



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx EPS 21.0016U** Page 1 of 5 Certificate history:  
Status: **Current** Issue No: 1 Issue 0 (2021-07-01)  
Date of Issue: 2022-02-11  
Applicant: **Endress+Hauser Wetzler GmbH + Co. KG**  
Obere Wank 1  
87484 Nesselwang  
Germany  
Ex Component: Active Barrier RN22 and RN42  
*This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).*  
Type of Protection: **increased safety "e"**  
Marking: Ex ec IIC Gc

Approved for issue on behalf of the IECEx  
Certification Body:

Position:

Signature:  
(for printed version)

Date:

Ulrich Feike

Certification Manager

2022-02-11

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2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**Bureau Veritas Consumer Products Services Germany GmbH**  
Businesspark A96  
86842 Türkheim  
Germany





# IECEX Certificate of Conformity

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Date of issue: 2022-02-11

Issue No: 1

Manufacturer: **Endress+Hauser Wetzer GmbH + Co. KG**  
Obere Wank 1  
87484 Nesselwang  
**Germany**

Additional manufacturing locations:	<b>Endress+Hauser Wetzer (Suzhou) Co. Ltd.</b>	<b>Endress+Hauser Wetzer USA INC.</b>	<b>Endress+Hauser Wetzer (India) Pvt. Ltd.</b>
	Su-Hong-Zhong-Lu No. 465 215021 Suzhou-SIP (P.R. China) <b>China</b>	2413 Endress Place Greenwood, IN 46143 <b>United States of America</b>	M-171/173, MIDC, Waluj Aurangabad – 431 136 <b>India</b>

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

## STANDARDS :

The component and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

**IEC 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-7:2017** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

## TEST & ASSESSMENT REPORTS:

A sample(s) of the component listed has successfully met the examination and test requirements as recorded in:

Test Report:

**DE/EPS/ExTR21.0015/01**

Quality Assessment Report:

**DE/TUN/QAR06.0009/09**



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## Ex Component(s) covered by this certificate is described below:

The active barrier, type RN22, is used for the transmission and galvanic isolation of 0/4 to 20 mA signals.

The device has an active/passive current input to which an intrinsically 2- or 4-wire transmitter can be directly connected. HART communication signals are transmitted bidirectionally by the device.

A two-channel version of the barrier can optionally be provided.

With a signal doubler option, the active barrier is used for the galvanic isolation of a 0/4 to 20 mA signal, which is transmitted to two galvanically isolated outputs.

The active barrier, type RN42, is used for the transmission and galvanic isolation of 0/4 to 20 mA signals.

The device has an active/passive current input to which an intrinsically 2- or 4-wire transmitter can be directly connected. HART communication signals are transmitted bidirectionally by the device.

Ambient temperature range:  $-40\text{ }^{\circ}\text{C} \leq T_a \leq +60\text{ }^{\circ}\text{C}$

## SCHEDULE OF LIMITATIONS:

When install the unit in EPL Gc a certified enclosure shall be used providing a degree of protection of at least IP54 and compliance with the enclosure requirements to IEC/EN 60079-0.

In an explosive atmosphere, do not open the certified enclosure when voltage is supplied (ensure that at least IP 54 is maintained during operation).

For full certification as an electrical equipment the tests according to IEC 60079-0:2017 section 5.2 and 5.3 have to be carried out. Based on the test results a temperature class shall be assigned.





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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Minor technical and editorial changes.



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## Additional information:

### Electrical Data:

#### Supply RN22:

terminal 1.1 (+), 1.2 (-)      U = 24 V Dc      (-20 % / +25 %)  
Um = 250 V

#### Supply RN42:

terminal 1.1 (L/+), 1.2 (N/-)      U = 24 to 230 V DC      (-20 % / +10 %) 50/60 Hz  
Um = 250 V

#### Output circuit:

terminal 3.1 (+), 3.2 (-)      I = 0 to 22 mA      Output signal range (underrange / overrange)  
terminal 2.1 (+), 2.2 (-)      0/4 to 20 mA      Function range, output signal  
U = 17.5 V (± 5%)      Open-circuit voltage, active mode  
12 to 30 V      External voltage, passive mode  
Um = 30 V

#### Input circuit:

##### Connection 2-wire (active)

RN22:      I = 0 to 22 mA      Input signal range (underrange / overrange)  
terminal 4.1 (+), 4.2 (-)      0/4 to 20 mA      Function range, input signal  
terminal 6.1 (+), 6.2 (-)      U = 17.5 V ± 1 V      Transmitter supply voltage (at 20 mA)  
RN42:      24 V (± 5%)      Open-circuit voltage  
terminal 4.1 (+), 4.2 (-)

##### Connection 4-wire (passive)

RN22:      U < 7 V      Input voltage drop signal (at 20 mA)  
terminal 4.2 (+), 5.1 (-)      for 4-wire connection  
terminal 6.2 (+), 5.2 (-)  
RN42:  
terminal 4.2 (+), 4.3 (-)