

# CESI



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Schema di certificazione

# CESI-ATEX



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

# CERTIFICATE



- [1] **EC-TYPE EXAMINATION CERTIFICATE**
- [2] **Component intended for use on/in equipment or protective system  
intended for use in potentially explosive atmospheres  
Directive 94/9/EC**
- [3] EC-Type Examination Certificate number:  
**CESI 13 ATEX 038 U**
- [4] **Component: Feed-through terminal blocks, series GPM and GPM/FIX**
- [5] **Manufacturer: Cabur S.r.l.**
- [6] **Address: Località Isolagrande 45, I-17041 Altare (SV) – Italy.**
- [7] This component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components 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-B0036705.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0: 2012    EN 60079-7: 2007**
- [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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified component in accordance to the Directive 94/9/EC. 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:
- |  |      |             |
|--|------|-------------|
|  | IM2  | Ex e I Mb   |
|  | II2G | Ex e IIC Gb |

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 25.09.2013 - Translation issued the 25.09.2013

Prepared  
Mirko Balaz

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Approved  
Fiorenzo Bregani

**CESI S.p.A.**  
Testing & Certification Division  
Business Area Certification  
Responsabile  
Fiorenzo Bregani

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## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 038 U

[15] Description of component

GPM.. series Cabur "increased safety" feed-through terminal blocks are designed to enable the operator to perform a quick and safe connection of electrical conductors. Each clamping unit can house only one conductor.

Standard types of terminal blocks can be mounted on different types of rails. For each terminal block, a /FIX version for the direct panel-mount is available.

All the versions are contained in insulating bodies which guarantee an IPXXB degree of protection. Every insulating body, made in thermoplastic material, is manufactured in two specular half-shells which fit into each other by means of centring pins.

With this series of terminals it is also possible to create a cross connection between two or more (five terminals maximum) adjoining terminal blocks by using the appropriate jumper. The pre-cut diaphragm on the side wall of the insulating body must be removed before the insertion of this accessory. 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.

Cabur GPM.. series terminal blocks allow the following connections:

- Bar-bar (-/BB) version with two semi-rigid or flexible conductors prepared with cable lug or two bars;
- Bar-cable (-/BC) version with two semi-rigid or flexible conductors one of which prepared with cable lug or with a semi-rigid or flexible conductor and one bar;
- Cable-cable (-/CC) version with two semi-rigid or flexible conductors.

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

### Identification of Terminal blocks:

**GPM** = Terminal block series or type;

**95** (e.g.) = Rated cross-section of Terminal block;

**/BB** = Suffix identifying the type of connection of the conductor: **bar-bar** version;

**/BC** = Suffix identifying the type of connection of the conductor: **bar-cable** version;

**/CC** = Suffix identifying the type of connection of the conductor: **cable-cable** version;

**/FIX** = Suffix identifying the direct panel-mount fixing system.

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## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 038 U

### Electrical characteristics

GPM.. series Terminal block – Standard version:

Terminal block Type	Rated cross-section [mm <sup>2</sup> ]	Range of Conductor cross-section [mm <sup>2</sup> ]	Rated current [A]	Rated voltage [Vac]	Resistance of the terminal block [ $\Omega \times 10^{-4}$ ]
GPM.95/BB	95	35 ÷ 95	232	630	0.78
GPM.95/BC	95	35 ÷ 95	232	630	1.37
GPM.95/CC	95	35 ÷ 95	232	630	1.37
<i>GPM.95/BB</i>	95	35 ÷ 95	232	1000 (*)	0.78
<i>GPM.95/BC</i>	95	35 ÷ 95	232	1000 (*)	1.37
<i>GPM.95/CC</i>	95	35 ÷ 95	232	1000 (*)	1.37
GPM.150/BB	150	50 ÷ 150	309	1000	0.64
GPM.150/BC	150	50 ÷ 150	309	1000	0.93
GPM.150/CC	150	50 ÷ 150	309	1000	0.93
GPM.240/BB	240	95 ÷ 240	415	1000	0.38
GPM.240/BC	240	95 ÷ 240	415	1000	0.64
GPM.240/CC	240	95 ÷ 240	415	1000	0.64

(\*) - Values referred to the condition given by the interposition of DFU/4 barrier only.

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

GPM../FIX series Terminal block - panel-mount version:

Terminal block Type	Rated cross-section [mm <sup>2</sup> ]	Range of Conductor cross-section [mm <sup>2</sup> ]	Rated current [A]	Rated voltage [Vac]	Resistance of the terminal block [ $\Omega \times 10^{-4}$ ]
GPM.95/BB/FIX	95	35 ÷ 95	232	630	0.78
GPM.95/BC/FIX	95	35 ÷ 95	232	630	1.37
GPM.95/CC/FIX	95	35 ÷ 95	232	630	1.37
GPM.150/BB/FIX	150	50 ÷ 150	309	1000	0.64
GPM.150/BC/FIX	150	50 ÷ 150	309	1000	0.93
GPM.150/CC/FIX	150	50 ÷ 150	309	1000	0.93
GPM.240/BB/FIX	240	95 ÷ 240	415	1000	0.38
GPM.240/BC/FIX	240	95 ÷ 240	415	1000	0.64
GPM.240/CC/FIX	240	95 ÷ 240	415	1000	0.64

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

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## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 038 U

Electrical characteristics (follows)

Permanent cross-connector rating for Terminal blocks types GPM.. and GPM../FIX:

Terminal block Type	Permanent cross-section Type	Two pole jumper	Three pole jumper	Four pole jumper	Five pole jumper	Rated current on the jumper [A]
GPM.95/..	POF/95/..	POF/95/2	POF/95/3	POF/95/4	POF/95/5	232
GPM.150/..	POF/150/..	POF/150/2	POF/150/3	POF/150/4	POF/150/5	309
GPM.240/..	POF/240/..	POF/240/2	POF/240/3	POF/240/4	----	376
GPM.95../FIX	POF/95/..	POF/95/2	POF/95/3	POF/95/4	POF/95/5	232
GPM.150../FIX	POF/150/..	POF/150/2	POF/150/3	POF/150/4	POF/150/5	309
GPM.240../FIX	POF/240/..	POF/240/2	POF/240/3	POF/240/4	----	376

[16] Report n. EX- B0036705

### 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 / 3500 VAC depending on terminal block rated voltage as described into CABUR Dielectric test procedure n. CQ.352.

### Descriptive documents (prot. EX- B3019977)

- Technical note No. 27 (14 pg.)	rev.2	dated	27.06.2013
- Technical note No. 28 (12 pg.)	rev.2	dated	27.06.2013
- Ex e Instruction manual No. 27 (5 pg.)	rev.2	dated	15.07.2013
- Ex e Instruction manual No. 28 (4 pg.)	rev.2	dated	15.07.2013

One copy of all documents is kept in CESI files.

[17] Schedule of limitations

- The GPM.. Series Terminal blocks are suitable for a service temperature range between -40 and +80 °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 inside an enclosure designed to Increased Safety "e" type of protection as specified in IEC 60079-7, the clearance and creepage distances shown in table 1 shall be duly considered.
- If accessories are used, the instructions for installation provided by the manufacturer shall be observed.
- The type POF/240/.. permanent cross-connectors are limited to current rating of 376 A and shall not be used with currents in exceeds of this value. The type POF/95/.. and POF/150/.. permanent cross-connectors are limited to the same current rating as the related terminal block and shall not be used with currents in exceeds of these values.
- The rated voltage for terminal blocks types GPM.95/.. and GPM.95../FIX is 630 Vac. While the rated voltage of 1000 Vac for terminal blocks type GPM.95/.. only is referred to the condition given by the interposition of DFU/4 barrier.

[18] Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-7: 2007 Explosive atmospheres – Part 7: Equipment protection by increased safety "e".