

(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: 00

- (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 26th 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/Ex9071.00/24

- (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, 2024-09-11

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: 00

(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

aa

Order option certification (not ex relevant)
such as ATEX marking, IECEx marking, CSA
marking, ...

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 ½" (with adaptor)

AC G ½" (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

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 (terminals 33, 34)	Maximum values
U _i	30 V
I _i	100 mA
P _i	750 mW
L _i	30 µH
C _i (output 1)	15.2 nF
C _i (output 2)	7.9 nF

IO parameters of CDI (internal) interface (CDI interface is only for service use-case.)	Maximum values
U _i	7 V
I _i	600 mA
P _i	Internally limited
L _i	Negligible
C _i	0 µF
U _o	8 V
I _o	85 mA
P _o	140mW
C _o	8.4 µF
L _o	4 mH

Output parameters of digital sensor interface (Memosens) (terminals 87, 88, 97, 98)	Maximum values
U _{tr} (Trapezoidal output characteristic)	6.3 V
U _o	5 V
I _o	100 mA
P _o	120 mW
L _i	Negligible
C _i	15.6 µF
L _o	3.5 mH
C _o	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.

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Output parameters VSPH1/ pH/ ORP module **Maximum values**
 (Terminals: 11, 12, 13, 14, 16, 17, 18, 20, 21, 22)

Uo	5 V
Io	30 mA
Po	37.5 mW
Li	Negligible
Ci	1 µF
Lo	30 mH
Co	100 µF

Output parameters VSLI1/ Cond. i module **Maximum values**
 (field wiring terminals: 11, 12, 13, 15, 16, 17, 18, 20)

Uo	7.6 V
Io	95 mA
Po	100 mW
Li	Negligible
Ci	480 nF
Lo	3.5 mH
Co	10.4 µF

Output parameters VSLC1/ Cond. C module **Maximum values**
 (field wiring terminals: 11, 12, 13, 19, 20)

Uo	8.2 V
Io	30 mA
Po	38 mW
Li	Negligible
Ci	0 nF
Lo	30 mH
Co	7.6 µF

Environmental data

T class	Ambient temperature
T6	-20 ≤ Ta ≤ +50 °C
T4	-20 ≤ Ta ≤ +60 °C

(16) Test-Report No. 557/Ex9071.00/24

(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.

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(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2024-09-11

Dipl.-Ing. Christian Menthor



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