



1. EU-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU

3. EU-Type Examination Certificate No: FM24ATEX0010X

4. Equipment or protective system:
(Type Reference and Name) CERABAR PMP50, DELTABAR PMD50 Pressure Transmitters

5. Name of Applicant: Endress+Hauser SE+Co. KG

6. Address of Applicant Hauptstrasse 1, Maulburg D-79689, Germany

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

8. FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 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 confidential report number:

PR464557 dated 4th September 2024

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015, EN 60079-31:2014,
EN 60529:1991+A1:2000+A2:2013

10. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11. This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include:



See Annex

Certificate issued by:

 FM Approvals

Richard
Zammit
Dublin,
Ireland
2024.4.1

Certification Manager, FM Approvals Europe Ltd.

Date 13 March 2025

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13. Description of Equipment or Protective System:

The Cerabar PMP50 and Deltabar PMD50 Pressure Transmitters are electrical instruments used to measure pressure (Absolute, Gauge, Differential, Remote, Flange types). The measured pressure is communicated via 4...20mA signal, HART protocol.

The Cerabar PMP50 and Deltabar PMD50 Pressure Transmitters housing is constructed of aluminium alloy or stainless steel. The enclosure is a two-compartment enclosure with thread-on covers (blank or windowed if ordered). One compartment for terminals (field wiring connection), and the other compartment for electronics (housing the electronics and optional display). The compartments are interconnected together with various feedthrough designs to route signal and power from the terminal compartment into the electronics compartment. The sensor module, used for measuring the pressure, is threaded to the base of the enclosure entering the electronics compartment. There are 2 main sensor modules (SP12B and SP11B types).

The enclosure field wiring entries are provided with two M20 or two ½ inch NPT openings. The overall dimensions of the Cerabar PMP50 and Deltabar PMD50 Pressure Transmitter housing without cover is 72 mm long, 106 mm wide, 117 mm height. The free internal volume, both compartments total, is less than 500 cm³.

The Cerabar PMP50 and Deltabar PMD50 Pressure Transmitter process connection (wet end) is constructed of 316/316L/EN 1.4404 Stainless Steel, Alloy 625, Alloy C-246 (austenitic nickel-molybdenum-chromium alloy), Alloy 400, each containing less than 6% magnesium by weight. Further material type process connection versions, for example with plastic coatings or titanium are possible in combination with warning advice as mentioned in the specific products safety instructions.

The following table below defines the Sensor Module Types and their corresponding maximum working pressure ratings (MWPR).

Code	Type	Maximum Working Pressure Rating and Process Temperature Range	Available for Flameproof version or for Zone separation
SP11B	Cerabar product (Absolute or Relative Pressure)	-1...400 bar; -40°C...+125°C...+400°C (depending on process connection)	YES
SP12B	Deltabar product (Differential)	-1...40 bar differential -1...420 bar static pressure -40°C...+100°C	YES

Operation Temperature Ranges:

The ambient operating temperature range of the Cerabar PMP50 and Deltabar PMD50 Pressure Transmitter is -40°C...70°C. For Cerabar PMP50 the process temperature range is -40°C...400°C depending on process connection type. For Deltabar PMD50 the process temperature range is -40°C...100°C.

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Electrical data:

The Cerabar PMP50 and Deltabar PMD50 Pressure Transmitter require 10.5 Vdc minimum to 35 Vdc maximum input voltage ($\pm 10\%$) for operation. The transmitters use 900mW of power. Electrical signal is digital HART communication over 4...20mA signal.

Ingress Protection:

IP66, IP68

See Annex for additional information (including Energy Limitation Parameters)

14. Specific Conditions of Use:

See Annex

15. Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17. Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
4 September 2024	Original Issue.
13 March 2025	<u>Supplement 1:</u> Report Reference: PR470693 dated 12 March 2025. Description of the Changes: Model code update to add Color display w/o buttons for applicable models. Documents update.

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ANNEX

CERABAR PMP50-BAbbcdefghiikllmmno+(options) Pressure Transmitters

Markings:



II 1 G Ex ia IIC T4...T1 Ga

Description of Equipment:

Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03230P:
Ui ≤ 30Vdc; Ii ≤ 100mA; Pi ≤ 700mW; Ci ≤ 10nF; Li = 0mH

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection
e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal

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h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)
ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety
ll	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded, flushmount diaphragm seal, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety
o	Fill fluid: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03230P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.

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CERABAR PMP50-BBbbcddefghiikllmmmnno+(options) Pressure Transmitter**Markings:**

II 1/2 G Ex ia IIC T4...T1 Ga/Gb
II 2 G Ex ia IIC T4...T1 Gb

Description of Equipment:Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03230P:
Ui ≤ 30Vdc; Ii ≤ 100mA; Pi ≤ 700mW; Ci ≤ 10nF; Li = 0mH

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection
e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal
h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)

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ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety
ll	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded , flushmount diaphragm seal, 316L, Alloy C , plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety
o	Fill fluid: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03230P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
7. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.

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FM Approvals**CERABAR PMP50-BFbbccdefghiiKllmmno+(options) Pressure Transmitter****Markings:**

II 2 G Ex db IIC T6...T1 Gb

Description of Equipment:**Model Code Options:**

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L
e	Electrical Connection: F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal
h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)
ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety

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II	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded, flushmount diaphragm seal, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety
o	Fill fluid: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Flameproof joints are not intended to be repaired.
7. Refer to Temperature Tables in document XA03231P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.

CERABAR PMP50-BGbbcd efgh iikllmmno+(options) Pressure Transmitter**Markings:**

II 1 D Ex ta IIIC T₂₀₀ 100°C Da
II 2 D Ex tb IIIC T₁₂₅°C Db

Description of Equipment:**Model Code Options:**

bb	Output: BA: 2-wire 4-20 mA HART
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c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection
e	Electrical Connection: B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal
h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)
ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety
ll	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded, flushmount diaphragm seal, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety

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o	Fill fluid: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03232P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
7. Ex ta, Ex tb. The device must be operated with a 100 mA fuse

CERABAR PMP50-BHbbcddefghiikllmmno+(options) Pressure Transmitter**Markings:**

II 1/2 D Ex ia IIIC T135°C Da/Db
II 2 D Ex ia IIIC T135°C Db

Description of Equipment:Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03233P:
 $U_i \leq 30Vdc$; $I_i \leq 100mA$; $P_i \leq 650mW$; $C_i \leq 10nF$; $L_i = 0mH$

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection

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e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal
h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)
ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety
ll	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded, flushmount diaphragm seal, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety
o	Fill fluid: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

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1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03233P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
7. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.

CERABAR PMP50-BKbbcddefghiikllmmno+(options) Pressure Transmitter

Markings:



II 1/2 G Ex ia IIC T4...T1 Ga/Gb
II 2 G Ex ia IIC T4...T1 Gb
II 1/2 D Ex ia IIIC T135°C Da/Db
II 2 D Ex ia IIIC T135°C Db

Description of Equipment:

Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03234P:
 $U_i \leq 30$ Vdc; $I_i \leq 100$ mA; $P_i \leq 700$ mW; $C_i \leq 10$ nF; $L_i = 0$ mH for gas
 $U_i \leq 30$ Vdc; $I_i \leq 100$ mA; $P_i \leq 650$ mW; $C_i \leq 10$ nF; $L_i = 0$ mH for dust

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection

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e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal
h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)
ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety
ll	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded, flushmount diaphragm seal, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety
o	Fill fluid: Any single character or number not relevant for safety
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Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03234P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
7. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.

CERABAR PMP50-BNbbcddefghiikllmmno+(options) Pressure Transmitter

Markings:



II 1/2 G Ex ia IIC T4...T1 Ga/Gb
II 1 D Ex ta IIIC T₂₀₀ T100°C Da
II 2 D Ex tb IIIC T125°C Db
II 2 G Ex db IIC T6...T1 Gb

Description of Equipment:

Electrical Data for Ex ia version:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03236P:
 $U_i \leq 30$ Vdc; $I_i \leq 100$ mA; $P_i \leq 700$ mW; $C_i \leq 10$ nF; $L_i = 0$ mH

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L

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e	Electrical Connection: F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 6: Gauge 8: Absolute
g	Application: A: Standard B: Diaphragm seal
h	Diaphragm Seal: A: W/o D: Compact G: Temperature isolator Y: Special version, e.g. capillary PE coat., capillary made of other materials (e.g. alloy)
ii	Sensor Range: 3x: pressure ranges up to 400 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
k	Calibration; Unit: Any single character or number not relevant for safety
ll	Process connection, Sealing Surface: AA to ZZ: Standard industrial process connection: threaded, flange 99: Modification of one of the above mentioned options: not relevant for explosion protection
mmm	Process Connection: AAA to ZZZ: Standard industrial process connection: flanges, threaded , flushmount diaphragm seal, 316L, Alloy C , plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, not relevant for explosion protection
n	Membrane Material: Any single character not relevant for safety
o	Fill fluid: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.

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2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Flameproof joints are not intended to be repaired.
7. Refer to Temperature Tables in document XA03236P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
8. The user shall on installation mark the label with the type of protection used which shall not be changed – refer to the marking requirements in the “General Notes: combined approval” chapter of document XA03236P for further details.
9. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.
10. Ex ta, Ex tb. The device must be operated with a 100 mA fuse

DELTABAR PMD50-BAbbcdefgghikkklmn+(options) Pressure Transmitter

Markings:



II 1 G Ex ia IIC T4...T1 Ga

Description of Equipment:

Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03237P:
 $U_i \leq 30Vdc$; $I_i \leq 100mA$; $P_i \leq 700mW$; $C_i \leq 10nF$; $L_i = 0mH$

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection

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e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge
gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection
l	Membrane Material: Any single character not relevant for safety
m	Fill Fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.

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4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03237P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.

DELTABAR PMD50-BBbbcdefgghikkklmn+(options) Pressure Transmitter

Markings:



II 1/2 G Ex ia IIC T4...T1 Ga/Gb
II 2 G Ex ia IIC T4...T1 Gb

Description of Equipment:

Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03237P:
 $U_i \leq 30Vdc$; $I_i \leq 100mA$; $P_i \leq 700mW$; $C_i \leq 10nF$; $L_i = 0mH$

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection
e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge

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gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C , plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection
l	Membrane Material: Any single character not relevant for safety
m	Fill Fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03237P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
7. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.

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DELTABAR PMD50-BFbbcdffgghikkkllmn+(options) Pressure Transmitter**Markings:**

II 2 G Ex db IIC T6...T1 Gb

Description of Equipment:**Model Code Options:**

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L
e	Electrical Connection: F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge
gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C , plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection
l	Membrane Material: Any single character not relevant for safety

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m	Fill fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Flameproof joints are not intended to be repaired.
7. Refer to Temperature Tables in document XA03238P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.

DELTABAR PMD50-BGbbcdffghikklmn+(options) Pressure Transmitter**Markings:**

II 1 D Ex ta IIIC T₂₀₀ 100°C Da
II 2 D Ex tb IIIC T100°C Db

Description of Equipment:**Model Code Options:**

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection

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e	Electrical Connection: B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge
gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection
l	Membrane Material: Any single character not relevant for safety
m	Fill Fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.

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- Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
- 5. Avoid sparks caused by impact and friction.
- 6. Refer to Temperature Tables in document XA03239P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
- 7. Ex ta, Ex tb. The device must be operated with a 100 mA fuse

DELTABAR PMD50-BHbbcdffghikllmn+(options) Pressure Transmitter

Markings:



II 1/2 D Ex ia IIIC T135°C Da/Db
II 2 D Ex ia IIIC T135°C Db

Description of Equipment:

Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03240P:
 $U_i \leq 30Vdc$; $I_i \leq 100mA$; $P_i \leq 650mW$; $C_i \leq 10nF$; $L_i = 0mH$

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection
e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge

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gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection
l	Membrane Material: Any single character not relevant for safety
m	Fill Fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03240P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
7. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.

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SCHEDULE

EU-Type Examination Certificate No. FM24ATEX0010X

DELTABAR PMD50-BKbbcdffghikkkllmn+(options) Pressure Transmitter**Markings:**

II 1/2 G Ex ia IIC T4...T1 Ga/Gb
 II 2 G Ex ia IIC T4...T1 Gb
 II 1/2 D Ex ia IIIC T135°C Da/Db
 II 2 D Ex ia IIIC T135°C Db

Description of Equipment:Electrical Data:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03241P:

Ui ≤ 30Vdc; Ii ≤ 100mA; Pi ≤ 700mW; Ci ≤ 10nF; Li = 0mH for gas

Ui ≤ 30Vdc; Ii ≤ 100mA; Pi ≤ 650mW; Ci ≤ 10nF; Li = 0mH for dust

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L Y: Modifications of one of the above options; changes not relevant for explosion protection
e	Electrical Connection: A: Gland M20, plastic, IP66/68, NEMA Type 4X/6P B: Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P C: Gland M20, 316L, IP66/68, NEMA Type 4X/6P F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P J: Gland M20, plastic, blue color, IP66/68, NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge
gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety

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h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C , plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection
l	Membrane Material: Any single character not relevant for safety
m	Fill Fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Refer to Temperature Tables in document XA03241P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures
7. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.

DELTABAR PMD50-BNbbcdffghikkllmn+(options) Pressure Transmitter

Markings:

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II 1/2 G Ex ia IIC T4...T1 Ga/Gb
II 1 D Ex ta IIIC T₂₀₀ T100°C Da
II 2 D Ex tb IIIC T100°C Db
II 2 G Ex db IIC T6...T1 Gb

Description of Equipment:

Electrical Data for Ex ia version:

4...20mA / HART IS; with Intrinsic Safety Energy Limitation Parameters in accordance with document XA03243P:
U_i ≤ 30Vdc; I_i ≤ 100mA; P_i ≤ 700mW; C_i ≤ 10nF; L_i = 0mH

Model Code Options:

bb	Output: BA: 2-wire 4-20 mA HART
c	Display; Operation: A: Blind cover C: Color display w/o buttons
d	Housing; Material: J: Dual compartment; Alu, coated K: Dual compartment; 316L
e	Electrical Connection: F: Thread M20, IP66/68 NEMA Type 4X/6P G: Thread G1/2, IP66/68 NEMA Type 4X/6P H: Thread NPT1/2, IP66/68 NEMA Type 4X/6P Y: Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, plug connector for Ex i; changes not relevant for explosion protection
f	Pressure Type: 3: Differential 6: Gauge
gg	Sensor Range: 7x: Dp pressure ranges up to 40 bar 9Y: Modification of one of the above mentioned options: customer specific pressure range; not relevant for safety
h	Calibration; Unit: Any single character or number not relevant for safety
i	Installation: Any single character or number not relevant for safety
kkk	Process Connection: AAA to ZZZ: Standard industrial process connection: e.g. Oval flange NPT1/4", coplanar compatible, 316L, Alloy C, plastic coated 9YY: Modification of one of the above mentioned options: customer specific connections, e.g. PVDF inlay, not relevant for explosion protection

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SCHEDULE

EU-Type Examination Certificate No. FM24ATEX0010X

FM Approvals

I	Membrane Material: Any single character not relevant for safety
m	Fill Fluid: Any single character or number not relevant for safety
n	Seal: Any single character or number not relevant for safety
(options)	Options: Not relevant for safety

Specific Conditions of Use:

1. In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
2. For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
3. To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
4. In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
 - Observe the danger of electrostatic charging and discharge.
 - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.
5. Avoid sparks caused by impact and friction.
6. Flameproof joints are not intended to be repaired.
7. Refer to Temperature Tables in document XA03243P for various ambient and process temperature ranges allowed for the various temperature classes / surface temperatures.
8. The user shall on installation mark the label with the type of protection used which shall not be changed – refer to the marking requirements in the “General Notes:combined approval” chapter of document XA03243P for further details.
9. Material specification of the separating element: > 1 mm glass feedthrough edged with > 1 mm stainless steel and ≥ 0.3 mm welds between the glass feedthrough and the stainless steel.
10. Ex ta, Ex tb. The device must be operated with a 100 mA fuse

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT
CHANGE**

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Blueprint Report

Endress+Hauser SE+Co KG (1000001123)

Class No 3615

Original Project I.D. 464557

Certificate I.D. FM24ATEX0010X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
960018037	E	Overview approved laser printed adhesive nameplate materials and coatings for aluminum enclosures	464557
961003200	C	Approval Ident Code (AIC) Pressure Sensor Modules SPIIB, SP12B, SP13B	464557
961003544	B	Blanking Elements	464557
961003545	A	Reduction M20x1.5 to G1/2: NPT1/2	464557
961006857	A	Cover P_CA10A01 Ex d	464557
961006858	B	Enclosure P_HS27A02 Exd	470693
961006860	A	Cover P_CA00A01	464557
961006862	B	P_CA30A01 / P_CS30A01 Exd Cover with glass	470693
961006863	A	P_CA40A01 GP or Ex I Cover with glass	464557
961006864	B	Enclosure P_HA27A02 Exd	470693
961006885	A	Enclosure P_HS27A02 sealing designs	464557
961006890	B	Enclosure P_HA27A02 Ex d with Electronic	470693
961006891	B	Enclosure P_HS27A02 Ex d with Electronic	470693
961006892	A	Enclosure P_HA27A01 assembly for Exi or ordinary	464557
961006893	A	Enclosure P_HA27A02 seal designs	464557
961006894	A	Cover P_CS10A01 Ex d	464557
961006895	A	Enclosure P_HA27A02 assembly for Ex d or Ex e or Ex t	464557
961006896	B	Enclosure P_HA27A02 Ex d dimensions	470693
961006898	A	Enclosure P-HS27A02 assembly for Ex d or Ex e or Ex t	464557
961006900	B	Enclosure P_HS27A02 Ex d dimensions	470693
961006927	B	Approval Ident Code (AIC) Cerabar PMP50, Deltabar PMD50	470693
961006928-B	2	Technical Description Certification ATEX / IECEx Complete Device Cerabar PMP50 / Deltabar PMD50 FM24ATEX0010X IECEx FMG 24.0008X	470693
961007353	A	Block diagram Ex I electronic Cerabar PMP50 Deltabar PMD50	464557
961007372	A	CircuitDiagram(APP) Projecttransmitter C/DBAR PMP50 P_TRM_ME 4...20mA	464557
961007373	A	Assemblyplan (APP) A Projecttransmitter C/BBAR PMP50/PMD50 P_TRM_ME	464557
961007374	A	Assemblyplan (APP) B Projecttransmitter C_DBAR PMP50/PMD50 P_TRM_ME	464557
961007375	A	PrintedCircuitBoard(APP) Projecttransmitter C/DBAR PMP50 P_TRM_ME	464557
961007376	A	ConductivePattern(APP) A1 Projecttransmitter C/DBAR PMP50/PMD50 P_TRM_ME	464557
961007377	A	ConductivePattern(APP) A2 Projecttransmitter C/DBAR PMP50/PMD50 P_TRM_ME	464557
961007378	A	ConductivePattern(APP) A3 Projecttransmitter C/DBAR PMP50/PMD50 P_TRM_ME	464557
961007379	A	ConductivePattern(APP) B3 Projecttransmitter C/DBAR PMP50/PMD50 P_TRM_ME	464557
961007458	A	Assemblyplan (APP) A Projecttransmitter P_TRM_TE	464557
961007459	A	Assemblyplan (APP) A Projecttransmitter P_TRM_TE	464557
961007460	A	Assemblyplan (APP) B Projecttransmitter P_TRM_TE	464557
961007461	A	Assemblyplan (APP) B Projecttransmitter P_TRM_TE	464557
961007462	A	CircuitDiagram(APP) Projecttransmitter P_TRM_ME	464557
961007463	A	CircuitDiagram(APP) Projecttransmitter P_TRM_TE	464557
961007464	A	ConductivePattern(APP) A1 Projecttransmitter P_TRM_TE	464557

961007465	A	ConductivePattern(APP) B1 Projecttransmitter P_TRM_TE	464557
961007466	A	PrintedCircuitBoard(APP) Projecttransmitter P_TRM_TE	464557
961007493	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 II 1 G Ex ia IIC Ga (a=BA) with electronic 4...20 mA HART	464557
961007494	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 II 1/2 G Ex ia IIC Ga/Gb (a=BB) with electronic 4...20 mA HART	464557
961007495	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 Ex db (a=BF) with electronic 4...20 mA HART	464557
961007496	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 Ex ta, tb (a=BG) with electronic 4...20 mA HART	464557
961007497	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 II 1/2 D Ex ia IIIC Da/Db (a=BH) II2D Ex ia IIIC Db with electronic 4...20 mA HART	464557
961007498	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 II 1/2 G Ex ia + II 1/2 D Ex ia (a=BK) with electronic 4...20 mA HART	464557
961007500	A	Nameplate ATEX / IECEx Cerabar PMP50 / Deltabar PMD50 combination Ex ia, Ex d, Ex t (a=BN) with electronic 4...20 mA HART	464557
961007526	A	ConductivePattern(APP) B1 Projecttransmitter C/DBAR PMP50/PMD50 P_TRM_ME	464557
961007527	A	ConductivePattern(APP) B2 Projecttransmitter C/DBAR PMP50/PMD50 P_TRM_ME	464557
961007542	A	main unit - 2 chamber P_MA10	464557
961007543	A	Terminal unit P_TA00 / P_TA01	464557
961007641	B	Ordercodes Cerabar PMP50 ATEX / IECEx	470693
961007642	B	Ordercodes Deltabar PMD50 ATEX / IECEx	470693
961008168	A	weather protection cover	470693
961008169	A	Wave ring	470693
961008170	A	Snap ring	470693
961008171	A	Secure ring 80	470693
XA03230P	A	Safety Instructions Cerabar PMP50 ATEX, IECEx: Ex is IIC T4 Ga, Ex is IIC T4 Ga/Gb, Ex ia IIC T4 Gb	464557
XA03231P	A	Safety Instructions Cerabar PMP50 ATEX, IECEx: Ex db IIC T6 Gb	464557
XA03232P	A	Safety Instructions Cerabar PMP50 ATEX, IECEx: Ex ta IIIC Txxx Da, Ex tb IIIC Txxx Db	464557
XA03233P	A	Safety Instructions Cerabar PMP50 ATEX, IECEx: Ex ia IIIC Txxx Da/Db, Ex ia IIIC Txxx Db	464557
XA03234P	A	Safety Instructions Cerabar PMP50 ATEX, IECEx: Ex ia IIC T4 Ga/Gb, Ex ia IIIC Txxx Da/Db	464557
XA03236P	A	Safety Instructions Cerabar PMP50 ATEX, IECEx: Ex ia IIC T4 Ga/Gb, Ex db IIC T6 Gb, Ex ta IIIC Txxx Da, Ex tb IIIC Txxx Db	464557
XA03237P	A	Safety Instructions Deltabar PMD50 ATEX, IECEx: Ex ia IIC T4 Ga, Ex ia IIC T4 Ga/Gb, Ex ia IIC T4 Gb	464557
XA03238P	A	Safety Instructions Deltabar PMD50 ATEX, IECEx: Ex db IIC T6 Gb	464557
XA03239P	A	Safety Instructions Deltabar PMD50 ATEX, IECEx: Ex ta IIIC Txxx Da, Ex tb IIIC Txxx Db	464557
XA03240P	A	Safety Instructions Deltabar PMD50 ATEX, IECEx: Ex is IIIC Txxx Da/Db, Ex ia IIIC Txxx Db	464557
XA03241P	A	Safety Instructions Deltabar PMD50 ATEX, IECEx: Ex ia IIC T4 Ga/Gb, Ex ia IIC Txxx Da/Db	464557
XA03243P	A	Safety Instructions Deltabar PMD50 ATEX, IECEx: Ex ia IIC T4 Ga/Gb, Ex db IIC T6 Gb, Ex ta IIIC Txxx Da, Ex tb IIIC Txxx Db	464557