

## Translation

# (1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 13 ATEX E 013 X**
- (4) Equipment: **Terminal box type GHG 72 \*\*\* \*\* \***
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg Nord 49, 69412 Eberbach, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) 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 equipment 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 13.2033 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2009 General requirements**  
**EN 60079-7:2007 Erhöhte Sicherheit „e“**  
**EN 60079-11:2007 Intrinsic safety „i“**  
**EN 60079-31:2009 Protection by enclosure „t“**
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:



**II 2G Ex e \* IIC T4 / T5 / T6 Gb**

\*) Optional the marking can be amplified with the types of protection of the separately certified components, for example "d" and/or "ib".



**II 2D Ex tb IIIC T80°C / T95°C Db IP6\***

\*) see parameters

DEKRA EXAM GmbH  
Bochum, dated 11<sup>th</sup> February 2013

Signed: Dr. Eickhoff

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate  
BVS 13 ATEX E 013 X**

(15) 15.1 Subject and type

Terminal box type GHG 72 <sup>\*\*1)</sup> <sup>\*\*\*</sup> <sup>\*\*\*\*2)</sup>

<sup>1)</sup> Version

Plastic version (l x w x d)

10 = (165 x 165 x 131) mm

11 = (285 x 165 x 131) mm

Aluminium version (l x w x d)

30 = (220 x 120 x 80) mm

31 = (280 x 230 x 90) mm

32 = (400 x 230 x 90) mm

<sup>2)</sup> not Ex-relevant

15.2 Description

The Terminal box type GHG 72 <sup>\*\*\*\*</sup> <sup>\*\*\*\*</sup> is used as a connection or junction box in type of protection increased safety "e" and type of protection by enclosure "t". The terminal box enclosure could be executed in plastic or aluminium (only for EPL Gb).

The electrical connection can be realized with separately certified terminals in type of protection "e" increased safety and/or "i" intrinsic safety. The maximum numbers of the terminals, numbers of single leads, size of cross-section and the maximum rated current must be designed according the permitted current/cable size table resp. acc. to the maximum power dissipation (see table in "Parameters").

In addition other components (apart from components in type of protection "i" intrinsic safety) separately certified for this purpose can be used (e.g. fuses) with a max. power dissipation of 1 W according to the table listed in "Parameters".

15.3 Parameters

Electrical parameter

Nominal voltage <sup>1)</sup>	up to	690	V AC / DC
Nominal current <sup>2)</sup>	up to	200	A
Terminal cross-section	up to	95	mm <sup>2</sup>

<sup>1)</sup> Dependent on the used terminals, as well as the relevant creepage distances and clearances according table 1 of EN/IEC 60079-7.

<sup>2)</sup> Dependent on the used terminals, as well as terminal cross-section and the number of single leads.

## Power Dissipation

Rated current	Power Dissipation / Terminal cross-section					
	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>
2 A	0.020 W	---	---	---	---	---
3 A	0.025 W	0.015 W	---	---	---	---
4 A	0.040 W	0.025 W	0.015 W	---	---	---
5 A	0.055 W	0.080 W	0.025 W	0.015 W	---	---
10 A	0.250 W	0.200 W	0.080 W	0.060 W	0.035 W	0.025 W
15 A	---	0.350 W	0.200 W	0.130 W	0.080 W	0.050 W
20 A	---	---	0.350 W	0.230 W	0.150 W	0.080 W
25 A	---	---	---	0.350 W	0.230 W	0.150 W
30 A	---	---	---	---	0.320 W	0.200 W
40 A	---	---	---	---	0.550 W	0.350 W
50 A	---	---	---	---	---	0.550 W

### Degree of IP-Protection IP6\*

\* The degree of IP Protection could be changed depending on the enclosure for use with special assembly parts .

### Thermal data

The lower temperature range is depending on the used enclosure assembly parts.

Ambient temperature range                      -40 °C / -55 °C up to +40 °C (T6)  
  -40 °C / -55 °C up to +55 °C (T5)  
  -40 °C / -55 °C up to +55 °C (T4)\*

\* only for use of components in type of protection intrinsic safety "i".

### (16) Test and assessment report

BVS PP 13.2033 EG as of 11<sup>th</sup> February 2013

### (17) Special conditions for safe use

- 17.1 The used empty enclosure made from the material SMC 0190 RAL 7035 has to carry the following warning "Clean with moist cloth only".
- 17.2 When mounting the separately certified terminals, the clearance and creepage distance must be observed in accordance to table 1 of EN/IEC 60079-7.

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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, 11<sup>th</sup> February 2013  
BVS-Yil/Ma A 20120742



Certification body



Special services unit

## Translation

# (1) 1<sup>st</sup> Supplement to the EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC Supplement accordant with Annex III number 6
- (3) No. of EC-Type Examination Certificate: **BVS 13 ATEX E 013 X**
- (4) Equipment: **Terminal box type GHG 72 \*\*\* \*\* \***
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.
- (8) 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 equipment 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 13.2033 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2012 + A11:2013 General requirements**  
**EN 60079-7:2007 Increased safety "e"**  
**EN 60079-11:2012 Intrinsic safety "i"**  
**EN 60079-31:2014 Protection by enclosure "t"**
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

 **II 2G Ex e\* IIC T4 / T5 / T6 Gb**

 **II 2D Ex tb IIIC T80°C / T95°C Db**

\*) Optional the marking can be amplified with the types of protection of the separately certified components, for example "d", "e", "mb" and/or "ia/ib".

DEKRA EXAM GmbH  
Bochum, dated 2015-08-03

Signed: Simanski

Signed: Dr. Wittler

Certification body

Special services unit

- (13) Appendix to
- (14) **1<sup>st</sup> Supplement to the EC-Type Examination Certificate BVS 13 ATEX E 013 X**
- (15) 15.1 Subject and type

Terminal box type GHG 72 <sup>\*\*1)</sup> <sup>\*\*\* \*\*\*\*2)</sup>

<sup>1)</sup> Version

Plastic version (l x w x d)

10 = (165 x 165 x 131) mm

11 = (285 x 165 x 131) mm

Aluminium version (l x w x d)

30 = (220 x 120 x 80) mm

31 = (280 x 230 x 90) mm

32 = (400 x 230 x 90) mm

<sup>2)</sup> not Ex-relevant

15.2 Description

The Terminal box type GHG 72 <sup>\*\*\*\*</sup> <sup>\*\*\*\*</sup> is used as a connection or junction box in type of protection Increased Safety “e” and type of protection by enclosure “t”. The terminal box enclosure could be executed in plastic or aluminium (only for EPL Gb).

The electrical connection can be realized with separately certified terminals in type of protection “e” Increased Safety and / or “i” Intrinsic Safety. The maximum numbers of the terminals, numbers of single leads, size of cross-section and the maximum rated current must be designed according the permitted current / cable size table resp. acc. to the maximum power dissipation (see table in parameters).

In addition other components (apart from components in type of protection “i” Intrinsic Safety) separately certified for this purpose can be used (e.g. fuses) with a max. power dissipation of 1 W according to the table listed in “Parameters”.

The reason for this supplement is the updating to the new standard.

15.3 Parameters

Electrical parameter

Nominal voltage <sup>1)</sup>	up to	690	V AC / DC
Nominal current <sup>2)</sup>	up to	200	A
Terminal cross-section	up to	95	mm <sup>2</sup>

<sup>1)</sup> Dependent on the used terminals, as well as the relevant creepage distances and clearances according table 1 of EN/IEC 60079-7.

<sup>2)</sup> Dependent on the used terminals, as well as terminal cross-section and the number of single leads.

Max. Power dissipation for Enclosure Plastic version 10 = (165 x 165 x 131) mm:

Max. ambient temp.	T6	T5
40 °C	16 W	22 W
55 °C	10 W	16 W

Max. Power dissipation for Plastic version 11 = (285 x 165 x 131) mm:

Max. ambient temp.	T6	T5
40 °C	24 W	33 W
55 °C	15 W	24 W

Max. Power dissipation for Aluminium version 30 = (220 x 120 x 80) mm:

Max. ambient temp.	T6	T5
40 °C	19 W	26 W
55 °C	11 W	19 W

Max. Power dissipation for Aluminium version 31 = (280 x 230 x 90) mm:

Max. ambient temp.	T6	T5
40 °C	42 W	58 W
55 °C	25 W	42 W

Max. Power dissipation for Aluminium version 32 = (400 x 230 x 90) mm:

Max. ambient temp.	T6	T5
40 °C	56 W	77 W
55 °C	35 W	56 W

#### Degree of IP-Protection IP6\*

\* The degree of IP Protection could be changed depending on the enclosure for use with special assembly parts.

#### Thermal data

The lower temperature range is depending on the used enclosure assembly parts.

Ambient temperature range  
-40 °C / -55 °C up to +55 °C (T6)  
-40 °C / -55 °C up to +55 °C (T5)  
-40 °C / -55 °C up to +55 °C (T4)\*

\* Only for use of components in type of protection Intrinsic Safety "I".

#### (16) Test and Assessment Report

BVS PP 13.2033 EG as of 2015-08-03

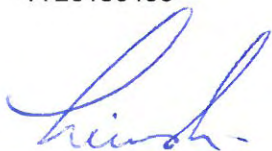
(17) Special conditions for safe use Installation instructions

- 17.1 The used empty enclosure made from the material SMC 0190 RAL 7035 is only permitted to use in Zone 1 and has to carry the following warning "Clean with moist cloth only".
- 17.2 When mounting the separately certified terminals into the separately certified empty enclosure, the clearances and creepage distances in accordance with table 1 of EN/IEC 60079-7 have to be fulfilled.

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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, 2015-08-03  
BVS-Hk/Mu A 20150453



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Certification body



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Special services unit