



18.600 G

OEM Pressure Transmitter Pneumatics

Applications:

- ▶ compressed air network
- ▶ general mechanical engineering

Characteristics:

- ▶ silicon sensor
without media isolation
- ▶ 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]	-1 ... 0	0.1	0.25	0.4	0.6	1	1.6	2.5	4	6		
Overpressure	[bar]	3	0.5	1	1	3	3	6	10	10	20		
Output signal / Supply													
Standard		2-wire:		4 ... 20 mA		/		V _S = 8 ... 32 V _{DC}					
Option		3-wire:		0 ... 10 V		/		V _S = 14 ... 30 V _{DC}					
		3-wire ratiometric:		0.5 ... 4.5 V		/		V _S = 5 ± 0.5 V _{DC}					
Performance													
Accuracy ¹		≤± 0.5 % FSO											
Permissible load		2-wire:		R _{max} = [(V _S - V _{Smin}) / 0.02] Ω									
		3-wire:		R _{min} = 10 kΩ									
Influence effects		supply:				0.05 % FSO / 10 V		load: 0.05 % FSO / kΩ					
Response time		2-wire:		≤ 10 msec				3-wire:		≤ 3 msec			
Measuring rate		1 kHz											
¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)													
Thermal effects (Offset and Span)													
Nominal pressure P _N	[bar]	-1 ... 0				≤ 0.4				> 0.4			
Tolerance band	[% FSO]	≤± 1				≤± 1				≤± 0.75			
in compensated range	[°C]					0 ... 70				-20 ... 85			
Permissible temperatures													
Permissible temperatures		medium: -25 ... 125 °C electronics / environment: -25 ... 85 °C						storage: -40 ... 85 °C					
Electrical protection													
Short-circuit protection		permanent											
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 / 11 msec				according to DIN EN 60068-2-27							

Materials			
Pressure port / housing	stainless steel 1.4301 (304)		
Seals	FKM		
Sensor	stainless steel 1.4404 (316L), silicon, glass, epoxy or RTV		
Media wetted parts	pressure port, seals, sensor		
Miscellaneous			
Permissible media	pressurized air, non-aggressive gases		
Current consumption	2-wire: max. 25 mA; 3-wire voltage: typ. 5 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 connections	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	gn/ye (yellow / green)
Electrical connections (dimensions in mm)			
² standard: 2 m PVC cable without ventilation tube (permissible temperatur: -5 ... 70 °C) ³ different cable types and lengths available, permissible temperatur depends on kind of cable			
Mechanical connection (dimensions in mm)			
standard 		option ⁴ 	
G1/4" DIN 3852		G1/4" EN 837	
		G1/4" NPT	
		G1/2" EN 837	
⁴ other mechanical connections on request			

