IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

EU-TYPE EXAMINATION CERTIFICATE - Translation [1]

Equipment or protective systems [2] intended for use in potentially explosive atmospheres, Directive 2014/34/EU



EU-type examination certificate number IBExU16ATEX1005 | Issue 2 [3]

[4] Product: Cabinet Condition Monitoring (CCM)

Type: IMX12 CCM

[5]

Manufacturer: Hans Turck GmbH & Co. KG

[6] Address: Witzlebenstr. 7

45472 Mühlheim an der Ruhr

GERMANY

- This product and any acceptable variation thereto is specified in the schedule to this certificate and the [7] documents therein referred to.
- [8] IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-22-3-0085.

- Compliance with the essential health and safety requirements has been assured by compliance with: [9] EN IEC 60079-0:2018, EN 60079-11:2012 and EN 60079-28:2015 except in respect of those requirements listed at item [18] of the schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.
- This EU-type examination certificate relates only to the design and construction of the specified [11] product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:

(a) II 2G Ex ib op is IIC T4 Gb -25 ≤ Ta ≤ +70 °C

IBExU Institut für Sicherheitstechnik GmbH Fuchsmühlenweg 7 09599 Freiberg, GERMANY

By order

(Dipl.-Ing. Willamowski)

(Notified Body number 0637 Kenn-Nr

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Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute the German text shall prevail

Freiberg, 2022-08-17

IBExU Institut für Sicherheitstechnik GmbH

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Schedule [13]

Certificate number IBExU16ATEX1005 | Issue 2 [14]

[15] Description of product

The Cabinet Condition Monitoring (CCM) type IMX12 CCM serves for the control cabinet supervision for compliance with specified limit parameters. In over / underflow an error condition on the display / switching output or via the communication interface to the higher field level is delivered. The aim is to supply 20 mA loop powered up from the HART interface. All connections are intrinsically safe.

Technical Data

Ambient temperature range:

from -25 °C to +70 °C

Electrical Data

Supply circuit E1 in type of protection intrinsic safety Ex ib IIC

Terminals X11: 15+,16-

Ui 28 V DC li. 100 mA

 P_{i} 700 mW

effective internal capacitance

29.5 nF

effective internal inductance

Cı 300 µH Li

Output circuit A1 and A2 in type of protection intrinsic safety Ex ib IIC

li

Terminals X14: 9,10, X13: 11,12 Ui

30 V DC 100 mA

750 mW P_i

22 Ω Ri

effective internal capacitance

Ci 11 nF

effective internal inductance

Li negligible

Signal circuit E2 in type of protection intrinsic safety Ex ib IIC

Terminals X23: 5, 6

5 V DC

1 mA 6

effective internal capacitance

1.25 mW Po Ci

nealiaible

effective internal inductance

300 µH

Variations compared to Issue 1 of EU-Type Examination Certificate:

The electronic circuitry, including the layout and part list, has been completely revised.

Variation 2

The intrinsically safe characteristic values have been changed.

The ambient temperature range has been extended to +70 °C.

[16] Test report

The test results are recorded in the confidential test report IB-22-3-0085 of 2022-08-16. The test documents are part of the test report and they are listed there.

Summary of the test results

The Cabinet Condition Monitoring (CCM) type IMX12 CCM fulfils the requirements for type of protection intrinsic safety ,ib' on a device of the Equipment Group II and Category 2G, Explosion Group IIC and Temperature Class T4.

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[17] Specific conditions of use none

[18] Essential health and safety requirements

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: not applicable

[19] Drawings and Documents
The documents are listed in the test report.

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