

IMP 17.609 G

OEM Pressure Transmitter



Application

- ▶ refrigeration

Characteristics

- ▶ stainless steel sensor, welded
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 6 bar up to 0 ... 60 bar
-1 ... 6 bar up to -1 ... 60 bar

Technical Data



Pressure ranges							
Nominal pressure gauge [bar]		6	10	16	25	40	60
Overpressure [bar]		12	20	32	50	80	120
Burst pressure ≥ [bar]		30	50	80	125	200	300
Vacuum resistance		unlimited					
Vacuum ranges							
Nominal pressure gauge [bar]		-1 ... 6	-1 ... 10	-1 ... 16	-1 ... 25	-1 ... 40	-1 ... 60
Overpressure [bar]		12	20	32	50	80	120
Burst pressure [bar]		30	50	80	125	200	300

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	≤ ± 0.5 % 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	≤ ± 0.3 % FSO / 10 K		in compensated range 0 ... 70 °C
Permissible temperatures	medium: -40 ... 125 °C	electronics / environment: -40 ... 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		

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Mechanical stability				
Vibration	20 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	stainless steel 1.4571 (316Ti)			
Housing	stainless steel 1.4301 (304)			
Seal of sensor	none (welded)			
Diaphragm	stainless steel 1.4542 (630)			
Media wetted parts	pressure port, diaphragm			
Miscellaneous				
Mechanical connection	7/16"-20 UNF			
Weight	approx. 120 g			
Current consumption	2-wire: max. 25 mA		3-wire ratiometric: typ. 3 mA	
	3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)			
Operational life	100 million load cycles			
CE-conformity	EMC Directive: 2014/30/EU			
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 colours (IEC 60757)
Supply +	1	1	1	
Supply -	2	2	2	
Signal + (for 3-wire)	3	3	3	WH (white) BN (brown) GN (green)
Shield	ground pin	ground pin	4	GNYE (green-yellow)
Dimensions (mm / in)				
	ISO 4400 (IP 65)	Micro, contact distance 9.4 mm (IP 65)	M12x1, 4-pin (IP 67)	cable outlet with PVC-cable (IP 67) ^{2,3}
² standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C) ³ different cable types and lengths available, permissible temperature depends on kind of cable				

