



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 CES 11.0009U

Issue No: 1

Certificate history:

Issue No. 1 (2018-05-11)

Issue No. 0 (2011-04-04)

Status: **Current**

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Date of Issue: **2018-05-11**

Applicant: **Cabur S.r.l.**
Località Isolagrande n° 45
I-17041 Altare (SV)
Italy

Equipment: **Feed-through terminal blocks, RP.4 and RN.2 types**

Optional accessory:

Type of Protection: **Increased safety 'e'**

Marking:
Ex eb I Mb
Ex eb IIC Gb

Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)

Date:

11-5-2018

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.

Certificate issued by:

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

CESI

CESI S.p.A.

Testing & Certification Division
Business Area Certification
Il Responsabile

(Roberto Piccin)



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Certificate No: IECEx CES 11.0009U
Date of Issue: 2018-05-11
Manufacturer: Cabur S.r.l.
Località Isolagrande n° 45
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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 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 60079-7 : 2015 Edition:5.0	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:

IT/CES/EXTR11.0010/00 IT/CES/EXTR11.0010/01

Quality Assessment Report:

IT/CES/QAR07.0004/10



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

RP.4 and RN.2 types Cabur "increased safety" feed-through terminal blocks allows the direct and anti-loosening connection of solid, stranded and flexible conductors, by means of wire clamping collars, captive screws and conducting body. Each clamping unit has rated cross-section of 4 mm² for RP.4 terminal and 2.5 mm² for RN.2 terminal. They can house only one conductor with a maximum size of 6 mm² for RP.4 terminal or 4 mm² for RN.2 terminal.

The terminal blocks rated characteristics are further described in the Annexe of this certificate.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for Issues 1 and above):

Variation 1.1

The Increased safety terminal blocks RP.4 and RN.2 types originally assessed in compliance to IEC 60079-0:2004 and IEC 60079-7:2006 have been re-assessed on the basis of IEC 60079-0:2011 and IEC 60079-7:2015 Standards.

Variation 1.2

The Increased safety terminal blocks RP.4 and RN.2 types was extended to the new service temperature range of -40°C up to +110°C.

Annex:

IECEX CES 11.0009U Issue 1 ANNEX-RP_RN_Terminal blocks.pdf



IECEx Certificate of Conformity

CESI

Prot: B8010801

Annex to certificate: IECEx CES 11.0009U Issue No.:1 of 2018-05-11

Applicant: Cabur S.r.l.
Località Isolagrande 45, I-17041 Altare (SV) – Italy

Electrical Apparatus: Feed-through terminal blocks, RP.4 and RN.2 types

Description of the component:

RP.4 and **RN.2** types Cabur "increased safety" feed-through terminal blocks allows the direct and anti-loosening connection of solid, stranded and flexible conductors, by means of wire clamping collars, captive screws and conducting body. Each clamping unit has rated cross-section of 4 mm² for RP.4 terminal and 2.5 mm² for RN.2 terminal. They can house only one conductor with a maximum size of 6 mm² for RP.4 terminal or 4 mm² for RN.2 terminal.

Appropriate grooving, provided in the pressure plate and on the tin-plated copper conducting body, guarantee a perfect electrical contact and an efficient blocking of the conductor. The wire clamping collars are made of stainless steel and the tightening screws are manufactured in tempered and zinc-plated steel that with their coupling it is possible to apply the correct contact pressure.

The force applied during the tightening process, the overlapped threaded parts system act, by means of elastic deformation on the head of the screw, blocking it and avoiding subsequent loosening.

These **RP.4** and **RN.2** type terminal blocks can be mounted on type TH/15 "Top-hat" symmetric mounting rails according to IEC 60715.

The terminal blocks are contained into insulating bodies, made of Polyamide thermoplastic material and different colours according to Technical Note annexed to this certificate, that are manufactured in two specular half-shells which fit into each other by means of centring pins, provide an **IPXXB** protection degree.

With this types of terminals it is also possible to create a cross connection between two or more adjoining terminal blocks by using the appropriate tin-plated copper alloy permanent cross connections or multiple commoning bars. Even when the cross-connection is positioned, the assembled terminal board provided with these accessories guarantees an **IPXXB** protection degree, without the need of any further cover.

The terminal blocks must be mounted inside "Ex eb" enclosures. The terminal blocks plus enclosure assembly must be subjected to separate certification.

Identification of Terminal blocks:

RP. = Terminal block type;

4 = Rated cross-section of Terminal block (4 mm²).

RN. = Terminal block type;

2 = Rated cross-section of Terminal block (2.5 mm²).



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CESI

Prot: B8010801

Annex to certificate: IECEx CES 11.0009U Issue No.:1 of 2018-05-11

Applicant: Cabur S.r.l.
Località Isolagrande 45, I-17041 Altare (SV) – Italy

Electrical Apparatus: Feed-through terminal blocks, RP.4 and RN.2 types

Electrical characteristics:

RP.4 and RN.2 types Terminal block ratings – Standard version (without bridge):

Terminal block type	Rated cross-section [mm ²]	Min. cross-section [mm ²]	Max. cross-section [mm ²]	Rated current [A]	Resistance of terminal block [Ω]	Rated voltage [Vac]
RP.4	4	0.5	6	32	7.16×10^{-4}	320
RN.2	2.5	0.5	4	24	1.96×10^{-4}	320

The rated currents and rated cross-sections indicated above are for an ambient temperature range between -40°C and +40°C and for T6 applications.

RP.4 and RN.2 types Terminal block ratings – Terminal blocks with bridge jumper:

Terminal Block	Permanent cross connection (*)	Multiple Commoning Bar (*)	Tightening Torque [Nm]	Current on the Jumper [A]
RP.4	PM/...	PMP/25	0.5	32
RN.2	PM/...	PMP/58	0.4	24

Note (*): Accessories for installation required.

The currents of the jumper indicated above are for an ambient temperature range between -40°C and +40°C and for T6 applications.

“Schedule of Limitations”:

- The **RP.4** and **RN.2** Terminal blocks types are suited for a service temperature range between -40°C and +110°C.
- The terminals shall be mounted inside an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0 Standard with suitable IP degree of protection.
- When installing the terminals in an enclosure designed to Increased Safety “e” type of protection as specified in IEC 60079-7, the clearance and creepage distances shown in Table 2 shall be duly considered.
- If accessories are used, the instructions for installation provided by the manufacturer shall be observed.
- When **RP.4** and **RN.2** Terminal block types are with permanent cross-connections, it is necessary to separate adjoining different phases by interposing an “End section” (types **RFN/PT** or **RP.4/PT**) or a “Coloured partition” (type **DPF/2**), having a thickness of 1.5 mm. Furthermore, when **RN.2** Terminal block types are with permanent cross-connections in “adjacent with End section” (type **RFN/PT**) configuration, the rated voltages are limited up to 250V.
- As the back of each terminal block performs the function of insulating wall for the adjoining terminal block, an end section is necessary to close and provide appropriate insulation to the first terminal block forming the assembly.