Pressalis

Datasheet

Pressure data loggers

PR12

Compact wireless pressure sensor, tilt alarm



Self-contained NB-IoT or LoRaWAN sensor for cylinders and fire mains, up to 1000 bar, 3-year lithium cell.

Network	Battery life	Range	Accuracy
NB-IoT or LoRaWAN	**3 years, 12-hour heartbeat**	**0 to 10 up to 0 to 1000 bar**	**±1 % of span**

Overview

PR12 is a compact, self-contained wireless pressure sensor: a short cylindrical body on a male process connection, with a built-in 3.0 V lithium battery and no external wiring. It reports over NB-IoT on the 800, 900 and 1800 MHz bands, or over LoRaWAN, and sends a heartbeat every 12 hours. On that schedule the 1500 mAh battery lasts 3 years.

It is meant for points nobody visits often: gas suppression cylinders and fire extinguishers, sprinkler and hydrant mains, heating circuits and water pipelines in buildings. A tilt sensor raises an alarm when the unit is knocked 10° or more out of position, and alarms also go out on pressure loss and when the battery falls below 2.8 V.

Ranges run from 0 to 10 bar up to 0 to 1000 bar, with 0 to 300 bar as the default. Accuracy is ±1 % of span. Process connections are M20 x 1.5, G1/4 or M10 x 1, the housing is IP65, and it works from -20 to 80 °C at up to 95 % relative humidity without condensation.

Specifications

Measurement

Ranges	0 to 10 bar up to 0 to 1000 bar, default 0 to 300 bar
Accuracy	±1 % of span
Tilt alarm	At 10° or more after an impact, threshold settable
Alarms	Pressure loss, tilt, low battery

Medium and environment

Operating temperature	-20 to 80 °C
Relative humidity	95 % or less at 40 °C, non-condensing
Protection	IP65

Wireless and power

Network	NB-IoT or LoRaWAN
NB-IoT bands	800, 900 and 1800 MHz
Protocol	LwM2M (NB-IoT), LoRaWAN
Reporting	Heartbeat every 12 hours, alarms sent as they occur
Battery	Built-in 3.0 V lithium, 1500 mAh
Battery life	3 years at one heartbeat every 12 hours
Low battery alarm	Below 2.8 V
Standby current	10 µA or less

Mechanical

Process connection	M20 x 1.5, G1/4 or M10 x 1 male
Housing	Cylindrical body, no external cable

Common configurations

Any combination from the ordering code can be quoted. Other ranges and connections on request.

Range	Process connection	Network	Battery life	Order code
0 to 300 bar	M20 x 1.5	NB-IoT	3 years	**PR12-300-M20-NB**
0 to 300 bar	G1/4	LoRaWAN	3 years	**PR12-300-B2-LW**
0 to 300 bar	M10 x 1	NB-IoT	3 years	**PR12-300-M10-NB**
0 to 10 bar	G1/4	NB-IoT	3 years	**PR12-010-B2-NB**
0 to 1000 bar	M20 x 1.5	NB-IoT	3 years	**PR12-1000-M20-NB**

Ordering code

One code from each group, in this order. Example: **PR12-010-M20-NB**. Send the code and the quantity to **contact@pressalis.com** for a quote.

PR12	-	010	-	M20	-	NB
Model		Range		Process connection		Network

Range

010	0 to 10 bar
300	0 to 300 bar
1000	0 to 1000 bar
X	Other range, state in the request

Process connection

M20	M20 x 1.5 male
B2	G1/4 male
M10	M10 x 1 male

Network

NB	NB-IoT
LW	LoRaWAN