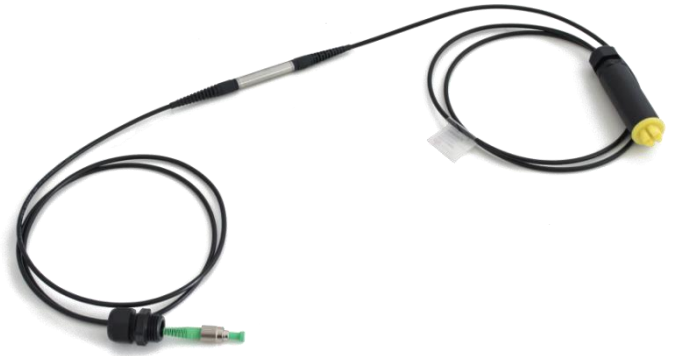## TP-03   Temperature sensor

Basic characteristic

The TP-03 is a temperature sensor based on the FBG technology featuring ruggedized housing capable of deploying the sensor in harsh environments. The sensor construction allows the installation of the sensor to the measured surface or embedded into the concrete. TP-03 can be connected in a series configuration.

Benefits

▲ Surface-mountable or embeddable into the concrete.

▲ Ruggedized construction with possibilities of daisy chain multiple sensors into one network.

Applications

▲ Temperature measurement.

▲ Temperature compensation of strain sensors (typically with MS-03 or ES-03).

Performance properties

Operational temperature range	-20°C up to +60°C
Peak temperature endurance	up to +80°C
Temperature accuracy (guaranteed)[1]	1°C
Temperature accuracy (typical)[1]	<1°C
Temperature precision (guaranteed)[2]	±0,3°C
Temperature precision (typical)[2]	±0,2°C
Temperature resolution	0,05°C
Temperature sensitivity	28pm/°C
Ingress Protection rating	IP 67

[1] Accuracy is established for each sensor under laboratory conditions and it includes hysteresis, non-linearity, and repeatability of the sensor.

[2] Precision is established on a batch basis and it includes hysteresis, non-linearity, repeatability, and reproducibility of the sensor.

TP-03   Temperature sensor

Physical properties

Housing material	Stainless steel SS316L
Dimensions (without cable) [1]	Ø8 mm x 139 mm
Weight (without cable)	130g
Cable type	3mm Dyneema reinforced cable
Cable length [2]	1mtr
Cable Bend Radius (dynamic)	40mm
Cable Bend Radius (static)	30mm
Connector type [3]	FC/APC
Mounting method	Custom or embeddable

[1] For further dimensions details see the product drawing
[2] Cable length is extendable on request
[3] Other connector types available on request

Packaging

Cardboard box with dimensions: 370x290x45mm

Quality statement

TP-03 sensor is compliant with 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

▲ **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.

▲ **TPS-01 Temperature probe spot-weldable plate** – used to allow the sensor to be attached to the monitored surface vis spot-welding technology. The TPS-01 is factory pre-installed on the sensor body.

For more information contact our sales team at sales@sylex.sk
* Specifications are subject to change without notice

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