Absolute and gauge pressure Cerabar PMP55

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

More information and current pricing:
www.casc.endress.com/PMP55

Benefits:

- Large variety of different process connections and membrane materials
- New TempC Membrane minimizes influences of ambient and process temperature fluctuations
- Easy menu-guided commissioning via on-site display, 4 to 20mA with HART, PROFIBUS PA, FOUNDATION Fieldbus
- For process pressure monitoring up to SIL2, certified to IEC 61508 and IEC 61511
- Modular concept for easy replacement of display or electronics
- Seamless and independent system integration (HART/PA/FF)

Specs at a glance

- **Accuracy** Standard 0.15% Platinum 0.075%
- **Process temperature** -70°C...400°C (-94°F...752°F)
- **Pressure measuring range** 1 bar...400 bar (15 psi...6000 psi)
- **Process pressure absolute / max. overpressure limit** 600 bar (9000 psi)
- **Main wetted parts** 316L AlloyC Montel Tantal Rhodium

Field of application: The Cerabar PMP55 digital pressure transmitter with metal diaphragm seal is typically used in process and hygiene applications for pressure, level, volume or mass measurement in liquids. 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. SIL2 according to IEC 61508 and IEC 61511.

Features and specifications

Continuous / Liquids

Measuring principle
Absolute and gauge pressure

Characteristic / Application
Smart and reliable pressure transmitter, with piezoresistive measuring cell
and metal welded process isolating
diaphragm and diaphragm seal.

Supply / Communication
4 ..20 mA HART:
11,5...45 V DC
Ex ia: 11,5...30 V DC
PROFIBUS PA
FOUNDATION Fieldbus

Accuracy
Standard 0.15%
Platinum 0.075%

Long term stability
< 0,1% von URL/ year
0,2% of URL/ 5 years
0,25% of URL/ 10 years

Ambient temperature
-40°C...85°C
(-40°F...185°F)

Process temperature
-70°C...400°C
(-94°F...752°F)

Continuous / Liquids

Process pressure absolute / max. overpressure limit
600 bar (9000 psi)

Pressure measuring range
1 bar...400 bar
(15 psi...6000 psi)

Main wetted parts
316L
AlloyC
Montel
Tantal
Rhodium

Process connection
Diaphragm seal
Flanges (DIN, ASME, JIS)
Tri-Clamp ISO2852
Hygienic connections

Max. measurement distance
4000m (13.123ft) H2O

Communication
4...20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus
IO-Link

Certificates / Approvals
ATEX, FM, CSA, CSA C/US, IEC Ex, INMETRO, NEPSI

Safety approvals
SIL

Design approvals
EN 10204-3.1
NACE MR0175, MR0103
AD2000

Continuous / Liquids

Hygienic approvals
3A, EHEDG
CoC ASME-BPE

Marine approval
GL/ ABS/ LR/ BV/ DNV

Options
local display

Successor
PMP51B

Application limits
Measuring cell: Metal welded
If 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

Characteristic
Smart and reliable pressure transmitter, with piezoresistive measuring cell
and metal welded process isolating diaphragm and diaphragm seal.

Supply voltage
4...20 mA HART
11,5...45V DC (Non Ex):
Ex ia: 11,5...30V DC
PROFIBUS PA:
9...32 V DC (Non Ex)
FOUNDATION Fieldbus:
9...32 V DC (Non Ex)

Pressure

Reference Accuracy
Standard 0.15%
Platinum 0.075%

Long term stability
0.1% of URL/ year
0.2% of URL/ 5 years
0.25% of URL/ 10 years

Process temperature
-70°C...+400°C
(-94°F...+752°F)

Ambient temperature
-40°C...+85°C
(-40°F...+185°F)

Measuring cell
400 mbar...400 bar
(15 psi...6000 psi)
relative/ absolute

Smallest calibratable span
20 mbar (0.3 psi)

Vacuum resistance
50 mbar (0.73 psi)

Max. Turn down
20:1

Max. overpressure limit
600 bar (9000 psi)

Pressure

Process connection

Thread:
G1/2...G2, MNPT1/2...MNPT2
Flange:
DN25...DN100,
ASME 1"...4",
JIS 10k
Diaphragm seal

Process connection hygienic

Tri-Clamp
DIN11851
DIN11864-1
NEUMO
Varivent
SMS
DRD
Universal adapter

Material process membrane

316L, AlloyC,
Tantal, PTFE,
Rhodium>Gold

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

Pressure

Communication
4...20 mA
4...20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus
IO-Link

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

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Hygienic approvals
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3A, EHEDG

Marine approvals
GL/ ABS/ LR/ BV/ DNV

Specialities
TempC Membrane

Successor
PMP51B

More information **www.casc.endress.com/PMP55**