

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 19.0042X	Page 1 of 3	<u>Certificate history:</u>
Status:	Current	Issue No: 0	
Date of Issue:	2019-07-15		
Applicant:	Cooper Crouse-Hinds GmbH Neuer Weg-Nord 49 69412 Eberbach Germany		
Equipment:	Power and safety switch type GHG 262 * * **	* ***	
Optional accessory:			
Type of Protection:	Flameproof Enclosures "d", Intrinsic Safety	"i", Protection by Enclosure "t", Increase	ed Safety "e"
Marking:	Ex eb db ia IIB/IIC T6 / T5 Gb Ex tb IIIC T80°C Db		
Approved for issue or Certification Body:	behalf of the IECEx	Jörg Koch	
Position:		Head of Certification Body	
Signature: (for printed version)			
Date:			

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Certificate issued by:

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





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Date of issue: 2019-07-15 Issue No: 0

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

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 60079-31:2013 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/ExTR19.0044/00

Quality Assessment Report:

DE/BVS/QAR11.0009/09



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and Type

See Annex

Description

The power and safety switch type GHG 262 * * * * * * * **** is used for switch and disconnect of a rated current up to 20 A. The power and safety switch type GHG 262 * * * * * * **** is built in type of protection "eb" Increased Safety or "tb" Protection by Enclosure.

Optionally, circuits in type of protection Intrinsic Safety being connected to the separately certified terminals or components.

The enclosure is made of plastic. Alternatively, separately certified enclosure (IECEx PTB 11.0030U - made of plastic or metal) can be used. The switch enclosure is equipped with a separately certified switch socket (IECEx BVS 14.0047U) in type of protection "d" Flameproof Enclosure. Optionally, equipped with an auxiliary switch (IECEx EPS 14.0038U), light module (IECEx IBE 13.0031U resp. IECEx EPS 14.0038U), Ex-d component (IECEx IBE 14.0005U) and / or separately certified terminal block (IECEx PTB11.0029U) or terminal

IECEx EPS 14.0038U), Ex-d component (IECEx IBE 14.0005U) and / or separately certified terminal block (IECEx PTB11.0029U) or terminal strip (IECEx PTB 15.0028U).

Optionally, separately certified terminals can be used according "List of components".

Parameters

See Annex

Listing of all components used referring to older standards See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of IEC 60079-1:2014. For information on the dimensions of the flameproof joints contact the manufacturer.

For the combination with circuits in type of protection Intrinsic Safety "i" the creepage and clearance distances between the intrinsically and non-intrinsically circuits must be fulfil the requirements according IEC 60079-0:2017.

Annex:

BVS_19_0042X_Cooper_Annex_1.pdf





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Subject and Type

Power and safety switch type GHG 2621) *2) *3) **4) * ****

- 1) Switch 20 A
- 2) Switch and enclosure version
 - 1 = Main current switch plastic version
 - 2 = Safety switch plastic version
 - 3 = Main current swtich metal version
 - 4 = Safety switch metal version
- 3) Number of switch contacts
 - 3 = 3- poles
 - 4 = 4- poles
 - 5 = 5- poles
 - 6 = 6- poles
- 4) Equipment version
 - 01 = Standard version
 - 02 = Special version
 - 51-99 = Without influence to the type of protection

Listing of all components used referring to older standards

Subject and type	Certificate	Standards
Empty Enclosure type GHG 60* **** R ****	IECEX PTB 11.0030U	IEC 60079-0 (Ed.5), IEC 60079-31 (Ed.1), IEC 60079-7 (Ed.4)
Switch base type GHG 2** ** ** R ****	IECEx BVS 14.0047U	IEC 60079-0 (Ed.6.0), IEC 60079-1 (Ed.6), IEC 60079-7 (Ed.4)
Built-in switch mini type 07-1501-***/****	IECEx EPS 14.0038U	IEC 60079-0 (Ed.6.0), IEC 60079-1 (Ed.7.0)
Signal lamp	IECEx IBE 13.0031U	IEC 60079-0 (Ed.6.0), IEC 60079-1 (Ed.7.0), IEC 60079-11 (Ed.6.0), IEC 60079-7 (Ed.5.0)
Switch block	IECEx IBE 14.0005U	IEC 60079-0 (Ed.6.0), IEC 60079-1 (Ed.7.0), IEC 60079-7 (Ed.5.0)
Terminal block type GHG 790 110. R	IECEx PTB 11.0029U	IEC 60079-0 (Ed.5), IEC 60079-7 (Ed.4)
Terminal blocks, type AKG 4-EX and type EK 135	IECEx KIWA 14.0005U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Feed-through terminal block, type MXK4	IECEx PTB 06.0100U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Terminal block	IECEx SEV 13.0003U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)





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Terminal Blocks types UK 10N, UK 16N, UK 35, UKH 50, UKH 50-IB and UKH 95 and Pick-off Terminal Blocks types AGK 10-UKH 50, AGK 10-UKH 150/240	IECEx KEM 06.0029U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Terminal blocks	IECEx SEV 13.0012U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Terminal block type GHG 240 130* R****	IECEx PTB 15.0028U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Terminal blocks	IECEx SEV 12.0008U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Terminal blocks, type AKG 4-EX and type EK 13	IECEx KIWA 14.0005U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
SAK K range of rail mounted feedthrough terminals	IECEx SIR 05.0032U	IEC 60079-0 (Ed.4.0), IEC 60079-7 (Ed.3)
Feedthrough terminal blocks, type PT 2,5*** and PTTB 2,5***, Protective conductor terminal blocks, type PT 2,5***-PE and PTTB 2,5-PE	IECEx PTB 10.0021U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Feedthrough terminal blocks, type PT 4***, PTTB 4***, Protective conductor terminal blocks, type PT 4***-PE, PTTB 4-PE	IECEx PTB 10.0046U	IEC 60079-0 (Ed.6.0), IEC 60079-7 (Ed.4)
Weidmüller Terminal blocks, W-Reihe, type feed-through and PE	IECEx ULD 05.0008U	IEC 60079-0 (Ed.4.0), IEC 60079-7 (Ed.3)

¹ No applicable technical differences

Parameters

Rated voltage up to 690 V Rated current up to 20 A

Rated cross-section up to 4 mm² (fine-stranded and stranded)

Ambient temperature range -45 °C up to +55 °C (IIC) -55 °C up to +55 °C (IIB/IIIC)

-20 °C up to +55 °C (IIB/IIC only security switch for converter mode)

Cross-	Rated current	Temperature class at T _{amb}		
section		+40 °C	+50 °C	+55 °C
1.5 mm ²	≤ 10 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C
2.5 mm ²	≤ 16 A	T6 / T80 °C	T5 / T80 °C	
	≤ 20 A	T6 / T80 °C		
4 mm ²	≤ 20 A	T6 / T80 °C	T6 / T80 °C	T5 / T80 °C
6 mm ²	≤ 20 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C





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Intrinsically safe circuits		
Signal lamp Type GHG 417 1805 R	IECEx IBE 13.0031U	
Voltage	$U_i \le 30 V$	
Current	l _i ≤ 120 mA	
Power	P _i ≤ 750 mW	
Effective internal inductance	negligible	
Effective internal capacity	negligible	