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

[2] Equipment
of equipment-groups I and II, equipment-categories M2 and 2 plus 3

[3] Type examination certificate number **IBExU14ATEXB002** | Issue 1

[4] Product: **Measuring, Control and switch gear combination**
Type: A7-3***-****/****

[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-16-3-178.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-5:2015, EN 60079-7:2015, EN 60079-11:2012, EN 60079-15:2010, EN 60079-18:2014, EN 60079-28:2014 and EN 60079-31:2014.
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.

[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 at least one of the following:

Ⓔx II 3G Ex dc ec nA nC mc op is op pr op sh q ia/ib/ic [ic] IIA, IIB, IIC T6, T5, T4 Gc
Ⓔx II 3(2)G Ex dc ec nA nC mc op is op pr op sh q ia/ib/ic [ib Gb] IIA, IIB, IIC T6, T5, T4 Gc
Ⓔx II 3(1)G Ex dc ec nA nC mc op is op pr op sh q ia/ib/ic [ia Ga] IIA, IIB, IIC T6, T5, T4 Gc
Ⓔx II 3D Ex tc op is op sh [ic] IIIA, IIIB, IIIC, T80 °C, T100 °C Dc
Ⓔx II 3(2)D Ex tc op is op sh [ib Db] IIIA, IIIB, IIIC, T80 °C, T100 °C Dc
Ⓔx II 3(1)D Ex tc op is op sh [ia Da] IIIA, IIIB, IIIC, T80 °C, T100 °C Dc
$-55\ °C \leq T_A \leq +75/80\ °C$

The specific marking is based on the approvals of the used ex-components.

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- Stamp -

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, 2016-12-09

[13] **Schedule**

[14] **Certificate number IBExU14ATEXB002** | Issue 1

[15] **Description of product**
The explosion-proof Measuring, Control and Switchgear combination is used for the control of electrical apparatus and/or for the power distribution. The stationary switchgear combination can be used in areas in which equipment of category 3G or 3D is required.
The enclosures are produced from polyester resin, stainless steel or aluminium. They are separately certified 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. All built-in and attached components are separately tested according to the Ex standards. The built-in components for dustproof control units can be designed in accordance with the industrial standards. The electrical connections are carried out via Ex cable entries on terminals. 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.

Technical data

Ambient temperature range:	-55 °C to +80 °C -55 °C to +75 °C with enclosure insert		
Degree of protection:	≥ IP54 accord. to EN 60529 for explosive gas atmospheres ≥ IP6X accord. to EN 60529 for explosive dust atmospheres		
Dimensions (H x L x W) (mm)			
Single enclosure (aluminium):	75 x 80 x 57	*to*	600 x 310 x 180
Single enclosure (stainless steel):	80 x 75 x 57	*to*	1200 x 1000 x 400
Single enclosure (polyester):	75 x 80 x 55	*to*	1000 x 800 x 300
Rated insulation voltage	max. 1000 V		
Rated current	max. 160 A		
Auxiliary circuit/control circuit	16 A		
Rated frequency	50/60 Hz		
Rated terminal cross section	max. 120 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, in compliance with the respective standards 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 harmonized standards EN 60079-14 or EN 60079-25.

Variations compared to issue 0 of the type examination certificate:

The Measuring, Control and switch gear combination complies with the requirements of the current standards. Hence the marking has been changed.

[16] **Test report**
The test results are recorded in the confidential test report IB-16-3-178 of 2016-12-09.

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

[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:
None

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

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Freiberg, 2016-12-09