

# 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

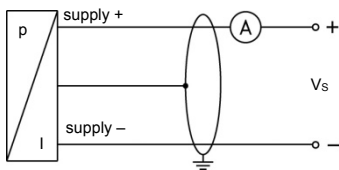


Input pressure range													
Nominal pressure gauge	[bar]	-1 ... 0	0,1	0,25	0,4	0,6	1	1,6	2,5	4	6		
Overpressure	[bar]	3	0,5	1	1	3	3	6	10	10	20		
Burst pressure	[bar]	5	1,5	3	3	3	7,5	7,5	15	25	25		
Output signal / Supply													
Standard	2-wire:	4 ... 20 mA					/	$V_S =$	8 ... 32 V <sub>DC</sub>				
Option	3-wire:	0 ... 10 V					/	$V_S =$	14 ... 30 V <sub>DC</sub>				
	3-wire ratiometric:	10 ... 90% of V <sub>S</sub>					/	$V_S =$	2.7 ... 5 V <sub>DC</sub>				
Performance													
Accuracy <sup>1</sup>		≤ ± 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		≤ ± 0.2 % FSO / year at reference conditions											
Measuring rate		1 kHz											
<sup>1</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)													
Thermal effects (Offset and Span)													
Nominal pressure P <sub>N</sub>	[bar]	-1 ... 0				≤ 0.4				> 0.4			
Tolerance band	[% FSO]	≤ ± 1				≤ ± 1				≤ ± 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 60068-2-7							

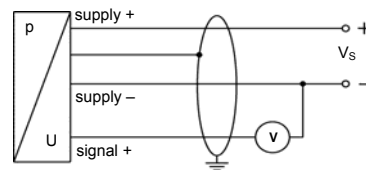
Materials	
Pressure port / housing	stainless steel 1.4301 (304)
Seals	FKM
Sensor	stainless steel 1.4404 (316L), silicon, glass, epoxy or RTV
Media wetted parts	pressure port, seals, sensor
Miscellaneous	
Weight	approx. 120 g
Permissible media	pressurized air, non-aggressive gases
Current consumption	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

### Wiring diagrams

2-wire-system (current)



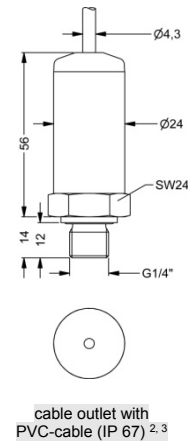
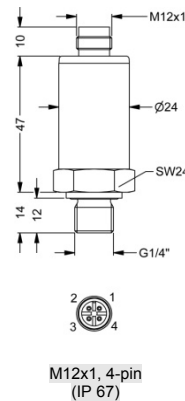
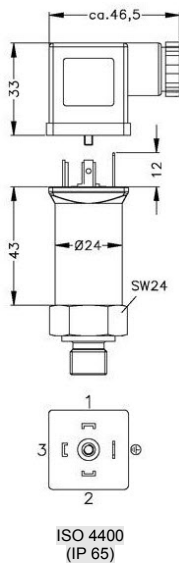
3-wire-system (voltage)



### Pin configuration

Electrical connections	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)

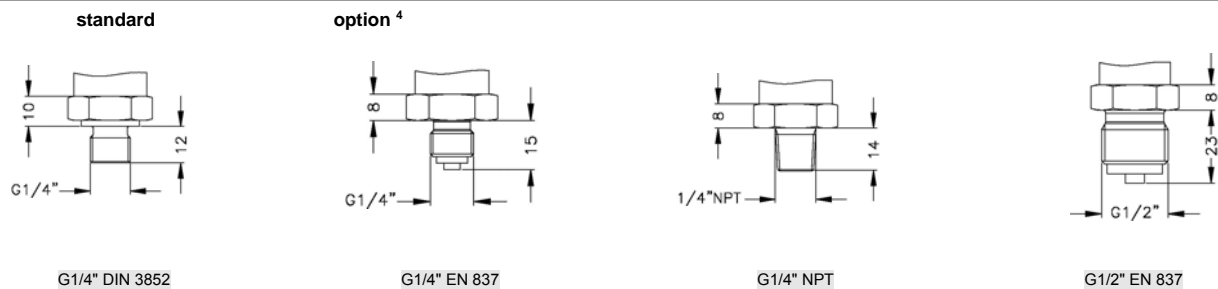
### Electrical connections (dimensions in mm)



<sup>2</sup> standard: 2 m PVC cable without ventilation tube (permissible temperatur: -5 ... 70 °C)

<sup>3</sup> different cable types and lengths available, permissible temperatur depends on kind of cable

### Mechanical connection (dimensions in mm)



<sup>4</sup> other mechanical connections on request

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