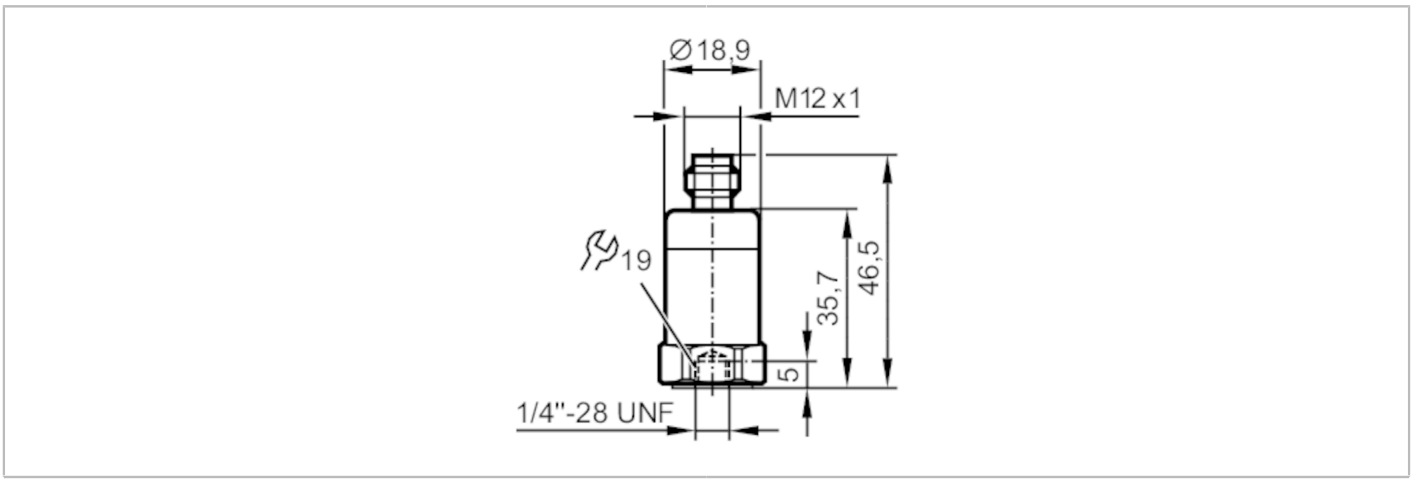
VSP001

Accelerometer

VIBRATION SENSOR



Product characteristics		
Measuring range of vibration	[g]	-80...80; (-50...50 g when connected to a VSE)
Frequency range	[Hz]	2...10000
Measuring principle		piezoelectric
Communication interface		IEPE
Application		
Design		for connection to external diagnostic electronics VSE
Electrical data		
Bias voltage DC	[V]	10...12
Current consumption	[mA]	0.5...8
Min. insulation resistance	[MΩ]	100; (500 V DC)
Reverse polarity protection		yes
Measuring/setting range		
Measuring range of vibration	[g]	-80...80; (-50...50 g when connected to a VSE)
Frequency range	[Hz]	2...10000
Measuring principle		piezoelectric
Noise density	[mg]	0.1
Max. transverse sensitivity	[%]	5
Minimum measuring time	[s]	2
Number of measurement axes		1
Accuracy / deviations		
Accuracy		± 5 %
Measuring sensitivity		100 mV/g
Interfaces		
Communication interface		IEPE
Operating conditions		
Ambient temperature	[°C]	-55...125
Storage temperature	[°C]	-55...125

VSP001

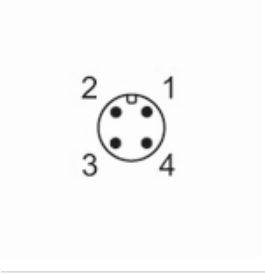
Accelerometer

VIBRATION SENSOR

Protection		IP 67	
Tests / approvals			
EMC		EN 61326-1	: 2013
Shock resistance			5000 g
MTTF	[years]	1142	
Mechanical data			
Weight	[g]	73.5	
Type of mounting		set screw	
Material		housing: stainless steel	
Tightening torque	[Nm]	8	
Accessories			
Items supplied		Set screws	
Remarks			
Pack quantity		1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A; Maximum cable length: 1000 m

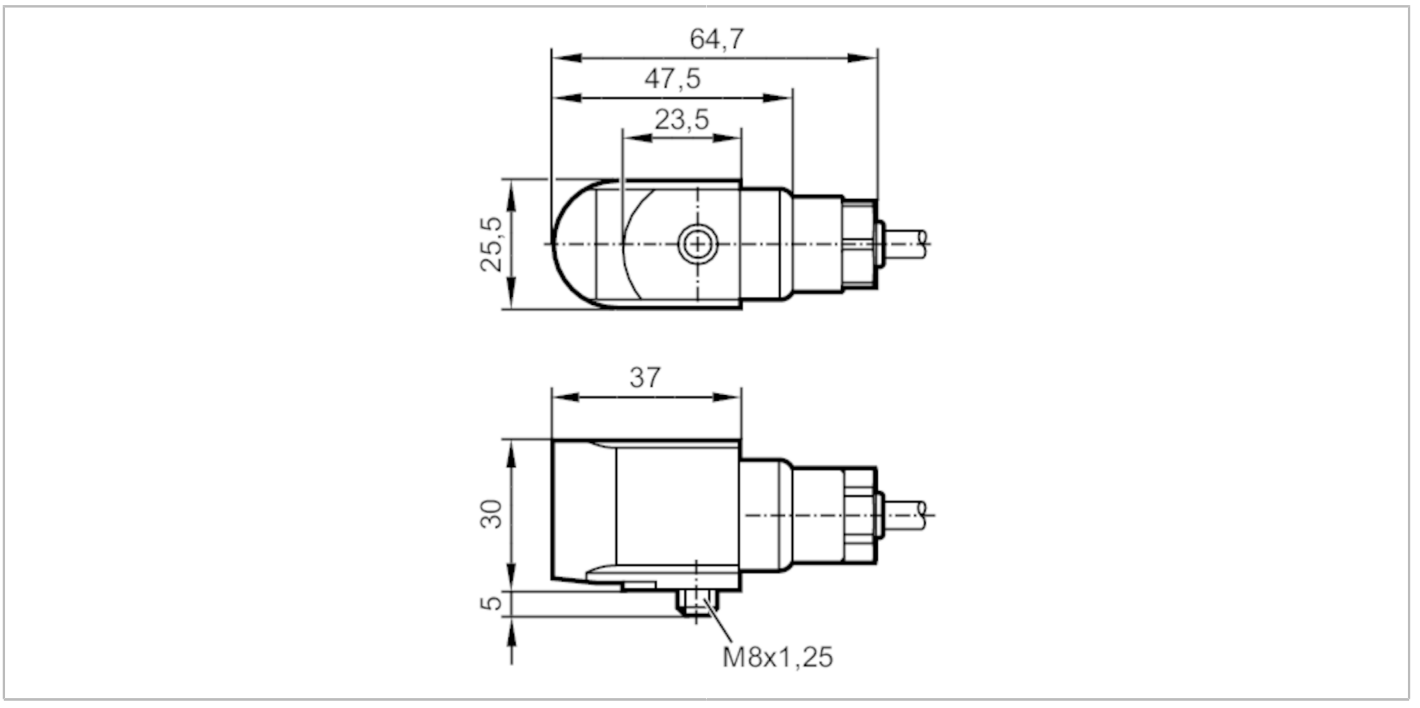


1	not used
2	IEPE +
3	not used
4	IEPE -

VSP01A

Accelerometer

VIBRATION SENSOR ATEX



Product characteristics		
Measuring range of vibration	[g]	-50...50
Frequency range	[Hz]	2...10000
Measuring principle		piezoelectric
Application		
Design		for connection to external diagnostic electronics VSExxx
Electrical data		
Switching amplifiers		Connection to intrinsically safe supply isolators (Ex ia)
Operating voltage	[V]	10...12 DC
Current consumption	[mA]	0.5...8
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Outputs		
Max. load	[Ω]	200
Short-circuit protection		yes
Overload protection		yes
Measuring/setting range		
Measuring range of vibration	[g]	-50...50
Frequency range	[Hz]	2...10000
Measuring principle		piezoelectric
Sensitivity	[mV/g]	100
Noise density	[mg]	0.1
Max. transverse sensitivity	[%]	5

VSP01A

Accelerometer

VIBRATION SENSOR ATEX

Minimum measuring time	[s]	2	
Number of measurement axes		1	
Operating conditions			
Ambient temperature	[°C]	-55...90	
Storage temperature	[°C]	-55...90	
Protection		IP 68; (water-proof up to: 100 m 10 bar; restrictions for 1D applications: IP 65)	
Tests / approvals			
Approval		Baseefa12ATEX0248X; IECEx BAS 12.0133 X	
ATEX marking		II 1G Ex ia IIC T4 Ga (-55°C < Ta < +90°C)	
		II 1D Ex ia IIIC T110°C IP65 Da (-55°C < Ta < +90°C)	
		II 1G Ex ia IIC T6 Ga (-55°C < Ta < +60°C)	
		II 1D Ex ia IIIC T80°C IP65 Da (-55°C < Ta < +60°C)	
EMC		EN 61000-6-2	2005
		EN 61000-6-4	2007
Shock resistance			5000 g
Mechanical data			
Weight	[g]	778.3	
Type of mounting		M8 x 1,25	
Dimensions	[mm]	30 x 25.5 x 64.7	
Material		housing: stainless steel	
Tightening torque	[Nm]	8	
Accessories			
Accessories (optional)		Safety barrier, ZB0633	
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

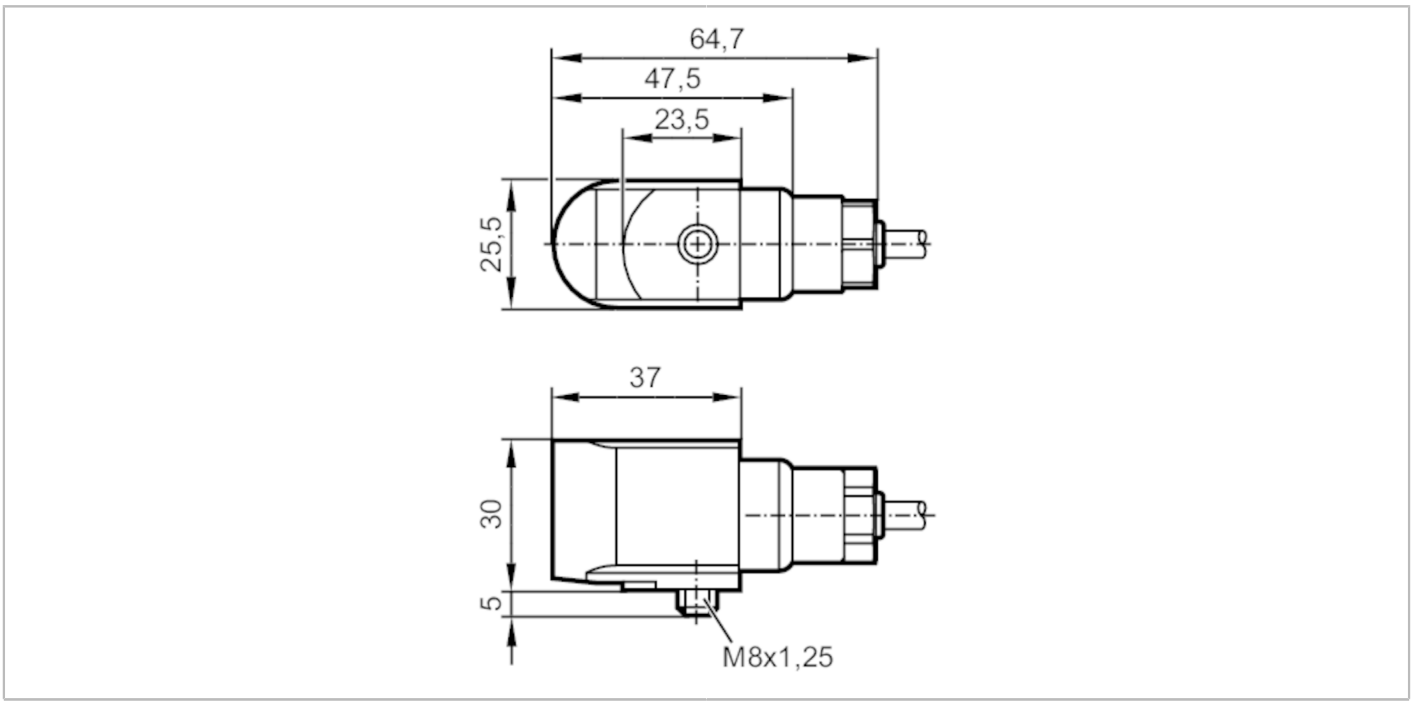
Cable: 10 m, PUR

white	IEPE +
black	IEPE -
screen	drain wire

VSP02A

Accelerometer

VIBRATION SENSOR ATEX



Product characteristics		
Measuring range of vibration	[g]	-50...50
Frequency range	[Hz]	2...10000
Measuring principle		piezoelectric
Application		
Design		for connection to external diagnostic electronics VSExxx
Electrical data		
Switching amplifiers		Connection to intrinsically safe supply isolators (Ex ia)
Operating voltage	[V]	10...12 DC
Current consumption	[mA]	0.5...8
Protection class		III
Reverse polarity protection		yes
Outputs		
Max. load	[Ω]	200
Short-circuit protection		yes
Overload protection		yes
Measuring/setting range		
Measuring range of vibration	[g]	-50...50
Frequency range	[Hz]	2...10000
Measuring principle		piezoelectric
Sensitivity	[mV/g]	100
Noise density	[mg]	0.1
Max. transverse sensitivity	[%]	5
Minimum measuring time	[s]	2

VSP02A

Accelerometer

VIBRATION SENSOR ATEX

Number of measurement axes		1
Operating conditions		
Ambient temperature	[°C]	-55...90
Storage temperature	[°C]	-55...90
Protection		IP 68; (1D application: IP 65)
Tests / approvals		
Approval		Baseefa12ATEX0247; IECEx BAS 12.0132
ATEX marking		I M1 Ex ia I Ma (-55°C < Ta < +90°C)
EMC		EN 61000-6-2
		EN 61000-6-4
Shock resistance		5000 g
Mechanical data		
Weight	[g]	669
Type of mounting		M8 x 1,25
Dimensions	[mm]	30 x 25.5 x 64.7
Material		housing: stainless steel
Tightening torque	[Nm]	8
Accessories		
Accessories (optional)		Safety barrier, ZB0633
Remarks		
Pack quantity		1 pcs.
Electrical connection		

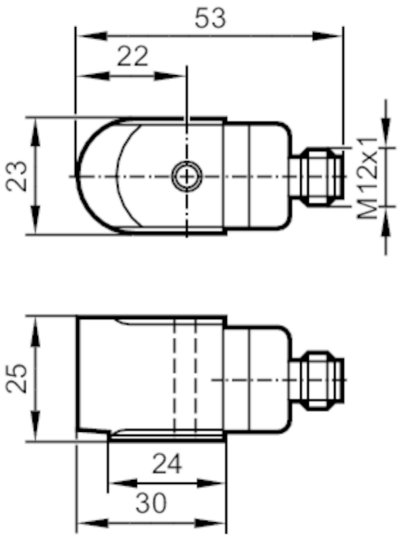
Cable: 10 m, PUR

white	IEPE +
black	IEPE -
screen	drain wire

VSP003

Accelerometer

VIBRATION SENSOR



Product characteristics		
Measuring range of vibration	[g]	-80...80; (-50...50 g when connected to a VSE)
Frequency range	[Hz]	1.5...16000
Measuring principle		piezoelectric
Communication interface		IEPE
Application		
Design		for connection to external diagnostic electronics VSE
Electrical data		
Bias voltage DC	[V]	10...12
Current consumption	[mA]	0.5...8
Min. insulation resistance	[MΩ]	100; (500 V DC)
Reverse polarity protection		yes
Measuring/setting range		
Measuring range of vibration	[g]	-80...80; (-50...50 g when connected to a VSE)
Frequency range	[Hz]	1.5...16000
Measuring principle		piezoelectric
Noise density	[mg]	0.1
Max. transverse sensitivity	[%]	5
Minimum measuring time	[s]	1
Number of measurement axes		1
Accuracy / deviations		
Accuracy		± 10 %
Measuring sensitivity		100 mV/g
Interfaces		
Communication interface		IEPE

VSP003

Accelerometer

VIBRATION SENSOR

Operating conditions		
Ambient temperature	[°C]	-55...130
Storage temperature	[°C]	-55...130
Protection		IP 67

Tests / approvals			
EMC		EN 61326-1	: 2013
Shock resistance		EN 61326-1	: 2013
MTTF	[years]	1142	

Mechanical data		
Weight	[g]	135
Type of mounting		M8 x 1,25
Material		housing: stainless steel
Tightening torque	[Nm]	8

Remarks	
Pack quantity	1 pcs.

Electrical connection

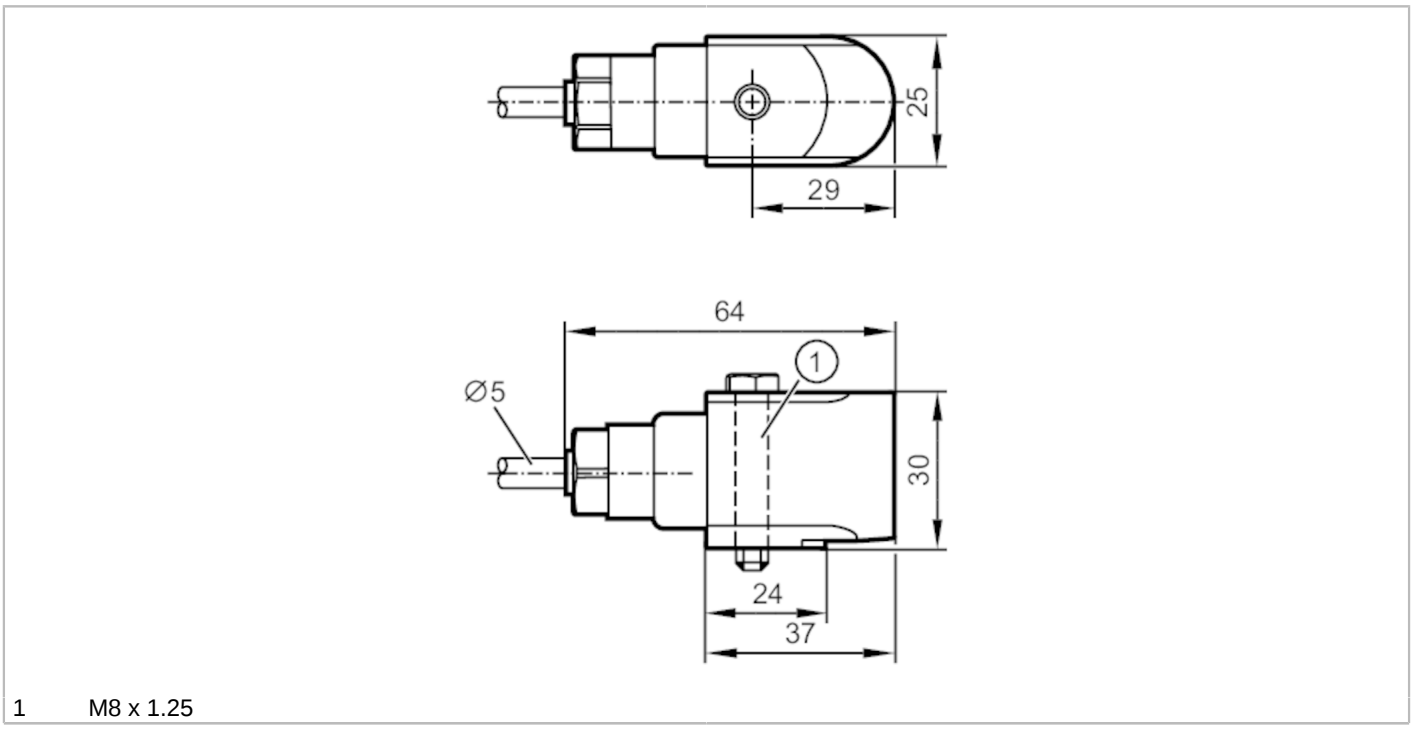
Connector: 1 x M12; coding: A

1	not used
2	IEPE +
3	not used
4	IEPE -

VSP004

Accelerometer

VIBRATION SENSOR SUBMERSIBLE



1 M8 x 1.25

Product characteristics		
Measuring range of vibration	[g]	-80...80; (-50...50 g when connected to a VSE)
Frequency range	[Hz]	1.5...12000
Measuring principle		piezoelectric
Communication interface		IEPE
Application		
System		screened cable
Design		for connection to external diagnostic electronics VSE
Electrical data		
Bias voltage DC	[V]	10...12
Current consumption	[mA]	0.5...8
Min. insulation resistance	[MΩ]	100; (500 V DC)
Reverse polarity protection		yes
Measuring/setting range		
Measuring range of vibration	[g]	-80...80; (-50...50 g when connected to a VSE)
Frequency range	[Hz]	1.5...12000
Measuring principle		piezoelectric
Noise density	[mg]	0.1
Max. transverse sensitivity	[%]	5
Minimum measuring time	[s]	2
Number of measurement axes		1
Accuracy / deviations		
Accuracy		± 10 %

VSP004

Accelerometer

VIBRATION SENSOR SUBMERSIBLE

Measuring sensitivity		100 mV/g	
Interfaces			
Communication interface		IEPE	
Operating conditions			
Ambient temperature	[°C]	-50...150	
Storage temperature	[°C]	-20...80	
Max. relative air humidity	[%]	80; (50 °C; 50 % non condensing)	
Protection		IP 68; (water-proof up to 100 m 10 bar)	
Tests / approvals			
EMC		EN 61326-1	: 2013
Shock resistance		EN 61326-1	: 2013
Mechanical data			
Weight	[g]	1892	
Housing		rectangular	
Type of mounting		M8 x 1,25	
Dimensions	[mm]	30 x 25 x 64	
Material		housing: stainless steel	
Tightening torque	[Nm]	8	
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

Cable: 25 m, PTFE coated, blue, screened

white	IEPE +
black	IEPE -
screen	drain wire