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CERTIFICATE

[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Component intended for use on/in equipment or protective system intended for use in potentially explosive atmospheres Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 03 ATEX 073 U /03

[4] Component: **Feed-through terminal blocks RP.4 and RN.2**

[5] Manufacturer: **Cabur S.r.l.**

[6] Address: **Località Isolagrande 45, I-17041 Altare (SV) – Italy.**

[7] This supplementary certificate extends EC–Type Examination Certificate CESI 03 ATEX 073 U, to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-B8009611.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

[10] The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified component in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

[12] The marking of the component shall include the following:

Ex **I M2** **Ex eb I Mb**

and

Ex **II 2 G** **Ex eb IIC Gb**

Date 2018.05.02 - Translation issued the 2018.05.02

Prepared	**Verified**	**Approved**
Alessandro Fedato	Mirko Balaz	Roberto Piccin

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile
(Roberto Piccin)

CESI-ATEX

Schema di certificazione

ACCREDIA
PRD N. 018B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 073 U /03**

[15] **Description of the variation to the component**

- Updating to standards EN 60079-0: 2012 + A11:2013 and EN60079-7:2015.
- New maximum service temperature +110°C.

Description of 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 mm^2 for RP.4 terminal and 2.5 mm^2 for RN.2 terminal. They can house only one conductor with a maximum size of 6 mm^2 for RP.4 terminal or 4 mm^2 for RN.2 terminal.

These **RP.4** and **RN.2** type terminal blocks can be mounted on type TH/15 "Top-hat" symmetric mounting rails according to EN 50022.

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 mm^2).

RN. = Terminal block type;

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

Electrical characteristics

RP.4 and **RN.2** type 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 and + 40 °C and for T6 applications.

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 073 U /03**

RP.4 and **RN.2** type 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 and + 40 °C and for T6 applications.

[16] **Report n.** EX-B8009611.

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 7.1 of the EN 60079-7 Standard.
The dielectric test shall be carried out on a statistical basis with a minimum voltage of 2500 Vac as described into CABUR Dielectric test procedure no. CQ.352.

[17] **Schedule of limitations**

- The **RP.4** and **RN.2** Terminal block types are suited for a service temperature range between - 40 and + 110 °C.
- The terminals shall be mounted inside an enclosure that meets the requirements of an approved type of protection as specified in EN 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 EN 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.

[13] # Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 073 U /03**

[18] **Essential Health and Safety Requirements**
Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:
EN 60079-0: 2012 + A11:2013 – Explosive atmospheres – Part 0: Equipment - General requirements;
EN 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e".

[19] **Descriptive documents** (prot. EX- B8009615).

- Technical note No. 22 (14 pg.)	rev.4	dated	2018.01.30
- Ex e Instruction manual No. 22 (3 pg.)	rev.4	dated	2018.02.09
- Datasheet of materials (7 sheets)	rev.0	dated	2018.01.30

One copy of all documents is kept in CESI files.

Certificate history

Issue nr	Issue Date	Summary description of variation
03	2018.05.02	Updating to standards EN 60079-0: 2012 + A11:2013 and EN60079-7:2015. New maximum service temperature +110°C.
02	2010.12.29	Updating to new standards EN 60079-0 (2006), EN 60079-7 (2007), EN 61241-0 (2006). Updating to characteristics and documentation.
01	2005.01.17	New terminal type RN.2 with cross section 2.5mm^2.
00	2003.04.04	First Issue of the Certificate.