

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			-1 ... 0	0.1	0.25	0.4	0.6	1	1.6	2.5	4	6
Nominal pressure gauge	[bar]											
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		$\leq \pm 0.5 \% \text{ FSO}$		
Permissible load	2-wire:	$R_{max} = [(V_s - V_{Smin}) / 0.02 \text{ A}] \Omega$		
	3-wire:	$R_{min} = 10 \text{ k}\Omega$		
Influence effects	supply:	0.05 % FSO / 10 V	load:	0.05 % FSO / kΩ
Response time	2-wire:	$\leq 10 \text{ msec}$	3-wire:	$\leq 3 \text{ msec}$
Long term stability	$\leq \pm 0,2 \% \text{ FSO} / \text{ year at reference conditions}$			
Measuring rate	1 kHz			

¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)

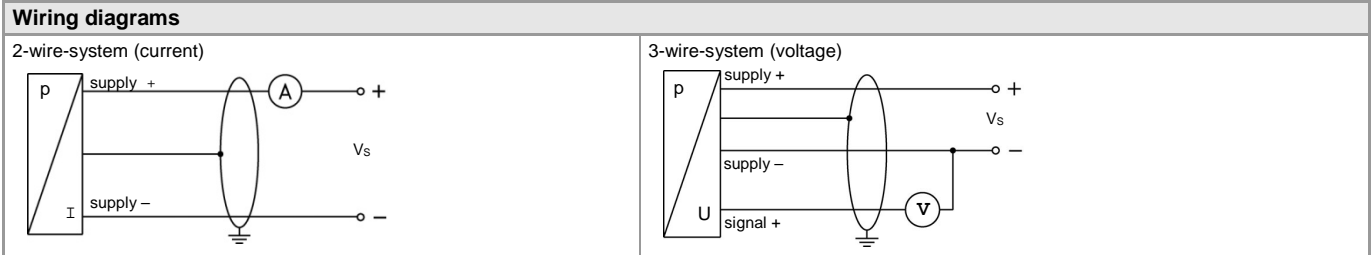
Thermal effects (Offset and Span)				
Nominal pressure P_N	[bar]	-1 ... 0		≤ 0.4
Tolerance band	[% FSO]	$\leq \pm 1$		$\leq \pm 0.75$
in compensated range	[°C]		0 ... 70	-20 ... 85

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	

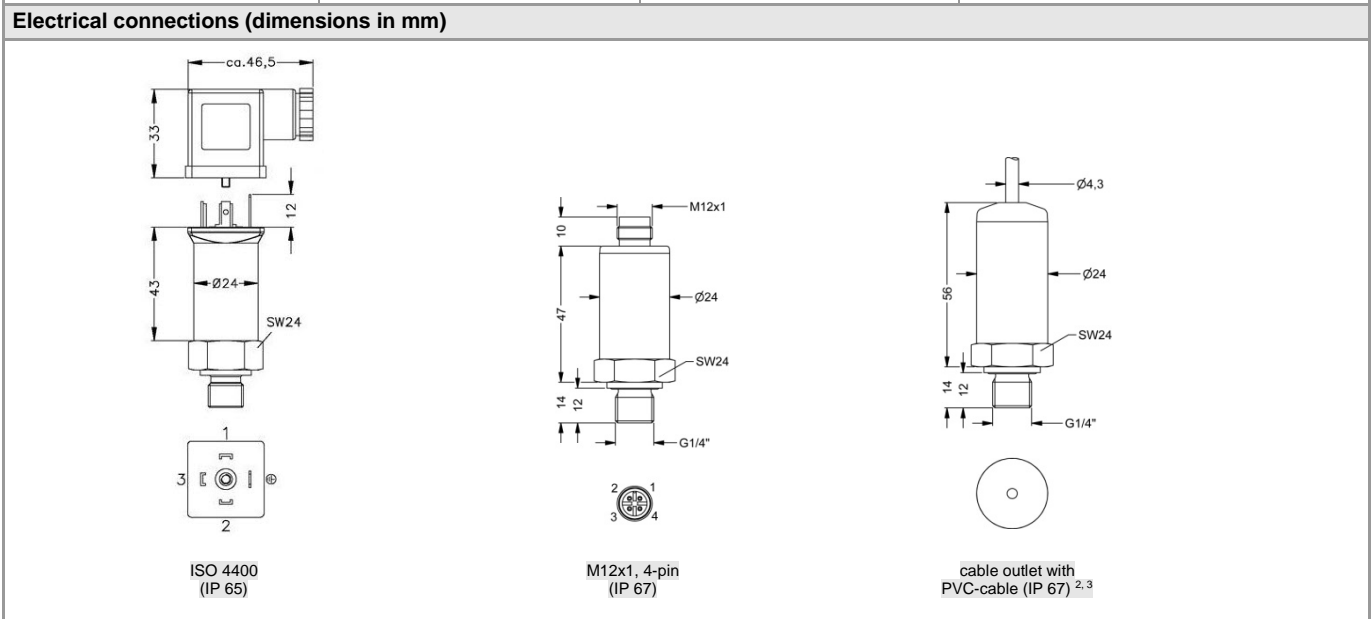
Mechanical stability		
Vibration	10 g, 25 Hz ... 2 kHz	according to DIN EN 60068-2-6
Shock	100 g / 11 msec	according to DIN EN 60068-2-27

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

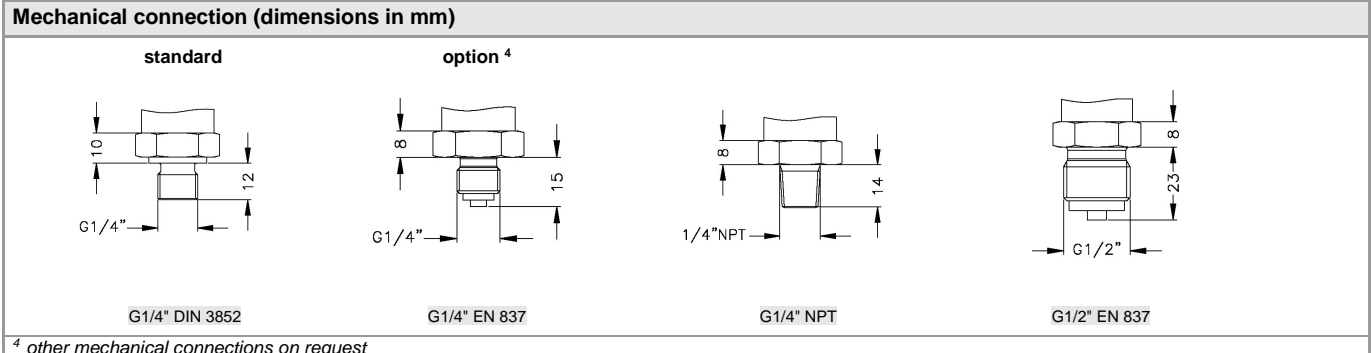


Pin configuration

Electrical connections	ISO 4400	M12x1 (4-pin), metal	cable colour (DIN 47100)
Supply +	1	1	wh (white)
Supply -	2	2	bn (brown)
Signal + (for 3-wire)	3	3	gn (green)
Shield	ground pin	4	ye/gn (yellow / green)



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



⁴ other mechanical connections on request