**Russellstoll®**

Ever-Lok® Locking Connections – Standard Ordering Information

New! DuraTite™ line offers thermoplastic performance and Everlok interface. See page 91.

<table>
<thead>
<tr>
<th>Clamp Type</th>
<th>Max. Cable Dia.</th>
<th>Bushing Type</th>
<th>Cable Bushing Hole Dia.*</th>
<th>Hub Type**</th>
<th>Conduit Size</th>
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</thead>
<tbody>
<tr>
<td>8023N</td>
<td>1/2’</td>
<td>8093N</td>
<td>9/16’</td>
<td>8683N/8683CTN*</td>
<td>1/2’</td>
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<td>8023U1</td>
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<td>9/16’</td>
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<td>8023U2</td>
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<td>Consult Factory</td>
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<td>Consult Factory</td>
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<td>8025</td>
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<td>9/16’</td>
<td>8646</td>
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<td>8026</td>
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</table>

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Application Guide

This catalog has been divided into sections based on standard application groups. Each application group has been color-coded for your convenience. Below is a description of each of the six general categories Russellstoll products fall in.

Applications are not limited to those listed below.

Heavy Industrial / Marine Applications: Outdoor, Severe or High Abuse Environments
- Industrial hook-ups
- Shore to ship power connections stations
- Portable generator sets
- Mills & process plants
- Agriculture
- Portable power connections
- Aerospace manufacturing and airports
- Lift stations
- Irrigation & wastewater equipment
- Industrial and shipyard welding
- Power distribution centers
- Job site power: For telephone power and communications equipment

Washdown & Light Marine Applications: Watertight / Waterproof
- Food processing plants
- Pharmaceutical manufacturing
- Bottling and beverage plants
- Barge and workboat applications
- Pulp & paper factories
- Outdoor construction sites

Industrial and Commercial Applications
- Entertainment (lighting & sound systems)
- Machinery
- Computer related equipment
- Welding installations
- Construction sites
- Facilities electrical power

Control Circuit and Industrial / Interlock Applications
- Automotive/Industrial Interlock systems were designed for the needs of the manufacturing industry. These devices are used where safety requirements mandate a mechanically interlocked system for connection and removal of plugs under full load.
- Automatic press
- Heavy duty portable welding
- Portable systems
- Machine tool control or Servo systems
- Shipyard maintenance power
- Battery chargers
- Automated welder applications
- Food processing
- Temporary power connections

Hazardous Location Applications: Class I, Div. 1 / Class II, Div. 1
- Aerospace
- Steel mills and mining
- Petroleum
- Chemical
- Food processing
- Waste treatment

Computer Systems: Data Center and OEM Products
- Raised Floor Applications
- Main Power Connections
- Critical power for test, instrumentation, telephone and medical equipment

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*Defined*
- Any application where electrical connections need protection from water and/or dust ingress to the contacts or the wiring compartment.
- Less credit cable sealing, but easier to use device locking designs are employed.

**Russellstoll Line Selections for Indoor Applications**

<table>
<thead>
<tr>
<th>Product Line</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DuraTite™</strong></td>
<td>A New Thermoplastic option to 20/30A Standard Ever-Lok Plugs and Connectors. 20 and 30A plugs will mate directly to Standard Ever-Lok receptacles, with a new EZTab locking feature. For new installations, specify Ever-Lok receptacles, with DuraTite plugs and connectors. Clamp or conduit options complete a flexible value option for new and existing installations.</td>
</tr>
<tr>
<td><strong>Heavy Service Ever-Lok</strong></td>
<td>The standard in portable welding installations, from 30 to 100A. Rugged aluminum housings and self-locking upon insertion, HSE series products are ideal for indoor factory use. With unique “handle” designs, a simple 1/8 turn counter-clockwise releases plug for withdrawal. Switched/fused or circuit breaker interlocks in several configurations are also offered. (see Automotive/Industrial Interlock section).</td>
</tr>
<tr>
<td><strong>Ever-Lok® Standard &amp; Midget Series</strong></td>
<td>Steel self-locking housings make the Standard and Midget Ever-Loks famous for their endurance in punishing factory installations. Clamp, bushing or hub fitting cable entries are offered for both, with Standard Ever-Lok available at 20, 30 and 50A over the 15A Midget Ever-Lok. Standard voltage polarizations are maintained in these lines through 480VAC.</td>
</tr>
<tr>
<td><strong>IEC (IP44)</strong></td>
<td>Thermoplastic International Standard 309-2 or CEE-17 type connector lines usage is growing in OEM, export and standard performance applications. The IP44 indoor use style is “splashproof” when mated and directly interchangeable with other manufacturers. International designations shadow U.S. ratings: 20/16, 30/32, 60/63 and 100/125. IP44 devices have NO locking features except flap covers, with catalog numbers “S” or “SW” suffixes.</td>
</tr>
</tbody>
</table>

**Typical Application Groups**

**General Industrial**
- Lighting Connections
- Indoor Welding Stations
- Machinery/Tool Connections
- Power Distribution Panels
- Convenience Power
- Battery Charging Equipment

**Instrumentation**
- Portable Equipment
- Critical Power Connections
- Motor Power Connections
- Critical Robotics Power
- Test Equipment
- Laboratory/Test Stations

**Construction**
- Generator Set Panels
- Portable Tools & Equipment
- Limited Life Installations
- Portable Lighting Equipment

**OEM's**
- Export Machinery
- Critical Power Connections
- International Indoor Usage
- Transportable Equipment

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Ever-Lok® Locking Connections – Overview

Standard: 10-50 Amp, Maximum 600 VAC or 250 VDC
Heavy Service: 30-200 Amp Maximum 480 VAC or 250 VDC
Midget: 10-20 Amp Maximum 250 VAC or 250 VDC

When an Ever-Lok connection is made, it is a mechanical attachment which will not pull apart unless it is unlocked by hand.

To install, line up the tabs and plug it straight in. External buttons or ribs lock with the mating internal housing automatically. When an Ever-Lok plugs in, it stays in. Locked housings do the work so Ever-Lok contacts can carry the load!

A firm grip and short ¼ counter-clockwise reverse twist release locking for easy removal.

Design Features

1. Automatic Locking – Automatic locking feature mechanically attaches the plug casing to the receptacle or connector, and eliminates strain on electrical contacts.

2. Positive Grounding – Casings are positively grounded by means of phosphor bronze ground straps integral with ground contacts. Equipment grounding is secured by separate set of contacts which “make” first and “break” last as required by UL.

3. Dust-Proof – On clamp type plugs and connectors a washer is provided in each cap to be forced over the cord. This serves as a shield to prevent metal particles, dust, etc., from entering the interiors of plugs and connectors.

Bushing type plugs and connectors are furnished with a gland nut and neoprene cable bushing gland to exclude dust and moisture. A formed glide washer is also provided to facilitate tightening of the gland nut.

Receptacle covers are sealed to boxes by gaskets and have hinged flaps which are gasket-lined and equipped with strong springs to keep them closed and dust-tight.

4. Steel-Clad – Plugs and connectors are plated steel. Plugs have encased locking spring in machine assembled non-separable housings.

5. Cord Grip – Plugs and connectors are provided with adjustable cord grips, preventing strains on connections.

6. Contacts – Contacts are precision made, self-wiping and self-aligning brass and nickel plated brass.

7. Unit Assembly – Contacts and terminals are permanently assembled in arc-resisting composition body permitting removal of interior as a unit for wiring. All connections are entirely enclosed, thus avoiding accidental short circuits and tampering by inexperienced personnel.

8. Handles Lined – Shell handles have a HDPE liner to contain stray wire ends.

9. Interiors – All interiors are molded arc-resisting composition.

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**Ever-Lok® Locking Connections – Dimensions**

**Female Receptacles & Reverse Service**

<table>
<thead>
<tr>
<th></th>
<th>W/out Box</th>
<th>w/Box FSWS-62</th>
<th>w/Box FDWS-62</th>
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**Plugs & Connectors**

<table>
<thead>
<tr>
<th></th>
<th>Clamp Type</th>
<th>Bushing Type</th>
<th>Hub Type</th>
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<tr>
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<table>
<thead>
<tr>
<th><strong>Size</strong></th>
<th><strong>Clamp Type</strong></th>
<th><strong>Bushing Type</strong></th>
<th><strong>Hub Type</strong></th>
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<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Standard</td>
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<td></td>
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</tr>
<tr>
<td>15 - 20 A</td>
<td>3.125&quot;</td>
<td>1.750&quot;</td>
<td>3.187&quot;</td>
</tr>
<tr>
<td>30 Amp</td>
<td>3.437&quot;</td>
<td>2.125&quot;</td>
<td>4.250&quot;</td>
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<tr>
<td>50 Amp</td>
<td>4.750&quot;</td>
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<tr>
<td>Midget</td>
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<td>1.440&quot;</td>
<td>2.875&quot;</td>
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