

18.605 G

Submersible OEM-Pressure Transmitter



Applications

- ▶ level measurement in water and fuel oil tanks

Characteristics

- ▶ piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % span according to EN IEC 62828-2
- ▶ 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 % span P _N ≤ 160 mbar: ≤ ± 1 % span
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 % span / 10 V load: 0.05 % span / kΩ
Response time	2-wire: ≤ 10 msec 3-wire: ≤ 3 msec
Long term stability	≤ ± 0.2 % span / year at reference conditions
Measuring range	1 kHz

¹ accuracy according to EN IEC 62828-2- limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (Offset and Span) / Permissible temperatures	
Thermal error	≤ ± 0.3 % span / 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/PUR	
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 (DIN 47100)	
Supply +	wh (white)	
Supply -	bn (brown)	
Signal + (only for 3-wire)	gn (green)	
Shield	gn/ye (green / yellow)	
Dimensions (in mm)		

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

Ordering code OEM 18.605G

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Input	[mH ₂ O]	[bar]	1	0	0	0	B	M	9	1	3	R	9	5	8	9	1	9	3	0	0	S	2	3	9	9	9	0	0	0				
0 ... 1		0 ... 0,1	1	0	0	0																												
0 ... 2,5		0 ... 0,25	2	5	0	0																												
0 ... 4		0 ... 0,4	4	0	0	0																												
0 ... 6		0 ... 0,6	6	0	0	0																												
0 ... 10		0 ... 1	1	0	0	1																												
Customer			9	9	9	9																												
Pressure																																		
in bar							B																											
in m H ₂ O							M																											
Customer							9																											
Output																																		
4 ... 20 mA / 2-wire										1																								
0 ... 10 V / 3-wire										3																								
10 ... 90 % Vs / 3-wire ratiometric (Vs = 2,7 ... 5 V DC)										R																								
Customer										9																								
Accuracy																																		
0.5 % (P _N > 160 mbar)														5																				
1 % (P _N ≤ 160 mbar)															8																			
Customer															9																			
Electrical connection																																		
PVC (oil resistant) - default lengths																1																		
PUR (for water) - optional length																	2																	
Customer																	9																	
Cable length																																		
3 m (PVC)																																		
6 m (PVC)																																		
9 m (PVC)																																		
12 m (PVC)																																		
Customer (PUR)																																		
Mechanical connection																																		
G 1/4" DIN 3852																																		
Open (without thread)																																		
Customer																																		
Seals																																		
Viton (FKM)																																		
Customer																																		
Special version																																		
Standard																																		
Customer																																		

0,-...without additional charge
 On request... in accordance with the producer
 Surcharges for calibration are not subject to any discounts. Subject to change.
 This document contains the specification for ordering the product;
 detailed technical parameters of the product and its possible variants are given in the data sheet.
 BD SENSORS reserves the right to change sensor specifications without further notice.

