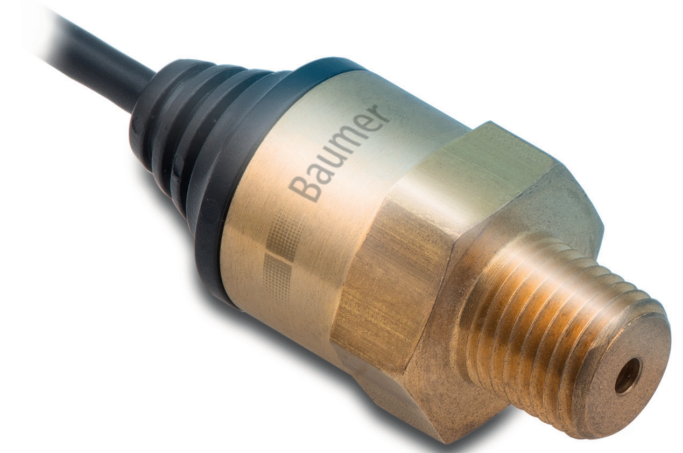


Overview

- Relative pressure measurement from -1 to 40 bar
- Robust ceramic measuring cell
- Brass housing
- Compact design
- Relative pressure and vacuum measurement



Technical data

Performance characteristics

Measuring range	-1 ... 40 bar
Min. measuring span	1 bar
Max. measuring span	40 bar
Pressure type	Relative (gauged)
Standard error of measurement (BFSL)	± 0.5 % FSR Including non-linearity, hysteresis and non-repeatability according BFSL
Max. measuring error	± 2.5 % FSR 0 0Including zero-point and span error, nonlinearity (by terminal base line), hysteresis and non-repeatability (EN 61298-2)
Temperature coefficient	≤ 0.15 % FSR/10 K , measuring span ≤ 0.25 % FSR/10 K , zero point
Compensated temperature range	-10 ... 55 °C
Long term stability	≤ 0.3 % FSR/a
Rise time (10 ... 90 %)	≤ 3 ms

Process conditions

Process pressure	Refer to section "Operating conditions"
Process temperature	-40 ... 100 °C

Process connection

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, gasket	CR, optional FKM (Viton®) gaskets require a minimum ambient temperature of -20 °C and a minimum medium temperature of -25 °C FKM (Viton®), optional NBR, optional EPDM, optional
Wetted parts material, membrane	Ceramic, 96% AL2O3
Wetted parts material, process connection	Brass

Ambient conditions

Bump (EN 60068-2-27)	100 g / 2 ms, 4000 impulses per axis and direction
Shock (EN 60068-2-27)	50 g / 11 ms, 100 g / 6 ms, 3 impulses per axis and direction
Shock and vibration tests (EN 61373:1999, 2010)	Category 1, class B
Vibration (sinusoidal) (EN 60068-2-6)	1.5 mm p-p (10 ... 55 Hz), 10 g (55 Hz ... 2 kHz), 10 cycles (2.5 h) per axis
Vibration, broad-band random (EN 60068-2-64)	0.1 g ² / Hz, > 10 gRMS (20 Hz ... 1 kHz), 30 min. per axis
Degree of protection (EN 60529)	IP 65 , with connector DIN EN 175301-803 A (DIN 43650 A), 4-pin
Operating temperature range	-40 ... 85 °C
Storage temperature range	-40 ... 85 °C

Output signal

Current output	4 ... 20 mA , 2-wire
Voltage output	0 ... 10 V 0.5 ... 4.5 V DC ratiometric 1 ... 5 V
Load resistance	> 5 kΩ, with voltage output R = (U _{ver} - 11 V)/20 mA, with current output
Insulation resistance	> 100 MΩ , 250 V DC
Short circuit protection	Yes

Housing

Overall size	Refer to section "Dimensional drawings"
Style	Compact transmitter
Material	Brass

Electrical connection

Cable outlet	1 m, 3-wire 2 m, 3-wire 5 m, 3-wire
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Technical data

Power supply

Voltage supply range 11 ... 30 V DC , with 4 ... 20 mA output signal
 15 ... 30 V DC , with 0 ... 10 V output signal
 11 ... 30 V DC , with 1 ... 5 V output signal
 5 V DC ratiometric , with 0.5 ... 4.5 V output signal

Compliance and approvals

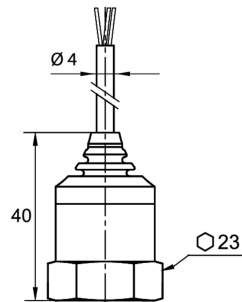
EMC EN 61000-6-2
 EN 61000-6-3
 EN 61326-1

Operating conditions

	Measuring range (bar)		Proof pressure (bar)	Burst Pressure (bar)
	-1 ... 0	0 ... 1	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

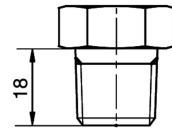
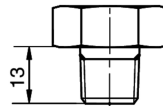
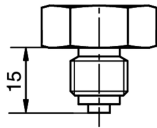
Dimensional drawings

Housing



Housing with cable outlet, 3-wire

Process connection



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

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

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

Electrical connection

Output signal	Equivalent circuit	Electrical connection	Function	Pin assignment
4 ... 20 mA (2-wire)			+Vs lout n.c.	RD BK WH
0 ... 10 V (3-wire)			+Vs Uout GND (0 V)	RD WH BK

Ordering information

Ordering key - Configuration possibilities see website

	CTL	-	L	.	#	.	#	.	#	###	#	####
Product	CTL											
Housing material												
Brass			L									
Output signal												
4 ... 20 mA											3	
0 ... 10 V											2	
1 ... 5 V											4	
0,5 ... 4,5 V ratiometric											7	
Process connection												
G 1/4 A DIN 3852-E (G50)												B
G 1/4 B EN 837-1 (G30)												2
1/4-18 NPT (N01)												5
Sealing												
NBR												3
EPDM												5
FKM (Viton®)												9
CR (Neoprene)												4
Measuring range												
0...1 bar (EN)												B15
0 ... 2.5 bar (EN)												B18
0 ... 4 bar (EN)												B19
-1...39 bar (EN)												B1L

Ordering key - Configuration possibilities see website

	CTL	-	L	.	#	.	#	.	#	###	#	####
0 ... 6 bar (EN)												B20
0 ... 10 bar (EN)												B22
0 ... 16 bar (EN)												B24
0...25 bar (EN)												B26
0...40 bar (EN)												B27
-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...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...2500 kPa (EN)												D26
0...4000 kPa (EN)												D27
-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/cm ² (EN)												F15
0...2,5 kg/cm ² (EN)												F18
0...4 kg/cm ² (EN)												F19
-1...39 kg/cm ²												F1L
0...6 kg/cm ² (EN)												F20
0...10 kg/cm ² (EN)												F22
0...16 kg/cm ² (EN)												F24
0...20 kg/cm ² (EN)												F25
0...25 kg/cm ² (EN)												F26
0...40 kg/cm ² (EN)												F27
-1...0 kg/cm ² (EN)												F59
-1...0,6 kg/cm ² (EN)												F72
-1...1,5 kg/cm ² (EN)												F74
-1...3 kg/cm ² (EN)												F76
-1...5 kg/cm ² (EN)												F77
-1...9 kg/cm ² (EN)												F79
-1...15 kg/cm ² (EN)												F81
-1...24 kg/cm ² (EN)												F82
0...15 psi (ANSI)												H15
0...30 psi (ANSI)												H17

Ordering key - Configuration possibilities see website

	CTL	-	L	.	#	.	#	.	#	###	#	####
0...35 psi (ANSI)												H18
0...60 psi (ANSI)												H19
0...20 psi (ANSI)												H1C
0...100 psi (ANSI)												H21
0...160 psi (ANSI)												H22
0...200 psi (ANSI)												H23
0...250 psi (ANSI)												H24
0...300 psi (ANSI)												H25
0...400 psi (ANSI)												H26
0...600 psi (ANSI)												H27
Output Connection												
Cable outlet 1 m, 3-wire												1
Cable outlet 2 m, 3-wire												2
Cable outlet 5 m, 3-wire												5
Signal inversion												
Signal inversion (only for 0 ... -1 bar, 0 bar = 4mA and -1 bar = 20mA)												4780
not selected												&