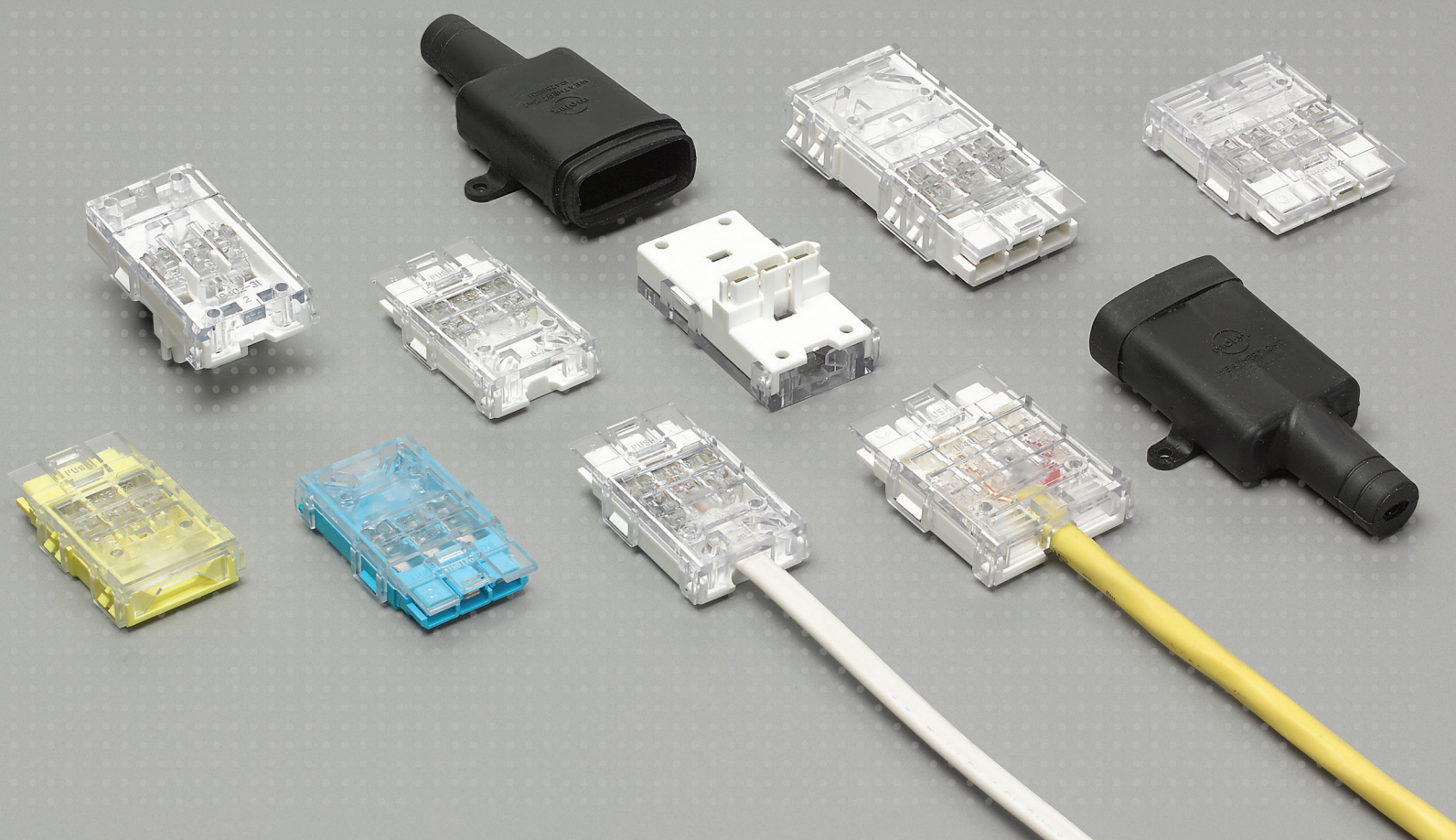


# SELF-CONTAINED POWER CONNECTORS AND ACCESSORIES



**molex**<sup>®</sup>



**Self-Contained Power Connectors from Molex are used to splice and tap solid and stranded non-metallic sheathed cable. The connector family supports two and three conductor plus ground circuits for A/C power applications. The product line features insulation displacement contacts which provide wire termination without the need to pre-strip the wires. The splice connectors are used to splice two cable segments together and replace butt connectors, wire nuts, and junction boxes used in traditional splice applications. Tap connectors operate in similar fashion and are used to support taps of existing cable segments to create new branch circuits.**

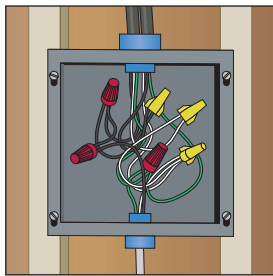
# SELF-CONTAINED POWER CONNECTORS

## Solid Cable Applications

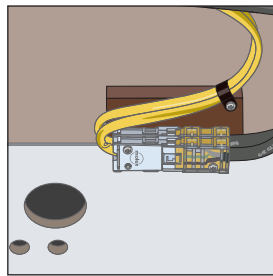
Typical connector applications for the solid cable style connectors include cross-over electrical connections for pre-wired, pre-fabricated/modular structures and homes. With this connector system, manufactured housing OEMs can safely and easily implement modular electrical systems within the structures at the factory and then quickly plug them together at the home site. Additional applications include lighting systems and other construction projects.

## Stranded Cable Applications

Typical applications for the stranded cable versions of the connectors include splices and taps used for AC power applications in the marine industry. With the SC Power Connectors, marine OEMs can manufacture discrete modules for staterooms, salons, and galleys and plug them together into the same electrical system as the modules are dropped into the hull further down the manufacturing line. These connectors are similar to the solid cable versions described above. Additional applications include shipboard lighting and other electrical connections that may have required a junction box. A special version of the Self-Contained Power Connector is also available for use with round jacketed, stranded power cable including SEOW/SJEW types. Applications for this version include splice applications used in RV slide-out module manufacturing.



*Self-Contained Power Connectors from Molex allow you to easily transition from solid NM cable to SEOW/SJEW type cable*



*Traditionally procedure involves connecting each wire with a wire nut inside a junction box*

## Features and Benefits

- A double latching system provides positive connection security, but is fully releaseable so the connector can be mated and remated as needed during the manufacturing process
- Once the connector is closed, the strain relief is automatically set into place so screws and human factors are not a concern
- No special tools required, just pliers
- Markable surface area on housing allows for easy circuit identification, eliminating mis-wiring
- Double insulation displacement contacts provide maximum conductivity and reduce voltage drop
- High impact, crystal clear strain relief cover provides durability and allows for complete visual inspection
- Simple two-piece construction provides for ease of use and eliminates the worry of losing small parts
- UL Listed to be connected and disconnected while under load
- Stranded cable versions are UL Marine Listed
- Hermaphroditic design mates with itself so there is only one part to order and inventory
- Optional dual mounting holes accept screws or nails
- Engineered to meet ABYC, NMMA, and Coast Guard standards.

## Reference Information

UL File No.: E182087 (12-16 AWG)

E217798 (10 AWG)

CSA File No.: LR18689-C53

NEC Article: 550-10K and 545-13

HUD Section: 3280.801

## Electrical

16-12 AWG version

Current: 20A

Voltage: 300V

10 AWG version

Current: 30A

Voltage: 300V

# SELF-CONTAINED POWER CONNECTORS



## Two-Circuit Version

The SC Power Splice Connectors are used with solid and stranded nonmetallic sheathed cable. Solid cable versions are available for 14/2, 12/2, and 10/2 wire. Stranded cable versions are available for 16/2, 14/2, 12/2, and 10/2 wire. The connectors are used to wire homes, buildings, office partitions, RV's, motor homes, boats, and many other electrical applications using 110 and 220 AC circuits.

The SC Power Splice Connectors have three contacts that accept the solid or stranded conductors found in a 2-conductor plus ground. Each terminal makes contact with the conductor via insulation displacement (IDT) contacts. They also help to support the conductor and keep it from moving within the connector. Lastly, by having the dual IDT slots, this part operates with virtually no millivolt drop.

## Three-Circuit Version

The 3-circuit splice connector can be used to splice solid nonmetallic cable 14/3 and 12/3 with ground. This connector shares all the features, assembly methods and agency approvals as the two circuit versions. It is generally used for the wiring of smoke detectors, 3-way lights and entertainment centers.

## Two-Circuit SEOW/SJEW Cable Version

The 2-circuit SEOW/SJEW versions have been specifically engineered to accommodate round jacketed, stranded conductor power cords typically found in RV slide-out manufacturing applications. These products provide a time saving alternative over hard wiring junction boxes. The SEOW/SJEW versions mate with the standard Self-Contained Power Connector products including the tap version, and provide a simple and reliable method for transitioning from solid NM cable to stranded SEOW/SJEW type cable. Designed with the double insulation displacement contact system, the 2-circuit SEOW/SJEW cable versions provide maximum conductivity and minimize resistance associated with voltage drops.

## SC Power Series Tap Connectors

The SC Tap Splice is used for splicing into an existing solid conductor 14/2 and 12/2 cable with ground. Stranded wire versions are available for 16/2, 14/2, and 12/2 wire. This provides the user the ability to add an additional branch line or add modular hookups in their products anywhere they are needed. The Molex Tap Splice is relatively small and fits into walls, floors, and ceiling cavities with ease. Once the Tap Connector has been spliced into the cable, the branch line wire to a SC Power Splice Connector can be mated to the Tap.

## Weather Tight Boots

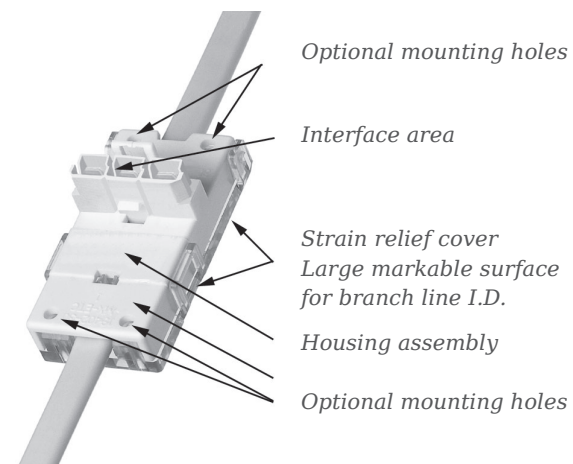
Some AC power applications require splices in areas exposed to rain and spray. The Weather Tight Boot product is a two-piece rubber cover which completely encloses the mated SC Power Connector in a splice application.

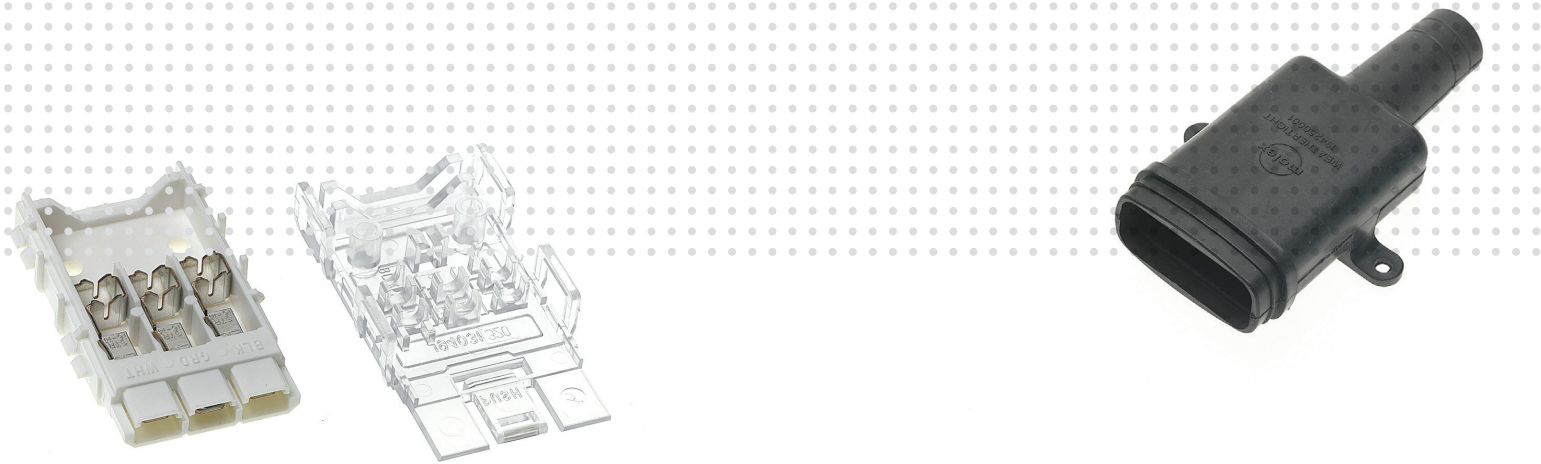
## Self-Contained Power Connector Safety Cap and Dust Cover

The Safety Cap product fits securely over the interface area of an unmated Self-Contained Power Connector Splice, Tap, or Panel Mount Connector. With this product, unmated Self-Contained Connectors can be implemented into designs and remain unmated for future use.

## Dust Cover

Dust Covers provide an effective solution for protecting unmated circuits from damage due to dust and dirt accumulation.





### Self-Contained Power Connector - 2-Circuit for Solid Wire

| Wire Range (AWG) | Order Number | Housing Color | Optional Hand Tool | Optional Bench Mount Tool | Optional Arbor Press |
|------------------|--------------|---------------|--------------------|---------------------------|----------------------|
| 12-14            | 19045-1000   | White         | 19285-0074         |                           | 64006-0200           |
| 10               | 19403-1300   | White         | 19285-0084         | 64006-0020                | 64006-0200           |

### Self-Contained Power Connector - 2-Circuit for Stranded Wire

| Wire Range (AWG) | Order Number | Housing Color | Optional Hand Tool | Optional Bench Mount Tool | Optional Arbor Press |
|------------------|--------------|---------------|--------------------|---------------------------|----------------------|
| 14-16            | 19403-1011   | Blue          | 19285-0074         |                           | 64006-0200           |
| 12               | 19403-1010   | Yellow        | 19285-0074         |                           | 64006-0200           |
| 10               | 19403-1300   | White         | 19285-0084         | 19285-0088                | 64006-0200           |

### Self-Contained Power Connector - 2-Circuit for Round Stranded Cable

| Wire Range (AWG) | Insulation Diameter mm (in.) | Order Number | Housing Color | Cover Color | Optional Hand Tool | Optional Bench Arbor Press |
|------------------|------------------------------|--------------|---------------|-------------|--------------------|----------------------------|
| 14               | 8.64-11.18mm (.340-.440")    | 19403-1310   | White         | Clear       | 19285-0100         | 64006-0200                 |
| 14               | 15.24mm (.600")              | 19403-0011   | White         | Blue        | 19285-0100         | 64006-0200                 |
| 12               | 8.64-11.18mm (.340-.440")    | 19421-0001   | Yellow        | Clear       | 19285-0100         | 64006-0200                 |
| 12               | 15.24mm (.600")              | 19421-0002   | Yellow        | Blue        | 19285-0100         | 64006-0200                 |

### Self-Contained Tap Connector - 2-Circuit for Solid Wire

| Wire Range (AWG) | Order Number | Optional Hand Tool | Optional Bench Arbor Press |
|------------------|--------------|--------------------|----------------------------|
| 12-14            | 19402-1000   | 19285-0074         | 64006-0200                 |

### Self-Contained Power Connector - 3-Circuit

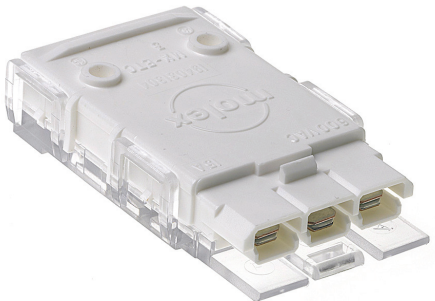
| Wire Range (AWG) | Order Number | Housing Color | Optional Hand Tool | Optional Bench Mount Tool | Optional Arbor Press |
|------------------|--------------|---------------|--------------------|---------------------------|----------------------|
| 12-14            | 19401-1000   | White         | 19285-0074         |                           | 64006-0200           |

### Weathertight Boots

| Wire Range (AWG) | Wire Type      | Order Number Male | Order Number Female |
|------------------|----------------|-------------------|---------------------|
| 12-14            | Solid          | 19425-0001        | 19425-0002          |
| 12-14            | Round Stranded | 19426-0001        | 19426-0002          |

### Self-Contained Power Connector Safety Cap and Dust Cover

| Description | Order Number |
|-------------|--------------|
| Safety Cap  | 19045-3180   |
| Dust Cover  | 19402-5000   |



Get customized insights at: **molex.com**