

## 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.de.endress.com/PMD78B](http://www.de.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.

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## Features and specifications

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### Continuous / Liquids

**Measuring principle**

Differential pressure

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**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.

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**Specialities**

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

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**Supply / Communication**

Ex d, Ex e, non-Ex::

10.5...35V DC

Ex i: 10.5...30V DC

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**Accuracy**

Standard:

up to 0.1 %

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**Long term stability**

0.025 % of URL/ year

0.05 % of URL/ 5 years

0.10 % of URL/ 10 years

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**Ambient temperature**

-54°C...+85°C

(-65°F...+185°F)

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**Continuous / Liquids****Process temperature**

-40°C...+400°C  
(-40°F...+752°F)

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**Process pressure absolute / max. overpressure limit**

160 bar (2.400 psi)

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**Pressure measuring range**

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

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**Main wetted parts**

316L, AlloyC,  
Tantal, Monel  
PTFE, Gold

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**Process connection**

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

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**Max. measurement distance**

160 m (525 ft) H2O

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**Communication**

4...20 mA HART

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**Certificates / Approvals**

ATEX, IEC Ex, CSA C/US, NEPSI

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**Safety approvals**

SIL

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**Design approvals**

EN 10204-3.1,  
NACE MR0175,  
NACE MR0103

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**Continuous / Liquids****Options**Touch control display

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**Application limits**Keine

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**Pressure****Measuring principle**Differential pressure

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**Characteristic**

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

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

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**Supply voltage**

Ex d, Ex e, non-Ex:

10.5...35V DC

Ex i: 10.5...30V DC

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**Reference Accuracy**

Standard:

up to 0.1 %

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**Long term stability**

0.025 % of URL/ year

0.05 % of URL/ 5 years

0.10 % of URL/ 10 years

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**Process temperature**

-40°C...+400°C

(-40°F...+752°F)

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**Ambient temperature**

-40°C...+85°C

(-40°F...+185°F)

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**Pressure****Measuring cell**

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

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**Smallest calibratable span**

5 mbar (0.075 psi)

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**Vacuum resistance**

50 mbar (0.73 psi)

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**Max. Turn down**

100:1

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**Max. overpressure limit**

160 bar  
(2400 psi)

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**Process connection**

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

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**Material process membrane**

316L, AlloyC,  
Tantal,  
Monel  
PTFE  
Gold

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**Material gasket**

PTFE, FKM,  
EPDM, FFKM

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**Fill fluid**

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

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**Pressure****Material housing**Aluminium, 316L

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**Communication**4...20 mA HART

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**Certificates / Approvals**ATEX, IEC Ex, CSA C/US, NEPSI

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**Safety approvals**SIL

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**Design approvals**EN10204-3.1,  
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**Specialities**Heartbeat Technology,  
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