

## Pressure Sensor P-01

### Description

The fibre optic Pressure sensor measures pressures ranging from 1 up to 150 bar. The head of the sensor is 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 or sea water pressures. The sensor is equipped with an internal temperature sensor meant for temperature compensation.



### Features

- Fibre optic Pressure sensing within a range from 1 up to 150 bar
- Watertight and ruggedized housing, applicable in harsh environments
- Temperature compensation by means of an internal fibre optic temperature sensor
- Optionally extendable with a porous stone to measure ground or sea 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 and sea water pressures / levels using the porous stones as accessory tool.

### Standard specifications

Parameter	Value
Pressure range	1/ 5/ 10/ 20/ 50/ 100/ 150 bar
Pressure resolution <sup>1</sup>	≤ 0.125 % FS
Pressure precision <sup>1</sup>	≤ 0.25 % FS
Temperature range <sup>2,3</sup>	-20 °C to +60 °C
Sensing head thread	M 18 x 1.0
Housing material	SS316
Pigtail diameter	3 mm
Pigtail length <sup>3</sup>	1.5 m
Pigtail material	LDPE
Connector type	FC/APC
Water tightness <sup>4</sup>	IP68

<sup>1</sup> Taking into account a depolarized measurement device with a 1 pm wavelength resolution and precision.

<sup>2</sup> For the sensor, not for the connector. For the high temperatures, splicing is recommended.

<sup>3</sup> Extendable on request.

<sup>4</sup> Watertight at 10 bar for 12 hours.

## Optional accessories



- **Thread coupling:** An adaptor piece can be mounted on the sensor head so that the sensor can be connected to BSPP 1/8" (British Standard Parallel Pipe thread).



- **Porous stone:** The sensor can be applied to measure underground water pressures (pore water pressure) or sea water pressures. In this case, a porous stone is mounted on the sensor head. The stone is transparent for water and makes sure that the water pressure is transferred to the sensor. At the same time, it prevents soil and dirt to enter the sensing head. It should be noted that the stone should be soaked in soap water prior to installation onto the pressure sensor.

## Ordering information

Example:

P	0	1	-	0	1	0	-	5	-	0	-	0	0	-	F	A
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Product	
P01	Pressure Sensor

Pressure range	
Standard	
001	1 bar
005	5 bar
010	10 bar
020	20 bar
050	50 bar
100	100 bar
150	150 bar
Custom Contact sales department	

Wavelength range	
Standard	
1	1512 nm – 1517 nm
2	1522 nm – 1527 nm
3	1532 nm – 1537 nm
4	1542 nm – 1547 nm
5	1552 nm – 1557 nm
6	1562 nm – 1567 nm
7	1572 nm – 1577 nm
8	1582 nm – 1587 nm
Custom Contact sales department	

Pigtail length	
Standard:	
00	1.5 m
Custom:	length in XX meters

Connector type	
Standard:	
FA	FC/APC
Custom: Contact sales department	

Accessory	
Standard:	
0	None
1	Thread coupling to BSPP 1/8"
2	Porous Stone
Custom: Contact sales department	