

- **FBG acceleration sensor**
- **High frequency range**
- **High temperature operation**
- **200 g dynamic range**
- **Zero power, EMI immune, intrinsically safe**
- **Dense multiplexing capability**
- **Multiple km signal integrity for highly remote measurements**



SmartAccel-HF sensor

SmartAccel-HF is a single axis FBG acceleration sensor, suitable for high frequency measurement of small vibrations. The sensor is ideal for condition monitoring of rotating machines such as pumps, turbines, motors and wheeled vehicles. Numerous SmartAccel-HF sensors can be multiplexed with our range of other fibreoptic sensors to form an integrated structural health monitoring system.

A high-resolution, high-speed FBG interrogator is required in order to fully exploit the capabilities of SmartAccel-HF. We recommend our [SmartScan](#) or [SmartScan Aero](#) instruments.

Where lower frequency vibrations are present, for instance in civil engineering applications, our [SmartAccel-LF](#) sensor is recommended.

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

SmartAccel-HF specifications:

Model	SAHFLT	SAHFHT
Typical sensitivity at 159.2 Hz	2.0 to 2.5 pm/ms ⁻²	
Frequency range (±10 % amplitude)	DC to 900 Hz	
Mounted resonance frequency	> 3 kHz	
Dynamic range (peak)	±1000 ms ⁻²	
Broadband noise ¹	Estimated < 0.1 ms ⁻²	
Temperature range	-60 to +85 °C	-60 to +200 °C
Temperature sensitivity	~ 10 pm/°C	
Thermal transient sensitivity	~ 0.1 ms ⁻² /°C	
Mass	~ 25 g	
Dimensions	16.5 x 19 x 29 mm	
Mounting method	10-32 UNF-2A x 3.5 mm threaded hole for stud mounting	

¹with SmartScan interrogator

