Pressalis

Datasheet

Pressure transmitters

PT40

Modbus pressure transmitter, RS485 or RS232



Digital output for PLC networks and test benches, 0 to 0.2 bar up to 0 to 600 bar, gauge or absolute.

Range	Accuracy	Output	Protection
0 to 0.2 bar up to 0 to 600 bar	**±0.3 % or ±0.5 % of span**	**Modbus on RS485 or RS232**	**IP65**

Overview

PT40 is a digital pressure transmitter that reports over Modbus, on RS485 or RS232, instead of an analog signal. A MEMS sensing element is glass micro-fused to a pressure chamber machined from one piece of stainless steel, with no weld seam and no O-ring in contact with the medium. Temperature effects are compensated digitally from -20 to 85 °C.

It suits points where several instruments share one cable back to a PLC or data logger: hydraulic units and machines, test benches that log many channels, and pump skids already wired for RS485. Ranges run from 0 to 0.2 bar up to 0 to 600 bar, gauge or absolute, with ±0.3 % or ±0.5 % of span accuracy.

Supply is 9 to 30 V DC. The electrical connection is a cable outlet, an M12 connector or a DIN 43650 form A connector, and the process connection is M20 x 1.5, G1/4 or 1/4 NPT. Ranges from 6 bar take 3 x range overpressure and 5 x range burst pressure.

Specifications

Measurement

Pressure type	Gauge, absolute
Ranges	0 to 0.2 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	1.5 x range below 6 bar, 3 x range from 6 bar
Burst pressure	3 x range below 6 bar, 5 x range from 6 bar
Sensing element	MEMS, glass micro-fused

Medium and environment

Compensated temperature	-20 to 85 °C
Operating temperature	-40 to 85 °C
Storage temperature	-40 to 125 °C
Shock	100 g, 11 ms
Wetted parts	304 or 316 stainless steel below 6 bar, 17-4PH stainless steel from 6 bar

Electrical

Output	RS485 or RS232, Modbus protocol
Supply	9 to 30 V DC
Electrical connection	Cable outlet, M12 connector or DIN 43650 form A connector
Protection	IP65

Mechanical

Process connection	M20 x 1.5, G1/4, 1/4 NPT; other threads on request
Pressure chamber	Machined from one piece, no weld seam, no O-ring

Common configurations

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

Range	Pressure type	Process connection	Output	Electrical connection	Accuracy	Order code
0 to 10 bar	Gauge	G1/4 male	RS485	M12	±0.5 %	**PT40-010-G-B2-M-M-A05**
0 to 25 bar	Gauge	G1/4 male	RS485	Cable outlet	±0.3 %	**PT40-025-G-B2-M-C-A03**
0 to 250 bar	Gauge	M20 x 1.5 male	RS485	DIN 43650 form A	±0.5 %	**PT40-250-G-M20-M-D-A05**
0 to 600 bar	Gauge	M20 x 1.5 male	RS485	M12	±0.5 %	**PT40-600-G-M20-M-M-A05**
0 to 1 bar	Absolute	G1/4 male	RS485	M12	±0.3 %	**PT40-001-A-B2-M-M-A03**
0 to 16 bar	Gauge	1/4 NPT male	RS232	Cable outlet	±0.5 %	**PT40-016-G-N2-M2-C-A05**

Ordering code

One code from each group, in this order. Example: **PT40-K20-G-M20-M-C-A03**. Send the code and the quantity to **contact@pressalis.com** for a quote.

PT40	-	K20	-	G	-	M20	-	M	-	C	-	A03
Model		Range		Pressure type		Process connection		Output		Electrical connection		Accuracy

Range

K20	0 to 20 kPa
001	0 to 1 bar
006	0 to 6 bar
010	0 to 10 bar
016	0 to 16 bar
025	0 to 25 bar
100	0 to 100 bar
250	0 to 250 bar
600	0 to 600 bar
X	Other range, state in the request

Pressure type

G	Gauge
A	Absolute

Process connection

M20	M20 x 1.5 male
B2	G1/4 male
N2	1/4 NPT male

Output

M	RS485, Modbus
M2	RS232, Modbus

Electrical connection

C	Cable outlet
M	M12 connector
D	DIN 43650 form A connector

Accuracy

A03	±0.3 % of span
A05	±0.5 % of span