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Switch-rated plugs and receptacles

DB's are the most rugged and highest horsepower rated plugs and receptacles in the Decontactor™ Series product family. They are specifically designed for use on motors and other inductive loads. With their unique internal spring operating mechanism, two stage contact system, arc splitting feature and silver-nickel butt contacts, DB's can easily handle high horsepower inductive loads up to 60 hp.

Main Advantages

- ▶ Switch & Hp rated
- ▶ 100 kA short circuit rated*
- ▶ IP67 environmental ratings
- ▶ Up to 4 auxiliary contacts
- ▶ Durable metal construction.

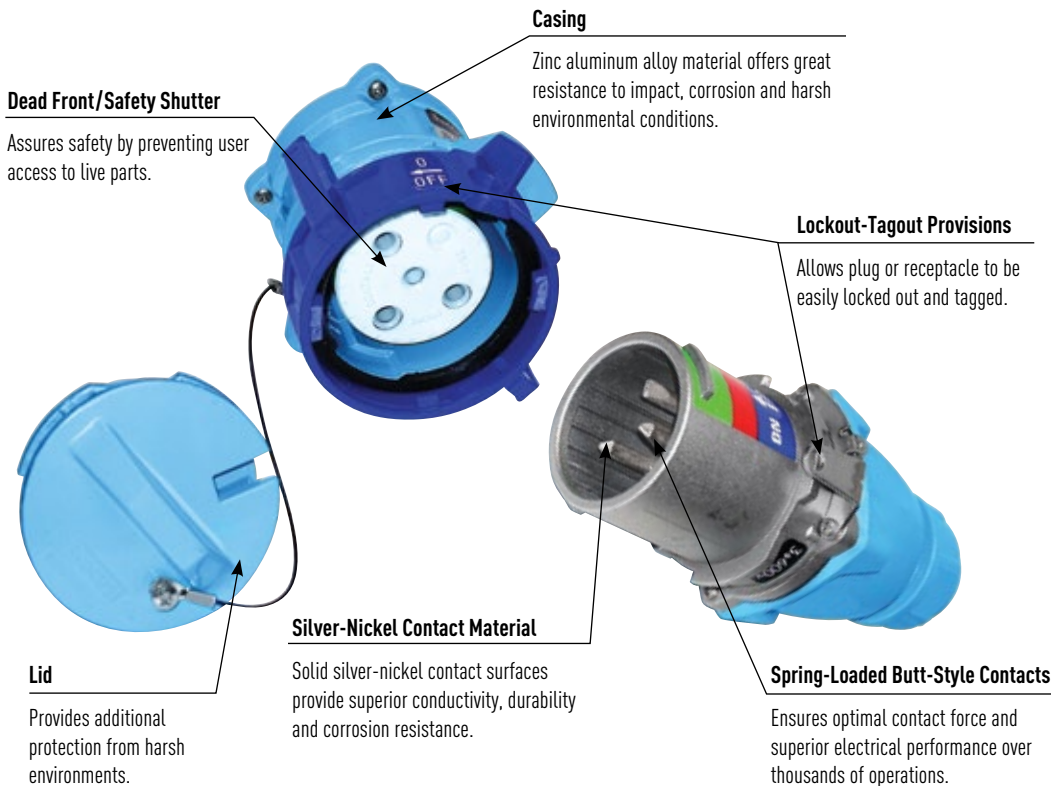
Highlighted Advantage

Simplify Compliance to
NFPA 70E & CSA Z462

See pgs 19-20 for
more information



Product Features



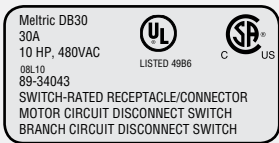
General Ratings

Amperage	30 to 100A
Voltage	600 VAC
Frequency	50-400 Hz
Horsepower	2 to 60 hp
Short-Circuit (Make & Withstand)	100kA*
Environmental	IP67
Temperature	min -40°F/max 140°F

* Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices horsepower ratings, except for the DB100, which was tested with 250A fuses.

Highlighted Feature

Typical Device Labels



DB Deconnectors are UL & CSA rated for "motor circuit" and "branch circuit" disconnect switching – up to 60 hp and up to 100A.

Listings

Category	UL	CSA	IEC
Plugs and Receptacles	UL 1682	C22.2 No. 182.1	60309-1
Branch Circuit Disconnect Switching	UL Subject 2682 (Performance tested to UL 98)	C22.2 No. 4	60947-3, AC22, AC23
Motor Circuit Disconnect Switching	UL Subject 2682 (Performance tested to UL 508)	C22.2 No. 14	

CE ratings available upon request.

Operating Instructions



When the plug and receptacle are latched together, the circuit is connected.



Turning the receptacle ring counterclockwise releases the plug and rapidly opens the circuit. The plug is ejected to its rest position.



From the rest position the 'dead' plug can be withdrawn by rotating it counterclockwise. The receptacle can be made watertight up to IP67 by replacing the lid and turning the locking ring fully clockwise.



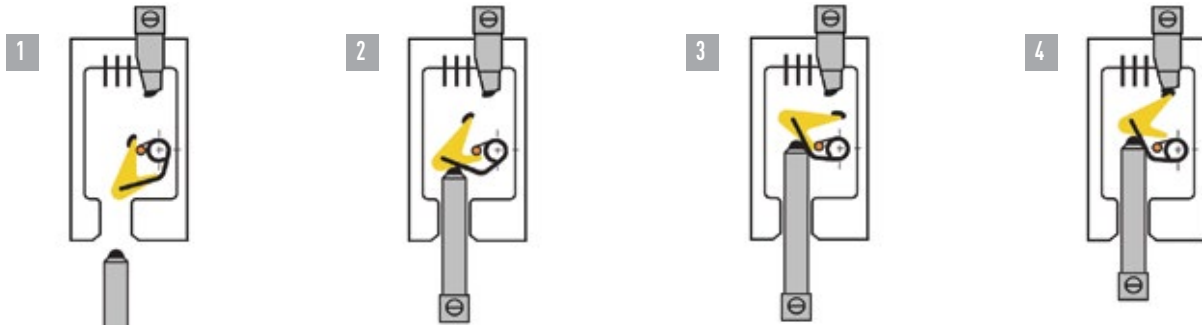
To reconnect, insert plug and twist. Pushing the plug fully home safely makes the circuit. The plug is held in the 'on' position by a locking ring. IP67 protection is enabled by fully rotating the locking ring in the clockwise direction.

Product Features

Spring-Loaded Operating Mechanism

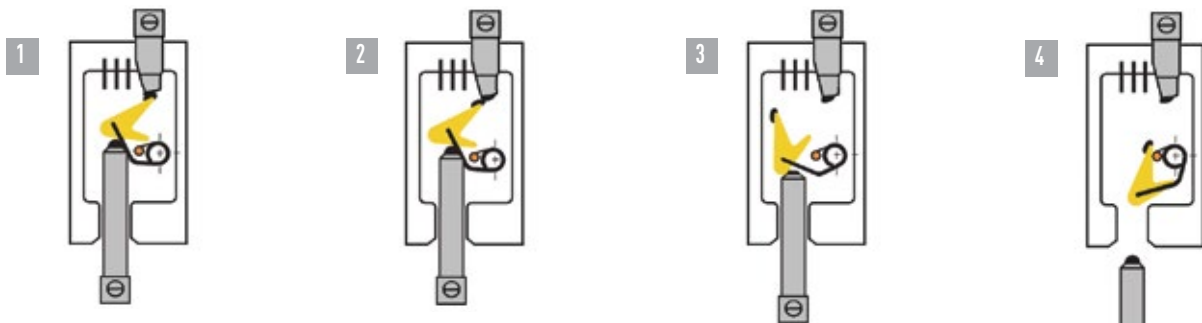
DB Series Decontactors use an internal spring-loaded operating mechanism to open and close the contacts at high speed, independent of the manual motion of the user.

Load-Making



1. As the plug is first inserted into the receptacle, the contact travels toward the operating mechanism. Only the receptacle contact (shown at the top of the drawing) is live.
2. As the plug contact is inserted further, it engages a mobile intermediate contact on the operating mechanism, which it begins to move around a stop. This motion also begins to wind the operating spring.
3. As the plug is inserted further, to the almost completely engaged position, the operating spring becomes fully loaded and the mobile contact rotates into a position where any further insertion motion will release it from the stop.
4. As the last small insertion motion is made, the mobile contact clears the stop and releases the energy in the spring. This instantly drives the mobile contact into engagement with the receptacle contact and completes the electrical connection.

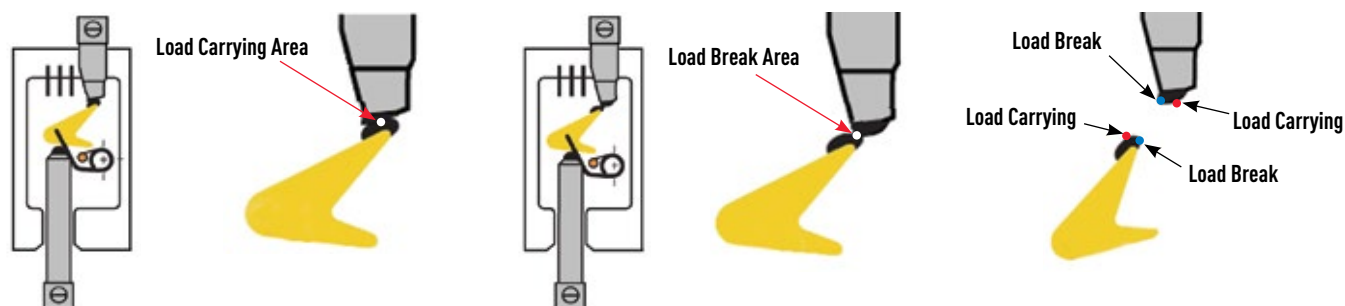
Load-Breaking



1. When the contacts are engaged, the operating spring is still almost fully charged. This maintains contact pressure and provides energy for the breaking operation.
2. In order to break the circuit, the plug retaining ring is turned to the 'off' position. This releases the plug, which in turn releases the mobile contact and the spring energy in the operating mechanism.
3. The spring energy instantly drives the mobile contact away from the live receptacle contact. It follows a different path than on making and is moved along an arc chute.
4. The mobile contact returns to its initial position, preparing the device to be used again.

Two Stage Contact System

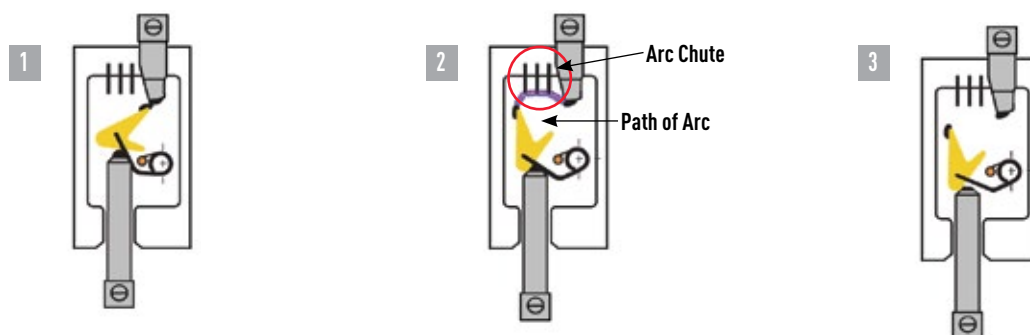
The operation of the DB's contacts was specifically designed to ensure that load-breaking and load-carrying are performed in separate locations on the contacts.



This is accomplished with the motion of the mobile contact relative to the receptacle contact. The opening of the contacts begins with a wiping action that moves the contact area toward the edges of the contacts, where load-breaking occurs. This allows numerous overload-breaking operations without deteriorating the main contact surfaces or the continuity of the connection.

Arc-Extinguishing System

For higher currents, or when significant overloads are involved, additional provision is desirable to handle the arcing that occurs during load-breaking. Meltric accomplishes this on its DB Series Decontactors with a series of magnetic V-shaped blades, which create an arc chute.



As the contacts open, the mobile intermediate contact moves along the arc chute. The arc is transferred to the magnetic "V" shaped blades, which splits and destabilizes it. This helps to cool and quickly extinguish the arc, minimizing any potential damage to the contacts. Together with the spring operator, two stage contact system and silver-nickel butt style contacts, this feature allows the DB series to easily and safely break high horsepower inductive loads and significant overloads.

DB30

DECONTACTOR™ – 30A

Switch-Rated Plugs & Receptacles

Ratings

- Voltage**
600 VAC
- Switch-Rating (AC Only)**
Branch Circuit & Motor Circuit Disconnect Switching
- Horsepower Ratings**

120V	1Ø	2 hp
240V	1Ø	3 hp
208V	3Ø	7 1/2 hp
240V	3Ø	7 1/2 hp
480V	3Ø	20 hp
600V	3Ø	25 hp
- Short Circuit Rating**
100kA Close & Withstand
Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices hp rating.
- Environmental Ratings**
IP67
- Temperature Range**
Min -40°F/Max 140°F
See pg 228 for temps below -15°F.
- Wiring Capacity**
Min 14 AWG Max 8 AWG
Aux Contacts - Max 14 AWG
- Listings**
UL, CSA, IEC, CE*

* Contact Customer Service

Receptacle (female)



Don't forget to add installation accessories to your order

For international configurations (CE) visit meltric.com/international-catalog or contact customer service at 800.433.7642.

Voltage	Polarity	Part # Metal
120V	1P+N+G	89-34165
120/208V	3P+N+G	89-34167
125V	1P+N+G	89-34075
125/250V	2P+N+G	89-34076
208V	2P+G	89-34162
208V	3P+G	89-34163
250V	2P+G	89-34072
250V	3P+G	89-34073
277V	1P+N+G	89-34045
277/480V	3P+N+G	89-34047
347/600V	3P+N+G	89-34147
480V	2P+G	89-34042
480V	3P+G	89-34043
600V	2P+G	89-34142
600V	3P+G	89-34143

Inlet (male)



Voltage	Polarity	Part # Metal
120V	1P+N+G	89-38165
120/208V	3P+N+G	89-38167
125V	1P+N+G	89-38075
125/250V	2P+N+G	89-38076
208V	2P+G	89-38162
208V	3P+G	89-38163
250V	2P+G	89-38072
250V	3P+G	89-38073
277V	1P+N+G	89-38045
277/480V	3P+N+G	89-38047
347/600V	3P+N+G	89-38147
480V	2P+G	89-38042
480V	3P+G	89-38043
600V	2P+G	89-38142
600V	3P+G	89-38143

Main Options



Auxiliary/Pilot Contacts

Receptacle Options

Suffix

With 2 Auxiliary/Pilot Contacts Recept # - 172*

Inlet Options

Suffix

With 2 Auxiliary/Pilot Contacts Inlet # - 172*

* Auxiliary/Pilot Contacts are not available on DB devices with 1P+N+G, 2P+N+G or 3P+N+G polarity.

DB30 Order Example:

To order 2 auxiliary/pilot contacts on an inlet and receptacle add **-172** to the part numbers.

DB30 Metal inlet 3P+G=89-38043-**172**

DB30 Metal receptacle 3P+G=89-34043-**172**

Appropriate accessory part numbers must also be included on the order.

How to Order

Receptacle and Inlet (see above)



Accessories

Angle, Handle, etc are interchangeable (see opposite page)



See pgs 205-214 for detailed information on these options

Installation Accessories

Handles



NPT	Poly Handle	Metal Handle
1/2"	3PH12	3H12
3/4"	3PH34	3H34
1"	3PH1	3H1
1 1/4"	3PH114	3H114
1 1/2"	-	3H112

Cable Range	Poly Handle w/Clamp & Bushing	Nylon Handle
.39 - 1.18	-	FH311
.750 - .875	3PM514	-
.875 - 1.000	3PM516	-
1.000 - 1.125	3PM518	-
1.125 - 1.250	3PM520	-
1.250 - 1.375	3PM522	-

Notes: • For available cord grips, see pgs 171-172.

Angles



Metal 30° Angle	Metal 70° Angle	Metal Angle FS/FD Box 30°	Metal Straight Adapter
MA3	89-3A027	MAFS3*	MS3

* MAFS3 base measures approximately 4.2" x 2.7". Due to the variation in sizes of FS boxes, please verify that your FS box matches our dimensions, if not call Customer Service for other solutions.

Junction Boxes



27.7 in³+

NPT	Metal Box	Metal Box with Metal Angle
1/2"	MB312	89-3A053-080-12
3/4"	MB334	89-3A053-080-34
1"	MB31	89-3A053-080-1
1 1/4"	MB3114	89-3A053-080-114

* Interior volume with receptacle installed.

Miscellaneous Accessories



For Male Devices Only

Protective Cap

89-3A126



Cord Grip with Mesh

see pgs 171-172

NPT Guidelines

Cable Range	NPT
.312 - .625	1/2"
.438 - .812	3/4"
.660 - 1.000	1"
.875 - 1.375	1 1/4"

NPT sizes are determined by the cable diameter and third party cord grip.

Order Example

A typical order should include an inlet part number, a receptacle part number **AND** the matching handles, angles or other required accessories.



Male Inlet with Handle (Plug)
89-38075 + FH311



Female Receptacle with Angle Adapter
89-34075 + 89-3A027

DB60

DECONTACTOR™ – 60A

Switch-Rated Plugs & Receptacles

Ratings

- Voltage**
600 VAC
- Switch-Rating (AC Only)**
Branch Circuit & Motor Circuit Disconnect Switching
- Horsepower Ratings**

120V	1Ø	3 hp
240V	1Ø	15 hp
208V	3Ø	15 hp
240V	3Ø	15 hp
480V	3Ø	30 hp
600V	3Ø	30 hp
- Short Circuit Rating**
100kA Close & Withstand
Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices hp rating.
- Environmental Ratings**
IP67
- Temperature Range**
Min -40°F/Max 140°F
See pg 228 for temps below -15°F.
- Wiring Capacity**
Min 8 AWG Max 3 AWG
Aux Contacts - Max 14 AWG
- Listings**
UL, CSA, IEC, CE*

* Contact Customer Service

Receptacle (female)



For international configurations (CE) visit meltric.com/international-catalog or contact customer service at 800.433.7642.

Voltage	Polarity	Part # Metal
120V	1P+N+G	89-64165
120/208V	3P+N+G	89-64167
125V	1P+N+G	89-64075
125/250V	2P+N+G	89-64076
208V	2P+G	89-64162
208V	3P+G	89-64163
250V	2P+G	89-64072
250V	3P+G	89-64073
277V	1P+N+G	89-64045
277/480V	3P+N+G	89-64047
347/600V	3P+N+G	89-64147
480V	2P+G	89-64042
480V	3P+G	89-64043
600V	2P+G	89-64142
600V	3P+G	89-64143

Inlet (male)



Voltage	Polarity	Part # Metal
120V	1P+N+G	89-68165
120/208V	3P+N+G	89-68167
125V	1P+N+G	89-68075
125/250V	2P+N+G	89-68076
208V	2P+G	89-68162
208V	3P+G	89-68163
250V	2P+G	89-68072
250V	3P+G	89-68073
277V	1P+N+G	89-68045
277/480V	3P+N+G	89-68047
347/600V	3P+N+G	89-68147
480V	2P+G	89-68042
480V	3P+G	89-68043
600V	2P+G	89-68142
600V	3P+G	89-68143

Main Options



Auxiliary/Pilot Contacts

Receptacle Options

Suffix

With 2 Auxiliary/Pilot Contacts Recept # - 172*

Inlet Options

Suffix

With 2 Auxiliary/Pilot Contacts Inlet # - 172*

* Auxiliary/Pilot Contacts are not available on DB devices with 1P+N+G, 2P+N+G or 3P+N+G polarity.

DB60 Order Example:

To order 2 auxiliary/pilot contacts on an inlet and receptacle add **-172** to the part numbers.

DB60 Metal inlet 3P+G=89-68043-**172**

DB60 Metal receptacle 3P+G=89-64043-**172**

Appropriate accessory part numbers must also be included on the order.

How to Order

Receptacle and Inlet (see above)



Accessories

Angle, Handle, etc are interchangeable (see opposite page)



See pgs 205-214 for detailed information on these options

Installation Accessories

Handles



NPT	Poly Handle	Metal Handle
1/2"	6PH12	6H12
3/4"	6PH34	6H34
1"	6PH1	6H1
1 1/4"	6PH114	6H114
1 1/2"	6PH112	6H112

Cable Range	Poly Handle w/Clamp & Bushing	Nylon Handle
.51 - 1.38	–	FH611
1.250 - 1.375	6PM622	–
1.438 - 1.562	6PM625	–
1.562 - 1.688	6PM627	–
1.688 - 1.812	6PM629	–

Notes: • For available cord grips, see pgs 171-172.

Angles



Metal 30° Angle	Metal 70° Angle	Metal Angle+ Oversized 30°	Metal Straight Adapter	Metal Lateral Angle 30°
MA6	89-6A027	MA660	MS6	MAB6

* Mounts on oversize box only. Order with MB10xxx box. See page 64.

NPT Guidelines

Cable Range	NPT
.312 - .625	1/2"
.438 - .812	3/4"
.660 - 1.000	1"
.875 - 1.375	1 1/4"
.890 - 1.812	1 1/2"

NPT sizes are determined by the cable diameter and third party cord grip.

Junction Boxes



91.0 in³+

NPT	Metal Box	Metal Box with Metal Angle
1"	MB61	89-6A053-080-1
1 1/4"	MB6114	89-6A053-080-114
1 1/2"	MB6112	89-6A053-080-112
2"	MB62	89-6A053-080-2

* Interior volume with receptacle installed.

Miscellaneous Accessories



For Male Devices Only

Protective Cap

89-6A126



Cord Grip with Mesh

see pgs 171-172

Order Example

A typical order should include an inlet part number, a receptacle part number **AND** the matching handles, angles or other required accessories.



Male Inlet with Handle (Plug)
89-68043 + FH611



Female Receptacle with Angle Adapter
89-64043 + 89-6A027

DB100



DECONTACTOR™ – 100A

Switch-Rated Plugs & Receptacles

Ratings

- **Voltage**
600 VAC
- **Switch-Rating (AC Only)**
Branch Circuit & Motor Circuit
Disconnect Switching
- **Horsepower Ratings**

120V	1Ø	7 1/2 hp
240V	1Ø	15 hp
208V	3Ø	30 hp
240V	3Ø	30 hp
480V	3Ø	60 hp
600V	3Ø	60 hp
- **Short Circuit Rating**
100kA Close & Withstand
Testing was performed with 250A RK1 fuses, so the 100kA rating applies up to 60 hp @ 600, 40 hp @ 480V and 20 hp @ 240V and 208V.
- **Environmental Ratings**
IP67
- **Temperature Range**
Min -40°F/Max 140°F
See pg 228 for temps below -15°F.
- **Wiring Capacity**
Min 1/0* AWG Max 2/0 AWG
Aux Contacts - Max 14 AWG
* Smaller conductors can be retained in the terminal, but may result in a temperature rise greater than the 30° max allowed in UL & CSA standards.
- **Listings**
UL, CSA, IEC, CE*

* Contact Customer Service

Receptacle (female)



Don't forget to add installation accessories to your order

For international configurations (CE) visit meltric.com/international-catalog or contact customer service at 800.433.7642.

Voltage	Polarity	Part # Metal
120V	1P+N+G	89-94165
120/208V	3P+N+G	89-94167
125V	1P+N+G	89-94075
125/250V	2P+N+G	89-94076
208V	2P+G	89-94162
208V	3P+G	89-94163
250V	2P+G	89-94072
250V	3P+G	89-94073
277V	1P+N+G	89-94045
277/480V	3P+N+G	89-94047
347/600V	3P+N+G	89-94147
480V	2P+G	89-94042
480V	3P+G	89-94043
600V	2P+G	89-94142
600V	3P+G	89-94143

Inlet (male)



Voltage	Polarity	Part # Metal
120V	1P+N+G	89-98165
120/208V	3P+N+G	89-98167
125V	1P+N+G	89-98075
125/250V	2P+N+G	89-98076
208V	2P+G	89-98162
208V	3P+G	89-98163
250V	2P+G	89-98072
250V	3P+G	89-98073
277V	1P+N+G	89-98045
277/480V	3P+N+G	89-98047
347/600V	3P+N+G	89-98147
480V	2P+G	89-98042
480V	3P+G	89-98043
600V	2P+G	89-98142
600V	3P+G	89-98143

Main Options



Auxiliary/Pilot Contacts

Receptacle Options

Suffix

With 4 Auxiliary/Pilot Contacts Recept # - 174**

Inlet Options

Suffix

With 4 Auxiliary/Pilot Contacts Inlet # - 174**

* DB100 devices with auxiliary/pilot contacts are not UL/CSA listed.

** Auxiliary/Pilot Contacts are not available on DB devices with 1P+N+G, 2P+N+G or 3P+N+G polarity.

DB100 Order Example:

To order 4 auxiliary/pilot contacts on an inlet and receptacle add -174 to the part numbers.

DB100 Metal inlet 3P+G=89-98043-174

DB100 Metal receptacle 3P+G=89-94043-174

Appropriate accessory part numbers must also be included on the order.

How to Order

Receptacle and Inlet (see above)



Accessories

Angle, Handle, etc are interchangeable (see opposite page)



See pgs 205-214 for detailed information on these options

Installation Accessories

Handles



IP 66/67



NPT	Poly Handle	Metal Handle
3/4"	9PH34	9H34
1"	9PH1	9H1
1 1/4"	9PH114	9H114
1 1/2"	9PH112	9H112
2"	9PH2	9H2

Cable Range	Santoprene™ Handle	Poly Handle w/Clamp & Bushing
.70 - 1.00	65-9A013-D25	–
1.00 - 1.375	65-9A013-D35	–
1.250 - 1.375	–	9PM622
1.375 - 1.750	65-9A013-D45	–
1.438 - 1.562	–	9PM625
1.562 - 1.688	–	9PM627
1.688 - 1.812	–	9PM629

Notes: • For available cord grips, see pgs 171-172.

Angles



Metal 30° Angle	Metal 70° Angle	Metal Angle+ Oversized 30°	Metal Straight Adapter
MA10	89-9A027	MA110	MS10

* Mounts on oversize box only. Order with MB22xxx box. See page 50.

NPT Guidelines

Cable Range	NPT
.438 - .812	3/4"
.660 - 1.000	1"
.875 - 1.375	1 1/4"
.890 - 1.812	1 1/2"
1.190 - 2.438	2"

NPT sizes are determined by the cable diameter and third party cord grip.

Junction Boxes

175.0 in³+

NPT	Metal Box	Metal Box with Metal Angle
1 1/4"	MB10114	89-9A053-080-114
1 1/2"	MB10112	89-9A053-080-112
2"	MB102	89-9A053-080-2

* Interior volume with receptacle installed.

Miscellaneous Accessories



For Male Devices Only

Protective Cap



Cord Grip with Mesh

89-9A126

see pgs 171-172

Order Example

A typical order should include an inlet part number, a receptacle part number **AND** the matching handles, angles or other required accessories.



Male Inlet with Handle (Plug)
89-98043 + 9PM622



Female Receptacle with Angle Adapter
89-94043 + 89-9A027