

# 2-Pole Free-Hanging NECTOR\* S Line Connectors for SVT Cable

Application Specification 114-20140

05 JAN 15 Rev F



#### NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters. Unless otherwise specified, dimensions have a tolerance of  $\pm 0.13$  and angles have a tolerance of  $\pm 2^{\circ}$ . Figures and illustrations are for identification only and are not drawn to scale.

# 1. INTRODUCTION

This specification covers the requirements for application of 2-pole free-hanging NECTOR S Line connectors for SVT cable used in the lighting industry. The connectors consist of an outlet assembly and plug assembly. Each assembly requires a housing, tube, and 2 pin or socket MQS contacts. The housing is marked with negative (-) and positive (+) polarity indicators. When assembled, the housing notches secure the contacts, and the housing latch secures the tube.

The connectors are available with coding to prevent mis-mating. The connector can fit into an 8 mm opening. The outlet housing contains the power supply, which is marked on the housing with an arrow. The outlet assembly has a rating of IP 20 when disconnected and IP 40 when connected. The plug assembly must only be used on the side of the load.



#### DANGER

The plug housing has accessible metal parts.

When corresponding with personnel, use the terminology provided in this specification to facilitate inquiries for information. Basic terms and features of this product are provided in Figure 1.

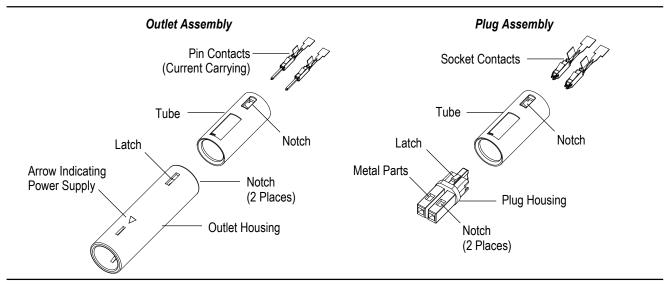


Figure 1

# 2. REFERENCE MATERIAL

# 2.1. Revision Summary

Revisions to this application specification include:

Updated specification to corporate requirements, and replaced tooling in Section 5

# 2.2. Customer Assistance

Reference Product Base Part Number 293388 and Product Code L764 are representative of 2-pole free-hanging NECTOR S Line connectors for SVT cable. Use of these numbers will identify the product line and help you to obtain product and tooling information. Such information can be obtained through a local Representative, by visiting our website at <a href="https://www.te.com">www.te.com</a>, or by calling PRODUCT INFORMATION or the TOOLING ASSISTANCE CENTER at the numbers at the bottom of this page.



# 2.3. Drawings

Customer Drawings for product part numbers are available from the service network. If there is a conflict between the information contained in the Customer Drawings and this specification or with any other technical documentation supplied, the information contained in the Customer Drawings takes priority.

# 2.4. Specifications

Product specification 108-20294 provides expected product performance and test results.

Application specification 114-18021 provides product description and application requirements for the micro MQS contacts.



#### NOTE

Tooling referenced on 114-18021 cannot be used to crimp the contacts for the connectors on this specification.

#### 2.5. Instructional Material

Instruction sheets (408-series) provide product assembly instructions or tool setup and operation procedures. Customer manuals (409-series) provide machine setup and operating procedures. Instructional material available that pertains to this product are:

```
    408-10414 CERTI-CRIMP* II Straight Action Hand Tools
    409-5128 AMP-O-LECTRIC* Model "K" Terminating Machines
    409-5842 AMP-O-LECTRIC Model "G" Terminating Machines
    409-32036 AMP-O-LECTRIC Model G II Terminators
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## 2.6. Catalog

1773457-7 NECTOR S Line Catalog

#### 3. REQUIREMENTS

#### 3.1. Safety

Do not stack product shipping containers so high that the containers buckle or deform.

## 3.2. Storage

#### A. Ultraviolet Light

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

# B. Shelf Life

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

Product must be used within 2 weeks of opening sealed package.

## C. Chemical Exposure

Do not store product near any chemical listed below as they may cause stress corrosion cracking in the material.

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

#### 3.3. Cable Selection and Preparation

The connector accepts UL-approved SVT cable size 18 AWG having 2 conductors. It is recommended to use cable with a cross-section diameter no larger than 5.9.

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#### NOTE

Cable with larger cross-section diameter than recommended will cause a difficult assembly. In this case, the cable should be tested before use in application.

- 1. The tube must be installed onto the cable with the notch last.
- 2. The cable must be stripped to the dimensions given in Figure 2.

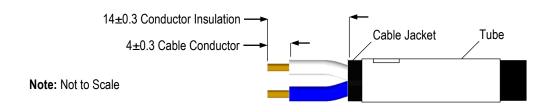


Figure 2

# 3.4. Assembly

1. The contacts used for these connectors must be crimped onto the cable conductors using the tooling given in Section 5 of this specification. See Figure 3.



## **NOTE**

Crimp requirements are given on 114-18021.

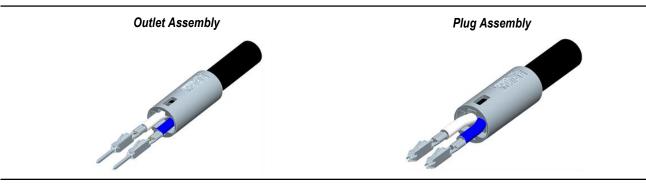
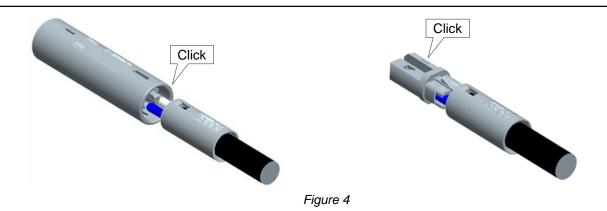


Figure 3

2. The contacts must be installed in the housing so that the locking latch of each contact is secured to the housing notch. The cable conductors must correspond with the housing polarity indicators. There will be an audible click when the contact is fully seated. For the outlet housing, the contacts must be aligned with the axis of the housing. See Figure 4.



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3. The tube must be installed inside the housing (notch end first) so that the notch is secure to the housing latch. There will be an audible click when the tube is fully seated. See Figure 6.

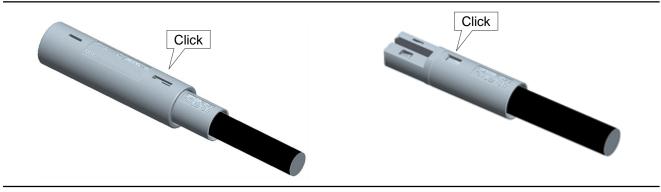


Figure 5

# 3.5. Repair

Defective or damaged components must not be used. The connectors must not be disassembled. The components must not be re-used by removing the wire.

# 4. QUALIFICATION

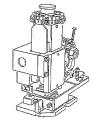
Agency evaluation was not defined for 2-pole free-hanging NECTOR S Line connectors for SVT cable at the time of publication of this specification.

# 5. TOOLING

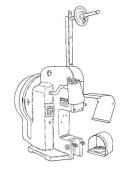
Contact crimping tooling part numbers and instructional material are given in Figure 6. No tooling is required to assemble the connectors.



CERTI-CRIMP II Straight Action Hand Tool 2119821-1 (408-10414)



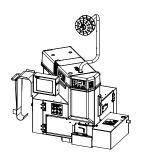
Fine Adjust Side-Feed HDM Applicator 1855589-3



AMP-O-LECTRIC Model "K" Terminating Machine 565435-5 or Model GII Terminator 2217000-1 (409-5128)



AMP-O-LECTRIC Model "G" Terminating Machine 354500-1 (409-5842)



AMP-O-LECTRIC Model G II Terminator 2217000-1 (409-32036)

Figure 6

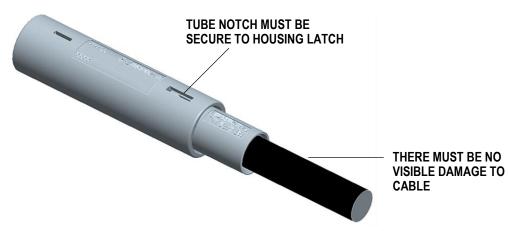
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# 6. VISUAL AID

The illustration below shows a typical application of 2-pole free-hanging NECTOR S Line connectors for SVT cable. 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 or tooling.

# **OUTLET ASSEMBLY**



# **PLUG ASSEMBLY**

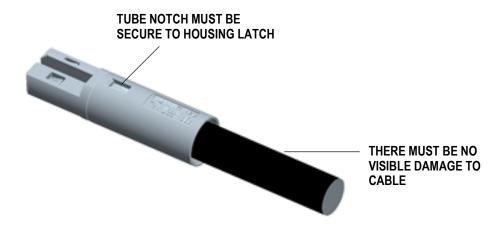


FIGURE 7. VISUAL AID

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