**Defined**

- Any application where electrical connections need protection from water and/or dust entrance to the contacts or the wiring compartment
- Cable-to-connector sealing and device locking designs are critical

**Russellstoll Line Selections for Outdoor (and Indoor) Applications**

**DuraGard** to 3P4W 20 through 60A

The toughest design and construction in thermoplastic safety, durability and performance in UL 94-V0 flame-rated DuraV® material. With DurO-ring® sealed pins, sleeves and interiors are watertight even unmated. A 30A and 50A Circuit Breaker Interlock line in DuraV are the best choices for standard voltage polarization options through 600VAC (Interlock to 480VAC).

**IEC (IP67) to 4P5W 20 to 100A**

Thermoplastic international standard IEC 309-2 or CEE-17 connector usage is growing especially in OEM, export and standard performance applications. The IP67 style is watertight when mated and directly interchangeable with other manufacturers. International designations shadow U.S. amperage ratings: 20/(16), 30/(32), 60/(63) and 100/(125) Amps. IP67 devices have screw collars or flap/screw covers, with catalog number "W" suffixes.

**Interlocked Outlets** 20 through 60A

USCG Accepted 20-50A convenience Interlocked Receptacles accept DuraGard plugs. Built from aluminum or brass for rough-service installations, in Switched or Circuit Breaker formats, their extremely heavy-duty designs provide maximum durability.

**Typical Application Groups**

**Marine**
- Lighting Connectors
- Shore-to-Ship Power
- Low-Power Welding
- Power Distribution Panels
- Shipboard Power Outlets
- Barge Power Connection

**Construction and Agricultural**
- Generator Set Panels
- Portable Tools and Equipment
- Irrigation Systems Panels
- Portable Lighting and Equipment

**Food Processing, Brewery/Beverage, Pulp and Paper, Pharmaceuticals**
- Portable Building Power
- Welding Outlets
- Motor Power Connections
- Lighting Systems
- Machinery Interconnections
- Process Control Power Systems

**OEMs**
- Export Machinery
- Critical Power Connections and Welding Systems
- Transportable Equipment
DuraGard® Waterproof Connections Overview

Washdown Duty, Chemical, Outdoor, Industrial and Marine Use Non-Metallic Plugs, Connectors, Receptacles and Inlets — 20, 30, 50 and 60 Amp, Maximum 600VAC/250VDC

The Next Generation: DuraGard® Waterproof Connectors

Severe environments and high-pressure washdown duty applications require durable, waterproof and safe connections. Russellstoll takes design reliability to new heights with Safety Grade™ standards for truly waterproof connectors. Many watertight specifications cover mated connections only. DuraGard connectors are designed to be watertight mated or unmated, thus offering the ultimate waterproof connection. DuraGard connectors are also UL94-V0 flame rated for safety and utilize a durable, efficient pin and sleeve contact design that is voltage polarized to meet NEC® 210-7 and OSHA standards. DuraGard... designed for maximum safety, durability and performance.

DuraGard® Features Make the Performance Difference.

Not just “watertight”; Waterproof for Washdown Duty: DurORing™ Sealing
- Specifically designed for wet environments with our unique DurORing™ sealing system. Unit is watertight mated or unmated
- Eliminates need for costly “weather boots” or “adapters”
- Compact size
- “Lockout Ready” plugs have padlock access hole in front (30A/50A)

Durable, Tough and Flame Safety Rated Housings
- DuraV® housing material specially selected for hot or cold washdown duty
- Flame safe UL94-V0 rated housings
- Superior performance in corrosive environments
- High-visibility yellow housings

Safe and Reliable Power Connections: Pin and Sleeve, Voltage Polarized
- Long life: round, self-cleaning, constant pressure pin and sleeve contacts of solid CDA 360 brass for long, reliable electrical life
- More power, operates cooler: large circular electrical contact area enables more current flow with lower temperature rise
- Ground pin keyed for voltage polarization (O-ring seal)

Easy to Wire
- No twist-off “Locking Plugs”: integral threaded screw collars and compression-type bushings make wiring a snap
- Fast assembly and wiring: “Drop-In” rear-loaded interiors use no assembly screws versus 3–5 or more with other connectors, 30A/50A/60A connectors use unique E-Z Tite™ external gland lock screw, also
Spring blade contact designs offer point contact only, with minimal mechanical support in receptacles. Higher heat is generated in use as contacts loosen with age and dirt accumulation, resulting in failures. Exposed blade contacts can easily be damaged. Contacts are both the electrical and mechanical locking method.

Pin and Sleeve design enables higher current flow at cooler temperatures due to large circular contact area. Sleeves act as retainers for the pins, making a reliable connection. Shrouded pins and sleeves are protected from damage and inadvertent access. Locking housing screw collars provide for a reliable, long-lasting connection with electrical contacts separate.

The Water Spray Test

1000-PSI water spray was directly applied at the face of DuraGard receptacles. No damage occurred, and no water penetrated the housing or cord seal. DuraGard plugs, connectors and receptacles are designed to withstand water spray test at 1000 PSI. No extra boots or adapters required.

DuraGard: Designed for the Toughest Washdown Applications

Pulp and Paper  Food Processing  Beverage and Bottling  Pharmaceutical Manufacturing
Washdown Duty, Chemical, Outdoor, Industrial and Marine Use Non-Metallic Plugs, Connectors Receptacles and Inlets — 20, 30, 50 and 60 Amp, Maximum 600VAC/250VDC

The Ultimate in Waterproof Connection

20, 30, 50 and 60 Amp, 600VAC
20 Amp, 250VDC

Lockout Capable: (30/50/60A Plugs)
• Access hole (not seen) for padlock hasp
• Interlock engagement CDA 360 solid brass pin and sleeve contacts

Safe Specified Voltage Connections:
• Safety ground makes first breaks last
• Voltage polarized to meet NEC® 210-7 and OSHA standards

High Reliability, High-Performance Connections:
• CDA 360 solid brass pin and sleeve contacts

Light Plastic Locking Connections:
• Locking screw collars with O-ring gaskets
• Housing mechanical support and pin and sleeve connection

Safety Specified Voltage Connections:
• Safety ground makes first breaks last
• Voltage polarized to meet NEC® 210-7 and OSHA standards

Long-Lasting Self-Cleaning Connections:
• Full round pin and sleeve contacts

Durable and UL94-V0 Flame Rated Housings:
• Dura® high impact body and collars
• Thermoset interiors
• Deadfront construction

Fast, Easy, Rear-Load Wiring and Assembly:
• Drop-in assembly interior
• Sleeve and cable bushing
• Easy-in pressure screw wiring terminations

Waterproof Cable Sealing:
• Neoprene compression bushing locking system
• Locking bushing nut with external cable clamps
• Bushing sizes available for any cable size

Waterproof Locking Connections:
• Locking screw collars with O-ring gaskets
• Housing mechanical support and pin and sleeve connection

Dry Wiring Compartments:
• Dura® Sealing System for each pin and sleeve and interior assembly

(50 Amp Plug and Connector Shown)