

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

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

Continuous / Liquids**Ambient temperature**

-50°C...85°C
(-58°F...185°F)

Process temperature

-70°C...400°C
(-94°F...752°F)

Process pressure absolute / max. overpressure limit

1050bar (15,200psi)

Pressure measuring range

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

Main wetted parts

Alloy C276
316L
Monel
Tantalum
PTFE-Foil

Process connection

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

Max. measurement distance

7000m (22.966ft) H2O

Communication

4...20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus

Certificates / Approvals

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

Continuous / Liquids**Safety approvals**

SIL

Design approvals

EN 10204-3.1

NACE MR0175, MR0103

Hygienic approvals

3A, EHEDG

Marine approval

GL/ ABS

Options

HistoROM/M-Dat

4-line digital display

SS- or Aluminiumhousing

Separate housing

Successor

PMP71B

Application limitsMeasuring cell: Metal
weldedIf pressurized, possibly
use differential pressure
meas-urement with two
pressure transmitters
(electronic dp). Observe
ratio head pressure :
hydrostatic pressure

Pressure**Measuring principle**

Absolute and gauge pressure

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

Process temperature

-70°C...400°C

(-94°F...752°F)

Ambient temperature

-50°C...85°C

(-58°F...185°F)

Measuring cell

400 mbar...400 bar

(6 psi...6000 psi)

relative/ absolute

Pressure

Smallest calibratable span

5 mbar (0.075 psi)

Vacuum resistance

10 mbar (0.15 psi)

Max. Turn down

100:1

Max. overpressure limit

1050 bar (15.750 psi)

Process connection

Thread:

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

Flange:

DN25...DN100,

ASME 1"...4",

JIS 10K

Diaphragm seal

Process connection hygienic

Tri-Clamp

DIN11851

NEUMO

Varivent

SMS

DRD

Universal adapter

Material process membrane

316L, AlloyC,

Tantal

Rhodium > Gold

PTFE

Material gasket

None, diaphragm welded

Pressure**Fill fluid**

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

Material housing

Die-cast aluminum,
AISI 316L

Communication

4...20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus

Certificates / Approvals

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Safety approvals

SIL

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Hygienic approvals

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Specialities

Diagnostic functions
TempC Membrane

Successor

PMP71B

More information www.endress.com/PMP75