

MARINE PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The industrial pressure transmitter EPN 8288, like its reliable predecessor the EPN 8298, has an exceptional ruggedness and a strong thin-film-on-steel sensor cell. The triple overpressure safety, a wide temperature range of up to 125°C and the marine certifications make the EPN 8288 the ideal solution for a wide variety of challenging applications.



Applications

- Shipbuilding
- Engine manufacturing
- Machine tools
- Hydraulics



Features

- Excellent long-term stability
- High resistance to over pressure
- Completely welded steel sensor system without additional seals
- Different accuracy classes

Technical Data

Measuring principle	Thin-film-on-steel	Media temperature	-40°C ... +125°C
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Ambient temperature	-40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 10 VDC 0.5 ... 4.5 VDC ratiometric 	Approval / conformity	DNV-GL EU RO Mutual Recognition Type Approval Certificate
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		

07/2018

Data sheet H72318b

Subject to change

Ordering information/type code

8288 . 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	7.5	50	75	0 ... 30	90	700	G5				
	0 ... 4	12	60	76	0 ... 50	150	850	G6				
	0 ... 6	18	100	77	0 ... 100	300	1450	G7				
	0 ... 10	30	200	78	0 ... 150	450	2500	G8				
	0 ... 16	48	200	79	0 ... 200	600	2500	GA				
	0 ... 25	75	300	80	0 ... 250	750	2500	G9				
	0 ... 40	120	300	81	0 ... 300	900	4000	HA				
	0 ... 60	180	400	82	0 ... 400	1200	4000	H0				
	0 ... 100	300	500	83	0 ... 500	1500	4000	H1				
	0 ... 160	480	750	85	0 ... 1000	3000	5000	H2				
	0 ... 250	750	1000	74	0 ... 1500	4500	7000	H3				
	0 ... 400	1000	2000	84	0 ... 2000	6000	10000	H5				
	0 ... 600	1500	2500	86	0 ... 3000	9000	14500	G4				
					0 ... 5000	12500	21750	H4				
					0 ... 7500	18750	29000	H6				
	Sensor	Relative pressure, accuracy: 0.3 %; Material pressure connection and housing: 1.4542 (AISI630)							23			
Relative pressure, accuracy: 0.5 %; Material pressure connection and housing: 1.4542 (AISI630)							25					
Relative pressure, accuracy: 0.3 %; Material pressure connection and housing: 1.4404 (AISI316L) ²⁾							33					
Relative pressure, accuracy: 0.5 %; Material pressure connection and housing: 1.4404 (AISI316L) ²⁾							35					
Pressure connection	G1/4" male (Seal)							17				
	1/4" NPT male ³⁾							30				
	R1/4" male, DIN3858 ³⁾							19				
	1/2" NPT male ³⁾							51				
	M14x1.5 male DIN6149-2 ³⁾							31				
	G1/2" male (Manometer) ³⁾							11				
Electrical connection	Male electrical plug EN 175301-803-A, Mat. PA							05				
Output signal	Signal output	Load resistance	I (supply)		U (supply)							
	4 ... 20 mA	(U _{supply} -9 V) / 20 mA			9 ... 32 VDC					19		
	0 ... 10 VDC	> 5 kΩ	< 10 mA		15 ... 32 VDC					17		
	0.5 ... 4.5 VDC ratiometric 	≥ 15.0 kΩ	≤ 12 mA		5 VDC ± 0.25 VDC ratiom.					23		
Accessories	Seal FPM, -18°C ... +125°C							61				
	Seal EPDM, -40°C ... +125°C							63				
	Seal NBR, -25°C ... +100°C							83				
	Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)							40				
	Pressure peak damping element ø 0.4 mm (for pressure connections 17 and 30)							44				
	Female electrical connector EN 175301-803-A (DIN43650-A)							58				
	Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4 ... 20 mA and male electrical plug EN175301-803-A / DIN43650-A)							92				
	Special electrical connection: Pin 1 out , Pin 2 -, Pin 3 + (Only for output 0.5 ... 4.5 VDC and male electrical plug EN175301-803-A / DIN43650-A)							98				
	Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (Only for output 0.5 ... 4.5 VDC and male electrical plug EN175301-803-A / DIN43650-A)							97				

¹⁾ Customized pressure ranges upon request²⁾ Only for pressure ranges ≥ 0 ... 10 bar³⁾ Upon request

Specifications

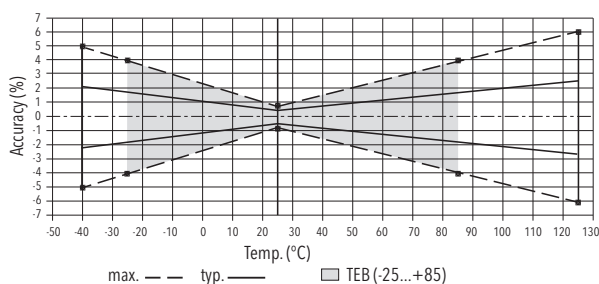
Electrical Data	Output / supply voltage	4 ... 20 mA: 24 (9 ... 32) VDC 0 ... 10 VDC 24 (15 ... 32 VDC) 0.5 ... 4.5 VDC: 5 VDC ratiom. 
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Switch-on-delay	100 ms
	Inverse-polarity protection, short-circuit strength @ 25°C during 5 min.	4...20 mA: to $U_s = 32$ VDC 0...10 VDC: to $U_s = 28$ VDC
Environmental conditions	Media temperature	-40°C ... +125°C
	Ambient temperature	-40°C ... +125°C
	Protection ¹⁾	IP65
	Humidity	IEC 60068-2-30 (damp heat cyclic, 100 % RH @ +55°C)
	Vibration	15 g RMS (20...2000 Hz) acc.to EN 60068-2-64 25 g sin (10...2000 Hz), 1 oct./min, (1x @ 25°C) acc.to EN 60068-2-6
	Shock	500 g / 1 ms acc.to EN 60068-2-27
EMC Protection	Emission	EN/IEC 61000-6-3, IACS UR E10
	Immunity	EN/IEC 61000-6-2, IACS UR E10
Mechanical Data	Sensor (wetted parts)	1.4542 (AISI630)
	Pressure connection (wetted parts)	1.4542 (AISI630) or 1.4404 (AISI316L)
	Housing	1.4542 (AISI630) or 1.4404 (AISI316L)
	Sealing	FPM/EPDM/NBR
	Male electrical plug	See ordering information
	Weight	appr. 80 ... 110 g
	Mounting torque	25 Nm

¹⁾ See electrical connection

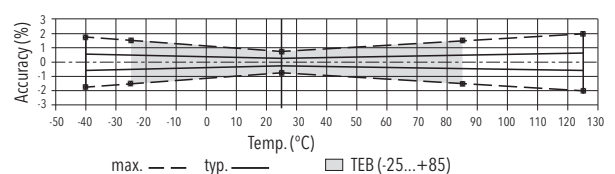
Accuracy

		Class 0.5 % Ordering No. 25/35	Class 0.3 % Ordering No. 23/33
TEB @ -25 ... +85°C	[% FS typ.]	± 1.75	± 0.5
Accuracy @ +25°C	[% FS typ.]	± 0.5	± 0.3
NLH @ +25°C (BSL)	[% FS typ.]	± 0.2	± 0.1
TC zero point and span	[% FS/K typ.]	± 0.03	± 0.005
Long term stability 1 year @ +25°C	[% FS typ.]	± 0.1	± 0.1

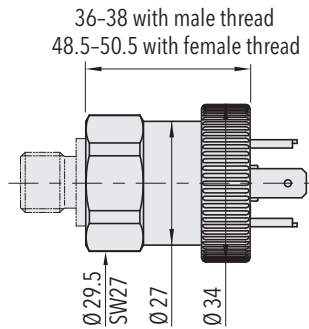
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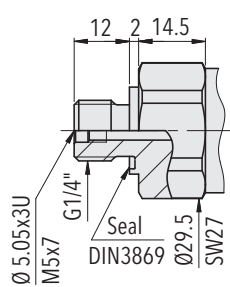
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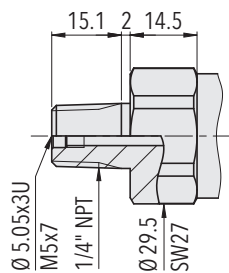
Dimensions



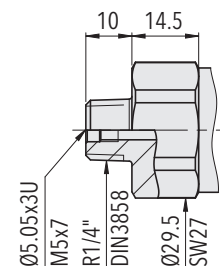
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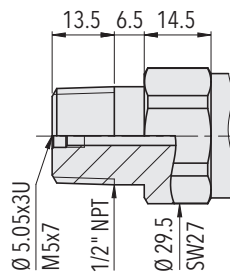
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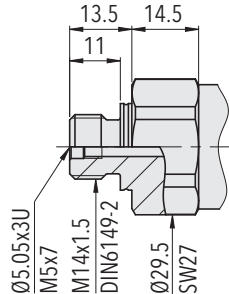
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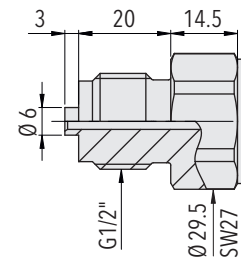
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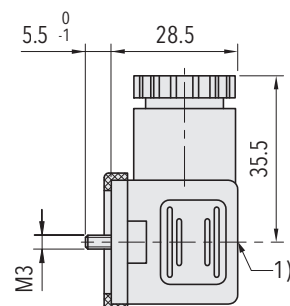
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8288.XX.XX31.XX.XX.XX



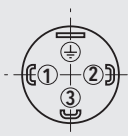
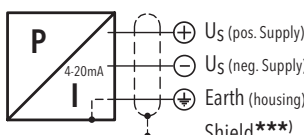
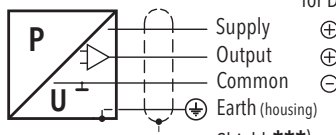
8288.XX.XX11.XX.XX.XX



1) Tightening torque 50...60Ncm

8288.XX.XXXX.XX.XX.58

Electrical connection

		Protection / electrical connection		
		IP65, IP67 ^{*)}		
		Industrial standard EN175301-803A ^{**)}		
		05		
				
Output signal		Standard	92	
	8288.xx.xxxx.xx.19	2 1 ⊕	1 2 ⊕	
Output signal		Standard	98	97
	8288.xx.xxxx.xx.17/23	2 3 1 ⊕	3 1 2 ⊕	1 3 2 ⊕

^{*)} Provided female connector is mounted according to instructions
^{**)} Ventilation via male electric plug
^{***)} Only female electrical plug with shield connection

Additional information		
Documents	Data sheet	www.trafag.com/H72318
	Instructions	www.trafag.com/H73318
	Flyer	www.trafag.com/H70693