

FBG-Standard SD

Applications

- Tunnel linings
- Buildings
- Bridges
- Landslides
- Dams

Features

- Immune to EMI and short circuits
- Low noise long distance signal transmission
- Connecting multiple sensors to a common optical fiber



Description

The segmented deflectometer (SD) measures deflections between the two segments against a central hinge in a single plane, with high resolution. Housed in anodized aluminum tubing, the sensor is equipped with a specially designed fiber optic/mechanical connector (patent pending) for quick and easy installation in the field with no exposure of any optical fiber. The spring loaded wheels are compatible with commonly used inclinometer casings. The deflection profile of a structure along any linear direction can be monitored with an array of SD sensors. The FBG signals are connected to an FBG interrogator via Cable (patent pending) developed by Citpo.

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Specifications	FBG-Standard SD
Physical Properties	
Operating Temp. Range	0 to 80°C
Angle measurement range	±10°, ±20°
Resolution ¹	<0.02% Full scale range
Accuracy	±0.2% Full scale range
Connectors	MPO/APC
Length	0.5m
Dimensions	φ19mm
Weight	~200g
Optical Properties	
Peak Reflectivity (Rmax)	>70%
FWHM (-3dB point)	0.25nm(±0.05nm)
Notes:	
1. Dependent on FBG interrogator.	

Ordering Information	FBG7100-XX-19-05-15YY
XX: Angle measurement range	
10: ±10°	
20: ±20°	
YY: FBG Wavelength	
Standard: 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84	