



Certificate of Compliance

Certificate: 2416168

Master Contract: 240700

Project: 2708110

Date Issued: August 13, 2014

Issued to: Cooper Crouse Hinds GmbH
Neuer Weg Nord 49
69412 Eberbach
Germany

Attention: Mr Guenther

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only



Eric Giusti
Issued by: Eric Giusti

PRODUCTS

CLASS 4418 02 OUTLET BOXES AND FITTINGS - Boxes - For Hazardous Locations

CLASS 4418 82 OUTLET BOXES AND FITTINGS - Boxes - For Hazardous Locations - For Hazardous Locations-Certified to U.S. Standards

Part A:

Ex d IIC or Ex de IIC ;

Class I, Zone 1, AEx d IIC or Class I, Zone 1, AEx de IIC.

Class II, Division 1, Groups E, F and G

Control Units model GHG6; followed by 6 or 7; followed by 1, 2, 4, 5, 6 or 7, followed by 4, 5, 6, 7, 8 or 9.
Ratings are as follows: rated voltage limited to 1.5 kV ; rated current 630 A maximum; rated cross section 300mm² maximum.

Ambient temperature range: -20·C to +55 °C



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Power consumption for flameproof enclosures:

Enclosure size	Temperature class		
	Ta = +40°C		Ta = +55°C
	T5	T6	T5
6.1	120 W Max	80W Max	80W Max
6.2	210W Max	150W Max	150W Ma
6.4	280W Max	210W Max	210W Max
6.5	420W Max	300W Max	300W Max
6.7	575W Max	400W Max	400W Max
676	975W Max	700W Max	700W Max

The control unit, type GHG 6.. R/L, may be provided with a protective heating box to prevent the formation of condensation or when used at temperatures lower than -20 ° C.

Model Designation:

GHG 6 6 7 4
 I II III IV V

I - Manufacturer's code

II - Code for flameproof enclosure

III - Code for enclosure material

6 - Enclosure made of aluminum alloy

7 - Enclosure made of sheet steel

IV - Code for enclosure size

1 - 210 x 210 x 203 mm

2 - 320 x 320 x 203 mm, flat

4 - 320 x 320 x 327 mm, deep

5 - 430 x 430 x 329 mm

6 - 650 x 650 x 505 mm

7 - 430 x 650 x 329 mm

V - Cover Options

4 - With actuator

5 - Without actuator

6- With Window Ø90 and actuator

7- With Window Ø90 and without actuator

8 - With Window Ø175 and actuator (not for use on Size 1 cover)

9 - With Window Ø175 and without actuator

Note:



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- The rated values are maximum values, the actual electrical values depend on the integrated electrical components. Within the scope of these maximum permissible values and with due regard to the applicable standards, the manufacturer specifies the final rated values according to the system conditions and operation mode.
- Openings which are not used are to be sealed in accordance with CAN/CSA 60079-1 and UL60079-1, section 11.9.
- Optionally, the products can include certified intrinsically safe products. In this case, the overall marking code shall include ia/ib or [ia/ib] depending on the type of Ex i component used.

Part B:

**Ex d IIB or IIB+H2 or
Ex de IIB or IIB+H2 ;**

**Class I, Zone 1, AEx d IIB or IIB+H2 or
Class I, Zone 1, AEx de IIB or IIB+H2 .
Class II, Division 1, Groups E, F and G**

Control Unit models GHG64 R/L for use in hazardous locations.

Ratings are as follows: rated voltage limited to 1.5 kV; rated current 1150 A maximum; rated cross section 300mm² maximum.

Optionally, the products can include certified intrinsically safe products. In this case, the overall marking code shall include ia/ib or [ia/ib] depending on the type of Ex i component used.

Power consumption for flameproof enclosures for maximum ambient of +40°C:

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enclosure size / enclosure type	power loss	
	T5	T6
GHG 64 . (.) 0 / 210 x 210 x 191 mm	134 W	94 W
GHG 64 . (.) 1 / 210 x 320 x 191 mm	158 W	112 W
GHG 64 . (.) 2 / 210 x 320 x 284 mm	195 W	140 W
GHG 64 . (.) 3 / 320 x 320 x 191 mm	214 W	152 W
GHG 64 . (.) 4 / 320 x 320 x 284 mm	280 W	197 W
GHG 64 . (.) 5 / 320 x 430 x 191 mm	260 W	187 W
GHG 64 . (.) 6 / 320 x 430 x 284 mm	385 W	275 W
GHG 64 . (.) 7 / 430 x 430 x 284 mm	385 W	275 W
GHG 64 . (.) 8 / 430 x 650 x 284 mm	385 W	275 W
GHG 64 . (.) 9 / 430 x 650 x 437 mm	640 W	470 W
GHG 64 . (.) 0 / 650 x 650 x 442 mm	640 W	470 W

Power consumption for flameproof enclosures for maximum ambient of +55°C:

enclosure size / enclosure type	power loss	
	T5	T6
GHG 64 . (.) 0 / 210 x 210 x 191 mm	94 W	54 W
GHG 64 . (.) 1 / 210 x 320 x 191 mm	112 W	68 W
GHG 64 . (.) 2 / 210 x 320 x 284 mm	140 W	84 W
GHG 64 . (.) 3 / 320 x 320 x 191 mm	152 W	90 W
GHG 64 . (.) 4 / 320 x 320 x 284 mm	197 W	113 W
GHG 64 . (.) 5 / 320 x 430 x 191 mm	187 W	110 W
GHG 64 . (.) 6 / 320 x 430 x 284 mm	275 W	160 W
GHG 64 . (.) 7 / 430 x 430 x 284 mm	275 W	160 W
GHG 64 . (.) 8 / 430 x 650 x 284 mm	275 W	160 W
GHG 64 . (.) 9 / 430 x 650 x 437 mm	470 W	290 W
GHG 64 . (.) 0 / 650 x 650 x 442 mm	470 W	290 W

Ambient temperature range: -20°C to +55 °C

The control unit, type GHG 64. R/L, may be provided with a protective heating box to prevent the formation of condensation or when used at temperatures lower than -20 °C.

Model designation:



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GHG 64 I II III R/L IV

I: code for gas group
1: IIB
2: IIB+H2

II: size of the unit (mm)

Control station

30 = 210 x 210 x 191
31 = 210 x 320 x 191
32 = 210 x 320 x 284
33 = 320 x 320 x 191
34 = 320 x 320 x 284
35 = 320 x 430 x 191
36 = 320 x 430 x 284
37 = 430 x 430 x 284
38 = 430 x 650 x 284
39 = 430 x 650 x 437
40 = 650 x 650 x 442

Terminal box

70 = 210 x 210 x 191
71 = 210 x 320 x 191
72 = 210 x 320 x 284
73 = 320 x 320 x 191
74 = 320 x 320 x 284
75 = 320 x 430 x 191
76 = 320 x 430 x 284
77 = 430 x 430 x 284
78 = 430 x 650 x 284
79 = 430 x 650 x 437
80 = 650 x 650 x 442

Distribution

90

III and IV: code for Digits for version without influence on the type of protection

Part C:

**Ex d IIC or Ex de IIC ;
Class I, Zone 1, AEx d IIC or Class I, Zone 1, AEx de IIC;
Class II, Division 1, Groups E, F and G**

Component type enclosures model GHG6; followed by 6 or 7; followed by 1, 2, 4, 5, 6 or 7, followed by 4, 5, 6, 7, 8 or 9.



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Ambient temperature range: -20-C to +55 °C

Model Designation:

GHG	6	6	7	4	
	I	II	III	IV	V

I - Manufacturer's code

II - Code for flameproof enclosure

III - Code for enclosure material

6 - Enclosure made of aluminum alloy

7 - Enclosure made of sheet steel

IV - Code for enclosure size

1 - 210 x 210 x 203 mm

2 - 320 x 320 x 203 mm, flat

4 - 320 x 320 x 327 mm, deep

5 - 430 x 430 x 329 mm

6 - 650 x 650 x 505 mm

7 - 430 x 650 x 329 mm

V - Cover Options

4 - With actuator

5 - Without actuator

6 - With Window Ø90 and actuator

7 - With Window Ø90 and without actuator

8 - With Window Ø175 and actuator (not for use on Size 1 cover)

9 - With Window Ø175 and without actuator

Notes:

- The enclosure is certified as component since it is empty. Final assembly might be subject to inspection by local authorities having jurisdiction.
- Openings which are not used are to be sealed in accordance with CAN/CSA 60079-1 and UL60079-1, section 11.9.

Ex d IIB or IIB+H2 or

Ex de IIB or IIB+H2 ;

Class I, Zone 1, AEx d IIB or IIB+H2 or

Class I, Zone 1, AEx de IIB or IIB+H2 .

Class II, Division 1, Groups E, F and G



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Component type enclosures model GHG64 R/L for use in hazardous locations.

Ambient temperature range: -20°C to +55 °C



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Model designation:

GHG 64 I II III R/L IV

I: code for gas group

- 1: IIB
- 2: IIB+H2

II: size of the unit (mm)

Empty enclosure

- 01 = 210 x 210 x 191
- 02 = 210 x 320 x 191
- 03 = 210 x 320 x 284
- 04 = 320 x 320 x 191
- 05 = 320 x 320 x 284
- 06 = 320 x 430 x 191
- 07 = 320 x 430 x 284
- 08 = 430 x 430 x 284
- 09 = 430 x 650 x 284
- 10 = 430 x 650 x 437
- 11 = 650 x 650 x 442

III and IV: code for Digits for version without influence on the type of protection

Notes:

- The enclosure is certified as component since it is empty. Final assembly might be subject to inspection by local authorities having jurisdiction.
- Openings which are not used are to be sealed in accordance with CAN/CSA 60079-1 and UL60079-1, section 11.9.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 0-M1991 - General Requirements - Canadian Electrical Code Part II

CAN/CSA C22.2 No. 14: 2010 – Industrial Control Equipments.

CAN/CSA C22.2 No. 60079-0:07 - Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements

CAN/CSA C22.2 No. 60079-1:07 - Electrical Apparatus for Explosive Gas Atmospheres - Part 1: Flameproof Enclosures "d"

CAN/CSA C22.2 No. 60079-7:07 – Electrical Apparatus for Explosive Gas Atmospheres - Part 7: Flameproof Enclosures “e”

CAN/CSA C22.2 No. 60079-11:02 – Electrical Apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety “i”

CAN/CSA C22.2 No 25 – Enclosures for Use in Class II, Division 1, Groups E, F and G Hazardous Locations

CAN/CSA C22.2 No. 60529:05 - Degrees of protection provided by enclosures (IP Code)

UL508: 2010 - Industrial Control Equipments.

UL 60079-0:05 - Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements

UL 60079-1:05 - Electrical Apparatus for Explosive Gas Atmospheres - Part 1: Flameproof Enclosures "d"



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UL 60079-7:08 – Electrical Apparatus for Explosive Gas Atmospheres – Part 7: Flameproof Enclosures “e”
UL 60079-11:09 – Electrical Apparatus for Explosive Gas Atmospheres – Part 11: Intrinsic Safety “i”

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

General Markings are done on metallic nameplate riveted in place or on a listed adhesive label 3M label material 7871FL or 7879FL (LR99316); UL Recognized printing material, PGJI8.MH16411 and PGJI2.MH16411. In case 3M adhesive label is used, the label is placed on a non-painted metallic surface. Following information appears:

- CSA Monogram with c-us indicator;
- Company name and/or CSA master contract number
- Model number;
- Serial number or date of manufacturing;
- Hazardous locations designation;
- Maximum ambient temperature (as applicable);

When Exi certified components, marked with Tcode T4, are installed, the overall marking Tcode is T4.

For Part A units:

The warning Statement; «WARNING - To Reduce The Risk of Ignition of Hazardous Atmospheres, All Size Conduit Runs Must Be Sealed Within 18 Inches Of The Enclosure. Disconnect From The Supply Circuit Before Opening Enclosure. Keep Tightly Closed When Circuits Are Alive.»

If a thread type is provided other than NPT or NPS, the connection must be marked indicating the thread size and type.

Since the details of width of joints others than standard are shown in the operation manual of the apparatus, reference to the operation manual is made by means of a label (see also GHG 905 1004 P0021)

An adhesive backed paper label is provided inside of the enclosure where visible during installation. The label contains the following marking:

Caution Statement:

«CAUTION -

To prevent external fire or explosion do not install switching equipment intended to interrupt more than 10,000 rms symmetrical amperes. Do not install equipment which will produce external surface temperatures exceeding the ignition temperature of the flammable or combustible materials which may surround this enclosure.



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Current interrupting devices, switches, relays, circuit breakers, contractors, etc. intended for installation inside this enclosure may fail electrically or mechanically if each device has not been investigated and found suitable for use in the proposed hazardous locations»



Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
2708110	August 13, 2014, 2014	Update to report 2416168 to cover following modifications on the product and its ratings: Limitation of the electrical ratings to 1500 VAC and Modification of the marking label material.
70000237	November , 2012	Update to report 2416168 to include Class II, Division 1 and Empty enclosures.
2416168	July 25, 2011	Original Certification.