

**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**

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

**Process conditions**

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

**Process connection**

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, process connection	Brass
Wetted parts material, membrane	Ceramic, 96% AL2O3

**Ambient conditions**

Operating temperature range	-40 ... 85 °C
Storage temperature range	-40 ... 85 °C
Degree of protection (EN 60529)	IP 65 , with connector DIN EN 175301-803 A (DIN 43650 A), 4-pin
Bump (EN 60068-2-27)	100 g / 2 ms, 4000 impulses per axis and direction

**Ambient conditions**

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 <sup>2</sup> / Hz, > 10 gRMS (20 Hz ... 1 kHz), 30 min. per axis

**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 <sub>ver</sub> - 11 V)/20 mA, with current output
Insulation resistance	> 100 MΩ , 250 V DC
Short circuit protection	Yes

**Housing**

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

**Electrical connection**

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

**Compliance and approvals**

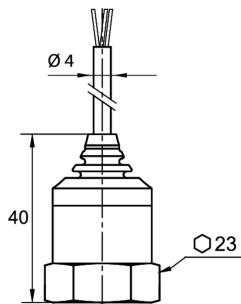
EMC EN 61000-6-2  
EN 61000-6-3  
EN 61326-1

**Operating conditions**

Measuring range (bar)	Proof pressure (bar)	Burst Pressure (bar)
-1 ... 0	0 ... 1	2
-1 ... 1,5	0 ... 2,5	4
-1 ... 3	0 ... 4	8
-1 ... 5	0 ... 6	12
-1 ... 9	0 ... 10	20
-1 ... 15	0 ... 16	32
-1 ... 24	0 ... 25	50
-1 ... 39	0 ... 40	80

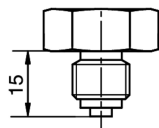
**Dimensional drawings**

**Housing**

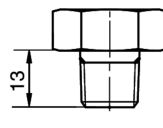


Housing with cable outlet, 3-wire

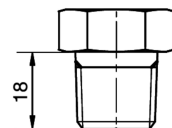
**Process connection**



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 Iout 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	.	#	.	#	.	#	###	#	####
<b>Product</b>	CTL											
<b>Housing material</b>												
Brass			L									
<b>Output signal</b>												
4 ... 20 mA											3	
0 ... 10 V											2	
1 ... 5 V											4	
0,5 ... 4,5 V ratiometric											7	
<b>Process connection</b>												
G 1/4 B EN 837-1 (G30)											2	
1/4-18 NPT (N01)											5	
<b>Sealing</b>												
NBR												3
EPDM												5
FKM (Viton®)												9
CR (Neoprene)												4
<b>Measuring range</b>												
0...1 bar (EN)												B15
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...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

**Ordering information**
**Ordering key - Configuration possibilities see website**

	CTL	-	L	.	#	.	#	.	#	###	#	####
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 <sup>2</sup> (EN)											F15	
0...2,5 kg/cm <sup>2</sup> (EN)											F18	
0...4 kg/cm <sup>2</sup> (EN)											F19	
-1...39 kg/cm <sup>2</sup>											F1L	
0...6 kg/cm <sup>2</sup> (EN)											F20	
0...10 kg/cm <sup>2</sup> (EN)											F22	
0...16 kg/cm <sup>2</sup> (EN)											F24	
0...20 kg/cm <sup>2</sup> (EN)											F25	
0...25 kg/cm <sup>2</sup> (EN)											F26	
0...40 kg/cm <sup>2</sup> (EN)											F27	
-1...0 kg/cm <sup>2</sup> (EN)											F59	
-1...0,6 kg/cm <sup>2</sup> (EN)											F72	
-1...1,5 kg/cm <sup>2</sup> (EN)											F74	
-1...3 kg/cm <sup>2</sup> (EN)											F76	
-1...5 kg/cm <sup>2</sup> (EN)											F77	
-1...9 kg/cm <sup>2</sup> (EN)											F79	
-1...15 kg/cm <sup>2</sup> (EN)											F81	
-1...24 kg/cm <sup>2</sup> (EN)											F82	
0...15 psi (ANSI)											H15	
0...30 psi (ANSI)											H17	
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
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**Ordering information**

**Ordering key - Configuration possibilities see website**

CTL - L . # . # . # ### # ####  
&

not selected