

IMP 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		$\leq \pm 1 \% \text{ FSO}$														
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:	$\leq 10 \text{ msec}$						3-wire:	$\leq 3 \text{ msec}$							
Long term stability		$\leq \pm 0.3 \% \text{ FSO / year at reference conditions}$														
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		$\leq \pm 0.5 \% \text{ FSO / 10 K (typ.)}$					in compensated range	0 ... 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									

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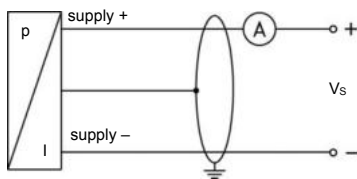
Technical Data

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 million load cycles
CE-conformity	EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A) ²

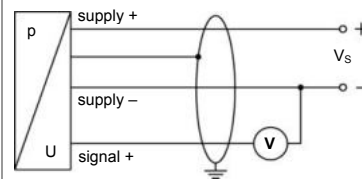
² This directive is only valid for devices with maximum permissible overpressure > 200 bar

Wiring diagrams

2-wire-system (current)



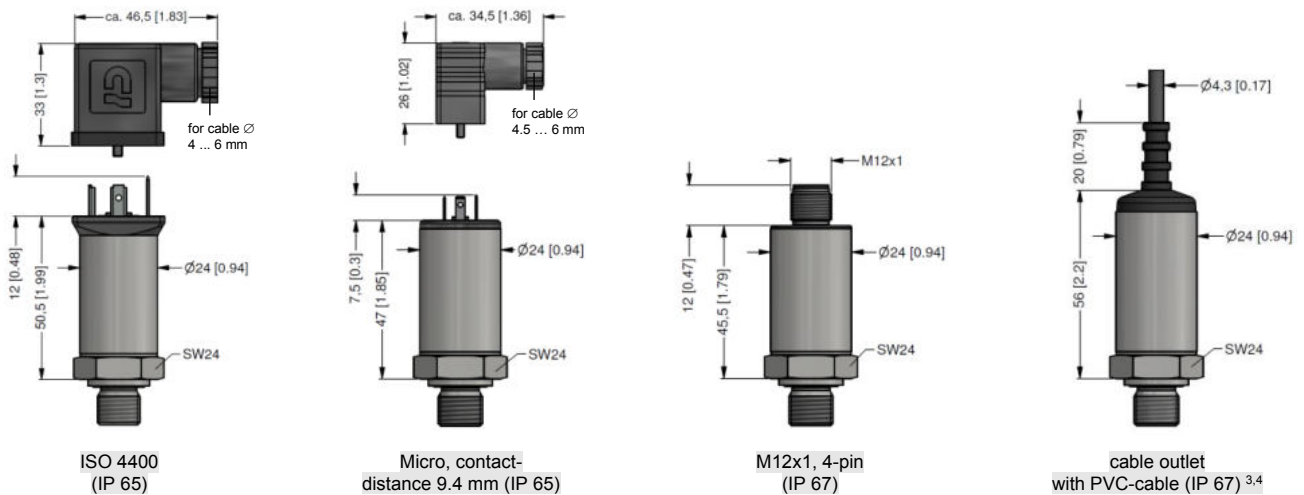
3-wire-system (voltage)



Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin, metal)	cable colours (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	GYNE (green-yellow)

Electrical connections (dimensions mm / in)



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 mm / in)



Ordering code IMP 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), 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											
	1/4" NPT							N	4	0											
	customer							9	9	9											consult
Seal																					
	FKM																				1
	customer																				9
Special version																					
	standard																				0
	customer																				9
																					0
																					9
																					9
																					consult

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