

17.600 G

OEM Pressure Transmitter Heavy Duty

Applications:

- ▶ mobile hydraulic
- ▶ presses
- ▶ general mechanical engineering
- ▶ oxygen application

Characteristics:

- ▶ stainless steel sensor, welded
- ▶ accuracy 0.5 % FSO according to IEC 61298-2
- ▶ nominal pressure ranges from 0 ... 6 bar up to 0 ... 600 bar



Technical Data



Input pressure range												
Nominal pressure gauge [bar]	6	10	16	25	40	60	100	160	250	400	600	
Overpressure (static) [bar]	12	20	32	50	80	120	200	320	500	800	1 200	
Burst pressure ≥ [bar]	30	50	80	125	200	300	500	800	1 400	2 000	3 000	
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	$\leq \pm 0.5 \% \text{ FSO}$
Permissible load	2-wire: $R_{max} = [(V_S - V_{S \min}) / 0.02 \text{ A}] \Omega$ 3-wire: $R_{min} = 10 \text{ k}\Omega$
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ
Response time	2-wire: $\leq 10 \text{ msec}$ 3-wire: $\leq 3 \text{ msec}$
Long term stability	$\leq \pm 0.3 \% \text{ FSO} / \text{year}$ at reference conditions
Measuring rate	1 kHz

¹ accuracy according to IEC IEC 61298-2 – limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (offset and span) / Permissible temperatures			
Thermal error	$\leq \pm 0.3 \% \text{ FSO} / 10 \text{ K}$	in compensated range	0 ... 70 °C
Permissible temperatures	medium: -40 ... 125 °C	electronics / environment:	-40 ... 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	20 g RMS / 10 ... 2000 Hz according to DIN EN 60068-2-6
Shock	500 g / 1 msec half sine according to DIN EN 60068-2-27

Materials					
Pressure port	stainless steel 1.4571 (316Ti)				
Housing	stainless steel 1.4301 (304)				
Seal of pressure port	FKM for G 1/4" DIN 3852		others on request		
Seal of sensor	none (welded)				
Diaphragm	stainless steel 1.4542 (630)				
Media wetted parts	pressure port, seal of pressure port, diaphragm				
Miscellaneous					
Weight	approx. 120 g				
Current consumption	2-wire: max. 25 mA		3-wire ratiometric: typ. 3 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	GNYE (green-yellow)	
Electrical connections (dimensions mm / in)					
ISO 4400 (IP 65)					
Micro, contact distance 9.4 mm (IP 65)					
M12x1, 4-pin (IP 67)					
cable outlet with PVC-cable (IP 67) ^{3, 4}					
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)					
G1/4" DIN 3852 (not for oxygen)					
G1/4" EN 837					
1/4" NPT					
G1/2" EN 837					

Ordering code 17.600 G

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Input	[bar]																		
	6	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														
	400	4	0	0	3														
	600	6	0	0	3														
	customer	9	9	9															consult
Pressure																			
	gauge				R														
Output																			
	4 ... 20 mA / 2-wire				1														
	0 ... 10 V / 3-wire				3														
	10 ...90 % of Vs / 3-wire ratiometric				R														
Accuracy																			
	0.5 % FSO				5														
	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 / Seal																			
	G1/4" DIN 3852 / on pressure port: FKM								3	0	0	P							
	G1/4" EN 837 / without								4	0	0	2							
	1/4" NPT / without								N	4	0	2							
	G1/2" EN 837 / without								2	0	0	2							
	customer								9	9	9	9							consult
Special version																			
	standard												0	0	0				
	oxygen application ²												0	0	7				
	oil and grease free												0	0	8				
	customer												9	9	9				consult

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

² not possible with G1/4" DIN 3852