Rugged & Reliable Power Connectors for the Mining, Aggregate, & Concrete Industries

Featuring:
- DECONTACTOR™ Series Switch-Rated Plugs & Receptacles
- High Amperage Plugs & Receptacles
- Multipin Connectors

meltric.com
Meltric plugs and receptacles are designed with many unique features that provide superior performance in the harsh environments common in mining, quarry and other aggregate processing industries. Spring-loaded, silver-nickel butt-style contacts and rugged rain-tight enclosures allow Meltric devices to withstand wet and dusty conditions. Dead front construction, enclosed arc chambers, and short circuit ratings ensure worker safety and eliminate exposure to live parts and arc flashes. Switch ratings allow DECONTACTOR products to be used as 'line of sight' disconnect switches, allow users to safely make and break electrical connections under full load, and provide plug & play simplicity enabling faster and safer equipment change-outs or reconfigurations.

**DS, DSN & DB Switch-Rated Decontactors**

Decontactors are a combination switch and plug and receptacle in the same device and are ideal for connecting motors and other equipment. They provide plug & play simplicity and can eliminate the need for auxiliary disconnect switches and mechanical interlocks.

- 20 – 200A
- Up to Type 4X, IP67
- Up to 6 auxiliary contacts

**PF & PFQ High Amperage Connectors**

PF and PFQ devices offer safe and easy connections for high amperage equipment. Self-cleaning silver contacts engage with a lateral motion, requiring far less insertion force than competitive products. Pilot contacts are provided for control circuits to ensure that the phase contacts are properly mated and locked before energization.

- 300 – 600A
- IP67
- Up to 8 auxiliary contacts

**Multipin Connectors**

Multipin devices provide plug & play simplicity for control and power applications. Control wires for multiple process control parameters can conveniently be wired through the same connector, facilitating quick servicing and eliminating rewiring errors.

- 2 – 150A
- Up to Type 4X, IP67
- Up to 37 contacts
Throughout Your Plant

- Spring-loaded butt contacts ensure consistent contact pressure
- Silver-nickel contacts withstand oxidation and arcing
- Rugged housings are rated up to Type 4X, IP66+IP67
- Spring-assisted terminals withstand vibration

Durable, Weatherproof Connections

- Connections are simple, quick and safe
- Equipment can be reconfigured without hardwiring
- Mechanics can perform motor change-outs
- Rewiring errors are eliminated

Plug & Play Convenience

- Switch rated, hp rated & short circuit rated protection
- Quick make – quick break operation minimizes arcing
- Dead front construction and enclosed arc chambers prevent exposure to live parts and arcing

Safe Operation

- Decontactors are rated for use as ‘line of sight’ disconnects
- Switch ratings eliminate the need for costly interlocks
- Dead front construction helps avoid cumbersome
  NFPA 70E/CSA Z462 safety procedures and PPE requirements

Simple Code Compliance
Durable Connections for Harsh Environments

Meltric plugs and receptacles offer superior durability and are better suited for use in dusty and dirty environments than are pin and sleeve devices. Meltric’s butt-style contacts close with a self-cleaning wiping motion. Heavy spring loading ensures optimal contact force and silver-nickel contacts withstand heat, oxidation, and arcing. All together, these features ensure that a quality electrical connection is maintained over thousands of operations.

Safety and Convenience

Meltric’s switch rated plugs and receptacles provide a convenient ‘line of sight’ disconnect and allow non-electrical workers to safely make and break electrical connections under full load; up to 60 horsepower or up to 200A. The design of the product ensures that the plug contacts are dead before the user can remove the plug from the receptacle. When disconnected, the dead front prevents unintended exposure to live parts.

Equipment servicing and/or reconfigurations can be performed quickly and in complete electrical safety.
**Weatherproof Performance**

Meltric offers plugs and receptacles with ratings up to Type 4X or IP66+IP67. DS Series Decontactors are rainproof Type 3R rated devices, while the DSN Series is Type 4X and IP66+IP67 rated for even harsher environments. Both achieve their rated watertightness simply by mating the plug with the receptacle. In contrast, many competitive pin and sleeve devices also require the tightening of an additional threaded ring to achieve their rated watertightness. The threads on these rings do not hold up in dirty/dusty environments.

**Configuration Flexibility**

Meltric plugs and receptacles are available in a wide variety of configurations. Optional accessories are available that allow them to be mounted on walls, boxes, panels or equipment. They can also be used as in-line connectors. Numerous handle options are available to support different applications. Third party cord grips can be provided for flexible conduit or suspended connections. Other accessories include emergency stop and padlockable pawls, protective caps, auxiliary switches, normally closed lids, closing mechanisms and more.
Routine Disconnection Capability

DECONTACTOR Series plugs and receptacles allow users to safely and routinely make and break connections under full load. Their superior contact technology provides load break capabilities for thousands of operations. In addition, Decontactors have enclosed arc chambers and short circuit make and withstand ratings of at least 65kA. With these features, arcing is safely contained within the device and user safety is ensured, even during insertion under overload conditions.

Durable Construction

In designing its products, Meltric uses rugged casing materials, stainless steel hardware and silver-nickel contact surfaces to ensure durability, corrosion resistance and long operating lives. For example, the silver-nickel contacts withstand wear and maintain excellent conductivity even when oxidized. Silver-nickel only welds at extremely high temperature and pressure, and thus, also withstands arcs very well. In contrast, competitors brass contacts are not arc resistant and, as shown in the chart above, their electrical performance degrades rapidly with oxidation.
High Amperage Capacity

Meltric’s PF Series plugs and receptacles are specifically engineered for use in high amperage applications and are rated for loads up to 600A. They have large and robust solid silver contacts that close with a lateral wiping motion, providing a self-cleaning action and an optimal connection. PF’s are encased in rugged, epoxy coated aluminum housings and include a mechanical locking feature, which ensures watertightness, prevents accidental disconnection, and controls the four auxiliary pilot contacts that are provided as standard.

Control Wire Connections

Mobility Without Rewiring Errors

Meltric’s Multipin plugs, receptacles and connectors are ideal for equipment requiring multiple control wire connections. Plant operators can easily control screens, conveyors, feeders or other equipment while working in a remote location. Remote motor control centers can be relocated and reconnected with plug & play simplicity, eliminating the re-wiring errors that are common in hard-wired installations.
Tests passed by Meltric Decontactors and by traditional pin and sleeve type plugs and receptacles (per UL 1682 and CSA 22.2 No. 182.1)

- Temperature Rise [not to exceed 30°C over ambient]
- 50 operations @ 150% device rating and .7 -.8 power factor
- Endurance - number of operations @ .75 -.8 power factor
  
<table>
<thead>
<tr>
<th>Current</th>
<th>Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>20A</td>
<td>5,000 under load 0 off load</td>
</tr>
<tr>
<td>30 to 60A</td>
<td>1,000 under load 1,000 off load</td>
</tr>
<tr>
<td>100 to 200A</td>
<td>250 under load 250 off load</td>
</tr>
</tbody>
</table>

Additional Tests passed exclusively by DECONTACTOR™ Series plugs and receptacles per UL Subject 2682.

- 50 operations @ 6x motor FLA and .4 -.5 power factor
- 6,000 operations @ FLA and .75 -.8 power factor
- Short circuit make and withstand @ ≥65kA, 600V and < .15 PF

Additional Listings include: IEC/EN 60309-1, 60947-3, AS 3123

Meltric Decontactors are the world’s only UL and CSA switch-rated plugs and receptacles. Not only do they meet performance test requirements for UL 1682/CSA C22.2 No. 182.1 (to which competitive pin and sleeve devices are listed), but Decontactors also meet the performance test requirements in UL Subject 2682 “Switch-Rated Plugs and Receptacles.” Based on their evaluation against this standard, Decontactors are UL and CSA listed for use in motor circuit disconnect/switching applications and in branch circuit disconnect/switching applications.
## Offering Durability, Safety & Code Compliance

**Meltric vs Competition: Meltric Makes Motor Changeouts Safe & Easy**

<table>
<thead>
<tr>
<th>Model</th>
<th>Casing Material</th>
<th>Voltage (Max)</th>
<th>Amperage Rating</th>
<th>Maximum Number of Contacts Main / Auxiliary</th>
<th>Environmental Rating</th>
<th>Maximum horsepower Rating (480V*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSN20</td>
<td>Poly</td>
<td>480V</td>
<td>20A</td>
<td>3P+N+E -</td>
<td>Type 4X IP66+IP67</td>
<td>5 hp</td>
</tr>
<tr>
<td>DSN30</td>
<td>Poly</td>
<td>600V</td>
<td>30A</td>
<td>3P+N+E 2</td>
<td>Type 4X IP66+IP67</td>
<td>10 hp</td>
</tr>
<tr>
<td>DSN60</td>
<td>Poly</td>
<td>600V</td>
<td>60A</td>
<td>3P+N+E 4</td>
<td>Type 4X IP66+IP67</td>
<td>20 hp</td>
</tr>
<tr>
<td>DS20</td>
<td>Poly</td>
<td>600V</td>
<td>20A</td>
<td>3P+N+E 2</td>
<td>Type 3R</td>
<td>5 hp</td>
</tr>
<tr>
<td>DS30</td>
<td>Poly</td>
<td>600V</td>
<td>30A</td>
<td>3P+N+E 4</td>
<td>Type 3R</td>
<td>10 hp</td>
</tr>
<tr>
<td>DS60</td>
<td>Poly or Metal</td>
<td>600V</td>
<td>60A</td>
<td>3P+N+E 3</td>
<td>Type 3R</td>
<td>20 hp</td>
</tr>
<tr>
<td>DS100C</td>
<td>Poly or Metal</td>
<td>600V</td>
<td>100A</td>
<td>3P+N+E 3</td>
<td>Type 3R</td>
<td>-</td>
</tr>
<tr>
<td>DS100</td>
<td>Poly or Metal</td>
<td>600V</td>
<td>100A</td>
<td>3P+N+E 6</td>
<td>Type 3R</td>
<td>-</td>
</tr>
<tr>
<td>DS200</td>
<td>Zamak</td>
<td>480V</td>
<td>200A</td>
<td>3P+N+E 5</td>
<td>Type 3R</td>
<td>-</td>
</tr>
<tr>
<td>DB30</td>
<td>Zinc Aluminum</td>
<td>600V</td>
<td>30A</td>
<td>3P+N+E 2</td>
<td>IP67</td>
<td>10 hp</td>
</tr>
<tr>
<td>DB60</td>
<td>Zinc Aluminum</td>
<td>600V</td>
<td>60A</td>
<td>3P+N+E 2</td>
<td>IP67</td>
<td>30 hp</td>
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<tr>
<td>DB100</td>
<td>Zinc Aluminum</td>
<td>600V</td>
<td>100A</td>
<td>3P+N+E 4</td>
<td>IP67</td>
<td>60 hp</td>
</tr>
</tbody>
</table>

* Consult Meltric catalog for horsepower ratings at voltages other that 480V.
Meltric offers a wide variety of multipin devices for use in control and power applications. Models are available with up to 37 contacts, 150A capacity, Type 4X, IP67 environmental ratings, and in a variety of mounting configurations. All feature the same rugged construction and superior silver-nickel butt contact technology as other Meltric products.

Meltric multipin devices stand up well in harsh environments and provide plug and play simplicity for control applications. This helps reduce plant reconfiguration time and eliminate rewiring errors, making them a perfect choice for use in monitoring critical process parameters, controlling secondary circuits, and connecting remote motor controllers.

### Meltric MultiPin Plugs & Receptacles – 2 to 150A

**Silver-Nickel Contacts**
- Provides excellent conductivity, corrosion and wear resistance.

**Weatherproof Construction**
- Provides up to Type 4X, IP67 rated protection, simply by inserting the plug into the receptacle.

**Durable Casings**
- Fiberglass reinforced polyester, epoxy coated zamak and stainless steel materials ensure durability, impact resistance and corrosion resistance.

**Spring-Loaded Receptacle Contacts**
- Maintains high contact force, ensuring an optimal electrical connection.

**Receptacle Lid**
- Provides protection from dust, dirt and weather when the receptacle is not in use.

### Product Selection Guide

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Housing Material</th>
<th>Voltage (Max)</th>
<th>Current Amperage</th>
<th>Number of Contacts</th>
<th>Wiring Capacity Min / Max</th>
<th>Environmental Rating</th>
<th>Wiring Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN12c</td>
<td>Polyester or Zamak*</td>
<td>600V</td>
<td>5A</td>
<td>6 / 12</td>
<td>18 AWG / 14 AWG</td>
<td>IP66/IP67</td>
<td>Crimp/Solder</td>
</tr>
<tr>
<td>DSN24c</td>
<td>Polyester</td>
<td>480V</td>
<td>2A</td>
<td>13 / 24</td>
<td>18 AWG / 14 AWG</td>
<td>IP66/IP67</td>
<td>Crimp/Solder</td>
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<tr>
<td>DSN37c</td>
<td>Polyester</td>
<td>480V</td>
<td>2A</td>
<td>25 / 37</td>
<td>18 AWG / 14 AWG</td>
<td>IP66/IP67</td>
<td>Crimp/Solder</td>
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<tr>
<td>DS24c</td>
<td>Stainless Steel</td>
<td>250V</td>
<td>2A</td>
<td>13 / 24</td>
<td>18 AWG / 14 AWG</td>
<td>Type 3R</td>
<td>Crimp/Solder</td>
</tr>
<tr>
<td>DS37c</td>
<td>Stainless Steel</td>
<td>480V</td>
<td>2A</td>
<td>13 / 37</td>
<td>18 AWG / 14 AWG</td>
<td>Type 3R</td>
<td>Crimp/Solder</td>
</tr>
<tr>
<td>PN7c</td>
<td>Polyester or Zamak*</td>
<td>600V</td>
<td>15A</td>
<td>5 / 7</td>
<td>18 AWG / 10 AWG</td>
<td>IP66/IP67</td>
<td>Screw</td>
</tr>
<tr>
<td>DN9c</td>
<td>Metal</td>
<td>480V</td>
<td>-</td>
<td>6 / 9</td>
<td>16 AWG / 10 AWG</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
<tr>
<td>DN20c</td>
<td>Metal</td>
<td>480V</td>
<td>-</td>
<td>10 / 20</td>
<td>16 AWG / 10 AWG</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
<tr>
<td>DS7c</td>
<td>Polyester or Metal</td>
<td>600V</td>
<td>30A</td>
<td>4 / 7</td>
<td>14 AWG / 8 AWG</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
<tr>
<td>DR7c</td>
<td>Polyester or Metal</td>
<td>600V</td>
<td>-</td>
<td>4 / 7</td>
<td>14 AWG / 8 AWG</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
<tr>
<td>DN7c</td>
<td>Metal</td>
<td>480V</td>
<td>-</td>
<td>10 / 50</td>
<td>6P+G / 6P+G</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
<tr>
<td>DN7c</td>
<td>Metal</td>
<td>480V</td>
<td>-</td>
<td>90A</td>
<td>6P+G / 6P+G</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
<tr>
<td>DN7c</td>
<td>Metal</td>
<td>480V</td>
<td>-</td>
<td>150A</td>
<td>6P+G / 6P+G</td>
<td>IP54/55*</td>
<td>Screw</td>
</tr>
</tbody>
</table>

* Stainless Steel Housing material is also available (environmental ratings do not apply).

+ Rated IP54 when receptacle and plug are mated, when not mated receptacle alone is rated IP55 provided that the lid is latched closed.
PF and PFQ plugs and receptacles are engineered for use in high amperage applications where routine plug insertion and high reliability are required. The PFQ has the same basic features as the PF, but is considerably smaller and lighter. It was designed specifically for use in applications where space is limited.

All PF and PFQ devices feature epoxy coated aluminum casings, silver contacts, IP67 environmental ratings, mechanical locking and integral pilot contacts. The epoxy coated aluminum casings provide excellent durability and resistance to harsh environmental conditions. The silver contacts ensure maximum conductivity and resistance to oxidation and corrosion. The contacts are pressure loaded to provide consistent contact force and operate with a lateral wiping motion, which provides a self-cleaning action that improves performance in dirty conditions.

The mechanical locking device secures the inlet to the receptacle, preventing accidental disconnection, and it also engages the auxiliary contacts. This interlocking of the auxiliary contacts ensures user safety because the control signal that energizes the circuit can only be generated if the phase contacts are properly and securely connected.

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**Product Selection Guide**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Housing Material</th>
<th>Voltage (Max)</th>
<th>Amperage</th>
<th>Maximum Number of Contacts Main / Auxiliary</th>
<th>Current Interruption Rating</th>
<th>Environmental Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF300</td>
<td>Aluminum</td>
<td>600V</td>
<td>300A</td>
<td>3P+N+E 4</td>
<td>Non-Current Interrupting</td>
<td>IP66+IP67</td>
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<tr>
<td>PF400</td>
<td>Aluminum</td>
<td>600V</td>
<td>400A</td>
<td>3P+N+E 4</td>
<td>Non-Current Interrupting</td>
<td>IP66+IP67</td>
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<tr>
<td>PF600</td>
<td>Aluminum</td>
<td>600V</td>
<td>600A</td>
<td>3P+N+E 4</td>
<td>Non-Current Interrupting</td>
<td>IP66+IP67</td>
</tr>
<tr>
<td>PFQ</td>
<td>Aluminum</td>
<td>600V</td>
<td>300A</td>
<td>3P+N+E 8</td>
<td>Non-Current Interrupting</td>
<td>IP66+IP67</td>
</tr>
</tbody>
</table>
**Other Products**

**DR Plugs and Receptacles**

DR plugs and receptacles have the same product features as the popular DS product line but are smaller and are NOT switch rated. DR’s are commonly used in power distribution applications up to 250A and 600VAC.

**DXN Hazardous Duty Connectors**

DXN’s are CSA listed for Class 1 Division 2 and Class 2 Division 2 environments. Suitable for loads up to 60A, DXN’s provide a compact, waterproof solution for potentially hazardous locations.

**Common Options**

**Auxiliary Pilot Contacts**

Pilot contacts are available for operating secondary control circuits or for electrical inter-locking with motor starters. These contacts make last and break first when the plug is engaged or disengaged. Two to six auxiliary contacts are available on Decontactors.

**Lockable Plugs or Receptacles**

Padlockable pawls and plug caps are available for preventing unwanted connection or disconnection of plugs. Padlockable pawls also allow the lid to be locked closed. Padlockable plug caps provide up to Type 4X watertightness.

**Meltric Service**

**Replacement Parts**

The need to replace parts is rare. However, should they be required, parts are readily available and reasonably priced. Purchasing the individual parts costs no more that buying an assembled product.

**Same Day Shipping**

Due to the modular design of our product and efficient customer service and factory operations, most of our orders are shipped by the next day. For a small fee, orders can be shipped the same day.

**Five Year Warranty**

The electrical contacts on Meltric products are warranted for five years from date of shipment. The complete product is warranted for one year from the date of shipment. Contact Meltric for a full warranty statement.