



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

|                     |                                                                                                |             |                             |
|---------------------|------------------------------------------------------------------------------------------------|-------------|-----------------------------|
| Certificate No.:    | <b>IECEx IBE 14.0064X</b>                                                                      | Page 1 of 3 | <u>Certificate history:</u> |
| Status:             | <b>Current</b>                                                                                 | Issue No: 0 |                             |
| Date of Issue:      | 2016-01-27                                                                                     |             |                             |
| Applicant:          | <b>eltherm production GmbH</b><br>Ernst-Heinkel-Straße 6-10<br>57299 Burbach<br><b>Germany</b> |             |                             |
| Equipment:          | <b>Self Regulating Heating Cable System, type ELSR-Ex</b>                                      |             |                             |
| Optional accessory: |                                                                                                |             |                             |
| Type of Protection: | <b>increased safety "e", protection by enclosure "t"</b>                                       |             |                             |
| Marking:            | <b>Ex e IIC T6...T3 Gb</b><br><b>Ex tb III C TX Db</b>                                         |             |                             |

Approved for issue on behalf of the IECEx  
Certification Body:

**Prof. Dr. Tammo Redeker**

Position:

**Head of Certification Body**

Signature:  
(for printed version)

Date:  
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**IBExU Institut für Sicherheitstechnik GmbH**  
Certification Body  
Fuchsmühlenweg 7  
09599 Freiberg  
**Germany**





# IECEx Certificate of Conformity

Certificate No.: **IECEx IBE 14.0064X**

Page 2 of 3

Date of issue: 2016-01-27

Issue No: 0

Manufacturer: **eltherm production GmbH**  
Ernst-Heinkel-Straße 6-10  
57299 Burbach  
**Germany**

Manufacturing  
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

## STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

**IEC 60079-0:2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-30-1:2007** Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements  
Edition:1

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

**IEC 60079-7:2006** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:4

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

## TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

**DE/IBE/ExTR13.0039/00**

Quality Assessment Report:

**FR/INE/QAR12.0007/02**



# IECEx Certificate of Conformity

Certificate No.: **IECEx IBE 14.0064X**

Page 3 of 3

Date of issue: 2016-01-27

Issue No: 0

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The heating cable system ELSR Ex is installed in hazardous areas and serves for electrical heat tracing on pipes, vessels and associated equipment. It consists of the following IECEx approved components and can be used in zone 1 or 2 as well as 21 or 22.

|                              |                                              |                                                                         |                                             |
|------------------------------|----------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------|
| self regulating heating tape | type ELSR-LS-10-2 /<br>-15-2 / -25-2 / -30-2 | type ELSR-H-10-2 /<br>-15-2 / -20-2 / -30-2 /<br>-45 -2 / -60-2 / -75-2 | type ELSR-N-10-2 /<br>-20-2 / -30-2 / -40-2 |
| end cap                      | type EL-ECL                                  | type EL-ECH                                                             | type EL-ECN                                 |
| gland peppers                | type A8F/20S                                 |                                                                         | type A8F/20                                 |
| gland                        | type M25x1.5 (0X80100)                       |                                                                         |                                             |
| connection sleeve            | type Ex-Con SR                               |                                                                         |                                             |
| PT100 temperature sensor     | type ELTF-PTEx                               |                                                                         |                                             |
| mounting assembly            | type Ex-It                                   |                                                                         |                                             |
| junction box                 | type ELAK-Ex-3 or ELAK Ex-R                  |                                                                         |                                             |
| isolator                     | -                                            |                                                                         |                                             |

## Technical data

|                              |                                                                                                  |
|------------------------------|--------------------------------------------------------------------------------------------------|
| ambient temperature          | -45 °C / -40 °C / -32 °C / -20 °C up to +50 °C / +55 °C / +60 °C, depends on the used components |
| maximum exposure temperature | 80 °C                                                                                            |
| rated voltage                | 230 V<br>277 V (ELSR-H-...2)                                                                     |
| bend radius                  | 25 mm                                                                                            |

## SPECIFIC CONDITIONS OF USE: YES as shown below:

- The determination of temperature class has to be done by the manufacturer.
- The end terminations (type EL-EC...) and connection sleeves (type Ex-Con) have to be installed only in areas of low mechanical pressure.
- The connection sleeves (type Ex-Con) have to be installed protected from light.
- If heating tape ELSR-H is used in temperature class T6...T4, it needs to be installed according to controlled or stabilized design according to IEC 60079-30-1 and -2.
- In accordance with IEC 60079:0 the temperature sensors ELTF-PTEx.1 and ELTF-PTEx.3 must be installed and operated mechanically protected to ensure the low risk of mechanical danger. The sensor cable has to be installed fixed and mechanically protected to ensure the low risk of mechanical danger.