

## FEATURES AND SPECIFICATIONS



# XRC™ Extra Rugged Circular Sealed Plugs and Receptacles

## 84501, 84507 Plugs 84508, 84502 Receptacles 84590 Terminals



XRC receptacle (left) and plug (right)

### *XRC sealed, plastic-circular connectors are available for rugged, industrial applications*

The XRC 14-circuit, circular connector was developed to meet the demanding requirements of the heavy-equipment industry. With a standard 18 size shell, this rugged, circular connector is ideal for heavy-duty applications such as trucks, buses and agricultural markets.

For maximum design flexibility, the XRC plugs and receptacles are available in standard and reverse gender. The connectors can be used for in-line or panel-mount applications. Additional circuits and shell sizes will eventually be released to expand the XRC product offering.

Designed to meet IP67 standards, XRC plugs and receptacles protect against the ingress of dust, water and other contaminants to maintain the integrity of the mated pair. Plugs feature a quick-disconnect bayonet latch to provide quick and easy connections with reduced installation and service time while ensuring accurate mating depth. Never before has Molex offered such an economical, rugged, sealed, circular connector.

### *Features and Benefits*

- Environmentally sealed to IP67 standard and protects against the ingress of dust, water and other contaminants to maintain the integrity of the mated pair
- Standard and reverse terminal genders allow for custom polarization
- Bayonet-style latch provides quick and easy connections for reduced installation and service time as well as ensures proper depth when mated
- Seal retainer lip is compatible with backshell and overmolding applications
- Tactile and audible mating feedback facilitates reliable mating
- Visual markings on outer shell allow for visual alignment to facilitate easier mating
- Simple crimp-and-poke technology does not require terminal alignment when installing crimped wires

## SPECIFICATIONS

### **Reference Information**

Packaging: Tray

Mates With:

84501 mates with 84508

84507 mates with 84502

Use With:

84590 crimp terminals

84509-0002 circuit plugs (optional)

84502-0004 panel mount hex nut  
for receptacles (optional)

Designed In: Inches

### **Electrical**

Current:

18 AWG – 10.0A max.

16 and 14 AWG – 13.0A max.

Contact Resistance: 30 milliohms max.

Dielectric Withstanding Voltage: 1600V AC

Insulation Resistance: 1000 Megohms min.

### **Mechanical**

Contact Retention to Housing: 53.4N (12 lbs.)

Mating Force: 133.5N (30 lbs.) max.

Unmating Force: 26.7N (6 lbs.) min.

Durability: 100 cycles

### **Physical**

Housing: Glass-filled PBT

Seals: Silicone rubber, rust red

Contact: Copper (Cu) alloy

Female Terminal Hood: Stainless Steel

Plating:

Contact Area – Overall Nickel (Ni)

Underplating – Copper (Cu)

Operating Temperature: -55 to +125°C

## APPLICATIONS



# XRC™ Extra Rugged Circular Sealed Plugs and Receptacles

**84501, 84507 Plugs**  
**84508, 84502 Receptacles**  
**84590 Terminals**

- Marine
  - Boats and propulsion systems
- Agriculture
  - Equipment
  - Combines
  - Tractors
- Transportation
  - Tractor trailers
  - Buses
  - Fire Trucks
- Recreational Vehicles
- Construction Equipment
  - Fork lifts
  - Loaders
  - Cranes
  - Dump trucks
  - Cement trucks
  - Trash trucks



## ORDERING INFORMATION

### Plug and Receptacle Housings

Order No.		Shell Size	No. of Circuits	Terminal Insert Configuration		Wire Range (AWG)	Insulation Outside Diameter	
Plugs	Receptacles			Pin Insert	Socket Insert		Normal	Thin
84501-0001	84502-0008	18	14	X	-	14 to 18	-	X
84507-0012	84508-0001			-	X		14 to 18	-

### Terminals

Order No.	Terminal Size	Wire Range (AWG)	Gender	Insulation Outside Diameter Callout
Nickel Plated				
84590-0024	16	14 to 18	Socket	2.41 to 3.81mm (.095 to .150")
84590-0021			Pin	2.41 to 3.81mm (.095 to .150")
84590-0023			Socket	1.91 to 3.81mm (.075 to .150")
84590-0022			Pin	1.91 to 3.81mm (.075 to .150")
84590-0025		16 to 18	Socket	1.40 to 2.16mm (.055 to .085")
84590-0020			Pin	1.40 to 2.16mm (.055 to .085")

### Accessories

Order No.	Description	Use With
84509-0002	Circuit Plug	84501, 84507 Plug Housings and 84502, 84508 Receptacle Housings
84502-0004	Panel Mount Hex Nut	84502 and 84508 Receptacle Housings

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

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