

PBCN**Industrial pressure transmitter with capacitive ceramic sensor****Main features**

- Robust stainless housing
- External programming of zero point and span with FlexProgrammer 9701
- High overpressure resistance
- Class of accuracy 0.5% FS
- Capacitive ceramic sensor
- Abrasive and chemical resistant

**Applications**

- | | |
|--|---|
| ■ Process technic | ■ Health care |
| ■ Hydraulic | ■ Biotechnology |
| ■ Pneumatic | <input type="checkbox"/> Food |
| <input type="checkbox"/> Refrigeration | <input type="checkbox"/> Beverage |
| ■ Water treatment | <input type="checkbox"/> Pharmaceutical |
| ■ Car industry | <input type="checkbox"/> Petro-chemical |
| ■ Test benches | ■ Chemical |
| <input type="checkbox"/> Safety | ■ HVAC |
| <input type="checkbox"/> Aerospace | ■ Energy |
| <input type="checkbox"/> Railways | ■ Medical gas |
| ■ Shipbuilding | ■ Agriculture vehicles |
| ■ Heavy vehicle | ■ Pumps and compressors |

Main characteristics (20° C)

Pressure range	-1 ... 0 bar up to 0 ... 40 bar
Accuracy (linearity, hysteresis and repeatability)	0.5% FS

Ordering details - PBCN

	PBCN	1	3	B22	R	A1	14	02	2	1
Housing material										
Stainless steel		1.4301 AISI 304								1
Accuracy										
0.50% FS			3							
Pressure range and unit in bar										
-1 ... 0										B59
-1 ... 0.6										B72
-1 ... 1.5										B74
-1 ... 3										B76
-1 ... 5										B77
-1 ... 9										B79
-1 ... 15										B81
-1 ... 24										B82
-1 ... 39										B1L
0 ... 1										B15
0 ... 1.6										B16
0 ... 2.5										B18
0 ... 4										B19
0 ... 6										B20
0 ... 10										B22
0 ... 16										B24
0 ... 25										B26
0 ... 40										B27
Kind of pressure										
Relative										R
Absolute										A
Output signal										
4 ... 20 mA										A1
0 ... 10 V										A2
Output connection										
M12, 4 pins										14
DIN 43650, 4 pins										44
Shielded cable (1.5 m)										53
Process connection										
G1/4 EN 837										02
G1/2 EN 837										03
1/4 NPT										04
1/2 NPT										05
G1/4 DIN 3852										06
Process connection material										
Stainless steel		1.4404 AISI 316L								2
Sealing										
NBR										1
EPDM										2
FKM (Viton®)										3

Model - PBCN

Technical specification

Measuring principle	Capacitive
Measuring ranges	0 ... 1 bar up to 0 ... 40 bar
Type of pressure	Relative / absolute
Accuracy (20 °C) <small>(linearity, hysteresis, repeatability)</small>	0.5% FS
Annual stability	0.1% FS
Response time (10 ... 90%)	≤ 5 ms
Process connections	See page 4

Environment

Temperature	
Compensated range	-25 ... +70 °C
Storage	-25 ... +70 °C
Media	-25 ... +70 °C
Ambient	-25 ... +70 °C
Thermal drift	See table below
Protection rating	IP 65 (EN 60529) up to IP67 depending on connector
Vibration IEC60068-2-6	1.5 mm p-p (10 – 57 Hz), 10 g (58 Hz – 2 KHz) 10 cycles within 2.5 h per axis
Shock IEC60068-2-27	50 g/11 ms 100 g/6 ms 10 x Imp. per Axis and direction
Bump IEC60068-2-29	100 g/2 ms 4000 x Imp. Axis and direction
Random IEC60068-2-64	0.1 g ² /Hz (20 Hz – 1 kHz), 30 min per axis (>10 g RMS)

Electrical specification

Output signal / Power Supply	4 ... 20 mA / 8 ... 32 VDC 0 ... 10 V / 13 ... 32 VDC
Load impedance	
Current output	$R_{\Omega} = (U_{\text{supply}} - 11 \text{ V}) / 20 \text{ mA}$
Voltage output	> 5 kΩ
Insulation resistance	>100 MΩ at 500 VDC
Electrical connections	See page 4

Material

Process Connection	Stainless steel AISI 316L (1.4404)
Sensor	Ceramic
Sealing	NBR, EPDM, FKM (viton®)
Housing	Stainless steel AISI 304 (1.4301)

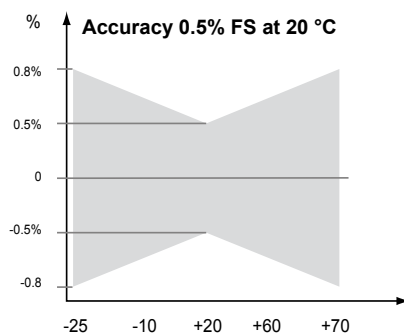
Approvals

CE conformity	Directive 2004/108/CE
EMC	EN 61000-4

Measuring Ranges

Pressure range	Pressure in bar								
	-1...0	-1...0.6	-1...1.5	-1...3	-1...5	-1...9	-1...15	-1...24	-1...39
Overpressure	0...1	0...1.6	0...2.5	0...4	0...6	0...10	0...16	0...25	0...40
Burst pressure	5	14	14	30	30	50	50	105	105

Total error band



Model - PBCN

Electrical connections



M12, 4 pins

Connection

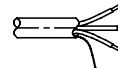
4 ... 20 mA	0 ... 10 V
1 : + Supply	1 : + Supply
2 : N.C.	2 : + Measurement
3 : - Supply	3 : - Supply / - Measurement
4 : N.C.	4 : + Measurement
body : \perp	body : \perp



Standard version DIN 43650 connector

Connection EN 176301-803A

4 ... 20 mA	0 ... 10 V
1 : + Supply	1 : + Supply
2 : - Supply	2 : - Supply / - Measurement
3 : N.C.	3 : + Measurement
\perp : shield	\perp : shield

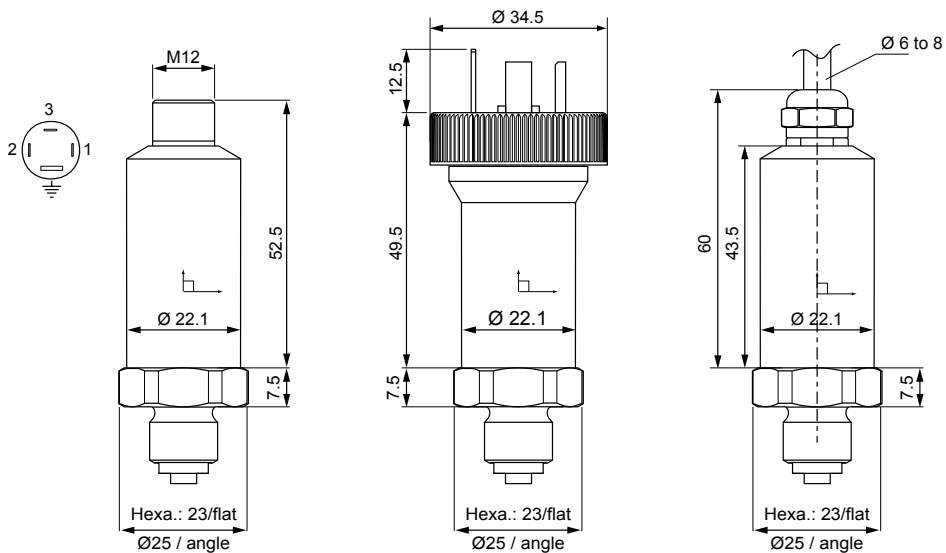


Cable output (1.5m long) + PG7 cable gland

Connection

4 ... 20 mA	0 ... 10 V
+ Supply : white	+ Supply : red
- Supply : blue	- Supply/Meas. : blue
\perp : shield	+ Measurement : white
	\perp : shield

Dimensions (mm), Connections



Process connections

