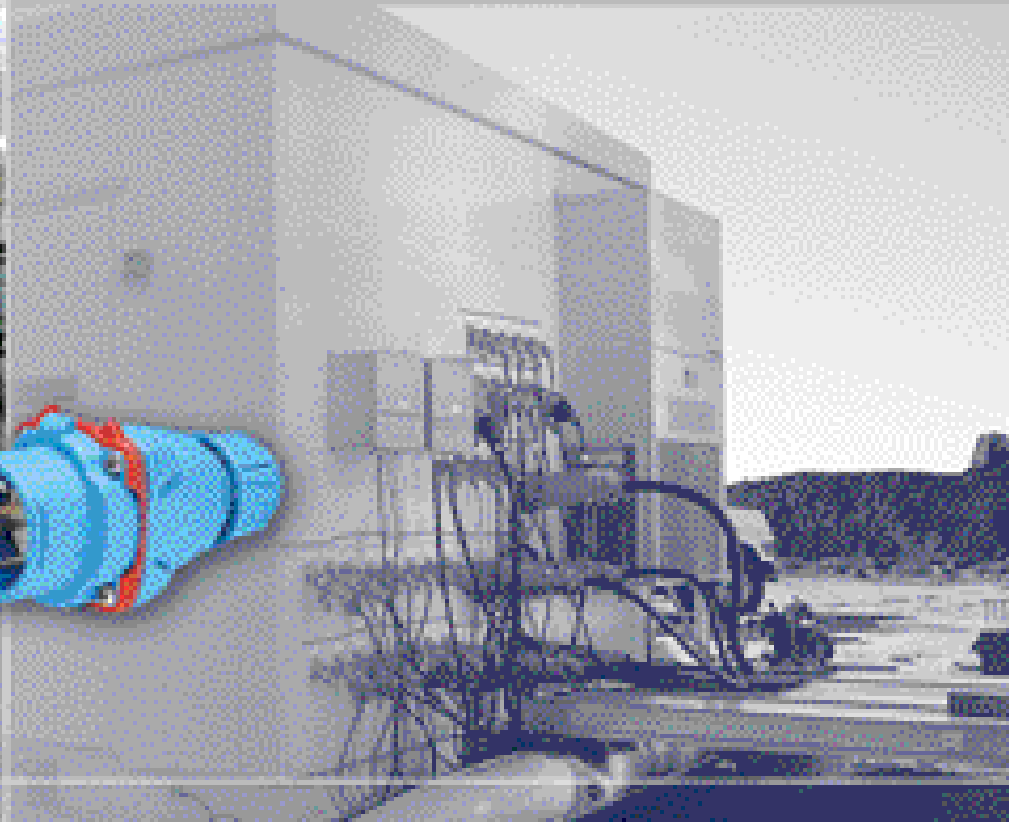


Rugged & Reliable Power Connections

for the **Mining, Aggregate,
& Concrete Industries**

featuring:

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



Benefit from Meltric Plugs, Receptacles, and Electrical Connectors...

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.



Power connections to a marble cutter



Mobile generator at salt mine



Mobile power distribution panel

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 NEMA 4X, IP67
- ▼ Up to 5 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

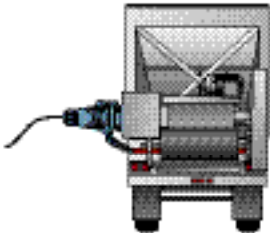


Multipin Connectors

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.

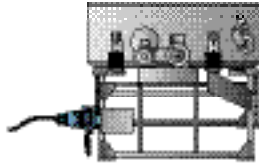
- ▼ 2 – 150A
- ▼ Up to NEMA 4X, IP67
- ▼ Up to 37 contacts





Feeders

DR Series devices with amperage capacity up to 250A provide durable, safe connections for Feeders and other equipment.



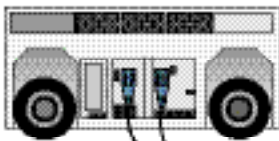
Screeners

DB Series Deconnectors provide rugged, switch rated connections up to 60 hp.



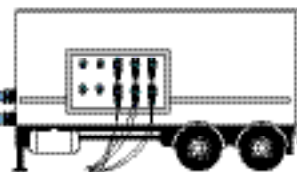
Conveyors

DSN Series Deconnectors simplify reconfigurations of conveyors. NEMA 4X construction provides protection from water and dust.



Generators

600A PF Series connectors supply power from generators to motor control centers.



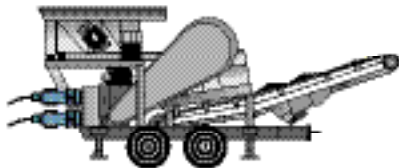
Motor Control Centers

Deconnectors and multipin devices provide power and control circuits to all plant equipment.



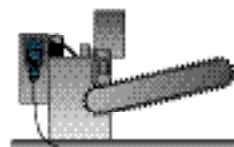
Float Pumps

DS Deconnectors allow float pumps to be easily disconnected and relocated to another pond.



Crushers

Parallel phasing with dual PF's maximizes capacity for high load applications.

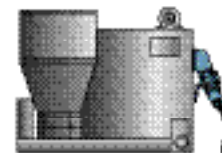


Cutting Machines, Extruders & Other Forming Equipment

Deconnectors connecting process equipment are safe to make & break under full load. They also provide a 'line of sight' disconnect and facilitate quick motor change-outs.



Stackers



Durable, Weatherproof Connections

- ▼ Spring-loaded butt contacts ensure proper contact pressure
- ▼ Silver-nickel contacts withstand oxidation and arcing
- ▼ Rugged housings are rated up to NEMA 4X, IP 66+67
- ▼ Spring-assisted terminals withstand vibration

Safe Operation

- ▼ 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

Plug & Play Convenience

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

Simple Code Compliance

- ▼ Deconnectors 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 safety procedures and PPE requirements

Power Distribution



200A DS200's distribute power from portable generators to a power distribution panel (pictured) and then to conveyors and other electrical equipment. A DSN24 Multipin connector (left of the panel) provides control wire connections to the PLC cabinet in a single convenient connector.



Spring-loaded, butt-style, silver-nickel contacts provide superior performance in harsh environments.

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, their 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.

Conveyor Connections



100A DS100's connect motors along a conveyor line.



DECONTACTOR receptacle - dead front prevents unintended exposure to live parts.

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 with complete electrical safety.



Pump Power Supply



A 200A, NEMA 3R rated DS Series DECONTACTOR connects power to a float pump via a direct mounting configuration. When required, the DS receptacle is disconnected and the pump is easily relocated to another retention pond.



NEMA 4X rated
DSN DECONTACTOR

Weatherproof Performance

Meltric offers plugs and receptacles with ratings up to NEMA 4X or IP66/67. DS Series Decontactors are rainproof NEMA 3R rated devices, while the DSN Series is NEMA 4X and IP 66/67 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.

Motor Control Center Connections



In-line connections are preferred at this quarry to solve a mounting space problem.



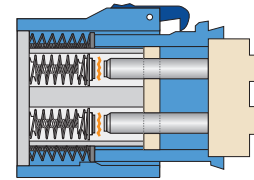
Configuration Flexibility

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 application needs and 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.

Process Equipment Connections



DS60 equipped power cables provide a safe and convenient means of routinely making and breaking power supply connections as required while this concrete floor panel forming machine moves along the production line.



Enclosed arc chambers keep arcs safely contained

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.

Power Supply to Heavy Duty Machinery



Meltric DS devices supply power to large cutting machines at a marble quarry. DS's are UL and CSA switch rated, allowing them to function as a 'line of sight' disconnect.

	MATERIAL	CONTACT RESISTANCE	
		New	Oxidized
MELTRIC →	SILVER-NICKEL	23 $\mu\Omega$	60 $\mu\Omega$
	COPPER	29 $\mu\Omega$	400 $\mu\Omega$
COMPETITION →	BRASS	370 $\mu\Omega$	1400 $\mu\Omega$

Meltric's silver-nickel contacts provide superior electrical properties

Durable Construction

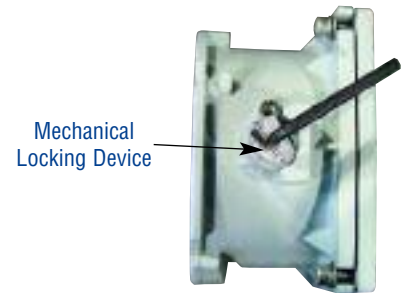
In designing its products, Meltric uses rugged casing materials, stainless steel hardware and silver-nickel contact surfaces to ensure durability, corrosion resistance and long operating lives. For example, the silver-nickel contacts withstand wear and maintain excellent conductivity even when oxidized. 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 Hp Motor Connections



Power to a 500 horsepower crusher motor is supplied by parallel phasing of two 400A PF plugs and receptacles.



High Amperage Capacity

Meltric's PF Series plugs and receptacles were specifically engineered for use in high amperage applications and can handle 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



This remote motor control center can be relocated simply by disconnecting and reconnecting its DN20 Multipin connector.



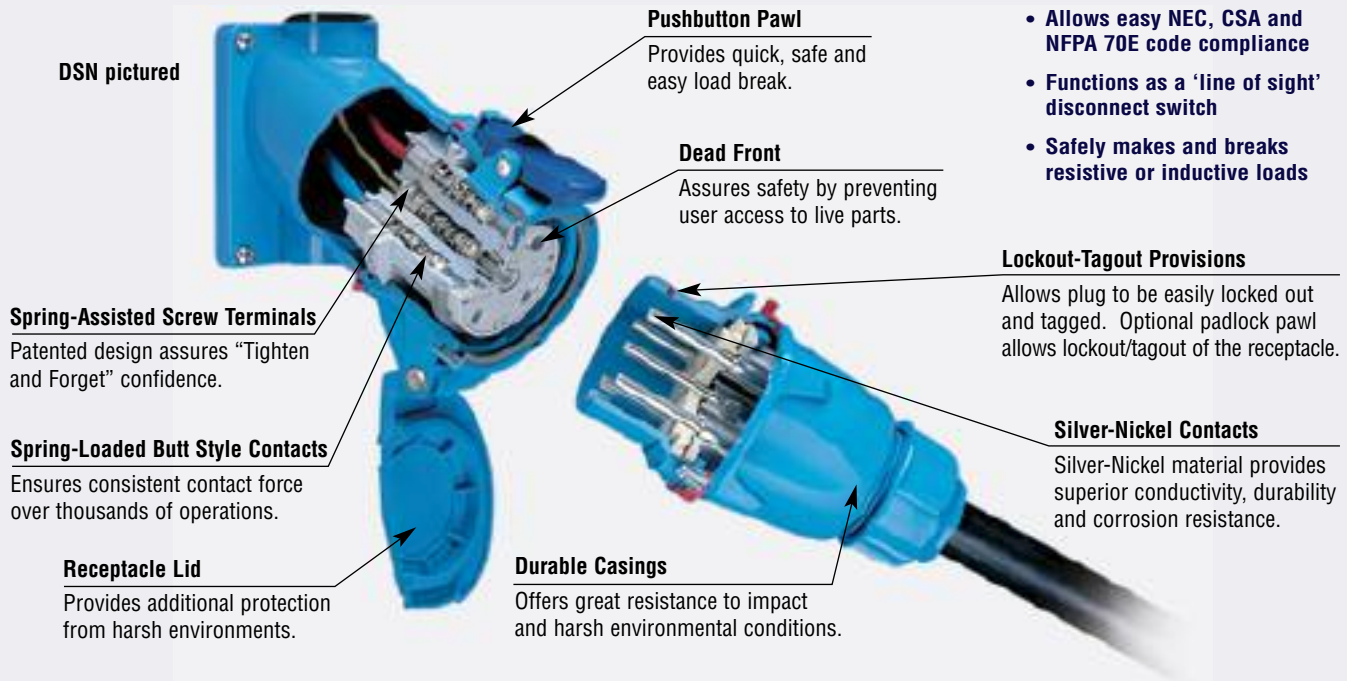
Multipin plugs and connectors are available with up to 37 contacts.

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. Their 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.

Product Specifications

Meltric DECONTACTOR™ Series Plugs & Receptacles – 20 to 200A...



DSN 20-60A



- Compact, lightweight design
- NEMA 4X, IP 66/67
- Up to 4 auxiliary contacts
- Fiberglass reinforced Polyester casings
- 100kA short circuit rated*

DS 20-200A



- Rugged construction
- NEMA 3R
- Up to 5 auxiliary contacts
- Fiberglass reinforced Polyester or Metal casings
- ≥65kA short circuit rated*

DB 30-100A



- High horsepower capacity
- IP 67
- Up to 4 auxiliary contacts
- Zinc aluminum alloy casing
- 100kA short circuit rated*

* Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices hp ratings, except for DB100 which was tested with 250A fuses. Non-horsepower rated DS100 and DS200 devices were tested with RK5 time delay fuses sized at 100% of the devices rated ampacity.

Tested to a Higher Standard

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.

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

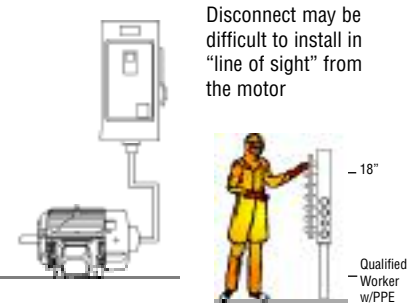
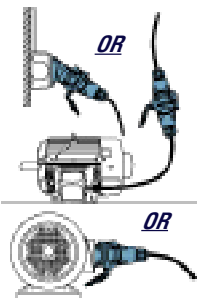

• 20A	5,000 under load	0 off load
• 30 to 60A	1,000 under load	1,000 off load
• 100 to 200A	250 under load	250 off load

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

SAFETY & CODE COMPLIANCE: *Meltric vs Competition*

MOTOR HARD-WIRED TO A BLADED DISCONNECT SWITCH	MOTOR CONNECTED WITH A MELTRIC MOTOR PLUG	MOTOR CONNECTED WITH A COMPETITIVE PLUG & RECEPTACLE
 <p>Disconnect may be difficult to install in "line of sight" from the motor</p> <p>18"</p> <p>Qualified Worker w/PPE</p>	 <ul style="list-style-type: none"> ▼ Cord connection allows easy "line of sight" area ▼ Dead front eliminates access to live parts, so there is no need for PPE ▼ Ability to safely make & break under load eliminates the need for interlocks ▼ ≥65kA short circuit make & withstand rating ensures safety during reenergization 	 <ul style="list-style-type: none"> ▼ Expensive mechanical interlocks are required since these plugs & receptacles cannot safely make & break under load ▼ The interlock must be mounted on a fixed surface-this may make 'line of sight' location more difficult
MOTOR CHANGE-OUT PROCESS	MOTOR CHANGE-OUT PROCESS	MOTOR CHANGE-OUT PROCESS
<ol style="list-style-type: none"> 1. Electrician opens disconnect switch 2. Determine PPE requirements and obtain 3. Remove disconnect cover 4. Voltmeter test to verify deenergization 5. Apply lockout/tagout 6. Disconnect motor from hard-wiring 7. Mechanic removes old/installs new motor 8. Electrician connects motor to hard-wiring 	<ol style="list-style-type: none"> 1. Mechanic removes plug from receptacle 2. Apply lockout/tagout as required 3. Mechanic removes old/installs new motor 4. Mechanic inserts plug into receptacle <p style="text-align: center;">Meltric Makes it Safe & Easy</p>	<ol style="list-style-type: none"> 1. Open interlock switch 2. Determine PPE requirements & obtain 3. Remove interlock cover 4. Voltmeter test to verify deenergization 5. Remove plug 6. Apply lockout/tagout as required 7. Remove old/install new motor 8. Insert plug into receptacle

Product Selection Guide

Model	Casing Material	Voltage (Max)	Amperage Rating	Maximum Number of Contacts Main / Auxiliary	Environmental Rating	Maximum horsepower Rating (480V*)
<i>DSN20</i>	Poly	480V	20A	3P+N+E -	NEMA 4X IP66+67	5 hp
<i>DSN30</i>	Poly	600V	30A	3P+N+E 2	NEMA 4X IP66+67	10 hp
<i>DSN60</i>	Poly	600V	60A	3P+N+E 4	NEMA 4X IP66+67	20 hp
<i>DS20</i>	Poly	600V	20A	3P+N+E 2	NEMA 3R	5 hp
<i>DS30</i>	Poly	600V	30A	3P+N+E 4	NEMA 3R	10 hp
<i>DS60</i>	Poly or Metal	600V	60A	3P+N+E 3	NEMA 3R	20 hp
<i>DS100C</i>	Poly or Metal	600V	100A	3P+N+E 3	NEMA 3R	20 hp
<i>DS100</i>	Poly or Metal	600V	100A	3P+N+E 5	NEMA 3R	-
<i>DS200</i>	Zamak	480V	200A	3P+N+E 5	NEMA 3R	-
<i>DB30</i>	Zinc Aluminum	600V	30A	3P+N+E 2	IP67	10 hp
<i>DB60</i>	Zinc Aluminum	600V	60A	3P+N+E 2	IP67	30 hp
<i>DB100</i>	Zinc Aluminum	600V	100A	3P+N+E 4	IP67	60 hp

* Consult Meltric catalog for horsepower ratings at voltages other than 480V.



Product Specifications

Meltric Multipin Plugs & Receptacles – 2 to 150A...

Silver-Nickel Contacts

Provides excellent conductivity, corrosion and wear resistance.

Weatherproof Construction

Provides up to NEMA 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.



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, NEMA 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.

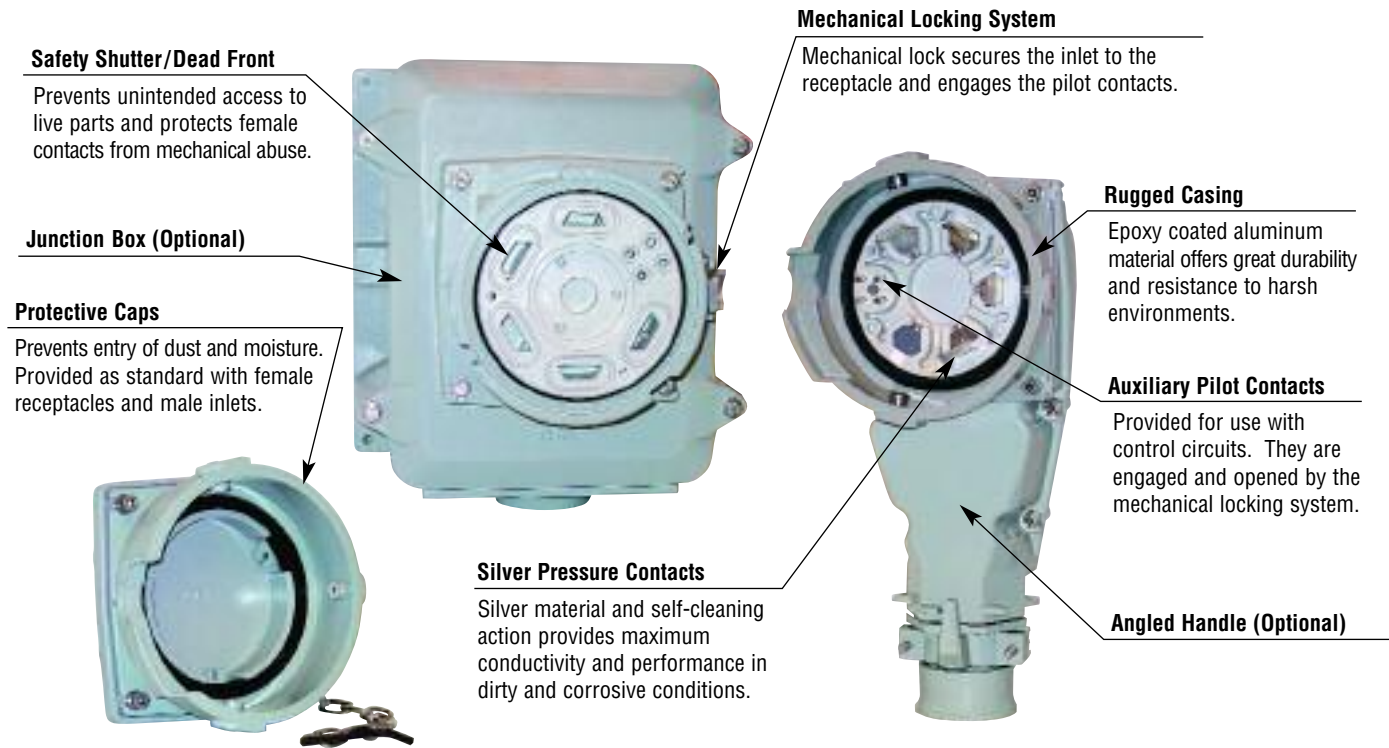
Product Selection Guide

Product Type	Housing Material	Voltage (Max)	Amperage		Number of Contacts		Wiring Capacity		Environmental Rating	Wiring Connection
			Current Interrupting	Non-Current Interrupting	Min	Max	Min	Max		
<i>PN12</i>	Polyester or Zamak*	600V	5A	7.5A	6	12	20 AWG	14 AWG	NEMA 4X/IP66+67	Solder
<i>DSN24</i>	Polyester	480V	2A	7.5A	13	24	20 AWG	14 AWG	NEMA 4X/IP66+67	Solder
<i>DSN37</i>	Polyester	480V	2A	7.5A	25	37	20 AWG	14 AWG	NEMA 4X/IP66+67	Solder
<i>DS24</i>	Stainless Steel	480V	2A	7.5A	13	24	20 AWG	14 AWG	NEMA 3R	Solder
<i>DS37</i>	Stainless Steel	480V	2A	7.5A	13	37	20 AWG	14 AWG	NEMA 4X	Solder
<i>PN7</i>	Polyester or Zamak*	600V	15A	20A	5	7	18 AWG	10 AWG	NEMA 4X/IP66+67	Screw
<i>DN9</i>	Zamak	480V	-	20A	6	9	16 AWG	10 AWG	IP55/55+	Screw
<i>DN20</i>	Zamak	480V	-	20A	10	20	16 AWG	10 AWG	IP55/55+	Screw
<i>DS7</i>	Polyester or Zamak	600V	30A	-	4	7	14 AWG	8 AWG	IP55/55+	Screw
<i>DR7</i>	Polyester or Zamak	600V	-	50A	4	7	14 AWG	8 AWG	IP55/55+	Screw
<i>DN7</i>	Zamak	480V	-	50A	6P+E	6P+E	10 AWG	6 AWG	IP55/55+	Screw
<i>DN7</i>	Zamak	480V	-	90A	6P+E	6P+E	6 AWG	2 AWG	IP55/55+	Screw
<i>DN7</i>	Zamak	480V	-	150A	6P+E	6P+E	6 AWG	2 AWG	IP55/55+	Screw

* Stainless Steel Housing material is also available

+ Rated IP54 when receptacle and plug are mated, when not mated receptacle alone is rated IP55 provided that the lid is latched closed

Meltric PF/PFQ Plugs & Receptacles – 300 to 600A



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 dusty and 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.



PF devices provide power to a 500 hp crusher motor

Product Selection Guide

Product Type	Housing Material	Voltage (Max)	Amperage	Maximum Number of Contacts Main / Auxiliary	Current Interruption Rating	Environmental Rating
PF300	Aluminum	600V	300A	3P+N+E 4	Non-Current Interrupting	IP66+67
PF400	Aluminum	600V	400A	3P+N+E 4	Non-Current Interrupting	IP66+67
PF600	Aluminum	600V	600A	3P+N+E 4	Non-Current Interrupting	IP66+67
PFQ	Aluminum	600V	300A	3P+N+E 8	Non-Current Interrupting	IP66+67



More Meltric Products and Services for the Aggregates, Mining, and Concrete Industries

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.

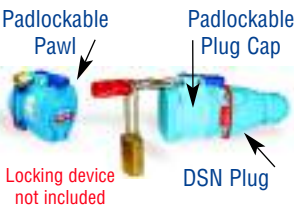
Common Options

Auxiliary Pilot Contacts



Pilot contacts are available for operating secondary control circuits or for electrical interlocking with motor starters. These contacts make last and break first when the plug is engaged or disengaged. Two to five 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 NEMA 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 than buying an assembled product.

Same Day Shipping

Due to the modular design of our product and efficient customer service and factory operations, 95% 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.

Presented by Meltric and:



4640 Ironwood Drive • Franklin, WI 53132
800.433.7642 • Fax 414.817.6161
www.meltric.com

