



Translation

EC-Type Examination Certificate

- (1) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (2) No. of EC-Type Examination Certificate: **BVS 14 ATEX E 076 U**
- (3) Component: **Switch base type GHG 2** ** R ******
- (4) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (5) Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**
- (6) The design and construction of this component and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (7) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in the Test and Assessment Report BVS PP 14.2109 EG.
- (8) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2012 General requirements**
EN 60079-1:2007 Flameproof enclosure "d"
EN 60079-7:2007 Increased safety "e"
EN 60079-11:2012 Intrinsic safety "i"
EN 60079-31:2009 Protection by enclosures "t"
- (9) The sign "U" placed after the certificate number indicates that the certificate must not be mistaken for a certificate for equipment or a protective system. This certificate may only be used as the basis for the certification of equipment or a protective system.
- (10) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified component in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.
- (11) The marking of the component shall include the following:

 **II 2G Ex de IIC Gb or Ex de IIB Gb**
II 2D Ex tb IIIC Db
or
 **II 2G Ex de ib [ia/ib] IIC Gb or Ex de ib [ia/ib] IIB Gb**
II 2D Ex tb [ia/ib] IIIC Db

DEKRA EXAM GmbH
Bochum, dated 2014-05-15

Signed: Simanski

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate**
BVS 14 ATEX E 076 U

(15) 15.1 Subject and type

Switch base type GHG 2**¹⁾ ** **²⁾ R ****³⁾

1) Construction

88 = switch base for enclosure mounting (standard version – “SO”)

89 = switch base for switch panel mounting (back-mounted terminal connection – “SOR”)

49 = switch base for switch panel mounting (complete with actuator – “ER”)

2) Version and construction height

11 = 1 level (marking not for type „ER“)

12 – 19 = 2 up to 9 levels (marking not for type „ER“)

30 – 38 = diverse switch versions f.e. security switch, Dahland switch etc.

3) Special construction

**** = e.g. switch base with “intrinsic safety” level

15.2 Description

The switch base type GHG 2** ** R **** is designed in type of protection Flameproof enclosure “d”. The connection terminals are designed in type of protection Increased safety “e” resp. Intrinsic safety “i”. The switch base must be installed in a separately certified enclosure according to EN/IEC 60079-ff (preferred type of protection Increased safety “e” EN/IEC 60079-7 resp. Protection by enclosure “t” EN/IEC 60079-31).

15.3 Parameters

Nominal voltage	690 V (Ex e) 90 V (Ex i)
Nominal current	20 A
Limits of the service temperature	-55 °C up to +80 °C (IIB) -45 °C up to +80 °C (IIC) -40 °C up to +80 °C (IIC / IIIC type “ER”)
Tested ambient temperature range	-55 °C up to +80 °C (IIB) -45 °C up to +80 °C (IIC) -40 °C up to +55 °C (IIC / IIIC type “ER”)
Cross-section	max. 2 x 4 mm ² (stranded-wire / fine-wire) max. 6 mm ² (pin cable lug)
Degree of IP-protection	IP66 (type “ER”)

(16) Test and Assessment Report

BVS PP 14.2109 EG as of 2014-05-15

(17) Installation instructions

When mounting in a separately certified enclosure in type of protection Increased safety "e" attention shall be paid to observing a distance to the enclosure wall and the clearance and creepage distance to the conducting parts according to table 1 of EN/IEC 60079-7 (see installation instructions).

The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of EN/IEC 60079-1:2007. For information on the dimensions of the flameproof joints contact the manufacturer.

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 EXAM GmbH
44809 Bochum, 2014-05-15
BVS-Yil/Mu A 20110810



Certification body



Special services unit