

18.605 G

Submersible OEM-Pressure Transmitter

Applications

- ▶ level measurement in water and fuel oil tanks

Characteristics

- ▶ piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 1 mH₂O up to 0 ... 10 mH₂O



Technical Data



Input pressure range	
Nominal pressure gauge [bar]	0.1 0.25 0.4 0.6 1
Level [mH ₂ O]	1 2.5 4 6 10
Overpressure [bar]	1 1 1 3 3
Burst pressure ≥ [bar]	1.5 1.5 1.5 5 5
Vacuum resistance	unlimited

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}
Option 3-wire	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	P _N > 160 mbar: ≤ ± 0,5 % FSO P _N ≤ 160 mbar: ≤ ± 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	≤ ± 0.2 % FSO / year at reference conditions
Measuring range	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 / electronics / environment / storage: -10 ... 70 °C

Electrical protection	
Short circuit protection	permanent 3-wire ratiometric: none
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 / 1 msec according to DIN EN 60068-2-27
Materials (media wetted)	
Housing	stainless steel 1.4301 (304)
Seals	FKM
Diaphragm	stainless steel 1.4435 (316 L)
Cable sheath	PVC (oil resistant)
Miscellaneous	
Weight	approx. 120 g (without cable) cable: 25 g / m
Cable length	3 m, 6 m, 9 m or 12 m; others on request
Suitable for following media	water, fuel oil
Current consumption	2-wire: max. 25 mA 3-wire ratiometric: typ. 1.5 mA 3-wire voltage: typ. 5 mA (short circuit current: max. 20 mA)
Ingress protection	IP 68
CE-conformity	EMC Directive: 2014/30/EU
Wiring diagrams	
<p>2-wire-system (current)</p>	<p>3-wire-system (voltage)</p>
Pin configuration	
Electrical connections	cable colours (IEC 60757)
Supply +	wh (white)
Supply -	bn (brown)
Signal + (only for 3-wire)	gn (green)
Shield	gnye (green-yellow)
Dimensions (in mm)	
<p>G1/4" DIN 3852 with PVC cable (with air tube)</p>	

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Ordering code 18.605 G

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Input	[mH ₂ O]	[bar]																		
	1.0	0.1	1	0	0	0														
	2.5	0.25	2	5	0	0														
	4	0.4	4	0	0	0														
	6	0.6	6	0	0	0														
	10	1.0	1	0	0	1														
	customer		9	9	9															consult
Pressure																				
	bar																			B
	mH ₂ O																			M
	customer																			9
Output																				
	4 ... 20 mA / 2-wire																			1
	0 ... 10 V / 3-wire																			3
	10 ... 90% of V _S / 3-wire ratiometric																			R
	customer																			9
Accuracy																				
P _N > 160 mbar:	≤ ± 0.5 % FSO																			5
P _N ≤ 160 mbar:	≤ ± 1 % FSO																			8
	customer																			9
Electrical connection																				
	PVC-cable																			1
	customer																			9
Cable length																				
	3 m																			0
	6 m																			0
	9 m																			0
	12 m																			0
	customer																			9
Mechanical connection																				
	G1/4" DIN 3852																			3
	customer																			9
Seals																				
	FKM																			1
	customer																			9
Special version																				
	standard																			0
	customer																			9

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