

EX PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The new EX pressure transmitter EXNT is based on Trafag's own thin-film-on-steel sensor technology with excellent long-term stability and offers reliable and accurate pressure measurement over a wide temperature range. The intrinsic safety design is certified for applications in Ex-Zones 0, 1, 2 (gas), 20, 21, 22 (dust) and mining.



Applications

- Shipbuilding
- Ex Zones 0, 1, 2 (gas); 20, 21, 22 (dust) and mining

Features

- - II 1G Ex ia IIC T4/T6 Ga
 - II 1 D Ex ia IIIC IP6x T130° Da
 - I M1 Ex ia I Ma
 - II 1/2G Ex ia IIC T4/T6 Ga/Gb (with plastic-type connector)
- Pressure ranges from 0.4 to 2000 bar
- Completely welded sensor system
- High stability by DMS-technology
- ATEX and IECEx

Technical Data

Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
Measuring range	0 ... 0.4 to 0 ... 2000 bar	Media temperature	T4 (electrical connections 05/78/02/35): -40 ... +120°C T4 (electrical connection 80): -40 ... +80°C T4 (electrical connection 14): -30 ... +95°C T6 (all electrical connections except 14): -40 ... +65°C T6 (electrical connection 14): -30 ... +65°C
Output signal	4 ... 20 mA	Approval	GL ATEX / IECEx, according to the norm EN/IEC 60079-0/EN 60079-11/ EN 60079-26/ EN 50303

05/2014

Data sheet H72329e

Subject to change

Ordering information/type code

				8292 . XX . XX . XX . XX . XX				
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [ba]	Burst pressure [ba]		Pressure measurement range [bar]	Over pressure [ba]	Burst pressure [ba]	
	0 ... 0.4 ²⁾	1.2	25	69	0 ... 40	80	300	81
	0 ... 0.6 ²⁾	1.5	25	70	0 ... 60	120	500	82
	0 ... 1.0 ²⁾	2.0	25	71	0 ... 100	200	500	83
	0 ... 1.6	3.5	80	73	0 ... 160	320	1000	85
	0 ... 2.5	5	100	75	0 ... 250	500	1000	74
	0 ... 4	8	100	76	0 ... 400	800	1500	84
	0 ... 6	12	100	77	0 ... 600	1000	2000	86
	0 ... 10	20	200	78	0 ... 1000	1600	3000	88
	0 ... 16	32	200	79	0 ... 1600	3000	4000	89
	0 ... 25	50	300	80	0 ... 2000	3000	4000	90
Sensor	Relative pressure, accuracy: 0.3% (> 1 bar)							23
	Relative pressure, accuracy: 0.5% (> 1 bar)							25
	Relative pressure, accuracy: 0.5% (≤ 1 bar)							26
Pressure connection	G1/4" male ³⁾							17
	G1/4" female ³⁾							10
	G1/2" male ³⁾							21
	G1/2" male (Manometer) ³⁾							11
	R1/4" male ³⁾							19
	1/4" NPT male ³⁾							30
	M18x1.5 male (Conical seal: 58°) ⁴⁾							29
Electrical connection	Male electrical plug EN 175301-803-A, plastic (only zones 1, 2 (gas) and 20, 21 (dust))							05
	Male electrical plug M12x1, 5-pole, Metal							35
	Male electrical plug MIL-C 26482, 6-pole, Metal ⁵⁾							02
	Male electrical plug Binder 723, 5-pole, Metal							14
	Cable with shield, material FDR 25 (Raychem), 4 x 0.5mm ² (Cable length see Accessories) - not ship approved							78
	Cable intrinsically safe with shield, material PVC, 2 x 0.75mm ² (-40...+80°C), (Cable length see Accessories) - not ship approved							80
Output	Output	Load resistance	I (supply)	U (supply)				
	4 ... 20mA	(U _{supply} -10V) / 20mA		10 ... 30 VDC				19
Accessories	Female electrical connector EN 175301-803-A (DIN43650-A), plastic (only zones 1, 2 (gas) and 20, 21 (dust))							58
	Female electrical plug M12x1, 5-pole, plastic (only zones 1, 2 (gas) and 20, 21 (dust))							33
	Female electrical plug M12x1, 5-pole, Metal							35
	Female electrical connector MIL-C 26482, 6-pole, Metal							32
	Female electrical connector Binder 723, 5-pole, Metal							37
	Pressure peak damping element ø 0.4 mm							44
	Pressure peak damping element ø 1.0 mm							40
	Cable length 1.5 m ⁶⁾							1M
	Cable length 3.0 m ⁶⁾							3M
	Cable length 5.0 m ⁶⁾							5M
	Special electrical connection: Pin 1 + , Pin 2 - (Only for output 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)							92
	Zener barrier 28V/93mA; R ≈ 300Ω; Ordering no F90138							
	Damping elements and Snubber: See specification sheet H72258							

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

²⁾ Only with sensor 23 (0.3%)

³⁾ For ranges ≤ 600 bar

⁴⁾ For ranges > 600 bar

⁵⁾ For pressure ranges < 40 bar upon request

⁶⁾ Other cable lengths upon request

Standard products (extra short lead time)

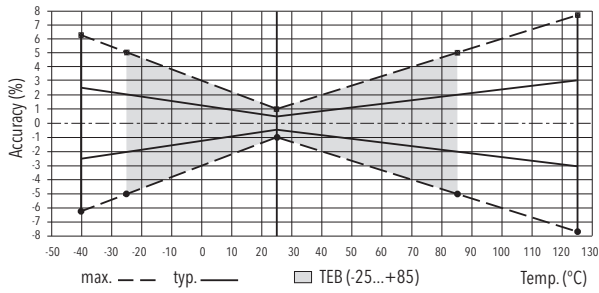
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
EXNT0.4A	8292 69 2317 05 0000 0000 19 58 92	0...0.4	1.2	10...30	±0.5
EXNT0.6A	8292 70 2317 05 0000 0000 19 58 92	0...0.6	1.5	10...30	±0.5
EXNT1.0A	8292 71 2317 05 0000 0000 19 58 92	0...1	2	10...30	±0.5
EXNT2.5A	8292 75 2517 05 0000 0000 19 58 92	0...2.5	5	10...30	±0.5
EXNT4.0A	8292 76 2517 05 0000 0000 19 58 92	0...4	8	10...30	±0.5
EXNT6.0A	8292 77 2517 05 0000 0000 19 58 92	0...6	12	10...30	±0.5
EXNT10.0A	8292 78 2517 05 0000 0000 19 58 92	0...10	20	10...30	±0.5
EXNT16.0A	8292 79 2517 05 0000 0000 19 58 92	0...16	32	10...30	±0.5
EXNT25.0A	8292 80 2517 05 0000 0000 19 58 92	0...25	50	10...30	±0.5
EXNT40.0A	8292 81 2517 05 0000 0000 19 58 92	0...40	80	10...30	±0.5
EXNT100.0A	8292 83 2517 05 0000 0000 19 58 92	0...100	200	10...30	±0.5
EXNT250.0A	8292 74 2517 05 0000 0000 19 58 92	0...250	500	10...30	±0.5

Specifications		
Electrical Data	Output / supply voltage	4 ... 20 mA; 24 (10 ... 30) VDC
	Rise time	typ. 1 ms/ 10...90% nominal pressure
	Switch-on-delay	Max. 1.5 s
Environmental Conditions	Media temperature	T4 (electrical connections 05/78/02/35): -40 ... +120°C T4 (electrical connection 80): -40 ... +80°C T4 (electrical connection 14): -30 ... +95°C T6 (all electrical connections except 14): -40 ... +65°C T6 (electrical connection 14): -30 ... +65°C
	Ambient temperature	T4 (electrical connections 05/78/02/35): -40 ... +120°C T4 (electrical connection 80): -40 ... +80°C T4 (electrical connection 14): -30 ... +95°C T6 (all electrical connections except 14): -40 ... +65°C T6 (electrical connection 14): -30 ... +65°C
	Protection ¹⁾	Min. IP65 Electrical connection cable: IP67 Electrical connection 02: IP67
	Humidity	Max. 95% relative
	Vibration	10g (50...2000 Hz)
	Shock	50g/ 3 ms
	EMC Protection	Emission
	Immunity	IEC 61000-6-2
Mechanical Data	Sensor	1.4542 (AISI630)
	Housing / Pressure connection	1.4542 (AISI630) / 1.4301 (AISI304)
	Sealing	FKM 70 Sh
	Male electrical plug	See ordering information
	Weight	~ 165 g
	Mounting torque	25 Nm Pressure connection 29: 30 Nm

¹⁾ Provided female connector is mounted according to instructions

Accuracy				
		Measuring accuracy 0.5%	Measuring accuracy 0.3%	Measuring accuracy 0.5%
		Ordering No. 25	Ordering No. 23	Ordering No. 26
		(> 1 bar)	(> 1 bar)	(≤ 1 bar)
TEB @ -25...+85°C	[% FS typ.]	± 2.0	± 0.5	± 1.0
Accuracy @ +25°C	[% FS typ.]	± 0.5	± 0.3	± 0.5
NLH @ +25°C (BSL)	[% FS typ.]	± 0.2	± 0.1	± 0.10
TC zero point and span	[% FS/K typ.]	± 0.03	± 0.005	± 0.01
Long term stability 1 year @ +25°C	[% FS typ.]	± 0.2	± 0.2	± 0.2

Measuring accuracy 0.5%



Measuring accuracy 0.3%



Electrical Connection

		Protection / electrical connection						
		IP65*)	IP67	IP67	IP65*)	IP67*)	IP65*)	
		Industrial standard EN175301-803A	Cable **) (4 x 0.5 mm ²)	Cable **) (2 x 0.75 mm ²)	Binder 723	MIL-C 26482	M12x1 5-pole	
		05	78 Shield	80 Shield	14	02	35	
Output signal		Standard 2 1 ⊕	92 1 2 ⊕ (blue = not connected)	brown black yellow / green	1 (black) 2 (black) -	3 1 5	A C F	4 1 5
	Temperature range	-40 ... +120°C	-40 ... +120°C	-40 ... +80°C	-30 ... +95°C	-40 ... +120°C	-40 ... +120°C	

*) Provided female connector is mounted according to instructions

**) Ventilation via cable end

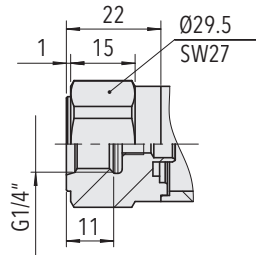
***) Only cable versions or female plug with shield connection

Additional information

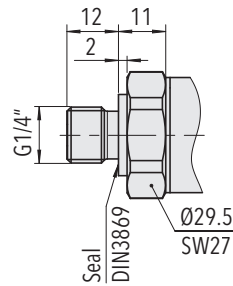
Documents

Data sheet	www.trafag.com/H72329
Instructions	www.trafag.com/H73329
Flyer	www.trafag.com/H70657

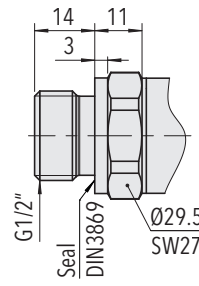
Dimensions



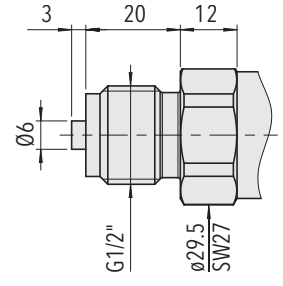
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(≤ 600 bar)



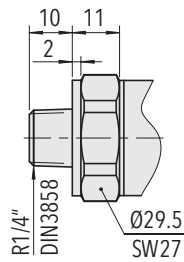
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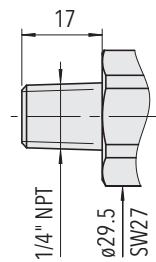
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(≤ 600 bar)



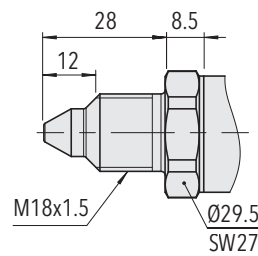
8292.XX.XX11.XX.XX.XX
(≤ 600 bar)



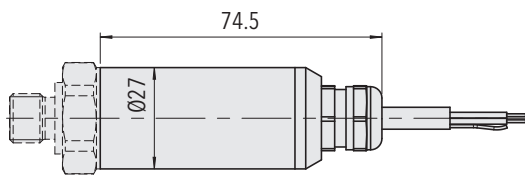
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(≤ 600 bar)



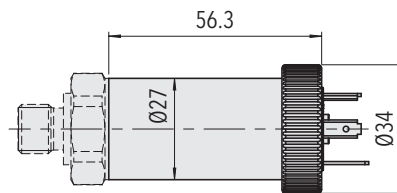
8292.XX.XX30.XX.XX.XX
(≤ 600 bar)



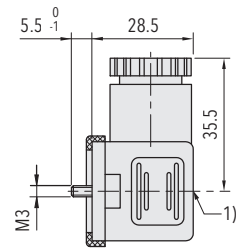
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(> 600 bar)



8292.XX.XXXX.78/80.XX.XX

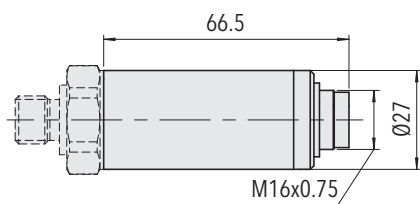


8292.XX.XXXX.05.XX.XX

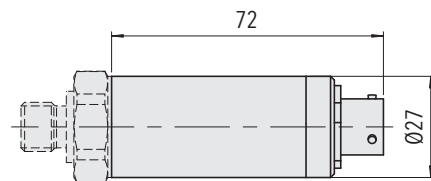
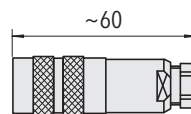


1) Tightening torque 50...60Ncm

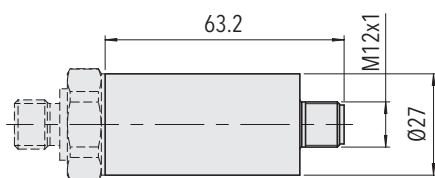
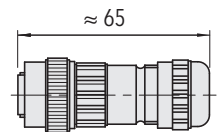
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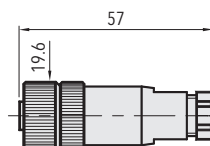
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8292.XX.XXXX.02.XX.32



8292.XX.XXXX.35.XX.XX



8292.XX.XXXX.XX.XX.33