

## Deltabar PMD55B - differential pressure transmitter

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



More information and current pricing:

[www.endress.com/PMD55B](http://www.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

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## Pressure

### Measuring principle

Differential pressure

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### Characteristic

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

Intuitive and clear wizard for commissioning

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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 0.075 %

Platinum:

up to 0.055 %

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### Long term stability

0.05 % of URL/ year

0.13 % of URL/ 5 years

0.23 % of URL/ 10 years

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### Process temperature

-40°C...+110°C

(-40°F...+230°F)

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### Ambient temperature

-40°C...+85°C

(-40°F...+185°F)

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### Measuring cell

30 mbar...40 bar

(0.45 psi...600 psi)

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### Smallest calibratable span

0.3 mbar (0.0045 psi)

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## Pressure

**Max. Turn down**

100:1

**Max. overpressure limit**

250 bar (3750 psi)

**Process connection**NPT1/4-18,  
RC1/4"**Material process membrane**

316L, AlloyC

**Material gasket**

PTFE, FKM, EPDM, FFKM

**Fill fluid**Silicone oil,  
Inert oil**Material housing**

Aluminium

**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**EN10204-3.1,  
NACE MR0175,  
NACE MR0103

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## Pressure

### Drinking water approvals

NSF, KTW

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### Specialities

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

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## Continuous / Liquids

### Measuring principle

Differential pressure

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### Characteristic / Application

Transmitter with metal membrane for differential pressure monitoring in liquids or gases.  
Intuitive and clear wizard for commissioning

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### Specialities

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

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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 0.075 %  
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

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**Continuous / Liquids****Ambient temperature**

-40°C...+85°C (-40°F...+185°F)

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**Process temperature**

-40°C...+110°C (-40°F...+230°F)

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**Process pressure / max. overpressure limit**

250 bar (3750 psi)

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**Pressure measuring range**

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

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**Main wetted parts**

316L, AlloyC

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**Process connection**

NPT 1/4-18, RC1/4"

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**Communication**

4...20 mA HART

PROFINET with Ethernet-APL

Bluetooth® wireless

technology and app (optional)

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**Certificates / Approvals**

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

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**Safety approvals**

SIL

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**Design approvals**

EN 10204-3.1,

NACE MR0175,

NACE MR0103,

AD2000

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**Drinking water approvals**

NSF, KTW

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**Continuous / Liquids****Application limits**None

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**Liquids****Measuring principle**Differential pressure

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**Product headline**

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

Intuitive and clear wizard for commissioning

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**Sensor features**

Fill fluid:

Inert oil,

Silicone oil

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**Transmitter features**

Bluetooth® Operation and maintenance SmartBlue App,

RFID TAG for easy identification,

Plug and play functionalities

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**Wetted materials**316L, Alloy

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**Measuring range**

30 mbar...40 bar

(0.45 psi...600 psi)

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**Medium temperature range**

-40°C...+110°C

(-40°F...+230°F)

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**Ambient temperature range**

-40°C...+85°C

(-40°F...+185°F)

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**Liquids****Transmitter housing material**Aluminium

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**Display/Operation**

Configuration via local display and operating tools possible

Remote display available

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**Outputs**4...20 mA HART

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**Digital communication**HART

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**Hazardous area approvals**ATEX, CSA, IECEx

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**Functional safety**SIL

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**Material certificates**EN10204-3.1,  
NACE MR0175,  
NACE MR0103

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**Steam****Measuring principle**Differential  
pressure

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**Gas****Measuring principle**Differential pressure

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**Product headline**

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

Intuitive and clear wizard for Commissioning

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## Gas

**Sensor features**

Fill fluid:  
Inert oil,  
Silicone oil

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**Transmitter features**

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

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**Wetted materials**

316L, Alloy

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**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)

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**Transmitter housing material**

Aluminium

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**Display/Operation**

Configuration via local display and operating tools possible  
Remote display available

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**Outputs**

4...20 mA HART

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**Digital communication**

HART

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Gas

**Hazardous area approvals**

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

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**Functional safety**

SIL

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**Material certificates**

EN10204-3.1,  
NACE MR0175,  
NACE MR0103  
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