

# Cerabar PMC71B - pressure transmitter

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



More information and current pricing:

[www.ch.endress.com/PMC71B](http://www.ch.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

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## Pressure

### Measuring principle

Absolute and gauge pressure

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### Characteristic

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

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### Supply voltage

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

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### Reference Accuracy

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

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### Long term stability

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

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### Process temperature

-40°C...+150°C  
(-40°F...+302°F)

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### Ambient temperature

-40°C...+85°C  
(-40°C...+185°F)

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### Measuring cell

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

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### Smallest calibratable span

5 mbar (0.075 psi)

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**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

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## Pressure

### Drinking water approvals

NSF, KTW

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### Specialities

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

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## Continuous / Liquids

### Measuring principle

Absolute and gauge pressure

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### Characteristic / Application

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

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### Specialities

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

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### Supply / Communication

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

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**Continuous / Liquids****Accuracy**

Standard:

up to 0.05 %

Platinum:

up to 0.025 %

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**Long term stability**

0.05 % of URL/ year

0.08 % of URL/ 5 years

0.10 % of URL/ 10 years

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**Ambient temperature**

-40°C...+85°C

(-40°F...+185°F)

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**Process temperature**

-40°C...+150°C

(-40°F...+302°F)

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**Process pressure absolute / max. overpressure limit**

60 bar (900 psi)

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**Pressure measuring range**

100 mbar...40 bar

(1.5 psi...600 psi)

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**Main wetted parts**

Ceraphire ceramic

FKM, EPDM, HNBR,

Perlast, Kalrez, Chemraz

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**Process connection**

Thread:

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

Flange:

DN25...DN80,

NPS 1"...4"

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## Continuous / Liquids

**Max. measurement distance**400 m (1312 ft) H<sub>2</sub>O

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**Communication**

4...20 mA HART

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**Certificates / Approvals**

ATEX, IEC Ex, CSA C/US, NEPSI

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**Safety approvals**

SIL

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**Design approvals**

EN 10204-3.1

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**Drinking water approvals**

NSF, KTW

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**Metrological approvals and certificates**

MID

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**Options**

Touch control display

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**Application limits**

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

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More information [www.ch.endress.com/PMC71B](http://www.ch.endress.com/PMC71B)