

Green Technologies
For a Safer and Better Living
In Smart City



Fiber Bragg Grating Inclinometer (Model#: OIC-100)

- 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 sensor employs two FBGs, therefore thermal effect can be completely isolated with this differential output configuration. Wavelength of 1550nm with standard operational measurement range of +/- 5 degree. (*Depends on interrogator wavelength measurement accuracy)

Features

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

Specification	
PERFORMANCE PROPERTIES	
Operation Wavelength	1550 nm
Measurement Range	+/- 5 degree
Resolution	0.01 degree
Operation Temperature	-20 °C – 80 °C
Sensitivity ¹	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 (+/- 0.5 nm)
FBG Isolation ²	>15 dB
Optical Fiber Type	SMF-28e compatible
Cable Length ³	1 m (other on request)
Cable Type ³	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.

*The Company reserves the right to make any changes without prior notice.

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Driving Innovation Technologies for Smart Cities



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