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Safety Instructions
RN221N

[Ex ia Ga]IIC

Document: XA02242K
Safety instructions for electrical apparatus for explosion-hazardous areas → 3

Endress+Hauser
People for Process Automation

RN221N

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Associated documentation

This document is an integral part of the following Operating Instructions:

- Operating Instructions: KA00124R/09/
  Operating Instructions with HART® diagnosis: BA00202R/09/
- Technical information: TI00073R/09/

Supplementary documentation

Explosion-protection brochure: CP00021Z/11

The Explosion-protection brochure is available: In the download area of the Endress+Hauser website: www.endress.com → Download → Advanced → Documentation code: CP00021Z

Manufacturer's certificates

NEPSI Certificate of conformity

Certificate number : GYJ20.1354

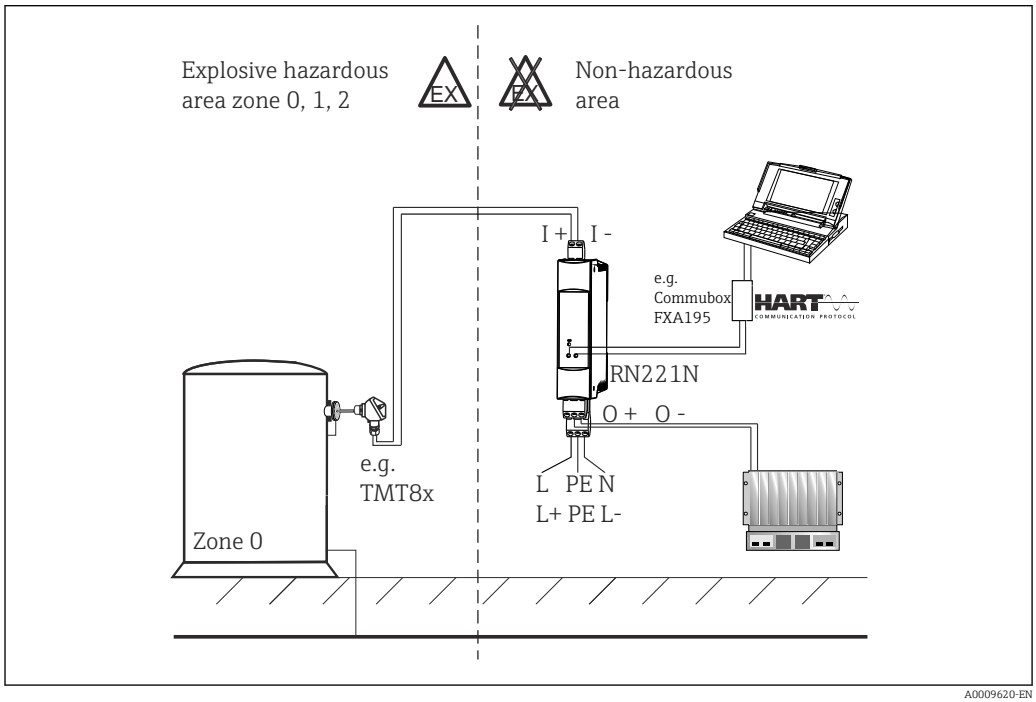
Affixing the certificate number certificate's conformity with the following standards (depending on the device version):

GB 3836.1-2010

GB 3836.4-2010

GB 3836.20-2010

Safety instructions



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Safety instructions: Installation

- Install the device according to the manufacturer's instructions and any other valid standards and regulations.
- The unit is an associated electrical apparatus and can only be installed outside the hazardous area.
- The unit must be installed in such a way that a minimum ingress protection of IP 20 is achieved.
- When installing the unit care must be taken that there must be a spacing of at least 50 mm (zone radius) to the intrinsically safe terminals.

- This product can only be installed at the safe area.
- The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment. Any change may impair safety.
- For installation, use and maintenance of this product, the end user shall observe the instruction manual and the following standards:
  - GB 50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".
  - GB 3836.13-2013 "Explosive atmospheres- Part 13: Equipment repair, overhaul and reclamation".
  - GB/T 3836.15-2017 "Explosive atmospheres- Part 15: Electrical installations design, selection and erection".
  - GB/T 3836.16-2017 "Explosive atmospheres- Part 16:Electrical installations inspection and maintenance".
  - GB/T 3836.18-2017 "Explosive atmospheres-Part 18: Intrinsically safe electrical systems".

Electrical connection data

RN221N			**[Ex ia Ga]IIC**	
Supply set	L/L+	N/L	U_m = 0 to 250 V DC/AC 50/60 Hz	
Ground cable		PE		
Loop power	I+	I-	$U_o \leq 27.3$ V	
(intrinsically safe)			$I_o \leq 87.6$ mA	
			$P_o \leq 597$ mW	
Internal capacitance			C_i = negigibly small	
Internal inductance			$L_i = 24$ µH	
Max. connection values		Ex ia IIC	$C_o \leq 86$ nF	$L_o \leq 5.2$ mH
		Ex ia IIB	$C_o \leq 683$ nF	$L_o \leq 18.9$ mH
Output	O+	O-	4 to 20 mA	
(HART® communication)	O+H			
Temperature range			T_a = −20 to +50 °C	

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