

INDUSTRIAL PRESSURE TRANSMITTER

New generation available - refer to www.trafag.com/H72303

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature.



Applications

- Machine tools
- Hydraulics
- HVAC
- Refrigeration
- Process technology
- Water treatment

Features

- Smallest design
- Completely welded steel sensor system without additional seals

Technical Data

Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 600 bar	Media temperature	-25°C ... 125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC	Ambient temperature	-25°C ... 85°C

08/2016

Data sheet H72250m

Subject to change

Ordering information/type code

					8251	XX	XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]								
	0 ... 2.5	5	50	75							
	0 ... 4	8	60	76							
	0 ... 6	12	100	77							
	0 ... 10	20	200	78							
	0 ... 16	32	200	79							
	0 ... 25	50	300	80							
	0 ... 40	80	300	81							
	0 ... 60	120	400	82							
	0 ... 100	200	500	83							
	0 ... 160	320	750	85							
	0 ... 250	500	1000	74							
	0 ... 400	800	1500	84							
	0 ... 600	1000	2000	86							
Sensor	Relative pressure				25						
	Absolute pressure				45						
Pressure connection	G1/4" male (O-Ring)					17					
	1/4"NPT male					30					
	7/16"-20UNF male ²⁾					18					
	7/16"-20UNF female (Valve opener) ²⁾					24					
Electrical connection	Male electrical connector, industrial standard (contact distance 9.4 mm), Mat. PBT						01				
	Male electrical connector M12x1, 4-pole, Mat. PBT						32				
	Male electrical connector M12x1, 5-pole, Mat. PBT						35				
Output	Output	Load resistance	I (supply)	U (supply)							
	4 ... 20mA	(U _{supply} -9V) / 20mA		24 (9 ... 32) VDC				19			
	0 ... 5 VDC	≥ 2.0 kΩ	≤ 10 mA	24 (9 ... 32) VDC				14			
	0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA	24 (15 ... 32) VDC				17			
	1 ... 6 VDC	≥ 2.0 kΩ	≤ 10 mA	24 (9 ... 32) VDC				16			
Accessories	Female electrical plug M12x1, 5-pole ³⁾									33	
	Female electrical plug industrial standard									34	
	Pressure peak damping element ø 1.0 mm ⁴⁾									40	
	Pressure peak damping element ø 0.3 mm ⁴⁾									43	
	Pressure peak damping element ø 0.5 mm ⁴⁾									45	
	Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 3 -, Pin 4 Out (only for output signals 14, 16, 17 and male electrical connector 32, M12x1, 4-pole) ⁵⁾									96	

¹⁾ Extended overpressure as well as customized pressure ranges upon request

²⁾ Only for relative pressure measurement, max. allowable pressure range: 40 bar

³⁾ For electrical connections 32 and 35

⁴⁾ Only for pressure connections 17 and 30

⁵⁾ Details see electrical connection

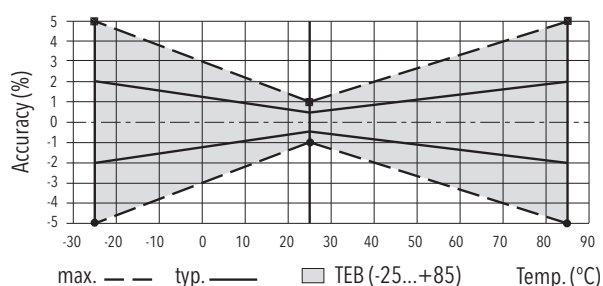


Identical construction with higher specifications: Data sheet No H72300, H72301

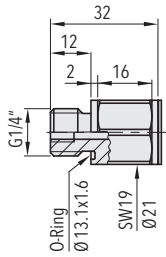
Specifications		
Accuracy	TEB typ. @ -25 ... +85°C	± 2.0 % FS typ. (@ -25 ... 85°C)
	Accuracy @ 25°C typ.	± 0.5 % FS typ.
	NLH @ 25°C (BSL) typ.	± 0.2 % FS typ. (@ 25°C)
	TC zero point and span typ.	± 0.03 % FS/K max.
	Long term stability 1 year typ.	< ± 0.2 % FS typ.
Electrical Data	Output / supply voltage	4...20 mA: 24 (9...32) VDC 0...5 VDC: 24 (9...32) VDC 1...6 VDC: 24 (9...32) VDC 0...10 VDC: 24 (15...32) VDC
	Rise time	Typ. 1 ms/10...90 % nominal pressure
	Power-on delay time	1 s
Environmental conditions	Media temperature	-25°C ... 125°C
	Ambient temperature	-25°C ... 85°C
	Protection ¹⁾	Min. IP65
	Humidity	Max. 95 % relative
	Vibration	25 g (20...2000 Hz)
	Shock	100 g / 11 ms
EMC Protection	Emission	EN/IEC 61000-6-4
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor (wetted parts)	1.4542 (AISI630)
	Pressure connection (wetted parts)	Pressure ranges ≤ 250 bar: 1.4542 (AISI630) Pressure ranges > 250 bar: 1.4301 (AISI304)
	Housing	1.4301 (AISI304)
	Sealing	NBR
	Male electrical connector	See ordering information
	Weight	~ 50 g
	Mounting torque	25 Nm

¹⁾ Provided female electrical plug is mounted according to instructions

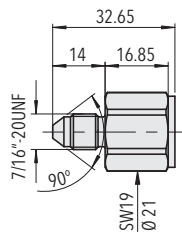
Measuring accuracy



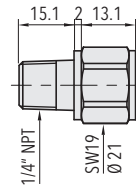
Dimensions



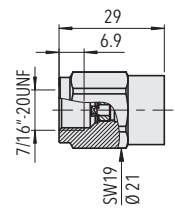
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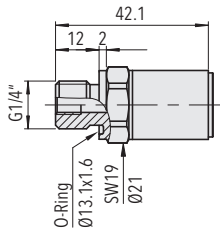
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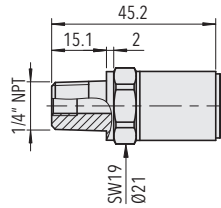
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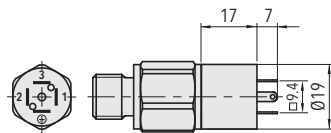
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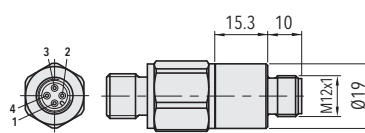
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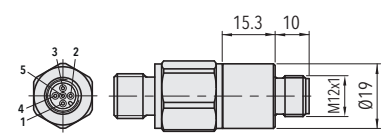
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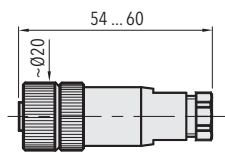
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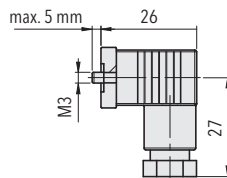
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8251.XX.XXXX.35.XX

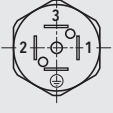
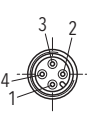
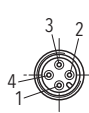
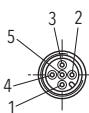
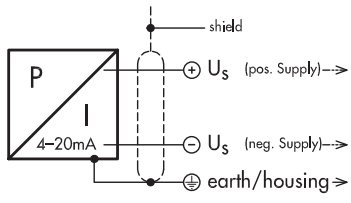
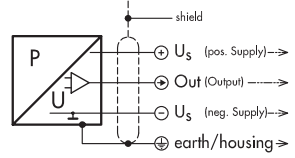


8251.XX.XXXX.XX33



8251.XX.XXXX.XX.34

Electrical Connection

		Protection / electrical connection			
		IP65*)	IP67*)		
		Industrial standard EN175301-803A	M12x1		
			4-pole		5-pole
		01	32	96	35
					
Output signal	 8251.XX.XXXX.XX.19	2 1 ⊕	1 3 4	- - -	4 1 5
	 8251.XX.XXXX.XX.14/16/17	1 2 3 ⊕	1 2 3 4	1 4 3 2	2 4 3 5

*) Provided female connector is mounted according to instructions

Additional information		
Documents	Data sheet	www.trafag.com/H72250
	Instructions	www.trafag.com/H73250