

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	Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % 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 ... 10 VDC	Ambient temperature	-40°C ... +125°C
NLH @ 25°C (BSL) typ.	± 0.2 % FS typ. ± 0.1 % FS typ.	Approval / conformity	DNV-GL EU RO Mutual Recognition Type Approval Certificate

05/2024

Data sheet H723181

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 class: 0.3 %; Material pressure connection and housing: 1.4404 (AISI316L) ²⁾							33					
Relative pressure, accuracy class: 0.5 %; Material pressure connection and housing: 1.4404 (AISI316L) ²⁾							35					
Pressure connection	G1/4" male (Seal)								17			
	G1/2" male (Manometer) EN 837 ³⁾								11			
	1/4" NPT male ³⁾								30			
	1/2" NPT male ³⁾								51			
	R1/4" male, DIN3858 ³⁾								19			
	M14x1.5 male, DIN6149-2 ³⁾								31			
	9/16"-18UNF-2A male, SAE J1926-3 (Light Duty) ^{3) 7)}								61			
Electrical connection	Male electrical connector EN 175301-803-A (DIN 43650-A), Mat. PA									05		
Output signal	Signal output	Load resistance	I (supply)		U (supply)							
	4 ... 20 mA	(U _{supply} -9 V) / 20 mA	< 10 mA		9 ... 32 VDC					19		
	0 ... 10 VDC	> 5 kΩ	< 10 mA		15 ... 32 VDC					17		
Accessories	Seal FKM, -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, material 1.4305 ⁴⁾											40
	Pressure peak damping element ø 0.4 mm, material 1.4305 (sensors 23, 25) resp. 1.4404 (sensors 33, 35) ⁴⁾											44
	Female electrical plug EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C, for cable diameter 4 ... 9 mm, flammability standard UL94-V0											46
	Female electrical plug EN 175301-803-A (DIN 43650-A)/silicone, -40°C ... +125°C, for cable diameter 4 ... 9 mm, flammability standard UL94-V0											56
	Female electrical plug EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C, for cable diameter 4 ... 9.5 mm, flammability standard UL94-V2											58
	Special electrical connection: Pin 1 +, Pin 2 - (only for output signal 4 ... 20 mA and male electrical connector EN175301-803-A/ DIN43650-A)											92
	Special electrical connection: Pin 1 Out, Pin 2 -, Pin 3 + (only for output 0 ... 10 VDC and male electrical connector EN175301-803-A/ DIN43650-A)											98
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 Out (only for output 0 ... 10 VDC and male electrical connector EN175301-803-A/ DIN43650-A)											97
	Enhanced condensation protection											CP
	Multiple packaging ⁵⁾											VM

¹⁾ Customized pressure ranges upon request

²⁾ Only for pressure ranges ≥ 0 ... 10 bar

³⁾ Upon request

⁴⁾ Not for pressure connection 11

⁵⁾ The order quantity must be a multiple of 50

⁷⁾ Measuring range max. 350 bar according to SAE J1926-3 (Light Duty)

Code	Pressure connection	Seal FPM (Code 61)	Seal EPDM (Code 63)	Seal NBR (Code 83)
17	G1/4" male, Seal: DIN 3869	✓	✓	✓
11	G1/2" male (Manometer) EN 837			
30	1/4" NPT female			
51	1/2" NPT male			
19	R1/4" male, DIN3858			
31	M14x1.5 male DIN EN ISO 6149-2	✓		
61	9/16"-18UNF male, SAE6 (J1926)	✓		

Standard products (extra short lead time)						
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]	
EPN2.5A	8288 75 2517 05 0000 0000 19 44 58 61	0 ... 2.5	7.5	4 ... 20 mA	9 ... 32	
EPN4.0A	8288 76 2517 05 0000 0000 19 44 58 61	0 ... 4	12	4 ... 20 mA	9 ... 32	
EPN6.0A	8288 77 2517 05 0000 0000 19 44 58 61	0 ... 6	18	4 ... 20 mA	9 ... 32	
EPN10.0A	8288 78 2517 05 0000 0000 19 44 58 61	0 ... 10	30	4 ... 20 mA	9 ... 32	
EPN16.0A	8288 79 2517 05 0000 0000 19 44 58 61	0 ... 16	48	4 ... 20 mA	9 ... 32	
EPN25.0A	8288 80 2517 05 0000 0000 19 44 58 61	0 ... 25	75	4 ... 20 mA	9 ... 32	
EPN40.0A	8288 81 2517 05 0000 0000 19 44 58 61	0 ... 40	120	4 ... 20 mA	9 ... 32	
EPN60.0A	8288 82 2517 05 0000 0000 19 44 58 61	0 ... 60	180	4 ... 20 mA	9 ... 32	
EPN100.0A	8288 83 2517 05 0000 0000 19 44 58 61	0 ... 100	300	4 ... 20 mA	9 ... 32	
EPN160.0A	8288 85 2517 05 0000 0000 19 44 58 61	0 ... 160	480	4 ... 20 mA	9 ... 32	
EPN250.0A	8288 74 2517 05 0000 0000 19 44 58 61	0 ... 250	750	4 ... 20 mA	9 ... 32	
EPN400.0A	8288 84 2517 05 0000 0000 19 44 58 61	0 ... 400	1000	4 ... 20 mA	9 ... 32	
EPN600.0A	8288 86 2517 05 0000 0000 19 44 58 61	0 ... 600	1500	4 ... 20 mA	9 ... 32	

Specifications

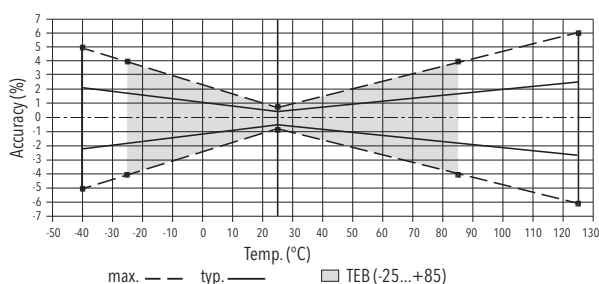
Electrical data	Output / supply voltage	4 ... 20 mA: 24 (9 ... 32) VDC 0 ... 10 VDC 24 (15 ... 32) VDC
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Power-on delay time	100 ms
	Inverse-polarity protection, short-circuit strength @ 25°C during 5 min.	4...20 mA: to $U_s = 32$ VDC 0...10 VDC: to $U_s = 28$ VDC
	Environmental conditions	Media temperature
	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	FKM/EPDM/NBR
	Male electrical connector	See ordering information
	Weight	appr. 80 ... 110 g
	Mounting torque	25 Nm

¹⁾ See electrical connection

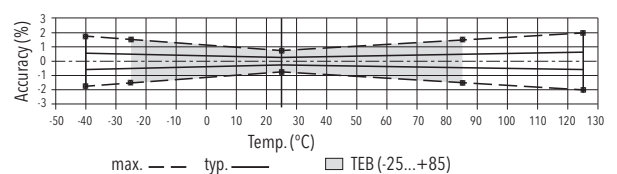
Accuracy

		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

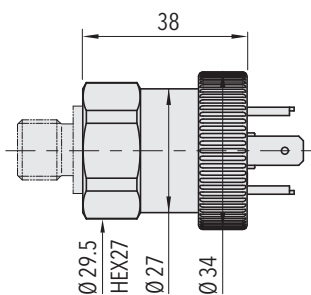
Class 0.5 %



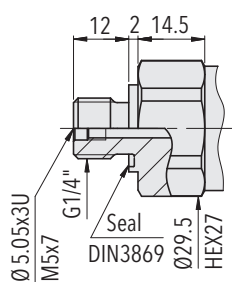
Class 0.3 %



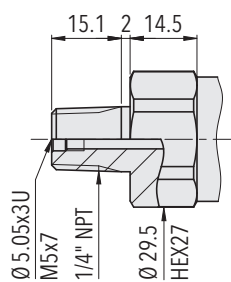
Dimensions



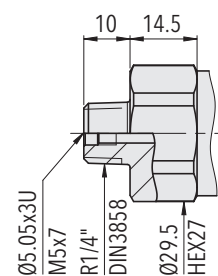
8288.XX.XXXX.05.XX.XX



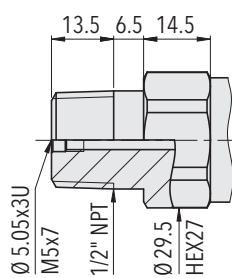
8288.XX.XX17.XX.XX.XX



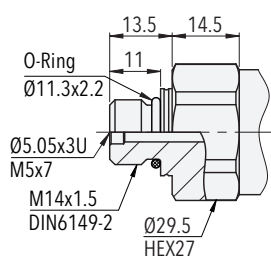
8288.XX.XX30.XX.XX.XX



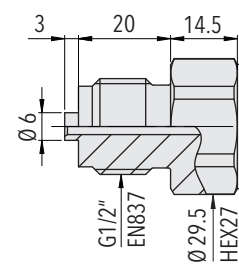
8288.XX.XX19.XX.XX.XX



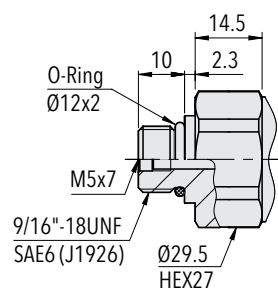
8288.XX.XX51.XX.XX.XX



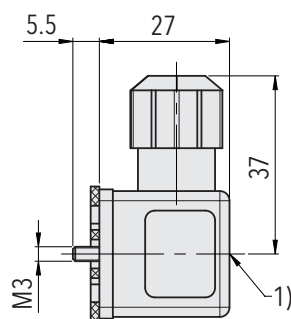
8288.XX.XX31.XX.XX.XX



8288.XX.XX11.XX.XX.XX

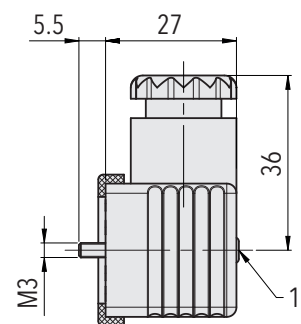


8288.XX.XX61.XX.XX.XX



1) Tightening torque 50...60 Ncm

8288.XX.XXXX.XX.XX.46/56



1) Tightening torque 50...60 Ncm

8288.XX.XXXX.XX.XX.58

Electrical connection

		Protection / electrical connection													
		IP65, IP67*)													
		Industrial standard EN175301-803A **)													
		05													
Output signal	<p>8288.xx.xxxx.xx.19</p>	Standard													
		<table border="1"> <tr> <td>2</td> <td>1</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>⊕</td> <td>⊕</td> </tr> </table>	2	1	1	2	⊕	⊕							
2	1														
1	2														
⊕	⊕														
Output signal	<p>8288.xx.xxxx.xx.17</p>	Standard	98	97											
		<table border="1"> <tr> <td>2</td> <td>3</td> <td>1</td> </tr> <tr> <td>3</td> <td>1</td> <td>3</td> </tr> <tr> <td>1</td> <td>2</td> <td>2</td> </tr> <tr> <td>⊕</td> <td>⊕</td> <td>⊕</td> </tr> </table>	2	3	1	3	1	3	1	2	2	⊕	⊕	⊕	
2	3	1													
3	1	3													
1	2	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/H73317
Flyer	www.trafag.com/H70693