

HYDRAULIC PRESSURE TRANSMITTER

New generation available - refer to www.trafag.com/H72304

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
- Process technology
- Water treatment
- Test benches

Features

- Smallest design
- Different accuracy classes
- Excellent temperature resistance
- Improved vibration resistance
- Completely welded steel sensor system without additional seals

Technical Data

Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.3 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Media temperature	-40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Ambient temperature	-40°C ... +125°C

03/2016

Data sheet H72300m

Subject to change

Ordering information/type code

				8253 . XX				XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]						
		0 ... 2.5 ²⁾	5	50	0 ... 30	90	700	G5				
	0 ... 4	8	60	0 ... 50	150	850	G6					
	0 ... 6	12	100	0 ... 100	300	1450	G7					
	0 ... 10	20	200	0 ... 150	450	2500	G8					
	0 ... 16	32	200	0 ... 200	600	2500	GA					
	0 ... 25	50	300	0 ... 250	750	2500	G9					
	0 ... 40	80	300	0 ... 300	900	4000	HA					
	0 ... 60	120	400	0 ... 400	1200	4000	H0					
	0 ... 100	200	500	0 ... 500	1500	4000	H1					
	0 ... 160	320	750	0 ... 1000	3000	5000	H2					
	0 ... 250	500	1000	0 ... 1500	4500	7000	H3					
	0 ... 400	800	1500	0 ... 2000	6000	10000	H5					
	0 ... 600	1000	2000	0 ... 3000	9000	14500	G4					
				0 ... 5000	12500	21750	H4					
				0 ... 7500	18750	29000	H6					
Sensor	Relative pressure, accuracy: 0.3 %											23
	Relative pressure, accuracy: 0.15 %											21
	Relative pressure, accuracy: 0.1 %											24
	Absolute pressure, accuracy: 0.3 %											43
	Absolute pressure, accuracy: 0.15 %											41
	Absolute pressure, accuracy: 0.1 %											44
Pressure connection	G1/4" male (O-Ring)											17
	1/4"NPT male											30
	7/16"-20UNF male ^{3) 4)}											18
	7/16"-20UNF female (Valve opener) ^{3) 4)}											24
Electrical connection	Male electrical plug , Industrial standard (contact distance 9.4 mm), Mat. PBT											01
	Male electrical plug M12x1, 4-pol., Mat. PBT											32
	Male electrical plug M12x1, 5-pol., Mat. PBT											35
Output	Signal 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					
	1 ... 6 VDC	≥ 2.0 kΩ	≤ 10 mA		24 (9 ... 32)VDC		16					
	0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA		24 (15 ... 32)VDC		17					
	0.5 ... 4.5 VDC	≥ 2.0 kΩ	≤ 10 mA		5 (4.5 ... 5.5)VDC ratiom.		23					
Accessories	Female electrical plug M12x1, 5-pole, for execution 32 and 35											33
	Female electrical plug industrial standard											34
	Meets EN50155 (railways) dielectrical strength: 500 VAC, 50Hz ⁵⁾											11
	Pressure peak damping element ø 1.0 mm ⁶⁾											40
	Pressure peak damping element ø 0.3 mm ⁶⁾											43
	Pressure peak damping element ø 0.5 mm ⁶⁾											45
	Special pin configuration: Pin 1 + , Pin 3 - , Pin 4 Out, Pin 2 GR (Only for output signals 0...5 VDC, 1...6 VDC, 0...10 VDC, 0.5...4.5 VDC and male electrical plug, M12x1, 4-pole)											96

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

²⁾ Measuring accuracy 0.3 %

³⁾ Relative pressure only

⁴⁾ Max. allowable pressure range 40 bar

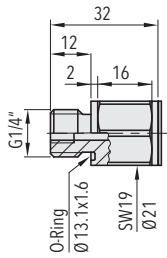
⁵⁾ Only with output 19

⁶⁾ Only for pressure connections 17 and 30

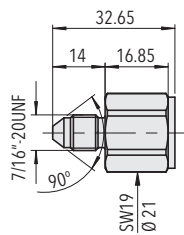


Identical construction with higher/lower specifications: Data sheet No. H72250, H72301

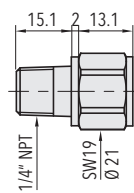
Dimensions



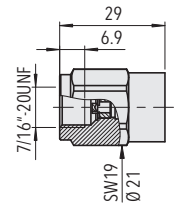
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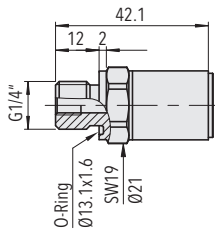
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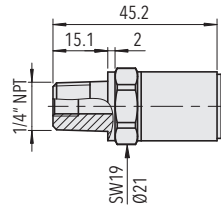
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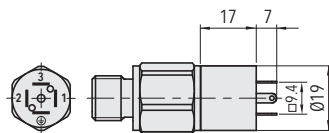
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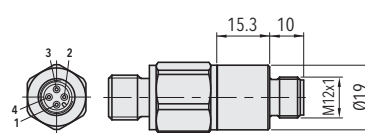
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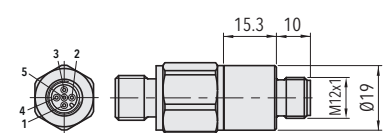
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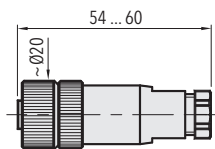
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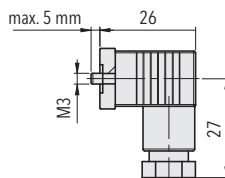
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8253.XX.XXXX.XX.XX.33



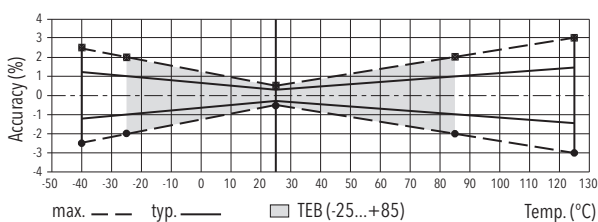
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Specifications		
Electrical Data	Output / supply voltage	4...20 mA: 24 (9...32) VDC 0...5 VDC: 24 (9...32) VDC 1...6 VDC: 24 (9...32) VDC 0...10 VDC: 24 (15...32) VDC 0.5...4.5 VDC: 5 VDC ratiom.
	Rise time	Typ. 1 ms/10...90% nominal pressure
	Switch-on-delay	1 s
	Environmental Conditions	
	Media temperature	-40°C ... 125°C
	Ambient temperature	-40°C ... 125°C
	Protection ¹⁾	Min. IP65
	Humidity	Max. 95% relative
	Vibration	40g (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	FKM 70 Sh
	Male electrical plug	See ordering information
	Weight	~ 50 g
	Mounting torque	25 Nm

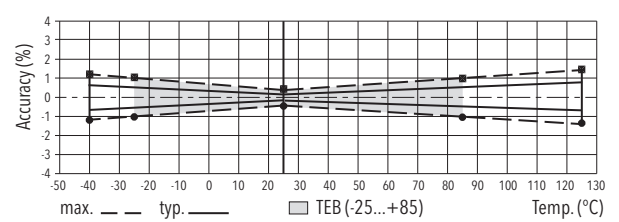
¹⁾ Provided female connector is mounted according to instructions

Accuracy				
		Measuring accuracy 0.3% Ordering No. 23/43	Measuring accuracy 0.15% Ordering No. 21/41	Measuring accuracy 0.1% Ordering No. 24/44
TEB @ -25...+85°C	[% FS typ.]	± 1.0	± 0.5	± 0.4 (0 ... 60°C)
Accuracy @ +25°C	[% FS typ.]	± 0.3	± 0.15	± 0.1
NLH @ +25°C (BSL through 0)	[% FS typ.]	± 0.2	± 0.1	± 0.1
TC zero point and span	[% FS/K typ.]	± 0.01	± 0.002	± 0.002
Long term stability 1 year @ +25°C	[% FS typ.]	< ± 0.1	< ± 0.1	< ± 0.1

Measuring accuracy 0.3%



Measuring accuracy 0.15%



Electrical Connection

		Protection / electrical connection			
		IP65*)	IP67*)		
		Industrial standard EN175301-803A	M12x1		
		01	4-pole 32	96	5-pole 35
Output signal	<p>shield</p> <p>U_S (pos. Supply) →</p> <p>U_S (neg. Supply) →</p> <p>earth/housing →</p> <p>8253.XX.XXXX.XX.19</p>	2	1	-	4
	<p>shield</p> <p>U_S (pos. Supply) →</p> <p>Out (Output) →</p> <p>U_S (neg. Supply) →</p> <p>earth/housing →</p> <p>8253.XX.XXXX.XX.14/16/17/23</p>	1	1	1	2
		1	3	-	1
		⊕	4	-	5
			4	2	5

*) Provided female connector is mounted according to instructions

Additional information		
Documents	Data sheet	www.trafag.com/H72300
	Instructions	www.trafag.com/H73250
	Flyer	www.trafag.com/H70670