XA03198R/09/EN/01.23-00
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2023-10-17

Safety Instructions
RMA42

[Ex ia Ga] IIC

Endress+Hauser
People for Process Automation

RMA42

Table of contents

About this document

The document number of these Safety Instructions (XA) must match the information on the nameplate.

Associated documentation

To commission the device, please observe the Operating Instructions pertaining to the device:
www.endress.com/<product code>, e.g. RMA42

Supplementary documentation

Explosion protection brochure: CP00021Z

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

Certificates and declarations

NEPSI certificate

Certificate number: GYJ23.1211X

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

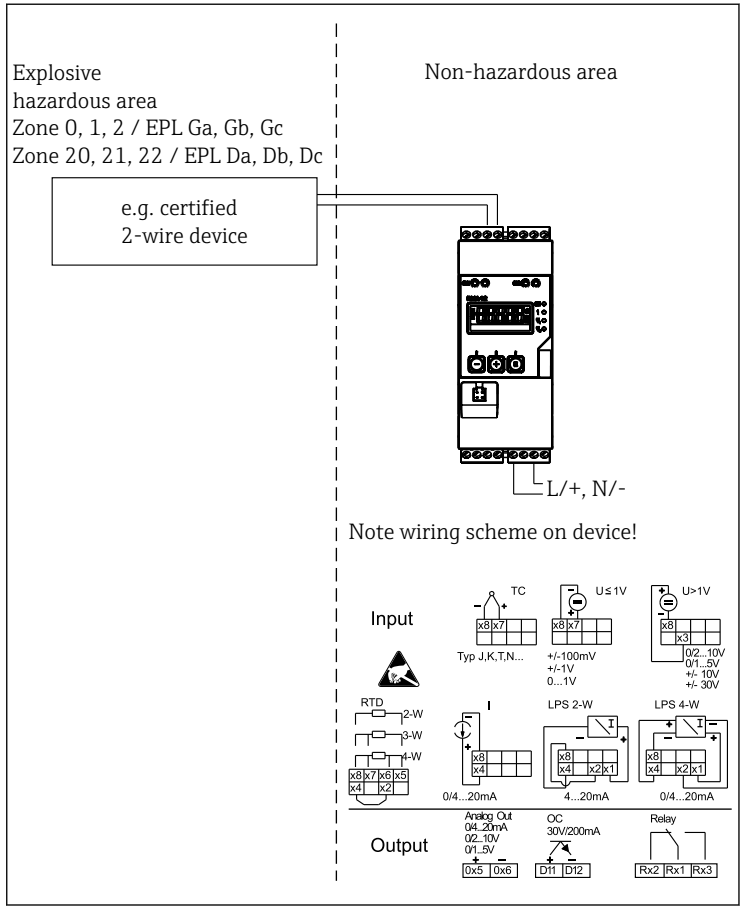
- GB/T 3836.1-2021
- GB/T 3836.4-2021

Please refer to NEPSI/CCC certificates for conditions of safe use.

Manufacturer address

Endress+Hauser Wetzer GmbH + Co. KG
Obere Wank 1
87484 Nesselwang, Germany

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.
- In applications for Zone 20/EPL Da or 21/EPL Db only sensors that fulfill the requirements for category EPL Da or EPL Db can be connected to the instrinsically safe input circuit.

Safety instructions: Specific conditions of use

The suffix "X" placed after the certificate number indicates that this product is subject to special conditions for safe use, that is:

- The ambient temperature range is −20 to +60 °C.
- This equipment is intended for the application outside the hazardous area.
- The electrical data as follows:

RMA42		[Ex ia Ga] IIC	
Supply circuit Terminals L/+, N/-, PE		U_m = 20 to 253 V AC/DC 50/60 Hz	
Pulse and current output Terminals O15, O16 Terminals O25, O26 (optional)		0/4 to 20 mA U_m = 250 V	
Open Collector Terminals D11, D12		U_m = 30 V Imax = 200 mA	
Relay output Terminals R11, R12, R13 Terminals R21, R22, R23		 Umax ≤ 250 V_{AC} Umax ≤ 30 V_{DC}	 Imax ≤ 3 A Imax ≤ 3 A
Interfaces CDI		U = 5 V U_m = 250 V	
2-wire loop-power-supply (intrinsically safe) Terminals 11, 14, 12, 18 Terminals (optional) 21, 24, 22, 28		Uo ≤ 27.3 V Io ≤ 96.5 mA Po ≤ 659 mW	
Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 62 nF Co ≤ 262 nF Co ≤ 532 nF	Lo ≤ 425 µH Lo ≤ 4.9 mH Lo ≤ 100 mH
4-wire loop-power-supply (intrinsically safe) Terminals 11, 12 Terminals (optional) 21, 22		Uo ≤ 27.3 V Io ≤ 91.1 mA Po ≤ 622 mW	
Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 70 nF Co ≤ 310 nF Co ≤ 460 nF	Lo ≤ 500 µH Lo ≤ 2 mH Lo ≤ 20 mH
4-wire loop-power-supply (intrinsically safe) Terminals 14, 18 Terminals (optional) 24, 28		Uo ≤ 27.3 V Io ≤ 5 mA Po ≤ 34.2 mW Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	

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Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 88 nF Co ≤ 380 nF Co ≤ 540 nF	Lo ≤ 500 µH Lo ≤ 2 mH Lo ≤ 100 mH
RTD temperature input (intrinsically safe) Terminals 15, 16, 17, 18 and 12, 14 Terminals (optional) 25, 26, 27, 28 and 22, 24		Uo ≤ 27.3 V Io ≤ 22.1 mA Po ≤ 151 mW	
Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 85 nF Co ≤ 360 nF Co ≤ 530 nF	Lo ≤ 500 µH Lo ≤ 2 mH Lo ≤ 5 mH
Thermocouple temperature input (intrinsically safe) Terminals 17, 18 Terminals (optional) 27, 28		Uo ≤ 27.3 V Io ≤ 15.5 mA Po ≤ 105.8 mW Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	
Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 74 nF Co ≤ 370 nF Co ≤ 530 nF	Lo ≤ 1 mH Lo ≤ 2 mH Lo ≤ 100 mH
Current input (intrinsically safe) Terminals 14, 18 Terminals (optional) 24, 28		Uo ≤ 27.3 V Io ≤ 5 mA Po ≤ 34.2 mW Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	
Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 88 nF Co ≤ 380 nF Co ≤ 540 nF	Lo ≤ 500 µH Lo ≤ 2 mH Lo ≤ 100 mH
Voltage input (intrinsically safe) Terminals 13, 18 Terminals (optional) 23, 28		Uo ≤ 27.3 V Io ≤ 5 mA Po ≤ 34.2 mW Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	

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Inner capacities Inner inductances		Ci = 8 nF Li = 75 µH	
Max. connection values	Ex ia IIC Ex ia IIB Ex ia IIA	Co ≤ 88 nF Co ≤ 380 nF Co ≤ 540 nF	Lo ≤ 500 µH Lo ≤ 2 mH Lo ≤ 100 mH

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