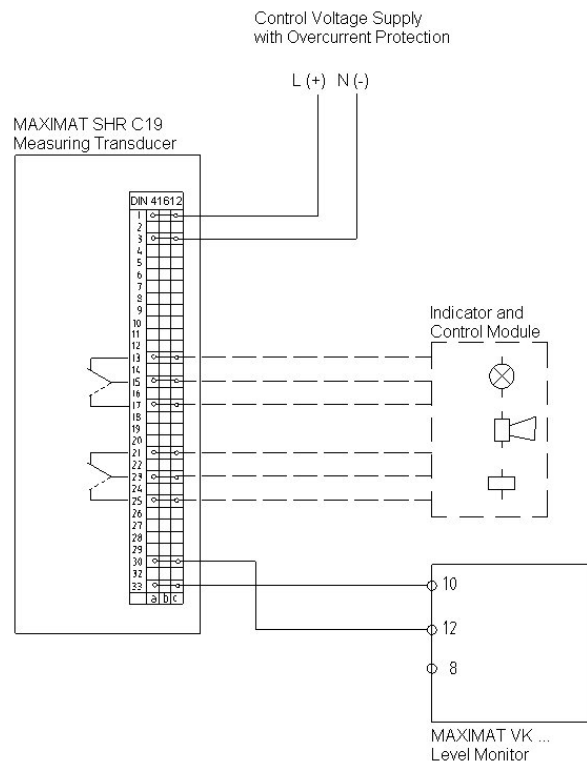
Dimensions are calculated as follows:

- H = tank height
- A = triggering level
- B = connector
- E = immersion depth, table E
- S = triggering point

$$L = H - A + B + E + 3$$

$$S = L - E - 3$$

Connection to MAXIMAT SHR CS... measuring transducer



Guide tubes included with **MAXIMAT VK.3L** and **MAXIMAT VK.4L** adjustable level monitors are supplied 50 mm longer than dimension L, so that the fill-level monitor can be adapted to correspond to triggering level A during installation. It is thus possible to readjust dimension L. After the triggering point has been set, the locking screws are tightened and sealed against tampering. Due to the fact that this seal is not removed during periodic testing, dimension L is always fixed, i.e. no readjustment is necessary.

Connection to MAXIMAT SHR C19... measuring transducer