



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 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: 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 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: without
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	Emission and immunity according to EN 61326

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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 (316L)	
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: 2004/108/EG	
Wiring diagrams		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>2-wire-system (current)</p> </div> <div style="width: 45%;"> <p>3-wire-system (voltage)</p> </div> </div>		
Pin configuration		
Electrical connections	cable colours (DIN 47100)	
Supply +	wh (white)	
Supply -	bn (brown)	
Signal + (only for 3-wire)	gn (green)	
Shield	gn/ye (green / yellow)	
Dimensions (in mm)		
<p style="text-align: center;">G1/4" DIN 3852 with PVC cable (with air tube)</p>		

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

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BD SENSORS[®]
pressure measurement

Ordering Code 18.605 G

18.605 G - - - - - - - - -

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	9												consult
Pressure																			
		bar						B											
		mH ₂ O						M											
		customer						9											consult
Output																			
		4 ... 20 mA / 2-wire						1											
		0 ... 10 V / 3-wire						3											
		0.5 ... 4.5 V / 3-wire ratiometric						R											
		customer						9											consult
Accuracy																			
		0.5 % FSO						5											
		customer						9											consult
Electrical connection																			
		PVC-Cabel						1											
		customer						9											consult
Cable length																			
		3 m						0	0	3									
		6 m						0	0	6									
		9 m						0	0	9									
		12 m						0	1	2									
		customer						9	9	9									consult
Mechanical connection																			
		G1/4" DIN 3852							3	0	0								
		customer							9	9	9								consult
Seals																			
		FKM																	1
		customer																	9
																			consult
Special version																			
		standard																	0 0 0
		customer																	9 9 9
																			consult

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