



## Quick Reference Guide

### Euro Style Terminal Blocks

Euro Style terminal block connectors feature various wire termination methods including rising cage clamp, wire protector, spring, IDC and crimp snap. The design of terminal block connectors consists of one-piece board mount terminal blocks and two-piece plug connectors with mating straight and right angle shrouded headers. A special version — which can be mated either 90° or 180° — completes the product line. Board mount connectors, as well as pc board plugs and headers, are stackable end-to-end without loss of centerline spacing. Ease of assembly is facilitated by built-in interlocks on the housings. Pre-assembled products can be delivered upon request. Adhesive labels are available to number the cavities. Customer specific labeling is also available upon request.

#### Key Features

- High temp and IR reflow compatible versions are available
- All blocks are supplied with open screws which shortens the time for connection
- The double captive screw system guards against lost screws
- The housing material used is halogen-free Polyamide 6.6 per UL 94V-0 (self-extinguishing)
- Board mount connectors have test probe access
- Rising cage clamp versions come with post tin-plated contacts with nickel underplate which allows the product to be used in corrosive environments

#### Applications

- Industrial controls
- HVAC equipment and controls
- Communications equipment
- Test & measurement
- Fire & security

| ONE PIECE TERMINAL BLOCKS       |                |                |                   |                |                   |        |                |                |                |                |                |
|---------------------------------|----------------|----------------|-------------------|----------------|-------------------|--------|----------------|----------------|----------------|----------------|----------------|
| Centerline Spacing              |                |                |                   |                |                   |        |                |                |                |                |                |
| Wire Termination                |                |                |                   |                |                   |        |                |                |                |                |                |
|                                 | 2.54mm         | 3.5/3.8mm      |                   | 5.0/5.08mm     |                   |        | 6.35mm         | 7.5-7.62mm     | 9.52mm         | 10.0-10.6mm    | 15.0mm         |
|                                 | Rising<br>Cage | Rising<br>Cage | Wire<br>Protector | Rising<br>Cage | Wire<br>Protector | Spring | Rising<br>Cage | Rising<br>Cage | Rising<br>Cage | Rising<br>Cage | Rising<br>Cage |
| <b>Current Rating*</b>          |                |                |                   |                |                   |        |                |                |                |                |                |
| 7 amp                           |                |                | ●                 |                |                   |        |                |                |                |                |                |
| 10 amp                          | ●              |                |                   | ●              | ●                 | ●      |                |                |                | ●              |                |
| 12 amp                          |                | ●              |                   |                |                   |        |                |                |                |                |                |
| 15 amp                          |                |                |                   | ●              |                   |        |                | ●              |                | ●              |                |
| 20 amp                          |                |                |                   | ●              |                   |        |                | ●              |                | ●              |                |
| 30 amp                          |                |                |                   |                |                   |        | ●              |                | ●              |                |                |
| 65 amp                          |                |                |                   |                |                   |        |                |                |                | ●              |                |
| 125 amp                         |                |                |                   |                |                   |        |                |                |                |                | ●              |
| <b>Voltage Rating</b>           |                |                |                   |                |                   |        |                |                |                |                |                |
| 150 V                           | ●              |                |                   |                |                   |        |                |                |                |                |                |
| 250 V                           |                |                | ●                 |                | ●                 |        |                |                |                |                |                |
| 300 V                           |                | ●              |                   | ●              | ●                 | ●      | ●              | ●              |                | ●              |                |
| 600 V                           |                |                |                   |                |                   |        |                |                | ●              |                | ●              |
| <b>Number of Levels</b>         |                |                |                   |                |                   |        |                |                |                |                |                |
| 1                               | ●              | ●              | ●                 | ●              | ●                 | ●      | ●              | ●              | ●              |                | ●              |
| 2                               |                |                |                   | ●              |                   |        |                |                |                |                |                |
| 3                               |                |                |                   | ●              |                   |        |                |                |                |                |                |
| <b>Temperature Rating**</b>     |                |                |                   |                |                   |        |                |                |                |                |                |
| Standard (105° C)               | ●              | ●              | ●                 | ●              | ●                 | ●      | ●              | ●              | ●              | ●              | ●              |
| High Temp (260° C)              |                | ●              |                   | ●              |                   |        |                |                |                |                |                |
| <b>Orientation (Wire Entry)</b> |                |                |                   |                |                   |        |                |                |                |                |                |
| Angled (35-45°)                 |                |                |                   | ●              | ●                 |        |                |                | ●              | ●              |                |
| Side (90°)                      | ●              | ●              | ●                 | ●              | ●                 | ●      | ●              | ●              | ●              | ●              | ●              |
| Top (180°)                      |                | ●              |                   | ●              | ●                 | ●      |                | ●              |                | ●              |                |
| <b>Construction</b>             |                |                |                   |                |                   |        |                |                |                |                |                |
| Molded to Length                | ●              | ●              |                   | ●              |                   | ●      |                |                |                |                | ●              |
| Modular (interlocking)          |                | ●              | ●                 | ●              | ●                 | ●      | ●              | ●              | ●              | ●              |                |

| TWO PIECE (PLUGS)               |             |                         |             |                |       |             |             |
|---------------------------------|-------------|-------------------------|-------------|----------------|-------|-------------|-------------|
| Centerline Spacing              |             |                         |             |                |       |             |             |
| Wire Termination                |             |                         |             |                |       |             |             |
|                                 | 3.5/3.81mm  |                         | 5.0/5.08mm  |                |       | 7.5-7.62mm  | 10.0-10.6mm |
|                                 | Rising Cage | Insulation Displacement | Rising Cage | Wire Protector | Crimp | Rising Cage | Rising Cage |
| <b>Current Rating*</b>          |             |                         |             |                |       |             |             |
| 5 amp                           |             | ●                       |             |                |       |             |             |
| 10 amp                          |             |                         |             | ●              |       |             |             |
| 11 amp                          | ●           |                         |             |                |       |             |             |
| 12 amp                          |             |                         | ●           |                |       |             |             |
| 15 amp                          |             |                         | ●           |                | ●     | ●           | ●           |
| <b>Voltage Rating*</b>          |             |                         |             |                |       |             |             |
| 150 V                           |             |                         |             |                |       |             |             |
| 250 V                           |             | ●                       |             |                |       |             |             |
| 300 V                           | ●           |                         | ●           | ●              | ●     | ●           |             |
| 600 V                           |             |                         |             |                |       |             | ●           |
| <b>Orientation (Wire Entry)</b> |             |                         |             |                |       |             |             |
| Front Entry                     |             | ●                       | ●           |                | ●     |             |             |
| Left Hand                       | ●           |                         | ●           |                |       | ●           | ●           |
| Right Hand                      | ●           |                         | ●           |                |       | ●           | ●           |
| Right Angle                     | ●           |                         | ●           | ●              |       | ●           | ●           |
| <b>Locking Flanges</b>          |             |                         |             |                |       |             |             |
| Yes                             | ●           | ●                       | ●           |                |       |             |             |
| No                              | ●           | ●                       | ●           | ●              | ●     | ●           | ●           |

| TWO PIECE (HEADERS)         |            |            |            |             |
|-----------------------------|------------|------------|------------|-------------|
| Centerline Spacing          |            |            |            |             |
|                             | 3.5/3.81mm | 5.0/5.08mm | 7.5-7.62mm | 10.0-10.6mm |
| <b>Current Rating*</b>      |            |            |            |             |
| 10 amp                      | ●          |            |            |             |
| 11 amp                      |            |            |            |             |
| 12 amp                      |            | ●          |            |             |
| 15 amp                      |            | ●          | ●          | ●           |
| 24 amp                      |            |            |            |             |
| <b>Voltage Rating*</b>      |            |            |            |             |
| 300 V                       | ●          | ●          | ●          |             |
| 600 V                       |            |            |            | ●           |
| <b>Style</b>                |            |            |            |             |
| Closed End                  | ●          | ●          |            | ●           |
| Open End                    | ●          | ●          |            | ●           |
| Pin Header                  |            | ●          |            |             |
| <b>Number of Levels</b>     |            |            |            |             |
| 1                           | ●          | ●          | ●          | ●           |
| 2                           |            | ●          |            |             |
| <b>Temperature Rating**</b> |            |            |            |             |
| Standard (105° C)           | ●          |            | ●          | ●           |
| High Temp (260° C)          | ●          | ●          | ●          | ●           |
| <b>Locking Flanges</b>      |            |            |            |             |
| Yes                         | ●          | ●          |            | ●           |
| No                          | ●          | ●          | ●          | ●           |

**Helpful Notes:**

\*Current and Voltage Ratings reflect maximum ratings for field wiring.

\*\*Capable of 260° for 10 seconds.

## Wire Termination Technologies



### Leg Spring

Intended for use in more rugged applications such as instrumentation, data acquisition, security & alarm, and HVAC products. Provides for faster wire termination than screw versions.



### Insulation Displacement

Intended for use in industrial communications and control applications such as analog or serial communications using 22-24 awg wire. Pivot block plug mates with 3.5mm horizontal and vertical terminal block headers.



### Crimp Style

A terminal block plug that utilizes an insertable crimp snap contact for wire termination. This plug will mate to standard headers on 5.08mm. Intended for use in higher volume applications. Used in conjunction with junior power timer contacts.



### Rising Cage

Intended for use in more rugged applications, such as industrial controls, data acquisition and communications products, where multiple wire terminations are required. Available in one piece and two piece configurations.



### Wire Protector Version

Recommended for low cost commercial applications. Intended for use in lighter duty or commercial applications such as security and alarm systems or HVAC controls. Prevents the screw from damaging the wire!



### Front Style Screw Clamp

The key feature of this style of terminal block plug is that the wire entry cavity and the activating screw head are on the same plane which is parallel to the plug in direction. This will mate with vertical and right angle headers.

## Options for your Connections



### Packaging Options

TE uses tape-on-reel packaging. This packaging makes it possible for customers to use automated pick and place equipment. Tape on reel may be used with high temp products designed for through-hole reflow (THR) applications. Contact your TE terminal blocks team for specific details on other packaging options such as tubes and trays.



### Printing Options

Printing is a very common request that gives an end user the ability to identify circuits. The printing is permanent and is typically done in either black or white.



### Color Options

With Euro Style terminal blocks, you have the option of choosing the color of your product. This may benefit you by helping with organization and identification of your pieces. Many color options are available and will generally have only a minimal effect on lead times and minimum order quantities.

## Questions that will help you better select the product that you need:

### **Which style is the most rugged and can be used in Industrial controls? Would it be Wire protector or Rising Cage Clamp?**

Rising cage clamp is used for rugged applications. The cage can be opened and closed multiple times. With a wire protector, it would not be advised to do multiple insertions, it should be a once and done application.

### **Which type provides the fastest wire termination?**

Spring style or IDC style would be faster than the screw version to terminate.

### **Are the Two Piece Pluggable connectors' sides stackable?**

If the parts are without mounting flanges and the headers are open ended, they can be side stackable. However, if there are mounting flanges or if the header is a closed end version, they are NOT side stackable.

### **Is it possible to customize the Euro Style Terminal Blocks?**

Yes. The most common request is for printing to identify the circuits which can be done with permanent printing on the part in either black or white. Other options would be connector color as we offer many different color possibilities, or polarization legs which prevent the block from being misapplied on the PCB.

### **Are the Euro Style parts available for higher current?**

In the one piece style, we offer several products geared toward higher current and voltage applications. For example:

One piece 30A, 600V, on 9.52mm pitch 796739-X

One piece 52A, 300V, on 10.16mm pitch 1776886-X

One piece 125 A, 600V, on 15mm pitch 1986242-X

## FOR MORE INFORMATION

### **TE Technical Support Center**

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\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

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