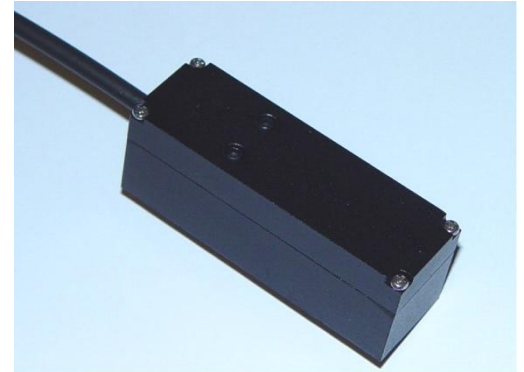


SSA-100 High Sensitivity Fiber Bragg Grating Accelerometer

Aniber's SSA-100 Fiber Bragg Grating-based accelerometer is designed for high precision vibration measurement with an accuracy better 0.1 G* under wide temperature operation range of -60 °C – 100 °C. This sensor is particular suitable for vibration measurement in transportation, energy as well as civil and structure industries. The SSA-100 employs two FBGs and therefore thermal effect can be completely isolated with this differential output configuration. Wavelengths of 850nm and 1550nm with standard operational measurement range of +/- 10 G are available. The 850 nm version of SSA-100 can be easily configured in conjunction with our FSI-800/FSI-800E High-Speed Fiber Sensor Interrogators.



* Depends on interrogator wavelength measurement accuracy

Key Features

- High Sensitivity
- Series Connection with Other Sensors
- Wide Operational Temperature Range
- Self Temperature Compensated
- Custom Measurement Range Available

Other Sensors for

- Inclination
- Temperature
- Vibration
- Displacement
- Strain

Measurement are Available.

PLEASE CONTACT US FOR MORE INFORMATION!

SPECIFICATIONS

PERFORMANCE PROPERTIES		
Operation Wavelength	815 – 875 nm	1510 – 1590 nm
Sensitivity	13 pm/G typ. ¹	24 pm/G typ. ²
Measurement Range	+/- 10 G	
Resolution	0.1 G	
Operation Frequency	DC – 100 Hz	
Maximum Operation Shock	100 G	
Operation Temperature	-60 °C – 100 °C	
PHYSICAL PROPERTIES		
Dimension (W x D x H)	22 mm x 58 mm x 18 mm	
Weight	62 gram	
Material	Steel / Aluminium Alloy	
Fastening Method	Bolt On with M4 taped hole/ Epoxy	
OPTICAL PROPERTIES		
FBG Peak Reflectivity	>70 %	
FBG FWHM (-3 dB)	0.25 nm (+/- 0.05 nm)	
FBG Isolation ³	>15 dB	
Optical Fiber Type	HI780 compatible	SMF-28e compatible
Cable Length	1 m (other on request)	
Cable Type	3 mm HDPE outdoor cable (other on request)	
Optical Connector	2 x FC/APC (others on request)	

1 Sensor with dual FBGs configuration, defined as the change of the wavelength difference of the two FBGs.

2 Typical value for single FBG configuration, dual FBGs configuration is available on request.

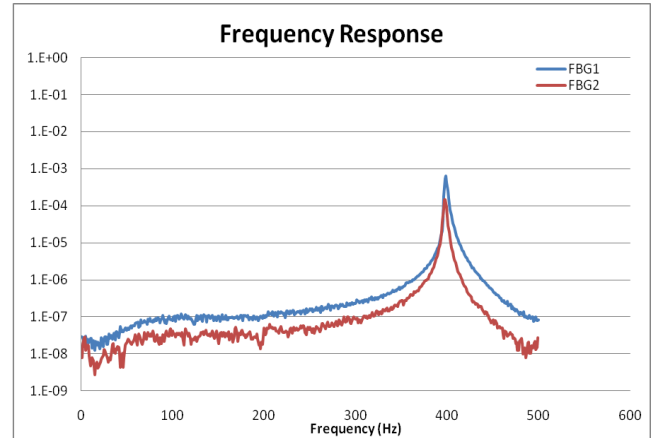
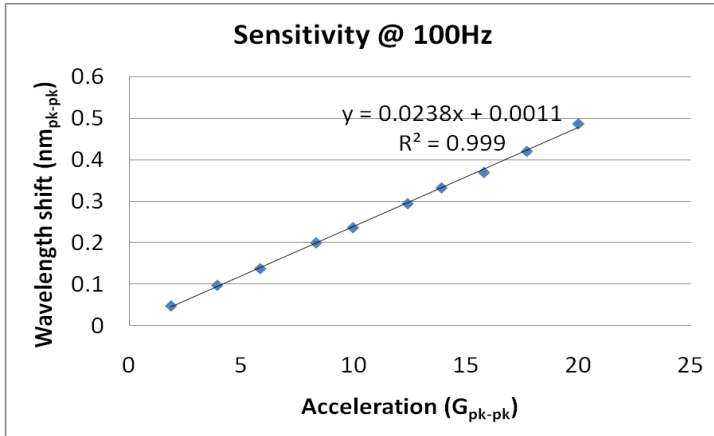
3 At +/- 0.4 nm of center wavelength.

Specifications are subjected to change with a view of enhancing system performance without prior notice.
Design and specifications can be customized to suit a range of customer requirements.

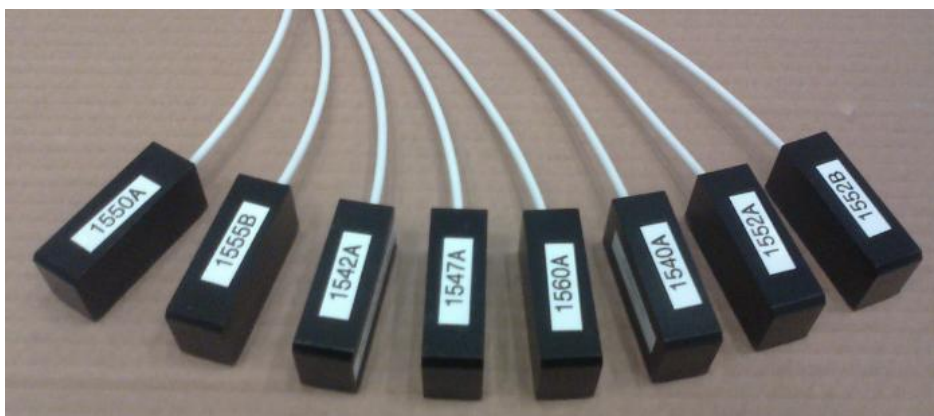
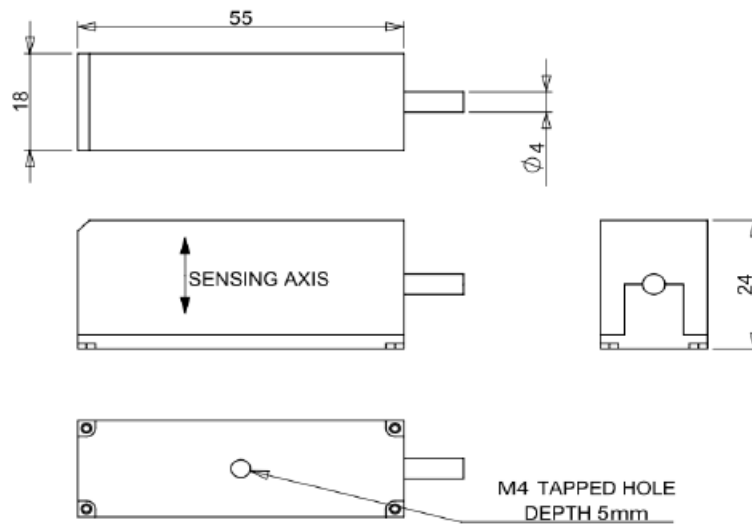


SSA-100 High Sensitivity Fiber Bragg Grating Accelerometer

TYPICAL PERFORMANCE (1550 FBG)



DIMENSIONS



Many accelerometers can be connected in series.

Specifications are subjected to change with a view of enhancing system performance without prior notice.
Design and specifications can be customized to suit a range of customer requirements.

