



### 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

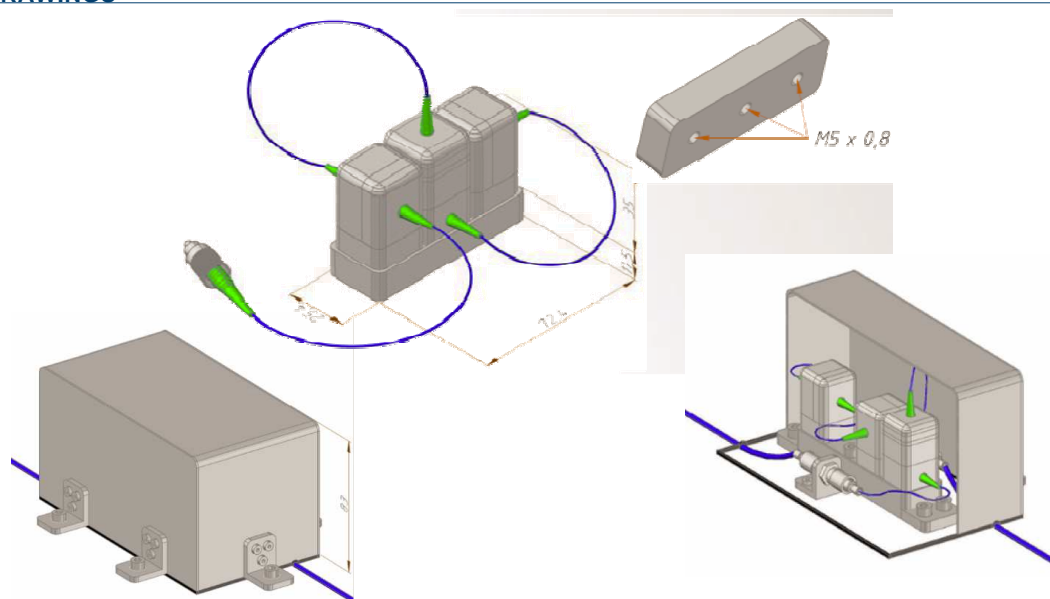
The accelerometer features high accuracy and resolution, and total fiber optic design ensuring intrinsic immunity to electric sparks and EMI/RFI. The torlon® option for the accelerometer head makes it suited for applications where there is the need for a passive element with non-metallic parts.

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

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

	Type	WL	Type	WL	Type	WL
<b>Standard Wavelengths</b>	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>						

<sup>(1)</sup> Depends on used Measurement Unit

<sup>(2)</sup> 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