

30.600 G

OEM Pressure Transmitter Low Cost

Applications

- ▶ mechanical and plant engineering
- ▶ general industrial applications

Characteristics

- ▶ ceramic sensor
- ▶ accuracy 1 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 1.6 bar up to 0 ... 250 bar



Technical Data

Input pressure range													
Nominal pressure gauge	[bar]	1.6	2.5	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	5	5	12	12	20	50	50	120	120	200	400	400
Burst pressure ≥	[bar]	7	7,5	15	18	30	70	75	150	180	300	500	750
Vacuum resistance		unlimited											

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$
Options	3-wire: 0 ... 10 V / $V_S = 14 \dots 30 V_{DC}$
	3-wire ratiometric: 10...90 % of V_S / $V_S = 2.7 \dots 5 V_{DC}$

Performance	
Accuracy ¹	≤ ± 1 % FSO
Permissible load	2-wire: $R_{max} = [(V_S - V_{Smin}) / 0.02 A] \Omega$ 3-wire: $R_{min} = 10 k\Omega$
Influence effects	supply: 0.05 % FSO / 10 V
	load: 0.05 % FSO / kΩ
Response time	2-wire: ≤ 10 msec 3-wire: ≤ 3 msec
Long term stability	≤ ± 0.3 % FSO / year at reference conditions
Measuring rate	1 kHz

¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (Offset and Span) / Permissible temperatures			
Thermal error	≤ ± 0.5 % FSO / 10 K (typ.)	in compensated range	-25 ... 85 °C
Permissible temperatures	medium: -25 ... 125 °C	electronics / environment:	-25 ... 85 °C
		storage:	-40 ... 85 °C

Electrical protection	
Short-circuit protection	permanent 3-wire ratiometric: none
Reverse polarity protection	no damage, but also no function
Electromagnetic protection	emission and immunity according to EN 61326

Mechanical stability	
Vibration	10 g, 25 Hz ... 2 kHz according to DIN EN 60068-2-6
Shock	500 g / 1 msec according to DIN EN 60068-2-27



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The company BD SENSORS s.r.o. is certified by TÜV SÜD Czech according to the standard ISO 9001.



Materials				
Pressure port / housing	stainless steel 1.4301 (304)			
Seals (media wetted)	FKM	others on request		
Diaphragm	ceramics Al ₂ O ₃ 96 %			
Media wetted parts	pressure port, seals, diaphragm			
Miscellaneous				
Weight	approx. 120 g			
Current consumption	2-wire: max. 25 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)		3-wire ratiometric: typ. 1.5 mA	
Operational life	100 million load cycles			
CE-conformity	EMC Directive: 2014/30/EU		Pressure Equipment Directive: 2014/68/EU (module A) ²	
² This directive is only valid for devices with maximum permissible overpressure > 200 bar				
Wiring diagrams				
2-wire-system (current) 		3-wire-system (voltage) 		
Pin configuration				
Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), metal	cable colour (IEC 60757)
Supply +	1	1	1	wh (white)
Supply -	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin	ground pin	4	gn/ye (green / yellow)
Electrical connections (dimensions in mm)				
³ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C) ⁴ different cable types and lengths available, permissible temperature depends on kind of cable				
Mechanical connection (dimensions in mm)				

This data sheet contains product specification. Properties are not guaranteed. Subject to change without notice.