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 IBExU12ATEX1099 X | Issue 2 [3]

[4] Product:

Measuring, Control and Switchgear combination and junction box

Type: 07-31**-***/****, 07-3S**-***/**** and 07-3T*-***/****

[5]

Manufacturer: Bartec GmbH

[6] Address: Max-Evth-Straße 16

97980 Bad Mergentheim

GERMANY

- This product and any acceptable variation thereto is specified in the schedule to this certificate and the [7] documents therein referred to.
- IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 in accordance with Article 17 [8] 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-22-3-0096.

- Compliance with the essential health and safety requirements has been assured by compliance with: [9] EN IEC 60079-0:2018. EN 60079-1:2014. EN 60079-2:2014. EN 60079-5:2015, EN IEC 60079-7:2015/A1:2018. EN 60079-11:2012. EN 60079-18:2015/A1:2017. EN 60079-28:2015, EN 60079-30-1:2017 and EN 60079-31:2014. except in respect of those requirements listed at item [18] of the schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specif-[10] ic 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 prod-[11] uct. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product mentioned under [4] is variable and depends on the used components: [12]

Type 07-31**-***/****

- Ex db eb ia ib [ib] ma mb op is [op is] op pr [pxb] [pyb] q 60079-30-1 [60079-30-1] ⟨
 □
 ⟩
 II 2G IIA, IIB oder IIC T6, T5, T4 oder T3 Gb
- [60079-30-1] IIA, IIB oder IIC T6, T5, T4 oder T3 Gb
- Ex th ia ib [ib] ma mb op is [op is] op pr [pxb] [pyb] IIIA, IIIB oder IIIC, T80 °C, ❸ II 2D T95 °C oder T130 °C Db
- (2) II 2(1)D Ex the ia ib [ia Da] ma mb op is [op is] op pr [pxb] [pyb] IIIA, IIIB oder IIIC, T80 °C, T95 °C oder T130 °C Db

Type 07-3S**-***/****

- Ex tb ia ib [ib] ma mb op is [op is] op pr [pxb] [pyb] IIIA, IIIB oder IIIC, T80 °C, €⊋II 2D T95 °C oder T130 °C Db
- T95 °C oder T130 °C Db

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- Seal -

notified body number 0637)

Type 07-3T**-***/****

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By order

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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, 2023-07-28

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[13] Schedule

[14] Certificate number IBExU12ATEX1099 X | Issue 2

[15] Description of product

The Measuring, Control and Switchgear combination Type 07-3***-**** consists of one or several housings made of polyester resin, stainless steel or aluminium. Type 07-31**-****/**** complies with the requirements of increased safety "e" and protection by enclosure "t". Type 07-3S**-****/****) complies with the requirements of protection by enclosure "t". The enclosures are designed to mount measuring, control and switching devices as well as terminals for intrinsically safe and non-intrinsically safe circuits and can be equipped with actuating elements, indicator lights and inspection windows if required. The Ex-protected switchgear combination is used to control electrical equipment and/or to distribute electrical energy. Connection is made by means of either flanged enclosures or by Exprotected cable entries. The empty enclosures as well as all the internally and externally fitted Ex Products are already conformity assessed and each have a separate EU-Type examination certificate. Type 07-3T**-****/**** is a junction box which which is used for connecting and branching incoming and outgoing cables and wires by means of rails-mounted connection terminals or terminal blocks. The Measuring, Control and Switchgear combination is intended for the use in areas requiring equipment of category 2G or 2D.

Technical data

Ambient temperature range:

-60 °C to +80 °C

Degree of protection:

≥ IP54 acc. to EN 60529 for explosive gas atmospheres ≥ IP6X acc. to EN 60529 for explosive dust atmospheres

Rated insulation voltage:

max. 1000 V

Rated current:

max. 690 A

Rated terminal cross section:

max. 400 mm²

The rated values are maximum values. The respective built-in components cause the actual electrical values. The manufacturer specifies the final rated values, within the limits of the maximum values, and depending on the supply conditions, mode of operation, equipment category and so on. The intrinsically safe circuits must be interconnected in accordance with the requirements of the current standard EN 60079-14 or EN 60079-25.

Variations compared to issue 1 of this certificate:

Variation 1

A new type junction box has been added and the type designation has been extended.

Variation 2

The Measuring, Control and Switchgear combination complies with the requirements of the current standards.

Variation 3

The list of components has been extended, thus the technical data as well as the marking have been changed.

[16] Test report

The test results are recorded in the confidential test report IB-22-3-0096 of 2023-07-25.

The test documents are part of the test report and they are listed there.

Summary of the test results

The Measuring, Control and Switchgear combination and the junction box Type 07-31**-****, Type 07-3S**-**** and Type 07-3T**-**** further fulfils the requirements of explosion protection for Equipment Group II and Category 2(1)G or 2(1)D depending on the used components.

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Safety Instructions:

- The special conditions for the safe use mentioned in the EU-Type examination certificates of the used equipment have to be observed.
- The values mentioned in the EU-Type examination are maximum values. The rated values depend on the used components.
- The ambient temperature range, the maximum surface temperature as well the temperature class have been determined by the manufacturer depending on used components. The current values are specified on the marking plate of each Measuring, Control and Switchgear combination.

[17] Specific conditions of use

- The polyamide hose shall only be used in a temperature range of -20 °C up to +60 °C.
- It may be a potential risk of electrostatic charge from an Ex Equipment having a touch screen or plastic window in the enclosure or when the enclosure has been painted with an additional layer, refer to the installation instruction manual.
- When the service temperature is higher than 70 °C at the entry point or 80 °C at the branching point of the conductors, the switchgear combination is marked accordingly. Suitable cables and cable glands have to be used.

[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:

None

[19] Drawings and Documents

The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH Fuchsmühlenweg 7 09599 Freiberg, GERMANY

By order

Djøl.-Ing/K. Willamowski

Freiberg, 2023-07-28