IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

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

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



[3] EU-type examination certificate number IBExU16ATEX1198 X | Issue 0

Product: Polyester Junction Box

Type: CP*-...Ex

[5] Manufacturer: BERNSTEIN AG

[4]

[6] Address: Hans-Bernstein-Straße 1

32547 Porta Westfalica

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, 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-14-3-161.

- [9] Compliance with the essential health and safety requirements has been assured by compliance with: EN 60079-0:2012+A11:2013, EN 60079-7:2015, EN 60079-11:2012 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 EU-type examination certificate relates only to the design and construction of the specified 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 eb ia/ib IIC T6...T4 Gb

ⓑ II 2D Ex tb IIIC T80 °C...T130 °C Db

(a) II 2D Ex ia/ib IIIC T80 °C...T130 °C Db

-55 °C ≤ T_a ≤ +90 °C (maximum values)

IBExU Institut für Sicherheitstechnik GmbH

Fuchsmühlenweg 7

09599 Freiberg, GERMANY

By order

Dipl.-Ing. [FH] Henker

H SSIEILE EXPLOSION IN THE SICHER HEIST TECHNIK GmbH

- Seal -(Notified Body number 0637) Tel: +49 (0) 37 31 / 38 05 0 Fax: +49 (0) 37 31 / 38 05 10

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, 2016-11-02

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[13] Schedule

[14] Certificate number IBExU16ATEX1198 X | Issue 0

[15] Description of product

The Polyester junction boxes types CP*-...Ex can be used stationary in Zone 1 or 2 as well as 21 or 22. There are two different, one dissipative, made of black plastic and one insulating variation made of grey plastic. The enclosures may be provided with hinges. Gaskets made of NBR are used for sealing of the screws at the hinges. The enclosures serve for the connection and distribution of cables and conductors by means of installed terminal blocks.

The Polyester junction boxes are provided in different sizes:

Туре	length	width	height
CP* 145	80 mm	75 mm	75 mm
CP* 155	110 mm	75 mm	75 mm
CP* 175	160 mm	75 mm	75 mm
CP* 195	190 mm	75 mm	75 mm
CP* 140	80 mm	75 mm	55 mm
CP* 150	110 mm	75 mm	55 mm
CP* 170	160 mm	75 mm	55 mm
CP* 190	190 mm	75 mm	55 mm
CP* 220	122 mm	120 mm	90 mm
CP* 240	220 mm	120 mm	90 mm
CP* 280	160 mm	160 mm	91 mm
CP* 300	260 mm	160 mm	91 mm
CP* 320	360 mm	160 mm	91 mm
CP* 330	560 mm	160 mm	91 mm
CP* 370	255 mm	250 mm	120 mm
CP* 400	400 mm	250 mm	120 mm
CP* 450	400 mm	405 mm	120 mm
CPG 460	400 mm	405 mm	165 mm

Technical data:

Rated voltage:	max. 1100 V max. 60 V for intrinsically safe circuits	
Rated current:	max. 500 A	
Ambient temperature range:	-55 °C up to +90 °C (with silicone gasket) -35 °C up to +40 °C (with EPDM gasket) -20 °C up to +40 °C (with NBR gasket) *	
maximum ambient temperature in dependence of the temperature class	+90 °C for T4	
Degree of protection (acc. to EN 60529):	at least IP64 (maximum IP66)	
Connection cross-section:	max. 300 mm²	
Protective ground cross-section:	up to 150 mm²	

^{*} The gasket made of NBR is only used at the hinges.

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[16] Test report

The test results are recorded in the confidential test report IB-14-3-161 of 2016-11-02.

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

Summary of the test results

The junction box type CP*-...Ex fulfils the requirements of explosion protection for Equipment Group II, Category 2G in type of protection increased safety "e" or intrinsic safety "i" as well as Group II, Category 2D in type of protection protection by enclosure "t"

Safety technical notes

- The fixed conditions in the EG-TYPE EXAMINATION CERTIFICATE for the Ex Components for installation in the enclosure have to be observed.
- The Degree of protection, at least IP 64, at mounting and operation is reached only by proper use of cable glands which are separately tested and certified for explosion protection.
- The results are maximum values, the actual electrical results are determined by the built-in components. The manufacturer fixes the rated values on the basis of these limiting values, so that the maximum surface temperature and the permitted operating temperature of the components are met.
- When the temperature under rated conditions is higher than 70 °C at the entry point or 80 °C at the branching point of the conductors, information has to be marked on the equipment exterior to provide guidance to the user on the proper selection of the cable and cable gland.

[17] Specific conditions of use

- The junction boxes type CPG-...Ex made of grey plastic may not be installed in areas where charging processes may occur. The surface has to be cleaned with a damp cloth.
- Further information as number of terminals or current is mentioned in the proof of heating which is part of the operating instructions,

[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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