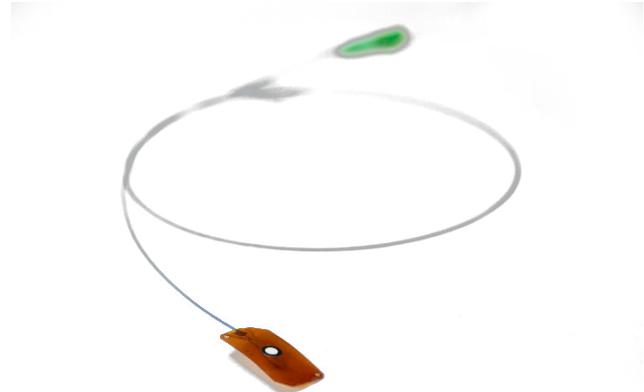


## SF-01 Strain foil sensor

### Basic characteristic

- ▲ SF-01 is an FBG strain sensor based on a traditional foil gauge
- ▲ SF-01 is typically used for direct gluing to the measured surface to capture strain
- ▲ SF-01 does not contain internal temperature compensation



### Benefits

- ▲ Easy and fast installation
- ▲ Highly adaptive to uneven surfaces
- ▲ Custom shapes and designs available upon request

### Applications

- ▲ Strain monitoring on several structures
- ▲ Vibration monitoring
- ▲ Material deformation monitoring

### Performance properties

Strain range	±3000µε
Accuracy (guaranteed) <sup>1)</sup>	<0.35% FS <sup>3)</sup>
Accuracy (typical) <sup>1)</sup>	<0.18% FS <sup>3)</sup>
Precision (guaranteed) <sup>2)</sup>	<0.15% FS <sup>3)</sup>
Precision (typical) <sup>2)</sup>	<0.10% FS <sup>3)</sup>
Temperature sensitivity	9.5pm/K
Strain sensitivity	1.2pm/µε
Operating Temperature range	-20°C to +80°C
Ingress Protection rating	IP 67

<sup>1)</sup> Accuracy is established for each sensor under laboratory conditions, and it includes hysteresis, non-linearity, and repeatability of the sensor. The guaranteed value is determined based on the largest absolute error found in this sample. The typical value is determined based on the average absolute error found in this sample.

<sup>2)</sup> Precision is established on a batch basis and includes hysteresis, non-linearity, repeatability, and reproducibility of the sensor. The guaranteed value is determined based on the largest absolute error found in this sample. The typical value is determined based on the average absolute error found in this sample.

<sup>3)</sup> FS: full-scale.

## SF-01 Strain foil sensor

### Physical properties

Housing material	Polyimide
Gauge length	around 7mm
Dimensions (without cable) <sup>1)</sup>	25 mm x 12.5 mm x 0.3mm
Weight (without cable)	10g
Cable type	550µm PEEK tubing
Cable length <sup>2)</sup>	1m
Cable Bend Radius (dynamic)	11mm
Cable Bend Radius (static)	5.5mm
Connector type <sup>3)</sup>	LC/APC
Mounting method	Gluing

<sup>1)</sup> See the product drawing for further dimensional details

<sup>2)</sup> Cable length is extendable upon request

<sup>3)</sup> Other connector types available upon request

### Packaging

Cardboard box – dimensions depending on the final configuration.

### Quality statement

SF-01 sensor is compliant with IEC 61757-1-1:2016/Ed1.0 and IEC 61757:2018

All sensors are 100% tested and calibrated at SYLEX

The sensor is manufactured according to ISO 9001:2008 and ISO 14001:2004

### Optional accessories

- ▲ **LCP-03 Longer cable pigtails** – used to extend the cable lengths from 1m up to 20m

\* Specifications are subject to change without notice