

Cerabar PMC71B - pressure transmitter

Smart pressure transmitter which detects process anomalies like changes in the loop characteristics



More information and current pricing:

www.th.endress.com/PMC71B

Benefits:

- With Heartbeat Technology you are able to verify the health of the device while the process is running.
- Simple indication of device status - display changes from green to red when diagnostic messages occur
- Reduce systematic failures - error free SIL commissioning and instrument guided proof testing
- Wireless control of the device in hard to reach process areas with the SmartBlue App

Specs at a glance

- **Accuracy** Standard: up to 0.05 % Platinum: up to 0.025 %
- **Process temperature** -40°C...+150°C (-40°F...+302°F)
- **Pressure measuring range** 100 mbar...40 bar (1.5 psi...600 psi)
- **Main wetted parts** Ceraphire ceramic FKM, EPDM, HNBR, Perlast, Kalrez, Chemraz
- **Material process membrane** Ceramic

Field of application: This transmitter belongs to the new Cerabar generation. The device is robust and can be remotely controlled via app on a tablet using a secure Bluetooth connection. It allows condition based maintenance as well. The software is designed to simplify the handling. Intuitive wizards guide the user through setup, proof tests and verification of the device. Heartbeat Technology offers verification and monitoring functions to detect unwanted anomalies e.g. changes in loop characteristics.

Features and specifications

Pressure

Measuring principle

Absolute and gauge pressure

Characteristic

Premium accuracy pressure transmitter with dry ceramic cell. Intuitive and clear wizards for commissioning, proof tests and verification.

Supply voltage

Ex d, Ex e, non-Ex:
10.5...35V DC
Ex i: 10.5...30V DC

Reference Accuracy

Standard:
up to 0.05 %
Platinum:
up to 0.025 %

Long term stability

0.05 % of URL/ year
0.08 % of URL/ 5 years
0.10 % of URL/ 10 years

Process temperature

-40°C...+150°C
(-40°F...+302°F)

Ambient temperature

-40°C...+85°C
(-40°C...+185°F)

Measuring cell

100 mbar...40 bar
(1.5 psi...600 psi)

Smallest calibratable span

5 mbar (0.075 psi)

Pressure**Vacuum resistance**

0 mbar abs.

Max. Turn down

100:1

Max. overpressure limit

60 bar (900 psi)

Process connection

Thread:

G1/2...G2, R1/2, MNPT1/2...MNPT2, FNPT1/2

Flange:

DN25...DN80,

NPS 1"...4"

Material process membrane

Ceramic

Material gasket

FKM, EPDM, HNBR, FFKM

Fill fluid

none, dry measuring cell

Material housing

Aluminium, 316L

Communication

4...20 mA HART

Certificates / Approvals

ATEX, IEC Ex, CSA C/US, NEPSI

Safety approvals

SIL

Design approvals

EN10204-3.1

Pressure

Drinking water approvals

NSF, KTW

Specialities

Heartbeat Technology,
Bluetooth® Operation and maintenance SmartBlue App,
LED Module,
RFID TAG for easy identification,
Plug and play functionalities,
HistoROM

Continuous / Liquids

Measuring principle

Absolute and gauge pressure

Characteristic / Application

Premium accuracy pressure transmitter with dry ceramic cell.
Intuitive and clear wizards for commissioning, proof tests and verification.

Specialities

Heartbeat Technology,
Bluetooth® Operation and maintenance SmartBlue App,
LED Module,
RFID TAG for easy identification,
Plug and play functionalities,
HistoROM

Supply / Communication

Ex d, Ex e, non-Ex::
10.5...35V DC
Ex i: 10.5...30V DC

Continuous / Liquids**Accuracy**

Standard:

up to 0.05 %

Platinum:

up to 0.025 %

Long term stability

0.05 % of URL/ year

0.08 % of URL/ 5 years

0.10 % of URL/ 10 years

Ambient temperature

-40°C...+85°C

(-40°F...+185°F)

Process temperature

-40°C...+150°C

(-40°F...+302°F)

Process pressure absolute / max. overpressure limit

60 bar (900 psi)

Pressure measuring range

100 mbar...40 bar

(1.5 psi...600 psi)

Main wetted parts

Ceraphire ceramic

FKM, EPDM, HNBR,

Perlast, Kalrez, Chemraz

Process connection

Thread:

G1/2...G2, R1/2, MNPT1/2...MNPT2, FNPT1/2

Flange:

DN25...DN80,

NPS 1"...4"

Continuous / Liquids

Max. measurement distance400 m (1312 ft) H₂O

Communication

4...20 mA HART

Certificates / Approvals

ATEX, IEC Ex, CSA C/US, NEPSI

Safety approvals

SIL

Design approvals

EN 10204-3.1

Drinking water approvals

NSF, KTW

Metrological approvals and certificates

MID

Options

Touch control display

Application limits

Measuring cell: ceramics
If pressurized, possibly
use differential pressure
measurement with two
pressure transmitters
(electronic dp). Observe
ratio head pressure :
hydrostatic pressure

More information www.th.endress.com/PMC71B