



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% von V / V _S = 2.7 ... 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
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)

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

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Technical Data

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		
2-wire-system (current)		
3-wire-system (voltage)		
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)		
G1/4" DIN 3852 with PVC cable (with air tube)		

Ordering code 18.605 G

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