

## 1. INTRODUCTION

This specification covers the requirements for application of 2.5, 2.54, 5.0, 5.08pitch 45° entry screwless connector. When corresponding with TE Connectivity Personnel, use the terminology provided in this specification to facilitate your inquiries for information. Basic terms and features of this product are provided in Figure 1.

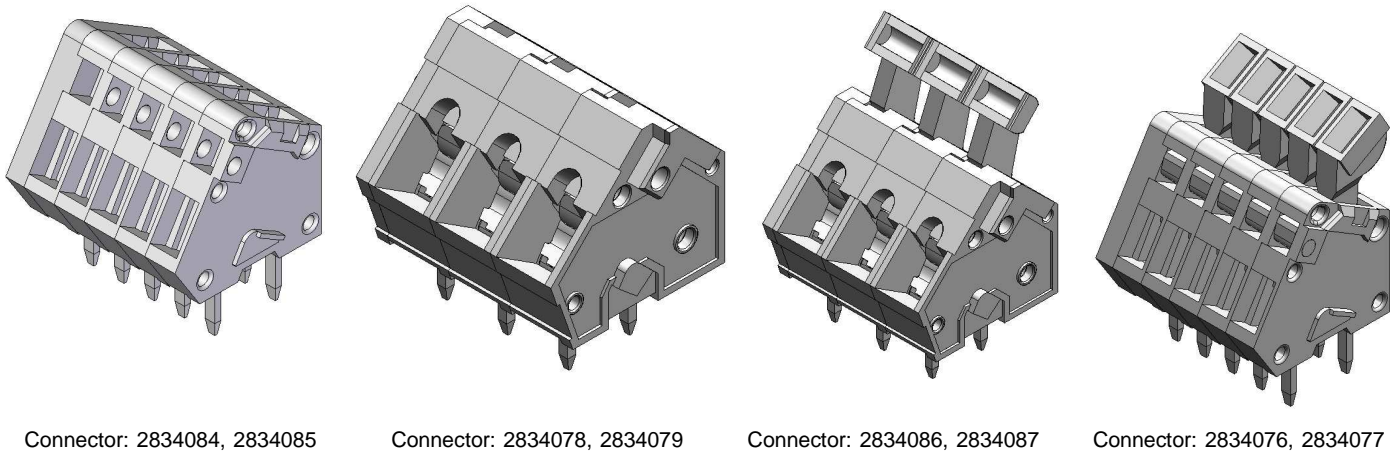


Figure 1

## 2. REFERENCE MATERIAL

### 2.1. Revision Summary

Revision A – Initial release.

### 2.2. Customer Assistance

Reference Product Base Part Numbers 2834076 to 2834079 & 2834084 to 2834087 are representative of the 45° entry screwless connector. Use of these number will identify the product line and expedite your inquiries through a service network established to help you obtain product information. Such information can be obtained through a local TE Connectivity Representative.

### 2.3. Drawings

Customer Drawings for specific products are available from the responsible TE Connectivity Engineering department via the service network. The information contained in the Customer Drawings takes priority if there is a conflict with this specification or with any other technical documentation supplied by TE Connectivity.

## 3. REQUIREMENTS

### 3.1. Safety:

**DO NOT** stack product shipping containers so high that the containers buckle or deform.

### 3.2. Limitations:

The connectors are designed to operate in a temperature range of  $-40^{\circ}\text{C}$  to  $105^{\circ}\text{C}$

### 3.3. Material

Contact is made of copper alloy; under-plated overall with nickel, and plated with tin;

Housing is made from UL 94V-0 rated thermal plastic.

**3.4. Storage**

**A. Ultraviolet Light**

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the connector material.

**B. Shelf Life**

The contacts and connectors should remain in the shipping containers until ready for use to prevent deformation to components. The components should be used on a first in, first out basis to avoid storage contamination that could adversely affect performance.

**C. Chemical Exposure**

**DO NOT** store the contacts or connectors near any chemical listed below as they may cause stress corrosion cracking in the components.

Alkalies	Ammonia	Citrates	Phosphates	Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur	Nitrites	Tartrates

**3.5. Wire Selection and Preparation**

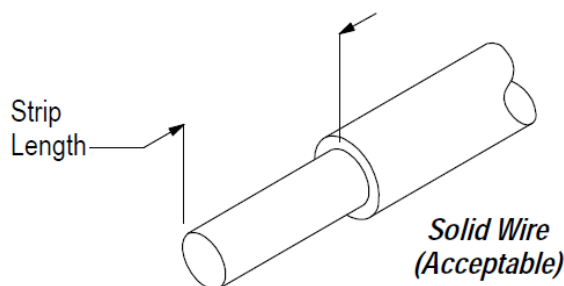
These connectors are designed for copper to copper connection only, **DO NOT** use on Aluminum. The applicable wire size and type are list in table 1 & 2.

*Table 1 RECOMMENDED WIRE:2834084 to 2834087*

20 AWG	UL 1007-20	Stranded/Solid
22 AWG	UL 1007-22	Stranded/Solid
24 AWG	UL 1007-24	Stranded/Solid
26 AWG	UL 1007-26	Stranded/Solid
28AWG	UL 1007-28	Stranded/Solid

*Table 2 RECOMMENDED WIRE:2834076 to 2834079*

14 AWG	UL 1007-14	Stranded/Solid
16 AWG	UL 1007-16	Stranded/Solid
18 AWG	UL 1007-18	Stranded/Solid
20 AWG	UL 1007-20	Stranded/Solid
22 AWG	UL 1007-22	Stranded/Solid
24 AWG	UL 1007-24	Stranded/Solid
26 AWG	UL 1007-26	Stranded/Solid
28AWG	UL 1007-28	Stranded/Solid



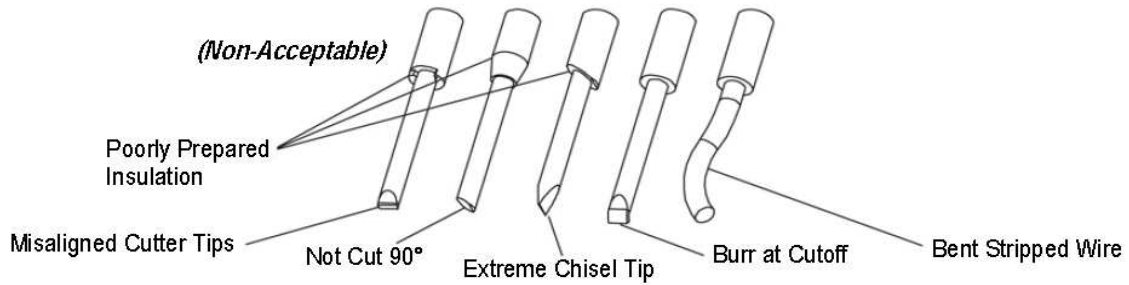


Figure 2

### 3.6 Assembly Procedure

In the field, these kits must be assembled by a qualified electrician in accordance with national and local electrical codes and the following instructions.



Turn off power before removing or installing connector.

1. Select the proper assembly for your production requirements.
2. Wire Inserting: see Figure 3

Step1: Pushing down the lever with a flat tool,

Step2: Inserting the wire fully so that the wire insulation is inserted into the housing.

Step3: Releasing the lever to fix the wire.

3. Wire Releasing: see Figure 4

Step1: Pushing down the lever with a flat tool

Step2: Pulling out the wire

Step3: Releasing the lever.

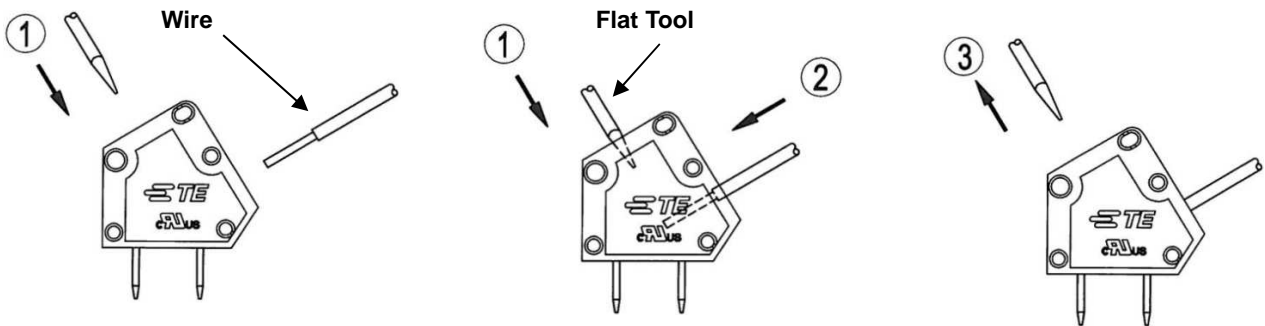


Figure 3: 2834084, 2834085

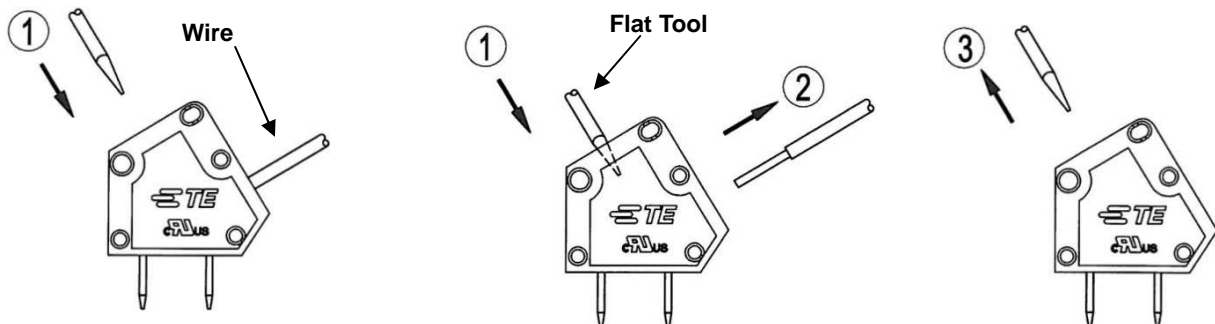


Figure 4: 2834084, 2834085

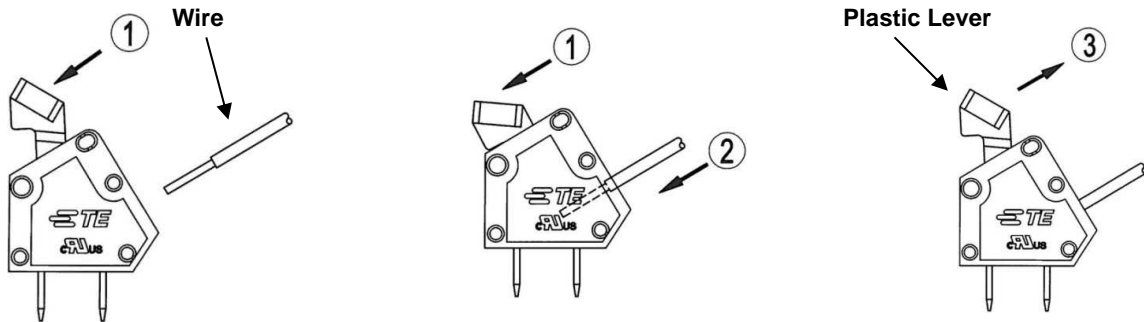


Figure 5: 2834086, 2834087

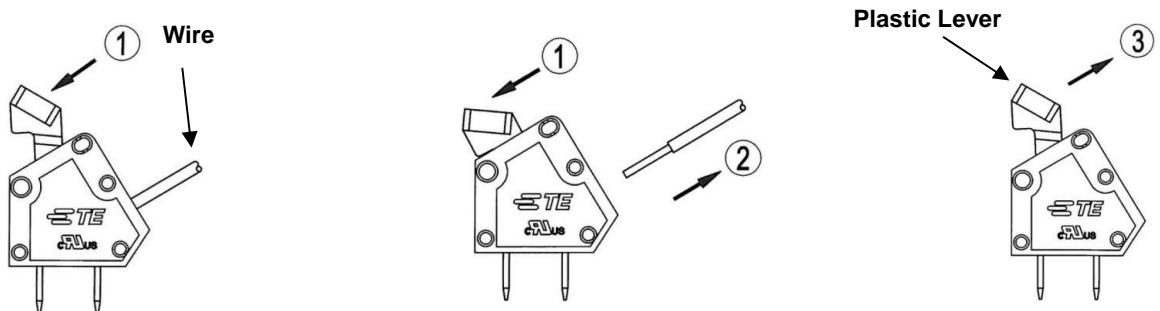


Figure 6: 2834086, 2834087

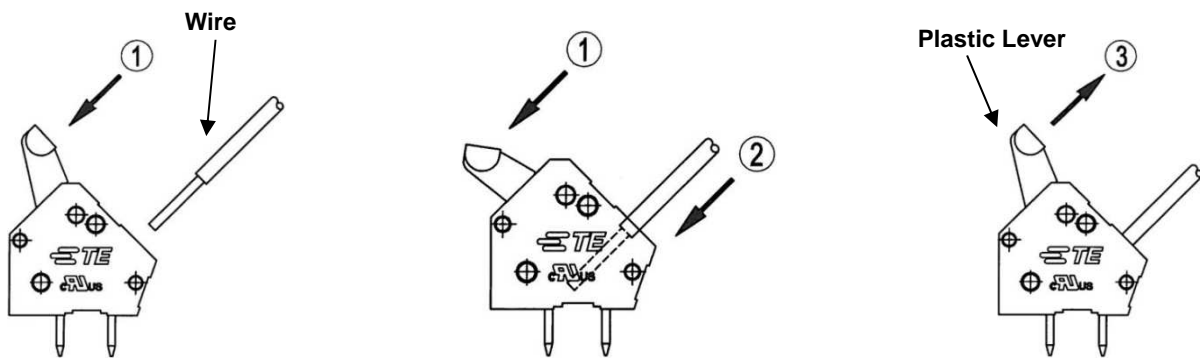


Figure 7: 2834076, 2834077

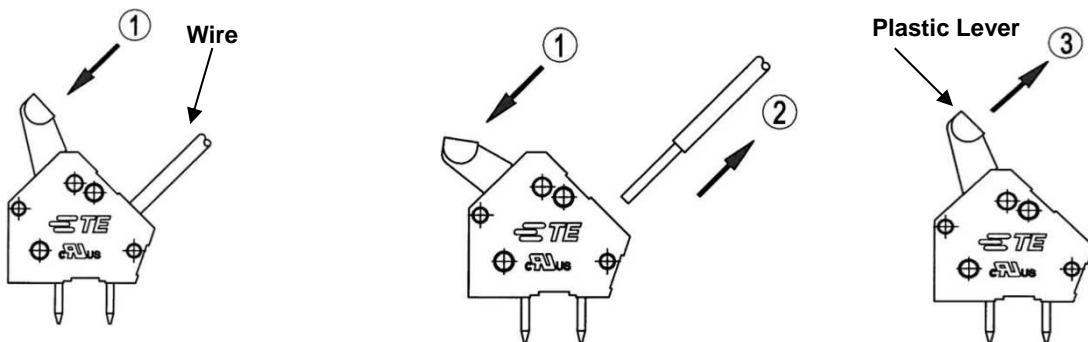


Figure 8: 2834076, 2834077

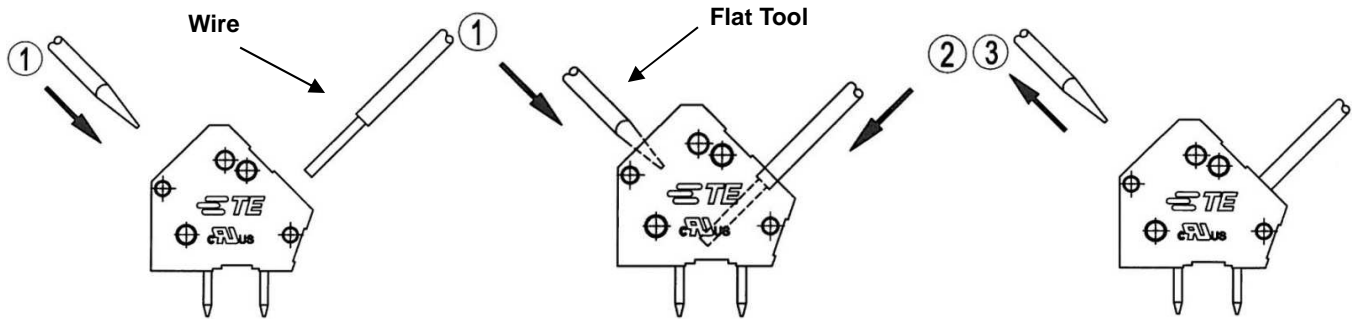


Figure 9: 2834078, 2834079

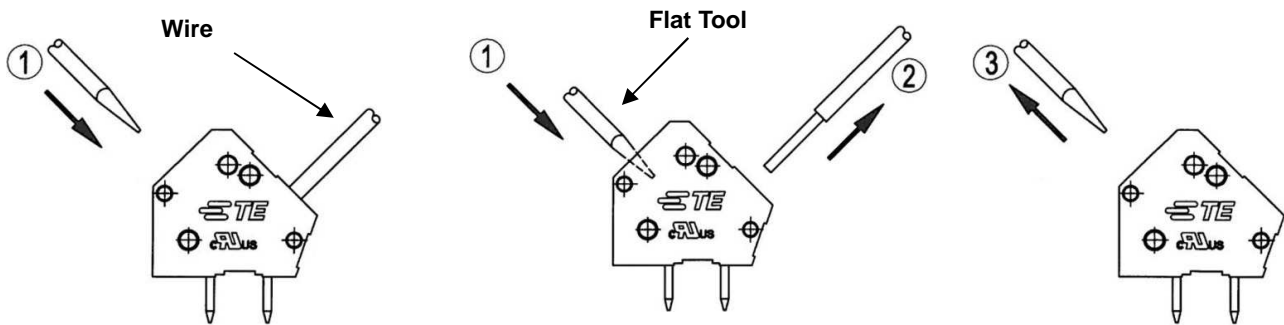


Figure 10: 2834078, 2834079

### 3.7. PC Board

#### A. Material and Thickness

Common pc board materials may be used such as glass epoxy (FR-4 or G-10), Aluminum-clad pc boards and flex circuits. The pc board thickness may vary to suit the end use thickness.

#### B. Tolerance

Maximum allowable bow of the pc board shall be 0.10 mm over the length of the connector.

#### C. Pads

The pc board circuit pads must be solderable in accordance with IPC J-STD-003.

#### D. Layout

The pc board layout must be designed using the dimensions provided on the customer drawing: C-2834076 to C-2834079 & C-2834084 to C-2834087 for the specific connector.

### 3.8. Replacement/Repair

The Connector could not be reworked and replaced.

## 4. QUALIFICATION

Qualification under process by Underwriters Laboratories Inc.

## 5. SOLDERING

The connectors should be soldered using wave soldering process, All solder joints should conform to the Workmanship Specification IPC-A-610 and IPC J-STD-001.

#### A. Flux Selection

Contacts must be fluxed prior to soldering with a mildly active, rosin base flux. Selection of the flux will depend on

the type of pc board and other components mounted on the board. Additionally, the flux must be compatible with the wave solder line, manufacturing, health, and safety requirements.

**B. Solderability and Process**

**1. Solderability**

All solder joints should conform to those specified in Workmanship Specification IPC-A-610 and all other requirements for through-hole contacts specified in this document.

**2. Process**

Connectors with through-hole contacts can be soldered using wave soldering or equivalent soldering techniques. It is recommended using lead-free or SN100C solder for these connectors. The temperature and exposure time shall be as specified in Figure 5.

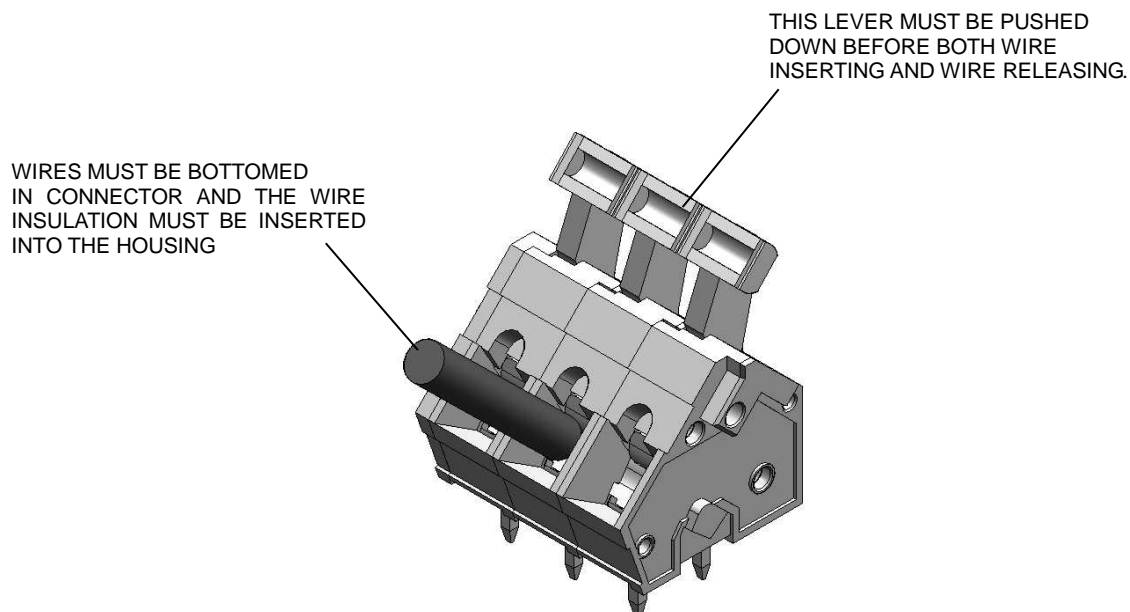
SOLDERING PROCESS	TEMPERATURE(MAX)	TIME(AT MAX Tem)
WAVE	260°C	3 Seconds

**C. Cleaning**

After soldering, removal of fluxes, residues, and activators is necessary. Consult with the supplier of the solder and flux for recommended cleaning solvents. Cleaning solvents will not affect the connectors or assemblies for the times and temperatures provided without any adverse effects on the connector assembly.

**6. VISUAL AID**

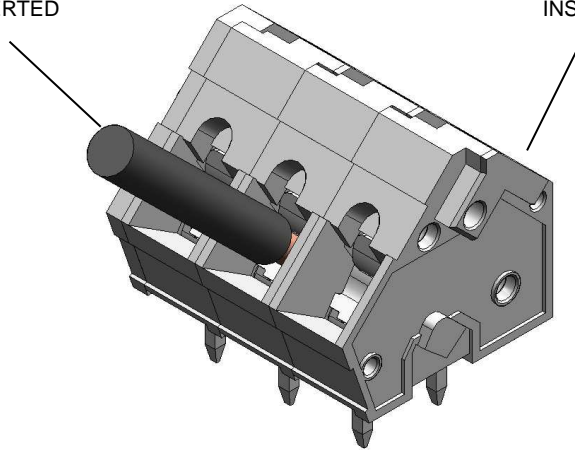
The illustration below shows a typical application of this Connector. This illustration should be used by production personnel to ensure a correctly applied product. Applications which **DO NOT** appear correct, should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product.



TE P/N: 2834086, 2834087 are 45°entry screwless connector

WIRES MUST BE BOTTOMED IN CONNECTOR AND THE WIRE INSULATION MUST BE INSERTED INTO THE HOUSING

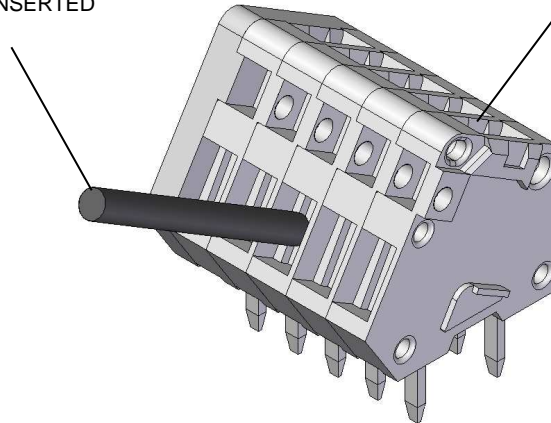
THIS CLAMP MUST BE PLUGGED IN TOOL BEFORE BOTH WIRE INSERTING AND WIRE RELEASING.



TE P/N: 2834088, 2834089 are 45°entry screwless connector

WIRES MUST BE BOTTOMED IN CONNECTOR AND THE WIRE INSULATION MUST BE INSERTED INTO THE HOUSING

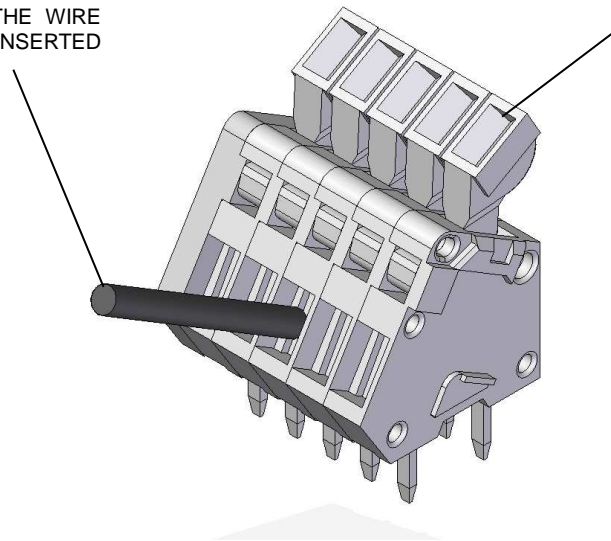
THIS CLAMP MUST BE PLUGGED IN TOOL BEFORE BOTH WIRE INSERTING AND WIRE RELEASING.



TE P/N: 2834082, 2834083 are 45°entry screwless connector

WIRES MUST BE BOTTOMED IN CONNECTOR AND THE WIRE INSULATION MUST BE INSERTED INTO THE HOUSING

THIS LEVER MUST BE PUSHED DOWN BEFORE BOTH WIRE INSERTING AND WIRE RELEASING.



TE P/N: 2834082, 2834083 are 45°entry screwless connector