

# Minimized & Reusable FBG Strain Sensor

FS1000

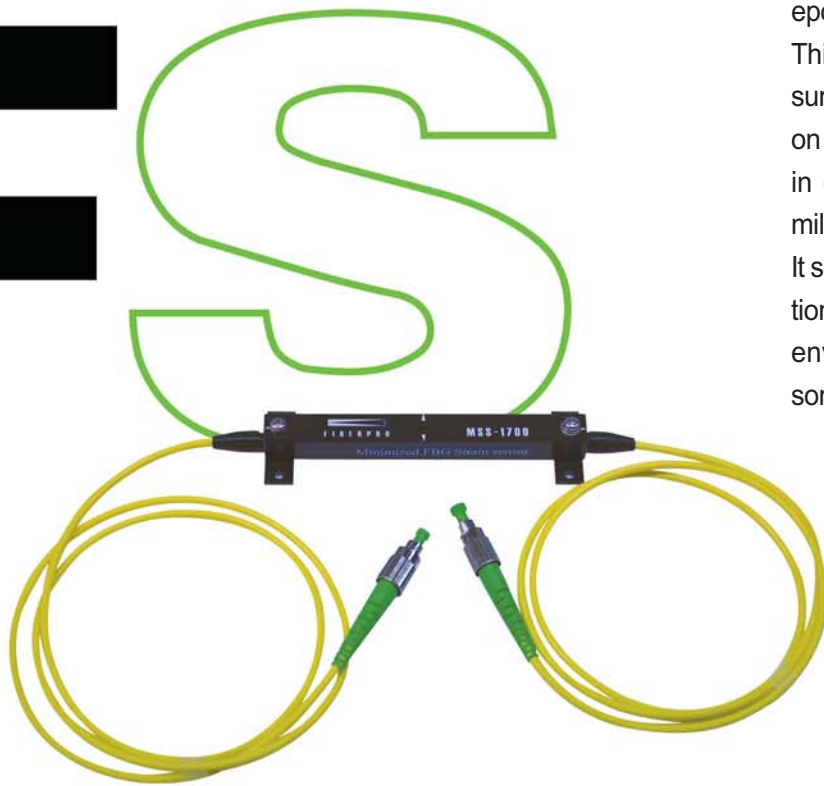
High accuracy & Long term stability measurement

Minimized size strain package sensor

This FBG strain sensor can be reused by attaching on the surface with screw and epoxy in additional plate.

This package mountable strain sensor measures directly strain and small displacements on the surface of bridge, building, in-structure in civil engineering, aerospace, energy and military application.

It's very easy to attach and remove it installation. It provides accurate test result in harsh environmental conditions and several sensors can be connected in series.



***Available series-connection  
& Customized design***

## **Features**

- Minimized size strain package sensor
- Easy to install & remove
- Reused type
- High accuracy & Long term stability

## Specifications

Center Wavelength Range <sup>1)</sup>	1510 ~ 1590 nm
Center Wavelength Tolerance	- 0.5 nm
Reflectivity	> 90%
FWHM	† 0.3 nm
Strain Range <sup>2)</sup>	-500 ~ 5000 $\mu\epsilon$ (pre-strain 500 $\mu\epsilon$ )
Fiber Type	SMF-28 Acrylate/Polyimide Recoating
Strain Sensitivity	1.20 pm/ $\mu\epsilon$
Temperature Sensitivity	11 pm/ $^{\circ}\text{C}$
Proof Test	100 Kpsi
Pigtailed Length <sup>3)</sup>	1m (on each side)
Connector Type	FC/APC
Operating Temperature	-20 $^{\circ}\text{C}$ ~ 80 $^{\circ}\text{C}$
Dimensions (W x D x H) <sup>4)</sup>	165mm x 106mm x 23.5mm

1) Customer selectable

2) Without any special request for pre-stain we set out 500  $\mu\epsilon$  in order to measure contractive result before installation of strain sensor

3) The fiber length can be decided according to the customer request

4) The sensor size can be decreased according to the customer request

## Fiber Bragg Grating sensor

**FBG sensors offer several significant advantages over conventional electrical sensors.**

**FIBERPRO** can provide a wide range of sensors to measure all kinds of physical parameters like: **temperature, strain, pressure, displacement, acceleration, inclination, water leakage, humidity, etc.**

Available for customized FBG sensors by **FIBERPRO** for your application!



**FIBERPRO Headquarters** Tel : +82-42-360-0030 Fax : +82-42-360-0050  
**FIBERPRO USA** Tel : +1-408-835-7796 Fax : +1-408-521-0402  
**FIBERPRO CHINA** Tel : +86-27-8663-5497 Fax : +86-27-8663-5701  
www.fiberpro.com sales@fiberpro.com