

Displacement Sensor D-01

Description

The displacement sensor D-01 makes use of the intrinsic strain sensitivity of the FBG in order to measure displacements up to 8 cm. The sensor is foreseen of a sliding mechanism that allows the sensor tip to be displaced. The zero position of the sensor tip can be either inwards (to detect outward



movements, away from the sensor housing) or outwards (inward movements, towards the sensor housing). The sensors are all standard equipped with a second FBG that is meant for temperature compensation.

Features

- Measurement of displacements in a range up to 8 cm.
- Displacement in both directions (inward or outward movement), depending on the sensor
- Temperature compensation by means of a second FBG.

Applications

The displacement sensor D-01 can be applied for various positioning measurements.

Standard specifications

Parameter	Unit	Value
Displacement accuracy ¹	-	1% FS
Displacement sensitivity	nm/FS	> 2
Displacement range	mm	20 / 50 / 80
Temperature range	℃	-10 to +60
FBG wavelength ²	nm	1510 to 1590
Housing material	-	SS316
Pigtail diameter	mm	3
Pigtail length ³	m	1.5
Pigtail material	-	LDPE
Connector type	-	FC/APC

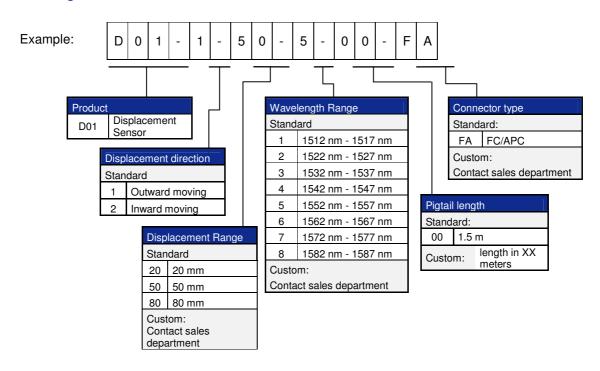
The sensor accuracy does not contain error sources originating from the read-out equipment.

² The FBG is in fact a Draw Tower Grating (DTG) i.e. written in the fibre while drawing it, see www.fbgs-technologies.com for further information.

Extended on request.



Ordering information



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