

30.600 G

OEM Pressure Transmitter Low Cost

Applications

- ▶ mechanical and plant engineering
- ▶ general industrial applications

Characteristics

- ▶ ceramic sensor
- ▶ accuracy 1 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 1.6 bar up to 0 ... 250 bar



Technical Data

Input pressure range													
Nominal pressure gauge	[bar]	1.6	2.5	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	5	5	12	12	20	50	50	120	120	200	400	400
Burst pressure \geq	[bar]	7	7,5	15	18	30	70	75	150	180	300	500	750
Vacuum resistance		unlimited											

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	$\leq \pm 1 \%$ 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	$\leq \pm 0.3 \%$ 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	$\leq \pm 0.5 \%$ FSO / 10 K (typ.)	in compensated range	-25 ... 85 °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 protection	emission and immunity according to EN 61326

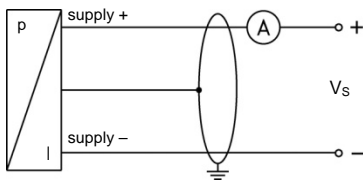
Mechanical stability	
Vibration	10 g, 25 Hz ... 2 kHz according to DIN EN 60068-2-6
Shock	500 g / 1 msec according to DIN EN 60068-2-27

Materials	
Pressure port / housing	stainless steel 1.4301 (304)
Seals (media wetted)	FKM others on request
Diaphragm	ceramics Al ₂ O ₃ 96 %
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 x 10 ⁶ cycles
CE-conformity	EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A) ²

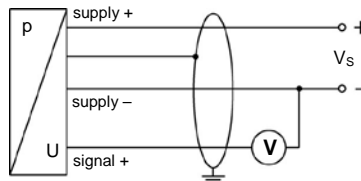
² This directive is only valid for devices with maximum permissible overpressure > 200 bar

Wiring diagrams

2-wire-system (current)



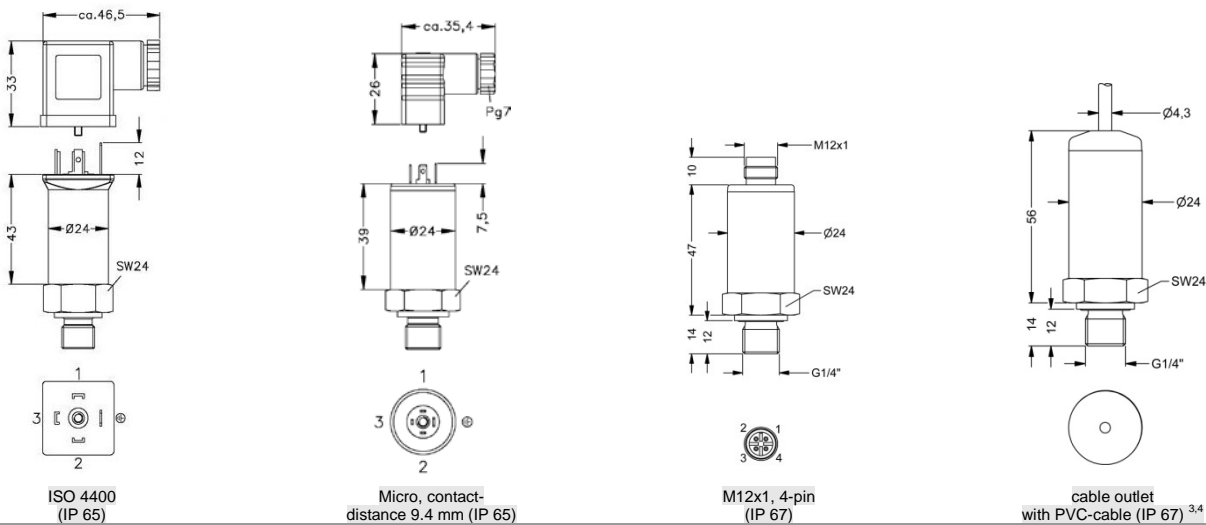
3-wire-system (voltage)



Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), plastic	cable colour (IEC 60757)
Supply +	1	1	1	wh (white)
Supply -	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin	ground pin	4	gnye (green-yellow)

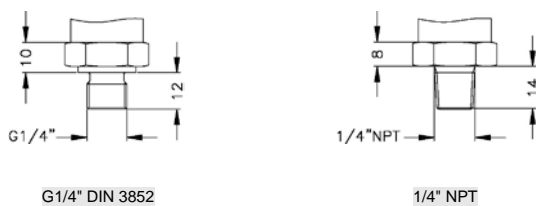
Electrical connections (dimensions in mm)



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)



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Ordering code 30.600 G

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Input		[bar]																
	1.6	1	6	0	1													
	2.5	2	5	0	1													
	4.0	4	0	0	1													
	6.0	6	0	0	1													
	10	1	0	0	2													
	16	1	6	0	2													
	25	2	5	0	2													
	40	4	0	0	2													
	60	6	0	0	2													
	100	1	0	0	3													
	160	1	6	0	3													
	250	2	5	0	3													
	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																		
	1.0 % FSO					8												
	customer					9												consult
Electrical connection																		
	Male and female plug ISO 4400					1	0	0										
	Male and female plug Micro					C	1	0										
	Male plug M12x1 (4-pin), plastic					M	0	0										
	Cable outlet with PVC cable ¹					T	M	0										
	customer					9	9	9										consult
Mechanical connection																		
	G1/4" DIN 3852					3	0	0										
	1/4" NPT					N	4	0										
	customer					9	9	9										consult
Seal																		
	FKM																	
	customer																	consult
Special version																		
	standard																	
	customer																	consult

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

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