

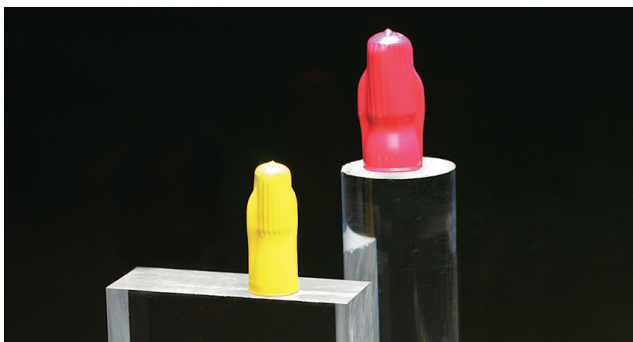
Spring Connectors and Tools

3M™ Performance Plus Wire Connectors (T/R+, T/Y+, O/B+, R/Y+, B/G+)

Because of their increased wire range, just four Performance Plus Wire Connectors handle the work of seven standard connectors. T/R+ replaces the yellow, tan and red connectors in the majority of field applications. T/Y+ replaces the yellow, orange, blue and gray wire nuts in most applications. O/B+ replaces the orange, blue and gray wire connector style connectors, as well as 70% of the yellow wire connector and wing style connectors. R/Y+ replaces both red and yellow wing style 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 connector you need to do every job.

3M™ Scotchlok™ Electrical Spring Connectors Y and R

3M Scotchlok Electrical Spring Connectors Y and R are the original color-coded wire connectors with a unique soft shell that is easy on the fingers. They're flexible, yet durable, and provide a compact, fully insulated connection that won't cut or abrade wires. Their torque fins are engineered to provide a comfortable and secure grip, which makes installation fast and back-off easy.



3M™ Scotchlok™ Electrical Spring Connectors



3M™ Performance Plus Wire Connectors

3M™ Electrical Spring and Grounding Connectors 312, 412, 512 and 512G

The quick-spin, wing-torque design of Electrical Spring and Grounding Connectors 312, 412 and 512 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. Use the 312 (yellow) connector for wire combinations from 3 #20 to 3 #12 AWG, the 412 (tan) connector for 2 #20 to 3 #10 AWG and the 512 (red) connector for 2 #18 to 5 #12 AWG. The 512G (green) is used for grounding connections.










3M™ Electrical Spring and Grounding Connectors

SPRING CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
3M PERFORMANCE PLUS WIRE CONNECTORS (T/R+, T/Y+, O/B+, R/Y+, B/G+)		
Wires feed deeper	Increases level of pull-out	Security
Wide wire ranges	Three connectors replace seven	Saves money and time
Flexible skirt	Covers overstripped wires	Safety
New internal design	Smoother and faster installation	Improves quality and saves time
3M SCOTCHLOK ELECTRICAL SPRING CONNECTORS (Y, R, G, B)		
Soft outer shell	Easy on the fingers	Easy to use
Steel inner shell	No wire poke-through	Safety
Compact design	Fit into tight places	Easy to use
Able to back off	Rewire if needed	Saves time
3M ELECTRICAL SPRING AND GROUNDING CONNECTORS (312, 412, 512, 512G)		
Hard shell	Easy to grip	Easy to use
Wings	Easy to turn	Easy to use
3M HIGHLAND™ WIRE CONNECTORS (H-29, H-30, H-31, H-33, H-35)		
Low price	Economical	Save money

Specifications for Spring Connectors

Connector	Features/Description	Maximum Voltage Rating	Wire Range* AWG (mm ²)	Temp. Rating	UL, CSA or CE Certified	Tools
 3M™ Connector O/B+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#22-3#12 3#14 (1,0 mm ² -5,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
 3M™ Connector T/R+	Quick bite, compact size wide wire range	600V (1000V in signs, lighting fixtures and luminaries)	up to 5#12s (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
 3M™ Connector R/Y+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#18-2#8 5#12 (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
 3M™ Connector T/Y+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#22-3#12 3#14 (1,0 mm ² -5,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
 3M™ Connector B/G+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	4#14-2#6-3#8 (10,0 mm ² -31,6 mm ²)	221°F (105°C)	UL SP CE †	—
 3M™ Scotchlok™ Connector R	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	9#18, 4-6#16, 2-5#14, 2-5#12, 1-3#10 (5,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
 3M™ Scotchlok™ Connector Y	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	5-8#22, 4-6#20, 2-5#18, 2-3#16, 1-3#14, 1-2#12, 1#10 (2,0 mm ² -17,5 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H

Ordering Information for Spring Connectors

Connector	UPC (054007-)	Inner Unit Pack	Case Qty. (connectors) Distributor Order Qty.
3M™ Scotchlok™ Connector R	20058	100/box	1,000 box
	70489	500/bag	5,000 bag
3M™ Scotchlok™ Connector Y	20041	100/box	1,000 box
	15769	500/bag	10,000 bag
3M™ Connector 312 (Yellow)	08159	100/box	1,000 box
	08160	500/bag	10,000 bag
	53952*	500/jug	10,000 case
3M™ Connector 412 (Tan)	54451*	100/box	1,000 box
	54452*	500/bag	10,000 bag
	54453*	20,000/keg	20,000 keg
	55695*	500/jug	4,000 box
3M™ Connector 512 (Red)	08161	100/box	1,000 box
	08162	500/bag	10,000 bag
	53953*	250/jug	5,000 case
3M™ Connector 512G (Green)	49950	50/box	500 box
	50232	500/bag	10,000 bag
3M Highland™ Connector H-29 (Gray)	43133	100/box	1,000 box
	43134	N/A	1,000 bin
	43135	N/A	25,000 keg (loose)
3M Highland™ Connector H-30 (Blue)	43122	100/box	1,000 box
	43123	N/A	1,000 bin
	43124	N/A	10,000 keg (loose)
3M Highland™ Connector H-31 (Orange)	43117	100/box	1,000 box
	43118	500/bag	10,000 bulk
	43119	N/A	1,000 bin
	43120	N/A	10,000 keg
3M Highland™ Connector H-33 (Yellow)	43136	100/bag	1,000 bag
	43137	N/A	1,000 bin
	43138	500/bag	5,000 bag
	43139	N/A	5,000 keg
3M Highland™ Connector H-35 (Red)	43140	100/box	1,000 box
	43141	N/A	1,000 bulk
	43142	250/bag	2,500 bag

*UPC prefix 051128-

Specifications and Ordering Information for Application Tools

Product Number	Description	Application	UPC (054007-)	Inner Unit Pack	Case Qty.
WCD-P	Power driver for wire connectors	Tools for 3M O/B+, R/Y+, 3M Scotchlok Y, R, G and 3M 212, 312, and 512.	49919	N/A	10
WCD-H	Hand driver for wire connectors	Tools for 3M O/B+, R/Y+, 3M Scotchlok Y, R, G and 3M 212, 312, and 512.	49948	N/A	10

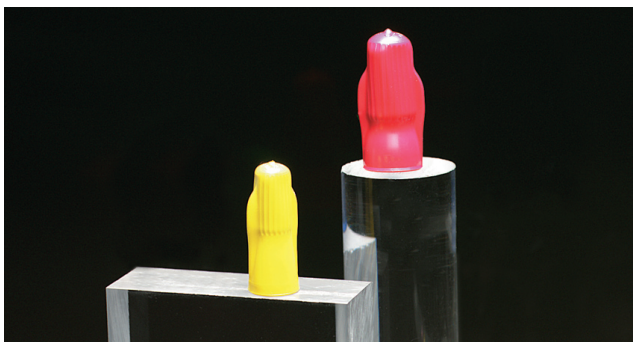
Spring Connectors and Tools

3M™ Performance Plus Wire Connectors (T/R+, T/Y+, O/B+, R/Y+, B/G+)

Because of their increased wire range, just four Performance Plus Wire Connectors handle the work of seven standard connectors. T/R+ replaces the yellow, tan and red connectors in the majority of field applications. T/Y+ replaces the yellow, orange, blue and gray wire nuts in most applications. O/B+ replaces the orange, blue and gray wire connector style connectors, as well as 70% of the yellow wire connector and wing style connectors. R/Y+ replaces both red and yellow wing style 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 connector you need to do every job.

3M™ Scotchlok™ Electrical Spring Connectors Y and R

3M Scotchlok Electrical Spring Connectors Y and R are the original color-coded wire connectors with a unique soft shell that is easy on the fingers. They're flexible, yet durable, and provide a compact, fully insulated connection that won't cut or abrade wires. Their torque fins are engineered to provide a comfortable and secure grip, which makes installation fast and back-off easy.



3M™ Scotchlok™ Electrical Spring Connectors



3M™ Performance Plus Wire Connectors

3M™ Electrical Spring and Grounding Connectors 312, 412, 512 and 512G

The quick-spin, wing-torque design of Electrical Spring and Grounding Connectors 312, 412 and 512 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. Use the 312 (yellow) connector for wire combinations from 3 #20 to 3 #12 AWG, the 412 (tan) connector for 2 #20 to 3 #10 AWG and the 512 (red) connector for 2 #18 to 5 #12 AWG. The 512G (green) is used for grounding connections.



3M™ Electrical Spring and Grounding Connectors

SPRING CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
3M PERFORMANCE PLUS WIRE CONNECTORS (T/R+, T/Y+, O/B+, R/Y+, B/G+)		
Wires feed deeper	Increases level of pull-out	Security
Wide wire ranges	Three connectors replace seven	Saves money and time
Flexible skirt	Covers overstripped wires	Safety
New internal design	Smoother and faster installation	Improves quality and saves time
3M SCOTCHLOK ELECTRICAL SPRING CONNECTORS (Y, R, G, B)		
Soft outer shell	Easy on the fingers	Easy to use
Steel inner shell	No wire poke-through	Safety
Compact design	Fit into tight places	Easy to use
Able to back off	Rewire if needed	Saves time
3M ELECTRICAL SPRING AND GROUNDING CONNECTORS (312, 412, 512, 512G)		
Hard shell	Easy to grip	Easy to use
Wings	Easy to turn	Easy to use
3M HIGHLAND™ WIRE CONNECTORS (H-29, H-30, H-31, H-33, H-35)		
Low price	Economical	Save money

Specifications for Spring Connectors

Connector	Features/Description	Maximum Voltage Rating	Wire Range* AWG (mm ²)	Temp. Rating	UL, CSA or CE Certified	Tools
3M™ Connector O/B+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#22-3#12 3#14 (1,0 mm ² -5,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
3M™ Connector T/R+	Quick bite, compact size wide wire range	600V (1000V in signs, lighting fixtures and luminaries)	up to 5#12s (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
3M™ Connector R/Y+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#18-2#8 5#12 (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
3M™ Connector T/Y+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#22-3#12 3#14 (1,0 mm ² -5,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
3M™ Connector B/G+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	4#14-2#6-3#8 (10,0 mm ² -31,6 mm ²)	221°F (105°C)	UL SP CE †	—
3M™ Scotchlok™ Connector R	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	9#18, 4-6#16, 2-5#14, 2-5#12, 1-3#10 (5,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H
3M™ Scotchlok™ Connector Y	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	5-8#22, 4-6#20, 2-5#18, 2-3#16, 1-3#14, 1-2#12, 1#10 (2,0 mm ² -17,5 mm ²)	221°F (105°C)	UL SP CE †	WCD-P WCD-H

Ordering Information for Spring Connectors

Connector	UPC (054007-)	Inner Unit Pack	Case Qty. (connectors) Distributor Order Qty.
3M™ Scotchlok™ Connector R	20058	100/box	1,000 box
	70489	500/bag	5,000 bag
3M™ Scotchlok™ Connector Y	20041	100/box	1,000 box
	15769	500/bag	10,000 bag
3M™ Connector 312 (Yellow)	08159	100/box	1,000 box
	08160	500/bag	10,000 bag
	53952*	500/jug	10,000 case
3M™ Connector 412 (Tan)	54451*	100/box	1,000 box
	54452*	500/bag	10,000 bag
	54453*	20,000/keg	20,000 keg
	55695*	500/jug	4,000 box
3M™ Connector 512 (Red)	08161	100/box	1,000 box
	08162	500/bag	10,000 bag
	53953*	250/jug	5,000 case
3M™ Connector 512G (Green)	49950	50/box	500 box
	50232	500/bag	10,000 bag
3M Highland™ Connector H-29 (Gray)	43133	100/box	1,000 box
	43134	N/A	1,000 bin
	43135	N/A	25,000 keg (loose)
3M Highland™ Connector H-30 (Blue)	43122	100/box	1,000 box
	43123	N/A	1,000 bin
	43124	N/A	10,000 keg (loose)
3M Highland™ Connector H-31 (Orange)	43117	100/box	1,000 box
	43118	500/bag	10,000 bulk
	43119	N/A	1,000 bin
	43120	N/A	10,000 keg
3M Highland™ Connector H-33 (Yellow)	43136	100/bag	1,000 bag
	43137	N/A	1,000 bin
	43138	500/bag	5,000 bag
	43139	N/A	5,000 keg
3M Highland™ Connector H-35 (Red)	43140	100/box	1,000 box
	43141	N/A	1,000 bulk
	43142	250/bag	2,500 bag

*UPC prefix 051128-

Specifications and Ordering Information for Application Tools

Product Number	Description	Application	UPC (054007-)	Inner Unit Pack	Case Qty.
WCD-P	Power driver for wire connectors	Tools for 3M O/B+, R/Y+, 3M Scotchlok Y, R, G and 3M 212, 312, and 512.	49919	N/A	10
WCD-H	Hand driver for wire connectors	Tools for 3M O/B+, R/Y+, 3M Scotchlok Y, R, G and 3M 212, 312, and 512.	49948	N/A	10