

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.fr.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

Pressure**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

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

Pressure**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

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

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

Pressure**Safety approvals**

SIL

Design approvals

EN10204-3.1

NACE MR0103

Hygienic approvals

3A, EHEDG

Marine approvals

GL/ ABS

Specialities

Diagnostic functions

TempC Membrane

Successor

PMP71B

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

Continuous / Liquids**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

Ambient temperature

-50°C...85°C
(-58°F...185°F)

Process temperature

-70°C...400°C
(-94°F...752°F)

Process pressure / 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

Continuous / Liquids

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

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

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

More information www.fr.endress.com/PMP75