

# 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 ≥ [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 <sub>S</sub> = 8 ... 32 V <sub>DC</sub>						
Options	3-wire:		0 ... 10 V				/	V <sub>S</sub> = 14 ... 30 V <sub>DC</sub>						
	3-wire ratiometric:		10 ... 90 % of V <sub>S</sub>				/	V <sub>S</sub> = 2.7 ... 5 V <sub>DC</sub>						
Performance														
Accuracy <sup>1</sup>	≤ ± 1 % FSO													
Permissible load	2-wire:		R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S,min</sub> ) / 0.02 A] Ω					3-wire:		R <sub>min</sub> = 10 kΩ				
Influence effects	supply:		0.05 % FSO / 10 V					load:		0.05 % FSO / kΩ				
Response time	2-wire:		≤ 10 msec					3-wire:		≤ 3 msec				
Long term stability	≤ ± 0.3 % 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) / Permissible temperatures														
Thermal error	≤ ± 0.5 % 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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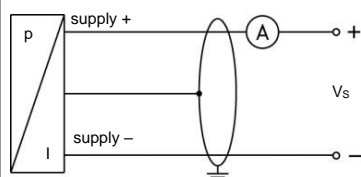
Technical Data

Materials	
Pressure port / housing	stainless steel 1.4301 (304)
Seals (media wetted)	FKM others on request
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 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) <sup>2</sup>

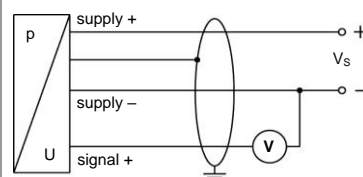
<sup>2</sup> This directive is only valid for devices with maximum permissible overpressure > 200 bar

## Wiring diagrams

2-wire-system (current)



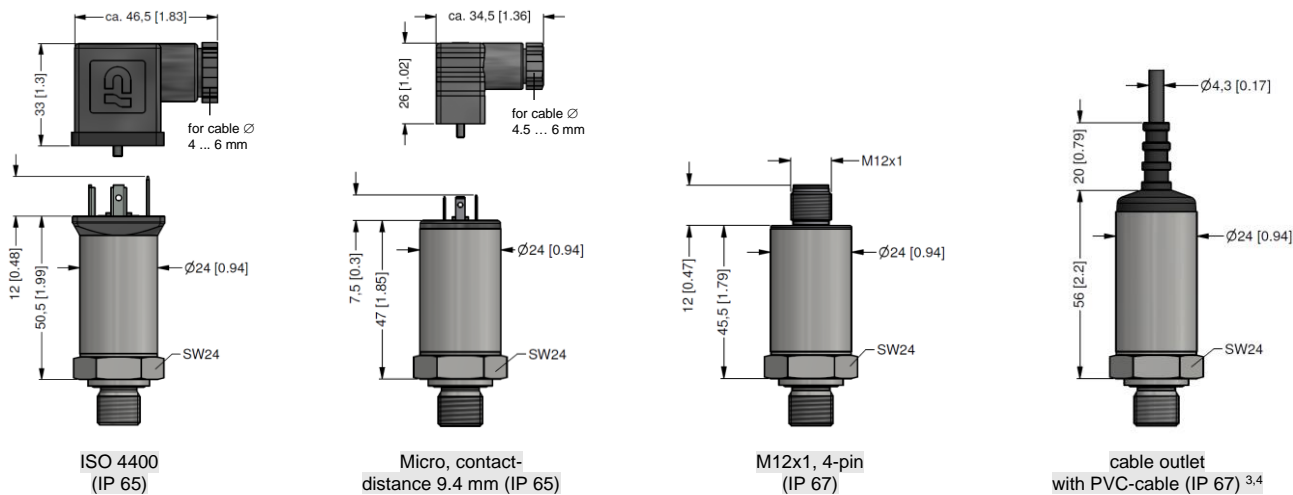
3-wire-system (voltage)



## 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)

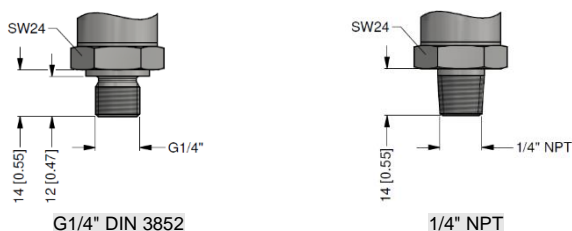
## Electrical connections (dimensions mm / in)



<sup>3</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

<sup>4</sup> 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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<b>Input</b>	[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
<b>Pressure</b>	gauge				R											
<b>Output</b>																
	4 ... 20 mA / 2-wire				1											
	0 ... 10 V / 3-wire				3											
	10 ... 90% of V <sub>S</sub> / 3-wire ratiometric				R											
	customer				9											consult
<b>Accuracy</b>																
	1.0 % FSO				8											
	customer				9											consult
<b>Electrical connection</b>																
	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 <sup>1</sup>				T	M	0									
	customer				9	9	9									consult
<b>Mechanical connection</b>																
	G1/4" DIN 3852					3	0	0								
	1/4" NPT					N	4	0								
	customer					9	9	9								consult
<b>Seal</b>																
	FKM							1								
	customer							9								consult
<b>Special version</b>																
	standard										0	0	0			
	customer										9	9	9			consult

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