

Solutions for Electronic Specialty Markets (ESM)

Product Catalog for Electronic Specialty Markets

- 3M™ Electronic Specialty Markets - New Product Releases
- 3M™ Abrasives
- 3M™ Adhesives, Cleaners & Compounds
- 3M™ Breadboards & Test Clips
- 3M™ Cable & Assemblies
- 3M™ Copper Interconnects
- 3M™ Fiber Optics
- 3M™ Fire Protection
- 3M™ Heat Shrink
- 3M™ Identification Systems
- 3M™ Occupational Health & Safety Products
- 3M™ Protective Bumpers
- 3M™ Reclosable Fasteners
- 3M™ Splicing, Terminating & Ducting
- 3M™ Static Control
- 3M™ Tapes
- 3M™ Terminals, Kits & Tools
- 3M™ Vacuums & Accessories
- 3M™ Warehousing & Packaging Supplies
- **3M™ Wire Connectors**

Other Tools

- What's New
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[Printer-friendly format](#) **3M™ Wire Connector T/R+Box, Super Tan, 100 per Box**



[\[click to enlarge\]](#)

- Incredible wire range (2 #18 up to 5 #12)
- One connector replaces 3 (yellow, red & tan) in the majority of all field applications
- Smooth, comfortable feel
- Compact size and red miniskirt
- Quick bite spring design
- Comfortable wing design for a better grip
- Can be installed with 3M™ WCD-P Wire Connector Drivers

GTIN(UPC/EAN) : 0 00 51128 54454 9
3M Id : 80-6112-3775-3

Additional Information

Use a 3M™ Wire Connector T/R+ to electrically connect two or more conductor ends in a pigtail application and insulate the connection.

Learn More . . .

[Packaging Data](#)
[T/R+ \(Tan/Red\) Wire Connector - Data Sheet \(PDF 177.5 K\)](#)

Please Note:

Adobe® Acrobat® Reader is required to view PDF documents.



Characteristics

Agency Approvals	UL, CE, and CSA
China RoHS - Below MCV	Yes
Color	Tan/Red
EU RoHS Compliant	Yes
Maximum Recommended Voltage Rating	600 Volt
Units per Box	100
Wire Range Capabilities	22 to 8



Wire Connector T/R+ (Tan/Red)



Wire Connector



Canadian Standards Association
Standard NO. 22.2
NO. 188-M1983
3M File NO. LR15503



PASSPORT TO EUROPEAN UNION COUNTRIES

Data Sheet

Application

Use a 3M™ T/R+ Wire Connector to electrically connect two or more conductor ends in a pigtail application and insulate the connection.

Wire

AWG Range: COPPER conductors only, No. 22 thru No. 8 solid and/or stranded (see wire matrix for specific wire combinations).

METRIC Range: COPPER conductors only, 0,5 mm² thru 6,0 mm² ridged (solid) and flexible (stranded).

Construction

Spring - Spring steel, corrosion resistant coating
Insulator: - Flame retardant, polypropylene, tan and thermoplastic elastomer, red

Weight

.0068 lbs. (3.1 g)

Performance Test

The following tests were performed to the specification of UL Standard 486C and CSA Standard C22.2 No. 188-M1983.

Static-Heating	Pass
Secureness	Pass
Pullout	Pass
Dielectric Voltage Withstand	Pass
Secureness-of-Insulation	Pass
Flammability	Pass

Other Tests:

per MIL-STD-1344A	
Method 2005.1UV Exposure	Pass
Per ASTM G-53-77 Salt Spray	Pass

Fluid Immersion Test

Connectors were immersed in the following chemicals for seven days at 23°C±2°C with no affect on appearance or loss of material strength.

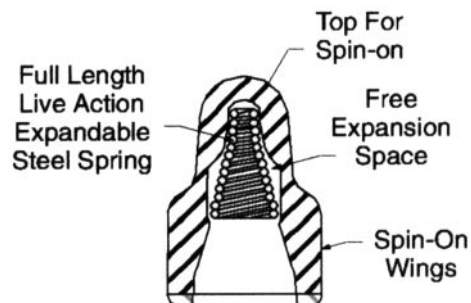
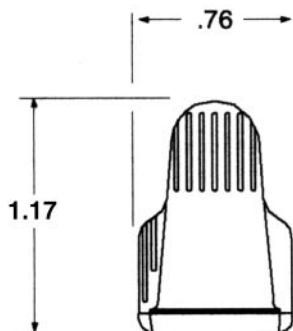
Typical Reagents and Materials

From ASTM D 543-87 and MIL-STD-1344A

Acetic Acid
Acetone
Detergent Solution, Heavy Duty
Ethyl Alcohol (95%)
Ethyl Alcohol (50%)
Heptane
Hydrogen Peroxide Solution 28%
Methyl Alcohol
Sodium Hydroxide Solution
Mineral Spirit
Lubricating Oil

Engineering Specification

3M T/R+ Wire Connector is capable of connecting two or more wires in a pigtail application, in the wire range of No. 22 thru No. 8 AWG solid and/or stranded copper conductors. The connector shall be constructed of an active (live) spring with a corrosion resistant coating. The connector shall be UL LISTED and CSA Certified as a pressure wire connector. The connector shall be voltage rated 600 volts maximum building wire and 1000 volts maximum signs and lighting fixtures (luminaries). The connector shall have a maximum operating temperature of 105°C (221°F).

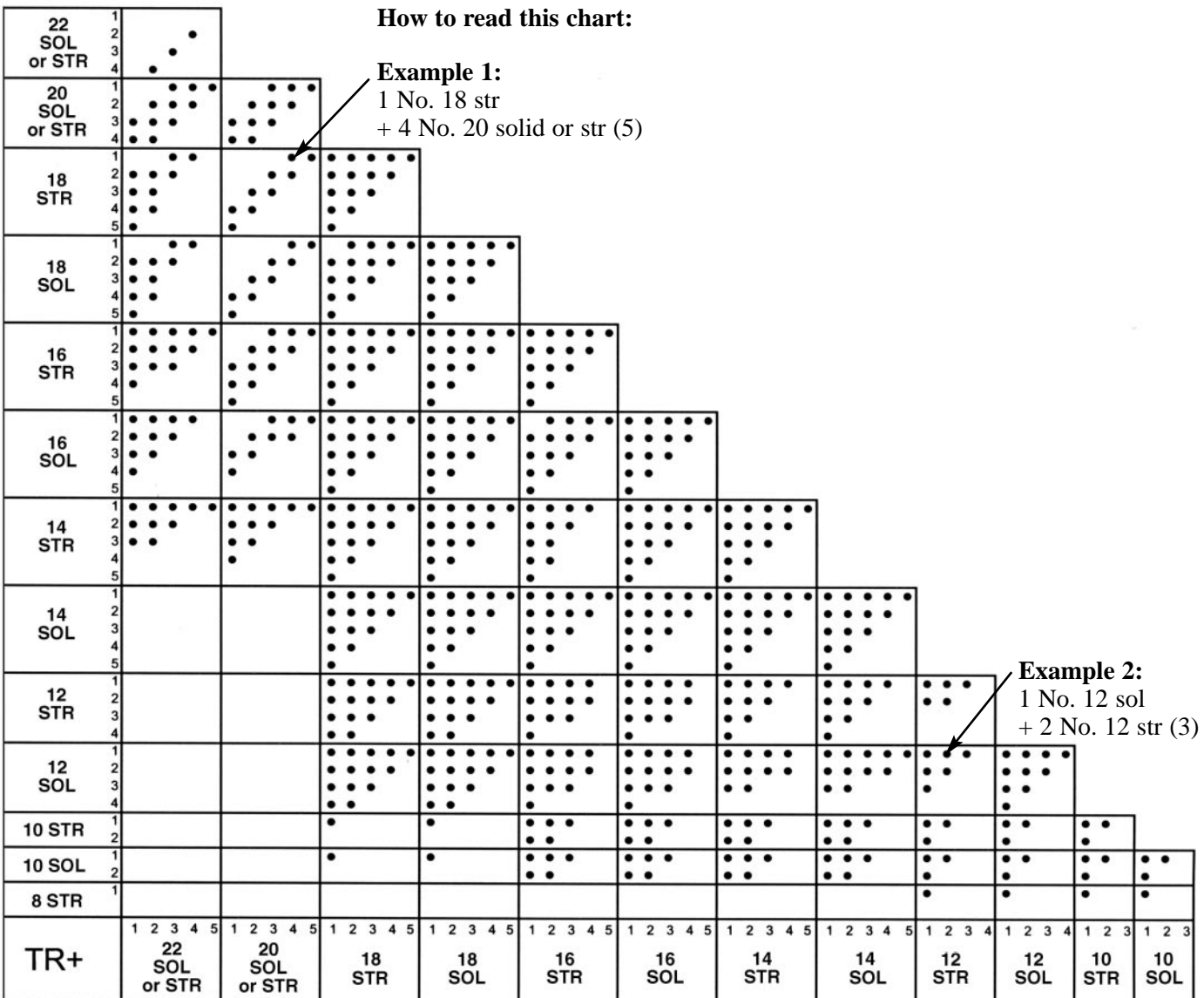




Wire Connector T/R+

AWG Wire Combinations

Copper to Copper Conductors



Installation Instructions

⚠ WARNING

Turn power off before installing or removing terminal. All electrical work should be done according to appropriate electrical codes.

1. Strip wire insulation 1/2".
2. Firmly grasp wires, making sure insulation ends are even and tightly bundled. (Wires may be twisted or untwisted.) Lead stranded wires slightly. Slip the connector over wire tips.
3. Turn connector onto wires in clockwise direction until secure.
4. To remove, turn connector counter- clockwise.

Regulatory Agencies

UL Listed as a Pressure Cable Connector

Tested per UL Standard 486C

UL File No. E23438

Operating Temperature: 105°C (221°F)

Voltage Rating: 600 volts max. building wire;

1000 volts max. signs and fixtures

Flammability Rating: UL94 V-2

CSA Certified-CSA Standard C22.2 No. 0, 188-M1983

CSA File No. LR15503

Operating Temperature: 105°C (221°F)

Voltage Rating: 600 volts max. building wire

1000 volts max. signs and luminaires.

Flammability Rating: C22.2 No. 0.6 V-2

Operating Temperature: 105°C (221°F)

Voltage Rating: 600 volts max. building wire;

1000 volts max. signs and fixtures

Flammability Rating: UL94 V-2

Federal Specification W-S-610:

“Commercial package only”

Type	Class	Kind	Style
1	1	cu	G

Metric Wire Combinations

Copper Conductors Only

Cross Section Capacity	
Minimum	Maximum
2.0mm ²	12.5mm ²

Conductor Combinations		
Quantity	Size	Type
6	0,5mm ²	sol/str
3-6	0,75mm ²	sol/str
2-6	1,0mm ²	sol/str
2-6	1,5mm ²	sol/str
2.5	2,5mm ²	sol/str
2.3	4.0 mm ²	sol/str

Only AWG combinations are UL Listed or CSA Certified.