

# Conductive Multi-Level Limit Switch VESA



- Integrated evaluation electronics
- 4 relay outputs
- Monitoring of up to 4 level points or Min/Max control (automatic filling and emptying) with overflow / dry-run protection
- Switchable energizing / de-energizing delay
- Switchable response sensitivity

## APPLICATION

- Level monitoring
- Level control

## DESCRIPTION

The VESA electrode controller operates according to the conductive principle, meaning that the electrical conductivity of the liquids to be monitored is used as an electrical connection between the immersed electrodes in order to detect two or four limit levels.

This conductive limit switch is not suitable for liquids containing oil or grease, or for liquids in which electrically conductive or insulating deposits may form.

Measuring range: The VESA electrode controller can be used with liquids whose resistance between electrodes is less than 120 k $\Omega$ .

**The device can be supplied with up to 5 electrode rods.**  
(to be ordered separately)

Control:

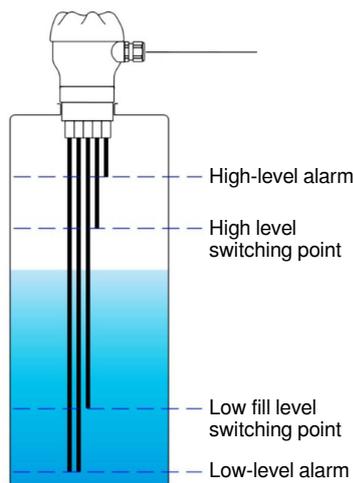
Two different operating modes can be configured:

- Direct monitoring of up to 4 level points (levels)
- Interval switching (MIN/MAX control) with self-holding using electrodes E2, E3 and the reference electrode, and additionally electrodes E1 and E4 for overflow and dry-run protection.

Metal tanks can be connected to electrode E0 and used as an extended reference electrode.

## TECHNICAL FEATURES

Power supply	10...30V DC
Power consumption	~2W
Ambient temperature	-20...+60 °C
Medium temperature	max. 100 °C
Connection head	Glass fibre reinforced PBT, IP65 according to EN 60529
Max. operating overpressure	6 bar at 20 °C, 1 bar at 100 °C, higher pressure on request
Process connection	PP, G2" threaded plug
Electrode rods	Stainless steel 316L, length: min. 45mm, max. 2000mm, also available partially insulated
Measuring circuit	Galvanically isolated, AC voltage <5V / <1 mA
Sensitivity	Selectable via DIP switch Low <10 k $\Omega$ >0.1 mS Medium ~60k $\Omega$ ~16 $\mu$ S High >120k $\Omega$ <8 $\mu$ S
Reset hysteresis	approx. 10% of the selected sensitivity value
Sensor input	2...5 rods for up to 4 limit values
Indication	LEDs for relay switching status
Operation	6-position DIP switch for operating mode and sensitivity



Application example

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**Conductive Multi-Level Limit  
Switch  
VESA**

**LEV**

**540-05/1**

20-03-2026

D-540.05-EN-AC

## TECHNICAL FEATURES (continued)

Relay outputs	4 normally open contacts with common root, potential-free AC: max. 250V, 5A, 500VA DC: max. 30V, 1A, 40W
Operating principle	Operating / resting current, selectable via DIP switch
Delay	Selectable energizing / de-energizing delay 0.5 s or 5 s

**CE marking:** The device complies with the legal requirements of the applicable EU directives.

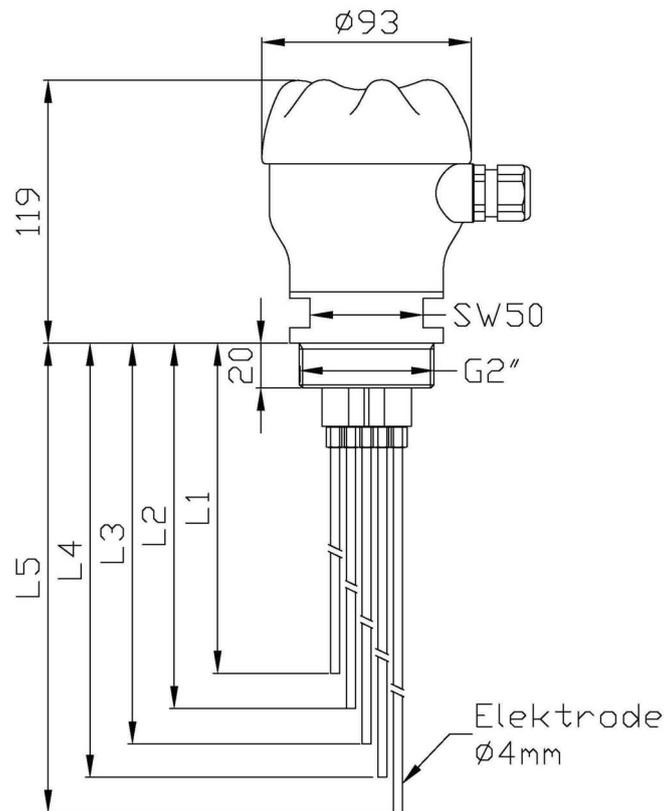
## CODE NUMBERS AND REFERENCES

Code	Reference	Description
547 020	VESA 4	4-channel electrode controller (standard)

### Electrode rods:

Code	Description	Code	Description
540 010	Electrode rod 316L, non-insulated, length 500 mm	540 010T	Electrode rod, 316L, partially insulated, length 500mm
540 011	Electrode rod 316L, non-insulated, length 1000 mm	540 011T	Electrode rod, 316L, partially insulated, length 1000mm
540 012	Electrode rod 316L, non-insulated, length 1500 mm	540 012T	Electrode rod, 316L, partially insulated, length 1500mm
540 013	Electrode rod 316L, non-insulated, length 2000 m	540 013T	Electrode rod, 316L, partially insulated, length 2000 mm

## DIMENSIONS



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