

FBG Strain and Temperature Sensors



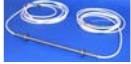
Description

Fibre Bragg Grating (FBG) sensors can be delivered bare or packaged for measuring strain on stiff surfaces or inside of objects. Bare sensors provide greatest flexibility to cater for any applications. Robust surface mountable and embeddable sensors enable monitoring of any structures during construction stage, after completion and throughout their lifetime. All sensors are fabricated with either single or multiple FBGs with or without temperature compensations.

Advantages

- Suitable for long-term permanent Structural Health Monitoring (SHM)
- No calibration needed
- One cable can have up to 64 sensors
- Simple installation
- Cable can run kilometers, no length limit
- FOS uses light signal, no electrical sparking, intrinsically safe to oil or flammable environment
- No Electro Magnetic Interference(EMI), suitable for electrical, power and nuclear plants, etc.

Specifications

	Bare Sensor	Surface Bondable Sensor	Embeddable Sensor
			
	Standard		Premium
Wavelength	1280~1340; 1520~1620nm		800~1620nm
Reflectivity	90~99%		
FWHM	< 0.3nm*		
Side Lobe Suppression	20dB		25dB
Strain Limit	± 10,000 µstrain		
Operating Temperature	-10~120°C		-40~800°C
Termination	Bare fibre, FC/PC, FC/APC, ST, SC/PC, SC/APC, DIN, SMA		
Packaging	Bare fibre re-coated, packaged or assembled		

* Can be customised

Specifications subjected to change

Other FBG sensors and assembled devices, etc.:

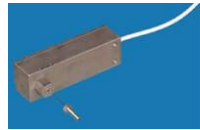
Long gauge surface mountable and RC embeddable sensor



Stay Cable Sensor



Displacement Meter



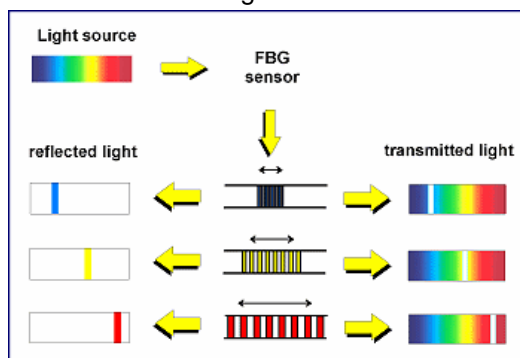
Façade sensor



Fibre Optic Tools



Working Scheme



Spectral Characteristics

