

# 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 mH<sub>2</sub>O up to 0 ... 10 mH<sub>2</sub>O



### Technical Data

Input pressure range						
Nominal pressure gauge	[bar]	0.1	0.25	0.4	0.6	1
Level	[mH <sub>2</sub> 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 <sub>S</sub> = 8 ... 32 V <sub>DC</sub>
Option 3-wire	3-wire: 0 ... 10 V / V <sub>S</sub> = 14 ... 30 V <sub>DC</sub>
	3-wire ratiometric: 10 ... 90 % of V <sub>S</sub> / V <sub>S</sub> = 2.7 ... 5 V <sub>DC</sub>

Performance	
Accuracy <sup>1</sup>	p <sub>N</sub> > 160 mbar: ≤ ± 0.5 % FSO      p <sub>N</sub> ≤ 160 mbar: ≤ ± 1 % FSO
Permissible load	2-wire: R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S min</sub> ) / 0.02 A] Ω 3-wire: R <sub>min</sub> = 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

<sup>1</sup> 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 (mm / in)		
<p style="text-align: center;">G1/4" DIN 3852 with PVC cable (with ventilation tube)</p>		

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