

- ◇ **FBG acceleration sensor**
- ◇ **40g (400 ms⁻²) range**
- ◇ **Zero power, EMI immune, intrinsically safe**
- ◇ **Dense multiplexing capability**
- ◇ **Multiple km signal integrity for highly remote measurements**
- ◇ **Suitable for rotating machine condition monitoring**



SmartAccel-40g sensor

SmartAccel-40g is a single axis FBG acceleration sensor, suitable for high frequency measurement of large amplitude vibrations. Ideal for the measurement of rotating machines, the sensor output can offer early warning of drivetrain mechanical degradation. Numerous SmartAccel-40g sensors can be multiplexed with our range of other fibreoptic sensors to form an integrated condition monitoring system. SmartAccel-40g is designed and manufactured by Gavea Sensors, Brazil. Where lower amplitude or lower frequency vibrations are present, for instance in civil structures, our SmartAccel-2g sensor is recommended.

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

SmartAccel-40g specifications (typ):

	Unit	
Measurement Range	g	+/- 0 to 40
Bandwidth †	Hz	0 to 1,000 (resonance >1.3 kHz)
Sensitivity	pm/g	typ 4~10 (@ 80 Hz)
Measurement noise †	g	Typ sqrt(Hz)/1000
Operating Temperature Range	°C	-20 to +80
Dimensions	mm	35 x 20 x 20
Weight	gr	30
Typical FBG Type	Wavelengths (nm): 1530 – 1570 Apodised profile R>80% FWHM<0.8nm SLSR >10 dB	
Fibre Type	Single Mode SMF-28, 9/125µm	

‡ higher frequency sensors under development
† with 1 pm resolution interrogator (e.g. W5)