

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

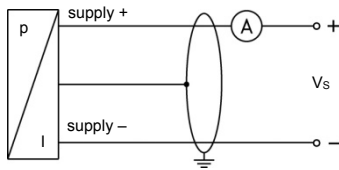


Pressure ranges							
Nominal pressure gauge [bar]		6	10	16	25	40	60
Overpressure [bar]		12	20	32	50	80	120
Burst pressure \geq [bar]		30	50	80	125	200	300
Vacuum resistance		unlimited					
Vacuum ranges							
Nominal pressure gauge [bar]		-1 ... 6	-1 ... 10	-1 ... 16	-1 ... 25	-1 ... 40	-1 ... 60
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		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		$\leq \pm 0.5 \%$ FSO					
Permissible load		2-wire: $R_{max} = [(V_S - V_S \text{ min}) / 0.02 \text{ A}] \Omega$			3-wire: $R_{min} = 10 \text{ k}\Omega$		
Influence effects		supply: 0.05 % FSO / 10 V			load: 0.05 % FSO / k Ω		
Response time		2-wire: $\leq 10 \text{ msec}$			3-wire: $\leq 3 \text{ msec}$		
Long term stability		$\leq \pm 0.3 \%$ 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		$\leq \pm 0.3 \%$ 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					
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			

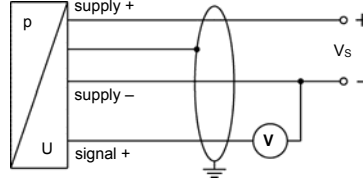
Materials	
Pressure port	stainless steel 1.4571 (316Ti)
Housing	stainless steel 1.4301 (304)
Seal of sensor	none (welded)
Diaphragm	stainless steel 1.4542 (630)
Media wetted parts	pressure port, diaphragm
Miscellaneous	
Mechanical connection	7/16"-20 UNF
Weight	approx. 120 g
Current consumption	2-wire: 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)



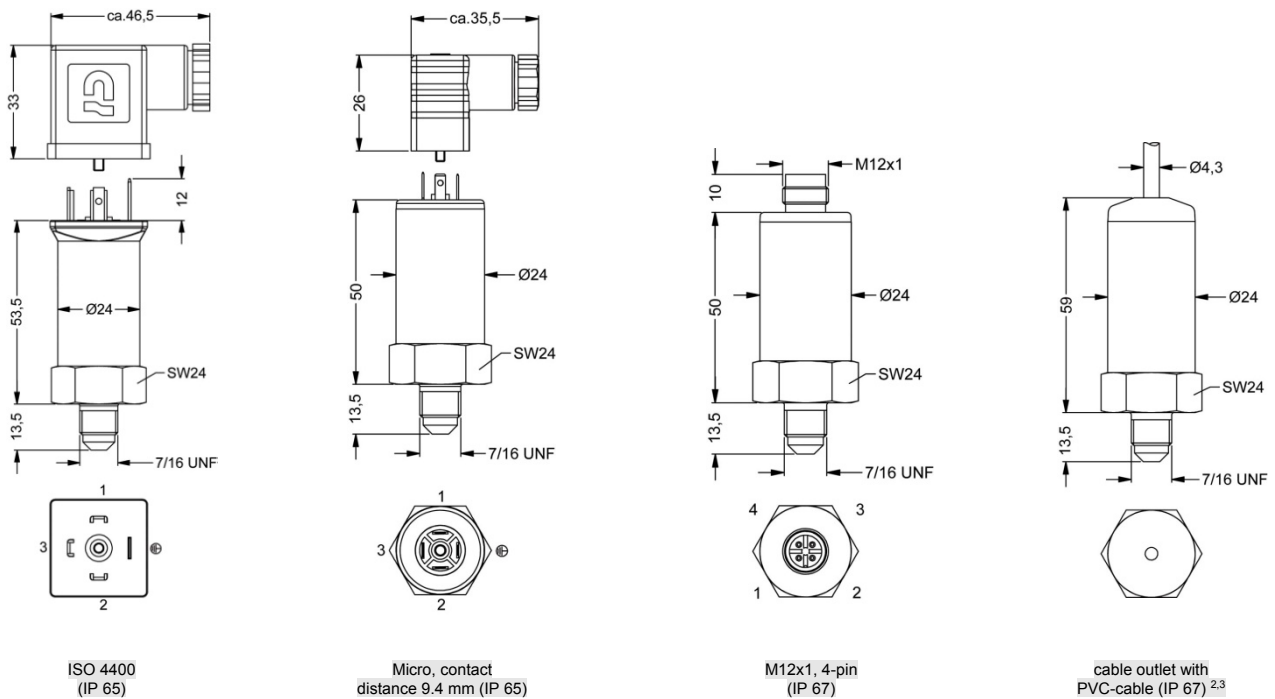
3-wire-system (voltage)



Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), metal	cable 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)

Dimensions (in mm)



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

Ordering code 17.609 G

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Input	[bar]																					
	6	6	0	0	1																	
	10	1	0	0	2																	
	16	1	6	0	2																	
	25	2	5	0	2																	
	40	4	0	0	2																	
	60	6	0	0	2																	
	-1 ... 6	V	6	0	2																	
	-1 ... 10	V	1	0	3																	
	-1 ... 16	V	1	6	3																	
	-1 ... 25	V	2	5	3																	
	-1 ... 40	V	4	0	3																	
	-1 ... 60	V	6	0	3																	
	customer	9	9	9	9																consult	
Pressure	gauge					R																
Output	4 ... 20 mA / 2-wire					1																
	0 ... 10 V / 3-wire					3																
	10 ... 90% of V_S / 3-wire ratiometric					R																
Accuracy	0.5 % FSO					5																
	customer					9																consult
Electrical connection	male and female plug ISO 4400					1	0	0														
	male and female plug Micro					C	1	0														
	male plug M12x1 (4-pin), metal					M	2	0														
	cable outlet with PVC-cable ¹					T	M	0														
	customer					9	9	9														consult
Mechanical connection / Seal	7/16"-20 UNF								U	0	0	2										
	customer								9	9	9	9										consult
Special version	standard																					0 0 0
	customer																					9 9 9

¹ standard: 2 m PVC cable without ventilation tube (permissible temperatur: -5 ... 70 °C)