

# 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	Approval / conformity	DNV-GL EU RO Mutual Recognition Type Approval Certificate
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		

08/2018

Data sheet H72318c

Subject to change

## Ordering information/type code

				8288 . XX			XX	XX	XX	XX	XX
<b>Measuring range <sup>1)</sup></b>	<b>Pressure measurement range [bar]</b>	<b>Over pressure [bar]</b>	<b>Burst pressure [bar]</b>	<b>Pressure measurement range [psi]</b>	<b>Over pressure [psi]</b>	<b>Burst pressure [psi]</b>					
	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			
	<b>Sensor</b>	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) <sup>2)</sup>						33					
Relative pressure, accuracy class: 0.5 %; Material pressure connection and housing: 1.4404 (AISI316L) <sup>2)</sup>						35					
<b>Pressure connection</b>	G1/4" male (Seal)						17				
	1/4" NPT male <sup>3)</sup>						30				
	R1/4" male, DIN3858 <sup>3)</sup>						19				
	1/2" NPT male <sup>3)</sup>						51				
	M14x1.5 male DIN6149-2 <sup>3)</sup>						31				
	G1/2" male (Manometer) <sup>3)</sup>						11				
<b>Electrical connection</b>	Male electrical plug EN 175301-803-A, Mat. PA						05				
<b>Output signal</b>	<b>Signal output</b>	<b>Load resistance</b>	<b>I (supply)</b>	<b>U (supply)</b>							
	4 ... 20 mA	(U <sub>supply</sub> -9 V) / 20 mA		9 ... 32 VDC			19				
	0 ... 10 VDC	> 5 kΩ	< 10 mA	15 ... 32 VDC			17				
<b>Accessories</b>	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 <sup>4)</sup>						40				
	Pressure peak damping element ø 0.4 mm <sup>4)</sup>						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 ... 10 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 ... 10 VDC and male electrical plug EN175301-803-A / DIN43650-A)						97				

<sup>1)</sup> Customized pressure ranges upon request

<sup>2)</sup> Only for pressure ranges ≥ 0 ... 10 bar

<sup>3)</sup> Upon request

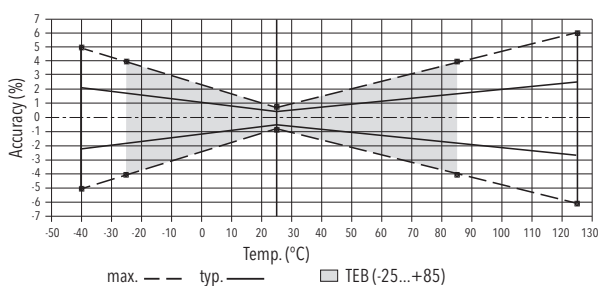
<sup>4)</sup> Not for pressure connection 11

Specifications		
<b>Electrical Data</b>	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
	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
	<b>Environmental conditions</b>	Media temperature
	Ambient temperature	-40°C ... +125°C
	Protection <sup>1)</sup>	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
<b>EMC Protection</b>	Emission	EN/IEC 61000-6-3, IACS UR E10
	Immunity	EN/IEC 61000-6-2, IACS UR E10
<b>Mechanical Data</b>	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

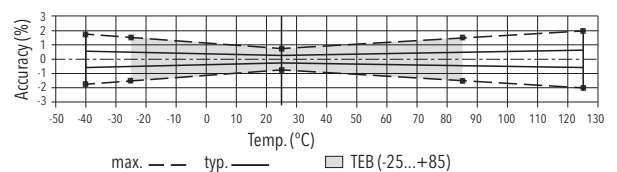
<sup>1)</sup> See electrical connection

Accuracy			
		<b>Class 0.5 %</b> Ordering No. 25/35	<b>Class 0.3 %</b> 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

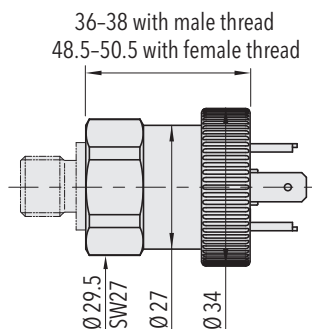
## Class 0.5 %



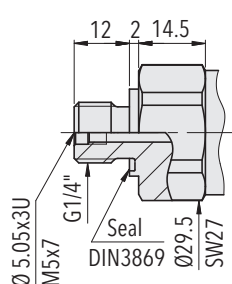
## Class 0.3 %



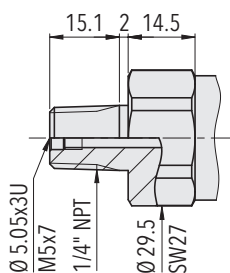
## Dimensions



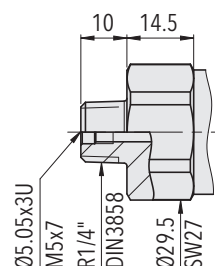
8288.XX.XXXX.05.XX.XX



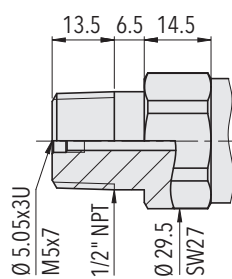
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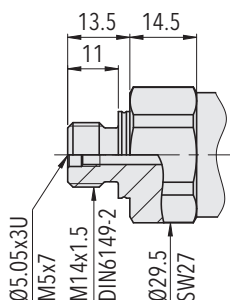
8288.XX.XX30.XX.XX.XX



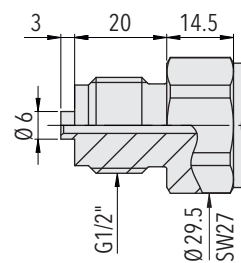
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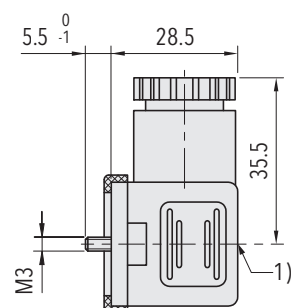
8288.XX.XX51.XX.XX.XX



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 **)		
		<b>05</b>		
Output signal	<p><b>8288.xx.XXXX.xx.19</b></p>	Standard	<b>92</b>	
	<p><b>8288.xx.XXXX.xx.17</b></p>	Standard	<b>98</b>	<b>97</b>
		2	1	
		1	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	<a href="http://www.trafag.com/H72318">www.trafag.com/H72318</a>
	Instructions	<a href="http://www.trafag.com/H73318">www.trafag.com/H73318</a>
	Flyer	<a href="http://www.trafag.com/H70693">www.trafag.com/H70693</a>