

Deltabar PMD55B - differential pressure transmitter

Smart transmitter with metal membrane for differential pressure monitoring in liquids and gases



More information and current pricing:

www.ca.endress.com/PMD55B

Benefits:

- Wireless control of the device in the process area with the SmartBlue App without interrupting the process
- Reduce on site accidents and protect equipment when instruments are in difficult to reach areas
- Reduce systematic failures - error free SIL commissioning and instrument guided proof testing

Specs at a glance

- **Accuracy** Standard: up to 0.075 % Platinum: up to 0.055 %
- **Process temperature** -40°C...+110°C (-40°F...+230°F)
- **Pressure measuring range** 30 mbar.... 40 bar (0.45 psi... 600 psi)
- **Main wetted parts** 316L, AlloyC
- **Material process membrane** 316L, AlloyC

Field of application: This transmitter belongs to the new Deltabar generation. It is robust and easy to operate either locally or remotely. The transmitter can be controlled wireless via app on a mobile device using a secure Bluetooth connection. The PMD55B allows condition-based maintenance which increases efficiency in technical service significantly. The software is designed to simplify the handling. Intuitive wizards guide you through the setup and proof testing of the device which minimizes operating errors.

Features and specifications

Continuous / Liquids

Measuring principle

Differential pressure

Characteristic / Application

Transmitter with metal membrane for differential pressure monitoring in liquids or gases.

Intuitive and clear wizard for commissioning

Specialities

Bluetooth® Operation and maintenance with SmartBlue App,

RFID TAG for easy identification,

Plug and play functionalities

Supply / Communication

Ex d, Ex e, non-Ex::

10.5...35V DC

Ex i: 10.5...30V DC

Accuracy

Standard:

up to 0.075 %

Platinum:

up to 0.055 %

Long term stability

0.05 % of URL/ year

0.13 % of URL/ 5 years

0.23 % of URL/ 10 years

Ambient temperature

-40°C...+85°C (-40°F...+185°F)

Process temperature

-40°C...+110°C (-40°F...+230°F)

Process pressure absolute / max. overpressure limit

250 bar (3750 psi)

Continuous / Liquids**Pressure measuring range**

30 mbar.... 40 bar (0.45 psi... 600 psi)

Main wetted parts

316L, AlloyC

Process connection

NPT 1/4-18, RC1/4"

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,
AD2000

Drinking water approvals

NSF, KTW

Application limits

None

Gas**Measuring principle**

Differential pressure

Product headline

Transmitter with metal membrane for differential pressure monitoring in liquids or gases.

Intuitive and clear wizard for commissioning

Gas

Sensor features

Fill fluid:
Inert oil,
Silicone oil

Transmitter features

Bluetooth® Operation and maintenance SmartBlue App,
RFID TAG for easy identification,
Plug and play functionalities

Wetted materials

316L, Alloy

Measuring range

30 mbar...40 bar
(0.45 psi...600 psi)

Medium temperature range

-40°C...+110°C
(-40°F...+230°F)

Ambient temperature range

-40°C...+85°C
(-40°F...+185°F)

Transmitter housing material

Aluminium

Display/Operation

Configuration via local display and operating tools possible
Remote display available

Outputs

4...20 mA HART

Digital communication

HART

Gas**Hazardous area approvals**

ATEX, CSA, IECEx

Functional safety

SIL

Material certificatesEN10204-3.1,
NACE MR0175,
NACE MR0103**Liquids****Measuring principle**

Differential pressure

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Sensor features

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Inert oil,

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(0.45 psi...600 psi)

Liquids

Medium temperature range

-40°C...+110°C
(-40°F...+230°F)

Ambient temperature range

-40°C...+85°C
(-40°F...+185°F)

Transmitter housing material

Aluminium

Display/Operation

Configuration via local display and operating tools possible
Remote display available

Outputs

4...20 mA HART

Digital communication

HART

Hazardous area approvals

ATEX, CSA, IECEx

Functional safety

SIL

Material certificates

EN10204-3.1,
NACE MR0175,
NACE MR0103

Pressure

Measuring principle

Differential pressure

Pressure**Characteristic**

Transmitter with metal membrane for differential pressure monitoring in liquids or gases.

Intuitive and clear wizard for commissioning

Supply voltage

Ex d, Ex e, non-Ex:

10.5...35V DC

Ex i: 10.5...30V DC

Reference Accuracy

Standard:

up to 0.075 %

Platinum:

up to 0.055 %

Long term stability

0.05 % of URL/ year

0.13 % of URL/ 5 years

0.23 % of URL/ 10 years

Process temperature

-40°C...+110°C

(-40°F...+230°F)

Ambient temperature

-40°C...+85°C

(-40°F...+185°F)

Measuring cell

30 mbar...40 bar

(0.45 psi...600 psi)

Smallest calibratable span

0.3 mbar (0.0045 psi)

Max. Turn down

100:1

Pressure**Max. overpressure limit**250 bar (3750 psi)

Process connectionNPT1/4-18,
RC1/4"**Material process membrane**316L, AlloyC

Material gasketPTFE, FKM, EPDM, FFKM

Fill fluidSilicone oil,
Inert oil

Material housingAluminium

Communication4...20 mA HART

Certificates / ApprovalsATEX, IEC Ex, CSA C/US, NEPSI

Safety approvalsSIL

Design approvalsEN10204-3.1,
NACE MR0175,
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Drinking water approvalsNSF, KTW

Pressure

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