



# 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)

### Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx BVS 13.0025U** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 4 Issue 3 (2018-03-12)  
Date of Issue: 2018-11-21 Issue 2 (2016-08-18)  
Applicant: **Cooper Crouse-Hinds GmbH** Issue 1 (2015-11-05)  
Neuer Weg-Nord 49 Issue 0 (2013-05-28)  
69412 Eberbach  
**Germany**  
Ex Component: Empty enclosure type S-TB \* \* \* \* \* SL \* \* \* \* \*  
*This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).*  
Type of Protection: **Equipment dust ignition protection by enclosure "t", Equipment protection by increased safety "e"**  
Marking: Ex eb IIC Gb or Ex eb IIB Gb  
Ex tb IIIC Db Ex tb IIIC Db

Approved for issue on behalf of the IECEx  
Certification Body:

**Jörg Koch**

Position:

**Head of Certification Body**

Signature:  
(for printed version)

Date:

\_\_\_\_\_  
\_\_\_\_\_

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Certificate issued by:

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Dinnendahlstrasse 9  
44809 Bochum  
Germany

 **DEKRA**  
On the safe side.



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Manufacturer: **Cooper Crouse-Hinds GmbH**  
Neuer Weg-Nord 49  
69412 Eberbach  
**Germany**

Additional manufacturing locations: **Cooper Electric (Changzhou) Co. Ltd.**  
No. 189 Liuyanghe Road, Xinbei District,  
Changzhou, Jiangsu, China 213031  
**China**

**Eaton MEDC Limited**  
Dorset Road, New Road Industrial Estate,  
Sheerness, Kent, ME12 1LP  
**United Kingdom**

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 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

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

**IEC 60079-7:2017** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

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/BVS/ExTR13.0063/04](#)

Quality Assessment Reports:

[DE/BVS/QAR11.0009/08](#)

[GB/BAS/QAR06.0048/08](#)

[GB/BAS/QAR07.0041/08](#)



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**Ex Component(s) covered by this certificate is described below:**

## Subject and type

See Annex

## Description

The empty enclosure type **S-TB \* \* \* \* \* SL \* \* \* \* \*** is designed in type of protection Increased Safety 'e' for use in potentially hazardous areas caused by gas atmospheres and in type of protection Protection by Enclosure 't' for use in potentially hazardous areas caused by dust atmospheres.

The enclosure is completely made of stainless steel with one or more non-metallic gaskets. Optionally the enclosure can be painted. The empty enclosure type **S-TB \* \* \* \* \* SL \* \* \* \* \*** consists of an enclosure housing, an enclosure lid and optionally of gland plates for the mounting of cable glands. The enclosure housing and the enclosure lid are made of folded and welded stainless steel plates. The non-metallic gaskets are placed between the enclosure housing and the enclosure lid and in case of the optional gland plates between the enclosure housing and each gland plate.

The lid is mounted to the housing by use of screws.

The rail for mounting terminals inside the enclosure can optionally be replaced by bolts.

Optionally a separately certified breathing element can be mounted to the enclosure.

## Ratings

See Annex

## SCHEDULE OF LIMITATIONS:

The service temperatures of the sealing materials have to be taken into account for the certification of the complete equipment.

The creepage and clearance distances in the empty enclosure type **S-TB \* \* \* \* \* SL \* \* \* \* \*** have to be taken into account for the complete electrical equipment.

If the earthing facility is carried out with a M6 stud the maximum connectable cross section is 50 mm<sup>2</sup>. If the earthing facility is carried out with a M10 stud the maximum connectable cross section is 120 mm<sup>2</sup>. The maximum cross section of the earthing stud has to be taken into account for the maximum acceptable cross section of the supply lines for the complete electrical equipment.

The empty enclosure type **S-TB P\* \* \* \* \* SL \* \* \* \* \*** may only be used in areas with potentially explosive dust atmospheres if high or repeated charging processes (e.g. air ions in the vicinity of high voltage electrodes, high speed flowing liquids and pneumatic transfer of powders, and paper or plastic foils transported by machines) are surely excluded. Manual rubbing is not considered to be a high charging process.



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

- New manufacturing location Cooper Electric in Changzhou. See list of manufacturing locations.
- Updated trademark
- Update of the used standards

## **Annex:**

[BVS\\_13\\_0025u\\_Cooper\\_Annex\\_Issue4.pdf](#)



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**Annex**  
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## Subject and type

Empty enclosure type S-TB \*\* \* \* \* \* \* SL \* \* \* \* \*

## Asterisks Description

- |         |  |
|---------|--|
| 1 - 2   | Enclosure material   |
|         | S1 316L stainless steel - polished                                     |
|         | S2 304 stainless steel - polished                                      |
|         | S3 316L stainless steel - natural                                      |
|         | S5 304 stainless steel - natural                                       |
|         | P1 316L stainless steel - painted variant 1                            |
|         | P2 304 stainless steel - painted variant 1                             |
|         | P4 316L stainless steel - painted variant 2                            |
|         | P5 304 stainless steel - painted variant 2                             |
| 3 - 4   | Height of the enclosure noted in cm <sup>1</sup><br>Range: 12 up to 60 |
| 5 - 6   | Width of the enclosure noted in cm <sup>1</sup><br>Range: 12 up to 75  |
| 7 - 8   | Depth of the enclosure noted in cm <sup>1</sup><br>Range: 7 up to 22   |
| 9       | Gland plate  |
|         | 0 without  |
|         | 1 one side   |
|         | 2 two sides  |
|         | 3 three sides  |
|         | 4 all sides  |
| 10      | Type of gasket <sup>1</sup>  |
|         | 1 Standard   |
|         | 2 Flat gasket 1  |
|         | 4 Combination of Standard and Flat gasket 1                            |
| 11      | Type plate fastening   |
|         | 1 glued  |
|         | 2 riveted  |
| 12 - 15 | Miscellaneous variants without influences on explosion protection      |

<sup>1</sup> Detailed information about the possible combinations of height, width, length and type of gasket are given in the clause parameters.



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## Ratings

Ingress protection

IP66

## List of possible enclosure size

Size	Size	Size	Size
12-12-07	17-12-09	27-12-09	38-30-22
12-12-08	18-12-07	30-26-10	38-38-22
12-12-09	19-15-09	30-30-20	40-60-12
14-12-07	19-19-10	34-34-15	48-48-20
15-12-08	22-12-09	34-55-15	60-40-22
15-15-09	25-25-12	34-75-15	
16-38-12	25-40-13	37-33-10	

## Permissible temperature range for the different non-metallic materials

Material	Operating temperature range
Standard	$-55\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Flat gasket 1	$-40\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Plastic washer 1	$-40\text{ °C} \leq T_{\text{service}} \leq 65\text{ °C}$
Plastic washer 2	$-55\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Plastic washer 3	$-55\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$