

## Cerabar PMP51B - pressure transmitter

Smart pressure transmitter with metal membrane for highly accurate measurement of liquids and gases



Thông tin thêm và mức tính giá hiện tại:

[www.apsc.endress.com/PMP51B](http://www.apsc.endress.com/PMP51B)

### Lợi ích:

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

### Tổng quan về thông số kỹ thuật

- **Accuracy Standard:** up to 0.075 % Platinum up to 0.055 %
- **Process temperature Standard:** -40°C...+125°C (-40°F...+257°F)  
Diaphragm seal: -40°C...+400°C (-40°F...+752°F)
- **Pressure measuring range** 400 mbar... 400 bar (6psi...6,000psi)
- **Main wetted parts** 316L, AlloyC, Tantal, Monel, PTFE
- **Material process membrane** 316L, AlloyC, Tantal, Monel, PTFE

**Phạm vi ứng dụng:** This transmitter belongs to the new Cerabar generation. It combines robustness with numerous benefits: e.g easiest local or remote operation and condition-based maintenance which promotes better management of scheduled plant shutdowns. The software is designed to simplify the handling. Intuitive and clear wizards guide you through the commissioning and proof testing of the device. The transmitter can be remotely controlled via app on a mobile device and a secure Bluetooth connection.

### Tín năng và thông số kỹ thuật

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## Continuous / Liquids

**Measuring principle**

Absolute and gauge pressure

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**Characteristic / Application**

Pressure transmitter with metal membrane for accurate measurement in liquids or gases.

Available with diaphragm seals.

Intuitive and clear wizard for commissioning

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**Specialities**

Heartbeat Technology,

Bluetooth® Operation and maintenance SmartBlue App,

LED Module,

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 %

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**Continuous / Liquids****Long term stability**

0.1 % of URL/ year

0.2 % of URL/ 5 years

0.25 % of URL/ 10 years

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**Ambient temperature**

-40°C...+85°C

(-40°F...+185°F)

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**Process temperature**

Standard:

-40°C...+125°C

(-40°F...+257°F)

Diaphragm seal:

-40°C...+400°C

(-40°F...+752°F)

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

700 bar (10,500 psi)

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**Pressure measuring range**

400 mbar... 400 bar

(6psi...6,000psi)

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**Main wetted parts**

316L, AlloyC,

Tantal, Monel,

PTFE

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**Continuous / Liquids****Process connection**

Thread:

G1/2...G2, R1/2, MNPT3/4...MNPT2,

FNPT1/2

Flange:

DN25...DN80,

NPS 1"...3"

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**Max. measurement distance**4000 m (13,123 ft) H<sub>2</sub>O

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**Communication**

4...20 mA,

4...20 mA HART

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**Certificates / Approvals**

ATEX, IEC Ex, CSA C/US

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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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**Hygienic approvals**

Hygienic approvals

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## Continuous / Liquids

**Marine approval**

Marine approval

**Drinking water approvals**

NSF

**Options**

Diaphragm seal

**Application limits**

Measuring cell: Metal welded

If pressurized, possibly use differential pressure measurement with two pressure transmitters (electronic dp). Observe ratio head pressure: hydrostatic pressure

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## Pressure

**Measuring principle**

Absolute and gauge pressure

**Characteristic**

Pressure transmitter with metal membrane for accurate measurement in liquids or gases.

Available with diaphragm seals.

Intuitive and clear wizard for commissioning

**Supply voltage**

Ex d, Ex e, non-Ex:

10.5...35V DC

Ex i: 10.5...30V DC

---

**Pressure****Reference Accuracy**

Standard:

up to 0.075 %

Platinum:

up to 0.055 %

---

**Long term stability**

0.1% of URL/year

0.2% of URL/ 5 years

0.25% of URL/ 10 years

---

**Process temperature**

Standard:

-40°C...+125°C

(-40°F...+257°F)

Diaphragm seal:

-40°C...+400°C

(-40°F...+752°F)

---

**Ambient temperature**

-40°C...+85°C

(-40°F...+185°F)

## Pressure

**Measuring cell**

400 mbar...400 bar

(6psi...6,000psi)

**Smallest calibratable span**

20 mbar (0.3 psi)

**Vacuum resistance**

50 mbar (0.725 psi)

**Max. Turn down**

100:1

**Max. overpressure limit**

2,800 bar (40,600 psi)

**Process connection**

Thread:

G1/2...G2, R1/2, MNPT3/4...MNPT2,

FNPT1/2

Flange:

DN25...DN80,

NPS 1"...3"

**Process connection hygienic**

Process connection hygienic

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**Pressure****Material process membrane**

316L, AlloyC,

Tantal, Monel,

PTFE

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**Material gasket**

PTFE

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**Fill fluid**

Silicone oil, Inert oil,

Vegetable oil,

High/ low temperature oil

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**Material housing**

Aluminium

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**Communication**

4...20 mA,

4...20 mA HART

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**Certificates / Approvals**

ATEX, IEC Ex, CSA C/US

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**Safety approvals**

SIL

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**Design approvals**

EN10204-3.1,

NACE MR0175,

NACE MR0103



## Pressure

### **Hygienic approvals**

Hygienic approvals

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### **Marine approvals**

Marine approvals

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### **Drinking water approvals**

NSF

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### **Specialities**

Heartbeat Technology,

Bluetooth® Operation and maintenance SmartBlue App,

LED Module,

RFID TAG for easy identification,

Plug and play functionalities

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