



# 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.:	<b>IECEx INE 10.0010X</b>	Page 1 of 4	<u>Certificate history:</u> Issue 3 (2020-03-10) Issue 2 (2017-12-19) Issue 1 (2012-12-20) Issue 0 (2010-10-27)
Status:	<b>Current</b>	Issue No: 4	
Date of Issue:	2020-12-18		
Applicant:	<b>RCN s.r.l.</b> Regione Torame Via Crevacuore I-13011 BORGOSIESIA (VC) Italy		
Equipment:	<b>Ex Cable Glands types R... and B...</b>		
Optional accessory:			
Type of Protection:	<b>db, eb, nR and tb</b>		
Marking:	Ex db I Mb / Ex eb I Mb Ex db IIC Gb / Ex eb IIC Gb Ex nR IIC Gc Ex tb IIIC Db  IP66 or IP66/68		

Approved for issue on behalf of the IECEx  
Certification Body:

**Thierry HOUEIX**

Position:

**Ex Certification Officer**

Signature:  
(for printed version)

Date:

**2020-12-18**

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Certificate issued by:

**INERIS**  
Institut National de l'Environnement Industriel et des Risques  
BP n2 / Parc Technologique ALATA  
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France



controlling risks  
for sustainable development



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Manufacturer: **RCN s.r.l.**  
Regione Torame  
Via Crevacuore  
I-13011 BORGOSIESIA (VC)  
**Italy**

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 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-15:2017** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

**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 Reports:

[FR/INE/ExTR10.0006/00](#)  
[FR/INE/ExTR10.0006/03](#)

[FR/INE/ExTR10.0006/01](#)  
[FR/INE/ExTR10.0006/04](#)

[FR/INE/ExTR10.0006/02](#)

Quality Assessment Report:

[FR/INE/QAR10.0003/09](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Cable entries type R... or B... are protected by flameproof enclosure, increased safety, restricted-breathing enclosure and dust protection. Furthermore, they also can be fitted on "Ex i", "Ex n", "Ex m", "Ex o", "Ex p" and "Ex q"

These cable entries are foreseen, in accordance with the type, for armoured cables or non-armoured cables.

In accordance to the type, the cable gland can be realised with a simple sealing ring or double sealing ring.

The cable glands type B.. are provided with a sealed bushing.

These cable entries gets the protection degrees IP66 or IP66/IP68 according to IEC 60 529 standard; the verification of the protection degree IPX8 corresponds to an immersion under 30 meters of water during 7 days.

The cable entries sizes 12S and 16S are intended to be used only with one specific elastomeric sealing ring.

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

- The temperature of the enclosure, at the connection point of the cable entry must not exceed the following values :

Cable gland series	Service Temperature	Seal material	Resin type
R	-40°C to +100°C	EPDM	
R	-65°C to +220°C	Silicone	
B	-40°C to +100°C	EPDM	CW1302+HY1300
B	-65°C to +180°C	Silicone	CW1302+HY1300
B	-40°C to +100°C	EPDM	RCN EPR+EPH
B	-60°C to +150°C	Silicone	RCN EPR+EPH
B	-40°C to +100°C	EPDM	RCN SFR+SFH
B	-50°C to +149°C	Silicone	RCN SFR+SFH

- Due to the tensile test performed at 25% of the load, the clamping of the cables, for the cable glands size 63, 75, 90a and 90b must be realized outside of the enclosure, nearby to the equipment on which the cable glands are installed.

- In order to maintained the IPX8 the cable entry shall be fitted on equipment which satisfies an immersion test under 30 meters of water during 7 days.

- The types RNC, RAC, BNC, BAC, RNCS, RACS, BNCS and BACS, with female threaded exit, must be connected to a threaded device to avoid damaging the cable due to sharp edge.

The other conditions are stipulated in the instructions.



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

Issue 1:

Application of the following standards:

- IEC 60079-0: 2011
- IEC 60079-1: 2007
- IEC 60079-7: 2006
- IEC 60079-31: 2008

Issue 2 :

- Application of standards: IEC 60079-1:2014, IEC 60079-7:2015, IEC 60079-15:2010 and IEC 60079-31:2013.
- Updating of the manufacturer's documents
- Add a new type of resin for cable gland type B...

Issue 3 :

- Application of standards: IEC 60079-0:2017 and IEC 60079-7:2015+A1:2017.
- Updating of the manufacturer's documents
- Add a new type of resin for cable gland type B....

Issue 4 :

- Addition of cable gland series RNCS, RACS, BNCS, BACS.
- Application of IEC 60079-15:2017 standard.

## Annex:

[IECEx INE 10.0010X-04\\_Annex.pdf](#)



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Annex: IECEx INE 10.0010X-04\_Annex.pdf

## PARAMETERS RELATING TO THE SAFETY

- The temperature of the enclosure, at the connection point of the cable entry must not exceed the following values:

Cable gland series	Service Temperature	Seal material	Resin type
R	-40°C to +100°C	EPDM	
R	-65°C to +220°C	Silicone	
B	-40°C to +100°C	EPDM	CW1302+HY1300
B	-65°C to +180°C	Silicone	CW1302+HY1300
B	-40°C to +100°C	EPDM	RCN EPR+EPH
B	-60°C to +150°C	Silicone	RCN EPR+EPH
B	-40°C to +100°C	EPDM	RCN SFR+SFH
B	-50°C to +149°C	Silicone	RCN SFR+SFH

- These cable glands can be used with diameter cables 4 mm up to 78 mm.

## MARKING

Marking has to be readable and indelible; it has to include the following indications:

- RCN srl
- I – 13011 Borgosesia (VC)
- R... or B...(\*)
- IECEx INE 10.0010X
- Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc
- Ex db I Mb / Ex eb I Mb
- Ex tb IIIC Db
- IP(\*\*)

### On the sealing ring :

- Indication of the minimum and maximum diameters.

### On the small cable glands the marking can be reduced at:

- RCN
- R... or B...(\*)
- IECEx INE 10.0010X
- Ex db/eb/tb/nR

(\*) The type is completed by numbers and/or letters in accordance with the manufacturing variations.

(\*\*) IP66 or IP66/IP68

## ROUTINE EXAMINATIONS AND TESTS

None.