





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







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				

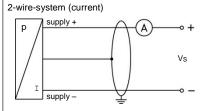
Output signal / Supply							
Standard	2-wire: $4 20 \text{ mA}$ / $V_S = 8 32 V_{DC}$						
Option 3-wire	3-wire: 0 10 V / V _S = 14 30 V _{DC}						
	3-wire ratiometric: 1090% of V_S / $V_S = 2.75 V_{DC}$						
Performance							
Accuracy ¹	$P_N > 160 \text{ mbar: } \le \pm 0.5 \text{ % span}$ $P_N \le 160 \text{ mbar: } \le \pm 1 \text{ % span}$						
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 % 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	2-wire: ≤ 10 msec 3-wire: ≤ 3 msec ≤ ± 0.2 % span / year at reference conditions 1 kHz 1-2- limit point adjustment (non-linearity, hysteresis, repeatability)						
¹ accuracy according to EN IEC 62828	-2– limit point adjustment (non-linearity, hysteresis, repeatability)						
Thermal effects (Offset and Spa	n) / Permissible temperatures						
Thermal error	≤ ± 0.2 % span / year at reference conditions 1 kHz 62828-2- limit point adjustment (non-linearity, hysteresis, repeatability) d Span) / Permissible temperatures ≤ ± 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	ewire: $0 \dots 10 \text{ V}$ / $V_S = 14 \dots 30 \text{ V}_{DC}$ ewire ratiometric: $10 \dots 90 \text{ % of } V_S$ / $V_S = 2.7 \dots 5 \text{ V}_{DC}$ $N > 160 \text{ mbar: } \leq \pm 0.5 \text{ % span}$ $P_N \leq 160 \text{ mbar: } \leq \pm 1 \text{ % span}$ ewire: $R_{max} = [(V_S - V_{S min}) / 0.02 \text{ A}] \Omega$ ewire: $R_{min} = 10 \text{ k}\Omega$ upply: $0.05 \text{ % span } / 10 \text{ V}$ ead: $0.05 \text{ % span } / k\Omega$ ewire: $\leq 10 \text{ msec}$ ewire: $\leq 3 \text{ msec}$ $\pm 0.2 \text{ % span } / \text{ year at reference conditions}$ kHz imit point adjustment (non-linearity, hysteresis, repeatability) Permissible temperatures $\pm 0.3 \text{ % span } / 10 \text{ K}$ in compensated range $0 \dots 70 \text{ °C}$ ermanent 3 -wire ratiometric: none of damage, but also no function						
Electromagnetic compatibility	$\begin{array}{cccccccccccccccccccccccccccccccccccc$						

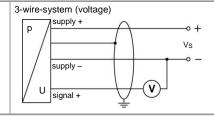




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properties are not guaranteed.
This data sheet contains product specification.

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	e) cable: 25 g / m	
Cable length	3 m, 6 m, 9 m or 12 m; othe	rs 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 (s	hort circuit current: max. 20 mA)	
Ingress protection	IP 68		
CE-conformity	EMC Directive: 2014/30/EU		
Wiring diagrams			

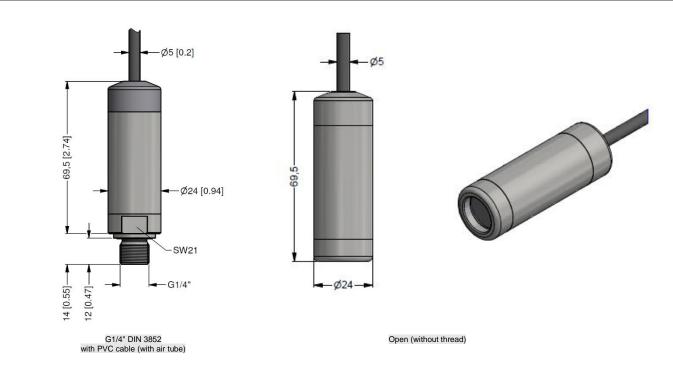




Pin configuration

Electrical connections	cable colours (DIN 47100)
Supply +	wh (white)
Supply –	bn (brown)
Signal + (only for 3-wire)	gn (green)
Shield	gn/ye (green / yellow)

Dimensions (in mm)



Tel.:



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in bar						В											
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	/s / 3-wire ratiometr	ic (Vs = 2,7 5 V DC)					R										4
Customer Accuracy			_			_	9			_							
0.5 % (P _N > 1	160 mbar)							5								-	7
$1 \% (P_N \le 16)$								5									+
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Mechanical																	
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Special vers	sion																
Standard																0 0	
Customer									_	_					9	9 9	1

0,-...without additional charge
On request... in accordance with the producer

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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.

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