

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

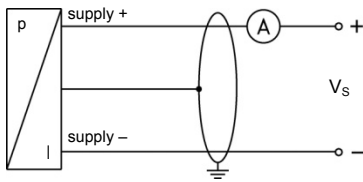
Input pressure range													
Nominal pressure gauge	[bar]	1.6	2.5	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	5	5	12	12	20	50	50	120	120	200	400	400
Burst pressure ≥	[bar]	7	7,5	15	18	30	70	75	150	180	300	500	750
Vacuum resistance		unlimited											
Output signal / Supply													
Standard	2-wire:	4 ... 20 mA		/ V _S = 8 ... 32 V _{DC}									
Options	3-wire:	0 ... 10 V		/ V _S = 14 ... 30 V _{DC}									
	3-wire ratiometric:	10 ... 90% of V _S		/ V _S = 2.7 ... 5 V _{DC}									
Performance													
Accuracy ¹		≤ ± 1 % FSO											
Permissible load	2-wire:	R _{max} = [(V _S - V _{S,min}) / 0.02 A] 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											
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									

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 ratiometric: typ. 1.5 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)
Operational life	> 100 x 10 ⁶ cycles
CE-conformity	EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A) ²

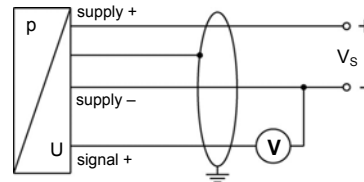
² This directive is only valid for devices with maximum permissible overpressure > 200 bar

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), plastic	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	gnye (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)

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