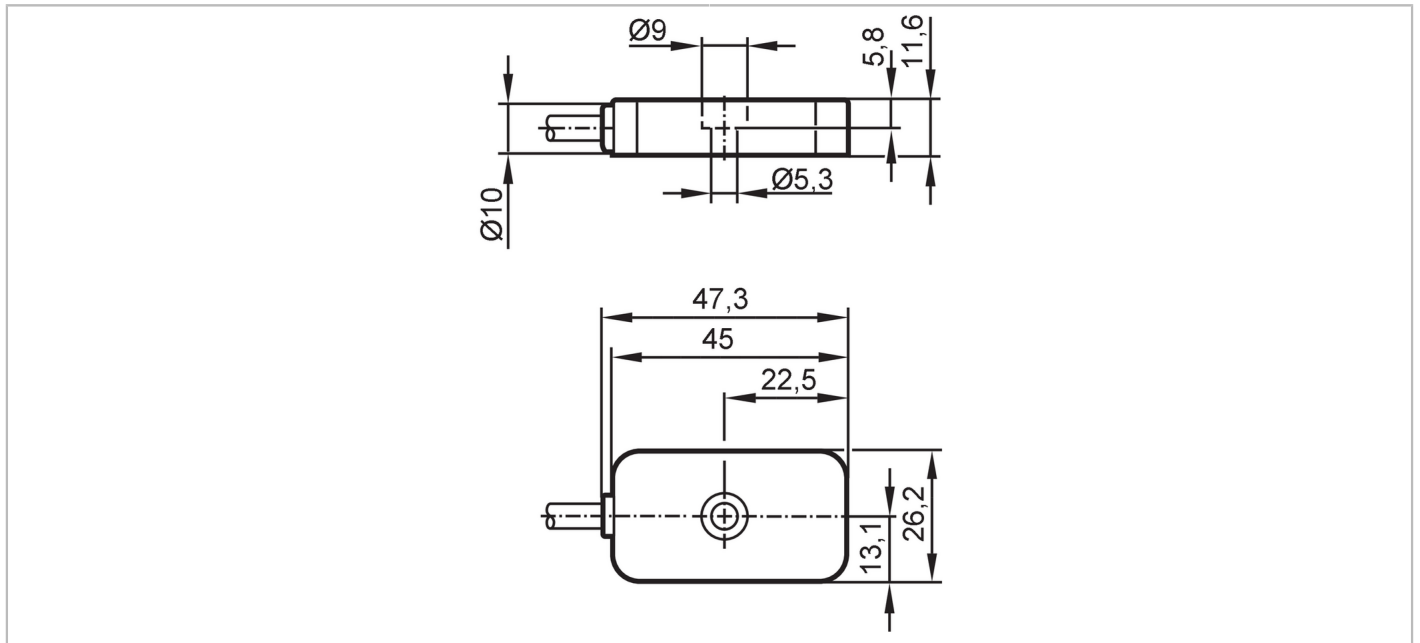


# VSM101



## Acceleration sensor

VIBRATION SENSOR



Product characteristics		
Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	0...4500
Measuring principle		capacitive
Application		
Special feature		Screened cable; Drag chain suitability
Electrical data		
Bias voltage DC	[V]	11...16
Operating current	[mA]	4...6
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Sensor type		microelectromechanical system (MEMS)
Measuring/setting range		
Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	0...4500
Measuring principle		capacitive
Max. transverse sensitivity	[%]	5
Number of measurement axes		3
Accuracy / deviations		
Accuracy		0...3 kHz: +/- 10 % 3...4.5 kHz: 3 dB
Measuring sensitivity		100 mV/g
Linearity deviation	[% of the span]	2

# VSM101



## Acceleration sensor

VIBRATION SENSOR

Operating conditions		
Ambient temperature	[°C]	-30...85
Storage temperature	[°C]	-30...100
Protection		IP 67; IP 68; IP 69K
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g 11 ms
Vibration resistance	DIN EN 60068-2-6	20 g / 10...3000 Hz
MTTF	[years]	529
UL approval	Ta	< 70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval no.	L003
	File number UL	E251902
Mechanical data		
Weight	[g]	187.2
Type of mounting		mounting screw
Dimensions	[mm]	26.2 x 47.3 x 11.6
Materials		housing: stainless steel (444/1.4404)
Tightening torque	[Nm]	3.5
Drag chain suitability		yes
Drag chain suitability	bending radius for flexible use	min. 10 x cable diameter
	bending radius for fixed installation	min. 4 x cable diameter
Accessories		
Items supplied		socket head screw: 1 x (M5 x 12 mm)
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Cable: 3 m, PUR, Ø 4.9 mm, shielded; Maximum cable length: 250 m; screen (connected to the housing); 5 x 0.14 mm <sup>2</sup>		
brown IEPE X white IEPE Z blue GND black self-test grey IEPE Y yellow screen		