Pressalis

Datasheet

Pressure transmitters

PT12

Glass-fused pressure transmitter, 0.3 % grade



One-piece 17-4PH cell, no weld or O-ring, 6 to 600 bar gauge with 3 x range overpressure for hydraulics.

Range	Accuracy	Output	Overpressure
0 to 6 up to 0 to 600 bar	**±0.3 % or ±0.5 % of span**	**4 to 20 mA or voltage**	**3 x range, burst 5 x range**

Overview

PT12 uses silicon strain gauges glass-fused onto a 17-4PH stainless steel pressure chamber, machined from one piece with no weld and no O-ring in contact with the medium. Ranges run from 0 to 6 bar up to 0 to 600 bar gauge, at ±0.3 % or ±0.5 % of span, with ±0.1 % of span per year stability and compensation from -20 to 85 °C.

The one-piece cell takes 3 x range without damage and has a burst pressure of 5 x range. That margin suits hydraulic power units, presses, mobile machinery and high-pressure pumps, where spikes from valves and cylinders reach well above the working pressure. With no internal seal in contact with the medium, the same unit serves oil, water and air.

Outputs are 4 to 20 mA two-wire, or 0 to 5 V, 0 to 10 V or 0.5 to 4.5 V three-wire, with surge and reverse polarity protection. The 22 mm body takes DIN 43650 form A or form C, M12, Packard, AMP, Deutsch DT04 or circular connectors, or a cable outlet, on threads from G1/8 to 7/16-20 UNF.

Specifications

Measurement

Pressure type	Gauge
Ranges	0 to 6 bar up to 0 to 600 bar
Accuracy	±0.3 % or ±0.5 % of span
Long-term stability	±0.1 % of span per year
Overpressure	3 x range
Burst pressure	5 x range
Zero temperature drift	±0.02 % of span per °C

Span temperature drift	±0.02 % of span per °C
Compensated temperature	-20 to 85 °C

Medium and environment

Medium temperature	-40 to 85 °C
Storage temperature	-40 to 125 °C
Shock	100 g (11 ms)
Wetted parts	17-4PH stainless steel
Housing	304 stainless steel

Electrical

Output	4 to 20 mA two-wire; 0 to 5 V, 0 to 10 V or 0.5 to 4.5 V three-wire
Supply	9 to 30 V DC (4 to 20 mA, 0 to 5 V); 15 to 30 V DC (0 to 10 V); 5 V DC (0.5 to 4.5 V)
Protection circuits	Surge and reverse polarity protection
Electrical connection	DIN 43650 form A or form C, M12, Packard, circular connector, AMP, Deutsch DT04-3P or DT04-4P, cable outlet or watertight cable outlet
Protection	IP65

Mechanical

Process connection	G1/8, G1/4, G3/8, G1/2, 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT, R1/8, R1/4, R3/8, R1/2, M12 x 1.5, M14 x 1.5, M18 x 1.5, M20 x 1.5, 7/16-20 UNF
Construction	One-piece 17-4PH pressure chamber, glass-fused sensing element, no weld, no O-ring
Body diameter	22 mm
Wrench size	22 mm

Common configurations

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

Range	Process connection	Output	Electrical connection	Accuracy	Order code
0 to 16 bar	G1/4 male	4 to 20 mA	DIN 43650 form A	±0.5 %	**PT12-016-B2-I-D-A05**
0 to 40 bar	G1/4 male	4 to 20 mA	M12	±0.3 %	**PT12-040-B2-I-M-A03**
0 to 100 bar	M20 x 1.5 male	4 to 20 mA	DIN 43650 form A	±0.3 %	**PT12-100-M20-I-D-A03**
0 to 250 bar	7/16-20 UNF male	0.5 to 4.5 V	Deutsch DT04-3P	±0.5 %	**PT12-250-U7-H-T3-A05**
0 to 400 bar	1/4 NPT male	4 to 20 mA	Packard	±0.5 %	**PT12-400-N2-I-P-A05**
0 to 600 bar	G1/4 male	0 to 10 V	M12	±0.3 %	**PT12-600-B2-V10-M-A03**

Ordering code

One code from each group, in this order. Example: **PT12-006-B1-I-D-A03**. Send the code and the quantity to **contact@pressalis.com** for a quote.

PT12	-	006	-	B1	-	I	-	D	-	A03
Model		Range		Process connection		Output		Electrical connection		Accuracy

Range

006	0 to 6 bar
010	0 to 10 bar
016	0 to 16 bar
025	0 to 25 bar
040	0 to 40 bar
060	0 to 60 bar
100	0 to 100 bar
160	0 to 160 bar
250	0 to 250 bar
400	0 to 400 bar
600	0 to 600 bar
X	Other range, state in the request

Process connection

B1	G1/8 male
B2	G1/4 male
B3	G3/8 male
B4	G1/2 male
N2	1/4 NPT male
N4	1/2 NPT male
R2	R1/4 male
R4	R1/2 male
M12	M12 x 1.5 male
M18	M18 x 1.5 male
M20	M20 x 1.5 male
U7	7/16-20 UNF male

Output

I	4 to 20 mA, two-wire
V5	0 to 5 V, three-wire
V10	0 to 10 V, three-wire
H	0.5 to 4.5 V, three-wire, 5 V DC supply

Electrical connection

D	DIN 43650 form A connector
DC	DIN 43650 form C connector
P	Packard connector
M	M12 connector, four-pin
A	Circular connector
C	Cable outlet
CW	Watertight cable outlet
AM	AMP connector, two-pin
T3	Deutsch DT04-3P connector
T4	Deutsch DT04-4P connector

Accuracy

A03	±0.3 % of span
A05	±0.5 % of span