





Submersible **OEM-Pressure Transmitter**

Applications

▶ level measurement in water and fuel oil

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









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: 1090% of V_S / $V_S = 2.75 V_{DC}$				
Performance					
Accuracy 1	$P_N > 160 \text{ mbar: } \le \pm 0.5 \% \text{ FSO}$ $P_N \le 160 \text{ mbar: } \le \pm 1 \% \text{ FSO}$				
Permissible load	2-wire: $R_{\text{max}} = [(V_S - V_{S \text{ min}}) / 0.02 \text{ A}] \Omega$				
	3-wire: $R_{min} = 10 \text{ k}\Omega$				
Influence effects	supply: 0.05 % FSO / 10 V				
	load: 0.05% FSO / k Ω				
Response time	2-wire: ≤ 10 msec				
	3-wire: ≤ 3 msec				
Long term stability	≤ ± 0.2 % FSO / year at reference conditions				
Measuring range	uring 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	ures medium / electronics / environment / storage: -10 70 °C				
Electrical protection					
Short circuit protection	permanent 3-wire ratiometric: none				
Reverse polarity protection	verse polarity protection no damage, but also no function				
Electromagnetic compatibility	nagnetic compatibility Emission and immunity according to EN 61326				

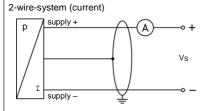


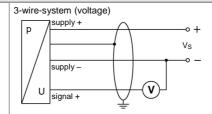


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Mechanical stability			
Vibration	10 g, 25 Hz 2 kHz according to DIN EN 60068-2-6		
Shock	100 g / 1 msec according to DIN EN 60068-2-27		
Materials (media wetted)			
Housing	stainless steel 1.4301 (304)		
Seals	FKM		
Diaphragm	stainless steel 1.4435 (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

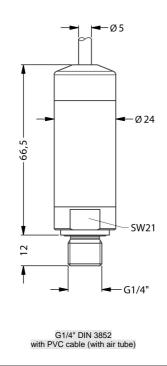




Pin configuration

Electrical connections cable colours (DIN 47100)		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)



BD SENSORS® pressure measurement

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