

IMP 18.605



Submersible OEM-Pressure Transmitter

Applications

- ▶ level measurement in water and fuel oil tanks

Characteristics

- ▶ piezoresistive stainless steel sensor
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 1 mH₂O up to 0 ... 10 mH₂O

Technical Data



Input pressure range					
Nominal pressure gauge [bar]	0.1	0.25	0.4	0.6	1
Level [mH ₂ O]	1	2.5	4	6	10
Overpressure [bar]	1	1	1	3	3
Burst pressure ≥ [bar]	1.5	1.5	1.5	5	5
Vacuum resistance	unlimited				

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}
Option 3-wire	3-wire: 0 ... 10 V / V _S = 14 ... 30 V _{DC}
	3-wire ratiometric: V _{Sig} = 0.5 ... 4.5 V / V _S = 5 ± 0.5 V _{DC}

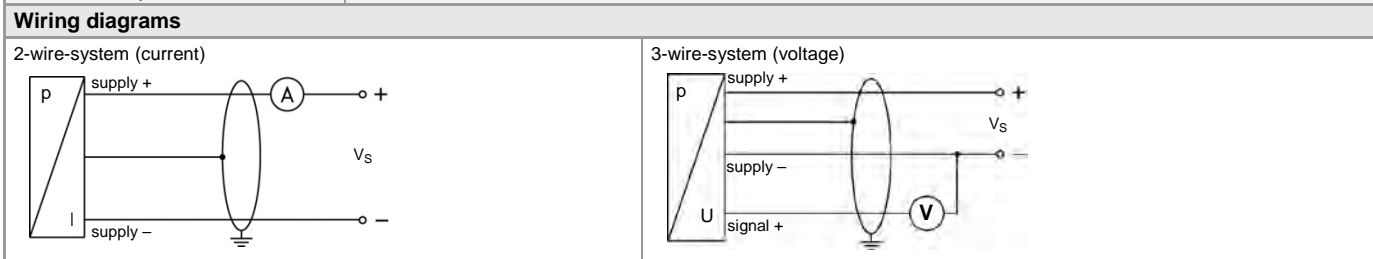
Performance	
Accuracy ^{1,2}	≤ ± 0.5 % FSO
Permissible load	2-wire: R _{max} = [(V _S - V _{S min}) / 0.02 A] Ω 3-wire: R _{min} = 10 kΩ
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ
Response time	2-wire: ≤ 10 msec 3-wire: ≤ 3 msec
Measuring range	1 kHz

¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)
² for pressure ranges ≤ 160 mbar accuracy is ± 1 % FSO

Thermal effects (Offset and Span) / Permissible temperatures	
Thermal error	≤ ± 0.3 % FSO / 10 K in compensated range 0 ... 70 °C
Permissible temperatures	medium / electronics / environment / storage: -10 ... 70 °C

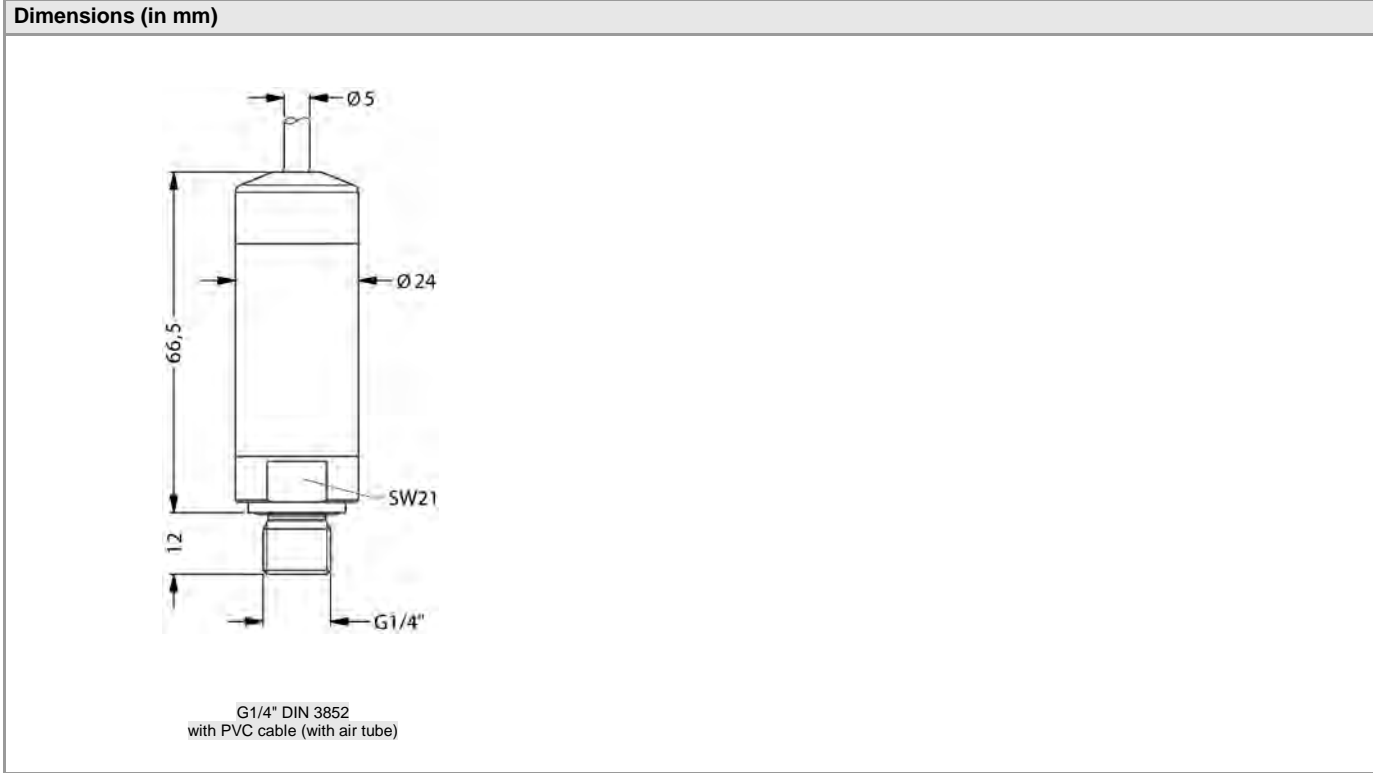
Electrical protection	
Short circuit protection	permanent 3-wire ratiometric: none
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	Emission and immunity according to EN 61326

Mechanical stability		
Vibration	10 g, 25 Hz ... 2 kHz	according to DIN EN 60068-2-6
Shock	100 g / 1 msec	according to DIN EN 60068-2-27
Materials (media wetted)		
Housing	stainless steel 1.4301 (304)	
Seals	FKM	
Diaphragm	stainless steel 1.4435 (316 L)	
Cable sheath	PVC (oil resistant)	
Miscellaneous		
Weight	approx. 120 g (without cable)	cable: 25 g / m
Cable length	3 m, 6 m, 9 m or 12 m; others on request	
Suitable for following media	water, fuel oil	
Current consumption	2-wire: max. 25 mA	3-wire ratiometric: typ. 1.5 mA
	3-wire voltage: typ. 5 mA (short circuit current: max. 20 mA)	
Ingress protection	IP 68	
CE-conformity	EMC Directive: 2004/108/EC	



Pin configuration

Electrical connections	cable colours (DIN 47100)
Supply +	wh (white)
Supply -	bn (brown)
Signal + (only for 3-wire)	gn (green)
Shield	gn/ye (green / yellow)



This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

Ordering code IMP 18.605

IMP 18.605 - - - - - - - -

Input										
	[mH ₂ O]	[bar]								
	1.0	0.1	¹	1	0	0	0			
	2.5	0.25		2	5	0	0			
	4	0.4		4	0	0	0			
	6	0.6		6	0	0	0			
	10	1.0		1	0	0	1			
	customer			9	9	9	9			consult
Pressure										
		bar			B					
		mH ₂ O			M					
		customer			9					consult
Output										
	4 ... 20 mA / 2-wire				1					
	0 ... 10 V / 3-wire				3					
	0.5 ... 4.5 V / 3-wire ratiometric				R					
	customer				9					consult
Accuracy										
	0.5 % FSO				5					
	customer				9					consult
Electrical connection										
	PVC-cable				1					
	customer				9					consult
Cable length										
	3 m				0	0	3			
	6 m				0	0	6			
	9 m				0	0	9			
	12 m				0	1	2			
	customer				9	9	9			
Mechanical connection										
	G1/4" DIN 3852					3	0	0		
	customer					9	9	9		consult
Seals										
	FKM							1		
	customer							9		consult
Special version										
	standard							0	0	0
	customer							9	9	9
										consult

¹ for nominal pressure range ≤ 160 mbar accuracy is 1 % FSO