

INDUSTRIAL PRESSURE TRANSMITTER

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		

05/2014

Data sheet H72250i

Subject to change

Ordering information/type code

				8251 . 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 plug Industrial standard (contact distance 9.4mm), Mat. PBT			01
	Male electrical plug M12x1, 4-pole, Mat. PBT			32
	Male electrical plug M12x1, 5-pole, Mat. PBT			35
Output	Output	Load resistance	I (supply)	U (supply)
	4 ... 20mA	(U _{supply} -9V) / 20mA		24 (9 ... 32) VDC
	0 ... 5 VDC	≥2.0 kΩ	≤ 10 mA	24 (9 ... 32) VDC
	0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA	24 (15 ... 32) VDC
1 ... 6 VDC	≥2.0 kΩ	≤ 10 mA	24 (9 ... 32) VDC	
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 -, Pin 3 GR (Only for output 4...20mA and male electrical plug M12x1, 5-pol.) ⁵⁾			

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

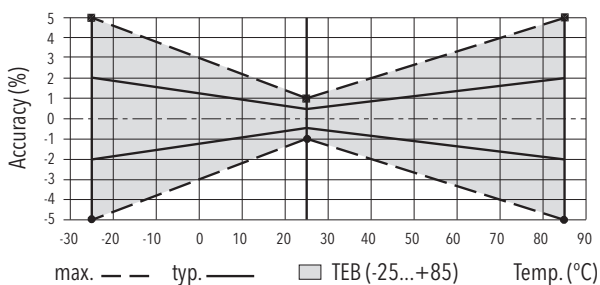
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAT2.5A	8251 75 2517 01 0000 0000 19 34 43	0...2.5	5	9...32	± 0.5
NAT4.0A	8251 76 2517 01 0000 0000 19 34 43	0...4.0	8	9...32	± 0.5
NAT6.0A	8251 77 2517 01 0000 0000 19 34 43	0...6.0	12	9...32	± 0.5
NAT10.0A	8251 78 2517 01 0000 0000 19 34 43	0...10.0	20	9...32	± 0.5
NAT16.0A	8251 79 2517 01 0000 0000 19 34 43	0...16.0	32	9...32	± 0.5
NAT25.0A	8251 80 2517 01 0000 0000 19 34 43	0...25.0	50	9...32	± 0.5
NAT40.0A	8251 81 2517 01 0000 0000 19 34 43	0...40.0	80	9...32	± 0.5
NAT100.0A	8251 83 2517 01 0000 0000 19 34 43	0...100.0	200	9...32	± 0.5
NAT250.0A	8251 74 2517 01 0000 0000 19 34 43	0...250.0	500	9...32	± 0.5
NAT400.0A	8251 84 2517 01 0000 0000 19 34 43	0...400.0	800	9...32	± 0.5
NAT600.0A	8251 86 2517 01 0000 0000 19 34 43	0...600.0	1000	9...32	± 0.5
NAT2.5V	8251 75 2517 01 0000 0000 17 34 43	0...2.5	5	15...32	± 0.5
NAT4.0V	8251 76 2517 01 0000 0000 17 34 43	0...4.0	8	15...32	± 0.5
NAT6.0V	8251 77 2517 01 0000 0000 17 34 43	0...6.0	12	15...32	± 0.5
NAT10.0V	8251 78 2517 01 0000 0000 17 34 43	0...10.0	20	15...32	± 0.5
NAT16.0V	8251 79 2517 01 0000 0000 17 34 43	0...16.0	32	15...32	± 0.5
NAT25.0V	8251 80 2517 01 0000 0000 17 34 43	0...25.0	50	15...32	± 0.5
NAT40.0V	8251 81 2517 01 0000 0000 17 34 43	0...40.0	80	15...32	± 0.5
NAT100.0V	8251 83 2517 01 0000 0000 17 34 43	0...100.0	200	15...32	± 0.5
NAT250.0V	8251 74 2517 01 0000 0000 17 34 43	0...250.0	250	15...32	± 0.5
NAT400.0V	8251 84 2517 01 0000 0000 17 34 43	0...400.0	800	15...32	± 0.5
NAT600.0V	8251 86 2517 01 0000 0000 17 34 43	0...600.0	1000	15...32	± 0.5

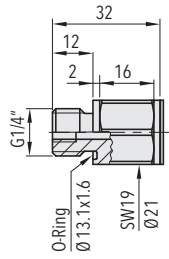
Specifications		
Accuracy	TEB typ. @ -25 ... +85°C	± 2.0 % FS typ. (@ -25 ... 85°C)
	Accuracy @ 25°C typ.	± 0.5 % FS typ.
	NLH @ 25°C (BSL) typ.	± 0.2 % FS typ. (@ 25°C)
	TC zero point and span typ.	± 0.03 % FS/K max.
	Long term stability 1 year typ.	< ± 0.2 % FS typ.
Electrical Data	Output / supply 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
	Switch-on-delay	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	25g (20...2000 Hz)
	Shock	100g/11 ms
EMC Protection	Emission	EN/IEC 61000-6-4
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor	1.4542 (AISI630)
	Housing / Pressure connection	1.4301 (AISI304)
	Sealing	NBR
	Male electrical plug	See ordering information
	Weight	~ 50 g
	Mounting torque	25 Nm

¹⁾ Provided female connector is mounted according to instructions

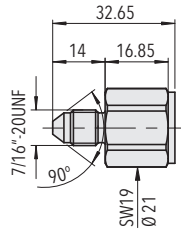
Measuring accuracy



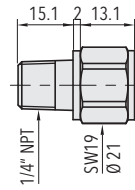
Dimensions



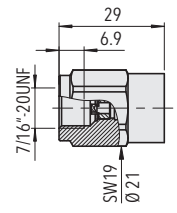
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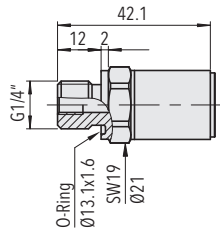
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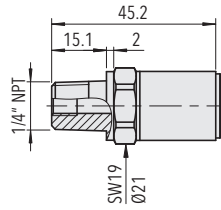
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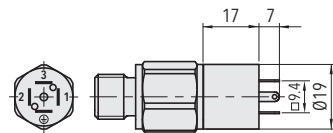
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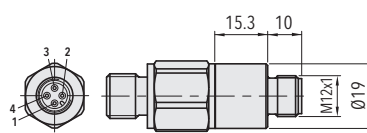
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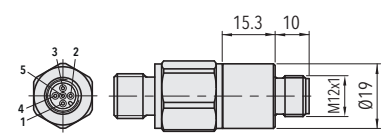
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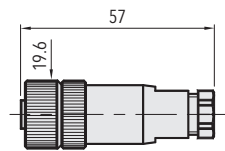
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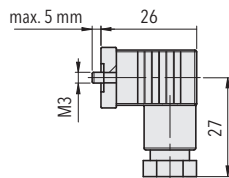
8251.XX.XXXX.32.XX



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		
		01	4-pole 32	96	5-pole 35
Output signal	<p>8251.XX.XXXX.XX.19</p>	2 1 ⊕	1 3 4	- - -	4 1 5
	<p>8251.XX.XXXX.XX.14/16/17</p>	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