Level Pressure Flow Temperature Liquid Analysis Registration Systems Components Services Solutions

Safety Instructions

Cerabar M
PMC41/45, PMP41/45/46/48

Ex ia IIC T6
NEPSI GYJ071242

XA419P-A

en - Safety instructions for electrical apparatus for explosion-hazardous areas.

zh - 爆炸环境中电气仪表的安全指南。

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People for Process Automation

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english

Associated Documentation

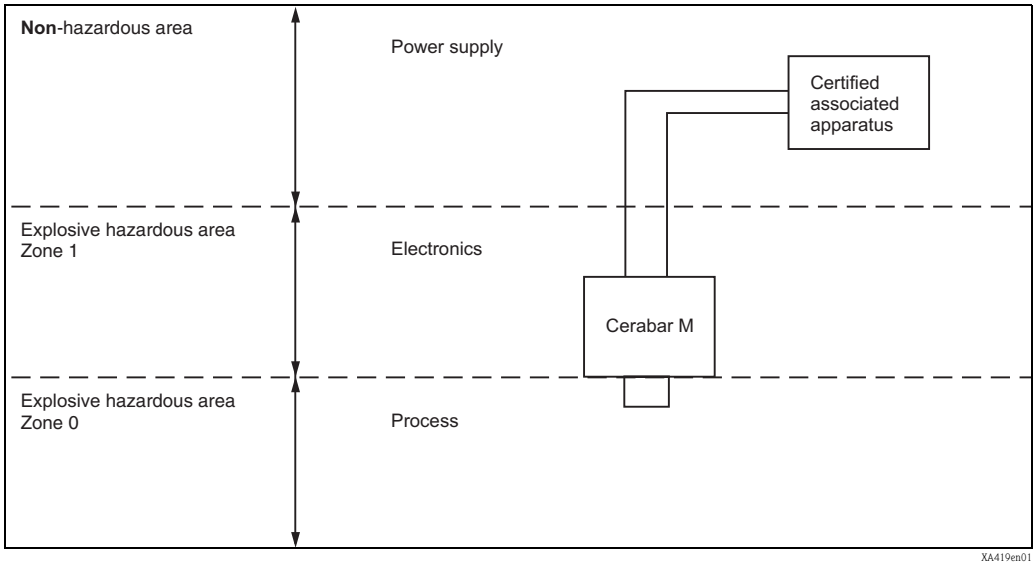
This document is an integral part of the following Operating Instructions:
HART: BA274P/00
PROFIBUS PA: BA296P/00

The Operating Instructions which are supplied and correspond to the device type apply.

Designation

Explanation of the labelling and type of protection can be found in the explosion protection brochure.

Designation of explosion protection	**Ex ia IIC T6**



Electronic: 4...20 mA HART

Type of protection	Ambient temperature range	Electrical data	
Ex ia IIC T6	–40 °C ≤ Ta ≤ +40 °C	Pi ≤ 0.8 W	Ui ≤ 30 V DC, Ci ≤ 10 nF, Li = 0
Ex ia IIC T4	–40 °C ≤ Ta ≤ +70 °C	Pi ≤ 1 W	

Electronic: PROFIBUS PA

Type of protection	Ambient temperature range	Electrical data
Ex ia IIC T6	–40 °C ≤ Ta ≤ +40 °C	Ui ≤ 24 V DC, Ii = 250 mA, Pi = 1.2 W or Ui = 17.5 V DC, Ii = 500 mA, Pi = 5.5 W, Ci = 5 nF, Li = 10 µH (suitable for connection to a fieldbus system according to the FISCO-model)
Ex ia IIC T4	–40 °C ≤ Ta ≤ +70 °C	

Safety instructions: General

- Only install the devices in media for which the wetted materials have sufficient durability.
- Avoid electrostatic charging of the plastic surfaces, for plastic process connections or plastic coatings.
- The type of protection changes as follows when the devices are connected to certified intrinsically safe circuits of Category ib: Ex ib IIC T6 or Ex ib IIC T4. Do not operate the sensor in Zone 0 if the transmitter is connected to an intrinsically safe circuit of Category Ex ib.
- In hazardous areas, intrinsically safe equipment may only be operated on certified intrinsically safe circuits. The intrinsic safety can be jeopardised if, prior to the installation in the Ex-area, the device is operated with circuits which did not guarantee the Ui, Ii and Pi values indicated in the table above.
- The intrinsically safe input power circuit of the device is isolated from ground potential and has a dielectric strength of at least 500 Vrms with respect to it.
- For installation, use and maintenance of the device, users must also observe the requirements stated in the Operating Instructions and the standards GB50257-1996, GB3836.13-1997, GB3836.15-2000 and GB3836.16-2006.
- The external earth connection facility should be connected reliably.
- Changes in electrical and mechanical parts of the equipment could harm the type of explosion protection and are not allowed for the user.

Safety instructions:
Zone 0

- Only operate devices in potentially explosive vapour/air mixtures under atmospheric conditions:
  –20 °C ≤ T ≤ +60 °C
  0.8 bar ≤ p ≤ 1.1 bar
- Associated apparatus with galvanic isolation between the intrinsically safe and non-intrinsically safe circuits are preferred.

PMC41, PMC45:

- On installations requiring overvoltage protection to comply with national regulations or standards this device shall be installed using an overvoltage protector.

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中文

相关资料

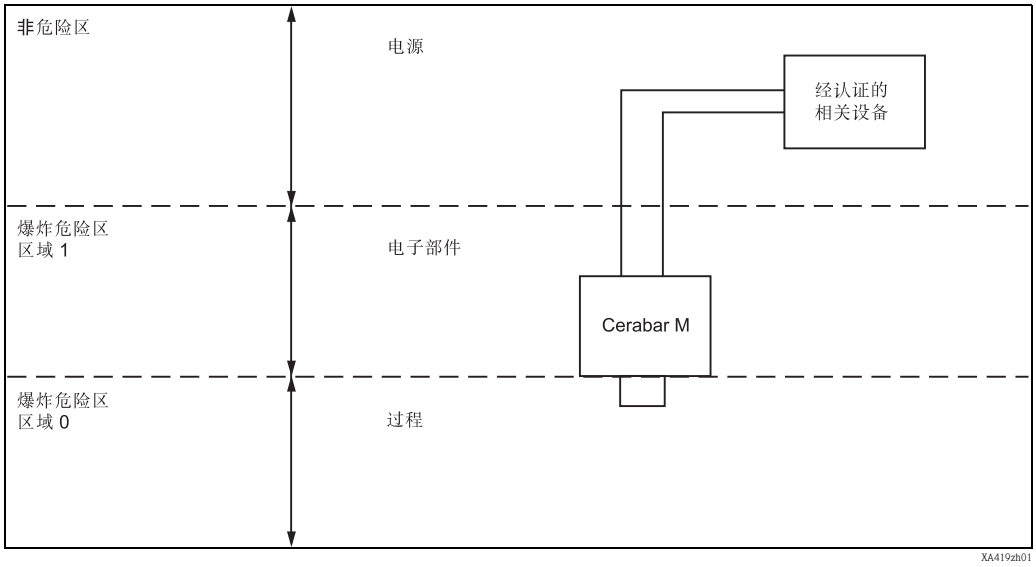
本文档是下列操作手册的组成部分：
HART：BA274P/00
PROFIBUS PA：BA296P/00

根据用户订购仪表的具体型号所提供的相应操作手册。

名称

防爆标志和防护类型的说明请查询防爆手册。

防爆代号	**Ex ia IIC T6**



电子部件：4...20 mA HART

防护类型	环境温度范围	电气参数	
Ex ia IIC T6	–40 °C ≤ Ta ≤ +40 °C	Pi ≤ 0.8 W	Ui ≤ 30 V DC， Ci ≤ 10 nF， Li = 0
Ex ia IIC T4	–40 °C ≤ Ta ≤ +70 °C	Pi ≤ 1 W	

电子部件：PROFIBUS PA

防护类型	环境温度范围	电气参数
Ex ia IIC T6	–40 °C ≤ Ta ≤ +40 °C	Ui ≤ 24 V DC， Ii = 250 mA， Pi = 1.2 W 或 Ui = 17.5 V DC， Ii = 500 mA， Pi = 5.5 W， Ci = 5 nF， Li = 10 µH （ 根据 FISCO 模式，适合与现场总线系统相连接 ）
Ex ia IIC T4	–40 °C ≤ Ta ≤ +70 °C	

安全指南：
概述

- 当仪表的接触部件具有足够耐久度时，才可将仪表安装于介质中。
- 对于塑料工艺连接件或塑料涂层，应避免塑料表面产生静电荷。
- 仪表与防爆类别为 ib 的本安型电路相连时，防护类型变为 Ex ib IIC T6 或 Ex ib IIC T4。若变送器与防爆类别为 Ex ib 的本安型电路相连时，不可在 0 区中操作传感器。
- 在防爆区中使用时，本安型仪表只可工作于经认证的本安型电路中。在防爆区中安装前，若仪表工作于参数值不同于上表中的 Ui、 Ii 和 Pi 的电路中，则系统的本质安全类型可能会有所降低。
- 本安型设备的输入电源电路与地电势是绝缘的，它相对地电势至少有 500 Vrms 绝缘强度。
- 在安装、使用和维护设备时，用户还必须遵守操作说明和 GB50257-1996、 GB3836.13-1997、GB3836.15-2000 与 GB3836.16-2006 标准中的要求。
- 外部接地连接部件应可靠连接。
- 改动设备的电气和机械部件会降低防爆保护的类型，用户请勿擅自改动。

安全指南：
区域 0

- 只有在下列大气条件下，才能在有爆炸可能性的水蒸汽 / 空气混合物中使用设备：
  $-20\ °C \leq T \leq +60\ °C$
  $0.8\ bar \leq p \leq 1.1\ bar$
- 在本安型和非本安型电路间最好采用电气隔离的相关设备。

PMC41， PMC45：
- 对于按照国家规定或标准要求进行过电压保护的安装，本设备应安装过电压保护器。

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