



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 24ATEX1053X** Issue: **1**

4 Equipment: **Pressure Transmitter Cerabar PMP43**

5 Applicant: **Endress+Hauser SE+Co. KG**

6 Address: **Hauptstrasse 1
Maulburg Baden-Württemberg 79689
Germany**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012 IEC 60079-11, Edition 7.0

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1G
II 1D
Ex ia IIC T4...T1 Ga
Ex ia IIIB T135°C Da

Signed: M Halliwell

Title: Senior Director of Operations



Project Number 80245082

This certificate and its schedules may only be reproduced in its entirety and without change
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**CSANe 24ATEX1053X
Issue 1**

13 DESCRIPTION OF EQUIPMENT

The PMP43 is a pressure device which converts pressure into an electrical output signal. The PMP43 consists of Compact Platform electronics covered under Ex Component certificate CSANe 24ATEX1149U and pressure sensor also covered under Ex Component certificate CSANe 24ATEX1134U.

The Compact Platform electronics consists of a electronic PCBs: terminal board (TA20-01A), main board (MA20-01A) and display assembly for visualization (VA20-01A/02A LCD or VA22-01A LED).

The pressure sensor (SP21A01) has a metal membrane and uses oil to transmit the pressure from the membrane to the sensor chip. The electronic transforms this physical pressure signal into an electrical signal which is evaluated and converted as analogue (e.g. 4...20mA) or digital (HART/ IO-Link) output measurement value. The sensor consists of a stainless steel housed electronics, pressure membrane with the cylindrical shaft filled with an oil.

The equipment is housed in a stainless-steel metallic enclosure with a plastic viewing window for an LCD or LED display, equipped with an M12 field wiring connector for external wiring, and includes an adapted pressure connection.

The entity parameters, in type of protection Ex ia IIC:

Ui = 30 V li = 100 mA Pi = 700 mW Ci = 15nF Li = 0.69 mH

In type of protection Ex ia IIIB:

Ui = 30 V li = 100 mA Pi = 650 mW Ci = 15nF Li = 0.69 mH

Ordercodes Cerabar PMP43

PMP43-aa bb c d e f g hh i k ll mmm n o + pp rr ss tt uu vv ww xx zz aa yy		
aa=10		Approval:
	BA	ATEX/IEC II 1G Ex ia IIC T4 Ga
	BH	ATEX/IEC II 1D Ex ia IIIB T135°C Da
	BI	ATEX/IEC II 1G Ex ia IIC T4 Ga, II 1D Ex ia IIIB T135°C Da
	BT	ATEX/IEC II 3D Ex ic IIIB T135°C Dc
	BU	ATEX/IEC II 3G Ex ic IIC T4 Gc
	UA	UK Ex ia IIC T4 Ga
	UH	UK Ex ia IIIB T135°C Da
	UI	UK Ex ia IIC T4 Ga, UK Ex ia IIIB T135°C Da
	UT	UK Ex ic IIIB T135°C Dc
	UU	UK Ex ic IIC T4 Gc
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
c=30		Display; Operation:
	C	LED signaling with push button

Project Number 80245082

This certificate and its schedules may only be reproduced in its entirety and without change
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

CSANe 24ATEX1053X
Issue 1

PMP43-aa bb c d e f g hh i k ll mmm n o + pp rr ss tt uu vv ww xx zz aa yy		
	D	LED signaling with push button + Bluetooth
	G	Colored display
	H	Colored display + Bluetooth
	J	Colored display with touch control
	K	Colored display with touch control + Bluetooth
d=40		Housing; Material:
	F	Compact; 316L
e=50		Electrical Connection:
	N	Plug M12, IP66/68/69 NEMA Type 4X/6P
f=55		Pressure Type:
	6	Gauge
	8	Absolute
		Application
g=60	A	Process temperature max 100 °C/212 °F
	B	Process temperature max 130 °C /266 °F, 150 °C /302 °F max 1h
	C	Process temperature max 150 °C /302 °F
	D	Process temperature max 200 °C /392 °F
	E	Advanced condensation resistance
hh=75		Sensor Range
	Any digit	Sensor pressure, not assessed by the certification
i=80		Surface Refinement:
	A	Standard
	E	Hygienic Ra<0.38µm/15µin, electro-polished
k=90		Calibration; Unit:
	Any digit	Sensor calibration unit not relevant to the certification
ll=105		Process connection, Sealing Surface:
	AA to ZZ	Standard industrial process connection: threaded, flange
mmm=110		Process Connection:
	AAA to ZZZ	Standard industrial process connection: flanges, threaded , flushmount diaphragm seal, 316L, Alloy C , plastic coated
n=170		Membrane material
	Any digit	Not relevant to the certification

Project Number 80245082

This certificate and its schedules may only be reproduced in its entirety and without change
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

CSANe 24ATEX1053X
Issue 1

PMP43-aa bb c d e f g hh i k ll mmm n o + pp rr ss tt uu vv ww xx zz aa yy		
o=180		Fill fluid of the sensor part
	Any digit	Not relevant to the certification
pp=500		Operation Language Display:
	Any digit	Not relevant to the certification
rr=540		>>Application Package:
	Any digit	Heartbeat Verification + Monitoring, special versions of software or microchip related settings, not relevant for the certification
ss=545		>Reference Accuracy:
	Any digit	Not relevant for the certification
tt=550		>Calibration:
	Any digit	calibration certificate; not relevant for the certification
uu=570		>>Service:
	Any digit	Software related adjustments, not relevant for the certification
vv=580		>>Test, Certificate, Declaration:
	Any digit	material certificates wetted metallic parts, pressure test, leakage test, PMI-test; not covered by certification
ww=590		>>Additional Approval:
	Any digit	additional approvals, no influence to explosion protection; e.g.: SIL, WHG, Ship building, drinking water, CRN
zz=620		>>Accessory Enclosed:
	QA to QZ	Weld-in adapter, flanges different sizes
	Rx	Process adapter different types
	Sx	Pipe connection different types
	TB	Plug connector M12, IP69
	TC	Plug connector M12 90deg, IP69
	TD	Plug connector M12 90deg, IP69, 5m cable, union nut, 316L
	TE	Plug connector M12 100deg, IP67, 5m cable, union nut, Cu Sn/Ni
aa=850		>Firmware Version
	Any digit	Hart, not relevant to the certification. Related to different versions of the microchip.
yy =895		>>Marking:
	Any digit	Tagging, not relevant to the certification

Project Number 80245082

This certificate and its schedules may only be reproduced in its entirety and without change
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

CSANe 24ATEX1053X
Issue 1

Variation 1 - This variation introduced the following changes:

- i. Additional potting and coating on terminal board.
- ii. Modifications of Specific Conditions of Use.
- iii. Additional manual for gas or dust.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	06 February 2025	R80191573A	The release of the prime certificate.
1	17 April 2025	R80245081A	The introduction of Variation 1.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 The maximum ambient temperature for group II, temperature class T4 process temperature T_p , are de-rated in tables provided in Safety Instructions.
- 15.2 Ambient and process temperature range for group III is from $-40\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$.
- 15.3 In applications where the process temperature exceeds the maximum surface temperature limits of the required maximum surface temperature, the hot surface ignition hazard at the process connecting parts of the device shall be addressed.
- 15.4 To avoid electrostatic charging in explosive atmospheres, avoid rubbing of the non-metallic surfaces using electrostatic generating materials. Do not use the device in applications with moving dust atmosphere causing electrostatic charging.
- 15.5 The device shall use a power supply that is galvanically isolated from earth.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 Routine test for the encapsulant for the complete device has to be conducted as per E+H procedure to comply with IEC 60079-11 Ed. 7 Cl 10.4.

Project Number 80245082

This certificate and its schedules may only be reproduced in its entirety and without change
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands

Certificate Annexe



Certificate Number: CSANe 24ATEX1053X
 Equipment: Pressure Transmitter Cerabar PMP43
 Applicant: Endress+Hauser SE+Co. KG

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
960018037	1 of 1	E	20 Dec 24	Overview approved laser printed adhesive nameplate materials and coatings for aluminum enclosures
961007178	1 of 1	A	20 Dec 24	Overview PMP43 compact line (cerabar process connections)
961007193	1 of 1	A	20 Dec 24	Ass PMP43 Compact Line
961007339	1 of 1	A	20 Dec 24	Material overview housing Compact Line
961008196	1 of 1	A	20 Dec 24	PMx Electronic Box Compact Line HY20-02A HY21-01A
961007363	1 of 1	A	20 Dec 24	Potting BV PMP43
961007402	1 to 2	A	20 Dec 24	Nameplate IECEx/ATEX/UK Ex, Ex ia IIC/IIIB, Ex ic IIC/IIIB Compact Line PMP43
961006634	1 to 8	B	20 Dec 24	Addendum AIC MA20-01A IECEx+ CH-Platform
961006636	1 to 6	A	20 Dec 24	Addendum AIC VA20-OXA IECEx+ CH-Platform
961006637	1 to 6	A	20 Dec 24	Addendum AIC VA22-XXX IECEx+ CH-Platform
961006638	1 to 7	A	20 Dec 24	Addendum AIC TA20-XXX IECEx+ CH-Platform
961007216-A	1 to 33	01.00	20 Dec 24	Technical description
XA03329P-A	1 to 16	--	20 Dec 24	Safety Instructions - Cerabar PMP43 Ex ia IIC T4 Ga /Ex ic IIC T4 Gc
XA03331P-A	1 to 12	--	20 Dec 24	*Safety Instructions -Cerabar PMP43 Ex ia IIIB T4 Da /Ex ic IIIB T4 Dc
961008134	1 of 1	A	20 Dec 24	Electronic Connection Diagram PMP43 4...20mA HART

**NOTE: The required specific conditions of use are shown only in instruction manual document XA03329P-A and are applicable to document XA03331P-A.*

Issue 1

Drawing	Sheets	Rev.	Date (Stamp)	Title
961005642	1 of 1	A	19 Mar 25	CoatingPlan(APP), A, Compact Hygiene, TE200_TE210 (2-Wire/4-Wire)
961005643	1 of 1	A	19 Mar 25	CoatingPlan(APP), B Compact Hygiene, TE200_TE210 (2-Wire/4-Wire)
961008261	1 of 1	A	19 Mar 25	Printed circuit board TA20-01A, Encapsulation M12
C-225252-E	1 of 1	A1	19 Mar 25	M12 Circular Connector male Angled A Cod 4p THR Rear Mount
--	1 to 2	--	19 Mar 25	Schutzlackierung von Leiterplatten
XA03330P-A	1 to 16	--	19 Mar 25	Safety Instructions, Cerabar PMP43 ATEX, IECEx: Ex ia IIC T4 Ga, Ex ia IIIB T135 °C Da
XA03329P-B	1 to 12	--	19 Mar 25	Safety Instructions, Cerabar PMP43 ATEX, IECEx: Ex ia IIC T4 Ga, Ex ic IIC T4 Gc
XA03331P-B	1 to 12	--	19 Mar 25	Safety Instructions, Cerabar PMP43 ATEX, IECEx: Ex ia IIIB T135 °C Da, Ex ic IIIB T135 °C Dc
961008287-A	1 of 1	A	19 Mar 25	PCB holder display CX2022A

Project Number 80245082

This certificate and its schedules may only be reproduced in its entirety and without change
 CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands