

P-05 Pressure sensor

Basic characteristic

High-accuracy pressure gauge based on Fiber Bragg Grating (FBG) technology allowing for passive (electrical power-free) remote monitoring of relative or absolute pressure changes, for both liquid and gaseous environments.



Benefits

- ▲ 2-fiber port configuration allowing for chain formation with a variety of FBG-based sensors on single fiber line
- ▲ Extremely small drift (<0.5%FS/year)
- ▲ Very high accuracy and stability
- ▲ Customizable for different pressure ranges
- ▲ Ruggedized housing suitable for harsh environments
- ▲ The relative or absolute version available

Applications

- ▲ Industrial process control
- ▲ Machine monitoring
- ▲ (Hazardous) tank monitoring
- ▲ Geotechnical applications
- ▲ Marine & offshore applications

Performance properties

Measured parameter	Relative or Absolute Pressure ¹⁾
Pressure Range	1-100 bar ²⁾
Operating Temperature Range	-20°C to +60°C
Resolution	0.1% FS ³⁾
Accuracy	<1% FS ³⁾
Precision	<0.5% FS ³⁾
Operating Humidity Range	0 – 95% Relative Humidity
Burst Pressure	up to 150% FS ³⁾
Measurement rate	up to 100 measurements/second ²⁾
Ingress Protection rating	IP 67 ⁴⁾

¹⁾ Absolute pressure sensor available upon request

²⁾ Standard configuration includes pressure ranges: 1, 4, 7, 10, 15, 20, 50 and 100 bar. Other ranges are possible upon request. In case of water level monitoring the maximum range of the sensors is 20 bar (2MPa)

³⁾ FS: full-scale range

⁴⁾ IP68 ingress protection is available upon request

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Physical properties, Standard / Water level height version

Housing material	Stainless steel SS316L
Dimensions without cable	Ø30 x 121mm / Ø30 x 184mm
Weight (without cable)	400g / 550g
Cable type	3mm Dyneema reinforced cable / 6mm PA12 (Nylon) tube
Cable length ¹⁾	1mtr
Cable Bend Radius (dynamic)	40mm / 70mm
Cable Bend Radius (static)	30mm / 50mm
Connector type ²⁾	FC/APC
Pressure inlet thread	G1/8
Porous stone ³⁾	Optional – on request

¹⁾ Cable length is extendable on request

²⁾ Other connector types available on request

³⁾ MG40 316 sintered stainless steel (high permeability)

Packaging

Cardboard box with dimensions: 370x290x45mm

Quality statement

The 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

Design note

- ▲ For water level monitoring, the sensor will be standardly switched to „absolute“ pressure mode and equipped with subsea cable protection made from Nylon (PA12) with an OD of 6mm.

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.

For more information contact our sales team at sales@sylex.sk

* Specifications are subject to change without notice