

18.601 G

OEM Pressure Transmitter Low Pressure

Applications

- ▶ general industrial applications

Characteristics

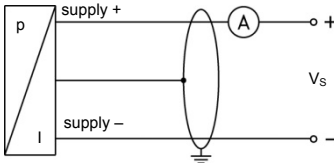
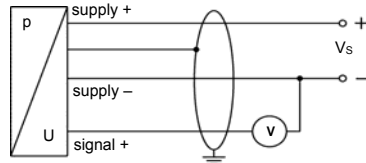
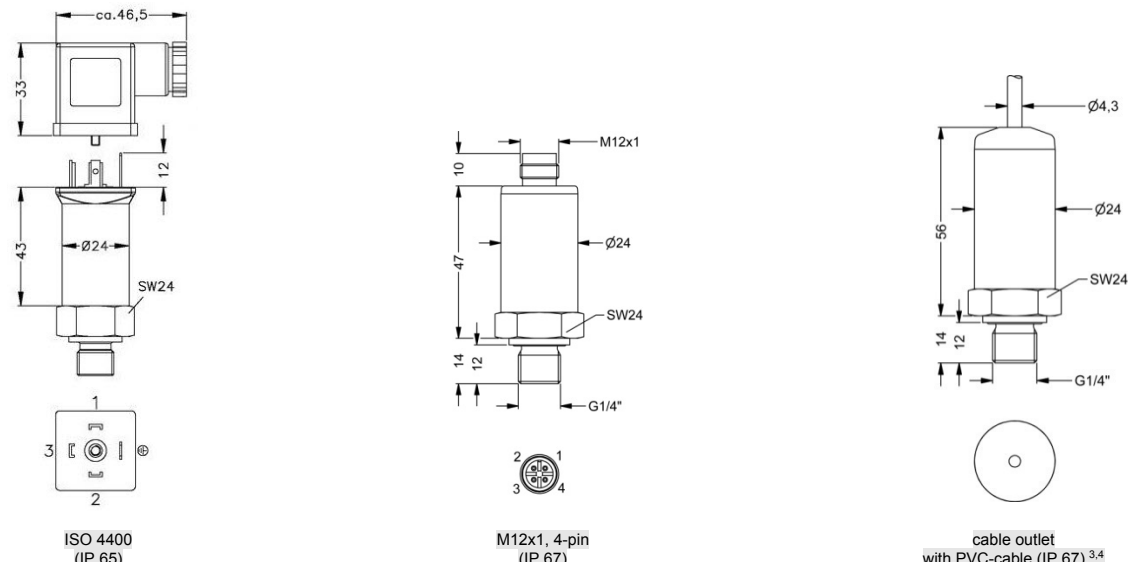
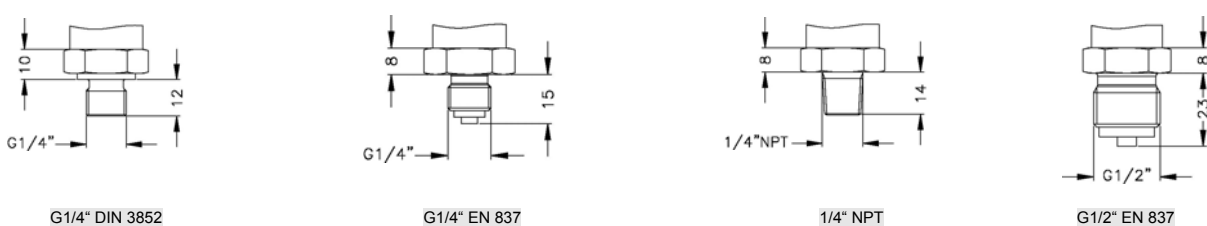
- ▶ piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 100 mbar up to 0 ... 6 bar



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										
Output signal / Supply											
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}										
Options 3-wire	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	P _N > 160 mbar: ≤ ± 0.5 % FSO P _N ≤ 160 mbar: ≤ ± 1 % FSO										
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 % 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 reference conditions										
Measuring rate	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	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)			
			
ISO 4400 (IP 65)			
M12x1, 4-pin (IP 67)			
cable outlet with 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			
G1/4" EN 837			
1/4" NPT			
G1/2" EN 837			

