# 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

| | | | |
|---|---|---|---|
| Certificate No.: | **IECEx BKI 04.0003** | Page 1 of 7 | Certificate history: |
| Status: | **Current** | Issue No: 5 | Issue 4 (2014-06-16)<br>Issue 3 (2014-06-06)<br>Issue 2 (2011-09-19)<br>Issue 1 (2005-12-20) |
| Date of Issue: | 2019-12-05 | | |

Applicant: **Cooper Crouse-Hinds GmbH**
Neuer Weg Nord 49,
D-69412
Eberbach
**Germany**

Equipment: **Control unit of types GHG 41. ....R.... and GHG 43. ....R....**

Optional accessory:

Type of Protection: **General requirements, Equipment protection by flameproof enclosures "d", Equipment protection by intrinsic safety "i", Equipment protection by increased safety "e", Equipment protection by encapsulation "m", Equipment dust ignition protection by enclosure "t"**

Marking:

Ex eb IIC T6 Gb or Ex eb IIB T6 Gb or Ex eb IIB+H2 T6 Gb or Ex eb IIB T6 Gb
Ex db eb IIC T6 Gb or Ex db eb IIB+H2 T6 Gb or Ex db eb IIB T6 Gb
Ex db eb ia IIC T6 Gb or Ex db eb ia IIB+H2 T6 Gb or Ex db eb ia IIB T6 Gb
Ex eb mb IIC T6 Gb or Ex eb mb IIB+H2 T6 Gb or Ex eb mb IIB T6 Gb
Ex db eb ia/ib IIC T6 Gb or Ex db eb ia/ib IIB+H2 T6 Gb or Ex db eb ia/ib IIB T6 Gb
Ex eb ib IIC T6 Gb or Ex eb ib IIB+H2 T6 Gb or Ex eb ib IIB T6 Gb

Ex tb IIIC T80°C Db

-20 °C ≤ Tamb ≤ +40 °C (normal) or
-55 °C ≤ Tamb ≤ +55 °C (extended)

Approved for issue on behalf of the IECEx Certification Body: **Edit Molnár**

Position: **Head of the Certification Body**

Signature: (for printed version)

Date: 2019-12-05

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 or use of this QR Code.

Certificate issued by:

**Testing Station for Explosion Proof Equipment**
**H 1037 BUDAPEST**
**MIKOVINY S.u. 2-4**
**Hungary**

Robbanásbiztos Berendezések BKI Vizsgáló Állomása
Ex

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Date of issue: 2019-12-05 Issue No: 5

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

Additional manufacturing locations:

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

**Eaton Electric (Singapore) PTE Ltd.**
100G Pasir Panjang Road
#07-08/ #02-09 Interlocal Centre
Singapore
118523
**Singapore**

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 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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

**IEC 60079-18:2014** Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
Edition:4.0

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

**IEC 60079-7:2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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:

HU/BKI/ExTR19.0002/00

Quality Assessment Reports:

DE/BVS/QAR11.0009/09 GB/BAS/QAR07.0041/09 GB/BAS/QAR11.0007/06

**IECEx ATR:**
HU/BKI/04/P-002-04/2-1
HU/BKI/04/P-002-04/2-3

**File reference:**
HU/BKI/04/P-002-04/2-2
HU/BKI/04/P-002-04/2-4

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# IECEx Certificate of Conformity



Certificate No.: **IECEx BKI 04.0003**

Date of issue: 2019-12-05

Issue No: 5

**IECEx ATR:**
HU/BKI/05/P-008-05/14-1

**File reference:**

# IECEx Certificate of Conformity



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

Control units of type GHG 41. ....R.... and type GHG 43. ....R.... consist of the bottom part and the cover with separately approved internal sealing device and they are made of polyamide or of light or non ferrous heavy metal or VA4 sheet steel. Designs of one, two, three or four units are available. Rail-type webs or top-hat rails intended to take up parts to be built in have been grooved (plastic enclosure) or riveted (metal enclosure) into the bottom of the enclosure. The assembly of control units is possible.

If required, components covered by separate certificates, e.g. pushbuttons, signal lamps, measuring instruments and/or terminals, are built in.

The identification with the symbols of the types of protection is to be adapted to the components actually installed. Identification for the types of protection regarding to the built in elements, see list of components table, more combination is also possibe depending on the certified components installed.

| | |
|---|---|
| Fitted with ampere- / voltmeter: | Ex eb IIC T6 Gb; Ex eb mb IIC T6 Gb, Ex eb ib IIC T6 Gb |
| Fitted with signal lamp: | Ex db eb IIC T6 Gb; Ex db eb ia IIC T6 Gb |
| Fitted with switch block: | Ex db eb IIC/IIB+H2/IIB T6 Gb |
| Fitted with control and signalling device adapter: | Ex eb IIC T6 Gb, Ex tb IIIC T80°C Db |
| Fitted with illuminated indicator / push-button module: | Ex db eb IIC T6 Gb; Ex db eb ia IIC T6 Gb |
| Fitted with switch base: | Ex db eb IIB / IIC T6 Gb, Ex db eb ia/ib IIB / IIC T6 Gb |
| Fitted with control and device elements / plastic shroud for actuator: | Ex eb IIC T6 Gb, Ex tb IIIC T80°C Db |

| | |
|---|---|
| Rated voltage: | max. 690 V |
| Rated current: | max. 35 A |
| Rated cross-sectional area: | depending on built-in components |
| Ingress protection: | IP66 to IEC 60529 |

**SPECIFIC CONDITIONS OF USE: NO**

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

Issue 1:
Introduction of DSEA Control stations (only in Australia). The control stations type DSEA..-....-.-....-.-....-.-....-.-.-.-.-.-. are exactly equivalent versions of the GHG 43 control stations with a new designation DSEA control stations. See details in addendum to IECEx Certificate of Conformity IECEx BKI 04.0003 1st Amendment.

Issue 2:
New QAR for Cooper Crouse-Hinds GmbH: DE/BVS/QAR11.0009/00

Issue 3:
Updating the internal earth plate (the earth plate thickness is changed from 6 mm to 3 mm)
Introduction of the adhesive type labels made of Polyester foil type 3M78** for -55°C to +55°C.
Use of external earth stud: the control station type GHG 41. ....R.... and GHG 43. ....R.... may optionally be provided with an external earth connection.
See details in addendum to IECEx Certificate of Conformity IECEx BKI 04.0003 Am.3.

Issue 4:
New manufacturing locations added as follows:
manufacturing location: Cooper Crouse-Hinds PTE Ltd.
manufacturing location address: No. 2 Serangoon North Avenue, # 06-01 Fu Yu Building, Singapore 554911, SINGAPORE
IECEx QAR of the manufcaturing location: GB/BAS/QAR11.0007/04

manufacturing location: Cooper Electric (Changzhou) Co. Ltd.
manufacturing location address: No. 189 Liuyanghe Road, Xinbei District, Changzhou, Jiangsu, China 213031, CHINA
IECEx QAR of the manufcaturing location: GB/BAS/QAR07.0041/02

Issue 5:
1. Change of the name and address of the manufacturing location Singapore
The name and address of the manufacturing location Singapore changed to
manufacturing location: Eaton Electric (Singapore) PTE Ltd.
manufacturing location address: 100G Pasir Panjang Road ,,#07-08/ #02-09 Interlocal Centre,, Singapore, 118523
IECEx QAR of the manufcaturing location: GB/BAS/QAR11.0007/06

2. Inclusion of dust for types GHG 41, GHG43 and for DSEA
Introduction the Equipment dust ignition protection by enclosure "t" for control unit type GHG 41, GHG43. Marking: Ex tb IIIC T80°C Db

3.Update of IP rating for metal enclosure
IP rating of all enclosures is IP66

4.Inclusion of used components with new IECEx certificate of Conformities:
Inclusion of used components with new IECEx certificates / IECExTRs as follows:

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| Type | Description | IECEx certificate or IECExTR / Marking |
|---|---|---|
| GHG 41. ....R.... | signal lamp | IECEx IBE 13.0031 U<br>Ex db eb IIC Gb<br>Ex db ia IIC Gb |
| GHG 41. ....R.... | switch block | IECEx IBE 14.0005 U<br>Ex db eb IIC Gb<br>Ex db eb IIB Gb<br>Ex db eb IIB+H2 Gb<br>Ex db eb I Mb |
| 05-0003-00**/**** | Control and signalling device adapter | IECEx CML 14.0005 U<br>Ex eb IIC Gb<br>Ex tb IIIC Db |
| 07-335*-****/****<br>07-336*-****/**** | Illuminated indicator /push-button module | IECEx CML 17.0046 U<br>Ex db eb I Mb<br>Ex db eb ia I Mb<br>Ex db eb IIC Gb<br>Ex db eb ia IIC Gb |
| GHG 410 98..R...AM/VM | ampere- / voltmeter | IECEx BVS 14.0082 U<br>Ex e IIC Gb<br>Ex e mb IIC Gb<br>Ex ib IIC Gb |
| GHG 238 ....R.... | switch base | IECEx BVS 13.0108 U<br>Ex db eb I Mb<br>Ex db eb IIB / IIC Gb<br>Ex db ia/ib IIB/IIC Gb |
| GHG 410 / 420 / 430 / 440 .. ..R ..... | Control and device elements / plastic shroud for actuator | ExTR reference number:<br>DE/PTB/ExTR12.0083/00<br>Ex e IIC Gb, Ex tb IIIC Db<br>DE/BVS/ExTR18.0016/00 |

5. Updating the standards

The control stations are manufactured, tested, marked and used according to the following issues of the standards:
IEC 60079-0: 2011 Ed 6.0
IEC 60079-1: 2014 Ed 7.0
IEC 60079-11: 2011 Ed 6.0

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IEC 60079-18: 2014 Ed 4.0
IEC 60079-7: 2015 Ed 5.0
IEC 60079-31: 2013 Ed 2.0
Protection methods "d", "i", "m" are only based on built-in components.