

PBSN**Industrial pressure transmitter for standard applications****Main features**

- Robust stainless housing
- External programming of zero point and span with FlexProgrammer 9701
- High level of modularity
- Ceramic sensing element
- Abrasive and chemical resistant
- Excellent price/performance ratio

**Applications**

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

Main characteristics (20 °C)

Pressure range	-1...0 bar up to 0...400 bar
Accuracy (linearity, hysteresis and repeatability)	0.7% FS

Ordering details - PBSN

	PBSN	1	2	B22	R	A1	14	02	2	1
Housing material										
Stainless steel	1.4301 AISI 304	1								
Accuracy										
0.70% FS		2								
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						
0 ... 60				B29						
0 ... 100				B31						
0 ... 160				B33						
0 ... 250				B35						
0 ... 400				B38						
Kind of pressure										
Relative					R					
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 - PBSN

Technical specification

Measuring principle	Thick film on ceramic
Measuring ranges	0 ... 1 to 0 ... 400 bar
Type of pressure	Relative
Accuracy (20 °C) (linearity, hysteresis, repeatability)	0.7% FS
Annual stability	≤ 0.2%/year
Response time	≤ 5 ms typical (10 ... 90%)
Process connections	See page 4

Environment

Temperature	
Compensated range	-20 ... +60 °C
Storage	-40 ... +100 °C
Media	-25 ... +100 °C
Ambient	-20 ... +85 °C
Thermal drift	See table below
Protection rating	IP65 (EN 60529) up to IP67 depending on connection
Vibration IEC60068-2-6	1.5 mm (10 – 55Hz), 20 g (55 Hz – 2 KHz) 10 cycles for 2.5 h per axe
Shock IEC60068-2-27	50 g/11 ms 100 g/6 ms 3 x Imp. /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 (10 g RHS)

Electrical specification

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

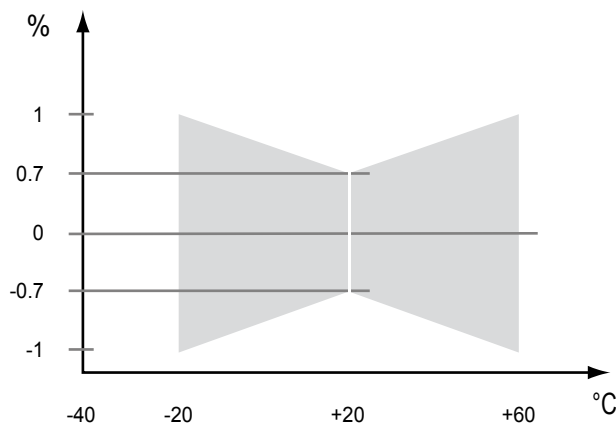
CE conformity	Directive 2004/108/CE in accordance with EN 61000-6-2, EN 61000-6-3, EN 61326-1 (Tab.2) Pressure directive 97/23/CE
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Measuring Ranges

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	0...60	0...100	0...160	0...250	0...400
Overpressure	0...1	0...1.6	0...2.5	0...4	0...6	0...10	0...16	0...25	0...40	120	200	320	360	600
Burst pressure	3	3	7	12	18	30	48	75	120	180	300	480	480	800

Total error band

Accuracy 0.7 % FS at 20 °C



Model - PBSN

Electrical connections



M12, 4 pins

Connection

4 ... 20 mA 0 ... 10V

1 : + Supply	1 : + Supply
2 : N. C.	2 : + Measurement
3 : - Supply	3 : - Supply/ - Measurement
4 : N. C.	4 : N. C.
body : $\perp$	body : $\perp$

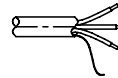


Standard version DIN 43650 connector

Connection EN 176301-803A

4 ... 20 mA 0 ... 10V

1 : + Supply	1 : + Supply
2 : - Supply	2 : - Supply/ - Measurement
3 : N. C.	3 : + Measurement
$\perp$: Shield	$\perp$: Shield



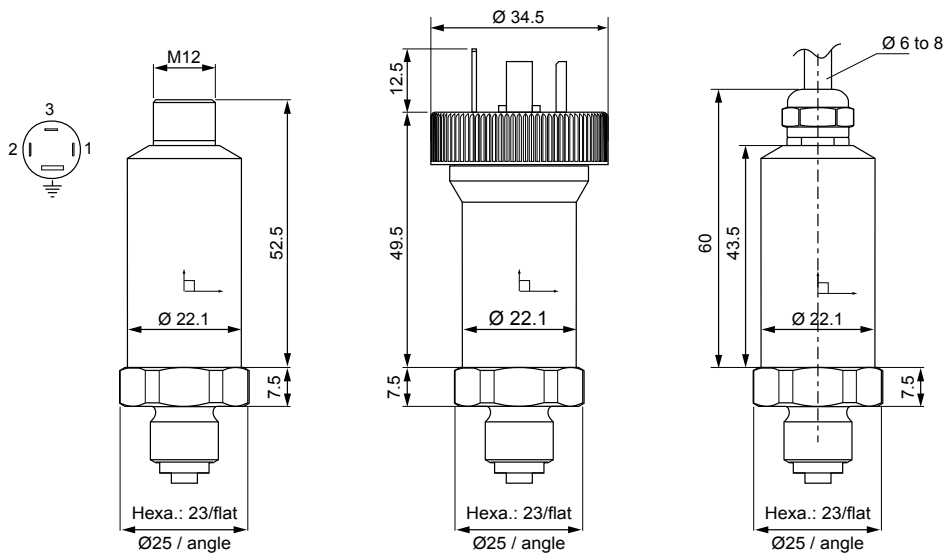
Cable output (1.5m long) + PG7 cable gland

Connection

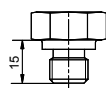
4 ... 20 mA 0 ... 10V

+ Supply : white	+ Supply : red
- Supply : blue	- Supply/Meas. : blue
$\perp$: Shield	+ Measurement : white
	$\perp$: Shield

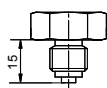
Dimensions (mm), Connections



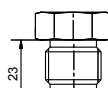
Hydraulic connections



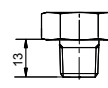
G 1/4 DIN 3852-E



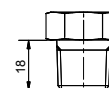
G 1/4 EN837



G 1/2 EN837



1/4 NPT



1/2 NPT