

### 1. INTRODUCTION

This specification covers the requirements for application of 2.50mm pitch top 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.

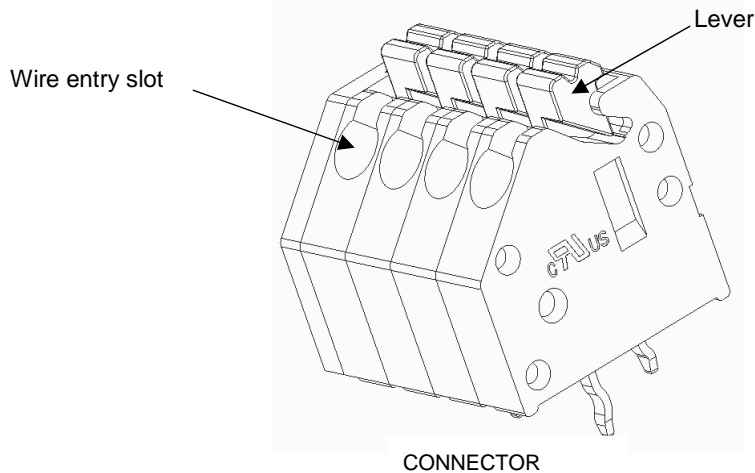


Figure 1

### 2. REFERENCE MATERIAL

#### 2.1. Revision Summary

Revision A – Initial release.

#### 2.2. Customer Assistance

Reference Product Base Part Numbers 2834021 is representative of the 2.50mm pitch top 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;

Spring is made of stainless strip steel.

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.

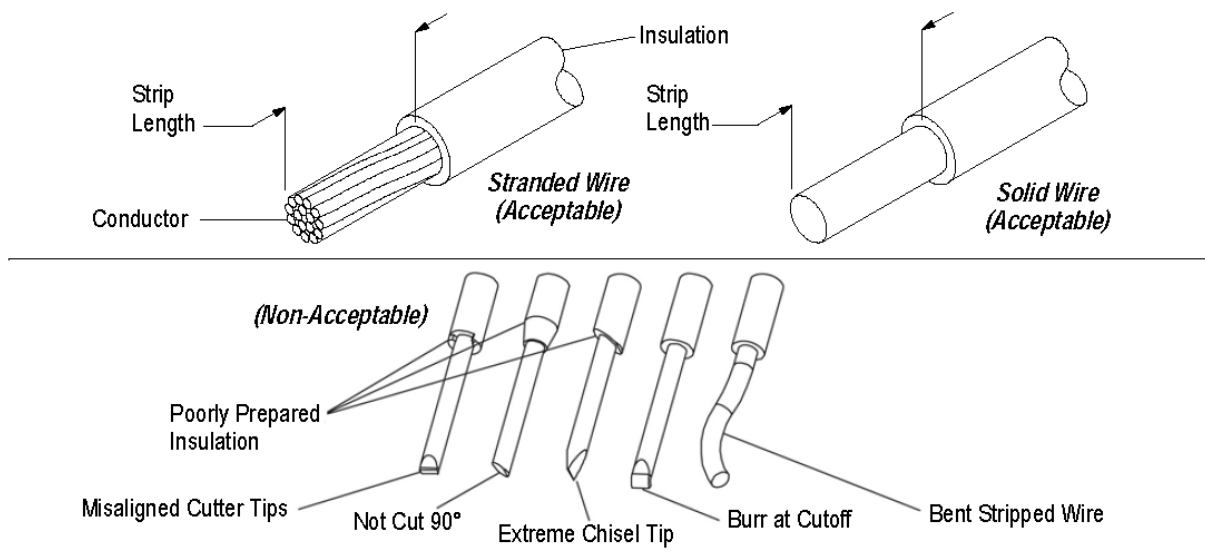
Alkalies	Ammonia	Citrates	Phosphates	Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites		Tartrates

**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.

*Table 1 RECOMMENDED WIRE*

20 AWG	UL 1059	Solid
20 AWG	UL 1059(10)	Stranded
22 AWG	UL 1059	Solid
22 AWG	UL 1059(7)	Stranded
24 AWG	UL 1059	Solid
24 AWG	UL 1059(7)	Stranded
26 AWG	UL 1059	Solid
26 AWG	UL 1059(7)	Stranded



**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 tool,*

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

*Step3: Releasing the tool to fix the wire.*

3. Wire Releasing: see Figure 4

*Step1: Pushing down the lever with a tool*

*Step2: Pulling out the wire*

*Step3: Releasing the tool .*

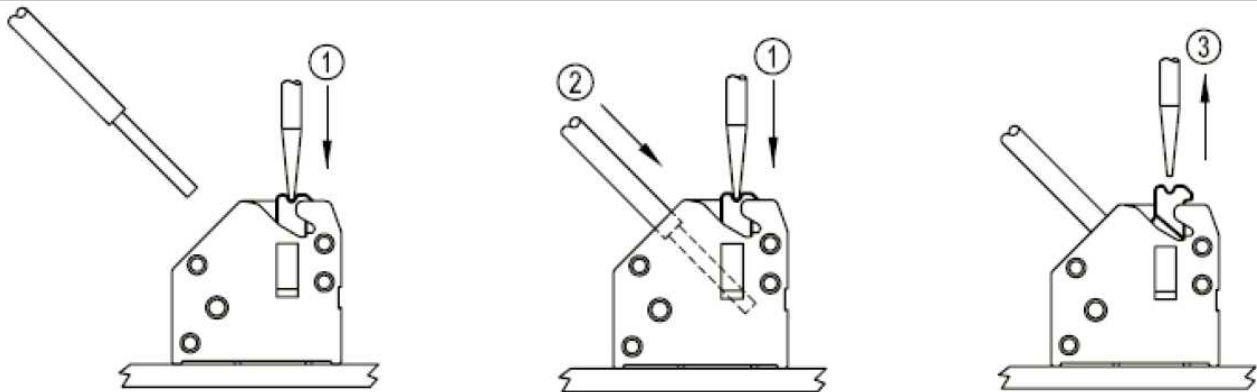


Figure 3

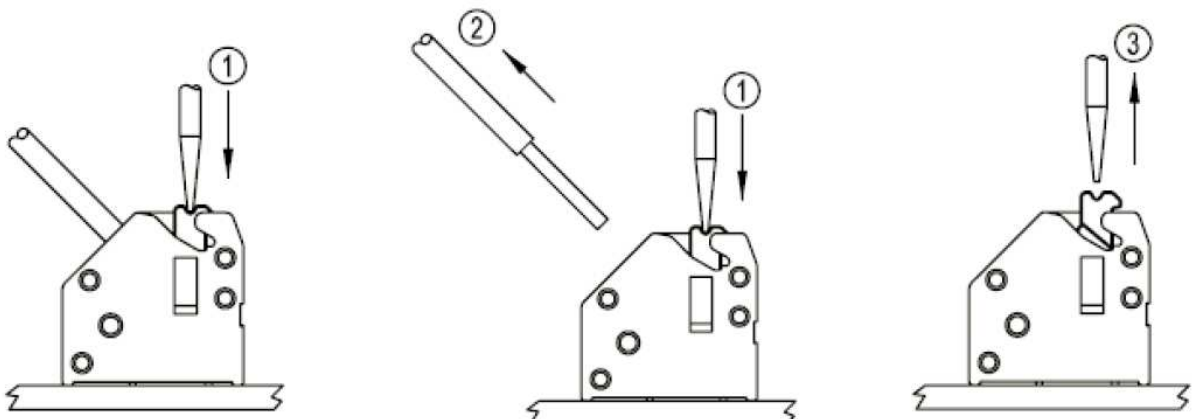


Figure 4

### 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-2834011 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.