



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX IMQ 24.0007X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2024-08-02

Applicant: **COOPER CROUSE-HINDS GmbH**  
Neuer Weg Nord 49, 69412 Eberbach  
Germany

Equipment: **Cable glands and Protection Tap, serie GHG960 9249 P\*\*\*\*; GHG960 9250 P000\***

Optional accessory:

Type of Protection: **Ex eb; Ex tb**

Marking: Ex eb IIC Gb  
Ex tb IIIC Db

Approved for issue on behalf of the IECEx  
Certification Body:

**Mr. Mauro CASARI**

Position:

**IMQ ExCB Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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20138 Milano  
Italy





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Manufacturer: **COOPER CROUSE-HINDS GmbH**  
Neuer Weg Nord 49, 69412 Eberbach  
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Manufacturing  
locations:

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-31:2022](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:3.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

This Certificate **does not** indicate compliance with 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:

[IT/IMQ/ExTR24.0007/00](#)

Quality Assessment Report:

[DE/BVS/QAR11.0009/14](#)



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Certificate No.: **IECEX IMQ 24.0007X**

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Date of issue: 2024-08-02

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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The polyamide cable gland type GHG960 9249 P\*\*\*\* are used to introduce permanently circular cables into enclosure. Cable glands are suitable for electrical equipment either with type of protection Ex-e or type of protection Ex-t. Cable glands could be also used for intrinsically safe circuits Ex-i.

Cable glands GHG960 9249 P\*\*\*\* are provided with single (S1) or double (S1+S2) sealing rings.

Cable glands can be supplied with protective tap, polyamide made, as accessory (GHG960 9250 P000\*), suitable to guarantee IP degree when installed according to manufacturer's instructions.

Additionally, dust plugs are used for Ex polyamide cable glands to protect the glands from dust during the shipment. It is taken out during installation.

Details on sealing rings material, flat washer (placed between the body and the cover of enclosures) materials and limitations are listed in Table 1.

List of all models and further details are included in the Operating instructions/ GHG 960 7004 P0001 D/GB/F (-).

The cable glands and plugs can be factory made with the following threads: Metric ISO pitch 1,5 (ISO 965/1, ISO 965/2, ISO 965/3).

The cable glands, fitted with insert cap or not, are suitable for gas and dust atmosphere (II2GD).

The temperature range is detailed in Table 1 above.

All cable glands must be supplied with flat washer/O-ring for IP protection.

Full details in Annex.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

- The cable glands are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting.
- The cable glands/protective tap and the relevant cables, shall be used where a protection against risk of mechanical damage is provided.
- The cable gland installation shall be done according to safety manufacturer instructions to maintain degree of protection.
- For gas installations (only for cable glands with M50 thread and following) and dust installations: Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.
- When cable glands are installed with polyamide protection tap GHG960 9250 P000\*, mechanical risk have to be taken into account, depending on cable gland and insert cap. When insert cap is removed in order to install the proper cable, the integrity of sealing rings have to be checked, in order to guarantee the correct tightness. If necessary, sealing rings have to be replaced with new ones (original spare parts only).

## Annex:

[IECEX IMQ 24.0007X issue No. 0 Annex\\_1.pdf](#)



**General description**

The polyamide cable gland type GHG960 9249 P\*\*\*\* are used to introduce permanently circular cables into enclosure.

Cable glands are suitable for electrical equipment either with type of protection Ex-e or type of protection Ex-t. Cable glands could be also used for intrinsically safe circuits Ex-i.

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List of all models and further details are included in the Operating instructions/ GHG 960 7004 P0001 D/GB/F (-).

The cable glands and plugs can be factory made with the following threads:

- Metric ISO pitch 1,5 (ISO 965/1, ISO 965/2, ISO 965/3)

| Series   | Service temperature <sup>1</sup> | Sealing rings material | Flat washer materials | O-ring materials | Mechanical risk |
|--|----------------------------------|------------------------|-----------------------|------------------|-----------------|
| GHG960 9249 P****  | -55 ÷ +70 °C                     | silicone               | silicone              | silicone         | Low (4J)        |
|  | -45 ÷ +70 °C                     |                        |                       |                  | High (7J)       |
|  | -20 ÷ +70 °C                     |                        |                       |                  | Low (4J)        |
| <b>Notes</b><br><sup>1</sup> Service temperature is related to material of sealing rings and polyamide which cable glands body is made of, but can be additionally limited by material of flat washer silicone (-60÷180 °C. The use of these materials in flat washer has to be taken into account in determination of lower limit of service temperature of cable glands, while upper limit is 70°C for all other models. |                                  |                        |                       |                  |                 |

The cable glands, fitted with insert cap or not, are suitable for gas and dust atmosphere (II2GD).

The temperature range is detailed in Table 1 above.

All cable glands must be supplied with flat washer/O-ring for IP protection.

Protection degree: IP66/68 (5 bar; 0.5 h)

### Design options and Models sizes

Sizes of models, recommended torque and (for cable glands) range of diameter for suitable cables are shown in following tables. S1 means single sealing ring mounted inside cable gland. S1+S2 means double sealing rings mounted inside cable gland.

| GHG960 9249 P**** Models               |                    |        |                                      |
|--|--------------------|--------|--------------------------------------|
| Eaton Model                            | Min-max cable [mm] |        | Mechanical risk                      |
|  | S1+S2              | S1     |                                      |
| GHG960 9249 P0012<br>GHG960 9249 P0112 | 4-6                | 6-10   | 4J @ -20°C÷+70°C                     |
| GHG960 9249 P0002<br>GHG960 9249 P0102 | 4-6                | 6-10   | 4J @ -20°C÷+70°C                     |
| GHG960 9249 P0013<br>GHG960 9249 P0113 | 6-7.5              | 7.5-11 | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0003<br>GHG960 9249 P0103 | 6-7.5              | 7.5-11 | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0019<br>GHG960 9249 P0119 | 9-13               | 13-15  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0014<br>GHG960 9249 P0114 | 9-13               | 13-17  | 4J @ -55°C÷+70°C                     |
| GHG960 9249 P0009<br>GHG960 9249 P0109 | 9-13               | 13-15  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0004<br>GHG960 9249 P0104 | 9-13               | 13-17  | 4J @ -55°C÷+70°C                     |
| GHG960 9249 P0015<br>GHG960 9249 P0115 | 12-16              | 16-21  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0005<br>GHG960 9249 P0105 | 12-16              | 16-21  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0016<br>GHG960 9249 P0116 | 17-21              | 21-28  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0006<br>GHG960 9249 P0106 | 17-21              | 21-28  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0007<br>GHG960 9249 P0107 | 24-31              | 31-38  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |
| GHG960 9249 P0008<br>GHG960 9249 P0108 | 28-35              | 35-44  | 7J @ -45°C÷+70°C<br>4J @ -55°C÷+70°C |

| GHG960 9250 P000* Models |      |           |   |
|--------------------------|------|-----------|---|
| Model                    | Type | Material  | Service temperature and Mechanical risk   |
| GHG960 9250 P0002        | M16  | Polyamide | The mechanical risk shall be in accordance with ones of cable glands on which the blanking plugs are installed. |
| GHG960 9250 P0003        | M20  |           |   |
| GHG960 9250 P0004        | M25  |           |   |
| GHG960 9250 P0005        | M32  |           |   |
| GHG960 9250 P0006        | M40  |           |   |
| GHG960 9250 P0007        | M50  |           |   |
| GHG960 9250 P0008        | M63  |           |   |

Annex to: IECEx IMQ 24.0007X issue No. 0

Applicant: Cooper Crouse-Hinds GmbH

Apparatus: GHG960 9249 P\*\*\*\* and GHG960 9250 P000\*



Key code:

|                  |   |   |   |   |                     |  |
|------------------|---|---|---|---|---------------------|--|
| GHG960 9249 P    | 1 | 2 | 3 | 4 | 1 : Material        | 0 : Polyamide  |
|                  |   |   |   |   | 2 : Cap color       | 0 : Black<br>1 : Light Blue  |
|                  |   |   |   |   | 3 : Thread length   | 1 : Short<br>0 : Long  |
|                  |   |   |   |   | 4 : Gland Size      | 2 : M16<br>3 : M20<br>4 : M25<br>5 : M32<br>6 : M40<br>7 : M50<br>8 : M63<br>9 : M25 |
|                  |   |   |   |   | Thread type:        | "M" – Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3)                                 |
|                  |   |   |   |   | Size and dimensions | According to EA3-X2  |
|                  |   |   |   |   | Sealing Material    | Silicone seal  |
| GHG960 9250 P000 | 1 |   |   |   | 1 : Plug Size       | 2 : M16<br>3 : M20<br>4 : M25<br>5 : M32<br>6 : M40<br>7 : M50<br>8 : M63            |
|                  |   |   |   |   |                     | According to EA3-14-IEC.21   |
|                  |   |   |   |   |                     | Black colour   |

Locknut can be used to tight the cable gland on enclosure, in case of plain hole.

**Annex to:** IECEx IMQ 24.0007X issue No. 0

**Applicant:** Cooper Crouse-Hinds GmbH

**Apparatus:** GHG960 9249 P\*\*\*\* and GHG960 9250 P000\*



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**Specific conditions of Use:**

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