

# SST-300 High-Sensitivity Fiber Bragg Grating Inclinometer

Aniber's SST-300 Fiber Bragg Grating based inclinometer is designed for high precision inclination measurement with an accuracy better than 0.01 degree\* under wide temperature operation range of -20 °C – 80 °C. This sensor is particular suitable for tilt angle measurement in civil and structure engineering applications. The SST-300 employs two FBGs, therefore thermal effect can be completely isolated with this differential output configuration. Wavelengths of 850nm and 1550nm with standard operational measurement range of +/- 5 degree.

\* Depends on interrogator wavelength measurement accuracy

## Key Features

- Ultra-high Sensitivity
- Wide Operational Temperature Range
- Self Temperature Compensated
- Custom Measurement Range Available

## Other Sensors Available!

- Displacement
- Temperature
- Vibration
- Acceleration
- Strain

**PLEASE CONTACT US FOR MORE INFORMATION!**

## SPECIFICATIONS

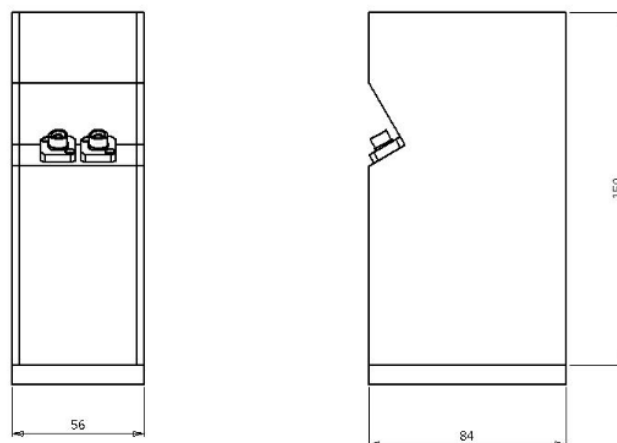
PERFORMANCE PROPERTIES		
Operation Wavelength	815 – 875 nm	1510 – 1590 nm
Measurement Range	+/- 5 degree	+/- 5 degree
Resolution	0.01 degree	0.01 degree
Operation Temperature	-20 °C – 80 °C	
Sensitivity <sup>1</sup>	250 pm/degree typ.	400 pm/degree typ.
PHYSICAL PROPERTIES		
Dimension (W x D x H)	84 mm x 56 mm x 150 mm	
Weight	2.2 kg	
Material	Body – Steel; Case – Aluminium	
Fastening Method	Bolt On with 2 x M6 taped holes	
OPTICAL PROPERTIES		
FBG Peak Reflectivity	>70 %	
FBG FWHM (-3 dB)	0.25 nm (+/- 0.05 nm)	
FBG Isolation <sup>2</sup>	>15 dB	
Optical Fiber Type	HI780 compatible	SMF-28e compatible
Cable Length <sup>3</sup>	1 m (other on request)	
Cable Type <sup>3</sup>	3 mm armored cable	
Optical Connector	2 x FC/APC (others on request)	

1 Sensitivity defined as the change of the wavelength difference of the two embedded FBGs.

2 At +/- 0.4 nm of center wavelength.

3 Inclinometer version with cable

## DIMENSIONS



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.

