

**Overview**

- Robust stainless housing for harsh environment conditions
- Standard use from -1 to 400 bar
- Robust ceramic measuring cell
- Abrasive resistant due to ceramic measurement cell
- Absolute pressure, relative pressure and vacuum measurement


**Technical data**
**Performance characteristics**

Measuring range	-1 ... 400 bar
Min. measuring span	1.0 bar
Max. measuring span	400 bar
Pressure type	Absolute Relative (gauged)
Standard error of measurement (BFSL)	± 0.3 % FSR , available for measuring spans > 1 bar ± 0.4 % FSR Including non-linearity, hysteresis and non-repeatability according BFSL
Max. measuring error	± 0.5 % FSR , available for measuring spans > 1 bar ± 0.7 % FSR Including zero-point and span error, non-linearity (by terminal base line), hysteresis and non-repeatability (EN 61298-2)
Temperature coefficient	≤ 0.08 % FSR/10 K , measuring span ≤ 0.08 % FSR/10 K , zero point
Compensated temperature range	-20 ... 60 °C
Long term stability	≤ 0.2 % FSR/a
Rise time (10 ... 90 %)	≤ 5 ms

**Process conditions**

Process pressure	Refer to section "Operating conditions"
Process temperature	-20 ... 100 °C , with FKM (Viton®) gasket -30 ... 100 °C , with NBR gasket -40 ... 100 °C , with EPDM gasket

**Process connection**

Connection variants	Refer to section "Dimensional drawings"
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**Process connection**

Wetted parts material, gasket	EPDM, optional EPDM O-rings conform to 3-A Sanitary Standard 18-03 Class II, EPDM gaskets conform to 3-A Sanitary Standard 18-03 Class I (8% milk fat max.) FKM (Viton®), optional FKM (Viton®) gaskets require a minimum ambient temperature of -20 °C and a minimum medium temperature of -25 °C NBR
Wetted parts material, membrane	Ceramic, 96% AL2O3
Wetted parts material, process connection	AISI 316L (1.4404)

**Ambient conditions**

Shock and vibration tests (EN 61373:1999, 2010)	Category 1, class B
Degree of protection (EN 60529)	IP 65 , with connector DIN EN 175301-803 A (DIN 43650 A), 4-pin IP 67 , with connector M12-A, 4-pin IP 67 , with shielded cable
Operating temperature range	-20 ... 85 °C
Storage temperature range	-40 ... 100 °C

**Output signal**

Current output	4 ... 20 mA , 2-wire
Voltage output	0 ... 10 V , 3-wire 0 ... 5 V , 3-wire 0.5 ... 4.5 V , 3-wire 1 ... 5 V , 3-wire
Load resistance	≥ 5 kΩ R = (U <sub>ver</sub> - 8 V)/20 mA, with current output
Insulation resistance	> 100 MΩ , 500 V DC
Short circuit protection	Yes
Shunt resistance	R <sub>s</sub> ≤ (V <sub>s</sub> - 8 V)/0.0205 A R <sub>s</sub> ≤ 750 Ω, V <sub>s</sub> = 24 V

**Technical data**

**Housing**

Overall size	Refer to section "Dimensional drawings"
Style	Compact transmitter
Material	AISI 304 (1.4301)

**Electrical connection**

Cable outlet	1.5 m, 3-wire, shielded
Connector	DIN EN 175301-803 A (DIN 43650 A), 4-pin M12-A, 4-pin

**Power supply**

Voltage supply range	15 ... 30 V DC , with voltage output 8 ... 30 V DC , with current output
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**Compliance and approvals**

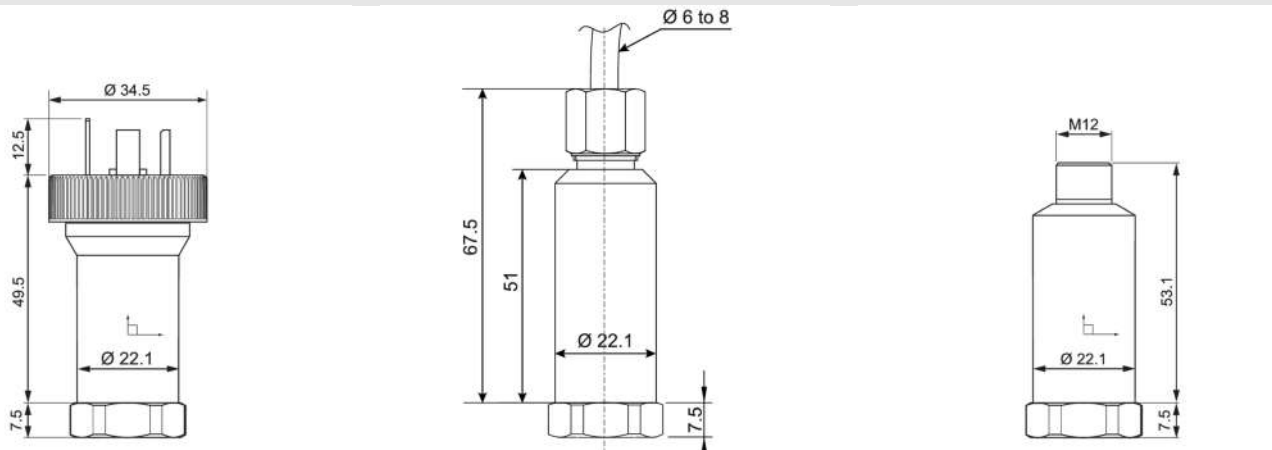
EMC	EN 61000-6-2 EN 61000-6-3 EN 61326-1
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**Operating conditions**

Measuring range (bar)				Proof pressure (bar)	Burst Pressure (bar)
-1 ... 0	-1 ... 0,6	0 ... 1	0 ... 1,6	2	3
-1 ... 1,5	0 ... 2,5			4	7
-1 ... 3	0 ... 4			8	12
-1 ... 5	0 ... 6			12	18
-1 ... 9	0 ... 10			20	30
-1 ... 15	0 ... 16			32	48
-1 ... 24	0 ... 25			50	75
-1 ... 39	0 ... 40			80	120
	0 ... 60			120	180
	0 ... 100			200	300
	0 ... 160			320	480
	0 ... 250			360	480
	0 ... 400			600	800

**Dimensional drawings**

**Housing**

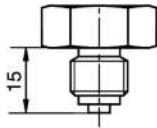


Housing with connector DIN EN 175301-803 A (DIN 43650 A), 4-pin

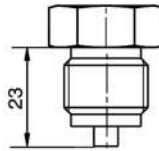
Housing with cable outlet, 3-wire, 1.5 m length

Housing with connector M12-A, 4-pin

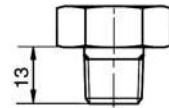
**Process connection**



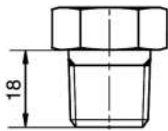
G30-2  
G 1/4 B EN 837-1 (BCID: G30)  
G 1/4 B EN 837-1 (BCID: G30)



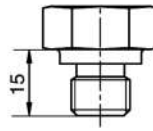
G31-3  
G 1/2 B EN 837-1 (BCID: G31)  
G 1/2 B EN 837-1 (BCID: G31)



N01-5  
1/4-18 NPT (BCID: N01)  
1/4-18 NPT (BCID: N01)



N02-6  
1/2-14 NPT (BCID: N02)  
1/2-14 NPT (BCID: N02)



G50-B  
G 1/4 A DIN 3852-E (BCID: G50)  
G 1/4 A DIN 3852-E (BCID: G50)

**Electrical connection**

Output signal	Equivalent circuit	Electrical connection	Function	Pin assignment
4 ... 20 mA (2-wire)			+Vs	1
			Iout	3
			Frame Ground	Plug thread
0 ... 10 V (3-wire)			+Vs	1
			Uout	2, 4
			Frame Ground	Plug thread

**Ordering information**

Ordering key - Configuration possibilities see website

	PBSN	-	1	.	#	.	###	.	#	.	##	.	##	.	##	.	##	.	2	.	#
<b>Product</b>	PBSN																				
<b>Housing material</b>	SS 1.4301 AISI 304		1																		
<b>Accuracy</b>	±0.7 % FS										2										
	±0.5 % FS										3										
<b>Measuring range</b>	0...1 bar (EN)																				B15
	0...1,6 bar (EN)																				B16
	0 ... 2.5 bar (EN)																				B18
	0 ... 4 bar (EN)																				B19
	-1...39 bar (EN)																				B1L
	0 ... 6 bar (EN)																				B20
	0 ... 10 bar (EN)																				B22
	0 ... 16 bar (EN)																				B24
	0...20 bar (EN)																				B25
	0...25 bar (EN)																				B26
	0...40 bar (EN)																				B27

**Ordering key - Configuration possibilities see website**

	PBSN	-	1	.	#	.	###	.	#	.	##	.	##	.	##	.	2	.	#	
0...60 bar (EN)																				B29
0...100 bar (EN)																				B31
0 ... 160 bar (EN)																				B33
0...250 bar (EN)																				B35
0...400 bar (EN)																				B38
-1...0 bar (EN)																				B59
-1...0,6 bar (EN)																				B72
-1...1,5 bar (EN)																				B74
-1...3 bar (EN)																				B76
-1...5 bar (EN)																				B77
-1...9 bar (EN)																				B79
-1...15 bar (EN)																				B81
-1...24 bar (EN)																				B82
0...100 kPa (EN)																				D15
0...160 kPa (EN)																				D16
0...250 kPa (EN)																				D18
0...400 kPa (EN)																				D19
-100...3900 kPa (EN)																				D1L
0...600 kPa (EN)																				D20
0...1000 kPa (EN)																				D22
0...1600 kPa (EN)																				D24
0...2000 kPa (EN)																				D25
0...2500 kPa (EN)																				D26
0...4000 kPa (EN)																				D27
0...6000 kPa (EN)																				D29
0...10000 kPa (EN)																				D31
0...16000 kPa (EN)																				D33
0...25000 kPa (EN)																				D35
0...40000 kPa (EN)																				D38
-100...0 kPa (EN)																				D59
-100...60 kPa (EN)																				D72
-100...150 kPa (EN)																				D74
-100...300 kPa (EN)																				D76
-100...500 kPa (EN)																				D77
-100...900 kPa (EN)																				D79
-100...1500 kPa (EN)																				D81
-100...2400 kPa (EN)																				D82
0...1 kg/cm2 (EN)																				F15
0...1,6 kg/cm2 (EN)																				F16
0...2,5 kg/cm2 (EN)																				F18
0...4 kg/cm2 (EN)																				F19
-1...39 kg/cm2																				F1L
0...6 kg/cm2 (EN)																				F20
0...10 kg/cm2 (EN)																				F22
0...16 kg/cm2 (EN)																				F24
0...20 kg/cm2 (EN)																				F25
0...25 kg/cm2 (EN)																				F26
0...40 kg/cm2 (EN)																				F27
0...60 kg/cm2 (EN)																				F29
0...100 kg/cm2 (EN)																				F31

**Ordering key - Configuration possibilities see website**

	PBSN	-	1	.	#	.	###	.	#	.	##	.	##	.	##	.	2	.	#	
0...160 kg/cm2 (EN)																				F33
0...250 kg/cm2 (EN)																				F35
0...400 kg/cm2 (EN)																				F38
-1...0 kg/cm2 (EN)																				F59
-1...0,6 kg/cm2 (EN)																				F72
-1...1,5 kg/cm2 (EN)																				F74
-1...3 kg/cm2 (EN)																				F76
-1...5 kg/cm2 (EN)																				F77
-1...9 kg/cm2 (EN)																				F79
-1...15 kg/cm2 (EN)																				F81
-1...24 kg/cm2 (EN)																				F82
0...15 psi (ANSI)																				H15
0...30 psi (ANSI)																				H17
0...60 psi (ANSI)																				H19
0...20 psi (ANSI)																				H1C
-30Hg...600 psi (ANSI)																				H1L
0...100 psi (ANSI)																				H21
0...160 psi (ANSI)																				H22
0...200 psi (ANSI)																				H23
0...300 psi (ANSI)																				H25
0...400 psi (ANSI)																				H26
0...600 psi (ANSI)																				H27
-30HG...60 psi (ANSI)																				H2C
0...1000 psi (ANSI)																				H30
0...1500 psi (ANSI)																				H31
0...3000 psi (ANSI)																				H34
0...6000 psi (ANSI)																				H38
-30HG...0 psi (ANSI)																				H59
-30HG...15 psi (ANSI)																				H73
-30HG...30 psi (ANSI)																				H75
-30HG...100 psi (ANSI)																				H78
-30HG...150 psi (ANSI)																				H79
-30HG...220 psi (ANSI)																				H81
-30HG...300 psi (ANSI)																				H82
<b>Kind of pressure</b>																				
Relative (gauged)																				R
Absolute																				A
<b>Output signal</b>																				
4...20 mA																				A1
0...10 V																				A2
1...5 V																				A3
0...5 V																				A4
0.5...4.5 V																				A5
<b>Output Connection</b>																				
M12-A, 4-pin																				14
DIN EN 175301-803 A (DIN 43650 A), 4-pin																				44
Cable outlet 1.5 m, 3-wire, shielded																				53
<b>Process connection</b>																				
G 1/4 B EN 837-1 (G30)																				02
G 1/2 B EN 837-1 (G31)																				03

**Ordering key - Configuration possibilities see website**

	PBSN	-	1	.	#	.	###	.	#	.	##	.	##	.	##	.	2	.	#
1/4-18 NPT (N01)													04						
1/2-14 NPT (N02)													05						
G 1/4 A DIN 3852-E (G50)													06						
G 1/2 A DIN 3852-E (G51)													09						
<b>Process connection material</b>																			
Stainless steel 1.4404 AISI 316L																			2
<b>Seal</b>																			
NBR standard																			1
EPDM																			2
FKM (Viton®)																			3