# 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

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|---|---|---|---|
| Certificate No.: | **IECEx BVS 13.0045X** | Page 1 of 5 | Certificate history: |
| Status: | **Current** | Issue No: 4 | Issue 3 (2018-02-20)<br>Issue 2 (2015-08-25)<br>Issue 1 (2014-06-11)<br>Issue 0 (2013-04-19) |
| Date of Issue: | 2023-02-01 | | |
| Applicant: | **Cooper Crouse-Hinds GmbH**<br>Neuer Weg-Nord 49<br>69412 Eberbach<br>**Germany** | | |
| Equipment: | **Terminal box type GHG 731 ** ** * ****** | | |
| Optional accessory: | | | |
| Type of Protection: | **Intrinsic Safety "i", Protection by Enclosure “t”, Increased Safety "e"** | | |
| Marking: | Ex eb * IIC T4 / T5 / T6 Gb<br>Ex tb IIIC T80°C / T95°C Db<br><br>*) Optional the marking can be amplified with the types of protection of the separately certified components, for example “db”, “eb”, “mb” and/or “ia/ib”. | | |

Approved for issue on behalf of the IECEx Certification Body: **Dr Franz Eickhoff**

Position: **Senior Lead Auditor, Certification Manager and officially recognised expert**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
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3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

**DEKRA Testing and Certification GmbH**
**Certification Body**
**Dinnendahlstrasse 9**
**44809 Bochum**
**Germany**

DEKRA
On the safe side.

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Certificate No.: **IECEx BVS 13.0045X**

Date of issue: 2023-02-01

Issue No: 4

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

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

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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/ExTR13.0049/03

Quality Assessment Report:

DE/BVS/QAR11.0009/11

# IECEx Certificate of Conformity



**EQUIPMENT:**
Equipment and systems covered by this Certificate are as follows:

**Subject and Type**

Terminal box type GHG 731 **[1)] ** * ****[2)]
[1)] Version
Plastic version (l x w x d)
01 = (85 x 85 x 77.5) mm
02 = (125 x 85 x 77.5) mm
03 = (165 x 85 x 77.5) mm
11 = (120 x 140 x 95) mm
12 = (182 x 140 x 95) mm
[2)] not Ex-relevant

**Description**

The Terminal box type GHG 731 ** ** * **** is used as a connection or junction box in type of protection Increased Safety “e” and type of protection by enclosure “t”. The terminal box enclosure could be executed in plastic material.

The electrical connection can be realized with separately certified terminals in type of protection “e” Increased Safety and / or “i” Intrinsic Safety. The maximum numbers of the terminals, numbers of single leads, size of cross-section and the maximum rated current must be designed according the permitted current / cable size table resp. acc. to the maximum power dissipation (see table in parameters).

In addition other components (apart from components in type of protection “i” Intrinsic Safety) separately certified for this purpose can be used (e.g. fuses) with a max. power dissipation of 1 W.

The reason for this supplement is the updating to the new standard.

Listing of all components used referring to older standards

| Subject and type | Certificate | Standards |
|---|---|---|
| Terminal | Fixed in “List of Components” GHG 902 5018 F0001 | |
| Several components which can be built in | Fixed in “List of Components” GHG 902 5018 F0002 | |

Listing of all components used referring to older standards

| Subject and type | Certificate | Standards |
|---|---|---|
| Fuse type 8560 | IECEx PTB 06.0056U[1] | IEC 600790:2004 Ed. 4.0<br>IEC 60079-7:2001 Ed. 3.0<br>IEC 60079-18:1992 Ed. 1.0 |
| P.B. EX41 GHG417 | IECEx IBE 14.0005U[1] | IEC 600790:2011 Ed. 6.0<br>IEC 60079-7:2015 Ed. 5.0 |
| Terminal type MSLKG 5 | IECEx KEM 07.0035U[1] | IEC 60079-0:2004 Ed. 4.0<br>IEC 60079-7:2006 Ed. 4.0 |

[1] No applicable technical differences

**SPECIFIC CONDITIONS OF USE: YES as shown below:**
The plastic enclosure GHG 731 ** ** * ****can alternatively be made of different materials. Material "A" is conductive with a surface resistance of < $10^9$ Ω.
Material "B" is non-conductive with a surface resistance > $10^9$ Ω and has to carry the following warning “Clean with moist cloth only”.
The code letters are given with a preceding "Mat.:" on the type label.
With regard to the possible risk of electrostatic discharge, the relevant information in the operating instructions must be observed.

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**Equipment (continued):**

**Parameters**

Electrical parameter

Type GHG 731 01, GHG 731 02, GHG 731 03

| | | |
|---|---|---|
| Nominal voltage [1)] | up to | 690 V AC / DC |
| Nominal current [2)] | up to | 25 A |
| Terminal cross-section | up to | 4 $mm^2$ |

Type GHG 731 11, GHG 731 12

| | | |
|---|---|---|
| Nominal voltage [1)] | up to | 690 V AC / DC |
| Nominal current [2)] | up to | 80 A |
| Terminal cross-section | up to | 25 $mm^2$ |

[1] Dependent on the used terminals, as well as the relevant creepage distances and clearances according table 1 of IEC 60079-7.

[2] Dependent on the used terminals, as well as terminal cross-section and the number of single leads.

Max. Power dissipation version 01 = (85 x 85 x 77.5) mm:

| Max. ambient temp. | T6 | T5 |
|---|---|---|
| 40 °C | 4.7 W | 6.4 W |
| 55 °C | 2.9 W | 4.7 W |

Max. Power dissipation version 02 = (125 x 85 x 77.5) mm:

| Max. ambient temp. | T6 | T5 |
|---|---|---|
| 40 °C | 5.8 W | 8.0 W |
| 55 °C | 3.5 W | 5.8 W |

Max. Power dissipation version 03 = (165 x 85 x 77.5) mm:

| Max. ambient temp. | T6 | T5 |
|---|---|---|
| 40 °C | 7.0 W | 9.6 W |
| 55 °C | 4.3 W | 7.0 W |

Max. Power dissipation version 11 = (120 x 140 x 95) mm

| Max. ambient temp. | T6 | T5 |
|---|---|---|
| 40 °C | 9.3 W | 12 W |
| 55 °C | 5.8 W | 9.3 W |

Max. Power dissipation version 12 = (182 x 140 x 95) mm:

| Max. ambient temp. | T6 | T5 |
|---|---|---|
| 40 °C | 12 W | 17 W |
| 55 °C | 8.0 W | 12 W |

Degree of IP-Protection IP6*

* The degree of IP Protection could be changed depending on the enclosure for use with special assembly parts.

Thermal data

The temperature range is depending on the used enclosure assembly parts.

Ambient temperature range -55 °C up to +55 °C (T6)
-55 °C up to +55 °C (T5)
-55 °C up to +55 °C (T4)*

* only for use of terminals in type of protection Intrinsic Safety “i”.

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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**
- Updating to the standards IEC 60079-0:2017 and IEC 60079-7:2017
- Introduction of code letters for enclosure materials