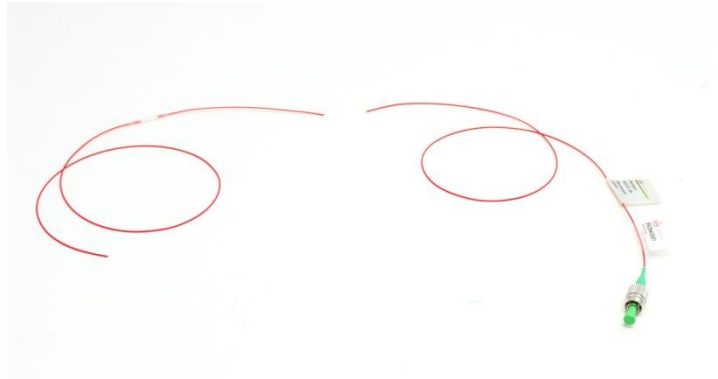


## FFA-01 FBG Fiber array

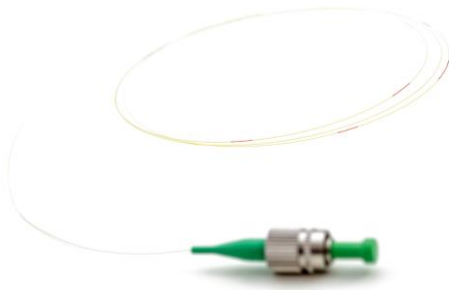
### Basic characteristic

- ▲ FFA-01 is a fiber array with configurable number of FBG elements and their spacing over the fiber length.
- ▲ FFA-01 is typically used for direct gluing to the measured surface to capture strain changes of the monitored structure.



### Benefits

- ▲ Surface-mountable using dedicated glues.
- ▲ Effectively replacing numbers of individual sensors with multiple sensors in one-fiber-array design.



### Applications

- ▲ Strain changes detection
- ▲ Vibration monitoring
- ▲ Material deformation monitoring

### Customization options

- ▲ Number of FBG elements
- ▲ Length spacing of FBG elements
- ▲ Spectral characteristic of FBG's
- ▲ Fiber coating material<sup>1)</sup>
- ▲ Connectors, protection tubing

<sup>1)</sup> FBG element always covered with Polyimide

### Performance properties

Strain range	±3000με
Accuracy (guaranteed)	<0.3% FS
Accuracy (typical)	<0.25% FS
Precision (guaranteed)	<0.15% FS
Precision (typical)	<0.10% FS
Temperature compensation	External
Operating Temperature range	-20°C to +80°C
Ingress Protection rating	N/A

## FFA-01 FBG Fiber array

Grating properties	Typical (standard)	Customizable
FBG wavelength range	1510 - 1590 nm	1460 - 1640 nm
Nominal (central) wavelength tolerance	± 200 pm	--
Reflectivity	around 40%	1 - 99 %
FWHM between (3dB bandwidth)	450 - 550 pm	0,1 - few nm
SLSR (side lobe suppression)	> 15 dB	up to 20 dB
PDFS (polarization depended WL shift)	< 5pm	--
FBG length	< 5 mm	5-12 mm
Fiber coating	Polyimide	Ormocer, others
Fiber type	Bend insensitive	Pure silica

### Physical properties

Active FBG element length <sup>1)</sup>	5-12mm
Active gluing length	Around 30mm
Fiber Bend Radius	10mm
Connector type <sup>2)</sup>	FC/APC
Mounting method	Direct surface gluing

<sup>1)</sup> Depends on the selected spectral shape

<sup>2)</sup> Other connector types available on request

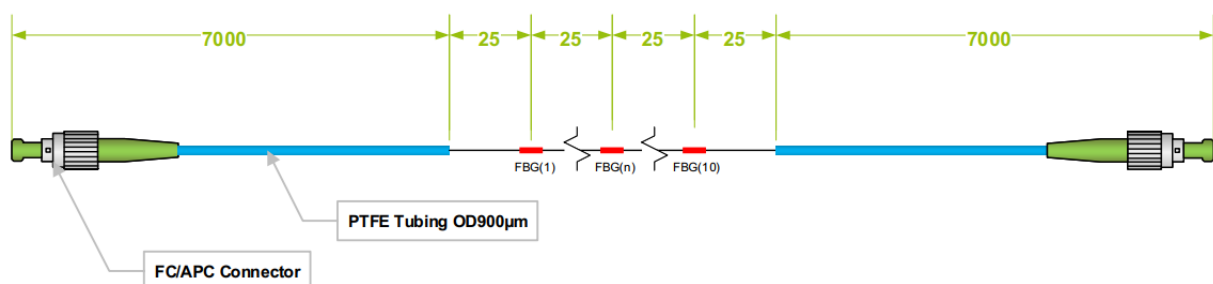
### Packaging

Cardboard box with dimensions: 370x290x45mm

### Quality statement

All sensors are 100% tested and calibrated at SYLEX  
 Sensor is manufactured according to ISO 9001:2008 and ISO 14001:2004  
 Sensor is compliant with IEC 61757-1-1:2016/Ed1.0 and IEC 61757:2018

### Product example



For more information contact our sales team at [sales@sylex.sk](mailto:sales@sylex.sk)

\* Specifications are subject to change without notice