



# Model 235 Brushless Slip Ring

**Conductors: Two Conductor**

**Amps: 2@30**

**Volts: 500**

The Mercotac® model 235 brushless slip rings are versatile, reliable, and made of high-quality materials. They are often used in radar systems, heavy-duty motors, and anywhere a higher voltage is needed. These slip rings are built to withstand demanding conditions and provide maintenance-free electrical connections, making them highly valuable for industries requiring reliable performance.

## Advantages:

Durable, compact, and low cost

Use for signal and/or power connections

Easy to install and replace

IP 51 protection rating with boot kit

Lightweight with robust metal construction

Long-lasting, energy efficient, and no maintenance

Made in the USA

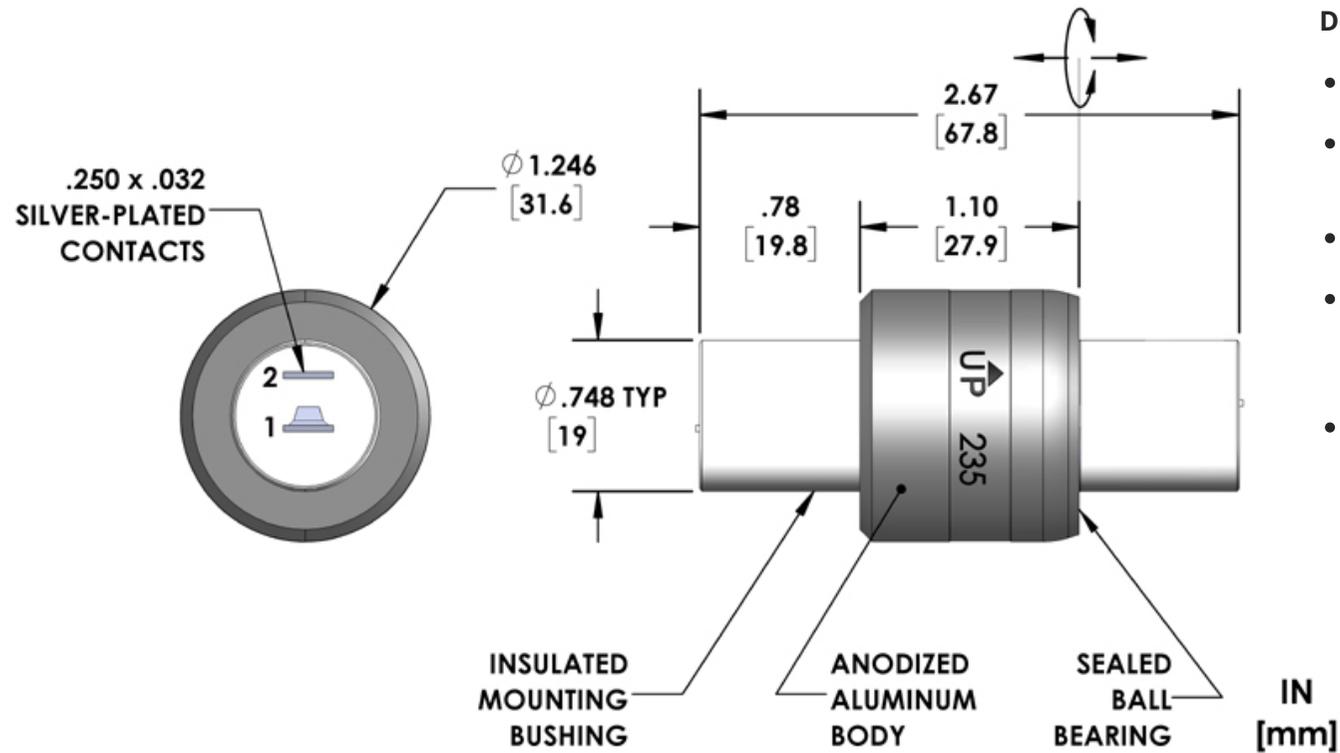


 [SPEC SHEET](#)

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# Model 235 Product Specifications

## Dimensions



## Details:

- Disconnects are included
- 55250 Large Straight Disconnect (Qty. 2)
- 55251 Large Flag Disconnect (Qty. 2)
- Available with stainless steel ball bearing (235-SS) (recommended for wet or corrosive environments).
- Dust/Splash [Boot Kit](#) available.

## Specifications

Model No.	Terminals	Body Material	Bearing Type	Max. Rotational Torque (gf-cm)	Max. Voltage Rating (AC/DC)	Max. Current Rating (Amps)	Max. Rotational Speed (RPM)	Operating Temp. Min °F (°C) Max °F (°C)	Max. Frequency (MHz)	Contact Resistance (mΩ)	Circuit Separation (MΩ)
235	2	Anodized Aluminum	Chrome Steel	400	500	30	1200	<b>Min</b> -20 (-29) <b>Max</b> 140 (60)	100	<1	>50
235-SS			Stainless Steel								

"SS" designator indicates stainless steel ball bearing (recommended for wet or corrosive environments)

### Accessories

**Description:** Boot Kit Parts  
**Item #:** 57235

- Vinyl [Boot Kit](#) for dust and splash protection
- IP51 protection rating



**Description:** Boot Kit Assembled  
**Item #:** 57235

- Vinyl [Boot Kit](#) for dust and splash protection
- IP51 protection rating



**Description:** Large Flag Disconnect, Insulated

**Item #:** 55251

- 16 AWG - 14 AWG
- Qty. 2 included
- Maximum recommended Amps: 15



**Description:** Small Straight Disconnect, Insulated

**Item #:** 55250

- 16 AWG - 14 AWG
- Qty. 2 included
- Maximum recommended Amps: 15



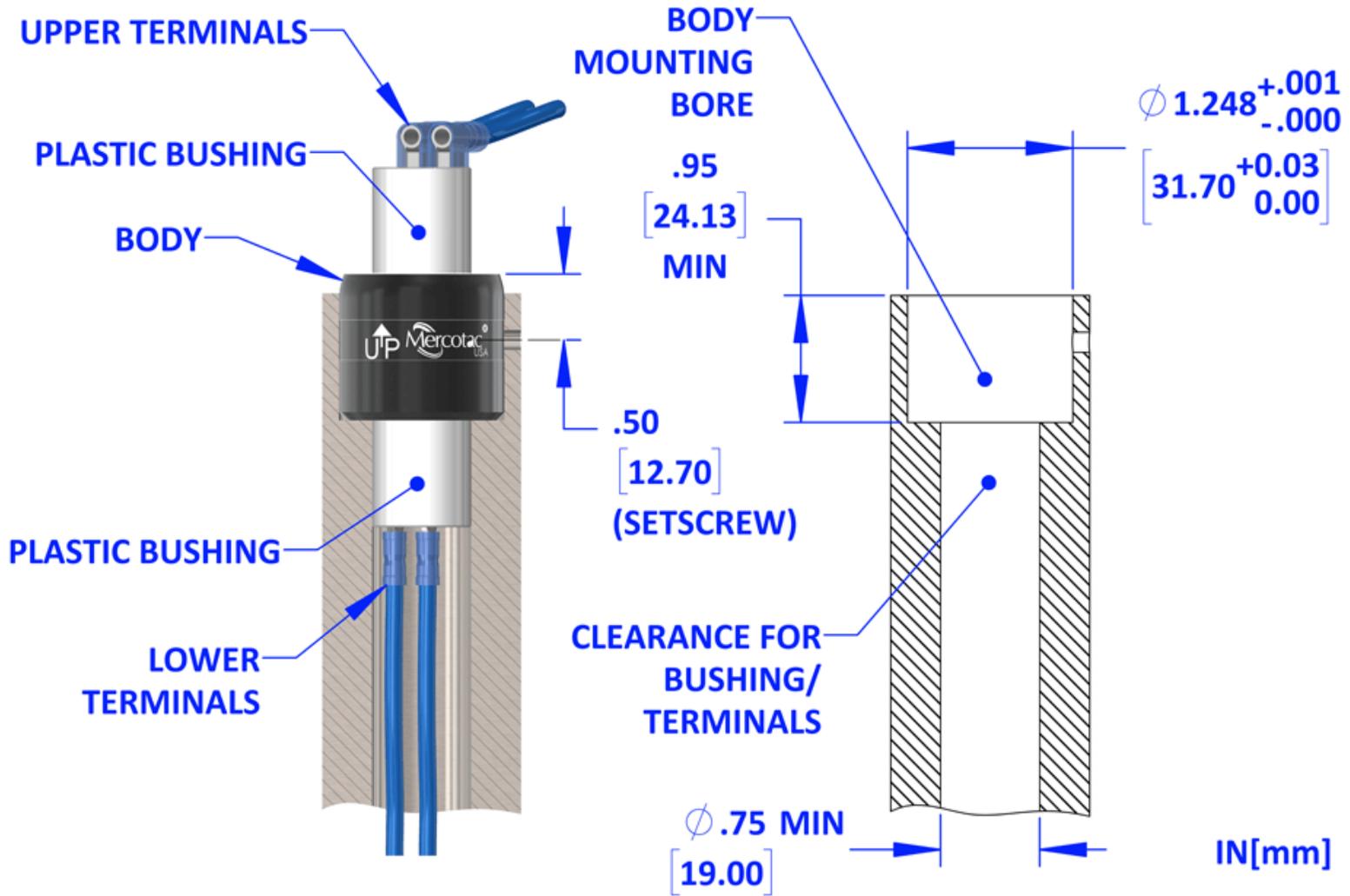
**Description:** Other Disconnects

- Disconnects for other wire gauges are available and can be substituted for the standard disconnects(22-18 AWG and 12-10 AWG). See [Ampacity Table](#)

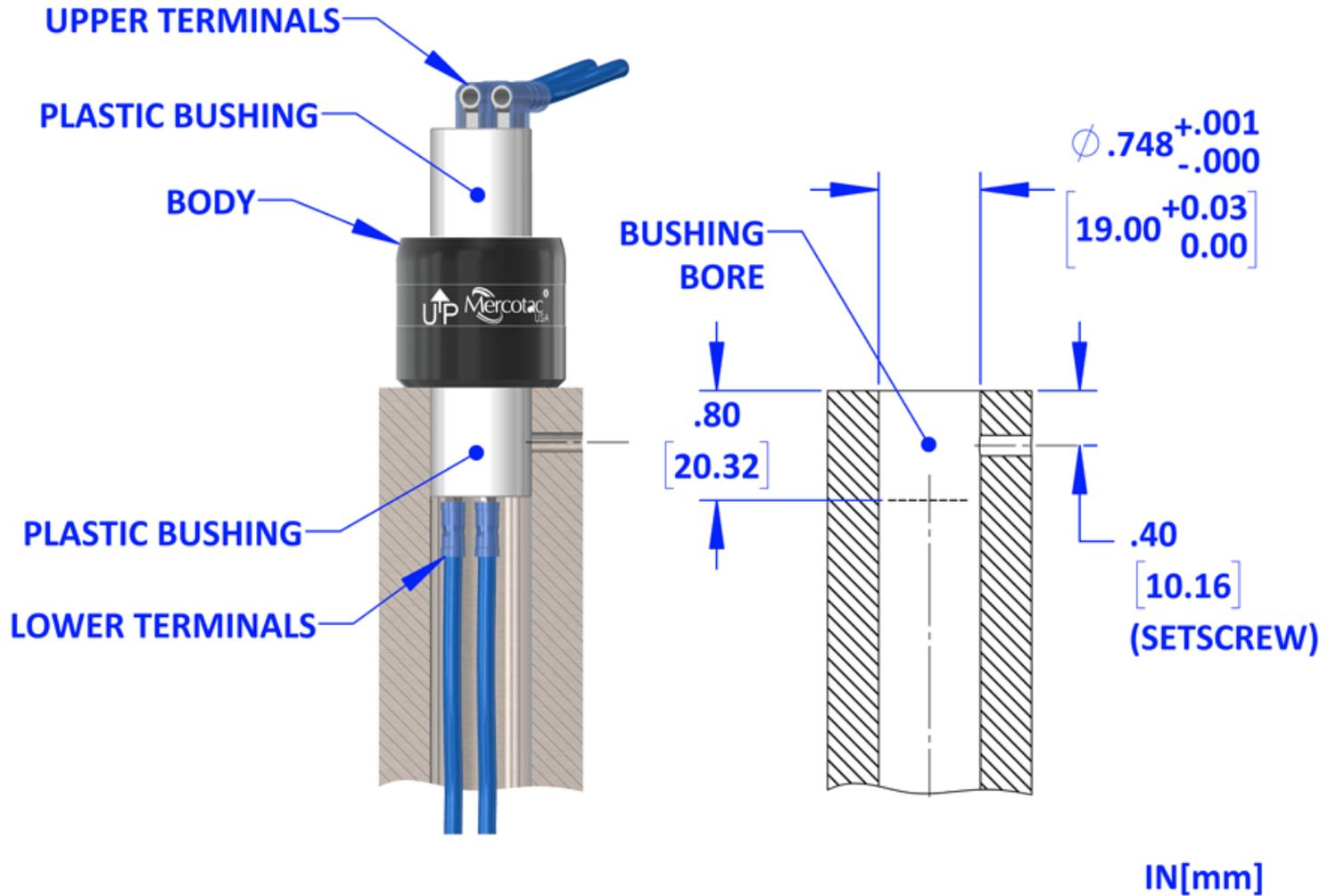
### Mounting

Model 235 is typically mounted by either the black body or the white plastic bushing on either end using a set screw or split clamp. When used horizontally, mount the Mercotac so the body of the connector rotates.

### Body Mount

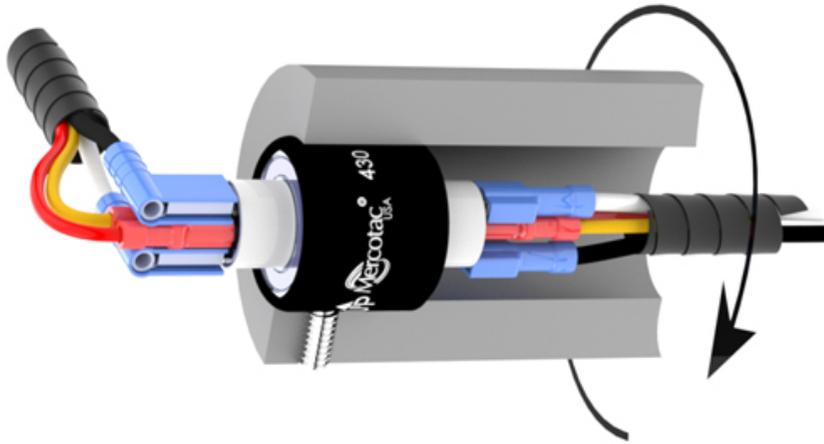


Bushing Mount



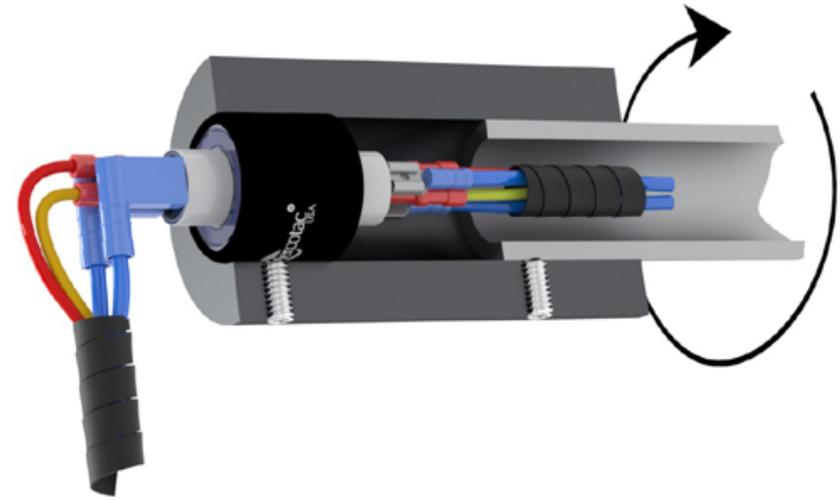
BLACKBOX AI

### Horizontal Mount to Body



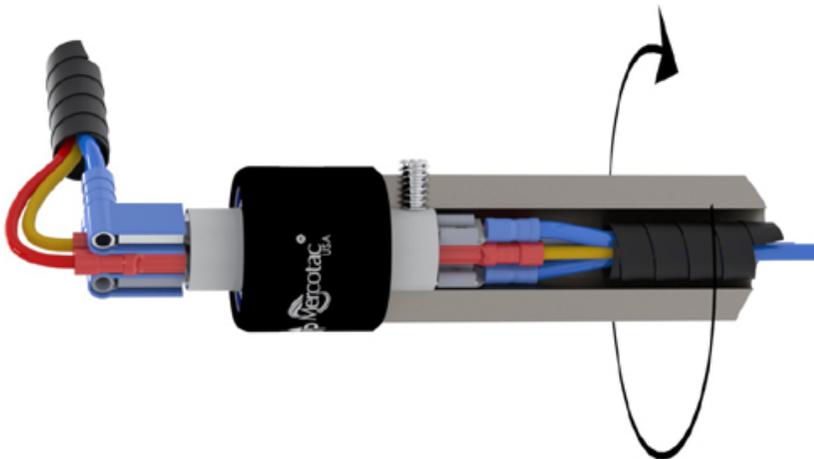
Good mounting method.  
(but vertical orientation is better)

### Adaptor Mount to Body



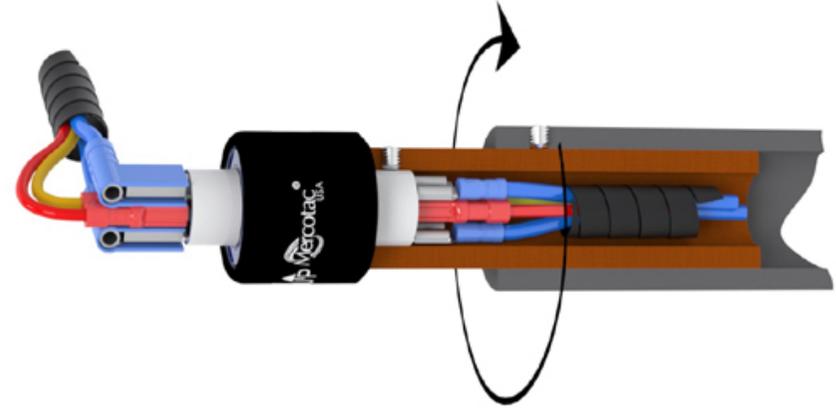
Use when the shaft diameter is smaller  
than the body of the Mercotac.

### Horizontal Mount to Bushing



Used if the shaft cannot be fitted to the body diameter.

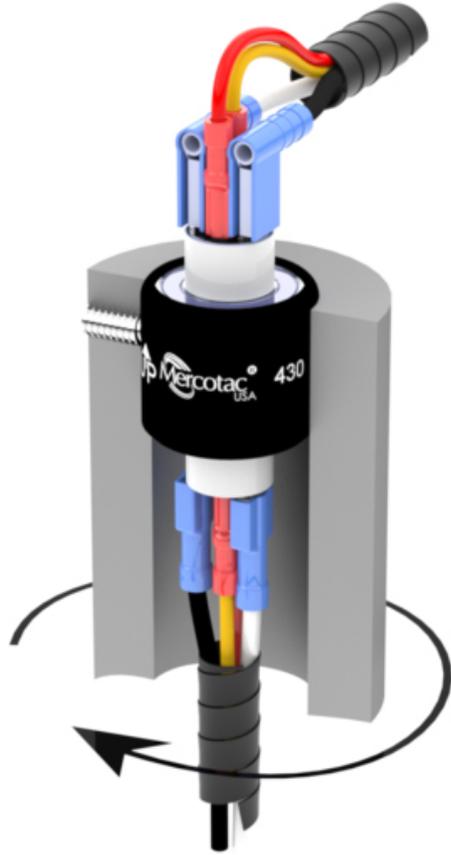
### Thermal Insulated Mount to Bushing



May be needed if thermal insulation is necessary.  
Used if the shaft cannot be fitted to the body diameter.

### Top Mount to Body

### Bottom Mount to Bushing

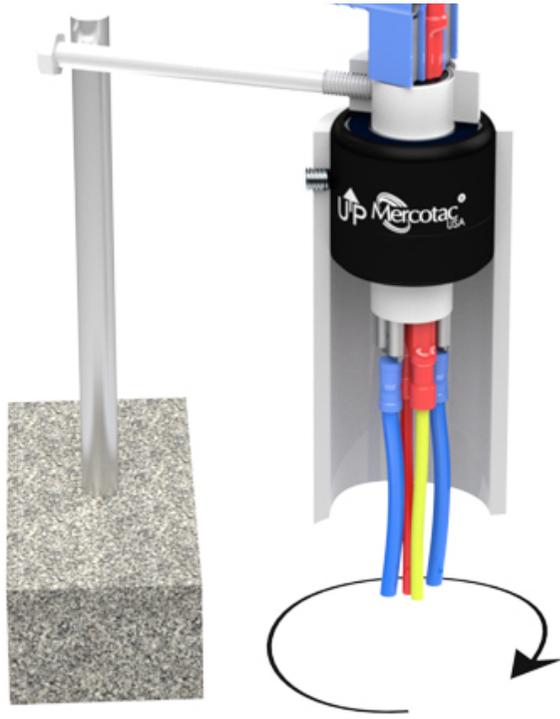


Best mounting method.

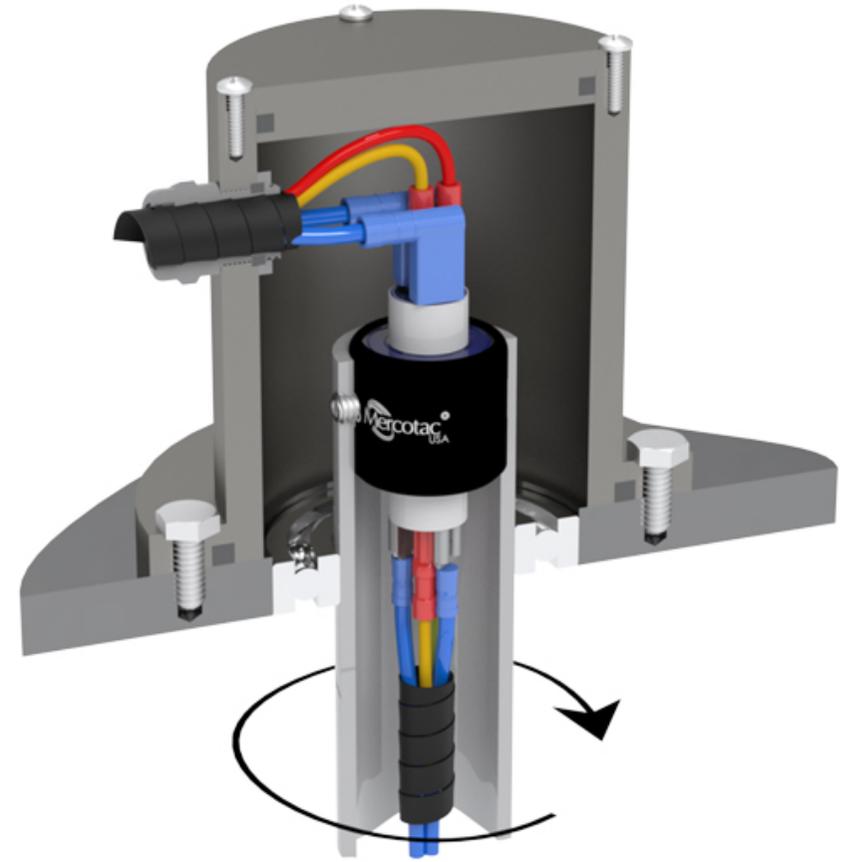
**Floating Torque Arm Mount to Body**



**Protective Housing Mount to Body**

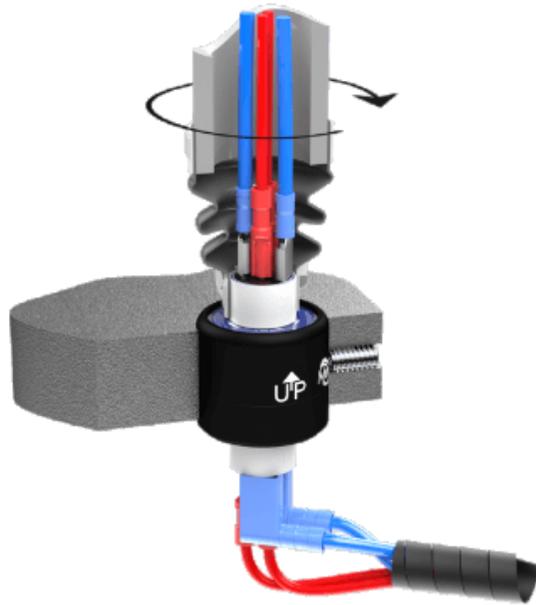


**Vibration Isolation Mount to Body**

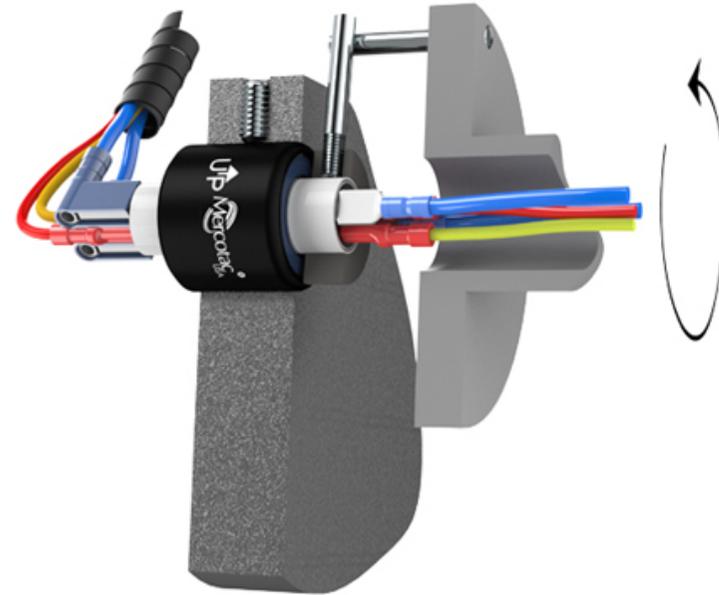


Recommended for wash-down or dirty environments.  
Also recommended for food processing applications.

**Vibration Isolating Mount to Body**



With flexible bellows.



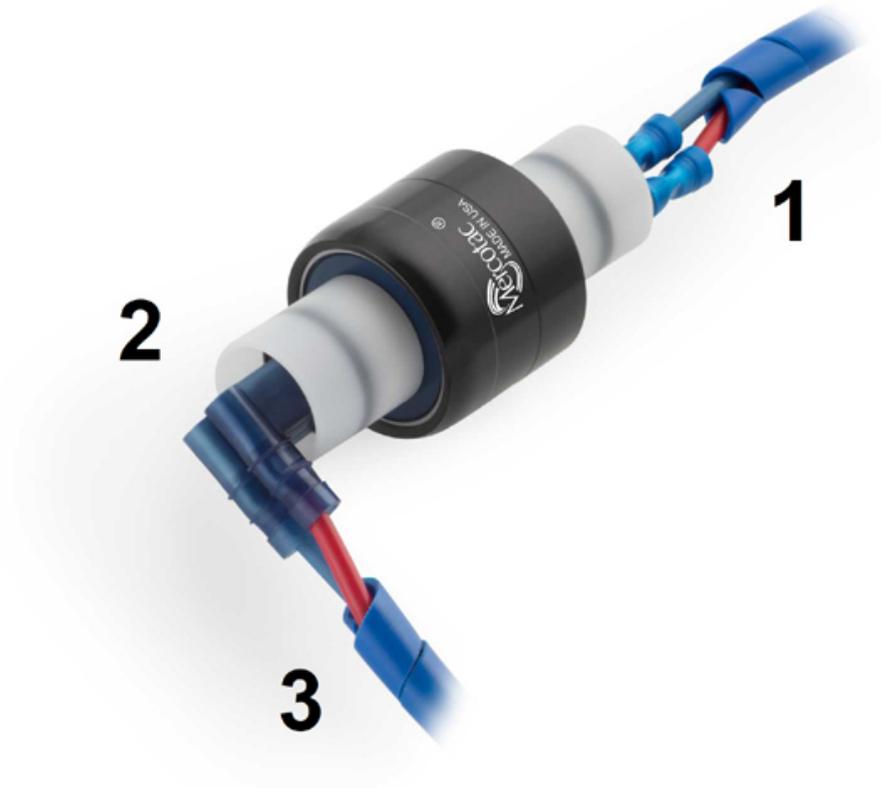
With floating drive coupling.

#### Installation Notes:

- The up arrow should not point below horizontal.
- Do not solder to or bend terminals.
- Avoid lateral forces and mechanical loads (overly stiff or tight wires).
- Do not rigid mount both ends of the Mercotac.
- Limit the mounting eccentricity (runout / wobble) to .005" (.13mm).
- Provide overload protection within the circuit.
- Avoid vibration and bumping motions.

#### Connections

##### Model 235 Standard Wire Connections



1. Wire connections, mounted inside rotating shaft.
2. Stationary end showing standard wire connections.
3. Wires crimp to terminals.  
(Suggested tool: Thomas & Betts #WT 112M)

### Model 235 Wire Connections with Optional Boot Kit



Cutaway view.

Wire connections, mounted inside rotating shaft.

Stationary end showing optional boot kit.

Wire connections, mounted inside rotating shaft.

Stationary end showing optional boot kit.

## Applications

The Mercotac model 235 brushless slip rings are a type of electrical connection that can be used to transmit electrical power and signals between rotating and stationary parts. They are made of a durable metal alloy and are designed to withstand high temperatures and vibration. The Mercotac model 235 slip rings are specifically designed for 30A applications, making them well-suited for a variety of purposes, including:

- Radar systems: Transmit electrical power and signals between the rotating radar dish and the stationary control unit.
- Heavy-duty motors: Transmit electrical power to the motor.
- Food packaging machinery: Transmit electrical power and signals between the rotating components of the machinery and the stationary control unit.
- Lifts: Transmit electrical power to the motor.



- Drone aviation: Transmit electrical power and signals between the rotating components of the drone and the stationary control unit.
- Textile bonding equipment: Transmit electrical power and signals between the rotating components of the equipment and the stationary control unit.

The Mercotac model 235 brushless slip rings are a versatile and reliable product that can be used in a variety of applications. They are made of high-quality materials and are designed to withstand demanding conditions. The Mercotac model 235 slip rings are a valuable asset for any industry that requires reliable electrical connections.

Check out our [Applications](#) page for more examples of how Mercotac products are utilized.

## Learning Center

Guidance for using Mercotac® Brushless Slip Rings in engineering designs.



**Learn about our Mercotac® Construction & Materials:** Body Materials, Bearing Types, Conductors/Terminals, Thread Sizes,



**Learn about Mercotac® Electrical Characteristics:** Voltage Rating, Current Rating, Contact Resistance, Circuit Separation, Operating Temperature,



**Learn about Mercotac® Rotational Characteristics:** Rotational Speed, Rotational Torque.  
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Mounting Options.

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Frequency.

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