

# Ex e Instruction Manual N° 17

BPL.4 - TPL.4 - BPL/R "increased safety" terminal blocks, are manufactured according to IEC/EN 60079-0 and IEC/EN 60079-7 Standards, IECEx Certification Scheme and ATEX 2014/34/EU Directive prescriptions.

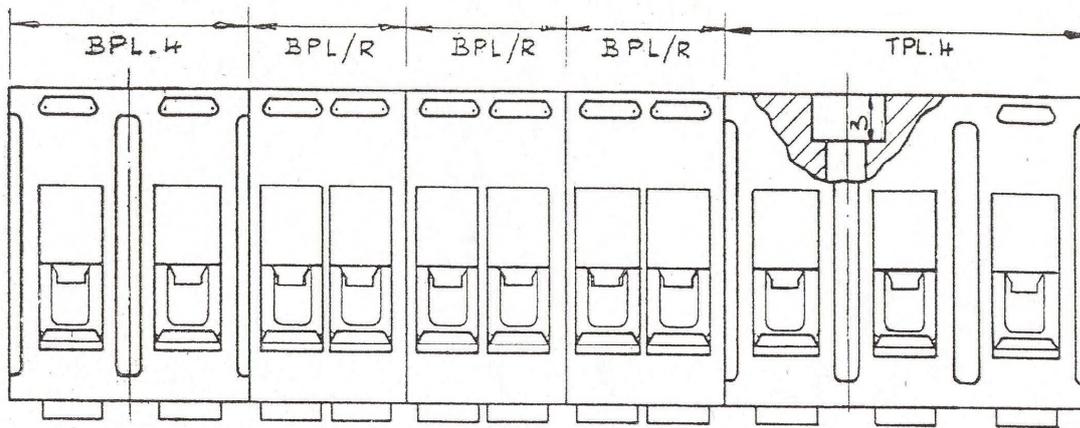
BPL.4 - TPL.4 - BPL/R series is covered by IECEx CES 11.0008U and 03 ATEX 164U Certificates

BPL.4 - TPL.4 - BPL/R type terminal blocks are also designed and manufactured in compliance with IEC / EN 60947-1 and IEC / EN 60947-7-1 reference product standards.

Terminal blocks (components) must be inserted in Ex eb enclosures. The terminal blocks + enclosure assembly must be subjected to separate certification.

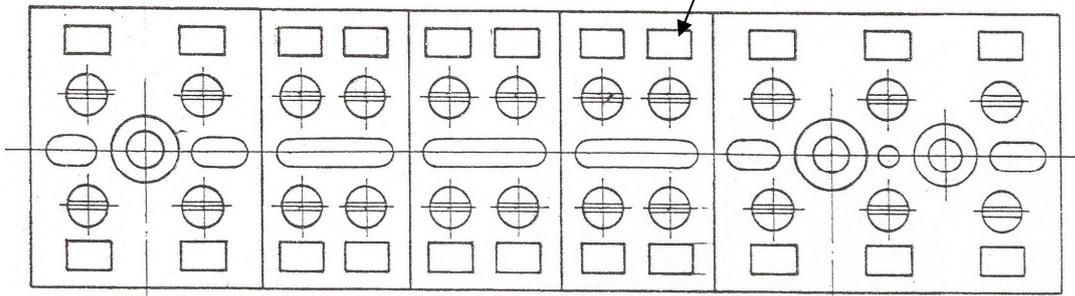
BPL.4 - TPL.4 - BPL/R Series terminal blocks are suited for a service temperature range between - 40 and + 110 °C. Ambient temperature range shall be between - 40 and + 40 °C for T6 applications.

## Terminal assembly composition in potentially explosive (Ex e) environments



Ø 3.1 mm for M3 x 30 mm fixing screw  
Note: only screws of insulating materials must be used

Housing for marking tag



Terminal blocks type BPL/R must necessarily be mounted onto the panel together with terminal blocks type BPL.4 and/or TPL.4, by coupling between them the dovetail interlocking moulded in the insulating bodies of terminal blocks type BPL.4, TPL.4 and BPL/R

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ATEX Marking:

IECEx Marking:



I M2 Ex eb I Mb  
II 2G Ex eb IIC Gb

Ex eb I Mb  
Ex eb IIC Gb

ATEX Marking description

- 0722** = number of the ATEX surveillance Notifying Body (CESI)
- I M 2** = group **I** (mines), category M 2
- II 2 G** = group **II** (surface), category 2 G (explosive atmosphere with presence of GAS)
- Ex eb** = “increased safety” protection mode
- I** = gas group **I** (mines)
- IIC** = gas group **IIC** (Acetylene)
- Gb** = E.P.L. (surface)
- Mb** = E.P.L. (mines)
- BPL** = terminal block series or type (two-pole version)
- BPL/R** = terminal block series or type (two-pole reduced pitch version)
- TPL** = terminal block series or type (three-pole version)
- 4** = rated cross-section of terminal block (4mm<sup>2</sup>)

IEC Ex Marking description

- Ex eb** = “increased safety” protection mode
- I** = gas group **I** (mines)
- IIC** = gas group **IIC** (Acetylene)
- Gb** = E.P.L. (surface)
- Mb** = E.P.L. (mines)

Terminal block	Rated cross-section [ mm <sup>2</sup> ]	Gauge according to IEC 60947-1	Minimum / maximum flexible and rigid conductor [ mm <sup>2</sup> ]	Rated current [ A ] (*) (****)	Resistance of the terminal block [ Ω ] (**)	Ex e rated voltage [ Vac ] (***)	Test voltage [ Vac ]	Material group	Overall dimension [ mm ]		
									A	B	C
BPL.4	4	A4	0,5 / 6	32	3,90 x 10 <sup>-4</sup>	320	2500 / 3000	I according to IEC 60079-7	20	26	24
TPL.4									30	26	24
BPL/R									13	26	24

Notes  
 (\*): According to paragraph 8.4.5 of IEC 60947-7-1 Std.  
 (\*\*): Values calculated from the results of the voltage drop test according to paragraph 8.4.4 of IEC 60947-7-1 Std.  
 (\*\*\*) : Rated voltage values can be subjected to a ± 10 % tolerance as listed in Table 1 of IEC 60079-7 Std.  
 (\*\*\*\*) : Ambient temperature according to paragraph 8.3.3.3.1 of IEC 60947-1 Std.

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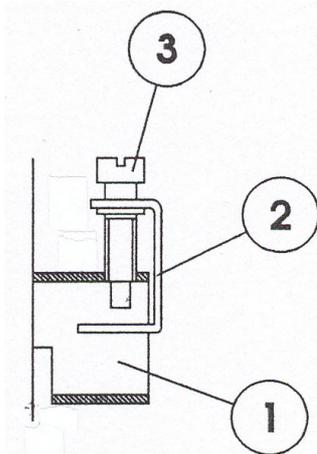


Fig. A

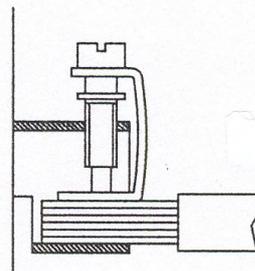


Fig. B

POSITION	COMPONENT
1	Conducting body
2	Pressure plate
3	Tightening screw

TERMINAL BLOCK	INSULATION STRIPPING LENGTH [ mm ]	TIGHTENING TORQUE VALUE [ Nm ] (*)
BPL.4	9	0,5
TPL.4	9	0,5
BPL/R	9	0,5

Note(\*): values taken from Table 4 of IEC 60947-1 Std

Terminal blocks type BPL.4 - TPL.4 - BPL/R are designed in order to enable the operator to perform a quick and safe connection of electrical conductors.

Each clamping unit can house only one conductor

For the connection of the conductors it is necessary to:

- 1) Unloosen the screw (Position 3 - Fig. A) until it reaches its maximum height; in this position the screw is kept captive as the pressure plate (Position 2 - Fig. A) obliges the screw to remain in its housing. Once this operation is performed, the conductor insertion hole is widely open to its maximum receiving capability.
- 2) Prepare the conductor, by stripping its end from the insulating protection (Fig. B) and according to the stripping length given in the table. Then introduce it in the terminal block, until it reaches the separating wall; at this stage, whilst keeping the conductor in place with one hand, the screw must be tightened, by applying the torque values given in the table and the connection secured. In this position, the pressure plate acts as a spring, avoiding the screw to unloosen itself

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**Attestation of Conformity to ATEX 2014/34/EU Directive and to the IEC Ex Certification Scheme**



**FAC-SIMILE**

Product model:	XXXXXXX
Serial or batch number:	XXXXXXXXXX

*The manufacturer:*

**CABUR SRL,  
Località Isola Grande 45,  
17041 ALTARE (SV) - ITALY**

*Hereby state that the product is in conformity with the following community directives:*

**2014/34/EU**

*And that the following harmonized standards have been applied:*

**EN 60079-0:2012+A11:2013  
EN 60079-7:2015**

*Additional information:*

*Protection mode:*



**I M2  
Ex eb I Mb**



**II 2G  
Ex eb IIC Gb**

Service temperature:

**-40°C ÷ +110°C**

Certificate:

**CESI 03 ATEX 162U**

Notified body:

**n. 0722 CESI via Rubattino, 54 (MI) ITALY**

*Altare, 18/12/2017*

  
The Legal Representative  


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