



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx TUR 18.0037X

Issue No: 1

Certificate history:

Issue No. 1 (2019-04-06)

Issue No. 0 (2018-07-19)

Status: **Current**

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Date of Issue: **2019-04-06**

Applicant: **Endress+Hauser Conducta GmbH+Co. KG**  
Dieselstrasse 24  
70839 Gerlingen  
**Germany**

Equipment: **Two- wire Measurement Transmitter with Memosens functionality, type CM82 and CM72**

*Optional accessory:*

Type of Protection: **intrinsic safety**

Marking:

**Ex ia IIC T4 / T6 Ga**

**Ex ia IIIC T85°C / T135°C Db**

*Approved for issue on behalf of the IECEx  
Certification Body:*

Dipl.-Ing. Klauspeter Graffi

*Position:*

Head of Certification Body

*Signature:  
(for printed version)*

*Date:*

2019-04-06

1. This certificate and schedule may only be reproduced in full.
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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**TUV Rheinland Industrie Service GmbH**  
Am Grauen Stein  
51105 Cologne  
Germany





# IECEX Certificate of Conformity

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Manufacturer: **Endress+Hauser Conducta GmbH+Co. KG**  
Dieselstrasse 24  
70839 Gerlingen  
Germany

Additional Manufacturing location(s):

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 apparatus 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 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

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

## TEST & ASSESSMENT REPORTS:

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

Test Report:

[DE/TUR/ExTR18.0037/01](#)

Quality Assessment Report:

[DE/BVS/QAR06.0005/08](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

CM82 Two-wire Measurement Transmitter with Memosens functionality and Bluetooth LE

CM72 Two-wire Measurement Transmitter with Memosens functionality (Bluetooth LE disabled)

The two-wire field measuring transmitters CM82 and CM72 are used to acquire different parameters in analytical measuring technology, such as for example pH value, electrolytical conductivity or dissolved oxygen.

CM82 and CM72 are identical in hardware. Different are software features. The software is not Ex-relevant.

The transmitters provide the inductive Memosens interface for connection to digital sensors. A Bluetooth Low Energy transceiver is built in to provide access for service and configuration purposes.

### Electrical data:

Current Output (max. Input values):

$U_i = 30 \text{ V}$

$I_i = 100 \text{ mA}$

$P_i = 750 \text{ mW}$

$C_i = 7 \text{ nF}$  (including 15m cable)

$L_i = 20 \text{ uH}$  (including 15m cable)

Inductive Memosens interface to measuring sensor (max. Output value):

$P_o = 105 \text{ mW}$

### Ambient temperature range:

For EPL Ga:

Temperature class T6:  $-20^\circ\text{C} \leq T_a \leq 55^\circ\text{C}$

Temperature class T4:  $-20^\circ\text{C} \leq T_a \leq 80^\circ\text{C}$

For EPL Db:

Temperature class T85°C:  $-20^\circ\text{C} \leq T_a \leq 55^\circ\text{C}$

Temperature class T135°C:  $-20^\circ\text{C} \leq T_a \leq 80^\circ\text{C}$



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**SPECIFIC CONDITIONS OF USE: YES as shown below:**

1. The transmitters CM82 and CM72 are suitable to be operated in the following ambient temperature ranges:

For EPL Ga:

Temperature class T6:  $-20^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$

Temperature class T4:  $-20^{\circ}\text{C} \leq T_a \leq 80^{\circ}\text{C}$

For EPL Db:

Temperature class T85°C:  $-20^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$

Temperature class T135°C:  $-20^{\circ}\text{C} \leq T_a \leq 80^{\circ}\text{C}$

2. Installation, connection to the electricity supply, commissioning, inspection, maintenance and repair of the devices must be carried out by qualified specialists trained to work on Ex-rated devices according to applicable codes of practice, e.g. EN 60079-14, -17, -19, and according to the Operating Instructions.

3. If installed in Zone 0 or Zone 21, the measurement transmitters CM82 and CM72 and their connectors must be protected against electrostatic charge.



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

- Assessment of alternative components, housing material and alternative construction in non-Ex potting area. The assembly and components of issue 00 of this certificate remain valid as well.
- Standard update to IEC 60079-0 ed. 7

**Annex:**

[IECEX TUR 18.0037X\\_attachment.pdf](#)

**Device:** Two-wire Measurement Transmitter with Memosens functionality  
**Type:** CM82 and CM72

**Manufacturer:** Endress+Hauser Conducta GmbH+Co. KG

**Address:** Dieselstrasse 24,  
70839 Gerlingen, Germany

Subject and type

Two-wire Measurement Transmitter with Memosens functionality, CM82 and CM72

**Type Key:**

