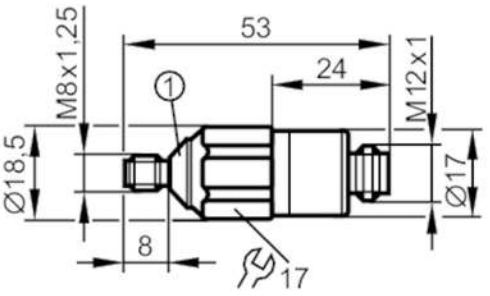
VSA001

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 %
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