

# (1) EU-TYPE EXAMINATION CERTIFICATE



(2) Equipment and Protective Systems intended for use in  
Potentially Explosive Atmosphere - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number

**TÜV 24 ATEX 9071 X**

Issue: 01

(4) Equipment: **Transmitter Liquiline CM42B**

(5) Manufacturer: **Endress+Hauser Conducta GmbH+Co. KG**

(6) Address: **Dieselstrasse 24, 70839 Gerlingen  
Germany**

(7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26<sup>th</sup> February 2014, certifies this product which has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex9071.01/24

(9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

**EN IEC 60079-0: 2018**

**EN 60079-11: 2012**

**IEC 60079-11: 2023**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.

(12) The marking of the equipment shall include the following:



**II 1G Ex ia IIC T6/T4 Ga  
-20 °C ≤ Ta ≤ +50/60 °C**

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2024-12-12

Dipl.-Ing. Christian Mehrhoff

This EU-Type Examination Certificate without signature and stamp shall not be valid.  
This EU-Type Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the  
TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln  
Tel. +49 (0) 221 806-0 Fax: + 49 (0) 221 806 114

(13) Annex

(14) **EU Type Examination Certificate**  
**TÜV 24 ATEX 9071 X** Issue: 01

(15) Description of equipment

15.1 Equipment and type:

Transmitter Liquiline CM42B

(x)CM42B-aabbccddeeff(g)

x

"Manufacturer" (not ex relevant)  
not used -> E+H-labelled version  
x = O -> OEM/label partner-labelled version  
Order option certification (not ex relevant)  
such as ATEX marking, IECEx marking, CSA  
marking, ...

aa

bb

Sensor  
11 Memosens  
21 pH/ORP analogue  
22 Conductive conductivity analogue  
23 Inductive conductivity analogue

cc

Output  
AA 1 x 4...20 mA, HART  
AB 2 x 4...20 mA

dd

Enclosure  
11 Plastics  
12 Stainless steel  
21 Rail mount

ee

Cable glands  
AA M20x1.5  
AB NPT 1/2" (with adaptor)  
AC G 1/2" (with adaptor)

ff

Other options (not ex relevant)

g

Optional = one or more characters  
determining optional features, e.g. test or  
other certificates/declarations (not ex  
relevant)

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## 15.2 Description / Details of Change

### General product information

The loop-powered field measuring instrument (transmitter) Liquiline CM42B is used for liquid analysis in all areas of process engineering. The transmitter can be installed in hazardous gas atmospheres of up to zone 0.

### Technical Data

#### Electrical data

##### Entity parameters for electrical connection:

| Input parameters of current output 1 and 2<br>(terminals 33, 34) | Maximum values |
|--|----------------|
| U <sub>i</sub>   | 30 V           |
| I <sub>i</sub>   | 100 mA         |
| P <sub>i</sub>   | 750 mW         |
| L <sub>i</sub>   | 30 µH          |
| C <sub>i</sub> (output 1)  | 15.2 nF        |
| C <sub>i</sub> (output 2)  | 7.9 nF         |

| IO parameters of CDI (internal) Interface<br>(CDI interface is only for service use-case.) | Maximum values     |
|--|--------------------|
| U <sub>i</sub>   | 7 V                |
| I <sub>i</sub>   | 600 mA             |
| P <sub>i</sub>   | Internally limited |
| L <sub>i</sub>   | Negligible         |
| C <sub>i</sub>   | 0 µF               |
| U <sub>o</sub>   | 8 V                |
| I <sub>o</sub>   | 85 mA              |
| P <sub>o</sub>   | 140mW              |
| C <sub>o</sub>   | 8.4 µF             |
| L <sub>o</sub>   | 4 mH               |

| Output parameters of digital sensor<br>interface (Memosens) (terminals 87, 88, 97,<br>98) | Maximum values |
|---|----------------|
| U <sub>tr</sub> (Trapezoidal output characteristic)                                       | 6.3 V          |
| U <sub>o</sub>  | 5 V            |
| I <sub>o</sub>  | 100 mA         |
| P <sub>o</sub>  | 120 mW         |
| L <sub>i</sub>  | Negligible     |
| C <sub>i</sub>  | 15.6 µF        |
| L <sub>o</sub>  | 3.5 mH         |
| C <sub>o</sub>  | 100 µF         |

In addition to the table above, it is allowed to connect intrinsically safe certified MEMOSENS cables xYK10 and xYK20 according to IECEx BVS 11.0052X and the fixed cable MEMOSENS sensor CLS50D according to IECEx BVS 14.0004X to the digital sensor interface (Memosens).

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| Output parameters VSLC1/ Cond. C module<br>(field wiring terminals: 11, 12, 13, 19, 20) | Maximum values |
|---|----------------|
| Uo  | 8.2 V          |
| Io  | 30 mA          |
| Po  | 38 mW          |
| Li  | Negligible     |
| Ci  | 0 nF           |
| Lo  | 30 mH          |
| Co  | 7.6 µF         |

| T class | Ambient temperature                             |
|---------|---|
| T6      | $-20 \leq T_a \leq +50\text{ }^{\circ}\text{C}$ |
| T4      | $-20 \leq T_a \leq +60\text{ }^{\circ}\text{C}$ |

Not Ex-relevant hardware changes.

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(17) Special Conditions for safe use

1. The plastic enclosure version has a high risk of electrostatic discharge. The instructions of the user manual must be observed.
2. For the verification of intrinsically safe circuits according to EN/IEC 60079-14, the internal Ci needs to be taken into consideration and should be added to the total sum of concentrated capacitance.

(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2024-12-12

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