

# Safety Instructions

## **Cerabar PMC21, PMP21**

II 3 G Ex ec IIC Gc





# Cerabar PMC21, PMP21

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<b>Associated documentation</b>	<p>This document is an integral part of the following Operating Instructions: BA01271P/00</p>
<b>Supplementary documentation</b>	<p>Explosion-protection brochure: CP00021Z/11 The Explosion-protection brochure is available:</p> <ul style="list-style-type: none"><li>■ In the download area of the Endress+Hauser website: <a href="http://www.endress.com">www.endress.com</a> -&gt; Downloads -&gt; Brochures and Catalogs -&gt; Text Search: CP00021Z</li><li>■ On the CD for devices with CD-based documentation</li></ul>
<b>Manufacturer's certificates</b>	<p><b>UK Declaration of Conformity</b></p> <p>Declaration Number: UK_00169</p> <p>The UK Declaration of Conformity is available: In the download area of the Endress+Hauser website: <a href="http://www.endress.com">www.endress.com</a> -&gt; Downloads -&gt; Declaration -&gt; Type: UKCA Declaration -&gt; Product Code: ...</p> <p><b>UKCA type-examination certificate</b></p> <p>Certificate number: UK 00169</p> <p>List of applied standards: See UK Declaration of Conformity.</p>
<b>Other standards</b>	<p>Among other things, the following standards shall be observed in their current version for proper installation:</p> <ul style="list-style-type: none"><li>■ IEC/EN 60079-14: "Explosive atmospheres - Part 14: Electrical installations design, selection and erection"</li><li>■ EN 1127-1: "Explosive atmospheres - Explosion prevention and protection - Part 1: Basic concepts and methodology"</li></ul>
<b>Extended order code</b>	<p>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.</p>

## Structure of the extended order code

PMC21, PMP21  <i>(Device type)</i>	–	*****	+	A*B*C*D*E*F*G*..  <i>(Optional specifications)</i>
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\* = 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



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*

PMC21, PMP21

*Basic specifications*

Position 1, 2 (Approval)		
Selected option		Description
PMC21 PMP21	UC	UK Ex II 3 G Ex ec IIC T4 Gc

Position 3 (Output)		
Selected option		Description
PMC21 PMP21	1	4 to 20 mA

Position 4 (Electrical Connection)		
Selected option		Description
PMC21 PMP21	M	Plug M12, IP65/67 NEMA Type 4X Encl.

*Optional specifications*

No options specific to hazardous locations are available.

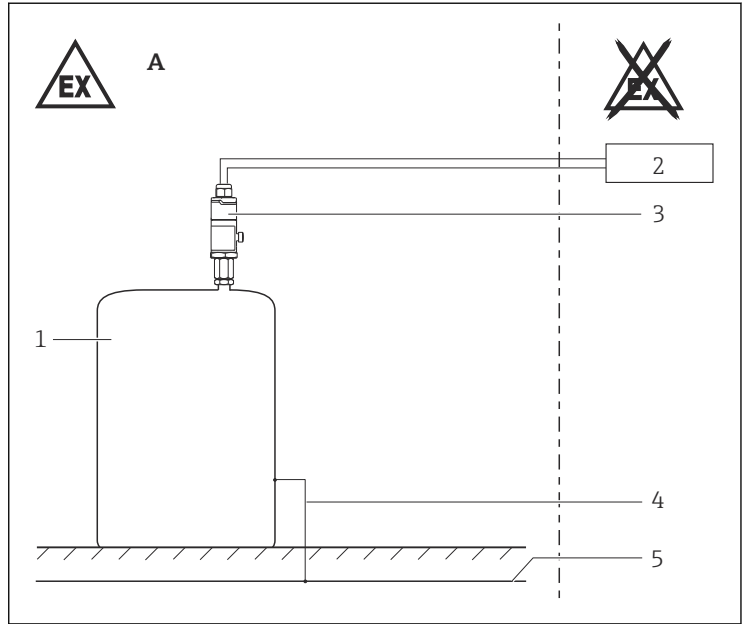
**Safety instructions:**  
**General**

- 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)

**Safety instructions:**  
**Special conditions**

- 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 ( $\leq 0.5$  m) generating strong electrostatic charges.

## Safety instructions: Installation



A0031218

### 1

- A Zone 2
- 1 Tank; Zone 2
- 2 Power supply
- 3 Transmitter enclosure
- 4 Potential equalization line
- 5 Potential equalization

- Continuous service temperature of the connecting cable:  $\geq T_a + 5 \text{ K}$ .
- Use a suitable certified M12 plug connector.
- During operation: Ensure that ingress protection IP54 is observed.
- In potentially explosive atmospheres: Do not disconnect electrical connections when energized.
- If no potentially explosive mixtures are present, or if additional protective measures have been taken, the device may also be operated under non-atmospheric conditions in accordance with the manufacturer's specifications.

### Potential equalization

If the potential equalization cannot be guaranteed by the installation: In order to avoid electrostatic charging, integrate metallic parts of the enclosure into the potential equalization.

**Temperature tables**

Temperature class	Process temperature $T_p$ (process)	Ambient temperature range
T4	$\leq 100\text{ °C}$	$-40\text{ °C} \leq T_a \leq +70\text{ °C}$

**Connection data**

Electrical data
$U \leq 30\text{ V}_{DC}$











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