

**To meet future EU legislation for passively safe street fixtures and to reduce installation, repair and temporary removal times of roadside lighting and electrified signage, Molex has developed the quick-disconnect power connector system with low extraction forces and IP68 sealing properties, suitable for a range of rugged, outdoor power applications**

Molex has developed the Passive-Safety Pole Connectors with overmolded cables to meet future EU legislation governing passively safe street furniture. All powered road-side lighting, traffic lights and signage will be required to have an emergency power quick-disconnect system. In line with the legislation, the Molex Passive-Safety Pole Connectors provide electrical isolation of powered apparatus within 0.40 seconds of impact. This quick-disconnect function prevents poles and cables from becoming live conductors at crash sites. A further safety feature of the Molex system is that it allows a pole, which shears at its base on impact, to break-away cleanly. This prevents armoured electrical supply cables from dangerously tethering a pole during a crash.

The Molex Passive-Safety Pole Connectors can also save pole manufacturers and installers significant time and labour costs and reduce traffic flow disruption and congestion as a quick-installation connector. Poles and posts that have been factory fitted with the Molex male cable assembly can be supplied on-site and simply connected to the pre-installed female (ground) connector and cable. In addition, the Molex connectors enable electrical cables to be disconnected and reconnected as required to facilitate the quick and straight-forward removal, repair, replacement and upgrading of electrified signage and lighting poles. During installation or temporary removal of posts, the female (ground) connector can be sealed to IP68 by the integral sealing cap and safely left unmated as required.

The Molex connector system is also suitable for rugged applications, unrelated to road safety, that require a sealed, quick-disconnect, safety power connector such as on-street charging posts/ stations for electric vehicles, dock-side generators, golf buggies/ carts, hospital beds and temporary speaker and lighting installations at open air concerts.

## Passive-Safety Pole Connector System

**93175 Sealed Male and Female Connectors Overmolded to Cables**



Male and Female Passive-Safety Pole Connectors with Overmolded Cables

### FEATURES AND BENEFITS

- IP68 sealing suitable for rugged, outdoor applications
- Female (ground) connector can be sealed to IP68 when unmated i.e. during storage, transit and before installation with the integral sealing cap. Cap cannot be misplaced
- Low extraction forces for mated connectors supports quick-disconnect / connect requirements
- Spring latch provides reliable retention; removes risk of connectors accidentally disconnecting e.g. during pole installation, whilst not interfering with primary quick-disconnect safety function
- Flexible, steel, fixing strap overmolded into both the male and female connector assemblies ensures safety quick-disconnect function. Fixing strap cannot be misplaced
- Connectors and cables are supplied pre-assembled by Molex guaranteeing quality and saving installers time and money during pole installations

### SPECIFICATIONS

#### Reference Information

Packaging: PK-93175  
Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Yes

#### Mechanical

Retention force between male and female connectors: 80N min  
Durability: 500cycles

#### Electrical

Voltage (max.): 250V AC  
Current (max.): 16-circuit: 3.0A  
5- and 6- circuit: 8.0A  
4-circuit: 10.0A  
3-circuit: 13.0A  
Contact Resistance: 25 milliohms  
Dielectric Withstanding Voltage: No voltage breakdown with an unmated connector at 2000V AC for 1 minute  
Insulation Resistance: 5 Megaohms min (mated & unmated connector with 1000V DC between adjacent contacts for 1 minute)

#### Physical

Housing: PBT  
Overmold: TPE  
Contact: Copper Alloy (Cu)  
Plating:  
Contact Area — Gold (Au)  
Operating Temperature: -30 °C to +80°C

## MARKETS AND APPLICATIONS

- Street and road furniture
  - Street light poles
  - Traffic lights
  - Traffic bollards
  - Illuminated signage
  - VMS (variable message signs)
  - Anywhere on roads, highways and motorways where power is used e.g. cameras, solar-powered panels etc.
- Medical
  - Electric hospital beds
  - Ambulance equipment
- Automotive
  - Charging posts / stations for electric vehicles
- NAT
  - Boats e.g. dock-side charging
- Consumer
  - Outdoor concert equipment (lighting and speakers)
  - Electric golf trolleys and carts
- Other Markets  
Any application where a sealed, power quick-disconnect connector is required



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## ORDERING INFORMATION

Order No.	Circuits	Attribute	Cable Length (Dim A)	Connector Colour	Cable Width (Dim C)	Cable Type	Minimum Order Quantity
93175-6004	16	Female (Ground Side)	5M (16'4'')	Black	16.80mm (0.66'')	Armoured	1
93175-6005			10M (32'8'')				
93175-6006			20M (65'6'')				
93175-6007			30M (98'4'')				
93175-6008		10M (32'8'')	Red				
93175-6009		20M (65'6'')					
93175-6010		30M (98'4'')					
93175-5004		Male (Pole Side)	5M (16'4'')	Black			
93175-5007			5M (16'4'')	Red			

Note: 3,4,5 and 6-circuit versions, additional cable lengths and custom cable options are available.  
View the Sales Drawing for further details

**molex**

[www.molex.com/link/passivesafetypole.html](http://www.molex.com/link/passivesafetypole.html)