

VSA001



Accelerometer

VIBRATION SENSOR



1 conical angle = 90°



Product characteristics

Measuring range of vibration	[g]	-25...25
Frequency range	[Hz]	1...6000
Measuring principle		capacitive

Application

Design	for connection to external diagnostic electronics VSE
Application	vibration detection

Electrical data

Operating voltage	[V]	7.2...10.8 DC
Current consumption	[mA]	< 15
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Type of sensor		Microelectromechanical system (MEMS)

Outputs

Analog current output	[mA]	0...10
Max. load	[Ω]	300

Measuring/setting range

Measuring range of vibration	[g]	-25...25
Frequency range	[Hz]	1...6000
Measuring principle		capacitive
Sensitivity	[μA/g]	142
Number of measurement axes		1

Accuracy / deviations

Linearity deviation		0,2 %
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Operating conditions

Ambient temperature	[°C]	-30...125
Note on ambient temperature		cULus: < 85 °C
Storage temperature	[°C]	-30...125
Protection		IP 67; IP 68; IP 69K

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Tests / approvals		
EMC	EN 61000-6-2	
	EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g 11 ms
		500 g 1 ms
Vibration resistance	DIN EN 60068-2-6	20 g / 10 ... 2000 Hz
MTTF	[years]	1701

Mechanical data		
Weight	[g]	50
Type of mounting		M8 x 1,25
Material		housing: stainless steel (1.4404 / 316L)
Tightening torque	[Nm]	8
Mechanische Überlastfestigkeit	[g]	500

Accessories	
Items supplied	washer, conical

Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Maximum cable length: 250 m



1	L+ (+9 V)
2	I out
3	GND
4	Test