



# 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 CES 19.0014X** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2019-12-10)

Status: **Current** Issue No: 1

Date of Issue: 2020-10-06

Applicant: **Hawke International (A Division of Hubbell Limited) (A Member of the Hubbell Group of Companies)**  
Oxford Street West  
Ashton Under Lyne  
Lancashire, OL7 0NA  
United Kingdom

Equipment: **Cable glands, type 501/321/\*\***

Optional accessory:

Type of Protection: **Increased safety 'e'; Dust ignition protection 't'**

Marking: **Ex eb IIC Gb  
Ex tb IIIC Db  
IP66/67/68**

Approved for issue on behalf of the IECEx  
Certification Body:

**Mirko Balaz**

Position:

**Head of IECEx CB**

Signature:  
(for printed version)

Date:

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Certificate issued by:

**CESI**  
**Centro Elettrotecnico**  
**Sperimentale Italiano S.p.A.**  
**Via Rubattino 54**  
**20134 Milano**  
**Italy**

# CESI



# IECEx Certificate of Conformity

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Manufacturer: **Hawke International (A Division of Hubbell Limited) (A Member of the Hubbell Group of Companies)**  
Oxford Street West  
Ashton Under Lyne  
Lancashire, OL7 0NA  
**United Kingdom**

Additional  
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 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

**IEC 60079-7:2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

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 Reports:

[IT/CES/ExTR19.0014/00](#)

[IT/CES/ExTR19.0014/01](#)

Quality Assessment Report:

[GB/BAS/QAR06.0061/08](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx CES 19.0014X**

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Date of issue: 2020-10-06

Issue No: 1

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Cable glands **501/321/\*\*** types are suitable for inserting circular non-armoured cables into Ex eb or Ex tb enclosures having either threaded or plane entries. Cable glands **501/321/\*\*** types are comprised of a male body, O-Ring seal and cap. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The cable glands **501/321/\*\*** types are only suitable for fixed installations. The cables must be effectively clamped to prevent cable pulling and twisting.

The cable glands **501/321/..** "Os", "O", "A", "B" and "C" sizes only, can be provided with Clamp accessory. In this case, no further cable clamping arrangements are needed.

Cable glands **501/321/\*\*** types are admitted for temperature range of use from -60°C up to +80°C.

Ingress protection of IP66/67 and IP68 (50 m for 30 min.) are maintained when the glands are installed in accordance with the manufacturer's instructions.

Cable glands **501/321/\*\*** types mounting threads are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M100x1.5 and tapered series NPT ANSI/ASME B1.20.1 from 3/8" up to 4".

To guarantee the IP 66/67 and IP68 degree of protection, the Cable glands **501/321/\*\*** types with cylindrical threads use a Silicon flat washer placed in-between the male threaded gland body and the enclosure wall, while for all other threads the IP 66/67 and IP68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The cable glands characteristics are further described in the Annexe of this certificate.

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

- The cable glands 501/321/.. types are only suitable for fixed installations. The cables must be effectively clamped to prevent cable pulling and twisting.
- The cable glands 501/321/.. "Os", "O", "A", "B" and "C" sizes only, can be provided with Clamp accessory. In this case, no further cable clamping arrangements are needed.
- The coupling of the cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which cable glands are mounted.
- The cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- The cable glands shall be installed in such a way that the temperature at the mounting point will remain within the service temperature ranges accordingly to the marking.
- The degree of protection IP 66/67 and IP68 according to the IEC 60529 standard will be guaranteed for the cable glands if the holes into which cable glands are mounted are suitably sealed. To this scope the correct positioning of the gaskets (for cylindrical threads) or the application of sealant on the threads (for tapered threads), shall be done as indicated in the manufacturer instruction.



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

### **Variation 1**

#### Variation 1.1

The cable gland 501/321/\*\* types previously assessed with the edition of IEC 60079-0:2011 Standard were reassessed with the new edition of IEC 60079-0:2017 Standard.

#### Variation 1.2

To the cable gland 501/321/\*\* types new M16x1.5 or 3/8"NPT and M20x1.5 or 1/2"NPT sizes with  $\varnothing 3.5 \pm 8.0$  clamping range have been added.

#### Variation 1.3

To the cable gland 501/321/\*\* types minor mechanical changes were applied.

#### Variation 1.4

To the cable gland 501/321/\*\* types, the degree of protection IP67 was added.

### **Annex:**

[HAWKE - IECEx\\_CES\\_19.0014X issue 1 ANNEX - Cable Gland 501-321.pdf](#)



## IECEX Certificate of Conformity



Prot: C0014890

**Annex to certificate:**

**IECEX CES 19.0014X Issue No.:1 of 2020-10-06**

**Applicant:**

**Hawke International, a Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West, Ashton Under Lyne, Lancashire, OL7 0NA  
United Kingdom**

**Apparatus:**

**Cable Glands, series 501/321/\*\***

### Description of the equipment:

The Cable glands **501/321/\*\*** types are suitable for inserting circular non-armoured cables into Ex eb or Ex tb enclosures having either threaded or plane entries. Cable glands **501/321/\*\*** types are comprised of a male body, O-Ring seal, and cap. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The cable glands **501/321/\*\*** types are only suitable for fixed installations. The cables must be effectively clamped to prevent cable pulling and twisting.

The cable glands **501/321/...** "Os", "O", "A", "B" and "C" sizes only, can be provided with Clamp accessory. In this case, no further cable clamping arrangements are needed.

Cable glands **501/321/\*\*** types are admitted for temperature range of use from -60°C up to +80°C.

Ingress protection of IP66/67 and IP68 (50 m for 30 min.) is maintained when the glands are installed in accordance with the manufacturer's instructions.

Cable glands **501/321/\*\*** types mounting threads are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M100x1.5 and tapered series NPT ANSI/ASME B1.20.1 from 3/8" up to 4".

To guarantee the IP66/67 and IP68 degree of protection, the Cable glands **501/321/\*\*** types with cylindrical threads use a Silicon flat washer placed in-between the male threaded gland body and the enclosure wall, while for all other threads the IP66/67 and IP68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The Cable glands are generally made in Brass (CuZn39Pb3 EN 12164). The following alternative materials can be supplied on demand:

- Nickel-plated Brass type CuZn39Pb3 EN 12164.
- Stainless steel type AISI316; AISI304; AISI303.

The cable glands should be also used for intrinsically safe circuits Ex i and should have a part painted in light blue.

### Ambient/service temperature ranges:

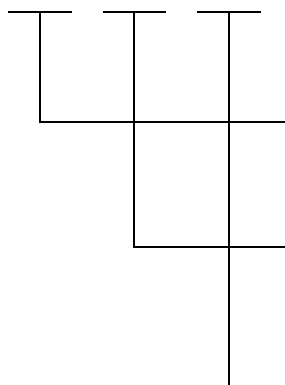
All the types are admitted for use within: -60°C ÷ +80 °C.

Prot: C0014890

**Annex to certificate:** IECEx CES 19.0014X Issue No.:1 of 2020-10-06  
**Applicant:** Hawke International, a Division of Hubbell Limited  
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 Oxford Street West, Ashton Under Lyne, Lancashire, OL7 0NA  
 United Kingdom  
**Apparatus:** Cable Glands, series 501/321/\*\*

Identification of Cable glands 501/321/\*\* types:

501/321/ \*\*\*\* / \*\*\* / \*



Code that identifies the thread size and clamping range  
(see Table 1)

Type of thread:

- **M:** ISO 261 pitch 1.5
- **N:** NPT ANSI/ASME B1.20.1

Manufacturing material:

- **None:** brass
- **NP:** nickel-plated brass
- **SS:** stainless steel

Types and thread sizes of cable glands are listed on the followings Table 1.

**Table 1:**

Code		Thread size		Cable Dia. ranges (mm)
For ISO thread	For NPT thread	ISO pitch 1.5	NPT	
Os/M16	Os/3/8"NP	M 16	3/8"	3.5÷8.0
Os/M20	Os/1/2"NP	M 20	1/2"	3.5÷8.0
O/M20	O/1/2"NP	M 20	1/2"	6.5÷12.0
A/M20	A/1/2"NP	M 20	1/2"	9.0÷16.0
B/M25	B/3/4"NP	M 25	3/4"	12.0÷20.0
C/M32	C/1"NP	M 32	1"	16.0÷26.0
C2/M40	C2/1¼"NP	M 40	1 ¼"	23.0÷33.0
D/M50	D/1½"NP	M 50	1 ½"	31.0÷41.0
E/M63	E/2"NP	M 63	2"	36.0÷51.0
F/M75	F/2½"NP	M 75	2 ½"	51.0÷64.0
G/M80	G/3"NP	M 80	3"	51.0÷64.0
H/M90	H/3 ½"NP	M 90	3 ½"	62.0÷77.0
J/M100	J/4"NP	M 100	4"	74.0÷88.0