



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 07.0023	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 4	Issue 3 (2014-10-27)
Date of Issue:	2018-01-25		Issue 2 (2014-06-16)
Applicant:	Cooper Crouse-Hinds GmbH previously CEAG Sicherheitstechnik GmbH Neuer Weg Nord 49 D-69412 Eberbach, Germany Germany		Issue 1 (2011-09-19)
Equipment:	Control unit of types		Issue 0 (2007-06-05)
Optional accessory:	GHG 44.R....		
Type of Protection:	General requirements, Flameproof enclosures, Increased safety, Intrinsic safety, Encapsulation, Dust explosion protection – Protection by enclosures		
Marking:	Ex de ia/ib m [ia/ib] IIC T4...T6 -55 °C ≤ Tamb ≤ +55 °C Ex tD A21 IP66 T 80 °C for working temperatures see 4.1 of Addendum to IECEx BKI 07.0023		

Approved for issue on behalf of the IECEx
Certification Body:

Edit Molnár

Position:

managing director

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 or use of this QR Code.



Certificate issued by:

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





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

Manufacturing locations: **Cooper Electric (Changzhou) Co. Ltd.** **Eaton Electric (Singapore) PTE Ltd.**
No. 189 Liuyanghe Road 100G Pasir Panjang Road
Xinbei District #07-08/#02-09
Changzou, Jiangsu Interlocal Centre
China, 213031 Singapore, 118523
China 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 60079-0:2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition:4.0

IEC 60079-11:1999 Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
Edition:4

IEC 60079-18:1992 Electrical apparatus for explosive gas atmospheres - Part 18: Encapsulation 'm'
Edition:1

IEC 60079-7:2001 Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
Edition:3

IEC 61241-0:2004 Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
Edition:1

IEC 61241-1:2004 Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"
Edition: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:

HU/BKI/ExTR07.0022/00

Quality Assessment Reports:

DE/BVS/QAR11.0009/08

GB/BAS/QAR07.0041/07

GB/BAS/QAR11.0007/05



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Date of issue: 2018-01-25

Issue No: 4

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Control units of type GHG 44. ...R... consist of a bottom part and a cover with separately approved internal sealing device. They are made of moulded plastic or VA4 sheet steel or light alloy .

See details in addendum to IECEx BKI 07.0023.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1st issue: new QAR: DE/BVS/QAR11.0009/00

2nd issue:

Additional manufacturing locations:

1.

Cooper Crouse-Hinds PTE Ltd.

No. 2 Serangoon North Avenue, # 06-01 Fu Yu Building, Singapore 554911

SINGAPORE

2.

Cooper Electric (Changzhou) Co. Ltd

No. 189 Liuyanghe Road, Xinbei District, Changzhou, Jiangsu, China 213031

CHINA

Issue 3:

Technical corrections.

See details and correction in the Addendum to 3rd amendment to IECEx BKI 07.0023.

Issue 4:

Change the name and address of the manufacturing location, Singapore

from

Cooper Crouse-Hinds PTE Ltd., No 2 Serangoon North Avenue 5, # 06-01, Singapore, 554911 (QAR: GB/BAS/QAR11.0007/04)

to

Eaton Electric (Singapore) PTE Ltd., 100G Pasir Panjang Road,, #07-08/#02-09 Interlocal Centre,, Singapore, 118523 (QAR: GB/BAS/

QAR11.0007/05)

Annexes:

[Addendum to 3rd amendment to IECEx BKI 07.0023..pdf](#)

[Addendum to IECEx BKI 07.0023.pdf](#)

1. Description

Control units of type GHG 44. ...R... consist of a bottom part and a cover with separately approved internal sealing device. They are made of moulded plastic or VA4 sheet steel or light alloy .

Rail-type webs or top-hat rails have been grooved (plastic enclosure) or riveted (metal enclosure) into the bottom part of the enclosure. They are intended for take up the built-in elements.

Assembling of the control units is permitted.

Attached Ex cable entries has to be covered by separate certificate.

Both variants are suitable for durable use.

The built-in elements, if required, can be covered by separate certificates e.g. pushbuttons, signal lamps, measuring instruments and/or terminals, or other separate approved components of increased safety „e” and flameproof enclosure „d” and encapsulation „m”.

Enclosures with one, two or three units can exclusively be used for the installation of the terminal blocks with the type of protection increased safety „e”, covered by separate certificate.

The identification with the symbols of the types of protection is adapted to the components that actually installed.

2. Type assortment

GHG 44. ... R...

Legend of the signs from left to right

1._, 2._, 3._	Code for Manufacturer
4._, 5._	Code for control unit version
6._	Code for enclosure size
	B × L × H
	444 = 312,5 ×175 × 135 (VA sheet steel)
	448 = 312,5 ×312,5 × 135 (VA sheet steel)
	448 = 312,5 ×312,5 × 210 (VA sheet steel)
	447 = 627 ×312,5 × 135 (VA sheet steel)
	449 = 627 ×312,5 × 210 (VA sheet steel)
	449 = 941 ×312,5 × 135 (VA sheet steel)
	444 = 134 × 271 × 135 (moulded plastic)
	447 = 271 × 817 × 135 (moulded plastic)
	448 = 271 × 271 × 135 (moulded plastic)
	448 = 271 × 271 × 210 (moulded plastic)
	449 = 271 × 544 × 135 (moulded plastic)
	449 = 271 × 544 × 210 (moulded plastic)
	443 = 260 × 160 × 91 (light alloy)
	443 = 230 × 280 × 111 (light alloy)
7._, 8._	Enclosure material Moulded plastic = 2 VA material = 3 Light alloy = 4
9._, 10._, 11._, 12._, 13._, 14._, 15._	No influence on Ex-protection

1. Description

Control units of type GHG 44. ...V... consist of a bottom part and a cover with separately approved internal sealing device. They are made of moulded plastic or VA4 sheet steel or light alloy .

Rail-type webs or top-hat rails have been grooved (plastic enclosure) or riveted (metal enclosure) into the bottom part of the enclosure. They are intended for take up the built-in elements.

Assembling of the control units is permitted.

Attached Ex cable entries has to be covered by separate certificate.

Both variants are suitable for durable use.

The built-in elements, if required, can be covered by separate certificates e.g. pushbuttons, signal lamps, measuring instruments and/or terminals, or other separate approved components of increased safety „e” and flameproof enclosure „d” and encapsulation „m”.

Enclosures with one, two or three units can exclusively be used for the installation of the terminal blocks with the type of protection increased safety „e”, covered by separate certificate.

The identification with the symbols of the types of protection is adapted to the components that actually installed.

2. Type assortment

GHG 44. ... R...

Legend of the signs from left to right

1._, 2._, 3._	Code for Manufacturer
4._, 5._	Code for control unit version
6._	Code for enclosure size
	B × L × H
	444 = 312,5 ×175 × 135 (VA sheet steel)
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	444 = 134 × 271 × 135 (moulded plastic)
	447 = 271 × 817 × 135 (moulded plastic)
	448 = 271 × 271 × 135 (moulded plastic)
	448 = 271 × 271 × 210 (moulded plastic)
	449 = 271 × 544 × 135 (moulded plastic)
	449 = 271 × 544 × 210 (moulded plastic)
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Drawings

Description No. 4186 (20 sheets)		1999. 10. 10.
List of component variant and their combinations (1 sheet)		1999. 12. 10.
Drawing No GHG 41-2-4045		1999. 09. 27.
GHG 73-4-3739		1999. 09. 27.
GHG 44-3-4051		1999. 09. 27.
GHG 44-3-4050		1999. 09. 27.
GHG 44-3-4049		1999. 09. 27.
GHG 44-3-4048		1999. 09. 27.
Test report No. PTB Ex 99-19131 (5 sheets)		1999. 12. 16.
Description No. 4186 Supplement	(1 sheet)	2002. 03. 15.
Test protocols and information documents:		
Test protocol of DMT No. BVS PP 02.2017EG		2002. 02. 28.
No. BVS PP 02.2018EG		2002. 02. 28.
Test report No. PTB Ex 02-12099 (2 sheets)		2002. 05. 13.
Description	6 sheet	2006. 09. 06
Drawing No. GHG 670-4-4504	1 sheet	2006. 07. 27
Drawing No. GHG 610 1190 R0001	1 sheet	2006. 07. 27
Drawing No. GHG 610 1191 R0001	1 sheet	2006. 07. 27
Drawing No. GHG 410-3-4476	1 sheet	2006. 07. 27
Parts No. GHG 410-3-4476	1 sheet	2006. 07. 27
Drawing No. GHG 410-3-4475	1 sheet	2006. 07. 27
Parts No. GHG 410-3-4475	1 sheet	2006. 07. 27
Drawing No. GHG 410-3-4479	1 sheet	2006. 07. 27
Parts No. GHG 410-3-4479	1 sheet	2006. 07. 27
Drawing No. GHG 410-3-4542	1 sheet	2006. 07. 27
Parts No. GHG 410-3-4542	1 sheet	2006. 07. 27
Test Report PTB Ex 06-16295	4 sheet	2006. 11. 16
Test Records of Cooper Crouse-Hinds No. 01-MI4-B1-07042006		
Test Records of Cooper Crouse-Hinds No. 02-MI4-B1-28092005		
Test Records of PTB dd. 29-08-1997		
Test Records of Cooper Crouse-Hinds No. 02-MI4-B1-23092004		
Test Records of Cooper Crouse-Hinds No. 01-MI4-B1-03022005		
Test Records of Cooper Crouse-Hinds No. 01-MI4-B1-18112004		
Data sheet for elastomers		
Data sheet SMC 190		
Data sheet for plastic materials used		