Pressalis

Datasheet

Pressure transmitters

PT80

Barometric pressure transmitter, wall mount



Air pressure transmitter, 30 to 120 kPa absolute, with 4 to 20 mA, 0 to 5 V, 0 to 10 V or RS485 Modbus output.

Range	Accuracy	Output	Supply
30 to 120 kPa absolute	**±0.15 kPa at 25 °C**	**Analog or RS485 Modbus RTU**	**10 to 30 V DC**

Overview

PT80 measures atmospheric pressure from 30 to 120 kPa absolute, which covers weather at sea level and sites at altitude. It sits in a wall-mount housing of 122 by 100 mm, with a slotted probe tube and a cable gland on the underside and two mounting lugs at the sides.

It gives the barometric reference that building management, greenhouse and ventilation controllers work from, and the ambient pressure that test benches use to correct flow, engine and leak measurements to reference conditions. On wells and reservoirs it provides the barometric reading for compensating absolute level probes.

Accuracy is ±0.15 kPa at 25 °C, resolution 0.012 mbar and response time 1 s or less. Outputs are 4 to 20 mA, 0 to 5 V or 0 to 10 V, or RS485 with Modbus RTU, addresses 1 to 255 and baud rates from 2400 to 115200. Supply is 10 to 30 V DC; the 0 to 10 V version is limited to 24 V DC.

Specifications

Measurement

Pressure type	Absolute, barometric
Range	30 to 120 kPa
Accuracy	±0.15 kPa at 25 °C
Resolution	0.012 mbar
Long-term stability	0.1 kPa per year
Response time	1 s or less

Medium and environment

Medium	Ambient air
Operating temperature	-20 to 60 °C

Electrical

Output	4 to 20 mA, 0 to 5 V, 0 to 10 V or RS485 Modbus RTU
Supply	10 to 30 V DC; 0 to 10 V output limited to 24 V DC
Power consumption	1.2 W analog, 0.4 W RS485
Electrical connection	Cable outlet

Communication

Protocol	Modbus RTU over RS485
Address	1 to 255, default 1
Baud rate	2400, 4800, 9600, 19200, 38400, 57600 or 115200; default 9600
Data format	8 data bits, no parity, 1 stop bit

Mechanical

Housing	Wall mount, 122 x 100 mm
Mounting	Two 4.3 mm holes, 110 mm apart

Common configurations

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

Range	Output	Supply	Order code
30 to 120 kPa	4 to 20 mA	10 to 30 V DC	**PT80-K120-I**
30 to 120 kPa	0 to 5 V	10 to 30 V DC	**PT80-K120-V5**
30 to 120 kPa	0 to 10 V	10 to 24 V DC	**PT80-K120-V10**
30 to 120 kPa	RS485 Modbus RTU	10 to 30 V DC	**PT80-K120-M**

Ordering code

One code from each group, in this order. Example: **PT80-K120-I**. Send the code and the quantity to **contact@pressalis.com** for a quote.

PT80	-	K120	-	I
Model		Range		Output

Range

K120	30 to 120 kPa absolute
X	Other range, state in the request

Output

I	4 to 20 mA
V5	0 to 5 V
V10	0 to 10 V
M	RS485 Modbus RTU