

Pressure Sensor P-01

Description

The fibre optic pressure sensor makes use of the intrinsic strain sensitivity of the FBG in order to measure pressures ranging from 1 up to 150 bar. The head of the sensor can be foreseen with a thread that allows connecting the sensor to pipelines, valves, vessels or to a porous stone so that the sensor can be used to measure ground water pressures. The sensor is equipped with a second FBG for temperature compensation purposes.



Features

- Pressure ranges from 1 up to 150 bar
- Temperature compensation by means of a second FBG
- The FBGs are Draw Tower Gratings (DTGs) which ensure good quality and durability of the sensor
- Watertight and ruggedized housing, applicable in harsh environments
- Optionally extendable with a porous stone to measure ground water pressures

Applications

- The pressure sensor can be applied for flow control and liquid level measurements in reservoirs and all sorts of pipelines.
- It can also be applied to measure ground water pressures using the porous stones as accessory tool

Standard specifications

Parameter	Unit	Value
Pressure range	bar	1/5/10/20/50/100/150
Pressure accuracy ¹	-	1% FS
Pressure sensitivity	nm/FS	> 1
Temperature range	°C	-10 to +60
FBG wavelength ²	nm	1510 to 1590
Sensing head thread	-	M 18 x 1.0
Housing material	-	SS316
Pigtail diameter	mm	3
Pigtail length ³	m	1.5
Pigtail material	-	LDPE
Connector type	-	FC/APC
Water tightness ⁴	-	IP68

¹ 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.fbg-technologies.com for further information.

