

# Safety Instructions

## **RN22, RN42**

Ex tc III C Dc





# RN22, RN42

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**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).



If not yet available, a translation into EU languages can be ordered.

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. RN22

**Supplementary documentation**

Explosion protection brochure: CP00021Z

The explosion protection brochure is available on the Internet:  
[www.endress.com/Downloads](http://www.endress.com/Downloads)

**Manufacturer's certificates****EU Declaration of Conformity**

Declaration number: EU\_01005 U

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

- EN IEC 60079-0 : 2018
- EN IEC 60079-31 : 2014

The EU Declaration of Conformity is available on the Internet:  
[www.endress.com/Downloads](http://www.endress.com/Downloads)

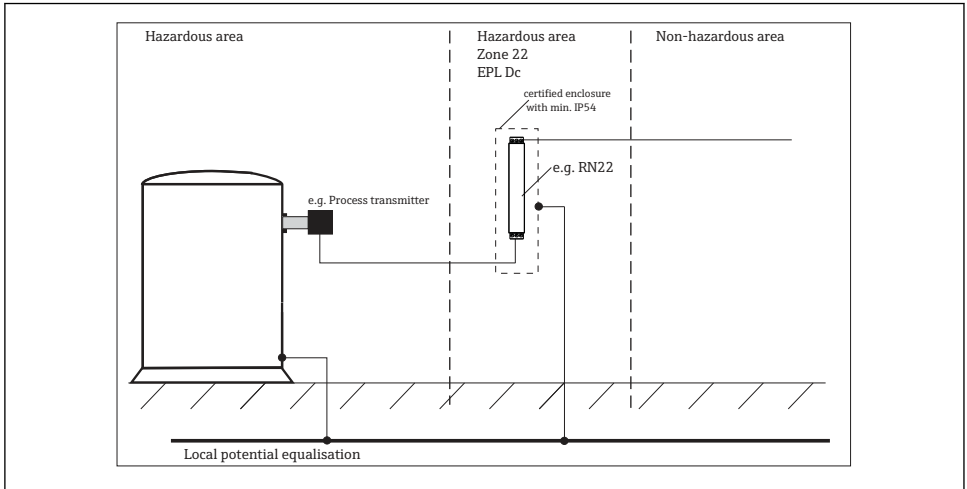
**UKCA Declaration of Conformity**

Declaration number: UK\_00558

**Certificate holder**

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

## Safety instructions:



A0052541

### Safety instructions: Installation in Zone 22 (EPL Dc)

These instructions concern the required enclosure, accessories and supply cables in final application.

- Comply with the installation and safety instructions in the Operating Instructions.
- Install the device according to the manufacturer's instructions and any other valid standards and regulations (e.g. EN/IEC 60079-14).
- Seal the cable entries tight with certified cable glands which have at least type of protection Ex tc suitable for Group IIIC (degree of protection IP54).

### Safety instructions: Schedule of limitations

- When install the unit in EPL Dc a certified enclosure shall be used providing a degree of protection of at least IP54 in event of non-conductive dust or IP6X in event of conductive dust according to EN/IEC 60079-0 and EN/IEC 60079-31.
- In an explosive atmosphere, do not open the certified enclosure when voltage is supplied (ensure that the required IP rating is maintained during operation).
- For full certification as an electrical equipment for use in EPL Dc the tests according to EN IEC 60079-0:2018 section 5.2 and 5.3 have to be carried out. Based on the test results a temperature shall be assigned.

## Electrical connection data

Ambient temperature:  $-40\text{ °C} \leq T_{\text{amb}} \leq +60\text{ °C}$

Electrical data		
<b>Supply RN22:</b> terminals 1.1 (+), 1.2 (-)	$U = 24\text{ V}_{\text{DC}} (-20\%/+25\%)$ $U_{\text{m}} = 250\text{ V}$	
<b>Supply RN42:</b> terminals 1.1 (L/+), 1.2 (N/-)	$U = 24\text{ to }230\text{ V AC/DC} (-20\%/+10\%)$ 50/60 Hz $U_{\text{m}} = 250\text{ V}$	
<b>Output circuit:</b> terminal 3.1 (+), 3.2 (-) terminal 2.1 (+), 2.2 (-)	$I = 0\text{ to }22\text{ mA}$ 0/4 to 20 mA $U = 17.5\text{ V} (\pm 5\%)$ 12 to 30 V $U_{\text{m}} = 30\text{ V}$	Output signal range (under-/overrange) Function range, output signal Open-circuit voltage, active mode External voltage, passive mode
<b>Input circuit:</b> Connection 2-wire (active) <b>RN22:</b> terminal 4.1 (+), 4.2 (-) terminal 6.1 (+), 6.2 (-) <b>RN42:</b> terminal 4.1 (+), 4.2 (-) Connection 4-wire (passive) <b>RN22:</b> terminal 4.2 (+), 5.1 (-) terminal 6.2 (+), 5.2 (-) <b>RN42:</b> terminal 4.2 (+), 4.3 (-)	$I = 0\text{ to }22\text{ mA}$  0/4 to 20 mA $U = 17.5\text{ V} \pm 1\text{ V}$ $24.5\text{ V} (\pm 5\%)$  $U < 7\text{ V}$	Input signal range (under-/overrange)  Function range, input signal Transmitter supply voltage (at 20 mA) Open-circuit voltage  Input voltage drop signal (at 20 mA) for 4-wire connection

Category	Type of protection (ATEX)
IIBD	Ex tc IIIC Dc





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