BD SENSORS®
pressure measurement

17.600 G

OEM Pressure Transmitter Heavy Duty

Applications:

- mobile hydraulics
- presses
- general mechanical engineering
- oxygen application

Characteristics:

- stainless steel sensor, welded
- accuracy 0.5 % span according to EN IEC 62828-2
- nominal pressure ranges from 0 … 6 bar up to 0 … 600 bar

Technical Data

Input pressure range												
Nominal pressure gauge	[bar]	6	10	16	25	40	60	100	160	250	400	600
Overpressure (static)	[bar]	12	20	32	50	80	120	200	320	500	800	1 200
Burst pressure ≥	[bar]	30	50	80	125	200	300	500	800	1 400	2 000	3 000
Vacuum resistance		unlimited										

Output signal / Supply			
Standard	2-wire:	4 ... 20 mA	/ V_S = 8 ... 32 V_{DC}
Options	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]	≤ ± 0.5 % 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	≤ ± 0.3 % span / year at reference conditions		
Measuring rate	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: -40 ... 125 °C	electronics / environment:	-40 ... 85 °C storage: -40 ... 85 °C
Electrical protection			
Short-circuit protection	permanent	3-wire ratiometric: none	
Reverse polarity protection	no damage, but also no function		
Electromagnetic protection	emission and immunity according to EN 61326		
Mechanical stability			
Vibration	20 g, 25 Hz … 2 kHz	according to DIN EN 60068-2-6	
Shock	500 g / 1 msec	according to DIN EN 60068-2-27	

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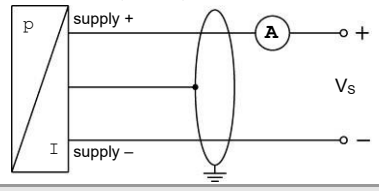
Materials		
Pressure port	stainless steel 1.4571 (316Ti)	
Housing	stainless steel 1.4301 (304)	
Seal of pressure port	FKM: G 1/4“ DIN 3852	others on request
Seal of sensor	none (welded)	
Diaphragm	stainless steel 1.4542 (630)	
Media wetted parts	pressure port, seal of pressure port, diaphragm	
Miscellaneous		
Weight	approx. 120 g	
Current consumption	2-wire: max. 25 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)	3-wire ratiometric: typ. 3 mA
Operational life	100 million load cycles	
CE-conformity	EMC Directive: 2014/30/EU	Pressure Equipment Directive: 2014/68/EU (module A) [2]

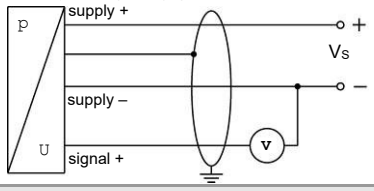
[2] This directive is only valid for devices with maximum permissible overpressure > 200 bar

Wiring diagrams

2-wire-system (current)



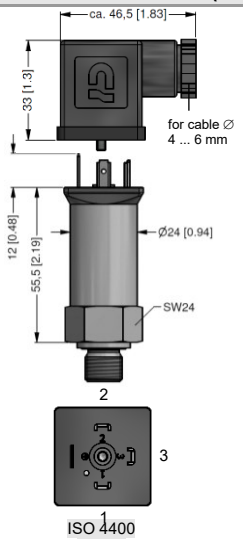
3-wire-system (voltage)



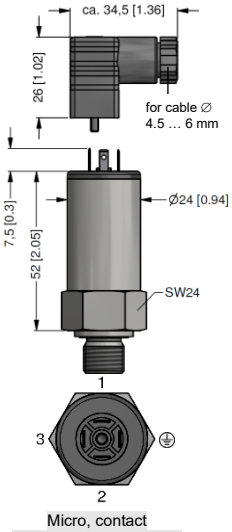
Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), metal	cable colour (DIN 47100)
Supply +	1	1	1	wh (white)
Supply –	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin ⏚	ground pin ⏚	4	gn/ye (green / yellow)

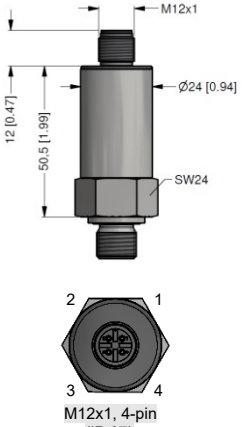
Electrical connections (dimensions in mm)



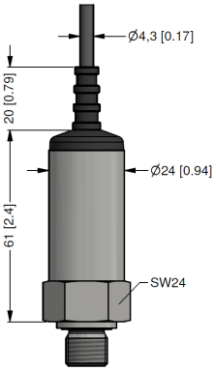
ISO 4400
(IP 65)



Micro, contact
distance 9.4 mm (IP 65)



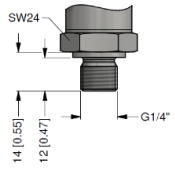
M12x1, 4-pin
(IP 67)



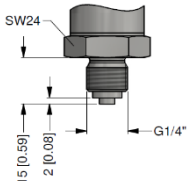
cable outlet with
2 m PVC-cable (IP 67) [3,4]

[3] standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)
[4] different cable types and lengths available, permissible temperature depends on kind of cable

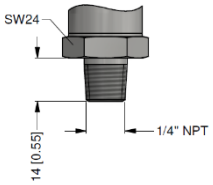
Mechanical connection (dimensions in mm)



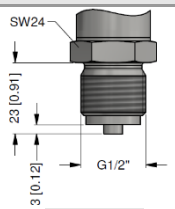
G1/4" DIN 3852
(not for oxygen)



G1/4" EN 837



1/4" NPT



G1/2" EN 837

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Ordering code OEM 17.600G

23.08.2024

OEM 17.600G □□□□ - R - □ - □ - □□□ - □□□ - □ - □□□

Input [bar]																					
0 … 6	6	0	0	1																	
0 … 10	1	0	0	2																	
0 … 16	1	6	0	2																	
0 … 25	2	5	0	2																	
0 … 40	4	0	0	2																	
0 … 60	6	0	0	2																	
0 … 100	1	0	0	3																	
0 … 160	1	6	0	3																	
0 … 250	2	5	0	3																	
0 … 400	4	0	0	3																	
0 … 600	6	0	0	3																	
Customer	9	9	9	9																	
Customer underpressure	X	X	X	X																	
Pressure																					
Gauge					R																
Output																					
4 … 20 mA / 2-wire						1															
0 … 10 V / 3-wire						3															
10 … 90% of Vs / 3-wire ratiometric (Vs = 2,7 … 5 V DC)						R															
Customer						9															
Accuracy																					
0,5 %							5														
0,5 % including Calibration Certificate							T														
Table of measured values for acc. 0,5 %							N														
Customer							9														
Electrical connection																					
Connector DIN 43650 (ISO 4400) (IP 65)								1	0	0											
Cable gland PG7 / cable length specify (IP 67)								4	0	0											
+ PVC cable / 1 m																					
Connector DIN 43650 (ISO 4400) - potting compound inside (IP 67)								E	0	0											
Connector M12 x 1, 4-pin (IP 67)								M	0	0											
Connector M12 x 1, 4-pin (IP 67) - without plug								M	B	S											
Connector M12 x 1, 4-pin (IP 67) - metal								M	1	0											
Cable outlet / cable length specify (IP 67)[1]								T	A	0											
+ PVC cable / 1 m																					
Customer								9	9	9											
Mechanical connection																					
G 1/2" EN 837											2	0	0								
G 1/4" DIN 3852 (only with seals "P")											3	0	0								
G 1/4" EN 837											4	0	0								
1/4" NPT											N	4	0								
1/2" NPT											N	0	0								
G 1/4" internal											J	0	0								
M 20 x 1,5 EN 837											8	0	0								
Customer											9	9	9								
Seals																					
Without - welded + Viton (FKM)														P							
Without - welded														2							
Customer														9							

Special version			
Standard	0	0	0
Oxygen application (DIN 3852 possible only up to 25 bar)	0	0	7
Oil and grease free	0	0	8
With throttle screw M4	0	7	0
Customer	9	9	9

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 data sheet. BD SENSORS reserves the right to change sensor specifications without further notice.

1 - standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 … 70 °C)