

# 18.601 G

## OEM Pressure Transmitter Low Pressure

### Applications

- ▶ general industrial applications

### Characteristics

- ▶ piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % span according to EN IEC 62828-2
- ▶ nominal pressure ranges from 0 ... 100 mbar up to 0 ... 6 bar



### Technical Data



Input pressure range											
Nominal pressure gauge	[bar]	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6
Overpressure	[bar]	1	1	1	1	3	3	6	10	10	21
Burst pressure ≥	[bar]	1.5	1.5	1.5	1.5	5	5	10	17.5	17.5	35
Vacuum resistance		unlimited									

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$
Options 3-wire	3-wire: 0 ... 10 V / $V_S = 14 \dots 30 V_{DC}$
	3-wire ratiometric: 10 ... 90 % of $V_S$ / $V_S = 2.7 \dots 5 V_{DC}$

Performance	
Accuracy <sup>1</sup>	$P_N > 160 \text{ mbar: } \leq \pm 0.5 \% \text{ span}$ $P_N \leq 160 \text{ mbar: } \leq \pm 1 \% \text{ span}$
Permissible load	2-wire: $R_{max} = [(V_S - V_{S min}) / 0.02 A] \Omega$ 3-wire: $R_{min} = 10 \text{ k}\Omega$
Influence effects	supply: 0.05 % span / 10 V load: 0.05 % span / $k\Omega$
Response time	2-wire: $\leq 10 \text{ msec}$ 3-wire: $\leq 3 \text{ msec}$
Long term stability	$\leq \pm 0,2 \% \text{ span / year}$ at reference conditions
Measuring rate	1 kHz

<sup>1</sup> accuracy according to EN IEC 62828-2 – limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (offset and span) / Permissible temperatures			
Thermal error	$\leq \pm 0.3 \% \text{ span / } 10 \text{ K}$	in compensated range 0 ... 70 °C	
Permissible temperatures	medium: -25 ... 125 °C	electronics / environment: -25 ... 85 °C	storage: -40 ... 85 °C

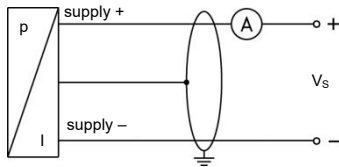
Electrical protection	
Short-circuit protection	permanent      3-wire ratiometric: none
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	emission and immunity according to EN 61326

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

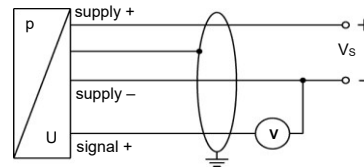
Materials	
Pressure port / housing	stainless steel 1.4301 (304)
Seals	FKM
Diaphragm	stainless steel 1.4435 (316 L)
Media wetted parts	pressure port, seals, diaphragm
Miscellaneous	
Weight	approx. 120 g
Current consumption	2-wire: max. 25 mA 3-wire ratiometric: typ. 1.5 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)
Operational life	100 million load cycles
CE-conformity	EMC Directive: 2014/30/EU

### Wiring diagrams

2-wire-system (current)



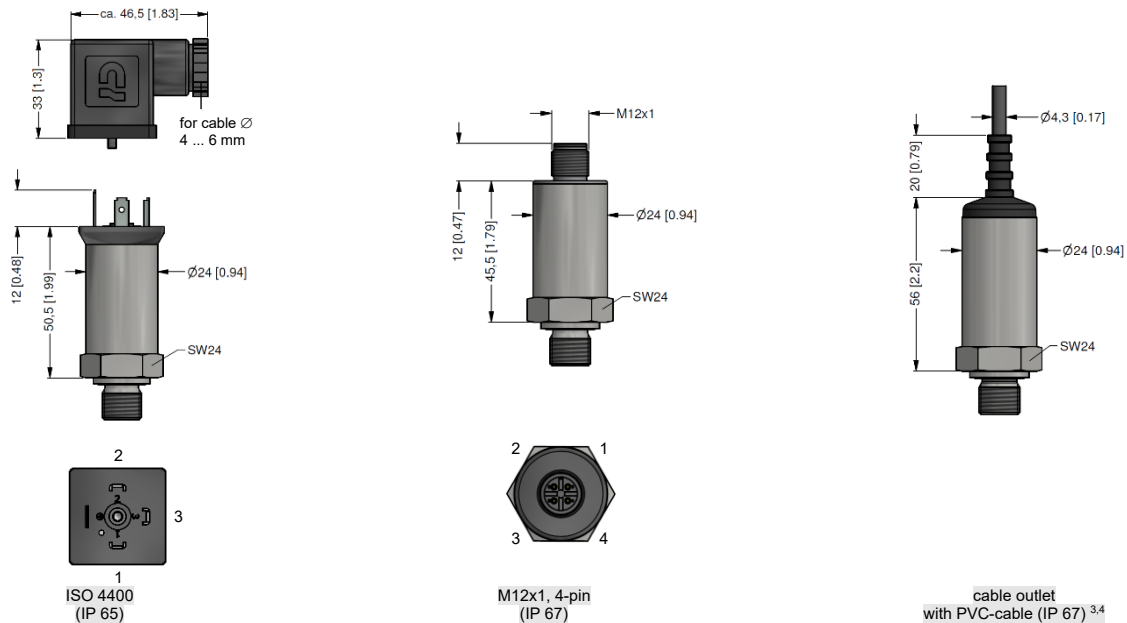
3-wire-system (voltage)



### Pin configuration

Electrical connection	ISO 4400	M12x1 (4-pin), metal	cable colour (IEC 60757)
Supply +	1	1	WH (white)
Supply -	2	2	BN (brown)
Signal + (for 3-wire)	3	3	GN (green)
Shield	ground pin	4	GNYE (green-yellow)

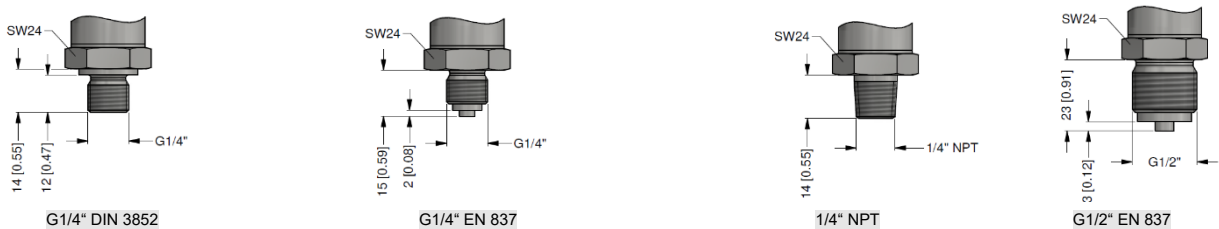
### Electrical connections (dimensions in mm)



<sup>3</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

<sup>4</sup> different cable types and lengths available, permissible temperature depends on kind of cable

### Mechanical connection (dimensions in mm)



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OEM Pressure Transmitter

The manufacturer provides the EU declaration of conformity.

Calibration - All production undergoes output control, which is performed by comparison with standards. The traceability of standards and working gauges is ensured in accordance with Act No. 505/1990, as amended, on metrology.

The manufacturer offers the possibility to supply sensors calibrated in the calibration laboratory of BD SENSORS, accredited according to ČSN EN ISO / IEC 17025: 2018.

## Ordering code OEM 18.601G

23.08.2024

OEM 18.601G

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Input [bar]	1	0	0	0	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0 ... 0,1	1	0	0	0																
0 ... 0,16	1	6	0	0																
0 ... 0,25	2	5	0	0																
0 ... 0,4	4	0	0	0																
0 ... 0,6	6	0	0	0																
0 ... 1	1	0	0	1																
0 ... 1,6	1	6	0	1																
0 ... 2,5	2	5	0	1																
0 ... 4	4	0	0	1																
0 ... 6	6	0	0	1																
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										
Customer										9										
Accuracy																				
0.5 % (P <sub>N</sub> > 160 mbar)																				5
1 % (P <sub>N</sub> ≤ 160 mbar)																				8
Customer																				9
Electrical connection																				
Connector DIN 43650 (ISO 4400) (IP 65)																				1 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) <sup>1</sup>																				T A 0
+ PVC cable / 1 m																				
Customer																				9 9 9
Mechanical connection																				
G 1/2" DIN 3852																				1 0 0
G 1/2" EN 837																				2 0 0
G 1/4" DIN 3852																				3 0 0
G 1/4" EN 837																				4 0 0
G 1/4" internal																				J 0 0
1/4" NPT																				N 4 0
Customer																				9 9 9
Seals																				
Viton (FKM)																				1
Customer																				9
Special version																				
Standard																				0 0 0
Customer																				9 9 9



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

1 - cable without through capillary (permissible temperature -5 ... +70 °C)

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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The company BD SENSORS s.r.o. is certified by Bureau Veritas Czech according to the standard ISO 9001.

