Pressalis

Datasheet

Pressure transmitters

PT21

Ultra-high pressure transmitter to 6000 bar



Amplified transmitter for 750 to 6000 bar with 4 to 20 mA or voltage output and a one-piece 17-4PH chamber.

Range	Accuracy	Output	Protection
0 to 750 up to 0 to 6000 bar	**±0.3 or ±0.5 % of span**	**4 to 20 mA or voltage**	**IP65**

Overview

PT21 is the amplified transmitter for ranges from 0 to 750 bar up to 0 to 6000 bar. It gives 4 to 20 mA on two wires, or 0.5 to 4.5 V, 0 to 5 V or 0 to 10 V on three wires, and connects straight to a PLC, controller or panel display with no separate amplifier.

It goes on waterjet cutting and high-pressure cleaning pumps, hydraulic intensifiers and presses, and test benches for high-pressure hoses, valves and fittings. Allowed overload is 1.5 x range and burst pressure 3 x range, 10000 bar at most. Temperature compensation covers -20 to 85 °C.

Silicon strain gauges are glass-fused to a pressure chamber machined from one piece of 17-4PH stainless steel, with no welds and no O-rings in contact with the medium. The M20 x 1.5 port seals on its end face with a copper gasket; G, NPT and R threads are also offered. Electrical options run from DIN 43650 and M12 to Packard, AMP and Deutsch connectors.

Specifications

Measurement

Pressure type	Gauge
Ranges	0 to 750 bar up to 0 to 6000 bar
Accuracy	±0.3 % or ±0.5 % of span
Overpressure	1.5 x range
Burst pressure	3 x range, 10000 bar at most
Long-term stability	±0.2 % of span per year
Zero drift	±0.02 % of span per °C

Span drift	±0.02 % of span per °C
Compensated range	-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	Stainless steel 304

Electrical

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

Mechanical

Process connection	M20 x 1.5, M18 x 1.5, M12 x 1.5, G1/8 to G1/2, 1/8 to 1/2 NPT, R1/8 to R1/2 male
Body	22 mm diameter, 22 mm hex
Sensing element	Silicon strain gauges glass-fused to a one-piece 17-4PH stainless steel body, no welds or O-rings

Common configurations

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

Range	Accuracy	Process connection	Output	Electrical connection	Order code
0 to 750 bar	±0.5 % of span	M20 x 1.5 male	4 to 20 mA	M12 connector	**PT21-750-A05-M20-I-M**
0 to 1000 bar	±0.5 % of span	G1/2 male	4 to 20 mA	DIN 43650 form A	**PT21-1000-A05-B4-I-D**
0 to 1600 bar	±0.3 % of span	M20 x 1.5 male	0 to 10 V	M12 connector	**PT21-1600-A03-M20-V10-M**
0 to 2500 bar	±0.5 % of span	M20 x 1.5 male	0.5 to 4.5 V	Packard	**PT21-2500-A05-M20-H-P**
0 to 4000 bar	±0.3 % of span	M20 x 1.5 male	4 to 20 mA	Cable outlet	**PT21-4000-A03-M20-I-C**
0 to 6000 bar	±0.5 % of span	M20 x 1.5 male	4 to 20 mA	Sealed cable outlet	**PT21-6000-A05-M20-I-CW**

Ordering code

One code from each group, in this order. Example: **PT21-750-A03-M20-I-D**. Send the code and the quantity to **contact@pressalis.com** for a quote.

PT21	-	750	-	A03	-	M20	-	I	-	D
Model		Range		Accuracy		Process connection		Output		Electrical connection

Range

750	0 to 750 bar
1000	0 to 1000 bar
1600	0 to 1600 bar
2500	0 to 2500 bar
4000	0 to 4000 bar
6000	0 to 6000 bar
X	Other range, state in the request

Accuracy

A03	±0.3 % of span
A05	±0.5 % of span

Process connection

M20	M20 x 1.5 male
M12	M12 x 1.5 male
B4	G1/2 male
B3	G3/8 male
B2	G1/4 male
B1	G1/8 male
N4	1/2 NPT male
N2	1/4 NPT male
N1	1/8 NPT male

Output

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

Electrical connection

D	DIN 43650 form A connector
DC	DIN 43650 form C connector
M	M12 connector, 4-pin
P	Packard connector
A	Circular connector, 5-pin
AM	AMP connector, 2-pin, 4 to 20 mA only
T3	Deutsch DT04-3P
T4	Deutsch DT04-4P
C	Cable outlet
CW	Sealed cable outlet