

**[1] TYPE EXAMINATION CERTIFICATE - Translation**

[2] for non-electrical products of equipment-groups I and II,
equipment-categories M2 and 2 plus products of equipment-category 3

[3] Type examination certificate number **IBExU14ATEXB002 X** | Issue 2

[4] Product: **Measuring, Control and Switchgear combination**
Type: A7-3***-****/****, A7-3S**-****/**** and A7-3n**-****/****

[5] Manufacturer: Bartec GmbH

[6] Address: Max-Eyth-Str. 16
97980 Bad Mergentheim
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in the confidential test report IB-22-3-0097.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
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 IEC 60079-15:2019, 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.

[10] If the sign "X" or "U" 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.

[11] This type examination certificate relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured or supplied.

[12] The marking of the product shall include the following:

Type A7-31**-****/****

⊕ II 3 G Ex db dc eb ec ia ib ic [ic] nR nC ma mb mc [pxb] [pyb] [pzc] op is [op is] op pr q
60079-30-1 [60079-30-1] IIA, IIB or IIC T6, T5, T4 or T3 Gc X

⊕ II 3(2) G Ex db dc eb ec ia ib ic [ib Gb] ma mb mc nR nC op is [op is] op pr [pxb] [pyb] q
60079-30-1 [60079-30-1] IIA, IIB, IIC T6, T5, T4 or T3 Gc X

⊕ II 3(1) G Ex db dc eb ec ia ib ic [ia Ga] ma mb mc nR nC op is [op is Ga] op pr q
60079-30-1 IIA, IIB, IIC T6, T5, T4 or T3 Gc X

⊕ II 3 D Ex tb tc ia ib ic [ic] ma mb mc op is [op is] op pr [pxb] [pyb] [pzc] IIIA, IIIB or IIIC,
T80 °C, T100 °C or T130 °C Dc X

⊕ II 3(2) D Ex tb tc ia ib ic [ib Gb] ma mb mc op is [op is] op pr [pxb] [pyb] IIIA, IIIB or IIIC, T80
°C, T100 °C or T130 °C Dc X

⊕ II 3(1) D Ex tb tc ia ib ic [ia Ga] ma mb mc op is [op is] op pr IIIA, IIIB or IIIC, T80 °C, T100 °C
or T130 °C Dc X

-60 °C ≤ T_a ≤ +80 °C (Maximum values, depending on type)

Type A7-3S**-****/****

- ⊕ II 3 D Ex tb tc ia ib ic [ic] ma mb mc op is [op is] op pr [pxb] [pyb] [pzc] IIIA, IIIB or IIIC, T80 °C, T100 °C or T130 °C Dc X
- ⊕ II 3(2) D Ex tb tc ia ib ic [ib Gb] ma mb mc op is [op is] op pr [pxb] [pyb] IIIA, IIIB or IIIC, T80 °C, T100 °C or T130 °C Dc X
- ⊕ II 3(1) D Ex tb tc ia ib ic [ia Ga] ma mb mc op is [op is] op pr IIIA, IIIB or IIIC, T80 °C, T100 °C or T130 °C Dc X

$-60\text{ °C} \leq T_a \leq +80\text{ °C}$ (Maximum values, depending on type)

Type A7-3n**-****/****

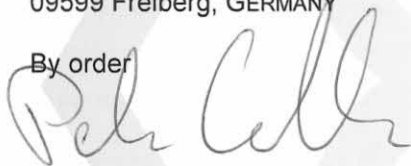
- ⊕ II 3 G Ex ec nR [ic] [op is] IIA, IIB or IIC T6, T5, T4 or T3 Gc X
- ⊕ II 3(2) G Ex ec nR [ib Gb] [op is] IIA, IIB or IIC T6, T5, T4 or T3 Gc X
- ⊕ II 3(1) G Ex ec nR [ia Ga] [op is] IIA, IIB or IIC T6, T5, T4 or T3 Gc X

$-60\text{ °C} \leq T_a \leq +80\text{ °C}$ (Maximum values, depending on type)

The specific marking, including equipment category, is based on the approvals of the used Ex-products.

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Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order



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

Freiberg, 2024-07-29

[13] **Schedule**

[14] **Certificate number IBExU14ATEXB002 X | Issue 2**

[15] **Description of product**

The explosion-proof Measuring, Control and Switchgear combination is used for the control of electrical apparatus and/or for power distribution. The stationary switchgear combination can be used in areas in which equipment of category 3 G or 3 D is required.

The enclosures are produced from polyester resin, stainless steel or aluminium. They are separately carried out in type of protection "Ex e" or "Ex t". They contain measuring-, controlling- and switching devices and can be equipped with actuating elements, indication lights and inspection glasses, if required. The electrical connection is carried out by means of flanges or already conformity assessed cable glands. All built-in and attached Ex-components and Ex equipment are separately conformity assessed for the use in areas requiring equipment of category 3. The built-in components for dust-proof control units can be designed in accordance with the industrial standards. Connecting parts for intrinsically safe circuits are separately marked.

For the final assembly of the differently sized enclosures the permissible dissipation power is determined to consider the operating conditions of the individual apparatus/components which are intended to be fitted in/installed on the enclosures. In addition, the temperature class to be marked and the maximum surface temperature must be determined. The respective types of protection are marked following the specifications of the certificates.

The version A7-3n**-****/**** is carried out as restricted breathing device.

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. All circuits must be connected in accordance with EN 60079-14.

Variations compared to issue 1 of this certificate:

Variation 1

A restricted breathing device 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-22-3-0097 of 2024-06-24.

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 type A7-3***-****/**** further fulfils the requirements of the explosion protection on electrical apparatus of equipment group II, category 3 G or 3 D.

[17] Specific conditions of use

- It may be a potential risk of electrostatic discharge from plastic window in the enclosures, refer to the instructions.
- The specific conditions mentioned in the instructions of the used Ex-products have to be observed.

[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.

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By order



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Freiberg, 2024-07-29