



# 18.601 G

# **OEM Pressure Transmitter Low Pressure**

## Applications

general industrial applications

#### Characteristics

- piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % FSO according to IEC 60770
- 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									

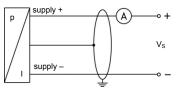
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Output signal / Supply		
Standard	2-wire: 4 20 r	$NA / V_S = 8 32 V_{DC}$
Options 3-wire		/ / V <sub>S</sub> = 14 30 V <sub>DC</sub> % of V <sub>S</sub> / V <sub>S</sub> = 2.7 5 V <sub>DC</sub>
Performance	•	
Accuracy <sup>1</sup>	$P_N > 160 \text{ mbar}$ : $\le \pm 0.5 \% \text{ FSC}$ $P_N \le 160 \text{ mbar}$ : $\le \pm 1 \% \text{ FSO}$	
Permissible load	2-wire: $R_{max} = [(V_S - V_{S min}) / (0.5]$ 3-wire: $R_{min} = 10 \text{ k}\Omega$	0.02 A] Ω
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ	
Response time	2-wire: ≤ 10 msec	3-wire: ≤ 3 msec
Long term stability	≤ ± 0,2 % FSO / year at referen	ce conditions
Measuring rate	1 kHz	
<sup>1</sup> accuracy according to IEC 60770 – lin	nit point adjustment (non-linearity, hys	teresis, repeatability)
Thermal effects (Offset and Spar	n) / Permissible temperatures	
Thermal error	≤±0.3 % FSO / 10 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 functio	n
Electromagnetic compatibility	emission and immunity accordi	ng 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

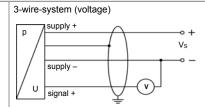
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## **OEM Pressure Transmitter**

Materials			
Pressure port / housing	stainless steel 1.4301 (304)		
Seals	FKM		
Diaphragm	stainless steel 1.4435 (316 L)		
Media wetted parts	pressure port, seals, diaphragr	n	
Miscellaneous	, p		
Weight	approx. 120 g		
Current consumption	2-wire: max. 25 mA	3-wire ratiometric: typ. 1.5	mΑ
carrent concamption	3-wire voltage: max. 7 mA (sho		
Operational life	100 million load cycles	,	
CE-conformity	EMC Directive: 2014/30/EU		
Wiring diagrams			
2-wire-system (current)		3-wire-system (voltage)	
supply + A O + V <sub>S</sub> Supply - O -	-	supply + supply - signal +	-• + Vs -• -
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 (dimension	ons in mm)	:	
7	12 10 10 10 10 10 10 10 10 10 10 10 10 10	M12x1  — Ø24  — SW24  — G1/4*	Ø4.3 Ø24 SW24 G1/4"
ISO 4400 (IP 65)		2x1, 4-pin (IP 67)	cable outlet with PVC-cable (IP 67) 3,4
<sup>3</sup> standard: 2 m PVC cable without venti <sup>4</sup> different cable types and lengths availa <b>Mechanical connection (dimensi</b>	able, permissible temperature depen	: -5 70 °C) ds on kind of cable	
C1/4"	G1/4"	1/4"NPT	\$\frac{4}{5}\$
G1/4" DIN 3852	G1/4" EN 837	1/4" NPT	G1/2" EN 837

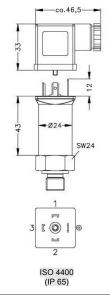


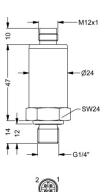


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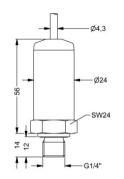
### Electrical connections (dimensions in mm)







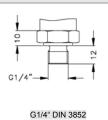
M12x1, 4-pin (IP 67)





cable outlet with PVC-cable (IP 67) 3,4

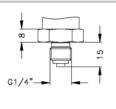
#### Mechanical connection (dimensions in mm)

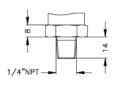


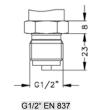
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G1/2" EN 837

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 $<sup>^3</sup>$  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



# Ordering code 18.601 G

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Input	[bar]											
	0.10 0.16	1 0 0 0										
	0.25 0.40	2 5 0 0 4 0 0 0 6 0 0 0										
	0.60 1.0	1 0 0 1										
	1.6 2.5	1 6 0 1 2 5 0 1 4 0 0 1 6 0 0 1										
	4.0 6.0	4 0 0 1 6 0 0 1										
Pressure	customer	9 9 9 9										consult
Output	gauge	_	R		-							Signal Si
4 20 mA 0 10 V	/ / 3-wire		1 3									materie
10 90% of V <sub>S</sub> / 3-wire rate	tiometric customer		R 9									consult
Accuracy $P_N > 160 \text{ mbar}$ : $\leq \pm 0.5$	5 % FSO			5								fication
$P_N \le 160 \text{ mbar}$ : $\le \pm 1$	1 % FSO customer			8								consult
Electrical connection male and female plug IS		_			1 0 0							th of
male plug M12x1 (4-pir cable outlet with 2 m P\	n), metal				1 0 0 M 2 0 T M 0 9 9 9							ication
	customer		_	_	9 9 9		_			_		consult
G1/4" D	OIN 3852 ' EN 837					3	0 0 0					make
1	1/4" NPT					N	4 0					riaht tı
С	' EN 837 customer					9	0 0 9 9					consult
Seals												Ď.
	FKM							1				9
Special version	customer							1 9		I		consult
Special version	standard sustomer		-						0 9	0 0		consult side of the consult co
Special version	standard sustomer	sible temperature:	5 70 °C)						0 9	0 (9 5		lishing

 $<sup>^{\</sup>rm 1}$  standard: 2 m PVC cable without ventilation tube (permissible temperature: -5  $\dots$  70 °C)