

# Absolute and gauge pressure Cerabar PMP75

Digital pressure transmitter with fully welded diaphragm seal for measurement in gases or liquids



More information and current pricing:

[www.endress.com/PMP75](http://www.endress.com/PMP75)

## Benefits:

- Large variety of different process connections and membrane materials
- New TempC Membrane minimizes influences of ambient and process temperature fluctuations
- HistoROM data management concept for fast and easy commissioning, maintenance and diagnostics
- Easy menu-guided commissioning via local display, 4 to 20mA with HART, PROFIBUS PA, FOUNDATION Fieldbus
- Highest safety due to gas tight feedthrough with capabilities up to SIL2/3, certified to IEC 61508
- Cost savings with modular concept for easy replacement of sensor, display or electronics
- Overload-resistant and function-monitored from the measuring cell to the electronics

## Specs at a glance

- **Accuracy** 0,075% + influence of diaphragm seal
- **Process temperature** -70°C...400°C (-94°F...752°F)
- **Pressure measuring range** 400 mbar...400 bar (6 psi...6000 psi)
- **Process pressure / max. overpressure limit** 1050bar (15,200psi)
- **Main wetted parts** Alloy C276 316L Monel Tantalum PTFE-Foil

**Field of application:** The Cerabar PMP75 digital pressure transmitter with metal diaphragm seal is typically used in process and hygiene applications for pressure, level, volume or mass measurement in liquids or gases. Suitable for high pressure as well as extreme process

temperature applications from -70 up to +400°C (-94 to 750°F). Quick Setup with adjustable measuring range allows simple commissioning, reduces costs and saves time. Designed according to IEC 61508 for use in SIL2/3 safety applications.

## Features and specifications

### Pressure

#### Measuring principle

Absolute and gauge pressure

#### Characteristic

Digital transmitter with piezoresistive sensor and diaphragm seal

Modular transmitter

Long term stability

Minimum oil volume process connection

Enhanced safety via self diagnostic functions

Secondary process barrier

#### Supply voltage

4...20 mA HART

10,5...45V DC (Non Ex):

Ex ia: 10,5...30V DC

PROFIBUS PA:

9...32 V DC (Non Ex)

FOUNDATION Fieldbus:

9...32 V DC (Non Ex)

#### Reference Accuracy

0,075% + influence of diaphragm seal

#### Long term stability

0.05 % of URL/ year

0.07 % of URL/ 5 years

0.1 % of URL/ 10 years

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**Pressure****Process temperature**

-70°C...400°C  
(-94°F...752°F)

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**Ambient temperature**

-50°C...85°C  
(-58°F...185°F)

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**Measuring cell**

400 mbar...400 bar  
(6 psi...6000 psi)  
relative/ absolute

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**Smallest calibratable span**

5 mbar (0.075 psi)

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**Vacuum resistance**

10 mbar (0.15 psi)

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**Max. Turn down**

100:1

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**Max. overpressure limit**

1050 bar (15.750 psi)

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**Process connection**

Thread:

G1/2...G2, R1/2, MNPT1/2...MNPT2, NPT1/2...NPT1

Flange:

DN25...DN100,

ASME 1"...4",

JIS 10K

Diaphragm seal

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**Pressure****Process connection hygienic**

Tri-Clamp  
DIN11851  
NEUMO  
Varivent  
SMS  
DRD  
Universal adapter

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**Material process membrane**

316L, AlloyC,  
Tantal  
Rhodium > Gold  
PTFE

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**Material gasket**

None, diaphragm welded

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**Fill fluid**

Silicone oil,  
Inert oil,  
Vegetable oil,  
High temperature oil,  
Low temperature oil,

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**Material housing**

Die-cast aluminum,  
AISI 316L

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**Communication**

4...20 mA HART  
PROFIBUS PA  
FOUNDATION Fieldbus

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**Certificates / Approvals**

ATEX, CSA C/US, IEC Ex, JPN Ex, INMETRO, NEPSI, EAC

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**Pressure****Safety approvals**

SIL

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**Design approvals**

EN10204-3.1

NACE MR0103

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**Hygienic approvals**

3A, EHEDG

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**Marine approvals**

GL/ ABS

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**Specialities**

Diagnostic functions

TempC Membrane

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**Successor**

PMP71B

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**Continuous / Liquids****Measuring principle**

Absolute and gauge pressure

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**Characteristic / Application**

Digital transmitter with piezoresistive sensor and diaphragm seal

Modular transmitter

Long term stability

Minimum oil volume

Enhanced safety via self diagnostic functions

Secondary process barrier

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**Specialities**

Diagnostic functionalities

Different languages in software

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**Continuous / Liquids****Supply / Communication**

4...20mA HART:  
10,5...45V DC  
Ex ia: 10,5...30V DC  
PROFIBUS PA /  
FOUNDATION Fieldbus:  
9...32V DC

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**Accuracy**

0,075% + influence of diaphragm seal

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**Long term stability**

0,05% of URL/year

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**Ambient temperature**

-50°C...85°C  
(-58°F...185°F)

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**Process temperature**

-70°C...400°C  
(-94°F...752°F)

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**Process pressure / max. overpressure limit**

1050bar (15,200psi)

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**Pressure measuring range**

400 mbar...400 bar  
(6 psi...6000 psi)

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**Main wetted parts**

Alloy C276  
316L  
Monel  
Tantalum  
PTFE-Foil

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## Continuous / Liquids

### Process connection

Threads  
Flanges (DIN, ASME, JIS) with flush membrane  
Tri-Clamp ISO02852  
Hygienic connections

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### Max. measurement distance

7000m (22.966ft) H2O

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### Communication

4...20 mA HART  
PROFIBUS PA  
FOUNDATION Fieldbus

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### Certificates / Approvals

ATEX, FM, CSA, CSA C/US, IEC Ex, JPN Ex, INMETRO, NEPSI, EAC

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### Safety approvals

SIL

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### Design approvals

EN 10204-3.1  
NACE MR0175, MR0103

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### Hygienic approvals

3A, EHEDG

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### Marine approval

GL/ ABS

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### Options

HistoROM/M-Dat  
4-line digital display  
SS- or Aluminiumhousing  
Separate housing

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### Successor

PMP71B

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## Continuous / Liquids

### 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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