17.609 G

OEM Pressure Transmitter

Application

- refrigeration

Characteristics

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

Technical Data

CE

Pressure ranges							
Nominal pressure gauge	[bar]	6	10	16	25	40	60
Overpressure	[bar]	14	35	35	70	140	140
Burst pressure ≥	[bar]	28	70	70	140	280	280
Vacuum resistance		unlimited					

Vacuum ranges							
Nominal pressure gauge	[bar]	-1 ... 6	-1 ... 10	-1 ... 16	-1 ... 25	-1 ... 40	-1 ... 60
Overpressure	[bar]	14	35	35	70	140	140
Burst pressure	[bar]	28	70	70	140	280	280

Output signal / Supply			
Standard	2-wire:	4 ... 20 mA	/ V_S = 8 ... 32 V_{DC}
Options 3-wire	3-wire:	0 ... 10 V	/ V_S = 14 ... 30 V_{DC}
	3-wire ratiometric:	V_{Sig} = 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_S min) / 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) / 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

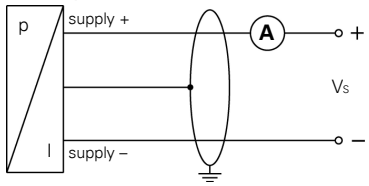
Electrical protection		
Short-circuit protection	permanent	3-wire ratiometric: none
Reverse polarity protection	no damage, but also no function	
Electromagnetic protection	emission and immunity according to EN 61326	

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

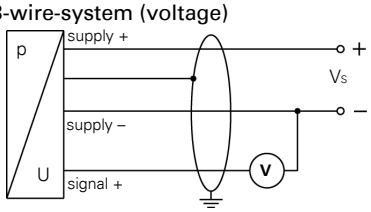
Materials	
Pressure port	stainless steel 1.4571 (316 Ti)
Housing	stainless steel 1.4301 (304)
Seal of sensor	none (welded)
Diaphragm	stainless steel 1.4542 (17-4 PH)
Media wetted parts	pressure port, diaphragm
Miscellaneous	
Mechanical connection	1/4" flare (correspond to 7/16" UNF acc. to DIN 3866)
Weight	approx. 120 g
Current consumption	2-wire: max. 25 mA 3-wire ratiometric: typ. 3 mA 3-wire voltage: typ. 5 mA (short circuit current: max. 20 mA)
Long term stability	≤ ± 0.3 % FSO / year at reference conditions
Operational life	> 100 x 10^6 pressure cycles
CE-conformity	EMC Directive: 2004/108/EC

Wiring diagrams

2-wire-system (current)



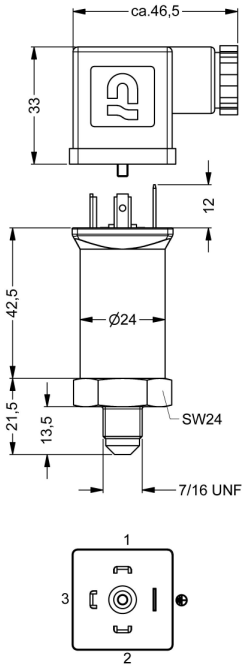
3-wire-system (voltage)



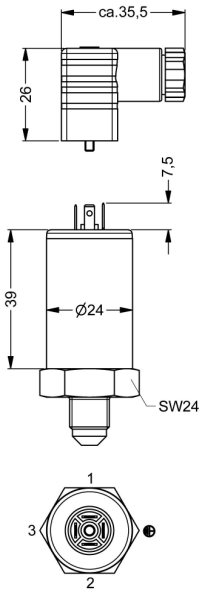
Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), plastic	cable colours (DIN 47100)
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	gn/ye (green / yellow)

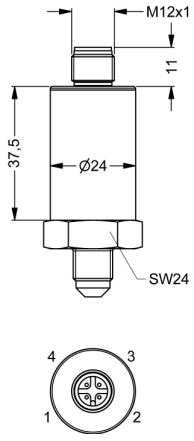
Dimensions (in mm)



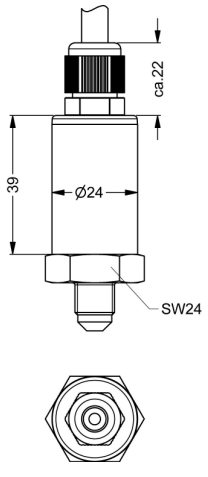
ISO 4400
(IP 65)



Micro, contact
distance 9.4 mm (IP 65)



M12x1, 4-pin
(IP 67)



cable gland with
2 m PVC-cable (IP 67)

This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

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											
0.5 ... 4.5 V / 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), plastic									M	0	0							
Cable gland with 2 m PVC cable									4	0	0							
customer									9	9	9							consult
Mechanical connection / Seal																		
1/4" flare / without												U	0	0	2			
customer												9	9	9	9			consult
Special version																		
standard																0	0	0
customer																9	9	consult

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