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OHUG Product Catalogue

Edition 01

Section 03

Scotchlok™ Wire Connectors

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Connectors & Scotchlok™ Wire Connectors & Tools



Connectors and Scotchlok™ Connectors offer the quick installation and reliability that contractors demand. They come in a variety of shapes and sizes with different properties to fit a wide range of applications and cable sizes.






Electrical Wire Connectors

Spring Connectors – 3M™ Performance Plus Wire Connectors



Because of their increased wire range, just three 3M™ Performance Plus Wire Connectors do the work of eight standard connectors and are suitable for commercial, residential, industrial and maintenance applications. The rounded wings make 3M wire connectors exceptionally easy to handle. The flexible skirt covers over-strips yet conforms to whatever space is available in a box. Inside, the unique spring grips quickly and bites into conductors for solid, secure connections.

Agency Approvals:  

| Product | B/G+BOX | O/B+BOX | R/Y+BOX |
|-------------------------------|---|---|---|
| |  |  |  |
| Order Code | POA | 3M087 | 3M793 |
| Colour | Blue/Grey | Orange/Blue | Red/Yellow |
| Conductor Size Combinations* | 3 x 2.5 mm ² to 2 x 10 mm ² Solid/Stranded | 2 x 0.5 mm ² Solid/Stranded to 3 x 2.5 mm ² Solid | 2 x 1.0 mm ² to 2 x 6 mm ² Solid/Stranded |
| Connector Style | Twist On | Twist On | Twist On |
| Flame Retardant | Yes | Yes | Yes |
| Maximum Voltage Rating | 600 V (1000 V in signs, lighting fixtures and luminaries) | 600 V (1000 V in signs, lighting fixtures and luminaries) | 600 V (1000 V in signs, lighting fixtures and luminaries) |
| Maximum Operating Temperature | 105°C | 105°C | 105°C |

Insulation Displacement Connectors and Tools for Electrical Applications



3M™ Scotchlok™ IDC Electrical Double Run or Tap Connectors 560,560B and 564



Agency Approvals:  

| Product | 560 | 560B | 564 |
|--------------------------------|---|---|---|
| |  |  |  |
| Order Code | POA | 3M074 | POA |
| Colour | Light Blue | Blue | White |
| Conductor Size | 0.75 - 1.0 mm ² Solid/Stranded 1.5 mm ² Stranded | 0.75 - 1.0 mm ² Solid/Stranded 1.5 mm ² Stranded | 0.75 - 1.5 mm ² Solid/Stranded |
| Connector Style | Insulation Displacement (IDC) | Insulation Displacement (IDC) | Insulation Displacement (IDC) |
| Maximum Insulation Diameter | 3.7 mm | 3.7 mm | 3.7 mm |
| Flame Retardant | Yes | Yes | No |
| Maximum Voltage Rating | 600 V (1000 V in signs, lighting fixtures and luminaries) | 600 V (1000 V in signs, lighting fixtures and luminaries) | 32 V |
| Maximum Operating Temperature | 105°C | 90°C | 90°C |
| Recommended Installation Tools | 3M™ Crimping Tool E-9BM Linesman Pliers | 3M™ Crimping Tool E-9BM Linesman Pliers | 3M™ Crimping Tool E-9BM Linesman Pliers Multigrip (Slip Joint) Pliers |

3M™ Scotchlok™ IDC Run and Tap Connectors 558 and 567

Electrically connects a (tap) wire end to a through (run) wire and insulates the connection. Designed for control circuit wiring, fixture wiring, appliance wiring, signal and PA systems, and automotive, boat or recreational vehicle wiring. Flame retardant.

Agency Approvals:  

| Product | 558 | 567 |
|--------------------------------|---|---|
| |  |  |
| Order Code | POA | POA |
| Colour | Red | Brown |
| Conductor Size | 0.5 - 1.5 mm ² Solid/Stranded | Tap: 0.75 - 1.5 mm ² Run: 3.5 - 4.0 mm ² Solid/Stranded |
| Connector Style | Insulation Displacement (IDC) | Insulation Displacement (IDC) |
| Maximum Insulation Diameter | 3.0 mm | Tap: 3.7 mm Run: 4.8 mm |
| Flame Retardant | Yes | Yes |
| Maximum Voltage Rating | 105°C | |
| Maximum Operating Temperature | 600 V (1000 V in signs, lighting fixtures and luminaries) | 600 V (1000 V in signs, lighting fixtures and luminaries) |
| Recommended Installation Tools | 3M™ Crimping Tool E-9BM Linesman Pliers | 3M™ Crimping Tool E-9BM Linesman Pliers |

3M™ Scotchlok™ Fuse Holder 972-A

The 3M Scotchlok™ Fuse Holder 972-A is used to install a blade-type automotive fuse between power source and device.

| | |
|---|---|
| Product | 972-A |
|  | |
| Order Code | POA |
| Colour | Blue |
| Conductor Size | 0.75 - 1.5 mm ² Solid/Stranded |
| Connector Style | Insulation Displacement (IDC) |
| Maximum Insulation Diameter | 3.8 mm |
| Flame Retardant | No |
| Operating Temperature | 105°C |

3M™ Scotchlok™ Moisture Guard Connector (MGC)

The 3M™ Scotchlok™ Moisture Guard Connector MGC provides a convenient way to connect wires for landscape irrigation and lighting applications. Just press the MGC cap and a metal element inside pushes through the wire insulation to make a secure, reliable connection. The grease in the MGC protects against moisture while the MGC housing is UV resistant for above-ground applications.



Recommended installation tool:

- > Multigrip (Slip Joint) Pliers

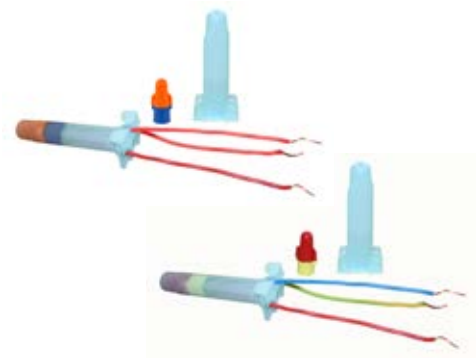
Applications

- > Residential and commercial landscape lighting, irrigation applications

| Product | Order Code | Connector Style | Outside Port | | Inside Port | | Flame Retardant | Max Voltage Rating | Max Operating Temp |
|---------------|------------|-------------------------------|--|---------------------|---|---------------------|-----------------|---|--------------------|
| | | | Wire Range | Insulation Diameter | Wire Range | Insulation Diameter | | | |
| MGC (25/Bag) | 3M073 | Insulation Displacement (IDC) | 1.0 mm ² - 2.5 mm ² Solid/Stranded | 5.3 mm | 0.5 mm ² Stranded, 0.75 mm ² Solid/Stranded | 3.8 mm | Yes | 600 V (1000 V in signs, lighting fixtures and luminaries) | 105°C |
| MGC (100/Jar) | POA | Insulation Displacement (IDC) | 1.0 mm ² - 2.5 mm ² Solid/Stranded | 5.3 mm | 0.5 mm ² Stranded, 0.75 mm ² Solid/Stranded | 3.8 mm | Yes | 600 V (1000 V in signs, lighting fixtures and luminaries) | 105°C |

3M™ Direct Bury Splice Kits DBO/B-6 and DBR/Y-6

The 3M™ Direct Bury Splice Kits DBO/B-6 and DBR/Y-6 are used to electrically connect two or more pre-stripped copper wires and moisture seal the connection for direct burial. The DBO/B-6 kit includes a 3M™ Performance Plus Wire Connector O/B+ and a high impact, UV-resistant polypropylene tube prefilled with moisture-resistant grease and is flame retardant. The DBR/Y-6 kit includes a 3M™ Performance Plus Wire Connector R/Y+ and a high impact, UV-resistant polypropylene tube prefilled with moisture-resistant grease.



Applications

- > Wiring up to 600 V in water-intensive applications such as golf courses, irrigation controls and outdoor lighting.

| Product | Order Code | Conductor Size | Connector Style | Common Wire Combinations (Copper only)* | Flame Retardant | Maximum Voltage Rating | Maximum Operating Temperature |
|--------------|------------|--|-----------------|--|-----------------|------------------------|-------------------------------|
| DBO/B-6 BULK | 3M079 | 0.75 mm ² - 2.5 mm ² | Direct Bury | 2 x 1.0 mm ² to 3 x 2.5 mm ² | Yes | 600 V | 105°C |
| DBR/Y-6 BULK | 3M078 | 1.0 mm ² - 6.0 mm ² | Direct Bury | 2 x 1.0 mm ² to 3 x 4.0 mm ² | Yes | 600 V | 105°C |

3M™ Scotchlok™ Moisture Resistant Connectors 314 and 316IR

3M™ Scotchlok™ Connectors 314 and 316IR are used to electrically connect two or three wire ends, insulate the connection, and provide a moisture resistant seal. 316-IR is recommended for use with low energy underground circuit wires, sprinkler systems, landscape lighting or other moisture-resistant applications less than 600 volts.



Recommended installation tool:

3M™ Scotchlok™ Crimp Tool E-9BM or Multigrip (Slip Joint) Pliers

| Product | Order Code | Colour | Connector Size | Maximum Insulation Diameter | Flame Retardant | Maximum Voltage Rating | Maximum Operating Temperature |
|--------------|------------|-----------------------|--|-----------------------------|-----------------|------------------------|-------------------------------|
| 314 (50 bag) | 3M072 | Blue Cap, White Body | 0.5 - 1.5 mm ² Solid/Stranded | 3.8 mm | Yes | 600 V | 105°C |
| 316IR | POA | Black Cap, White Body | 0.5 - 1.5 mm ² Solid/Stranded | 3.9 mm | Yes | 600 V | 105°C |

3M™ Scotchlok™ Butt Connector UAL

The UAL connector is a sealed, moisture resistant two or three wire insulation displacement connector. Outside ports accept solid copper, aluminium or a combination of both.



Recommended installation tool:

3M™ Scotchlok™ Crimp Tool E-9BM or Multigrip (Slip Joint) Pliers

| Product | 3M Order Code | Colour | Conductor Size | Maximum Insulation Diameter | Flame Retardant | Maximum Operating Temperature |
|---------|---------------|--------|----------------|--|-----------------|-------------------------------|
| UAL | POA | Clear | 0.5 - 1.2 mm | Outside port: 2.1 mm Centre port: 1.9 mm | No | 140°C |

Communication Connectors

Scotchlok™ IDC Butt Connectors UR2 and UY2

Scotchlok IDC Butt Connectors employ a specially designed, wire insulation displacement contact to make a reliable electrical connection to each wire. A “live-spring” joint is made by driving the wire down into the “U” contact connector. This simple process displaces the insulation and grasps all conductors with a firm, resilient pressure, all in one motion. No stripping of wire insulation is required. Scotchlok™ butt connectors include a factory-installed sealant to protect against corrosion and seals out moisture.

Scotchlok™ IDC Butt Connector UR2

The UR2 connector accepts two or three solid copper conductors for butt splicing. The connector is filled with a sealant to provide moisture resistance.

Recommended installation tool: 3M™ Crimping Tools E-9BM, E-9J or E-9Y

Agency Approvals: 



| Product | Order Code | Connector Type | Colour | Conductor Diameter | Maximum Insulation Diameter |
|----------------|------------|-----------------------------|-----------|--------------------|-----------------------------|
| UR2 100/box NZ | 3M070 | Butt, 2 or 3 Conductor, IDC | Red (top) | 0.4 - 0.9 mm | 2.1 mm |

Scotchlok™ Butt Connector UY2

The small size of the UY2 connector reduces the splicing bundle size to a minimum. The connector's two ports accept two solid copper conductors. The connector is filled with a sealant to provide moisture resistance.

Recommended installation tool: 3M™ Crimping Tools E-9BM

Agency Approvals: 



| Product | Order Code | Connector Type | Colour | Conductor Diameter | Maximum Insulation Diameter |
|----------------|------------|------------------------|--------------|--------------------|-----------------------------|
| UY2 100/box NZ | 3M071 | Butt, 2 Conductor, IDC | Yellow (top) | 0.4 - 0.9 mm | 2.1 mm |
| UY2 500/jar | 3M130 | Butt, 2 Conductor, IDC | Yellow (top) | 0.4 - 0.9 mm | 2.1 mm |

Scotchlok™ Self Stripping Drop Wire Connector 557-TG2

Use the 557-TG2 aerial dropwire connector to electrically connect two solid copper conductors, insulate the connection and provide moisture protection.

Recommended installation tool: 3M™ Crimping Tools E-9BM or E-9J



| Product | 557-TG2 100/Jar | 557-TG2 500/Box | Conductor Size | Maximum Insulation Diameter |
|---------|-----------------|-----------------|----------------|-----------------------------|
| 557-TG2 | POA | POA | 0.6 - 1.3 mm | 3.0 mm |

Scotchlok™ Inline Connectors U1R and U1B

The U1R and U1B connectors are sealed moisture-resistant four-wire (1 full pair) inline connectors for larger gauge solid copper conductors.



Recommended installation tool: 3M™ Crimping Tools E-9BM

| Product | Order Code | Colour | Wire Range | Maximum Insulation Diameter |
|---------|------------|------------|--------------|-----------------------------|
| U1R | 3M786 | Red (top) | 0.5 - 0.9 mm | 3.2 mm |
| U1B | 3M075 | Blue (top) | 0.9 - 1.3 mm | 3.2 mm |

Scotchlok™ Tap Connector UB2A

By positioning the 3M Scotchlok™ IDC Tap Connector UB2A on the conductor and pre-crimping, the conductor is prevented from slipping out of the connector before the crimp is completed. The UB2A permits tapping directly onto an existing conductor without interrupting service. In ready access closures, the UB2A eliminates cutting cable pairs, opening pairs, and piecing out wires. The conductors joined can be different sizes.






Recommended installation tool: 3M™ Crimping Tools E-9BM, E-9J or E-9Y

Agency Approvals: 

| Product | Order Code | Conductor Size | Maximum Insulation Diameter |
|---------|------------|----------------|-----------------------------|
| UB2A | 3M785 | 0.4 - 0.9 mm | 2.1 mm |

3M™ Scotchlok™ Crimping Tools

3M™ recommends the use of 3M™ Scotchlok™ Crimping Tools when installing 3M™ Scotchlok™ IDC Connectors. These tools ensure repeated fast, reliable connections. In projects where large numbers of connectors are being used, the high mechanical advantage designed into the tool will ensure minimal operator fatigue.

| Product | E-9BM | R/YE-9JBOX |
|---|--|--|
|  |  |  |
| Order Code | POA | 3M131 |
| Product Name | 3M™ Scotchlok™ Hand Crimping Tool E-9BM | 3M™ Scotchlok™ Hand Crimping Tool E-9J |
| Description | This heavy duty tool is capable of crimping all Scotchlok™ connectors. Its closing action and adjustable jaws provide a 10 to 1 mechanical advantage, allowing it to handle all wire gauges. | The E-9J tool is a lightweight, handheld tool featuring a single stroke, with a work-saving 10 to 1 mechanical advantage over applied hand force. For use with Scotchlok™ butt and tap connectors. |



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