Translation

1 # EU-Type Examination Certificate

2 **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 20 ATEX E 094 X**

4 Product: **Main- and safety switch as load, disconnector and load-break switch type GHG25*****R****

5 Manufacturer: **Cooper Crouse-Hinds GmbH**

6 Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 20.2155 EU.

9 The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	**General requirements**
EN 60079-1:2014	**Flameproof enclosure "d"**
EN IEC 60079-7:2015 + A1:2018	**Increased Safety "e"**
EN 60079-31:2014	**Protection by Enclosure "t"**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 2G Ex db eb IIC/IIB T6/T5/T4 Gb
II 2D Ex tb IIIC T80°C Db *) Temperature class according to clause 15.3

DEKRA Testing and Certification GmbH
Bochum, 2020-10-14

Signed: Jörg-Timm Kilisch

Managing Director

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 20 ATEX E 094 X

15 **Product description**

15.1 **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

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15.2 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", 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 BVS 19 ATEX E 048 X, BVS 19 ATEX E 059 X or PTB99ATEX3118U.

- Switch block, which is certified under the component certificate BVS 19 ATEX E 024 U.

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

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Pieces	Assembly	Switch base GHG25912	Auxiliary switch GHG25932	Enclosure size 1	Enclosure size 2	Enclosure size 3
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
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

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15.3 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

16 Report Number

BVS PP 20.2155 EU, as of 2020-10-14

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17 Special Conditions for Use

- 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".

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2020-10-14
BVS-Ret/Mu A 20180785

Managing Director

DAkkS Deutsche Akkreditierungsstelle D-ZE-17438-02-00

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