



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BKI 07.0034 Issue No: 2 Certificate history:
Status: **Current** Page 1 of 4 Issue No. 2 (2012-02-13)
Date of Issue: **2012-02-13** Issue No. 1 (2011-09-19)
Issue No. 0 (2007-10-02)

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

Electrical Apparatus: **Junction boxes and terminal boxes**
Optional accessory: *Type GHG 791 01 and 791 02*

Type of Protection: **General requirements, Increased safety, Intrinsic safety, Dust explosion protection**

Marking: Ex e II T6 for non intrinsically safe circuits only
Ex ia IIC T6 for intrinsically safe circuits only
-50 °C ≤ Tamb ≤ +45 °C
Ex tD A21 IP66 T58°C

Approved for issue on behalf of the IECEx
Certification Body:

János FEJES

Position:

Director

Signature:
(for printed version)

Date:

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 the [Official IECEx Website](http://www.iecex.com).

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**
Neuer Weg Nord 49
D-69412 Eberbach, Germany
Germany

Additional Manufacturing
location(s):
S.C. Cooper Industries Romania S.R.L.
Zona Industrial NV
Str. III, No. 12
ARAD, Romania
Romania

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 electrical apparatus 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 Edition:4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition:4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
IEC 60079-7 : 2001 Edition:3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
IEC 61241-0 : 2004 Edition:1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition:1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical 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/ExTR07.0033/00](#)

Quality Assessment Report:

[DE/BVS/QAR11.0006/01](#)

[DE/BVS/QAR11.0009/00](#)

[HU/BKI/QAR06.0005/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Junction boxes and terminal boxes made of polyamide of types GHG 791 01 and 791 02, intended for permanent installation, with built-in moduler or mantle terminals for non-intrinsically safe and intrinsically safe (certified separatly) circuits.

See details in Addendum to IECEx BKI 07.0034.

CONDITIONS OF CERTIFICATION: NO



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

New manufacturing location: S.C. Cooper Industries Romania S.R.L.

Address: Zona Industrial NV, str. III, No. 12

ARAD, Romania

Annex:

[Addendum to IECEx BKI 07.0034.pdf](#)



1. Description

Junction boxes and terminal boxes made of polyamide of types GHG 791 01 and 791 02, intended for permanent installation, with built-in modular or mantle terminals for non-intrinsically safe and intrinsically safe (certified separately) circuits. The junction boxes and terminal boxes, of type GHG 791 01 and 791 02 may now also be used in areas that have to be expected to be occasionally exposed to potentially explosive atmospheres with dust/air mixtures. The junction boxes and terminal boxes of types GHG 791 01 and 791 02 may optionally be provided with cable entry size M25 or M32, with long screw thread. The junction boxes and terminal boxes of types GHG 791 01 and 791 02 may be provided with an outside earthing terminal. The companion sheet version for determination of the maximum number of conductors for each enclosure size as function cross section and the permissible continuous current may optionally.

2. Type assortment

GHG 79. ...R...

Legend of the signs from left to right

1._, 2._, 3._, 4._, 5._	Code for manufacturer
6._	Type of enclosure (material) 1 = polyamide 2 = stainless steel 3 = aluminium
7._, 8._	Box size
9._, 10._, 11._, 12._, 13._, 14._, 15._	Serial number with no influence on Ex-protection

3. General parameters

Rated voltage: maximally 750 V (depending on the working voltage of the terminals used)

For terminal boxes have been specified rated current, number of conductors and conductor cross section in the supplementary sheets.

Junction boxes GHG 791 01 and 791 02:

Rated cross section, max.:	2.5 mm ²	4.0 mm ²	6.0 mm ²
Rated current, max.:	22 A	30 A	39 A

4. Ambient temperature

Ambient temperature range, normal if EPDM gaskets are used: $-20\text{ °C} \leq T_{amb} \leq +45\text{ °C}$

Extended ambient temperature range if silicon gaskets are used: $-50\text{ °C} \leq T_{amb} \leq +45\text{ °C}$

4.1 Temperature class T6 surface temperature 58 °C

5. Ingress protection IP66 to IEC 60529

Note for manufacture and operation

The degree of protection – at least IP 66 – will be reached only by adequate use of the separately tested gaskets, cable and conduit entries and sealing plugs.

Suitability for low ambient temperatures is indicated by separate marking. Only, such gaskets and attachments which are suitable for these temperatures and for which a separate certificate has been issued. Further notes of the manufacturer are to be taken into account.

For the maximum number of conductors for each enclosure size, which is subject to the cross section and the permissible continuous current, reference is made to the attached data sheets.

The cable entry shall be glued in place by means of adhesive DELOPUR 9693 or 9694.

Drawing

Description Nr. 4252, 3 pages	20.04.2000
List of materials, 2 pages	20.04.2000
Drawing No. GHG 79-1-3916	20.04.2000
GHG 79101 in acc. with Enclosure 1, 1 page	20.04.2000
GHG 79102 in acc. with Enclosure 2, 1 page	20.04.2000
PTB test protocol on impact test (+55 °C; -45 °C)	21.02.1996
PTB test protocol on impact test (-55 °C)	21.02.1996
PTB test protocol on test of degree of protection (IPX4)	21.02.1996
PTB test protocol "Current heat rise at terminals" (pillar terminals)	01-04.04.1996
PTB test protocol "Current heat rise at terminals" (row terminals) 791 01	28-31.05.1996
PTB test protocol "Current heat rise at terminals" (row terminals) 791 02	03-06.06.1996
PTB test protocol on determination of electrical conductivity	14.06.2000
PTB test protocol "Test of earth connection through non-metal enclosures"	03.07.2000
CEAG-test protocol on pull test of cable entries and test of degree of protection	29.02.2000
Data sheet "Non-metallic enclosures and enclosure parts" on Vestamide L-R7-MHI, black, from Messrs. Creanova Spezialchemie, 5 pages	25.05.1998
Data sheet "Non-metallic enclosures and enclosure parts" on Ultramide A3Z from Messrs. BASF AG, 2 pages	14.03.2000
Data sheet "Non-metallic enclosures and enclosure parts" on Ultramide A3XZ G5 from Messrs. BASF AG, 3 pages	14.03.2000
Data sheet "Non-metallic enclosures and enclosure parts" on Hostaform C 13031 from Messrs. Ticona GmbH, 3 pages	14.03.2000
Data sheet "Elastomer parts and seal" on Fermasil A/B 33 and A/B 38 from Messrs. Erich Sonderhoff GmbH & Co. KG, 11 pages	01.03.2000
PTB letter on usability of "Fermasil A 38-2 seal, Messrs. Sonderhoff GmbH & Co. KG"	01.09.1997
Operating instructions Ex-terminal boxes GHG 791 01, 791 02	20.04.2000
Operating instructions Ex-junction boxes GHG 791 01, 791 02	20.04.2000
Test Report PTB Ex 00-30059, 7 pages	03.07.2000
1. Supplement Descriptive documents	
Description Nr. 4252 1. Supplement, 1 page	2001-07-06
Test protocol of DMT No. BVS PP 01-2070 EG dated	2001-06-25
Test Report PTB Ex 01-11176, 2 pages	26.07.2001
2. Supplement Descriptive documents	
Description No. 4252 2. Supplement, 3 pages	2001-12-01
Enclosure No. 3, 1 page	2001-12-01
Drawing No. GHG 79-3-4368, 1 page	2001-12-01
Test Report PTB Ex 01-11317, 2 pages	2002.02.11.
3. Supplement Descriptive documents	
Description No. 4252 3. Supplement, 1 page	2002-08-02
Test protocol No. 01-M14-B1-160702	
Date sheet of adhesive DELO-PUR 9693	
Test Report PTB Ex 02-12279, 2 pages	2002.09.13.
4. Supplement Descriptive documents	
Description No 4252 4. Supplement, 1 page	2004-03-16
Test report No. 01-MI4-B1-03032004	
Data sheet, adhesive DELO-PUR 9694	
Test Report PTB 04-14087, 2 pages	2004.04.28.
5. Supplement Descriptive documents	
Description No. 4252 5. Supplement, 2 pages	2004.09.13.
GHG 791 01 in acc with Enclosure 1 variant, 1 page	2004.09.13.
GHG 791 02 in acc with Enclosure 1 variant, 1 page	2004.09.13.
Drawings No GHG 790-4-4442	2004.04.28.
GHG 74-3-4461	2004.09.13.
GHG 74-4-4289	2004.04.28.
Operating instructions, 1 page	
Test Report CEAG No. 01-MI4-B1-06082004, 3 pages	2004.08.06
Test Report CEAG No. 01-MI4-B1-18082004, 3 pages	2004.08.18.
Test Report PTB N. 25/00, 1 page	2000.07.03.
Test Report Cooper Crouse-Hinds – ExVÁ BKI Nr. 04-MI4-18042006, 5 pages	2006.05.02.
Test Report Cooper Crouse-Hinds – ExVÁ BKI Nr. 03-MI4-18042006, 5 pages	2006.05.02.
PTB letter about the highest temperature	2006.05.08.