

Acceleration sensor

VIBRATION SENSOR



1 conical angle = 90°



Product characteristics

Measuring range of vibration	[g]	-250...250
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
Sensor type		microelectromechanical system (MEMS)

Outputs

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

Measuring/setting range

Measuring range of vibration	[g]	-250...250
Frequency range	[Hz]	1...6000
Measuring principle		capacitive
Sensitivity	[μA/g]	14.2
Number of measurement axes		1

Accuracy / deviations

Linearity deviation		5 %
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Operating conditions

Ambient temperature	[°C]	-30...125
Note on ambient temperature		UL application: < 70 °C
Storage temperature	[°C]	-30...125
Protection		IP 67; IP 68; IP 69K

VSA201



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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	[ANN]	3094
Mechanical data		
Weight	[g]	49
Type of mounting		M8 x 1,25
Materials		housing: stainless steel (1.4404 / 316L)
Tightening torque	[Nm]	8
Аксессуары		
Items supplied		washer, conical
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M12; coding: A; Maximum cable length: 250 m		
		
1	L+ (+9 V)	
2	I out	
3	GND	
4	Test	