

[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 **IBExU04ATEX1005 X** | Issue 2
- [4] Product: **Cable Joint**
Type: Ex-Con 22/4, Ex-Con 22/4 Si and Ex-Con 25/7
- [5] Manufacturer: eltherm production GmbH
- [6] Address: Ernst-Heinkel-Straße 6-10
57299 Burbach
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-23-3-0011.
- [9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 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:

⊕ II 2G Ex eb IIC T6...T3 Gb
⊕ II 2D Ex tb IIIC T85 °C...T200 °C Db

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order

(Dr.-Ing. P. Cimalla)



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, 2023-04-26

[13] **Schedule**

[14] **Certificate number IBExU04ATEX1005 X | Issue 2**

[15] **Description of product**

The cable joints are used for the connection of polymer insulated trace heaters in hazardous areas Zone 1 and 21.

Nominal Voltage: 550 V
Operating temperature range of the used materials: -32 °C to +200 °C (Ex-Con 22/4, 25/7)
-60 °C to +200 °C (Ex-Con 22/4 Si)
Current per cross section must not exceed: 30 A/mm².

Suitable trace heaters and maximum current

Cable joint	heater					max. current	comment
	type	diameter	width	thickness	jacket material	(A)	
		min/max (mm)					
Ex-Con 22/4, 22/4 Si, 25/7	Single core, se- ries	3.5 / 5.5	n.a.	n.a.	Fluorpoly- mer	20	See separate table for max. currents in specific T- classes

The maintain temperature depends on the actual current. The following maintain temperatures must be observed:

Temperature Class	Maximum Maintenance Temp. at currents up to		
	10 A	15 A	20 A
T6	60°C	45°C +	25°C
T5	75°C	60°C	40°C
T4	110°C	95°C	75°C
T3	170°C	155°C	135°C
Dust	Max. surface temp. -10K	Max. surface temp. -15K	Max. surface temp. -20K

The connected heating cable shall be limited in a suitable way, e.g. by choosing either a stabilized or a controlled design according to EN 60079-30-2.

Variation compared to issue 1 of this certificate:
Adaption of the maximum surface temperature for dust atmosphere.

[16] **Test report**

The test results are recorded in the confidential test report IB-23-3-0011 of 2023-04-18.
The test documents are part of the test report and they are listed there.

Summary of the test results

The cable joints type Ex-Con 22/4, Ex-Con 22/4 Si and Ex-Con 25/7 meets the requirements of explosion protection for devices of group II, category 2G in type of protection increased safety "e" as well as category 2D in type of protection dust ignition protection by enclosure "t".

[17] **Specific conditions of use**

- The cable joint may be used only for fixed installation. The operating company has to ensure an appropriate clamping.
- The maximum permissible maintain temperature for the respective temperature class and maximum surface temperature, as specified in the manufacturer's guidelines, clause temperature range, must not be exceeded.
- The cable joint must be installed protected from light.

- The cable joint Ex-Con 22/4 and Ex-Con 22/4 Si must be installed and operated mechanically protected in accordance with EN IEC 60079-0 according to the low risk of mechanical danger.

[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:

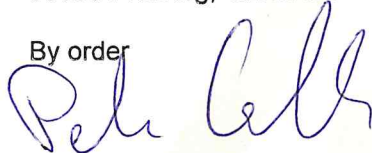
None

[19] Drawings and Documents

The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order



(Dr.-Ing. P. Cimalla)

Freiberg, 2023-04-26