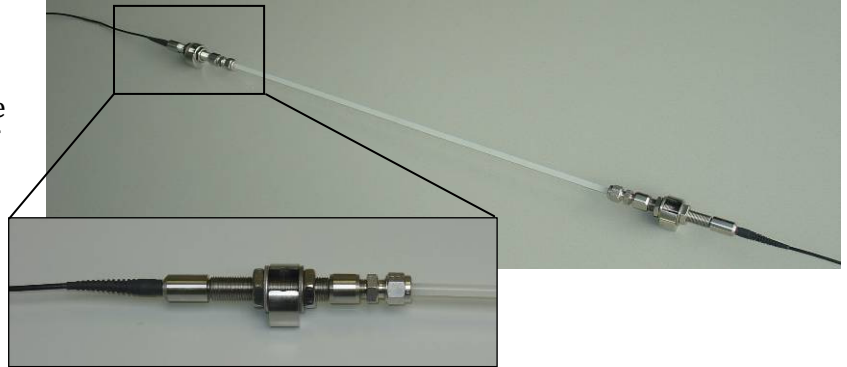


Strain Cable SC-01

Description

The fibre optic Strain Cable SC-01 is a long base strain gage which can be mounted on a structure by means of two anchoring points. The standard gage length can be chosen between 1 and 5 meters. The sensor has a connector at both ends in order to make series configurations possible.



Features

- Detection of strain changes over various base lengths.
- Sensors can be placed in series and hereby reducing the cabling to a minimum
- The displacement can be derived from the distance between the anchoring points.
- Monitoring compression as well as tension.
- Watertight and ruggedized housing, applicable in harsh environments.

Applications

Health monitoring of structures, crack and fissure formation in (concrete) walls, monitoring of mining sites, tunnels, boreholes, pipelines, ... The anchoring points can be bolted or welded onto the structure. Then the sensor is attached to these anchoring points by means of nuts. During mounting, some pre-tension can be applied on the sensor by means of the nuts in order to monitor besides elongation also compression. When large temperature variations are expected, a temperature sensor is recommended for compensation purposes.

Standard specifications

Parameter	Value
Strain resolution ¹	0.85 $\mu\epsilon$
Strain precision ¹	1.7 $\mu\epsilon$
Strain range ²	5000 $\mu\epsilon$
Temperature range ³	-20 °C to +60 °C
Gage length ³	1 m to 5 m
Cable diameter	6 mm
Cable material	PA
Fixation type	M12 x 1.25
Housing material	SS316
Pigtail diameter	3 mm
Pigtail length ³	1.5 m
Pigtail material	LDPE
Connector type	FC/APC
Water tightness ⁴	IP68

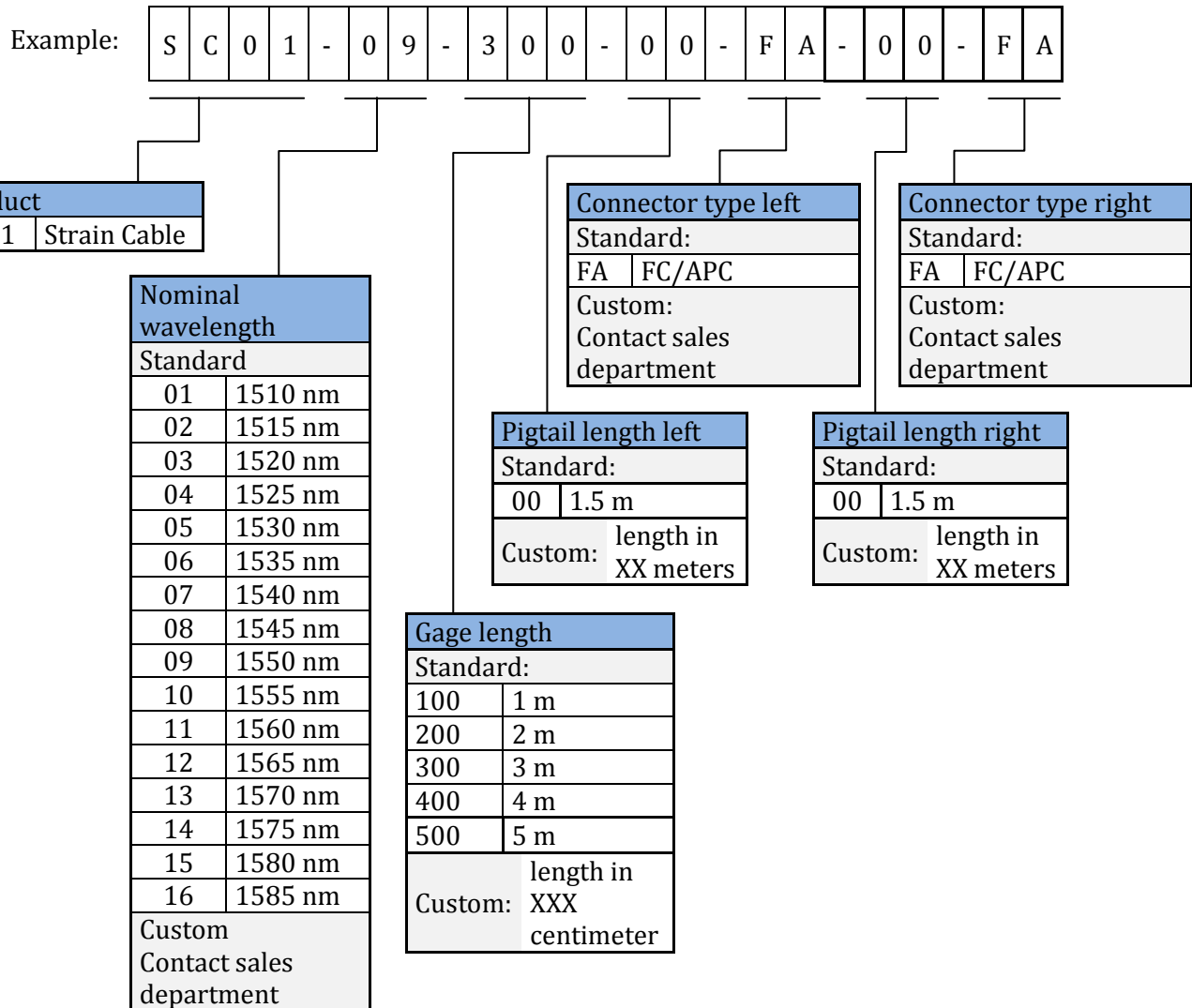
¹ Taking into account a depolarized measurement device with a 1 pm wavelength resolution and precision.

² When compression measurements are required, the sensor needs to be installed with some pre-strain.

³ Extendable on request.

⁴ Watertight at 10 bar for 12 hours.

Ordering information



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