



18.601 G

OEM Pressure Transmitter Low Pressure



Applications

- ▶ general industrial applications

Characteristics

- ▶ piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 100 mbar up to 0 ... 6 bar



Technical Data

Input pressure range												
Nominal pressure gauge	[bar]	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	
Overpressure	[bar]	1	1	1	1	3	3	6	10	10	21	
Burst pressure \geq	[bar]	1.5	1.5	1.5	1.5	5	5	10	17.5	17.5	35	
Vacuum resistance		unlimited										
Output signal / Supply												
Standard	2-wire:	4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$										
Options 3-wire	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 ^{1,2}		$\leq \pm 0.5 \% \text{ FSO}$										
Permissible load	2-wire:	$R_{max} = [(V_S - V_{S min}) / 0.02 A] \Omega$										
	3-wire:	$R_{min} = 10 \text{ k}\Omega$										
Influence effects	supply:	0.05 % FSO / 10 V										
	load:	0.05 % FSO / $k\Omega$										
Response time	2-wire:	$\leq 10 \text{ msec}$					3-wire:	$\leq 3 \text{ msec}$				
Long term stability		$\leq \pm 0,2 \% \text{ FSO} / \text{year}$ at reference conditions										
Measuring rate		1 kHz										
¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)												
² for pressure ranges $\leq 160 \text{ mbar}$ accuracy is $\leq \pm 1\% \text{ FSO}$												
Thermal effects (Offset and Span) / Permissible temperatures												
Thermal error		$\leq \pm 0.3 \% \text{ FSO} / 10 \text{ K}$					in compensated range 0 ... 70 °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 compatibility		emission and immunity according to EN 61326										
Mechanical stability												
Vibration		10 g, 25 Hz ... 2 kHz			according to DIN EN 60068-2-6							
Shock		100 g / 1 msec			according to DIN EN 60068-2-27							

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Materials			
Pressure port / housing	stainless steel 1.4301 (304)		
Seals	FKM		
Diaphragm	stainless steel 1.4435 (316 L)		
Media wetted parts	pressure port, seals, diaphragm		
Miscellaneous			
Weight	approx. 120 g		
Current consumption	2-wire: max. 25 mA		3-wire ratiometric: typ. 1.5 mA
	3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)		
CE-conformity	EMC Directive: 2004/108/EC		
Wiring diagrams			
2-wire-system (current)		3-wire-system (voltage)	
Pin configuration			
Electrical connection	ISO 4400	M12x1 (4-pin)	cable colours (DIN 47100)
Supply +	1	1	wh (white)
Supply -	2	2	bn (brown)
Signal + (for 3-wire)	3	3	gn (green)
Shield	ground pin	4	ye/gn (yellow / green)
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)			
<p style="text-align: center;"> G1/4" DIN 3852 G1/4" EN 837 1/4" NPT G1/2" EN 837 </p>			

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