

COMPACT OVERFILL SENSOR MAXIMAT VK C



SAFETY INSTRUCTIONS

- Installation, initial start-up and maintenance may only be performed by trained personnel!
- The device may only be connected to supply power compliant to the specifications included in the technical data and on the serial plate!
- 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!

DESCRIPTION

The MAXIMAT VK C... compact overfill sensors are used as limit switches of overfill protection systems for stationary containers for the storage of non-flammable water-polluting liquids.

They are equipped with three different output circuits:

- Binary output for controlling a coupling relay or a digital input of a PLC.
- Current output suitable for 3-stage current band monitoring, e.g. by a PLC.
- self-monitoring measuring circuit in conjunction with the MAXIMAT SHR C... transmitter in two-wire circuit.

Note!

The MAXIMAT VK C... level detector may only be used in liquids with a density $>0.7\text{kg/dm}^3$.

Also suitable for oils and emulsions and other electrically non-conductive liquids.
The medium must not tend to resinify or stick together.

TECHNICAL DATA

Functional principle	Float, magnetic with reed contact
Density of the medium	minimum 0.7kg/dm^3
Ambient temperature	$-20\dots+60\text{ }^\circ\text{C}$
Operating pressure	atmospheric ($0.8\dots1.1\text{bar}$)
Connection head	PBT glass-fibre reinforced; protection class IP65 according to EN 60 529
Process connection	G2" or flange, see ordering information
Supply voltage	$15\dots26\text{V DC}$
Connection power	approx. 3W
Outputs	<ul style="list-style-type: none">- Binary output: +DO / -DO max. 30mA max. permissible input voltage: 24V DC, max. permissible output voltage: $\sim 18\text{V DC}$- Current output: +AO / - AO, $0\dots20\text{mA}$- Output for transmitter MAXIMAT SHR C... Note: always use only one output!
Terminals	Screw connection, cable cross-section max. 2.5mm^2

CE mark: The device fulfills the legal requirements of applicable EU-guidelines.

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COMPACT OVERFILL
SENSOR
MAXIMAT VK C

27-06-2024

M-555.02-EN-AD

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COUNTRY-SPECIFIC CERTIFICATIONS

- GERMANY - General technical approval in accordance with the Water Resources Law (WHG)
- SWITZERLAND - Type examination certificate for water protection suitability according to the Conference of Heads of Environmental Protection Offices (KVVU)
- BELGIUM - Model certificate of approval in accordance with Flemish environmental authorisation regulations (VLAREM II)

Depending on the country requirements, the corresponding documentation is enclosed.

DIP SWITCH

Operating mode	DIP1	DIP2	DIP3	DIP4
binary output	ON	ON	ON	OFF
Power output/PLC	OFF	OFF	OFF	OFF
MAXIMAT SHR C	OFF*)	OFF*)	OFF*)	OFF*)
MAXIMAT TC4	OFF	OFF	OFF	OFF

*) = factory setting

Note!

Before switching on the supply voltage, make sure to check the DIP switch setting!!!

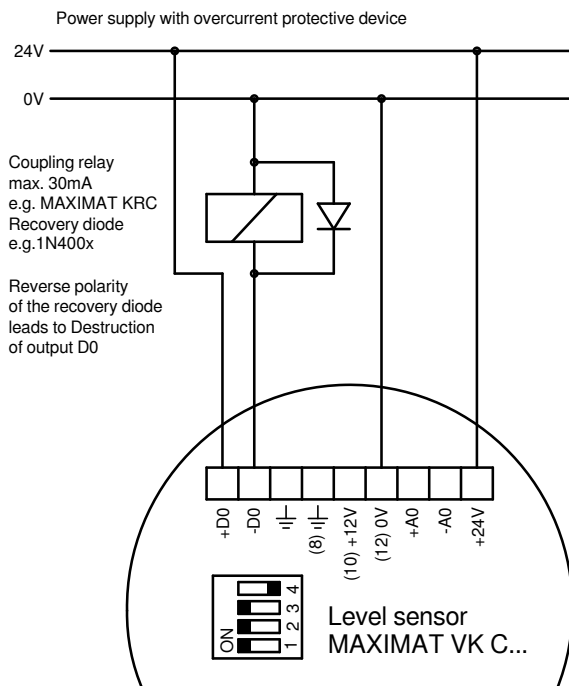
SIGNALLING

LED (green) on the connection board:

- Operation = LED lights up
- Alarm/fault = LED off

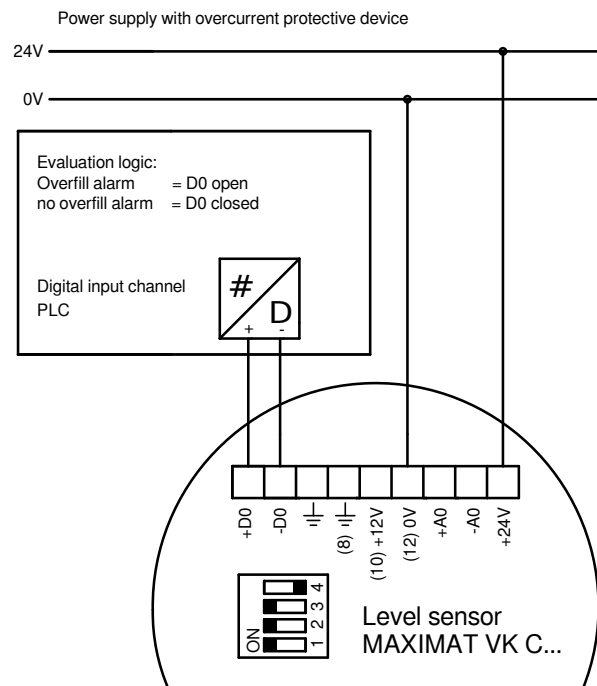
ELECTRICAL CONNECTION

MAXIMAT VK C Digital output on relay



Evaluation logic:
 Overfill alarm = D0 open = relay de-energized
 Overfill alarm = D0 closed = Relay energised

MAXIMAT VK C Digital output on PLC



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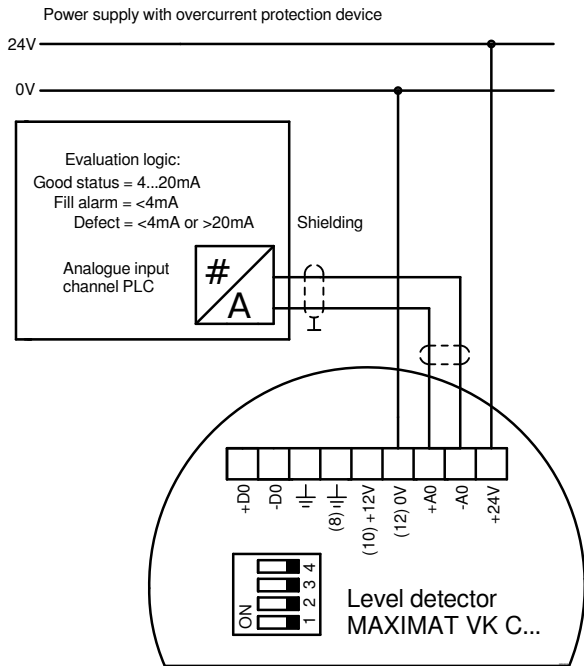
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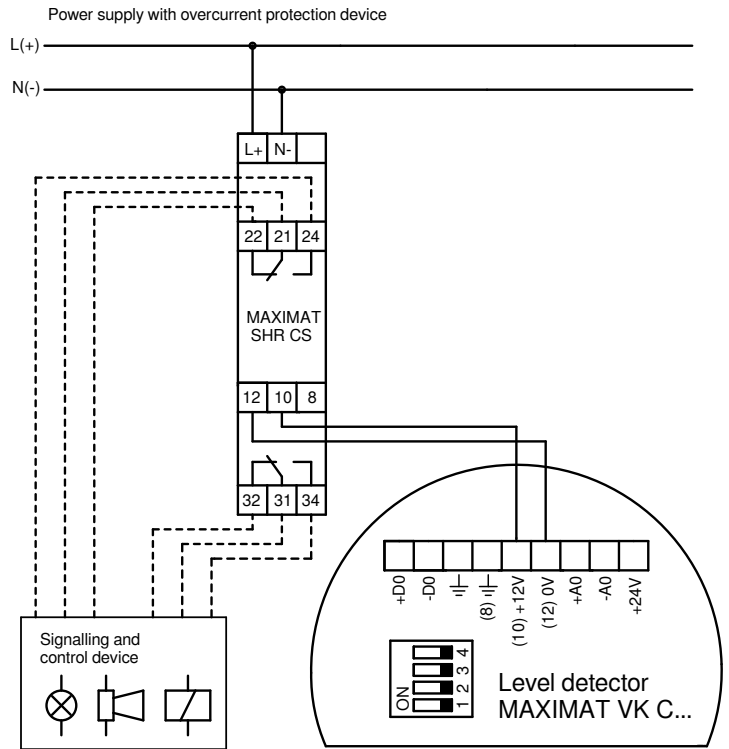
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ELECTRIC CONNECTION (continuation)

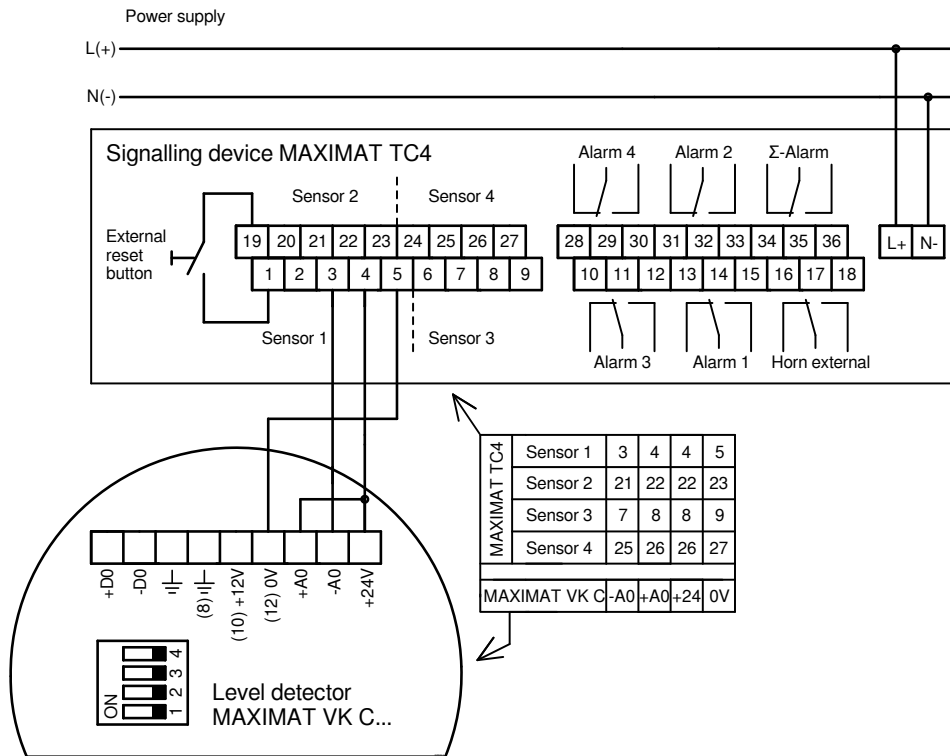
MAXIMAT VK C analogue output on PLC



MAXIMAT VK C on measuring transducer MAXIMAT SHR C



MAXIMAT VK C to signalling device MAXIMAT TC4



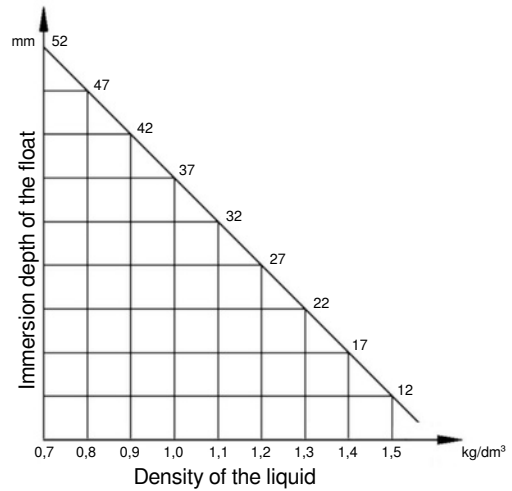
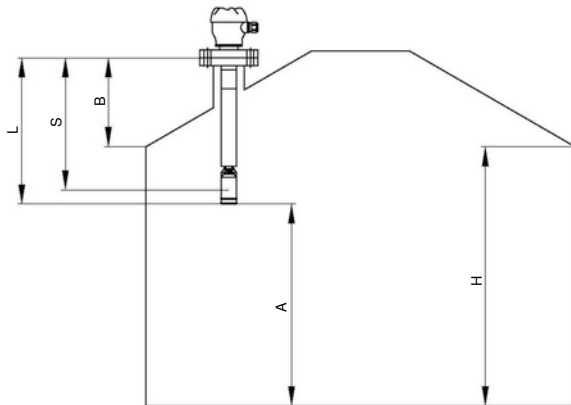
ADJUSTMENT INSTRUCTIONS

Please observe the enclosed "General technical approval Z-65.11-355"!

The installation length L determines the response point of the level detector.
These dimensions are determined as follows:

H = container height
A = response height
B = Socket
E = Immersion depth
S = Response point

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



The guide tube of the MAXIMAT VK C... adjustable level detectors is supplied 50 mm longer than dimension L so that the level detectors can be adjusted to the response height A during installation.

This allows the dimension L to be readjusted.

Once the response point is set, the fixing screws are tightened and sealed. Since the seal is not opened during the periodic inspection, the dimension L is always fixed, i.e. no new adjustment is necessary.

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