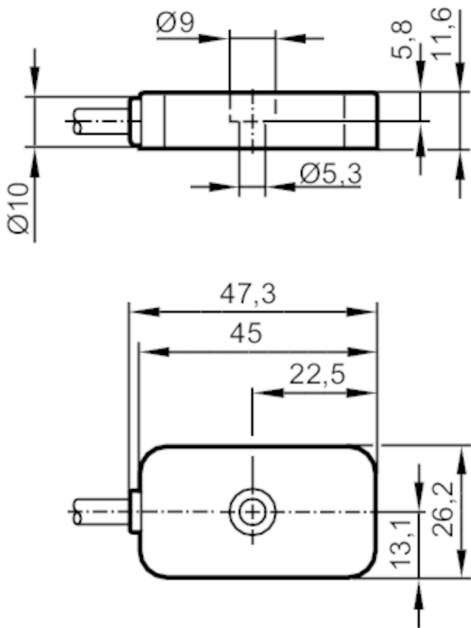


VSM101



Accelerometer
VIBRATION SENSOR



Product characteristics		
Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	0...4500
Measuring principle		capacitive
Application		
System		screened cable; Drag chain suitability
Electrical data		
Bias voltage DC	[V]	11...16
Operating current	[mA]	4...6
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Type of sensor		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

VSM101



Accelerometer

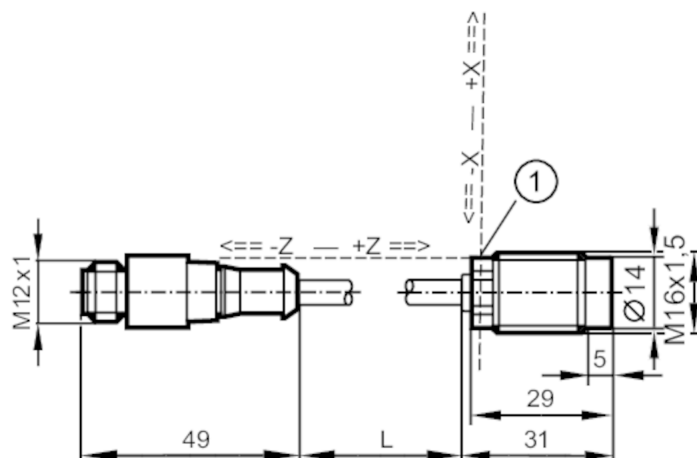
VIBRATION SENSOR

[% 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	1
	voltage supply	Limited Voltage/Current
	UL approval number	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
Material		housing: stainless steel (1.4404 / 444)
Tightening torque	[Nm]	3.5
Drag chain suitability		yes
Drag chain suitability	Bending radius for flexible applications	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 mm)
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Cable: 3 m, PUR, Ø 4.9 mm, screened; Maximum cable length: 250 m; screen (connected to the housing); 5 x 0.14 mm ²		
brown IEPE X		
white IEPE Z		
blue GND		
black self-test		
grey IEPE Y		
yellow screen		



Accelerometer

VIBRATION SENSOR



1 marking for X axis



Product characteristics

Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	1...4500
Measuring principle		capacitive

Application

System	Drag chain suitability
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Electrical data

Bias voltage DC	[V]	13...16
Operating current	[mA]	4...10
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Type of sensor		Microelectromechanical system (MEMS)

Measuring/setting range

Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	1...4500
Measuring principle		capacitive
Max. transverse sensitivity	[%]	5
Number of measurement axes		2

Accuracy / deviations

Measuring sensitivity		100 mV/g
Linearity deviation	[% of the span]	2

Operating conditions

Ambient temperature	[°C]	-30...85
Storage temperature	[°C]	-30...85

VSM102



Accelerometer

VIBRATION SENSOR

Protection	IP 67
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Tests / approvals

EMC	EN IEC 61000-6-2	
	EN IEC 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]		1233
UL approval	Ta	≤ 75 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	File number UL	E251902

Mechanical data

Weight	[g]	79.7	
Type of mounting		M16 x 1,5	
Material		housing: stainless steel (1.4404 / 316L)	
Tightening torque	[Nm]	8	
Drag chain suitability		yes	
Drag chain suitability		Bending radius for flexible applications	min. 10 x cable diameter
		Bending radius for fixed installation	min. 4 x cable diameter

Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 0.6 m, PUR, Ø 4.9 mm; 4 x 0.14 mm²

Connector: 1 x M12; coding: A

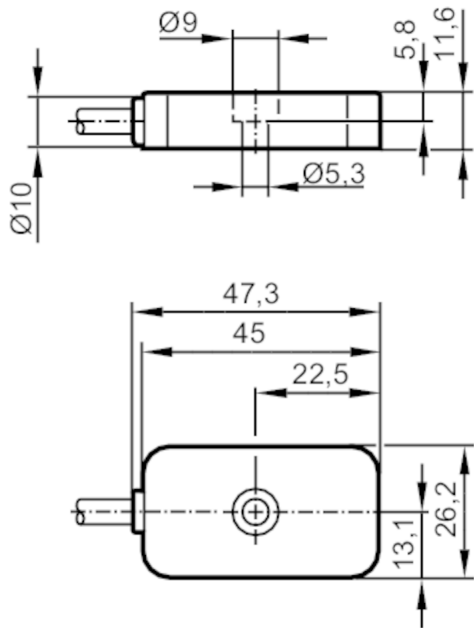


- 1 IEPE X
- 2 IEPE Z
- 3 GND
- 4 Test

VSM103

Accelerometer

VIBRATION SENSOR



Product characteristics		
Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	0...4500
Measuring principle		capacitive
Application		
System		screened cable; Drag chain suitability
Electrical data		
Bias voltage DC	[V]	11...16
Operating current	[mA]	4...6
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Type of sensor		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

VSM103



Accelerometer

VIBRATION SENSOR

[% 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	1
	voltage supply	Limited Voltage/Current
	UL approval number	L005
	File number UL	E251902

Mechanical data

Weight	[g]	105.6
Type of mounting		mounting screw
Dimensions	[mm]	26.2 x 47.3 x 11.6
Material		housing: stainless steel (1.4404 / 444)
Tightening torque	[Nm]	3.5
Drag chain suitability		yes
Drag chain suitability	Bending radius for flexible applications	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 mm)
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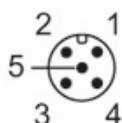
Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 0.3 m, PUR, Ø 4.9 mm, screened; Maximum cable length: 250 m; screen (connected to the housing); 5 x 0.14 mm²

Electrical connection - M12 connector

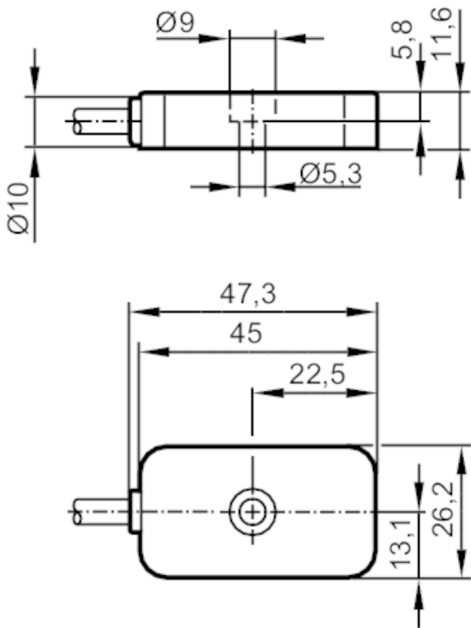


- | | |
|---|-------------------|
| 1 | brown = IEPE X |
| 2 | white = IEPE Z |
| 3 | blue = GND |
| 4 | black = self-test |
| 5 | grey = IEPE Y |

VSM104



Accelerometer
VIBRATION SENSOR



Product characteristics		
Measuring range of vibration	[g]	-40...40
Frequency range	[Hz]	0...4500
Measuring principle		capacitive
Application		
System		screened cable; Drag chain suitability
Electrical data		
Bias voltage DC	[V]	11...16
Operating current	[mA]	4...6
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Type of sensor		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

VSM104



Accelerometer

VIBRATION SENSOR

[% 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	1
	voltage supply	Limited Voltage/Current
	UL approval number	L003
	File number UL	E251902

Mechanical data

Weight	[g]	427.6
Type of mounting		mounting screw
Dimensions	[mm]	26.2 x 47.3 x 11.6
Material		housing: stainless steel (1.4404 / 444)
Tightening torque	[Nm]	3.5
Drag chain suitability		yes
Drag chain suitability	Bending radius for flexible applications	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 mm)
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Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 10 m, PUR, Ø 4.9 mm, screened; 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