



NOTE

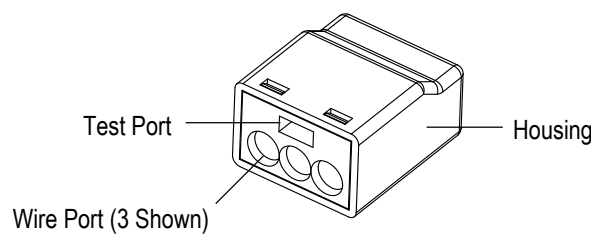
All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters. Unless otherwise specified, dimensions have a tolerance of ± 0.13 and angles have a tolerance of $\pm 2^\circ$. Figures are not drawn to scale.

1. INTRODUCTION

This specification covers the requirements for application of Push-On Push-Grip connector. The connector is available with 2 through 6 circuit positions. The connectors are color coded to correspond to the number of positions. The connector features a housing that contains a spring contact and wire port for each circuit and a test port for continuity. The wire port is designed to guide the wire into the spring contact for termination.

This connector provides low insertion force of conductors and high force of accidental removal of conductors.

Basic terms and features of this product are provided in Figure 1.



| POSITION | COLOR |
|----------|--------|
| 2 | Yellow |
| 3 | Orange |
| 4 | Gray |
| 5 | Blue |
| 6 | Purple |

Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

Initial release of application specification

2.2. Customer Assistance

Reference Product Base Part Number 2299515 and Product Code 5000 are representative of Push-On Push-Grip connector. Use of these numbers will identify the product line and help you to obtain product and tooling information when visiting www.te.com or calling the number at the bottom of this page.

2.3. Drawings

Customer drawings for product part numbers are available from www.te.com. Information contained in the customer drawing takes priority.

2.4. Specifications

Product Specification [108-133070](#) provides product performance and test results.

2.5. Instructional Material

Instruction sheets (408-series) provide product assembly instructions or tooling setup and operation procedures. Instructional material that pertain to this product are:

[408-133072](#) Push-On Push-Grip Connector

3. REQUIREMENTS

3.1. Safety

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

3.2. Operating Temperature

The connector is designed to operate in a temperature range of -40° to 105°C [-40° to 221°F].

3.3. Material

The housing is made of UL 94V-0 rated thermoplastic. The contacts are made of tin-plated copper alloy with spring steel reinforcement.

3.4. Storage

A. 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.

B. 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 |

3.5. Wire Selection and Preparation

The connector accepts the wire sizes and types given in

The wire must be stripped to the dimension given in Figure 2. The conductor strand or single strands must not be cut or pulled during the stripping operation.



CAUTION

Wire sizes, types, and strip length given must be observed in order to provide reliable electrical connection of wire to connector.

After wire preparation, the following must be ensured.

- Conductors must not be nicked, bent, or splayed as shown in Figure 2.
- There must be no conductor insulation remaining on the stripped conductors.
- Single strands of the conductor must not protrude from the conductor bundle (no loose strands).

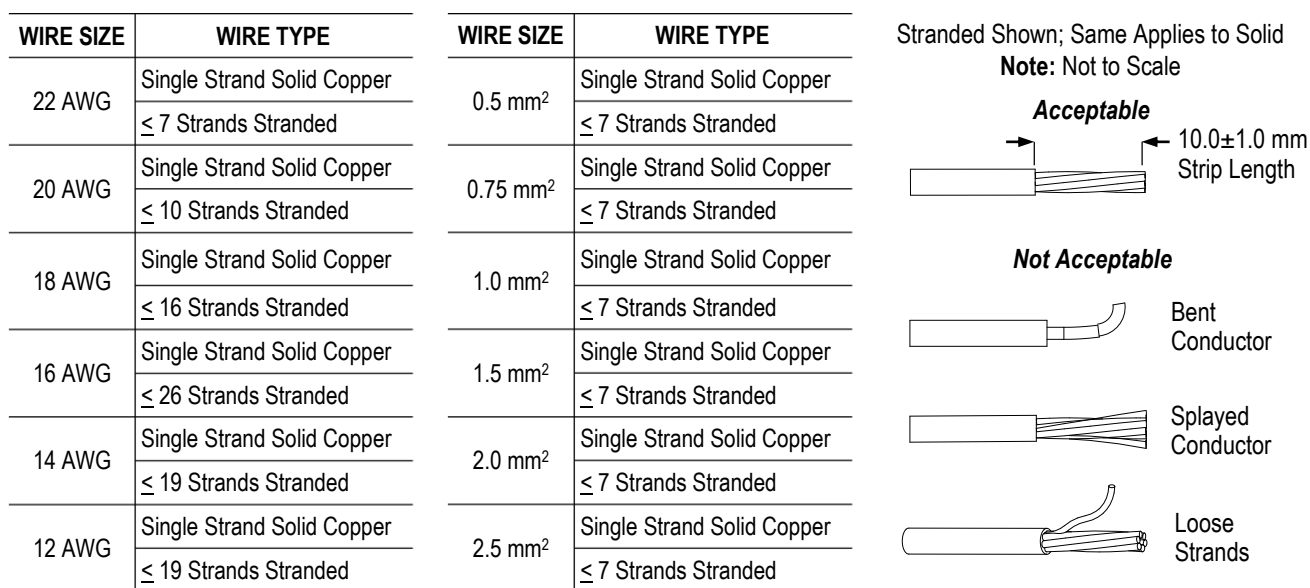


Figure 2

— The wire must be inserted into the housing immediately or the conductor end must be protected against contaminates and strands separating from the bundle, such as partial pull-off of insulation.

3.6. Termination

Each wire must be installed into the connector according to the following.

1. The conductor end(s) must be aligned with a wire port of the housing, then inserted until resistance to further insertion is felt. Then, force must be apply to further insert the conductor(s) into the housing and engage the spring contacts until abrupt resistance is felt. The abrupt resistance indicates that the conductor(s) are fully inserted. The conductor(s) cannot be exposed more than the dimension given in Figure 3.



NOTE

Each wire port can accept only one wire.

2. The wire must be gently pulled back to ensure that the conductor(s) has engaged the spring contacts.

The terminated connector must meet the requirements given in Figure 4.

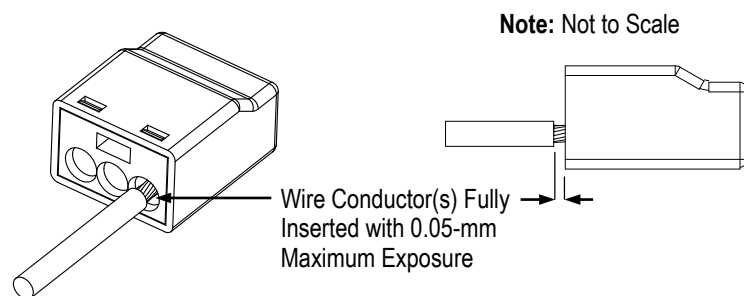


Figure 3

3.7. Replacement and Repair

The connectors are not repairable. Defective or damaged connectors must not be used. Wire having skived, deformed, or cut strands must not be used. The connector must not be re-used by removing the wires.

4. QUALIFICATION

Agency evaluation for Push-On Push-Grip connector was not defined at the time of publication of this application specification.

5. TOOLING

No tooling is required.

6. VISUAL AID

The illustration below shows a typical application of Push-On Push-Grip 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.

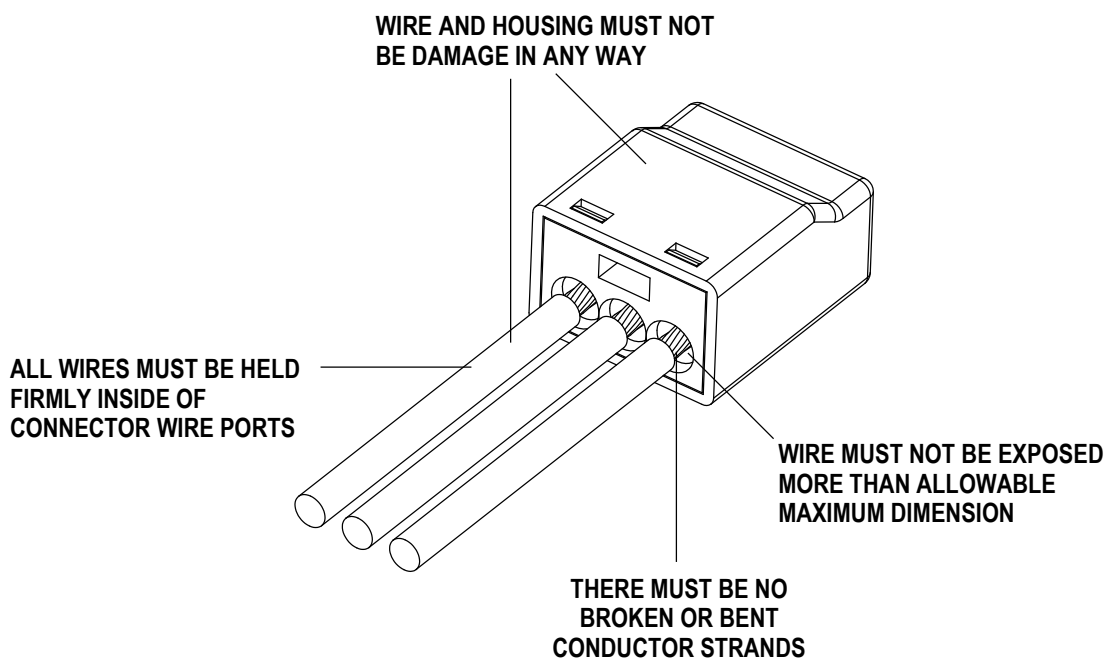


FIGURE 4. VISUAL AID