

# Safety Instructions

## **RMA42**

IND-Ex: [Ex ia Ga] IIC



# RMA42

## Table of contents

About this document .....	3
Associated documentation .....	3
Supplementary documentation .....	3
Certificates and declarations .....	3
Manufacturer address .....	3
Safety instructions: .....	4
Safety instructions: Installation .....	4
Temperature tables .....	5
Electrical connection data .....	5

**About this document**

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

**Associated documentation**

All documentation is available on the Internet:

[www.endress.com/Deviceviewer](http://www.endress.com/Deviceviewer)

(enter the serial number from the nameplate).

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

[www.endress.com/<product code>](http://www.endress.com/<product code>), e.g. RMA42

**Supplementary documentation**

Explosion protection brochure: CP00021Z

The Explosion-protection brochure is available:

■ In the download area of the Endress+Hauser website:

[www.endress.com](http://www.endress.com) -> Downloads -> Brochures and Catalogs -> Text Search: CP00021Z

■ On the CD for devices with CD-based documentation

**Certificates and declarations**

PESO Approval No.:

■ P642163/1

■ KLPL/Ex/16-020X Issue no. 02

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

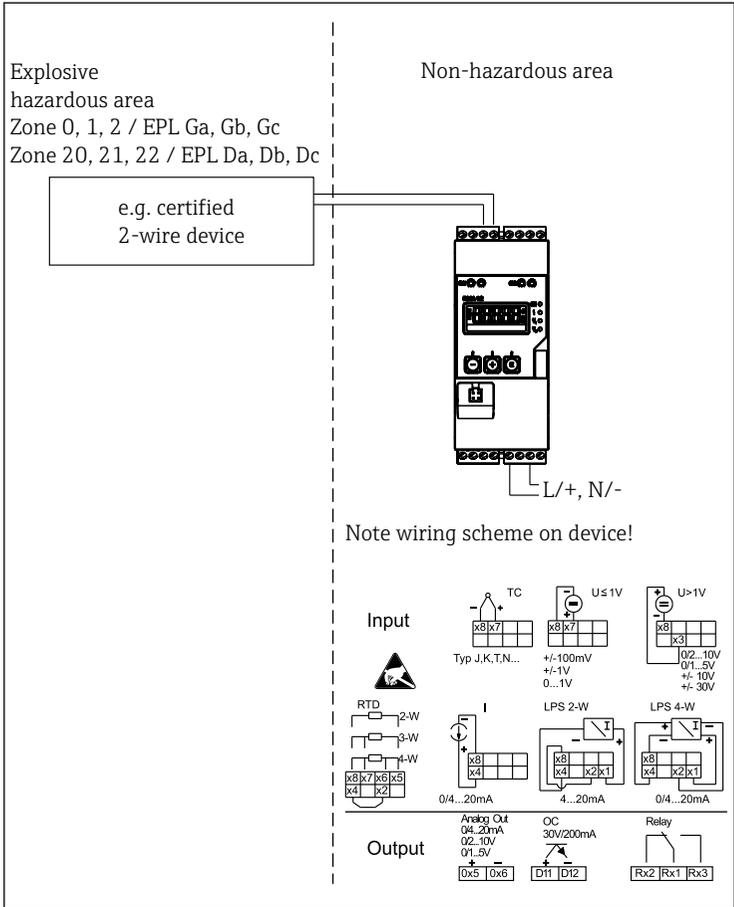
■ IS/IEC 60079-0: 2017

■ IS/IEC 60079-11: 2023

**Manufacturer address**

Endress+Hauser Wetzer (India)  
Private Limited  
M-192/2, MIDC Waluj  
Chhatrapati Sambhajnagar 431136  
India

**Safety instructions:**



A0050221

**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 1D or 2D can be connected to the intrinsically safe input circuit.

## Temperature tables

RMA42	[Ex ia Ga] IIC
Temperature range	Ta = -20 to 60 °C

## Electrical connection data

RMA42	Ex ia Ga] IIC
Supply circuit Terminals L/+, N/-, PE	U <sub>m</sub> = 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 <sub>m</sub> = 250 V
Open Collector Terminals D11, D12	U <sub>m</sub> = 30 V I <sub>max</sub> = 200 mA
Relay output Terminals R11, R12, R13 Terminals R21, R22, R23	U <sub>max</sub> ≤ 250 V <sub>AC</sub> I <sub>max</sub> ≤ 3 A U <sub>max</sub> ≤ 30 V <sub>DC</sub> I <sub>max</sub> ≤ 3 A
Interfaces CDI	U = 5 V U <sub>m</sub> = 250 V
2-wire loop-power-supply (intrinsically safe) Terminals 11, 14, 12, 18 Terminals (optional) 21, 24, 22, 28  Inner capacities Inner inductances  Max. connection values	U <sub>o</sub> ≤ 27.3 V I <sub>o</sub> ≤ 96.5 mA P <sub>o</sub> ≤ 659 mW  C <sub>i</sub> = 8 nF L <sub>i</sub> = 75 μH  Ex ia IIC      Co ≤ 62 nF      Lo ≤ 425 mH Ex ia IIB      Co ≤ 262 nF      Lo ≤ 4.9 mH Ex ia IIA      Co ≤ 532 nF      Lo ≤ 100 mH
4-wire loop-power-supply (intrinsically safe) Terminals 11, 12 Terminals (optional) 21, 22  Inner capacities Inner inductances  Max. connection values	U <sub>o</sub> ≤ 27.3 V I <sub>o</sub> ≤ 91.1 mA P <sub>o</sub> ≤ 622 mW  C <sub>i</sub> = 8 nF L <sub>i</sub> = 75 μH  Ex ia IIC      Co ≤ 70 nF      Lo ≤ 500 μH Ex ia IIB      Co ≤ 310 nF      Lo ≤ 2 mH Ex ia IIA      Co ≤ 460 nF      Lo ≤ 20 mH
4-wire loop-power-supply (intrinsically safe) Terminals 14, 18 Terminals (optional) 24, 28    Inner capacities Inner inductances	U <sub>o</sub> ≤ 27.3 V I <sub>o</sub> ≤ 5 mA P <sub>o</sub> ≤ 34.2 mW    U <sub>i</sub> ≤ 28 V I <sub>i</sub> ≤ 100 mA P <sub>i</sub> ≤ 650 mW  C <sub>i</sub> = 8 nF L <sub>i</sub> = 75 μH

RMA42		Ex ia Ga  IIC	
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	
Inner capacities Inner inductances		Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	
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	
Inner capacities Inner inductances		Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	
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	
Inner capacities Inner inductances		Ui ≤ 28 V Ii ≤ 100 mA Pi ≤ 650 mW	
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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[www.addresses.endress.com](http://www.addresses.endress.com)

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