

## MS-01 Mountable strain sensor

### Basic characteristic

- ▲ Short gauge strain sensor with 8-10cm measuring base (gauge length).
- ▲ MS-01 offers measuring of strain changes in  $\mu\epsilon$  or  $\mu\text{m}$  units between its own anchoring points.
- ▲ Pre-strain setup during installation up to  $\pm 5000\mu\epsilon$ .
- ▲ MS-01 can be connected in series configuration.



### Benefits

- ▲ Can be both concrete embedded and surface mounted.
- ▲ Adjustable pre-strain during installation.
- ▲ Customizable gauge length.

### Applications

- ▲ Strain monitoring
- ▲ Rebar strain or force monitoring (also embedded in concrete)
- ▲ Combined with TP-02 temperature sensor the MS-01 offers temperature compensated strain monitoring.

### Performance properties

Strain range <sup>1)</sup>	$\pm 5000\mu\epsilon$	[+/-200 $\mu\text{m}$ or 0-400 $\mu\text{m}$ ]
Accuracy (guaranteed) <sup>2)</sup>	<0.50% FS <sup>4)</sup>	<2 $\mu\text{m}$
Accuracy (typical) <sup>2)</sup>	<0.23% FS <sup>4)</sup>	<1 $\mu\text{m}$
Precision (guaranteed) <sup>3)</sup>	<0.25% FS <sup>4)</sup>	<1 $\mu\text{m}$
Precision (typical) <sup>3)</sup>	<0.15% FS <sup>4)</sup>	<0.6 $\mu\text{m}$
Temperature compensation	External	
Operating Temperature range	-20°C to +60°C	
Ingress Protection rating <sup>5)</sup>	IP 67	

<sup>1)</sup> Calibrated in  $\mu\text{m}$  on demand

<sup>2)</sup> Accuracy is established for each individual sensor under laboratory conditions and it includes hysteresis, non-linearity and repeatability of the sensor.

<sup>3)</sup> Precision is established on a batch basis and it includes hysteresis, non-linearity, repeatability and reproducibility of the sensor.

<sup>4)</sup> FS: full scale range

<sup>5)</sup> On demand upgradable to IP68

## MS-01 Mountable strain sensor

### Physical properties

Housing material	Stainless steel SS316L
Anchoring distance	80 up to 100mm
Dimensions (without cable) <sup>1)</sup>	Ø12 mm x 176 mm [Washer Ø24 mm]
Weight (without cable)	600g
Cable type	3mm Dyneema reinforced cable
Cable length <sup>2)</sup>	1mtr
Cable Bend Radius (dynamic)	40mm
Cable Bend Radius (static)	30mm
Connector type <sup>3)</sup>	FC/APC
Mounting method	Mounting brackets

<sup>1)</sup> For further dimensions details see the product drawing

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

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

### Packaging

Cardboard box with dimensions: 370x290x45mm

### Quality statement

MS-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

Sensor is manufactured according to ISO 9001:2008 and ISO 14001:2004

### Optional accessories

- ▲ **MBM-01 Mounting brackets** – used for sensor mounting to the measured object. Brackets can be screwed, glued or welded to the surface.
- ▲ **WCP-01 Watertight connector protection** – used for FC/APC connector protection during the installation against dust and water – IP67 rated.
- ▲ **LCP-03 Longer cable pigtails** – used to extend the cable lengths from 1mtr up to 20mtr.

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

\* Specifications are subject to change without notice