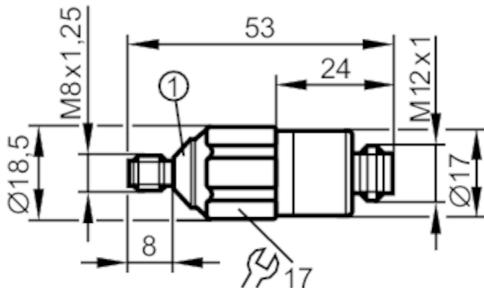


VSA001

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 [$M\Omega$]	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 [$\mu\text{A/g}$]	142
Number of measurement axes	1

Accuracy / deviations

Linearity deviation	0,2 %
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Operating conditions

Ambient temperature [$^{\circ}\text{C}$]	-30...125
Note on ambient temperature	cULus: < 85 °C
Storage temperature [$^{\circ}\text{C}$]	-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