COMPACT OVERFILL DETECTOR
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

Compact overfill detectors of the type MAXIMAT VK C... serve as limit switches to prevent overfilling in containers with water-polluting liquids. When the float swimms in a liquid, the integrated electronics react and the continuously emitted signal is interrupted.
By interrupting the signal when the maximum filling level is exceeded, the system control can interrupt the filling process and trigger an audible and visual alarm.
Alarm is triggered from an immersion depth of 50mm (density dependent).

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... overfill detector may only be used in liquids with a density ≥0.7kg/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	≥0.7kg/dm^3
Ambient temperature	-20...+60 °C
Operating pressure	atmospheric (0.8...1.1bar)
Connection head	PBT glass-fibre reinforced; protection class IP65 according to EN 60 529
Materials	PVC, PP, PE-HD
Length (L)	min. 200mm max. 1000mm
Process connection	G2" or flange
Supply voltage	24V DC ±10%
Connection power	approx. 3W
Outputs	- Binary output: +DO / -DO max. 30mA max. permissible input voltage: 24V DC, max. permissible output voltage: ~18V DC - Current output: +AO / - AO, 0...20mA - 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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COUNTRY-SPECIFIC CERTIFICATIONS

- GERMANY - General technical approval in accordance with the Water Resources Law (WHG)
- 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

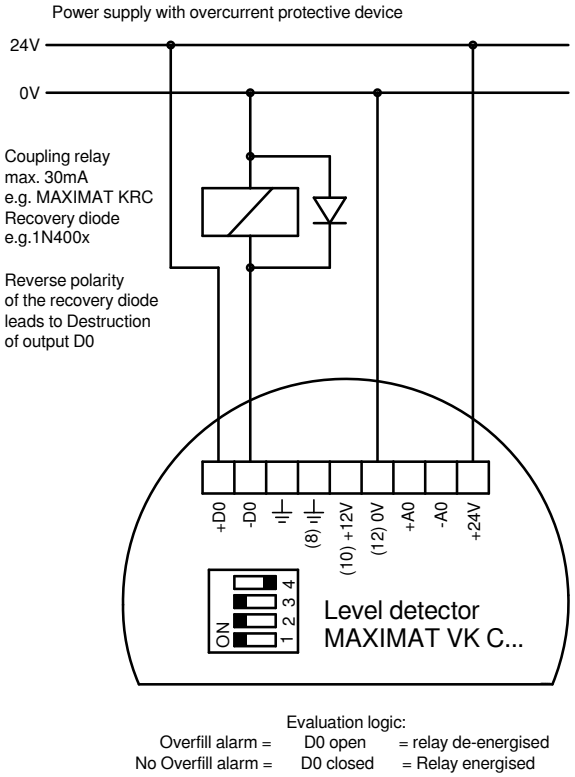
Note!
Before switching on the supply voltage, make sure to check the DIP switch setting!!!

SIGNALLING

LED (green) on the connection board:
- Operation = LED lights up
- Alarm/fault = LED off

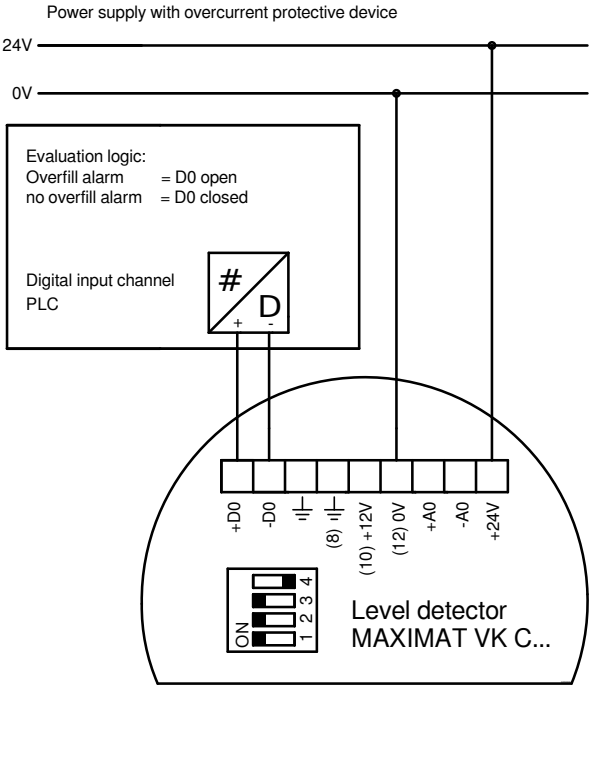
ELECTRICAL CONNECTION

MAXIMAT VK C Digital output on relay



Evaluation logic:
Overfill alarm = D0 open = relay de-energised
No Overfill alarm = D0 closed = Relay energised

MAXIMAT VK C Digital output on PLC



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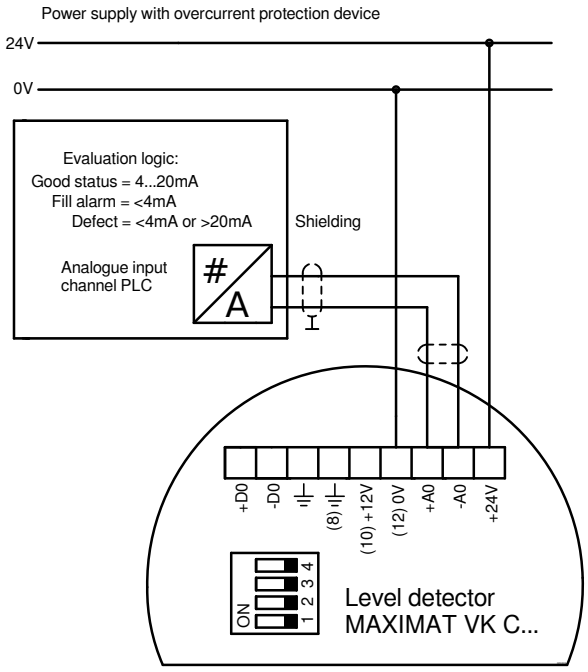
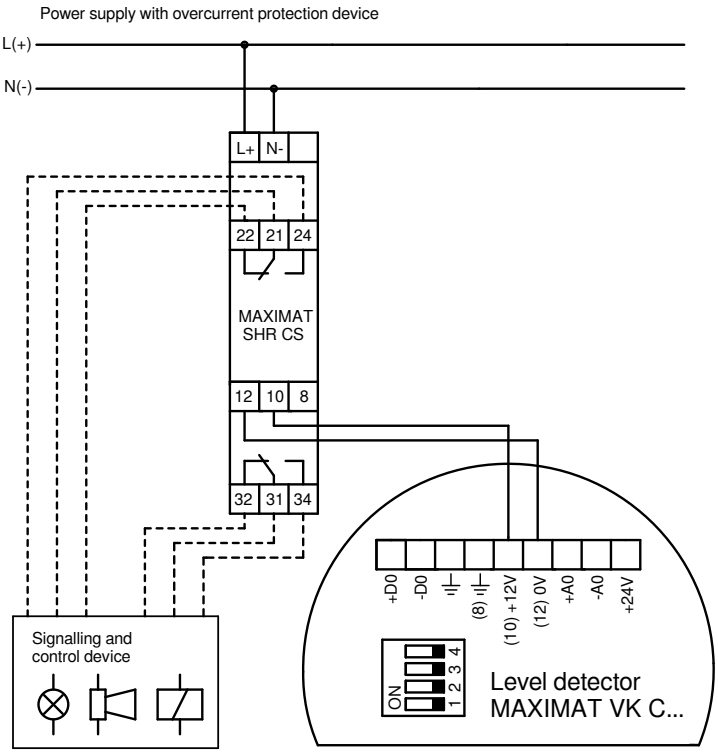
ELECTRICAL CONNECTION (continuation)

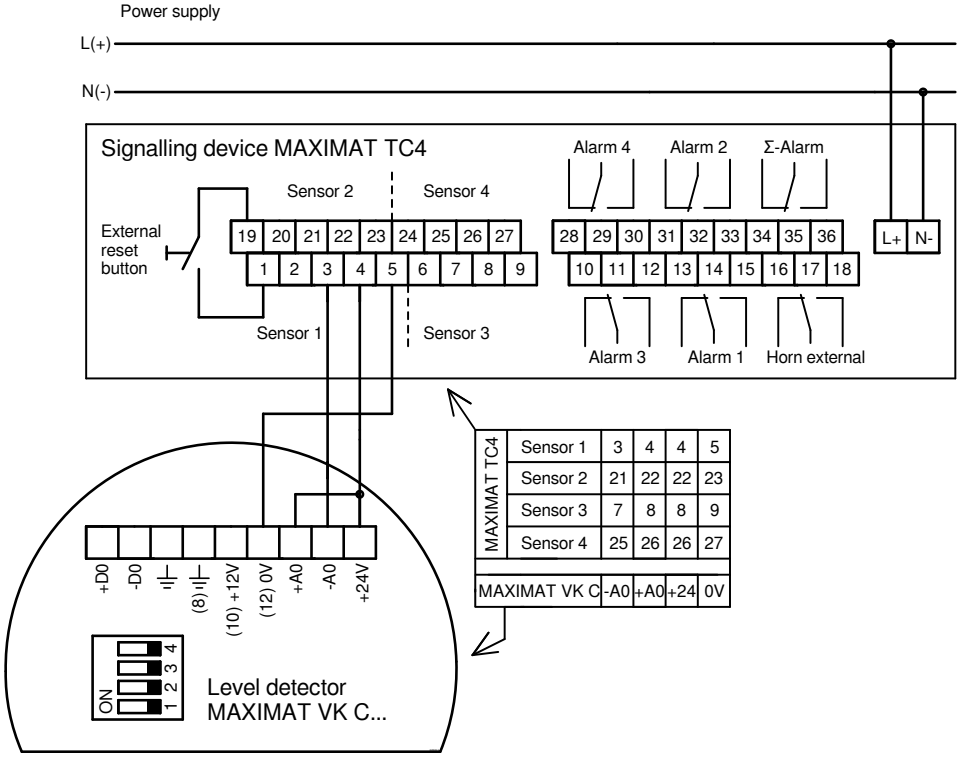
MAXIMAT VK C analogue output on PLC



MAXIMAT VK C on measuring transducer MAXIMAT SHR C



MAXIMAT VK C to signalling device MAXIMAT TC4



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MAXIMAT VK C
08-05-2025 M-555.02-EN-AE

LEV
555-02 /3

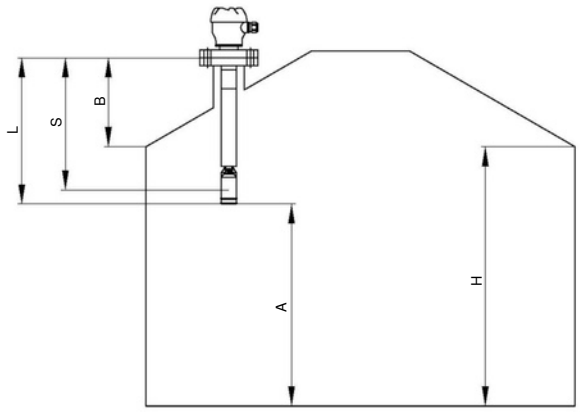
ADJUSTMENT INSTRUCTIONS

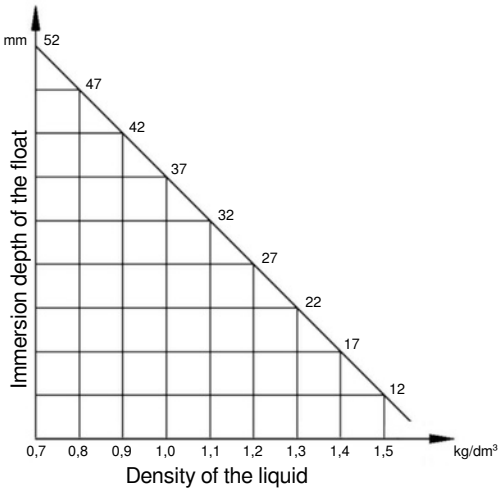
Please observe the enclosed "General technical approval Z-65.11-355"!

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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