



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx PTB 14.0027X Issue No: 0 Certificate history:
Issue No. 0 (2014-05-26)

Status: **Current** Page 1 of 3

Date of Issue: **2014-05-26**

Applicant: **Cooper Crouse-Hinds GmbH**
Neuer Weg Nord 49
69412 Eberbach
Germany

Electrical Apparatus: **Cable gland type GHG 960 **** * ******
Optional accessory:

Type of Protection: **"e", "tb"**

Marking:
Ex e IIC Gb
Ex tb IIIC Db

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

Uwe Völkel

Position:

Department Explosion Protection in Energy Technology

*Signature:
(for printed version)*

Date:

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:



IECEX Certificate of Conformity

Certificate No: IECEx PTB 14.0027X Issue No: 0
Date of Issue: 2014-05-26 Page 2 of 3
Manufacturer: **Cooper Crouse-Hinds GmbH**
Neuer Weg Nord 49
69412 Eberbach
Germany

Additional Manufacturing
location(s):

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 electrical apparatus 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 : 2011 Edition:6.0 | Explosive atmospheres - Part 0: General requirements |
| IEC 60079-31 : 2008 Edition:1 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t" |
| IEC 60079-7 : 2006-07 Edition:4 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" |

*This Certificate **does not** indicate compliance with electrical 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/PTB/ExTR14.0029/00](#)

Quality Assessment Report:

[DE/BVS/QAR11.0009/02](#)



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Certificate No: IECEx PTB 14.0027X

Issue No: 0

Date of Issue: 2014-05-26

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

The cable gland, type GHG 960 **** * ****, made of polyamide serves to introduce permanently laid cables into electrical equipment of the type of protection Increased Safety "e" and Protection by enclosure "tb".

The cable entry is composed of intermediate glands with two different widths of threaded joint, sealing rings of different designs and a cap nut.

Accessories are: blanking plug, reducing gland, multiple cable gland, flat cable gland and expansion gland.

They are installed in enclosures with through-holes or threaded holes, with or without lock nut.

The cap nut is optionally made in black resp. blue for the distinction of Ex-e and Ex-i circuits.

Technical Data and Nomenclature see Annex.

CONDITIONS OF CERTIFICATION: YES as shown below:

Only permanently laid cables and conduits may be entered. The user must guarantee suitable clamping.

The cable entries with a low degree of mechanical hazard: may be used only in places where they are protected against the influence of mechanical danger.

The blanking plug type GHG 960 6107 P**** resp. GHG 960 1944 R**** shall only be used with the cable glands type GHG 960 92** P**** resp. GHG 960 19** R****.

Annex:

[Annex-IECEx PTB 14.0027X.pdf](#)



Applicant: Cooper Crouse-Hinds GmbH
Neuer Weg Nord 49
69412 Eberbach
Germany

Electrical Apparatus: Cable gland type GHG 960 **** * ****

Description

The cable gland, type GHG 960 **** * ****. made of polyamide serves to introduce permanently laid cables into electrical equipment of the type of protection Increased Safety "e" and Protection by enclosure "tb".

The cable entry is composed of intermediate glands with two different widths of threaded joint, sealing rings of different designs and a cap nut.

Accessories are: blanking plug, reducing gland, multiple cable gland, flat cable gland and expansion gland.

They are installed in enclosures with through-holes or threaded holes, with or without lock nut.

The cap nut is optionally made in black resp. blue for the distinction of Ex-e and Ex-i circuits.

Technical data

| Type | Ø Clamping range in mm Sealing ring 1/ Sealing ring 2 | Service temper- perature | One pcs. | Packing set |
|-----------------------------|---|-----------------------------|--------------------|--------------------|
| Cable Gland M12x1,5 | Ø 5 – 7 ----- | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M16x1,5 | Ø 7 – 10 ----- | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M20x1,5 | Ø 7 – 9 Ø 9,5 – 13 | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M20x1,5 | Ø 7 – 9 Ø 9,5 – 11 | -40°C - +70°C | GHG 960 9248 P**** | GHG 960 1955 R**** |
| Cable Gland M25x1,5 | Ø 10 – 13 Ø 13,5 – 17,5 | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M25x1,5 | Ø 10 – 13 Ø 13,5 – 15 | -55°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M32x1,5 | Ø 14 – 17 Ø 17,5 – 21 | -55°C - +70°C | GHG 960 9248 P**** | GHG 960 1955 R**** |
| Cable Gland M32x1,5 | Ø 14 – 17 Ø 17,5 – 21 | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M40x1,5 | Ø 19 – 22 Ø 22 – 28 | -55°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M50 x1,5 | Ø 24 – 28 Ø 28 – 35 | -55°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Cable Gland M63x1,5 | Ø 29 – 35 Ø 36 – 41 * | -55°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Expansion gland M16/M20X1,5 | Ø 7 – 9 Ø 9,5 – 13 | -20°C - +70°C | GHG 960 9244 P**** | GHG 960 1956 R**** |
| Expansion gland M20/M25X1,5 | Ø 10 – 13 Ø 13,5 – 17,5 | -20°C - +70°C | GHG 960 9244 P**** | GHG 960 1956 R**** |
| Expansion gland M25/M32X1,5 | Ø 14 – 17 Ø 17,5 – 21 | -55°C - +70°C | GHG 960 9244 P**** | GHG 960 1956 R**** |
| Expansion gland M32/M40X1,5 | Ø 19 – 22 Ø 22 – 28 | -55°C - +70°C | GHG 960 9244 P**** | GHG 960 1956 R**** |
| Expansion gland M40/M50X1,5 | Ø 24 – 28 Ø 28 – 35 | -55°C - +70°C | GHG 960 9244 P**** | GHG 960 1956 R**** |
| Expansion gland M50/M63X1,5 | Ø 29 – 35 Ø 36 – 41 * | -55°C - +70°C | GHG 960 9244 P**** | GHG 960 1956 R**** |
| Reducing gland M16-M12 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M20-M12 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M20-M16 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M25-M12 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M25-M16 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M25-M20 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M32-M12 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M32-M16 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M32-M20 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M32-M25 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M40-M16 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M40-M20 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |



| | | | | |
|----------------------------------|--|---------------------------|--------------------|--------------------|
| Reducing gland M40-M25 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M40-M32 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M50-M20 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M50-M25 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M50-M32 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M50-M40 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M63-M25 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M63-M32 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M63-M40 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Reducing gland M63-M50 | | -55°C - +70°C | GHG 960 9237 P**** | GHG 960 1946 R**** |
| Multiple gland M25X1,5 2- fold | Ø 4,5 – 7 ----- | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Multiple gland M32X1,5 4- fold | Ø 4,5 – 7 ----- | -20°C - +70°C | GHG 960 9235 P**** | GHG 960 1955 R**** |
| Flat cable gland M25X1,5 | G18 = 12,5 - 9 x 8 - 5 G26 = 14- 11 x 8 - 6 | -55°C - +70°C (+110°C) | GHG 960 9242 P**** | |
| Cable gland PG 16 | ** | -20°C - +70°C | GHG 960 9243 P**** | |
| Cable gland PG 16 | ** | -55°C - +70°C | GHG 960 9243 P**** | |
| Blanking plug for M12 | Ø 5 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M16 | Ø 6 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M20 | Ø 7 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M25 | Ø 10 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M32 | Ø 13 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M40 | Ø 19 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M50 | Ø 25 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for M63 | Ø 32 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |
| Blanking plug for multiple gland | Ø 5 | -55°C - +70°C | GHG 960 6107 P**** | GHG 960 1944 R**** |

* additional sealing ring for the clamping range Ø 41mm up to Ø 48mm

** the same design as well as the M25 version

Two different length of thread

short = P/R****

long = P/R****

Two different colours

black for Ex-e Version = P/R****

blue for Ex- i Version = P/R****

Range of temperatures of use, see above Table 1:

max. -55 °C to +70 °C (110°C)*

*Sealing ring for the heat cable of the flat cable gland

Suitable for equipment of group II with a degree of mechanical hazard:

Cable glands:

M12 / -20°C = low

M16 / -20°C = low

M20 / -20°C = high - 40°C = low

M25, M32, M40, M50, M63 = high

PG16 = high

Multiple cable gland M25 -20°C = high

Multiple cable gland M32 -20°C = high

Extension glands:

M16/M20 / -20°C = high - 40°C = low

M20/M25 up to M50/M63 = high

Installation in equipment with wall thicknesses of

at least 1.5 mm

Protection against solid foreign objects, water and contact

IP 66



Nomenclature

| | | | |
|---------|------|---|------|
| GHG 960 | **** | * | **** |
| 1 | 2 | 3 | 4 |

- 1) Type
- 2) Design see table 1 above
- 3) P = Single part
R = Packing set
- 4) Variants e.g. colour, thread length, blanking elements, size, etc.

Conditions of Use

Only permanently laid cables and conduits may be entered. The user must guarantee suitable clamping.

The cable entries may be used only in places where they are protected against the influence of mechanical danger.

The blanking plug type GHG 960 6107 P**** resp. GHG 960 1944 R**** shall only be used with the cable glands type GHG 960 92** P**** resp. GHG 960 19** R**** .