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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

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 312	Nylon insulated w/live spring	600V (1000V in signs, lighting fixtures and luminaries)	5-7#22, 3-6#20, 2-6#18 2-6#16, 1-4#14, 1-3#12 (1,5 mm ² -10,0 mm ²)	221°F (105°C)	  †	WCD-P WCD-H
 3M™ Connector 412	Nylon insulated w/live spring	600V (1000V in signs, lighting fixtures and luminaries)	5-7#22, 3-6#20, 2-6#18 2-6#16, 1-4#14, 1-4#12 (1,5 mm ² -10,0 mm ²)	221°F (105°C)	  †	WCD-P WCD-H
 3M™ Connector 512	Nylon insulated w/live spring	600V (1000V in signs, lighting fixtures and luminaries)	2-10#18, 2-7#16, 1-6#14, 1-5#12, 1-3#10, 1-2#8, 1#6 (2,0 mm ² -16,0 mm ²)	221°F (105°C)	  †	WCD-P WCD-H
 3M™ Connector 512G	Nylon insulated grounding connector	600V (1000V in signs, lighting fixtures and luminaries)	2-5#14, 2-5#12, 2-3#10, 1#14 w/1-4#12, 2#14 w/ 1-3#12, 3#14 w/2 or 3 #12, 4#14 w/1#12, 1#14 w/1- 3#10, 2#14 w/1 or 2#10, 3#14 w/1#10, 1#12 w/1 or 2#10, 2#12 w/1#10 (4,0 mm ² -15,0 mm ²)	221°F (105°C)	  †	—
 3M Highland™ Connector H-29	Round wire spring	300V	22-16 AWG [Two 22 AWG/One 20 AWG Min.] [Two 16 AWG Max.] (1,5 mm ² -2,5 mm ²)	221°F (105°C)	 	—
 3M Highland™ Connector H-30	Round wire spring	300V	22-16 AWG [Two 22 AWG Min.] [Three 16 AWG Max.] (1,5 mm ² -3,0 mm ²)	221°F (105°C)	 	—
 3M Highland™ Connector H-31	Round wire spring	600V (1000V in signs, lighting fixtures and luminaries) Depending upon combinations	18-14 AWG [Two 18 AWG Min.] [Two 14 AWG Max.] (2,0 mm ² -4,0 mm ²)	221°F (105°C)	 	—
 3M Highland™ Connector H-33	Round wire spring	600V (1000V in signs, lighting fixtures and luminaries) Depending upon combinations	18-12 AWG [Three 18 AWG Min.] [Three 14 AWG Max.] (2,0 mm ² -0,5 mm ²)	221°F (105°C)	 	—
 3M Highland™ Connector H-35	Round wire spring	600V (1000V in signs, lighting fixtures and luminaries) Depending upon combinations	18-10 AWG [Three 18 AWG Min.] [Two #10 AWG Max.] (2,5 mm ² -16,0 mm ²)	221°F (105°C)	 	—

*For information on additional Cu wire connections, refer to package or consult 3M technical service.

† UL Listed E23438 and CSA Certified LR15503

Ordering Information for Spring Connectors

Connector	UPC (054007-)	Inner Unit Pack	Case Qty. (connectors) Distributor Order Qty.
3M™ Connector O/B+	43152	100/box	1,000 box
	43153	500/jug	10,000 container
3M™ Connector T/R+	54454*	100/box	1,000 box
	54455*	750/jug	6,000 jug
	54456*	N/A	25,000 keg
3M™ Connector R/Y+	43154	100/box	1,000 box
	43155	500/jug	4,000 container
3M™ Connector T/Y+	55218*	100/box	1,000 box
	55219*	500/jug	10,000 container
3M™ Connector B/G+	43150	50/box	500 box
	43151	250/jug	2,000 container

*UPC prefix 051128-

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

Crimp Sleeve Connectors

3M™ Scotchlok™ Insulated Electrical Crimp Sleeve Connectors S-11 and S-31

3M Scotchlok electrical crimp sleeve connectors make fast work of splicing 22 to 10 AWG copper conductors. Smooth flared entry makes wire insertion fast—simply twist conductors together and crimp. The S-11-A and S-31-A are insulated, closed-end crimp sleeve connectors. With a rugged, yet resilient nylon insulator, use these connectors in light fixtures, appliances and other electrical OEM applications.

Specifications for Crimp Sleeve Connectors (Nylon Insulated)

Product Number	UPC (054007-)	Maximum Voltage Rating*	AWG (mm ²) Wire Range O.D.*	Inner Unit Pack	Case Qty.
S-11-A	16732	600V	2#22, 2#18, 2#16 stranded (0,6–2,6 mm ²)	100/box	1,000
	16733	600V	2#22, 2#18, 2#16 stranded (0,6–2,6 mm ²)	1,000/bag	10,000
S-31-A	16734	600V	2#18, 3#14 (1,6–6,6 mm ²)	50/box	500
	16735	600V	2#18, 3#14 (1,6–6,6 mm ²)	500/bag	5,000



S-11-A



S-31-A