

# 3M™ Wire Connectors

Reliable, high performing solutions for every wire connecting application.



**3M** *Innovation*

## SAVE TIME, REDUCE INVENTORY

### YOU CAN NEVER BE TOO WELL-CONNECTED ON THE JOB



The best connectors do more than fit the application. They also fit your hand. They feel good to use. At 3M, we design connectors that are as comfortable and easy to use as they are dependable.

Our complete line provides a wide range of connector choices. Simply choose the connector that fits your personal preference as well as the application. We give you plenty of choices.

Start with the unique 3M™ O/B+, T/R+, R/Y+ and B/G+ Wire Connectors. The Scotchlok™ connectors are our original color-coded line of wire connectors designed with features requested by electricians. 3M 312, 412, 512 and 512G Wire Connectors are suited for regular or low-voltage systems in construction, industrial, maintenance, OEM, or irrigation applications. Highland™ wire connectors offer an affordable alternative with no compromise to quality.

It's all here—right at your fingertips—with 3M's family of easy to use, versatile, and highly reliable wire connectors.

## 3M "PERFORMANCE PLUS" CONNECTORS

### BROAD WIRE RANGE = INVENTORY SAVINGS

Because of their increased wire range, just three "Performance+" Wire Connectors handle the work of eight standard connectors. O/B+ replaces the orange, blue, gray and yellow wire connectors. R/Y+ or T/R+ replace red, tan and yellow connectors. B/G+ covers both the large blue and gray connectors. This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connectors you need to do every job.

In addition, they are exceptionally easy to handle. Their one-of-a-kind design incorporates a flexible skirt and a rigid top. The flexible skirt covers over-strips yet conforms to whatever space is available in a box.

This exclusive feature allows Performance Plus connectors to provide maximum protection and fit inside even the most crowded electrical boxes.

The rounded wings on the rigid top make 3M wire connectors exceptionally easy to handle. Twisting the connector—on or off—is easier than ever. That means fast installation and less wear and tear on your fingers.

Inside, the unique spring grips quickly, turns on fast and expands to accept a wide range of wire sizes. It bites into conductors for solid, secure connections. The 3M "plus" connectors also feature a large, funnel-shaped throat design. The connectors meet UL max-fill requirements. All Performance Plus wire combinations are UL listed for 600 volts on copper wire.



### A better bite for a better connection

3M™ Performance Plus Wire Connectors now have a better bite. Wires feed better into the connector improving the security of the connection and increasing the level of pull out.

### A broad wire range reduces inventory

The versatility of 3M “plus” Wire Connectors saves time on the job and reduces inventory. O/B+ replaces orange, blue, gray and yellow connectors; R/Y+ and TR+ replace red, tan and yellow connectors; and the B/G+ replaces blue and gray connectors.

### New design allows easier installation

We have modified the internal design of the 3M Performance Plus Wire Connectors. Installation is smooth, fast and easy on the hands.

### Flexible skirt provides safety

The flexible skirts on the 3M Performance Plus Wire Connectors make your customer’s workplace a safer environment. The flexible skirt provides protection against potential shock situations.

### Wire Range Capabilities

| Combination | 2#20 | 2#16 | 2#12 | 3#12 | 4#12 | 5#12 | 6#12 | 6#10 |
|-------------|------|------|------|------|------|------|------|------|
|             | 2#18 | 2#14 | 4#14 | 6#14 | 3#10 | 2#8  | 4#10 |      |
| O/B+        | █    |      |      |      |      |      |      |      |
| T/Y+        |      | █    |      |      |      |      |      |      |
| T/R+        |      | █    |      |      |      |      |      |      |
| R/Y+        |      | █    |      |      |      |      |      |      |
| B/G+        |      |      | █    |      |      |      |      |      |

### ORDERING INFORMATION

#### 3M™ Performance Plus Connector

| Prod | Box  | Bulk Container   |
|------|--|--|
| O/B+ | 100 connectors/box<br>10 boxes/case<br>1,000 connectors/case | 500 connectors/container<br>20 containers/case<br>10,000 connectors/case |
| T/R+ | 100 connectors/box<br>10 boxes/case<br>1,000 connectors/case | 500 connectors/container<br>8 containers/case<br>4,000 connectors/case   |
| R/Y+ | 100 connectors/box<br>10 boxes/case<br>1,000 connectors/case | 500 connectors/container<br>8 containers/case<br>4,000 connectors/case   |
| B/G+ | 50 connectors/box<br>10 boxes/case<br>500 connectors/case    | 250 connectors/container<br>8 containers/case<br>2,000 connectors/case   |

# 3M™ SCOTCHLOK™ Y, R, G AND B CONNECTORS

## THE COLOR-CODED ORIGINALS

### FLEXIBLE SCOTCHLOK Y, R, G AND B ELECTRICAL SPRING CONNECTORS

Scotchlok Y, R, G and B Electrical Spring Connectors are the original color-coded wire connectors designed with the features electricians request. They're flexible yet durable with an outer insulator that gives you a compact, fully insulated connection that won't cut or abrade wires. The Y, R, and G torque fins are engineered to provide a comfortable and secure grip that makes installation fast and back-off easy.

These four spring connectors have a corrosion-resistant steel inner shell to strengthen them while permitting spring expansion and contraction due to temperature changes, eliminating poke through. The live-action spring delivers reliable, vibration-resistant connections over a wide range of wire combinations from 2 #18 through 3 #8 copper AWG. A deep, flared skirt makes wire insertion easier and protects against shorts and shiners. Finally, the design and a flexible base let Scotchlok connectors bend with the wires you're slicing to fit easily into tight places.



The live-action spring of the 3M™ Scotchlok™ Electrical Spring Connectors delivers reliable, vibration-resistant connections over a wide range of wire combinations.

#### Scotchlok™ Wire Range Capabilities\*

|             | 2#18 | 3#16 | 2#14 | 2#12 | 3#12 | 5#12 | 4#10 | 2#6 |
|-------------|------|------|------|------|------|------|------|-----|
| Scotchlok Y | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes |
| Scotchlok R | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes |
| Scotchlok G | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes |
| Scotchlok B | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes |

\* For additional wire combinations, please call 512-984-5555.



The ribs on the Scotchlok B connector provide a comfortable and secure grip that make for a fast installation.

# 3M™ 312, 412, 512 AND 512G CONNECTORS OFFER CHOICES

## FOR RELIABILITY THAT FEEL JUST RIGHT

For regular or low-voltage systems, in construction, industrial maintenance or OEM, 3M™ connectors are the answer—right at your fingertips.

### NYLON-INSULATED 312 AND 512 ELECTRICAL SPRING CONNECTORS

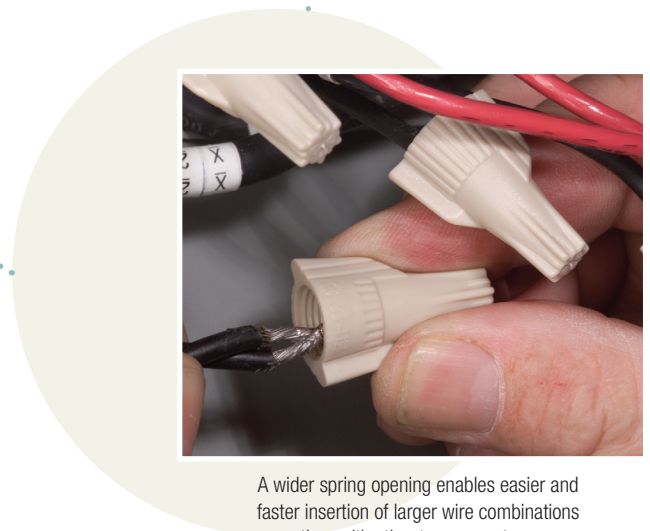
The quick-spin, wing-torque design of 312 and 512 electrical spring connectors is easy on your fingers. The day's last connection will feel almost as good as the first. Generous expansion room accommodates a wide range of solid or stranded wire bundles. Use the 312 (yellow) connector for wire combinations from 3 #20 to 3 #12 copper AWG and the 512 (red) connector for 2 #18 to 5 #12 300 volt copper AWG. The 512G (Green) is used for grounding connections.

### 3M WIRE CONNECTOR 412

The 412 connector has been designed with a hexagon shaped head that makes it usable with a 5/16" socket. It is UL listed for up to four #12 AWG solid or stranded wires. Wing-torque design enables easy application and back-off.



The quick-spin, wing-torque design of the 3M™ 312, 412, 512 and 512G Electrical Spring Connectors makes installation easy on your fingers.



A wider spring opening enables easier and faster insertion of larger wire combinations than with other tan connectors.

# HIGHLAND™ CONNECTORS: COLOR-CODED WIRE CONNECTORS

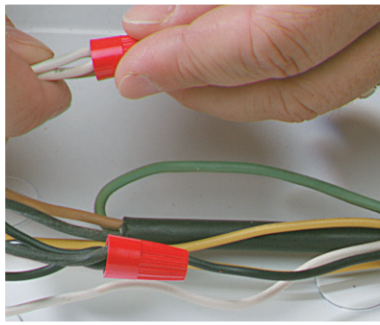
## COLOR-CODED FOR GENERAL WIRING USE

Highland color-coded wire connectors make it quick and easy to match the right connector to the size of the wire.

The shells are designed to withstand temperatures up to 221°F (105°C). Highland color-coded wire connectors are UL Listed, CSA Certified, and work equally well with either solid or stranded copper wire. H-29 and H-30 connectors are rated to 300V. H-31, H-33 and H-35 connectors are rated to 600V maximum in building wire; 1000V maximum in signs or lighting fixtures (luminaires).



Highland™ Color-Coded Wire Connectors make it quick and easy to match the right connector to the size of the wire.



Economical, hard-shell wire connectors that operate in a wide temperature range.

### Highland™ Color-Coded Wire Connector Ordering Information

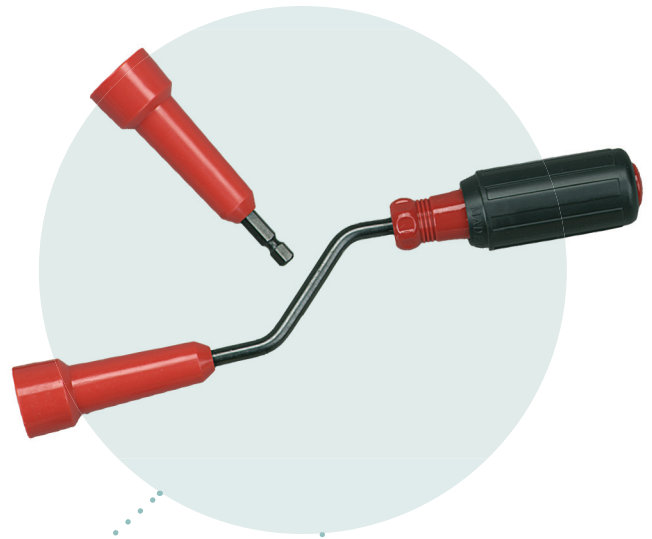
| Product No.   | Wire Range*   | Size |
|---------------|---|------|
| H-29 (Gray)   | 22-16 AWG (Three to Five #22 AWG; Two to Four #20 AWG; Two or Three #18 AWG; Two #16 AWG)   | 71B  |
| H-30 (Blue)   | 22-16 AWG (Five #22 AWG; Three to Five #20 AWG; Two to Four #18 AWG; Two or Three #16 AWG; One #14 AWG w/One #16 AWG)                 | 72B  |
| H-31 (Orange) | 22-14 AWG (Five #22 AWG; Three to Five #20 AWG; Two to Five #18 AWG; Two or Three #16 AWG; Two #14 AWG)                               | 73B  |
| H-33 (Yellow) | 22-12 AWG (Four or Five #22 AWG; Three to Five #20 AWG; Two to Seven #18 AWG; Two to Four #16 AWG; Two or Three #14 AWG; Two #12 AWG) | 74B  |
| H-35 (Red)    | 18-10 AWG (Three to Nine #18 AWG; Two to Six #14 AWG; Two to Four #12 AWG; Two or Three #10 AWG)                                      | 76B  |

#### WARNING

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

## 3M WCD WIRE CONNECTOR DRIVERS

These application tools for 3M O/B+, R/Y+, 312, 412 and 512, and Scotchlok™ Y, R, and G connectors quickly spin on the connector and position the wire bundle in the box. The WCD-H is a hand driver and the WCD-P is a power driver that fits a standard chuck.



## CONNECTORS APPLICATIONS: THE POSSIBILITIES ARE ENDLESS

Here are just a few of the general categories and applications for the 3M family of wire connectors.

### Recreational Equipment

- Motor homes
- Trailer hitches

### Automotive

- After market equipment
- Security systems

### Residential Construction

- Branch circuit wiring
- Security systems
- Ballast lighting
- Fans and fixtures

### Commercial Construction

- Branch circuit wiring
- Motors and relays
- Fire alarm systems

### Industrial

- Branch circuit wiring
- Large motors and compressors

### Maintenance

- Replacement of motors and compressors
- Refurbishment
- Ballast lighting

### OEM

- Appliances
- Lighting fixtures
- Lamps
- Vacuums
- Air conditioning

### Manufacturing

- OEM equipment
- Equipment maintenance

### The 3M™ Family of Connectors

#### 3M “Plus” Connectors

O/B+, R/Y+, B/G+, T/R+, TY+

#### Scotchlok™ Connectors

Y, R, G, B

#### 3M Connectors

312, 412, 512, 512G

#### Highland™ Color-Coded Connectors

H-29, H-30, H-31, H-33, H-35

#### 3M Connector Tools

WCD-P, WCD-H

For more information, please call 800-245-3573.

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### **Important Notice**

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

### **Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES**

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# **3M**

### **Electrical Markets Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
800 245 3573  
FAX 800 245 0329  
[www.3M.com/electrical](http://www.3M.com/electrical)



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