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 20.0076X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2020-12-03		
Applicant:	**COOPER CROUSE-HINDS GmbH** Neuer Weg Nord 49, 69412 Eberbach **Germany**		
Equipment:	**Main- and safety switch as load, disconnector and load-break switch type GHG25*****R****		
Optional accessory:			
Type of Protection:	**Flameproof Enclosures "d", Protection by Enclosure "t", Increased Safety "e"**		
Marking:	Ex db eb IIB/IIC T6/T5/T4*) Gb Ex tb IIIC T80°C Db *) Temperature class according to parameters		

Approved for issue on behalf of the IECEx Certification Body: **Jörg Koch**

Position: **Head of Certification Body**

Signature: (for printed version)

Date: 3.12.2020

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 Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

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Certificate No.: **IECEx BVS 20.0076X**

Date of issue: 2020-12-03

Issue No: 0

Manufacturer: **COOPER CROUSE-HINDS GmbH**
Neuer Weg Nord 49, 69412 Eberbach
Germany

Additional manufacturing locations: **S.C. COOPER INDUSTRIES ROMANIA S.R.L**
ARAD, Zona Industrial NV, str III, no 12
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 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 60079-31:2013 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/ExTR20.0077/00

Quality Assessment Report:

DE/BVS/QAR11.0009/11

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

Subject and Type
Load-, main-, motor-, control-, safety switches type GHG25*****R****
GHG[1] 25[2] *3) *4) *5) *6) *7) R[8] ****9)

GHG[1] Manufacturer mark
25[2] Row of switches
*3) Switch base version
0 = component part
2 = Size 2
*4) Device version (Not Ex-relevant)
1 = Main switch and switch disconnector
2 = Safety-, repair- and maintenance switch acc. DIN-EN 62626-1
3 = Emergency main switch and switch disconnector
4 = Emergency safety-, repair- and maintenance switch EN 62626-1
*5) Switch version
2 = 2 pole
3 = 3 pole
4 = 4 pole
6 = 6 pole
8 = 8 pole
*6) Enclosure version
1 = Plastic enclosure
2 = Stainless steel enclosure
3 = Stainless steel enclosure coated
4 = Sheet steel coated
9 = Special type or color ETO
*7) Enclosure size
1 = Size 1
2 = Size 2
3 = Size 3
9 = Special size
R[8] IEC-Version
****9) Alphanumeric character string, without influence on the explosion protection

SPECIFIC CONDITIONS OF USE: YES as shown below:

-	The gap lengths of the flameproof gaps of the separately certified switching base are partly longer and the gap widths of the flameproof gaps are partly smaller than required in Table 2 and 3 of EN 60079-1:2014. Information on the dimensions can be obtained from the manufacturer.
-	When combined with circuits of ignition protection type "i" - intrinsic safety, the clearances and creepage distances between intrinsically safe and non-intrinsically safe circuits in accordance with EN 60079-11:2012 must be maintained. (Simple apparatus)
-	The temperature resistance of cables, wires and cable glands must be observed.
-	If empty plastic enclosures with a surface resistance > 10^9 ohms are used, they must bear the note "Clean only with a damp cloth"

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Equipment (continued):

Description
See Annex

Parameters
Nominal voltage 690 V
Nominal current 32 A
Ambient temperature -55 °C ≤ T_{amb} ≤ +55 °C

Dependence on connection cross section, current and ambient temperature

Enclosure Size 1

Ex252 Size 1	16 A	20 A	25 A	32 A	Max. 4 pole incl. 1 auxiliary switch
2.5 mm²	T6 T6	T6 T5			T_{amb}= +40 °C T_{amb}= +55 °C
4.0 mm²	T6 T6	T6 T6	T6 T5	T5 T4	T_{amb}= +40 °C T_{amb}= +55 °C

Enclosure Size 2

Ex252 Size 2	16 A	20 A	25 A	32 A	Max. 4 pole incl. 2 auxiliary switches
2.5 mm²	T6 T6	T6 T5			T_{amb}= +40 °C T_{amb}= +55 °C
4.0 mm²	T6 T6	T6 T6	T6 T5	T5 T4	T_{amb}= +40 °C T_{amb}= +55 °C
6.0 mm²	T6 T6	T6 T6	T6 T6	T6 T5	T_{amb}= +40 °C T_{amb}= +55 °C

Enclosure Size 3

Ex252 Size 3	16 A	20 A	25 A	32 A	Max. 8 pole incl. 2 auxiliary switches
2.5 mm²	T6 T5	T5 T4			T_{amb}= +40 °C T_{amb}= +55 °C
4.0 mm²	T6 T6	T6 T5	T5 T4	T4 T4	T_{amb}= +40 °C T_{amb}= +55 °C
6.0 mm²	T6 T6	T6 T6	T6 T6	T6 T5	T_{amb}= +40 °C T_{amb}= +55 °C
10.0 mm²	T6 T6	T6 T6	T6 T6	T6 T6	T_{amb}= +40 °C T_{amb}= +55 °C
16.0 mm²	T6 T6	T6 T6	T6 T6	T6 T6	T_{amb}= +40 °C T_{amb}= +55 °C

Annex:

BVS_20_0076X_Cooper_Annex.pdf

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Certificate No.: **IECEx BVS 20.0076X**

Annex

Description

Main and safety switches as load, disconnect and load-break switches

The main and safety switches as load, disconnector and load-break switches type GHG25*****R**** are used for switching on and off electrical circuits and power. The main and safety switch is suitable for electrical isolation of rated currents up to 32 A maximum. It can be switched under load and is available in 2-/3-/4-/6- or 8 pole standard versions.
The safety switch GHG 2522***R**** is equipped with up to two auxiliary contacts in addition to the load or main switch versions.
During the "switch-off process", the auxiliary contacts are interrupted prematurely compared to the main contacts.
To prevent unauthorised "switching on", the control handle is in the "0" position with up to 3 Padlocks lockable.

The switch series GHG25*****R**** consists of the following main components:

- Switch housing according to type of protection Increased Safety "e" and Protection by Housing "t" according to one of the following certificates IECEx BVS 19.0042X, IECEx BVS 19.0054X or IECEx PTB 11.0030U
- Switch block, which is certified under the component certificate IECEx BVS 19.0025U

Configuration variants per enclosure size

Pieces	Assembly	Switch base GHG25912	Auxiliary switch GHG25932	Enclosure size 1	Enclosure size 2	Enclosure size 3
1	2-pole + 1 Empty chamber	3-pole		X	X	X
1	2-pole + 1 Auxiliary contact	3-pole		X	X	X
1	3-pole	3-pole		X	X	X
1	3-pole	3-pole	1	X	X	X
1	2-pole + 1 Empty chamber	3-pole	1	X	X	X
1	2-pole + 1 Auxiliary contact	3-pole	1	X	X	X
1	3-pole	3-pole	2	X	X	X
1	2-pole + 1 Empty chamber	3-pole	2	X	X	X
1	2-pole + 1 Auxiliary contact	3-pole	2	X	X	X
1	2-pole + 2 Empty chambers	4-pole		X	X	X
1	2-pole + 1 Empty chamber + 1 Auxiliary contact	4-pole		X	X	X
1	2-pole + 2 Auxiliary contacts	4-pole		X	X	X
1	2-pole + 2 Empty chambers	4-pole	1	X	X	X
1	2-pole + 1 Empty chamber + 1 Auxiliary contact	4-pole	1	X	X	X
1	2-pole + 2 Auxiliary contacts	4-pole	1	X	X	X
1	3-pole + 1 Empty chamber	4-pole		X	X	X
1	3-pole + 1 Auxiliary contact	4-pole		X	X	X
1	3-pole + 1 Empty chamber	4-pole	1	X	X	X
1	3-pole + 1 Auxiliary contact	4-pole	1	X	X	X
1	4-pole	4-pole		X	X	X
1	4-pole	4-pole	1	X	X	X
2	3-pole	3-pole			X	X
2	2-pole + 1 Empty chamber	3-pole			X	X
2	2-pole + 1 Auxiliary contact	3-pole			X	X
2	3-pole	3-pole	1		X	X
2	2-pole + 1 Empty chamber	3-pole	1		X	X
2	2-pole + 1 Auxiliary contact	3-pole	1		X	X
2	3-pole	3-pole	2			X
2	2-pole + 1 Empty chamber	3-pole	2			X
2	2-pole + 1 Auxiliary contact	3-pole	2			X

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Annex

Pieces	Assembly	Switch base GHG25912	Auxiliary switch GHG25932	Enclosure size 1	Enclosure size 2	Enclosure size 3
2	4-pole	4-pole				X
2	3-pole + 1 Auxiliary contact	4-pole				X
2	3-pole + 1 Empty chamber	4-pole				X
2	2-pole + 2 Empty chambers	4-pole				X
2	2-pole + 1 Empty chamber + 1 Auxiliary contact	4-pole				X
2	4-pole	4-pole	1			X
2	3-pole + 1 Auxiliary contact	4-pole	1			X
2	3-pole + 1 Empty chamber	4-pole	1			X
2	2-pole + 2 Empty chambers	4-pole	1			X
2	2-pole + 1 Empty chamber + 1 Auxiliary contact	4-pole	1			X
2	4-pole	4-pole	2			X
2	3-pole + 1 Auxiliary contact	4-pole	2			X
2	3-pole + 1 Empty chamber	4-pole	2			X
2	2-pole + 2 Empty chambers	4-pole	2			X
2	2-pole + 1 Empty chamber + 1 Auxiliary contact	4-pole	2			X