

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

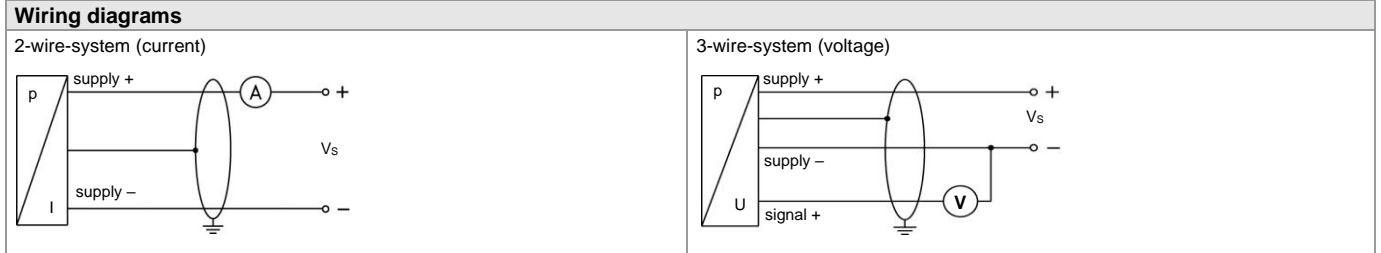


Technical Data



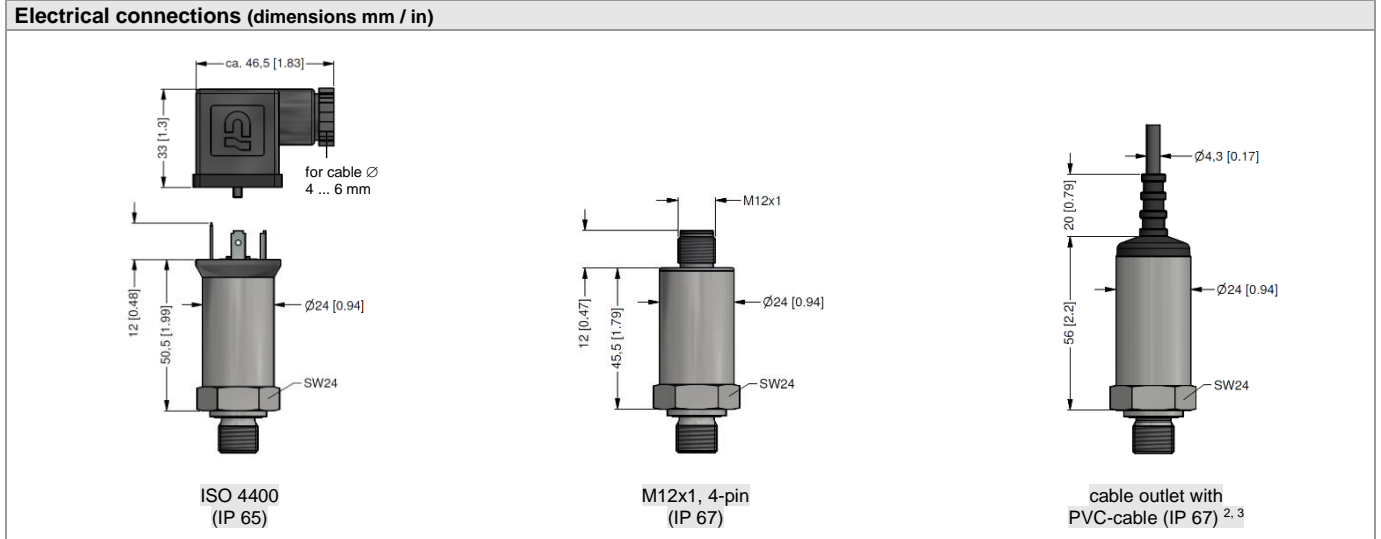
Input pressure range													
Nominal pressure gauge	[bar]	-1 ... 0	0,1	0,25	0,4	0,6	1	1,6	2,5	4	6		
Overpressure	[bar]	3	0,5	1	1	3	3	6	10	10	20		
Burst pressure	[bar]	5	1,5	3	3	3	7,5	7,5	15	25	25		
Output signal / Supply													
Standard	2-wire:	4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$											
Options	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	
Weight	approx. 120 g
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)
Operational life	100 million load cycles
CE-conformity	EMC Directive: 2014/30/EU

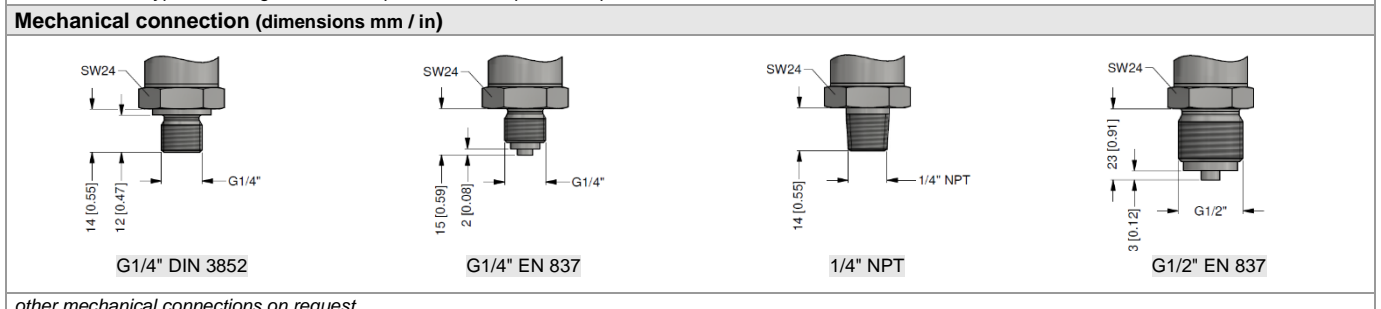


Pin configuration

Electrical connections	ISO 4400	M12x1 (4-pin), metal	cable colours (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)



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



Ordering code 18.600 G

18.600 G - - - - - - - -

Input	[bar]																			
	0.10	1	0	0	0															
	0.25	2	5	0	0															
	0.40	4	0	0	0															
	0.60	6	0	0	0															
	1.0	1	0	0	1															
	1.6	1	6	0	1															
	2.5	2	5	0	1															
	4.0	4	0	0	1															
	6.0	6	0	0	1															
	-1 ... 0	X	1	0	2															
	customer	9	9	9	9															consult
Pressure	gauge					R														
Output	4 ... 20 mA / 2-wire									1										
	0 ... 10 V / 3-wire									3										
	10 ... 90% of V_S / 3-wire ratiometric									R										
	customer									9										consult
Accuracy	0.5 % FSO									5										
	customer									9										consult
Electrical connection	male and female plug ISO 4400									1	0	0								
	male plug M12x1 (4-pin), metal									M	2	0								
	cable outlet with PVC-cable ¹									T	M	0								
	customer									9	9	9								consult
Mechanical connection	G1/4" DIN 3852										3	0	0							
	G1/4" EN 837										4	0	0							
	1/4" NPT										N	4	0							
	customer										9	9	9							consult
Seals	FKM																			1
	customer																			9
Special version	standard																			0
	customer																			9
																				0
																				9
																				9
																				9
																				consult

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