

## Ex e Instruction manual N° 14

TE.../O Series “increased safety” terminal blocks, are manufactured according to the prescriptions given by IEC / EN 60079-0, IEC / EN 60079-7, IEC / EN 61241-0 Standards and are in compliance with the ATEX 94/9/CE Directive and the IEC Ex Certification Scheme.

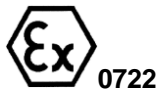
TE.../O Series terminal blocks are also designed and manufactured in compliance with IEC / EN 60947-1 and IEC / EN 60947-7-2 reference product standards.

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

TE.../O Series terminal blocks are suited for a temperature range between - 40 and + 80 °C

Ambient temperature range shall be between - 40 and + 40 °C

### ATEX Marking:



**I M 2 / II 2 GD**

**Ex e**

**0722** = number of the ATEX surveillance Notifying Body (CESI)

**I M 2** = group **I** (mines), category **M 2**

**II 2** = group **II** (surface), category **2**

**G** = explosive atmosphere with presence of **GAS**

**D** = explosive atmosphere with presence of **DUST**

**Ex e** = “increased safety” protection mode

**TE** = terminal block series or type




**/O** = suited to be mounted onto “TH 35” rails according to IEC 60715 Std.

**(es) 16** = rated cross-section of terminal block

### IEC Ex Marking

**Ex e** = “increased safety” protection mode

**II** = group **II** (surface)

	<b>Ex e Instruction manual</b>	<b>N°</b>	<b>Page</b>	<b>Rev.</b>	<b>Date</b>	<b>Issued</b>	<b>Approved</b>
		14	1	5	05/02/09		

Terminal block	Rated cross-section [ mm <sup>2</sup> ]	Gauge according to IEC 60947-1	Minimum / maximum cross-section of flexible conductor [ mm <sup>2</sup> ]	Minimum / maximum cross-section of flexible conductor [ mm <sup>2</sup> ]	Rated current [ A ] (*) (***)	Resistance of terminal block [ Ω ] (**)
TE.6/O	6	A5	0,5 / 6	0,5 / 10	41	2,44 x 10 <sup>-4</sup>
TE.10/O	10	B6	0,5 / 10	0,5 / 16	57	5,10 x 10 <sup>-4</sup>
TE.16/O	16	B7	0,5 / 16	0,5 / 25	76	2,61 x 10 <sup>-4</sup>
TE.50/O	50	B9	1,5 / 50	1 / 70	150	2,06 x 10 <sup>-4</sup>

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. and with reference to paragraph 8.3.4 of IEC 60947-7-2 (Test Ucs)  
(\*\*\*) : Ambient temperature according to paragraph 8.3.3.3.1 of IEC 60947-1 Std.

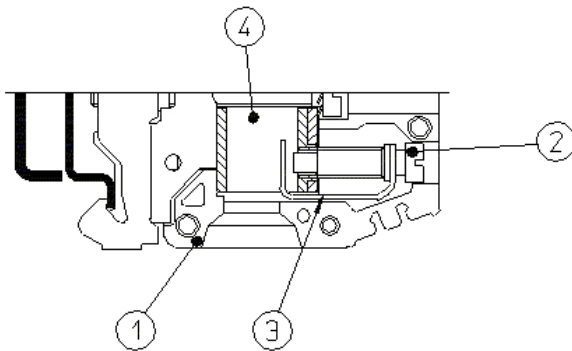


Fig. A

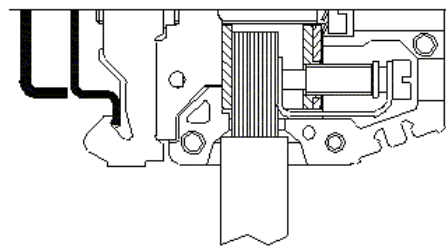


Fig. B

POSITION	COMPONENT
1	Insulating body
2	Tightening screw
3	Pressure plate
4	Conducting body

TERMINAL BLOCK	INSULATION STRIPPING LENGTH [mm]	TIGHTENING TORQUE VALUES [ Nm ] (*)
TE.6/O	12	0,8
TE.10/O	13	1,2
TE.16/O	13	1,8
TE.50/O	17	2,5

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



TE.../O Series Cabur terminal blocks 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 (Pos.2 - Fig. A) until it reaches its maximum height; in this position the screw is kept captive as the pressure plate (Pos. 3) 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

	<b>Ex e Instruction manual</b>	N°	Page	Rev.	Date	Issued	Approved
		14	2	5	05/02/09	Rajetti	

## Declaration of Conformity to ATEX 94/9/EC Directive

Inserted in the following document: **M19/e general instructions (leaflet inserted in every package)**



Terminal blocks approved in conformity to ATEX 94/9/CE Directive  
Terminal blocks “at increased safety” (Ex e) are manufactured according to EN 60079-0 / EN 60079-7 / EN 61241-0 Stds. and bear, on the insulating body, the name of the product and the electrical characteristics.

ATEX Marking:

0722  **I M2/ II 2 G D**

**0722** = number of Notifying Body (CESI) for the ATEX surveillance

**I M2** = group **I** (mines), category **M2**

**II 2 G D** = group **II** (surface) category **2 G** (gas) **D** (dusts)

**Ex e** = type of protection

**V** = rated voltage

For the mounting of terminal blocks type BPL.4 - TPL.4 - BPL/R, IT IS NECESSARY TO USE FIXING SCREWS OF INSULATING MATERIAL

The CE Marking indicates the Conformity to 73/23 Low Voltage Directive.



Terminal blocks must be installed in enclosures “at increased safety”; the enclosure / terminal blocks assembly must be subjected to separate certification

IEC Ex Marking

**Ex e** = “increased safety” protection mode

**II** = group II (surface)

  
The Legal Representative  


 cabur	Ex e Instruction manual	N°	Page	Rev.	Date	Issued	Approved
		14	3	5	05/02/09	Rajathi	

## Ex e Instruction manual N° 20

TEO Series “increased safety” terminal blocks, are manufactured according to the prescriptions given by IEC / EN 60079-0, IEC / EN 60079-7, IEC / EN 61241-0 Standards and are in compliance with the ATEX 94/9/CE Directive and the IEC Ex Certification Scheme.

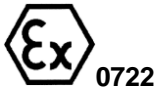
TEO Series terminal blocks are also designed and manufactured in compliance with IEC / EN 60947-1 and IEC / EN 60947-7-2 reference product standards.

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

TEO Series terminal blocks are suited for a temperature range between - 40 and + 80 °C

Ambient temperature range shall be between - 40 and + 40 °C

### ATEX Marking:



**I M 2 / II 2 GD**

**Ex e**

- 0722** = number of the ATEX surveillance Notifying Body (CESI)
- I M 2** = group **I** (mines), category **M 2**
- II 2** = group **II** (surface), category **2**
- G** = explosive atmosphere with presence of **GAS**
- D** = explosive atmosphere with presence of **DUST**
- Ex e** = “increased safety” protection mode
- TEO** = terminal block series or type, suited to be mounted onto “TH 35” rails according to IEC 60715 Std.
- (es) 4** = rated cross-section of terminal block

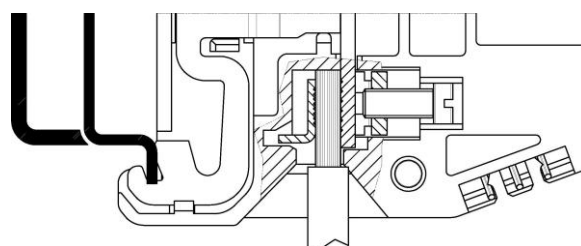
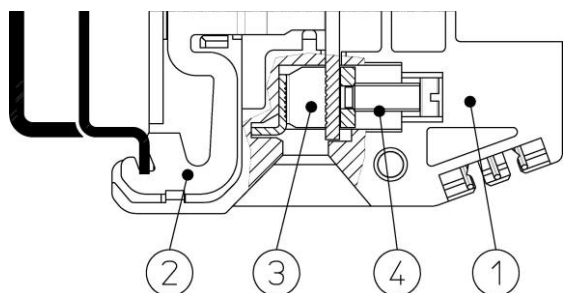
### IEC Ex Marking

- Ex e** = “increased safety” protection mode
- II** = group **II** (surface)

	<b>Ex e Instruction manual</b>	N°	Page	Rev.	Date	Issued	Approved
		20	1	3	05/02/09		 <small>Responsabile Autorizzante ATEX</small>

Terminal block	Rated cross-section [ mm <sup>2</sup> ]	Gauge according to IEC 60947-1	Minimum / maximum cross-section of flexible conductor [ mm <sup>2</sup> ]	Rated current [ A ] (*) (***)	Resistance of terminal block [ Ω ] (**)
TEO.2	2,5	A3	0,2 / 4	24	8,25 x 10 <sup>-4</sup>
TEO.4	4	B4	0,2 / 6	32	7,75 x 10 <sup>-4</sup>

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. and with reference to paragraph 8.3.4 of IEC 60947-7-2 (Test Ucs)  
(\*\*\*) : Ambient temperature according to paragraph 8.3.3.3.1 of IEC 60947-1 Std.



POSITION	COMPONENT
1	Insulating body
2	Conducting body and contact element
3	Wire clamping collar
4	Tightening screw

TERMINAL BLOCK	INSULATION STRIPPING LENGTH [mm]	TIGHTENING TORQUE VALUES [ Nm ] (*)
TEO.2	12	0,4
TEO.4	14	0,5

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



TEO Series Cabur terminal blocks 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 (Pos.4 - Fig. A) until it reaches its maximum height; in this position the screw is kept captive as the wire clamping collar (Pos. 3) 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.

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

	<b>Ex e Instruction manual</b>	N°	Page	Rev.	Date	Issued	Approved
		20	2	3	05/02/09	Raletti	

**Declaration of Conformity to ATEX 94/9/EC Directive and the IEC Ex Certification Scheme**

Inserted in the following document: **M19/e general instructions (leaflet inserted in every package)**



Terminal blocks approved in conformity to ATEX 94/9/CE Directive  
Terminal blocks “at increased safety” (Ex e) are manufactured according to EN 60079-0 / EN 60079-7 / EN 61241-0 Stds. and bear, on the insulating body, the name of the product and the electrical characteristics.

ATEX Marking:

0722  **I M2/ II 2 G D**

**0722** = number of Notifying Body (CESI) for the ATEX surveillance

**I M2** = group **I** (mines), category **M2**

**II 2 G D** = group **II** (surface) category **2 G** (gas) **D** (dusts)

**Ex e** = type of protection

**V** = rated voltage

For the mounting of terminal blocks type BPL.4 - TPL.4 - BPL/R, IT IS NECESSARY TO USE FIXING SCREWS OF INSULATING MATERIAL

The CE Marking indicates the Conformity to 73/23 Low Voltage Directive.


Terminal blocks must be installed in enclosures “at increased safety”; the enclosure / terminal blocks assembly must be subjected to separate certification

IEC Ex Marking

**Ex e** = “increased safety” protection mode

**II** = group II (surface)

  
The Legal Representative  


	<b>Ex e Instruction manual</b>	<b>N°</b>	<b>Page</b>	<b>Rev.</b>	<b>Date</b>	<b>Issued</b>	<b>Approved</b>
		20	3	3	05/02/09	