


SmartAccel-LF Sensor

Key Features

- FBG Acceleration Sensor
- 10 g (100 ms⁻²) Range
- Zero Power, EMI Immune, Intrinsically Safe
- Dense Multiplexing Capability
- Multiple km Signal Integrity for High Remote Measurements

About SmartAccel-LF

SmartAccel-LF is a single axis FBG acceleration sensor, suitable for low frequency measurement of small vibrations. The sensor is ideal for the measurement of structural responses to dynamic stimuli, for instance buildings during earthquakes, wind turbines under gust loading, ship hulls under wave loading. Numerous SmartAccel-LF sensors can be multiplexed with our range of other fibreoptic sensors to form an integrated structural health monitoring system. Where higher amplitude or higher frequency vibrations are present, for instance in rotating machine condition monitoring, our [SmartAccel-HF](#) sensor is recommended.

For each of our SmartAccel products, tri-axis acceleration modules are available.

Specifications

Parameter	Value
Measurement Range	± 10 g
Bandwidth	0 to 50 Hz (resonance typ. ~430 Hz)
Sensitivity	typ. 75 pm/g
Resolution	12.5/sqrt (Hz)
Operating Temperature Range	-20 to +80 °C
Dimensions	73 x ø 53 mm
Mass	250 g

Specifications may change without notice

Ordering Information

Product Type	FBG Wavelengths
S-AccelLF	X
	A
	B
	C
	D
	E
	F

Order code example:

S-AccelLF-D

Variant Description	Variant Options	Variant Code
FBG Wavelengths	1535.1	A
	1541.5	B
	1547.9	C
	1554.3	D
	1560.8	E
	1567.2	F