

18.600 G

OEM Pressure Transmitter Pneumatics

Applications

- ▶ compressed air network
- ▶ general mechanical engineering

Characteristics

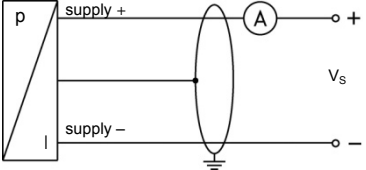
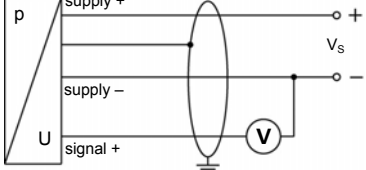
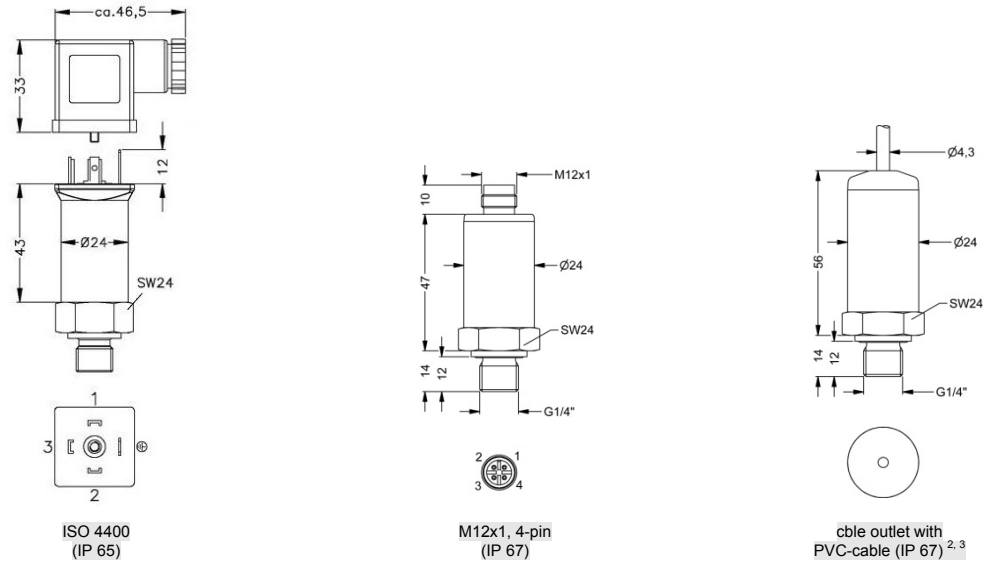
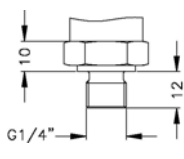
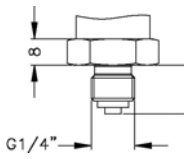
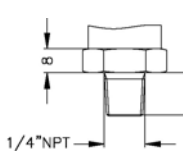
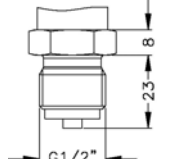
- ▶ silicon sensor without media isolation
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 100 mbar up to 0 ... 6 bar



Technical Data



Input pressure range											
Nominal pressure gauge	[bar]	-1 ... 0	0,1	0,25	0,4	0,6	1	1,6	2,5	4	6
Overpressure	[bar]	3	0,5	1	1	3	3	6	10	10	20
Burst pressure	[bar]	5	1,5	3	3	3	7,5	7,5	15	25	25
Output signal / Supply											
Standard	2-wire:	4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$									
Option	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 ¹		$\leq \pm 0.5 \%$ FSO									
Permissible load	2-wire:	$R_{max} = [(V_S - V_{Smin}) / 0.02 A] \Omega$									
	3-wire:	$R_{min} = 10 k\Omega$									
Influence effects	supply:	0.05 % FSO / 10 V					load: 0.05 % FSO / $k\Omega$				
Response time	2-wire:	≤ 10 msec					3-wire: ≤ 3 msec				
Long term stability		$\leq \pm 0.2 \%$ 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)											
Nominal pressure P_N	[bar]	-1 ... 0			≤ 0.4			> 0.4			
Tolerance band	[% FSO]	$\leq \pm 1$			$\leq \pm 1$			$\leq \pm 0.75$			
in compensated range	[°C]	0 ... 70						-20 ... 85			
Permissible temperatures											
Permissible temperatures		medium: -25 ... 125 °C			electronics / environment: -25 ... 85 °C			storage: -40 ... 85 °C			
Electrical protection											
Short-circuit protection		permanent									
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 / 11 msec			according to DIN EN 60068-2-27						

Materials			
Pressure port / housing	stainless steel 1.4301 (304)		
Seals	FKM		
Sensor	stainless steel 1.4404 (316L), silicon, glass, epoxy or RTV		
Media wetted parts	pressure port, seals, sensor		
Miscellaneous			
Permissible media	pressurized air, non-aggressive gases		
Current consumption	2-wire: max. 25 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)		
CE-conformity	EMC Directive: 2014/30/EU		
Wiring diagrams			
2-wire-system (current) 		3-wire-system (voltage) 	
Pin configuration			
Electrical connections	ISO 4400	M12x1 (4-pin)	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)			
			
² standard: 2 m PVC cable without ventilation tube (permissible temperatur: -5 ... 70 °C) ³ different cable types and lengths available, permissible temperatur depends on kind of cable			
Mechanical connection (dimensions in mm)			
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>standard</p>  <p>G1/4" DIN 3852</p> </div> <div style="text-align: center;"> <p>option ⁴</p>  <p>G1/4" EN 837</p> </div> <div style="text-align: center;">  <p>1/4" NPT</p> </div> <div style="text-align: center;">  <p>G1/2" EN 837</p> </div> </div>			
⁴ other mechanical connections on request			

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