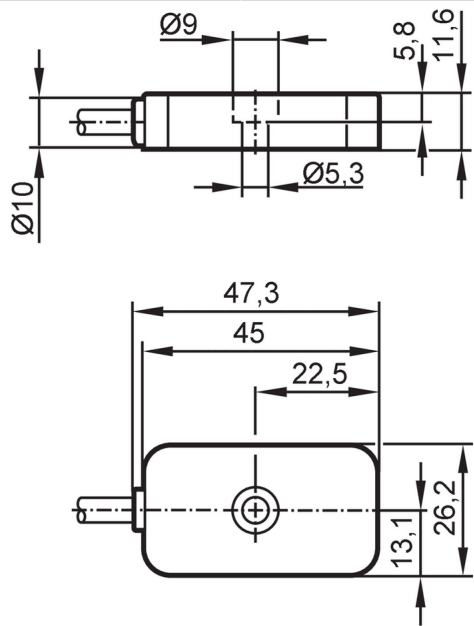


VSM103

Accelerometer

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
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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
Type of sensor		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

VSM103



Accelerometer

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	1
	voltage supply	Limited Voltage/Current
	UL approval number	L005
	File number UL	E251902
Mechanical data		
Weight	[g]	105.6
Type of mounting		mounting screw
Dimensions	[mm]	26.2 x 47.3 x 11.6
Material		housing: stainless steel (1.4404 / 444)
Tightening torque	[Nm]	3.5
Drag chain suitability		yes
Drag chain suitability	Bending radius for flexible applications	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: 0.3 m, PUR, Ø 4.9 mm, screened; Maximum cable length: 250 m; screen (connected to the housing); 5 x 0.14 mm²		
Electrical connection - plug		
Connector: M12; coding: A; Contacts: 5		
1	brown = IEPE X	
2	white = IEPE Z	
3	blue = GND	
4	black = self-test	
5	grey = IEPE Y	