

GENERAL DESCRIPTION

The accelerometer is suitable for a large range of applications. This sensor is a fiber optic version of the conventional accelerometer but completely passive, offering inherent insensitivity to environmental induced noise.

TECHNICAL DESCRIPTION

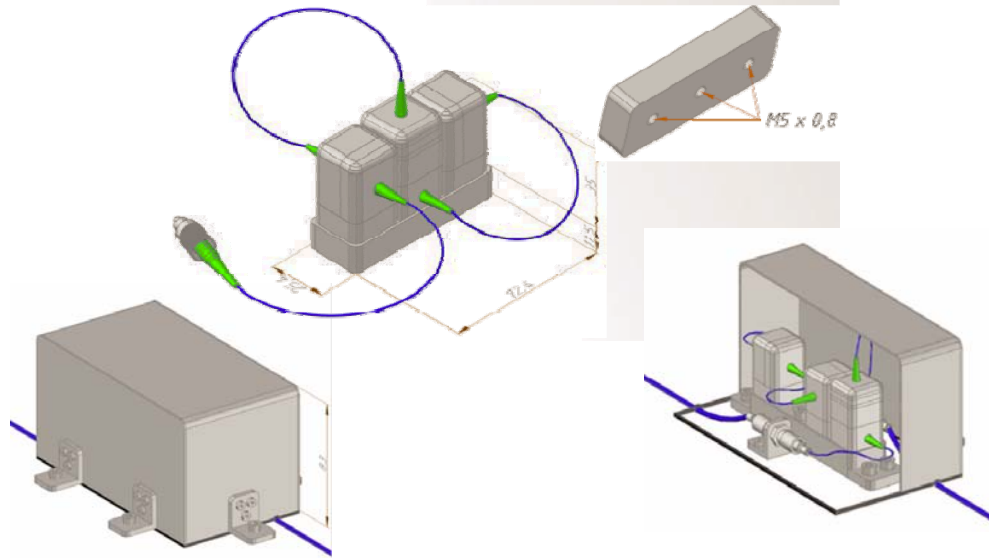
The accelerometer features high accuracy and resolution, and total fiber optic design ensuring intrinsic immunity to electric sparks and EMI/RFI. The torlon® option for the accelerometer head makes it suited for applications where there is the need for a passive element with non-metallic parts.

Compatible with most common FBG measurement units, the accelerometer combines compact size, high resistance to corrosion and harsh environments, and long-term reliability. It's also suitable for remote sensing being possible to locate it several kilometers away from the measurement unit. It offers intrinsic multiplexing capability that allows the concatenation of a large number of sensors in a single optical fiber. This sensor is therefore particularly suitable for difficult-to-reach locations and large scale sensing networks.

FEATURES

- High sensitivity
- Light weight sensor head
- Intrinsically safe design
- Immunity to EMI/RFI
- Compatible with most FBG measurement units
- Total dielectric design

SENSOR DRAWINGS



TECHNICAL CHARACTERISTICS

Sensitivity	7 pm/g (min), 9 pm/g (typical), 11 pm/g (max)
Frequency range	0 to 400 kHz 0 to 600 kHz
Measuring range	40 g
Accuracy	0.1 pm/ $\sqrt{\text{Hz}}$ (typical) ⁽¹⁾
Measurement range	-20 to +80 °C ⁽¹⁾
Resolution ⁽²⁾	±12.5 mg
Operating temperature	-20 to 80° C
Relative humidity	< 90% at 80 °C
Packaging	Aluminum or Torlon®
Dimensions	35 x 20 x 20 mm
Weight	30 g

	Type	WL	Type	WL	Type	WL
Standard Wavelengths	A	1528.9 nm (X)	F	1560.8 nm	K	1516.1 nm
	B	1535.1 nm (Y)	G	1567.2 nm	L	1522.5 nm
	C	1541.5 nm (Y)	H	1573.8 nm		
	D	1547.9 nm (Z)	I	1580.2 nm		
	E	1554.3 nm	J	1586.6 nm		
<i>Other available Wavelength on request</i>						

⁽¹⁾ Depends on used Measurement Unit

⁽²⁾ Dynamic

ORDERING INFORMATION

12.1030 MuST Mono-axial Tiltmeter
 12.1031 MuST Bi-axial Tiltmeter
 12.1032 MuST Tri-axial Tiltmeter

Needed option: Fixing support for up to 3 accelerometers, incl. Connector L-Bracket with mating adapter FC-APC/FC-APC
 Needed option: Protection cover outdoor stainless steel