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Safety Instructions
Cerabar M PMP51, PMP55

4-20 mA HART, PROFIBUS PA,
FOUNDATION Fieldbus

Ex db IIC T6 Gb
Ex db IIC T4 Gb

Segurança

OCP 0004 INMETRO

Endress+Hauser
People for Process Automation

Cerabar M PMP51, PMP55

4-20 mA HART, PROFIBUS PA, FOUNDATION Fieldbus

Table of contents

About this document

This document has been translated into several languages. Legally determined is solely the English source text.

Associated documentation

To commission the device, please observe the Operating Instructions pertaining to the device:

HART
BA00382P

PROFIBUS PA
BA00383P

FOUNDATION Fieldbus
BA00384P

Supplementary documentation

Explosion protection brochure: CP00021Z

The explosion protection brochure is available on the Internet:
www.endress.com/Downloads

Certificates and declarations

Certificate of Conformity

Certificate number:
TÜV 13.2013

Affixing the certificate number certifies conformity with the following standards (depending on the device version):

- ABNT NBR IEC 60079-0:2013
- ABNT NBR IEC 60079-1:2016

Certificate holder

Endress+Hauser SE+Co. KG
Hauptstraße 1
79689 Maulburg, Germany

Address of the manufacturing plant: See nameplate.

Extended order code

The extended order code is indicated on the nameplate, which is affixed to the device in such a way that it is clearly visible. Additional information about the nameplate is provided in the associated Operating Instructions.

Structure of the extended order code

PMP5x	–	**********	+	A*B*C*D*E*F*G*..
(Device type)		*(Basic specifications)*		*(Optional specifications)*

* = Placeholder
At this position, an option (number or letter) selected from the specification is displayed instead of the placeholders.

Basic specifications

The features that are absolutely essential for the device (mandatory features) are specified in the basic specifications. The number of positions depends on the number of features available.
The selected option of a feature can consist of several positions.

Optional specifications

The optional specifications describe additional features for the device (optional features). The number of positions depends on the number of features available. The features have a 2-digit structure to aid identification (e.g. JA). The first digit (ID) stands for the feature group and consists of a number or a letter (e.g. J = Test, Certificate). The second digit constitutes the value that stands for the feature within the group (e.g. A = 3.1 material (wetted parts), inspection certificate).

More detailed information about the device is provided in the following tables. These tables describe the individual positions and IDs in the extended order code which are relevant to hazardous locations.

Extended order code: Cerabar M

The following specifications reproduce an extract from the product structure and are used to assign:
- This documentation to the device (using the extended order code on the nameplate).
- The device options cited in the document.

Device type

PMP51, PMP55

Basic specifications

Position 1, 2 (Approval)		
Selected option		**Description**
PMP5x	MB	INMETRO Ex db IIC T6 Gb INMETRO Ex db IIC T4 Gb

Position 3 (Output)		
Selected option		**Description**
PMP5x	2	4-20 mA HART
	3	PROFIBUS PA
	4	FOUNDATION Fieldbus

Optional specifications

No options specific to hazardous locations are available.

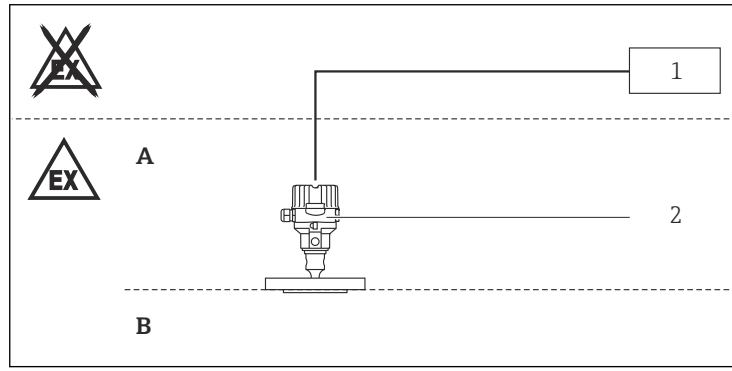
Safety instructions: General

- Comply with the installation and safety instructions in the Operating Instructions.
- Staff must meet the following conditions for mounting, electrical installation, commissioning and maintenance of the device:
  - Be suitably qualified for their role and the tasks they perform
  - Be trained in explosion protection
  - Be familiar with national regulations
- Install the device according to the manufacturer's instructions and national regulations.
- Only use the device in media to which the wetted materials have sufficient durability.
- Avoid electrostatic charging:
  - Of plastic surfaces (e.g. enclosure, sensor element, special varnishing, attached additional plates, ...)
  - Of isolated capacities (e.g. isolated metallic plates)
- Alterations to the device can affect the explosion protection and must be carried out by staff authorized to perform such work by Endress+Hauser.

Safety instructions: Special conditions

- For light metal flanges or flange faces (e.g. titanium, zirconium), avoid sparks caused by impact and friction.
- To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
- 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.

Safety instructions: Installation



A Electronic; Zone 1
B Process; Zone 1
1 Power supply U
2 PMP51, PMP55

- In potentially explosive atmospheres: Do not open the connection compartment cover and the electronics compartment cover when energized.
- Before operation:
  - Screw in the cover all the way.
  - Tighten the securing clamp on the cover.
- Connect the device:
  - Using suitable cable and wire entries of protection type "Flameproof Enclosure (Ex db)".
  - Using piping systems of protection type "Flameproof Enclosure (Ex db)".
- When connecting through a conduit entry approved for this purpose, mount the associated sealing unit directly at the enclosure.
- For ambient temperatures higher than +70 °C, use suitable heat resisting cables or wires.
- Seal unused entry glands with supplied metal blind plug. Alternative use only suitable, separate approved Ex db blanking elements.
- The plastic sealing plug is used only as transport protection.

Safety instructions: Ex d joints

- If required or if in doubt: ask manufacturer for specifications.
- Flameproof joints are not intended to be repaired.

Temperature tables

Temperature class	Process temperature T_p (process)	Ambient temperature T_a (ambient): enclosure
T6	≤ 80 °C	−40 °C ≤ T_a ≤ +75 °C
T4	≤ 120 °C	

Do not exceed the max. ambient temperature at the enclosure.

Device type PMP51
The process temperatures refer to the temperature at the separation membrane.

Device type PMP55
Higher temperatures are permitted depending on the type of diaphragm seal.

Connection data

Basic specification, Position 3 = 2

Power supply
U ≤ 45 V_{DC} P ≤ 1.1 W

Basic specification, Position 3 = 3, 4

Power supply
U ≤ 32 V_{DC} P ≤ 1.25 W

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