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 BVS 16.0024X**

Certificate history:
Issue 0 (2016-04-26)

Status: **Current**

Issue No: 1

Date of Issue: 2016-11-22

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

Equipment: **Junction box / Terminal box type GHG 79 * ** *** ****

Optional accessory:

Type of Protection: **Equipment dust ignition protection by enclosure "t", Equipment protection by increased safety "e"**

Marking: Ex e * IIC T5/T6 Gb
Ex tb * III C T80°C Db
* The marking can be amended by further types of protection depending on the used components/equipment inside the junction/terminal box. (e.g. Ex d)

Approved for issue on behalf of the IECEx Certification Body: **G. Schumann**

Position: **Deputy Head of Certification Body**

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 www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

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Date of issue: 2016-11-22 Issue No: 1

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

Additional manufacturing locations:

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

IEC 60079-7:2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

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/ExTR16.0027/01

Quality Assessment Reports:

DE/BVS/QAR11.0006/05 DE/BVS/QAR11.0009/05

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

Subject and Type

Junction/Terminal box type GHG 79 * ** *** ****

Asterisk	Description
1	Enclosure material 1 plastic
2 and 3	Size (w × h × d) [mm] 01 100 × 81.5 × 56 (without feet) 02 113.5 × 117.5 × 67.5 (without feet)
4 - 10	Without influence to explosion protection

SPECIFIC CONDITIONS OF USE: YES as shown below:
For ambient temperatures < -20 °C the Junction/Terminal box type GHG 791 01 *** **** was tested with an impact energy of 4 J and has to be installed in a way that it is protected against higher mechanical risk.

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Equipment (continued):

Description

The junction box / terminal box Type GHG 79 * ** *** **** fulfills the requirements of type of protection Increased Safety "e" and Protection by Enclosure "t". It is designed for use in areas requiring EPL Gb or Db.
The junction box / terminal box consists of a plastic enclosure with cover and serves to install or connect cables. The enclosure is equipped with terminal blocks according to PTB00 ATEX 3102 U / IECEx PTB 11.0029U or other terminal blocks which are separately certified for this purpose.
The enclosure is either equipped with side-fed entries or with boreholes to mount cable entries which are separately certified for this purpose. Inside the enclosure several different components / equipment can be installed according to the documentation of the manufacturer. The Ex-marking of the junction / terminal box will be amended by all types of protection of the built-in components / equipment.
The junction / terminal box is also suitable for intrinsically safe circuits. In this case it is a simple apparatus according to standard IEC 60079-11 and a marking must be added to the enclosure. The creepage and clearance distances between intrinsic safe circuits to ground, between two different intrinsic safe circuits and between intrinsic and non-intrinsic safe circuits are taken into account during the installation of the terminals.

Listing of all components used referring to older standards:

See Annex

Parameters

See Annex

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Addition of a special condition for use.

Annex:

BVS_16_0024X_Cooper_Annex_Issue1.pdf

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Annex

Listing of all components used referring to older standards:

Subject and type	Certificate	Standards
Terminal Type UK 5-TWIN und MSLKG 5	IECExKEM 07.0035U	IEC 60079-0:2004 IEC 60079-7:2006
Terminal Type ZDU / ZPE	IECExULD05.0009U	IEC 60079-0:2004 IEC60079-7:2001
Terminal Type SAK	IECExKEM06.0014U	IEC 60079-0:2004 IEC 60079-7:2001

Parameters

Electrical Parameters

Junction/Terminal box type GHG 791 01 *** ****

Rated voltage [1]	AC / DC	690	V
Rated current [2]	up to	32	A
Cross section [3]	up to	6	mm²

Junction/Terminal box type GHG 791 02 *** ****

Rated voltage [1]	AC / DC	690	V
Rated current [2]	up to	28	A
Cross section [3]	up to	6	mm²

1) The rated voltage depends on the used type of terminal and the creepage and clearance distances.

2) The rated current depends on the used type of terminal, the cross section and the number of conductors.

3) According to the cross section / current table for each size of enclosure.

Thermal Parameters

Junction / Terminal box	T_{amb}	Maximum permitted power dissipation	
		T6	T5
GHG 791 01 *** ****	-55 °C bis +40 °C	4 W	5.5 W
	-55 °C bis +55 °C	2.5 W	4 W
GHG 791 02 *** ****	-55 °C bis +40 °C	6.7 W	9.1 W
	-55 °C bis +55 °C	4.2 W	6.7 W

Type GHG 791 01 *** ****

Current [A]	**Cross section [mm²]**				
	1.5	**2.5**	**4**	**6**	
3					
6	30			**4)**	
10	10	20			
16	4	11	22		
20		5	12		
25			3		
35	**5)**				**3)**
1)	See explanation below the tables				
2)	See explanation below the tables				

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Annex

Type GHG 791 02 *** ****

Current [A]	Cross section [mm²]					
	1.5	**2.5**	**4**	**6**	**10**	
3						
6	37			**4)**		
10	12	24				
16	5	14	27			
20		6	15	30		
25	**5)**		4	11		**3)**
1)	See explanation below the tables					
2)	See explanation below the tables					

1) Max. number of terminals depending on the above mentioned apparatus type and the built-in 2 wire terminals.

2) Max. number of terminals depending on the above mentioned apparatus type and the max. number of conductors.

3) Max. number of conductors depending on the cross-section and allowed continuous current for the mentioned apparatus type. The number of conductors is the sum of all incoming conductors and internal wire connections. Bridge links and earth conductors do not count.

4) This area can be used for the installation of further terminals taking into account the definition of the clearance parameters.

5) Terminal installation in this area requires separate temperature rise test for each different variant of installation.