

Deltabar PMD75B - differential pressure transmitter

Smart pressure transmitter which detects process anomalies like plugged impulse lines



More information and current pricing:

www.endress.com/PMD75B

Benefits:

- 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
- Reduce systematic failures - error free SIL commissioning and instrument guided proof testing
- Control the device wireless in hard to reach process areas with the SmartBlue App

Specs at a glance

- **Accuracy** Standard: up to 0.05 % Platinum: up to 0.035 %
- **Max. measurement error** Standard: up to 0.05 % Platinum: up to 0.035 %
- **Measuring range** 10 mbar...250 bar (0.15 psi...3750 psi)
- **Process temperature** -40°C...+110°C (-40°F...+230°F)
- **Pressure measuring range** 10 mbar...250 bar (0.15 psi...3750 psi)

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

Gas

Measuring principle

Differential pressure

Product headline

Differential pressure transmitter which detects process anomalies like plugged impulse lines,
Intuitive and clear wizards for commissioning, proof tests and verification

Sensor features

Fill fluid:
Silicone oil,
Inert oil

Transmitter features

LED Module,
RFID TAG for easy identification,
Plug and play functionalities,
HistoROM

Wetted materials

316L,
AlloyC,
Tantal,
Monel,
Gold

Measured variables

Differential pressure

Max. measurement error

Standard:
up to 0.05 %
Platinum:
up to 0.035 %

Measuring range

10 mbar...250 bar
(0.15 psi...3750 psi)

Gas

Max. process pressure

420 bar (6300 psi)

Ambient temperature range

-40°C...+85°C

(-40°F...+185°F)

Transmitter housing material

Aluminium, 316L

Display/Operation

4-line backlit display with touch control (operation from outside)

Bluetooth® Operation and maintenance SmartBlue App,

Configuration via local display and operating tools possible

Outputs

4...20 mA HART

Digital communication

HART

Hazardous area approvals

ATEX, CSA, IECEx, JPN Ex, INMETRO, NEPSI, UK Ex

Functional safety

SIL

Metrological approvals and certificates

Heartbeat Technology

Pressure approvals and certificates

CRN

Material certificates

EN10204-3.1,

NACE MR0175,

NACE MR0103

Steam

Measuring principle

Differential pressure

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Differential pressure transmitter which detects process anomalies like plugged impulse lines,
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Sensor features

Fill fluid:

Silicone oil,

Inert oil

Transmitter features

LED Module,

RFID TAG for easy identification,

Plug and play functionalities,

HistoROM

Wetted materials

316L,

AlloyC,

Tantal,

Monel,

Gold

Measured variables

Differential pressure

Max. measurement error

Standard:

up to 0.05 %

Platinum:

up to 0.035 %

Measuring range

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(0.15 psi...3750 psi)

Steam

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Metrological approvals and certificates

Heartbeat Technology

Pressure approvals and certificates

CRN

Material certificates

EN10204-3.1,

NACE MR0175,

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Pressure

Measuring principle

Differential pressure

Characteristic

Differential pressure transmitter which detects process anomalies like plugged impulse lines.

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 0.05 %

Platinum:

up to 0.035 %

Long term stability

0.025 % of URL/ year

0.05 % of URL/ 5 years

0.10 % 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

10 mbar...250 bar

(0.15 psi...3750 psi)

Smallest calibratable span

0.25 mbar (0.00375 psi)

Pressure

Vacuum resistance

25 mbar (0.0375 psi)

Max. Turn down

100:1

Max. overpressure limit

630 bar (9,450 psi)

Process connection

NPT1/4-18

RC1/4"

Material process membrane

316L, AlloyC,

Tantal,

Monel,

Gold

Material gasket

PTFE, FKM, EPDM, FFKM

Fill fluid

Silicone oil,

Inert oil

Material housing

Aluminium, 316L

Communication

4...20 mA HART

PROFINET with Ethernet-APL

Bluetooth® wireless

technology and app (optional)

Certificates / Approvals

ATEX, CSA, IECEX, JPN Ex, INMETRO, NEPSI, UK Ex

Pressure

Safety approvals

SIL

Design approvals

EN10204-3.1,
NACE MR0103,
NACE MR0175

Drinking water approvals

NSF, KTW

Specialities

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

Continuous / Liquids

Measuring principle

Differential pressure

Characteristic / Application

Differential pressure transmitter which detects process anomalies like plugged impulse lines.
Intuitive and clear wizards for commissioning, proof tests and verification.

Specialities

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

Continuous / Liquids**Supply / Communication**

Ex d, Ex e, non-Ex:

10.5...35V DC

Ex i:

10.5...30V DC

Accuracy

Standard:

up to 0.05 %

Platinum:

up to 0.035 %

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)

Process temperature

-40°C...+110°C

(-40°F...+230°F)

Process pressure / max. overpressure limit420 bar (6300 psi)

Pressure measuring range

10 mbar...250 bar

(0.15 psi...3750 psi)

Main wetted parts

316L, AlloyC,

Tantal, Monel,

Gold

Continuous / Liquids

Process connection

NPT1/4-18,
RC1/4"

Max. measurement distance

400 m (1,312 ft) H₂O

Communication

4...20 mA HART
PROFINET with Ethernet-APL
Bluetooth® wireless
technology and app (optional)

Certificates / Approvals

ATEX, CSA, IECEx, JPN Ex, INMETRO, NEPSI, UK Ex

Safety approvals

SIL

Design approvals

EN 10204-3.1,
NACE MR0175,
NACE MR0103

Drinking water approvals

NSF, KTW

Options

Touch control display

Application limits

None

Liquids

Measuring principle

Differential pressure

Liquids

Product headline

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Sensor features

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Inert oil

Transmitter features

LED Module,
RFID TAG for easy identification,
Plug and play functionalities,
HistoROM

Wetted materials

316L,
AlloyC,
Tantal,
Monel,
Gold

Measured variables

Differential pressure

Max. measurement error

Standard:
up to 0.05 %
Platinum:
up to 0.035 %

Measuring range

10 mbar...250 bar
(0.15 psi...3750 psi)

Max. process pressure

420 bar (6300 psi)

Liquids

Ambient temperature range

-40°C...+85°C
(-40°F...+185°F)

Transmitter housing material

Aluminium, 316L

Display/Operation

4-line backlit display with touch control (operation from outside)
Bluetooth® Operation and maintenance SmartBlue App,
Configuration via local display and operating tools possible

Outputs

4...20 mA HART

Digital communication

HART

Hazardous area approvals

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