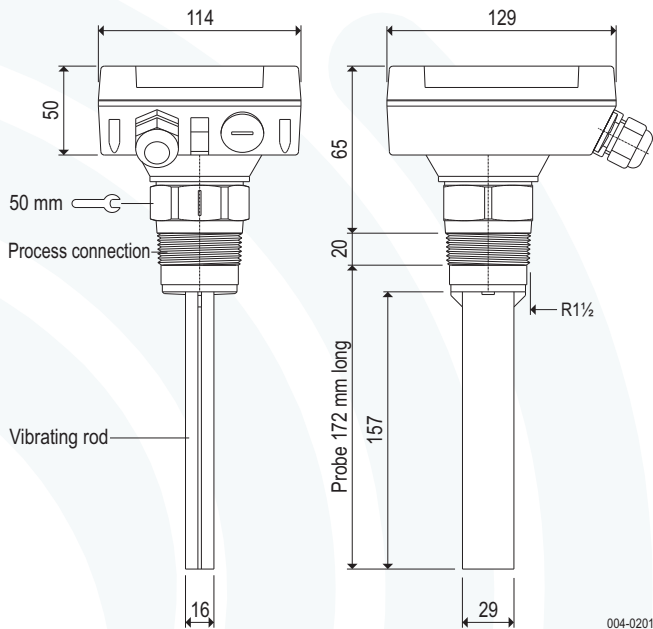


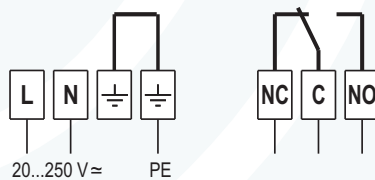
Appliance information

The Vibro level indicators are indicating the filling level as a limit switch in silos and vessels.

Dimensions VF12



Wiring connection



ATEX-Option

B1 **Dust**  II 1/2D Ex ta/tb IIIC T95 °C Da/Db

Use

The models of serie **VF10** are vibrating limit switches to be used for indicating the level in silos and containers, which are filled with all kinds of bulk goods. Due to the compact design and little internal length the **VF12** is especially well qualified for use in small containers and vessels or hoppers and wherever limited mounting space is dedicated. A typical application is e.g. the use of two **VF12** as full- and empty indicator in containers and silos.

Mode of operation

The electronics of the **VF10** serie excites the vibrating rod to vibrate on its resonance frequency of approx. 285 Hz. If material covers the vibrating rod, the vibration will be attenuated. This is sensed by the electronics and it will actuate a relay. If the filling level sinks, the vibrating rod will swing on its resonance frequency again and the relay will switch back.

Technical data

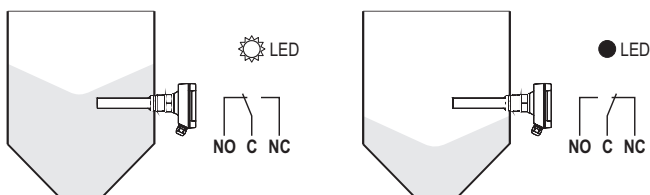
Material	Housing	Aluminium
	Process connection and probe	Stainless steel 1.4301 / 304
Process connection		R1 1/2 DIN 2999
Ambient temperature		-20 °C ... +60 °C
Bulk goods temperature		-20 °C ... +80 °C
	Option E1	-20 °C ... +150 °C
max. process pressure		10 bar
Supply voltage		20 ... 250 V AC / DC multivoltage
Power consumption		3 VA
Signal contact	(Relay)	change-over contact, potentialfree
Capacity of the contact		5 A / 250 V AC
Response delay		
	Attenuation	1 second
	Start of vibration	2 up to 5 seconds
min. density of material		0.02 kg/l (t/m ³) optional from 0.01 kg/l
Cable entry		Gland M20x1.5
Type of protection		IP66 acc. to DIN EN 60529
Maintenance		none
max. load up on the end of the vibrating rod		1000 N (from lateral 150 N)
Installation		any position

Minimum-/Maximum alarm

The **VF10** can be used as maximum or minimum switch. The way of function is adjusted by jumpers on the circuit board. The status of the relay is shown at the circuit board by a red LED, corresponding to the drawings adjacent.

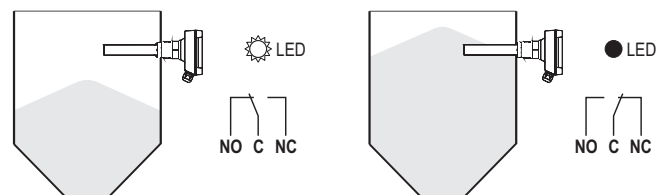
Minimum alarm L

The relay is deenergized (Position NC, red LED off), when the filling level is as low as the probe is not covered with material and it is vibrating freely or it's a failure of the supply voltage.



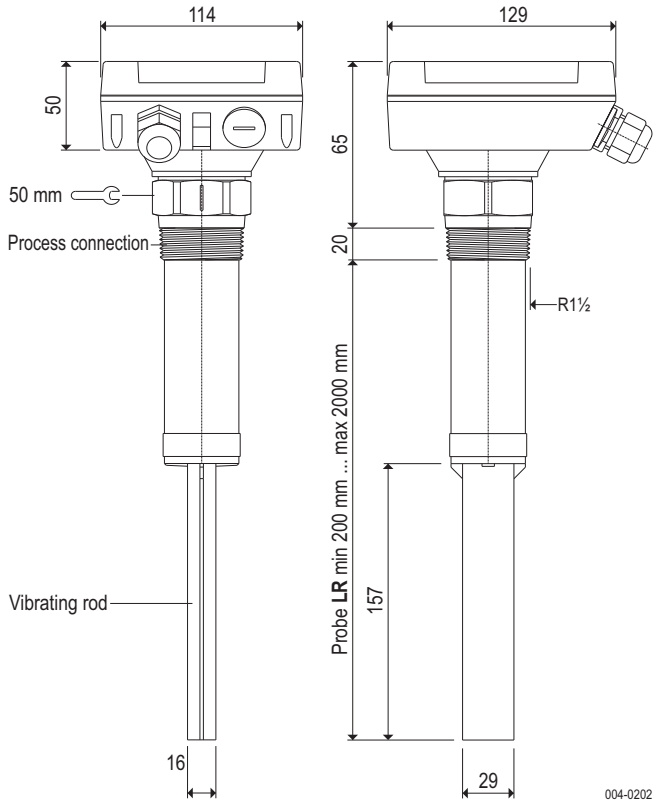
Maximum alarm H

The relay is deenergized (Position NC, red LED off), when the filling level is as high as the probe is covered with material or it is a failure of the supply voltage.



Subject to modification

Dimensions VF13

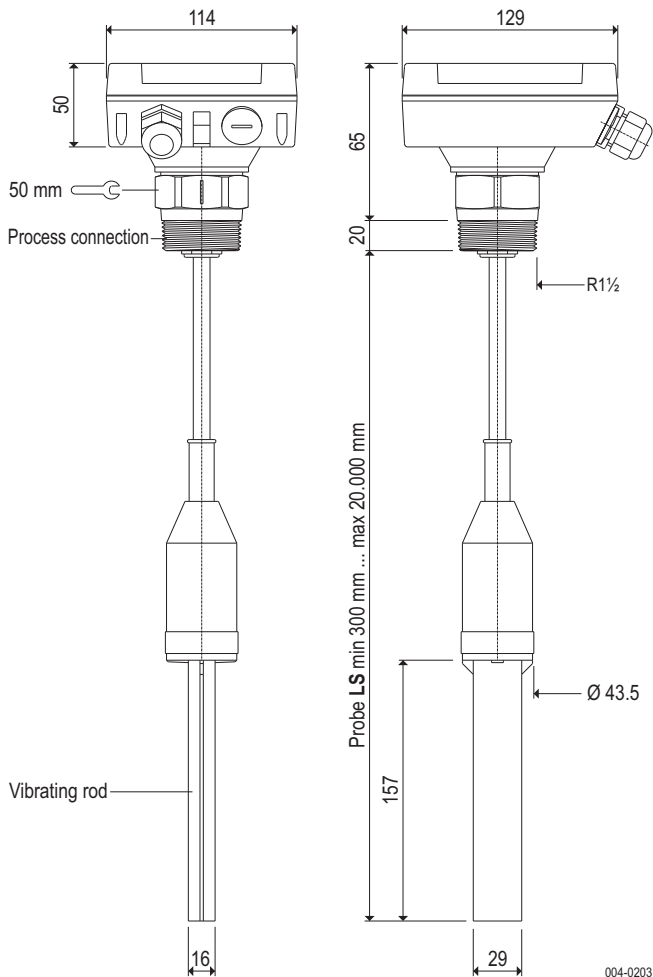


VF13 Tube jib

Use

- for vertical mounting in a silo resp. vessel
- to detect the filling level more inside of the vessel
- to penetrate the stickings of bulk goods on the wall inside of the vessel
- maximum jib length: 2000 mm
- any mounting position if jib length is less than 1000 mm
(for these mounting positions the jib has to be supported in an appropriate way)

Dimensions VF15



VF15 Rope extension

Use

- for vertical mounting in a silo resp. vessel
- maximum rope length: 20.000 mm
- maximum load onto the extension rope: 2000 N