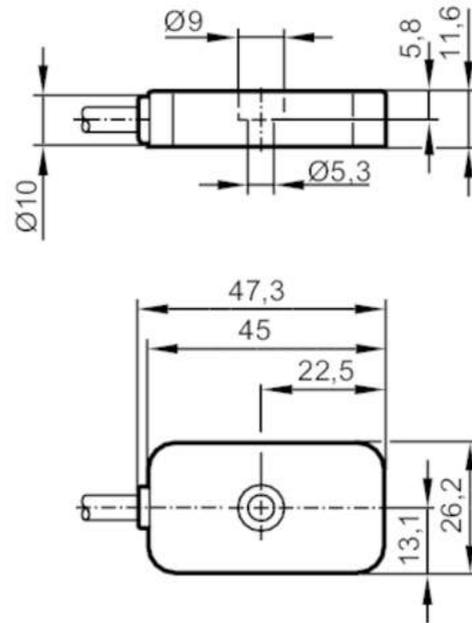


VSM101



Acceleration sensor

VIBRATION SENSOR



Product characteristics

Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	0...4500
Measuring principle		capacitive

Application

Special feature	Drag chain suitability
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Electrical data

Bias voltage DC	[V]	13...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		2

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[% of the span]

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
	power 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 (1.4404 / 444)
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
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Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 3 m, PUR, Ø 4.9 mm; Maximum cable length: 250 m; screen (connected to the housing); 5 x 0.14 mm²

brown IEPE X
white IEPE Z
blue GND
black self-test
grey IEPE Y
yellow screen