

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: V _{Sig} = 0.5 ... 4.5 V / V _S = 5 ± 0.5 V _{DC}

Performance	
Accuracy ^{1,2}	≤ ± 0.5 % 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
Measuring range	1 kHz

¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)
² for pressure ranges ≤ 160 mbar accuracy is ≤ ± 1 % FSO

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: 2004/108/EC	
Wiring diagrams		
<p>2-wire-system (current)</p>		<p>3-wire-system (voltage)</p>
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>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.

Ordering code 18.605 G

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Input		[mH ₂ O]	[bar]																
	1.0	0.1	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															
Output																			
	4 ... 20 mA / 2-wire							1											
	0 ... 10 V / 3-wire							3											
	0.5 ... 4.5 V / 3-wire ratiometric							R											
	customer							9											
Accuracy																			
	0.5 % FSO							5											
	customer							9											
Electrical connection																			
	PVC-cable							1											
	customer							9											
Cable length																			
	3 m							0				0							
	6 m							0				0							
	9 m							0				0							
	12 m							0				1							
	customer							9				9							
Mechanical connection																			
	G1/4" DIN 3852							3				0							
	customer							9				9							
Seals																			
	FKM											1							
	customer											9							
Special version																			
	standard											0							
	customer											9							

¹ for nominal pressure range ≤ 160 mbar accuracy is 1 % FSO

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