

Deltabar PMD78B - differential pressure transmitter

Minimizes ambient and process temperature effects on your measurement thanks to the TempC membrane



More information and current pricing:

www.at.endress.com/PMD78B

Benefits:

- Wireless control of the device in hard to reach areas with the SmartBlue App and a Bluetooth® connection
- Reduce systematic failures - error free SIL commissioning and instrument guided proof testing
- With Heartbeat Technology you are able to verify the health of the device while the process is running. This increases plant availability.
- Simple indication of device status - display changes from green to red when diagnostic messages occur

Specs at a glance

- **Accuracy Standard:** up to 0.1 %
- **Process temperature** -40°C...+400°C (-40°F...+752°F)
- **Pressure measuring range** 100 mbar...40 bar (1.5psi...600 psi)
- **Main wetted parts** 316L, AlloyC, Tantal, Monel PTFE, Gold
- **Material process membrane** 316L, AlloyC, Tantal, Monel PTFE Gold

Field of application: This transmitter belongs to the new Deltabar generation. The device is robust and can be remotely controlled via SmartBlue App using a secure Bluetooth connection. It allows condition based maintenance to increase plant availability. The software is designed to simplify the handling. Intuitive wizards guide the user through setup, proof tests and verification of the device. Heartbeat Technology offers verification and monitoring functions to detect unwanted anomalies e.g. plugged impulse lines.

Features and specifications

Continuous / Liquids

Measuring principle

Differential pressure

Characteristic / Application

Smart differential pressure transmitter with one or two capillaries, full range of certifications and Heartbeat Technology.

Intuitive and clear wizards for commissioning, proof tests and verification.

Specialities

Heartbeat Technology,
Bluetooth® Operation and maintenance SmartBlue App,
LED Module,
RFID TAG for easy identification,
Plug and play functionalities
HistoROM

Supply / Communication

Ex d, Ex e, non-Ex::

10.5...35V DC

Ex i: 10.5...30V DC

Accuracy

Standard:

up to 0.1 %

Long term stability

0.025 % of URL/ year

0.05 % of URL/ 5 years

0.10 % of URL/ 10 years

Ambient temperature

-54°C...+85°C

(-65°F...+185°F)

Continuous / Liquids**Process temperature**

-40°C...+400°C
(-40°F...+752°F)

Process pressure absolute / max. overpressure limit

160 bar (2.400 psi)

Pressure measuring range

100 mbar...40 bar
(1.5psi...600 psi)

Main wetted parts

316L, AlloyC,
Tantal, Monel
PTFE, Gold

Process connection

Thread:
MNPT1/2, G1/2
Flange:
NPS 2"...4", DN50...100

Max. measurement distance

160 m (525 ft) H2O

Communication

4...20 mA HART

Certificates / Approvals

ATEX, IEC Ex, CSA C/US, NEPSI

Safety approvals

SIL

Design approvals

EN 10204-3.1,
NACE MR0175,
NACE MR0103

Continuous / Liquids**Options**Touch control display

Application limitsKeine

Pressure**Measuring principle**Differential pressure

Characteristic

Specialist with one or two capillaries for accurate differential pressure measurement.

Intuitive and clear wizards for commissioning, proof tests and verification.

Supply voltage

Ex d, Ex e, non-Ex:

10.5...35V DC

Ex i: 10.5...30V DC

Reference Accuracy

Standard:

up to 0.1 %

Long term stability

0.025 % of URL/ year

0.05 % of URL/ 5 years

0.10 % of URL/ 10 years

Process temperature

-40°C...+400°C

(-40°F...+752°F)

Ambient temperature

-40°C...+85°C

(-40°F...+185°F)

Pressure**Measuring cell**

100 mbar...40 bar
(1.5 psi...600 psi)

Smallest calibratable span

5 mbar (0.075 psi)

Vacuum resistance

50 mbar (0.73 psi)

Max. Turn down

100:1

Max. overpressure limit

160 bar
(2400 psi)

Process connection

Thread: MNPT1/2, G1/2
Flange: NPS 2"...4", DN50...100

Material process membrane

316L, AlloyC,
Tantal,
Monel
PTFE
Gold

Material gasket

PTFE, FKM,
EPDM, FFKM

Fill fluid

Silicone oil,
inert oil,
vegetable oil,
low- / high temperature oil

Pressure**Material housing**Aluminium, 316L

Communication4...20 mA HART

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