

# 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.ch.endress.com/PMP75](http://www.ch.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 absolute / 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

### Continuous / Liquids

#### Measuring principle

Absolute and gauge pressure

#### 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

#### Specialities

Diagnostic functionalities

Different languages in software

#### Supply / Communication

4...20mA HART:

10,5...45V DC

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

PROFIBUS PA /

FOUNDATION Fieldbus:

9...32V DC

#### Accuracy

0,075% + influence of diaphragm seal

#### Long term stability

0,05% of URL/year

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**Continuous / Liquids****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 absolute / 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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**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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**Continuous / Liquids****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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**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

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## Pressure

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### 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

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### 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)

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### Reference Accuracy

0,075% + influence of diaphragm seal

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### Long term stability

0.05 % of URL/ year

0.07 % of URL/ 5 years

0.1 % of URL/ 10 years

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### Process temperature

-70°C...400°C

(-94°F...752°F)

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## Pressure

**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&gt; 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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## Pressure

### 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, 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

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