



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx SEV 11.0003X	Page 1 of 6	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2017-05-16)
Date of Issue:	2020-12-03		Issue 1 (2014-02-20)
Applicant:	Trafag AG, Sensors and Controls Industriestrasse 11 8608 Bubikon Switzerland		Issue 0 (2012-11-06)
Equipment:	Pressure Transmitter, Types: 8292.XX.XXXX.XX.XX.XX... 8432.XX.XXXX.XX.XX.XX...		
Optional accessory:			
Type of Protection:	i		
Marking:	Ex ia IIC T4/T6 Ga Ex ia IIC T4/T6 Ga/Gb (version with plastic connector) Ex ia IIIC T ₂₀₀ 160 °C Da Ex ia I Ma		

Approved for issue on behalf of the IECEx
Certification Body:

Martin Plüss

Position:

Manager Product Certification

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins Electric & Electronic Product Testing AG
Luppenstrasse 3
CH-8320 FEHRALTORF
Switzerland



E&E



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Manufacturer: **Trafag AG, Sensors and Controls**
Industriestrasse 11
8608 Bubikon
Switzerland

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-26:2014-10](#) Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga
Edition:3.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[CH/SEV/ExTR11.0003/03](#)

Quality Assessment Report:

[CH/SEV/QAR12.0008/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

8292.XX.XXXX.XX.XX.XX...

and

8432.XX.XXXX.XX.XX.XX...

Description

Pressure transmitter for the measurement of various kinds of pressures such as, air pressure, Oil pressure, etc. The product family includes a "submersible pressure transmitter". The physical print size is converted into an electrical quantity ("Current Loop"; 4 ... 20 mA).

This CoC replaces CoC No. IECEx SEV 11.0003X Issue 2

SPECIFIC CONDITIONS OF USE: YES as shown below:

The intrinsically safe circuit has to be limited to overvoltage category I, as defined in IEC 60664-1 respectively the supply of the circuit's comes entirely from an intrinsically safe power source with a level of protection "ia".



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Equipment (continued):

Ratings: $U_i = 30 \text{ V}$; $I_i = 100 \text{ mA}$; $P_i = 1 \text{ W}$; $C_i = 23 \text{ nF}$; $L_i = 0 \text{ mH}$

Classification of installation and use: stationary

Ingress protection: IP6X

Rated ambient temperature range ($^{\circ}\text{C}$)
for Ex Components N/A

Rated ambient temperature range ($^{\circ}\text{C}$):

Types 8292.XX.XXXX.02, 05, 35 and 78:

-40 $^{\circ}\text{C}$...+65 $^{\circ}\text{C}$ for T6 {EPL Ga}

-40 $^{\circ}\text{C}$...+120 $^{\circ}\text{C}$ for T4 {EPL Ga}

Type 8292.XX.XXXX.14:

-30 $^{\circ}\text{C}$...+65 $^{\circ}\text{C}$ for T6 {EPL Ga}

-30 $^{\circ}\text{C}$...+95 $^{\circ}\text{C}$ for T4 {EPL Ga}

Type 8292.XX.XXXX.80:

-40 $^{\circ}\text{C}$...+65 $^{\circ}\text{C}$ for T6 {EPL Ga}

-40 $^{\circ}\text{C}$...+80 $^{\circ}\text{C}$ for T4 {EPL Ga}

Type 8432.XX:

-20 $^{\circ}\text{C}$...+65 $^{\circ}\text{C}$ for T6 {EPL Ga}

-20 $^{\circ}\text{C}$...+70 $^{\circ}\text{C}$ for T4 {EPL Ga}

Type 8292.XX:

-20 $^{\circ}\text{C}$...+120 $^{\circ}\text{C}$ for T₂₀₀ 160 $^{\circ}\text{C}$ {EPL Da}



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- A typographical error in the appendix type designation has been corrected.
- The deviations of the standard generation was checked in accordance with the actual current standard for the mentioned apparatus:
IEC 60079-0 Edition 6.0 to IEC 60079-0 Edition 7.0.
- The device complies with the actual current standard generation.



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Additional information:

See annexe

Annex:

[IECEx SEV 11.0003X app i3_1.pdf](#)

Annexe to: IECEx SEV 110003X**Issue No.:** 3

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Applicant Name: Trafag AG, Sensors and Controls
Industriestrasse 11, CH-8606 Bubikon, SWITZERLAND

Electrical Apparatus: Pressure Transmitter

Pressure transmitter for the measurement of various kinds of pressures such as, air pressure, Oil pressure, etc. The product family includes a "submersible pressure transmitter". The physical print size is converted into an electrical quantity ("Current Loop"; 4 ... 20 mA).

Ex Protection

Ex ia IIC T4/T6 Ga
Ex ia IIC T4/T6 Ga/Gb (version with plastic connector)
Ex ia IIIC T₂₀₀160 °C Da
Ex ia I Ma

Ratings:	Ui = 30 V; li = 100 mA; Pi = 1 W; Ci = 23 nF; Li = 0 mH
Classification of installation and use:	stationary
Ingress protection:	IP6X
Rated ambient temperature range (°C) for Ex Components	N/A

Rated ambient temperature range (°C):

Types 8292.XX.XXXX.02, 05, 35 and 78:

-40 °C...+65 °C for T6 {EPL Ga}
-40 °C...+120 °C for T4 {EPL Ga}

Type 8292.XX.XXXX.14:

-30 °C...+65 °C for T6 {EPL Ga}
-30 °C...+95 °C for T4 {EPL Ga}

Type 8292.XX.XXXX.80:

-40 °C...+65 °C for T6 {EPL Ga}
-40 °C...+80 °C for T4 {EPL Ga}

Type 8432.XX:

-20 °C...+65 °C for T6 {EPL Ga}
-20 °C...+70 °C for T4 {EPL Ga}

Type 8292.XX:

-20 °C...+120 °C for T₂₀₀160 °C {EPL Da}

Eurofins Electric & Electronic Product Testing AG
Swiss Certification Body

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Type Designation:

Type 8292

				8292 . XX XX XX XX XX XX					
Measuring range ¹⁾	Pressure measurement range [bar]	Over-pressure [bar]	Burst pressure [bar]		Pressure measurement range [bar]	Over-pressure [bar]	Burst pressure [bar]		
	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	
	Relative pressure, accuracy: 0.5 %, wetted parts hydrogen compatible ⁷⁾							35	
	Relative pressure, accuracy: 0.3 %, wetted parts hydrogen compatible ⁷⁾							33	
Pressure connection	G1/4" male ³⁾							17	
	G1/4" female ³⁾							10	
	G1/2" male ³⁾							21	
	G1/2" male DIN16288-8 (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 signal	Signal output	Load resistance	I (supply)		U (supply)				
	4 ... 20mA	(U _{supply} -10 V) / 20 mA			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	Cable length 1.5 m ⁶⁾				1M		
	Female electrical plug M12x1, 5-pole, plastic (only zones 1, 2 (gas) and 20, 21 (dust))	33	Cable length 3.0 m ⁶⁾				3M		
	Female electrical plug M12x1, 5-pole, metal	35	Cable length 5.0 m ⁶⁾				5M		
	Female electrical connector MIL-C 26482, 6-pole, metal	32	Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)				92		
	Female electrical connector Binder 723, 5-pole, metal	37	Zener barrier 28V/93mA; R ≈ 300Ω: Ordering no ZEN28VDC						
	Pressure peak damping element ø 0.4 mm	44	Damping elements and snubber see data sheet H72258						
	Pressure peak damping element ø 1.0 mm	40							

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

²⁾ Only with sensor 26 (0.5%)

³⁾ For pressure ranges ≤ 600 bar

⁴⁾ For pressure ranges > 600 bar

⁵⁾ For pressure ranges < 40 bar upon request

⁶⁾ Other cable lengths upon request

⁷⁾ Pressure ranges 0 ... 40 to 0 ... 1000 bar

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Type 8432

				8432 . XX	XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]						
	0 ... 0.2	1.2	2	68					
	0 ... 0.4	1.2	2	69					
	0 ... 0.6	2	3	70					
	0 ... 1.0	3.2	4.8	71					
	0 ... 1.6	3.2	4.8	73					
	0 ... 2.5	5	7.5	75					
	0 ... 4	8	12	76					
	0 ... 6	12	15	77					
	0 ... 10	20	25	78					
Sensor	Relative pressure > 400 mbar, Accuracy: 0.3%			23					
	Relative pressure ≤ 400 mbar, Accuracy: 0.5%			26					
Pressure connection	Type 1, female, M 10x1, 1.4404/1.4435				46				
	Type 2, male, M 22x1, 1.4404/1.4435				48				
Electrical connection	Cable with shield: PUR ø 6 mm, 5x0.22mm ^{2 2)} 3)					22			
	Cable with shield: FEP ø 6 mm, 5x0.22mm ^{2 2)} 3)					32			
	Cable with shield: PE ø 6 mm, 5x0.22mm ^{2 2)} 3)					42			
Output	Signal output	Load resistance	I (supply)	U (supply)					
	4 ... 20mA	(U _{supply} -10V) / 20mA		10 ... 30 VDC				19	
Accessories	Seal FKM								61
	Seal EPDM								63
	Zener barrier 28V/93mA; R _i ≈ 300Ω; Ordering no ZEN28VDC								

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

²⁾ Please specify cable length when ordering (cable lengths > 50 m up to 120 m upon request)

³⁾ For level measurement applications on ships under certification GL (German Lloyd), the cable of such transmitters must be installed inside the tank only