Model 230 Brushless Slip Ring

Conductors: Two Conductor
Amps: 30
Volts: 250

The Mercotac® Model 230 brushless slip rings are used in airfield lighted windsocks to allow rotation to indicate wind direction while maintaining electrical connectivity to the lighting system to increase visibility in low light conditions. They are also used in any application that requires up to two 30 Amp channels, such as in laminating machines.

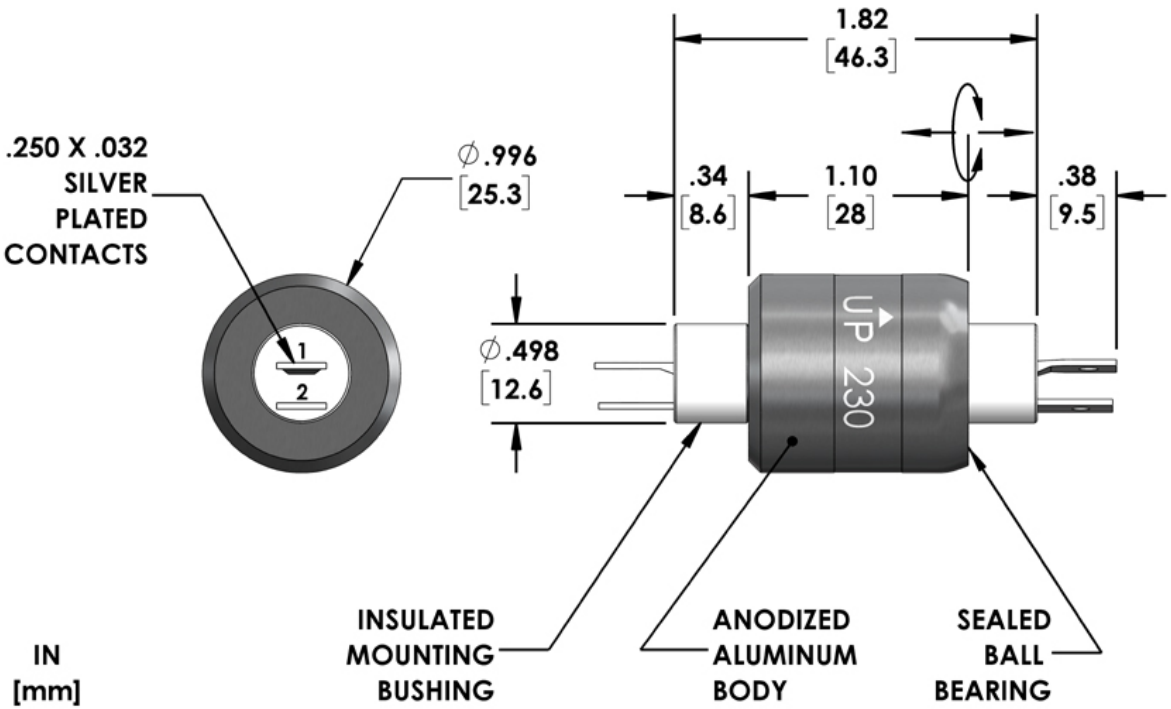
Advantages:

- 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 CAD DOWNLOAD

Model 230 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 (230-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)
230	2	Anodized Aluminum	Chrome Steel	200	250	30	1800	**Min** -20 (-29) **Max** 140 (60)	200	<1	>25
230-SS			Stainless Steel								

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

Accessories

Description: Boot Kit Parts
Item #: 57230

- Vinyl Boot Kit for dust and splash protection
- IP51 protection rating

Description: Boot Kit Assembled
Item #: 57230

- 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

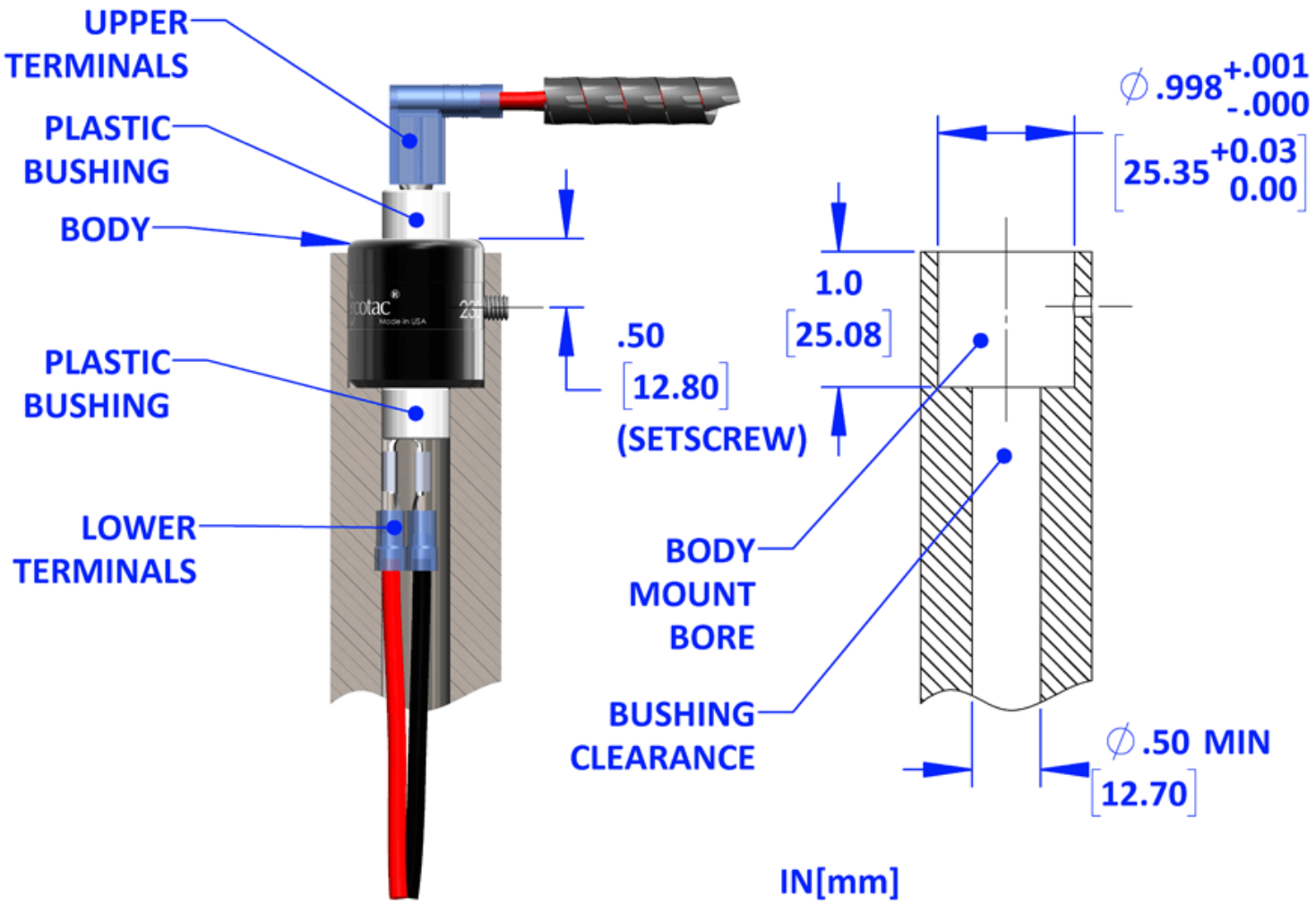
Description: Other Disconnects

- 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

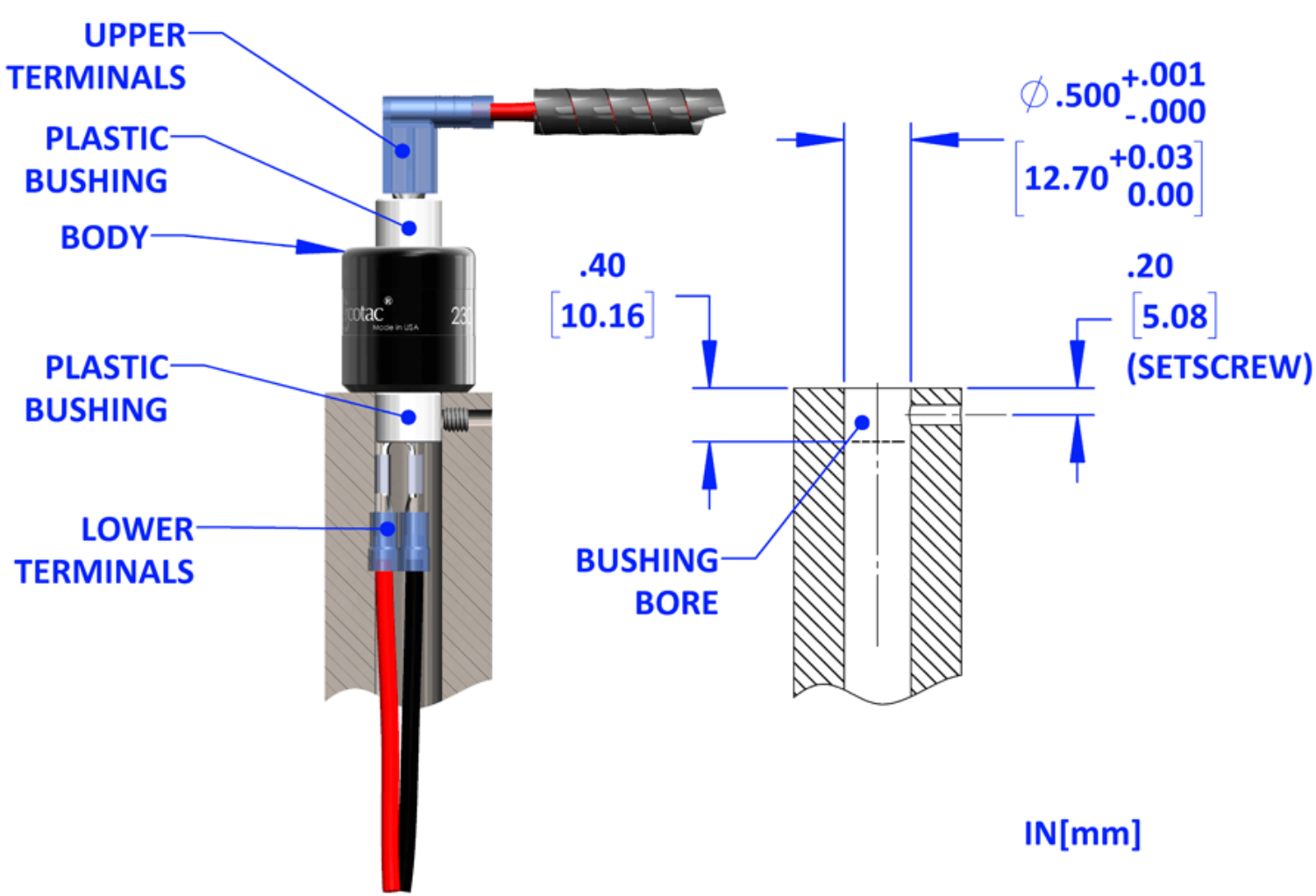
Mounting

Model 230 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

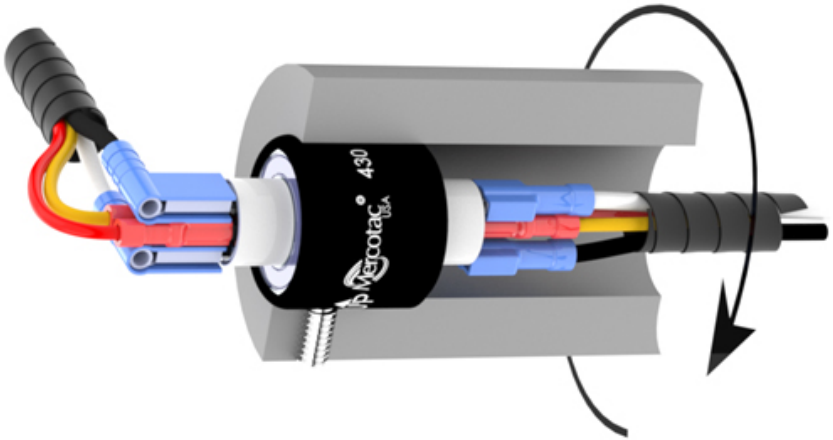


Bushing Mount

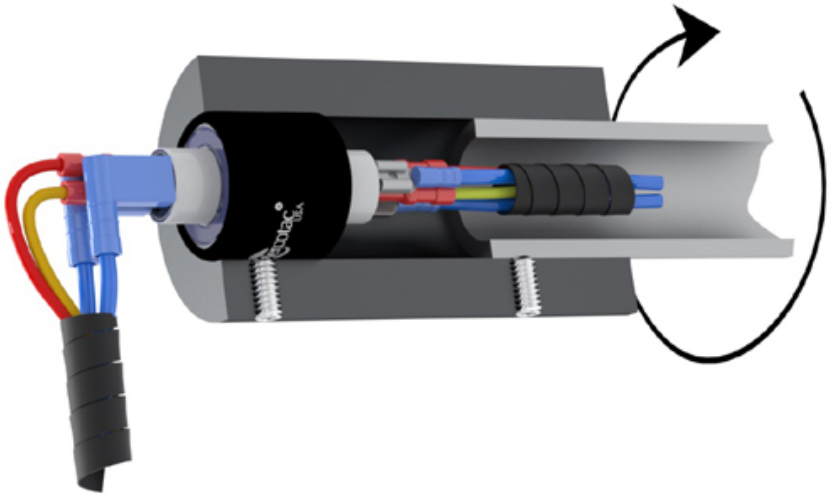


Horizonal Mount to Body

Adaptor Mount to Body

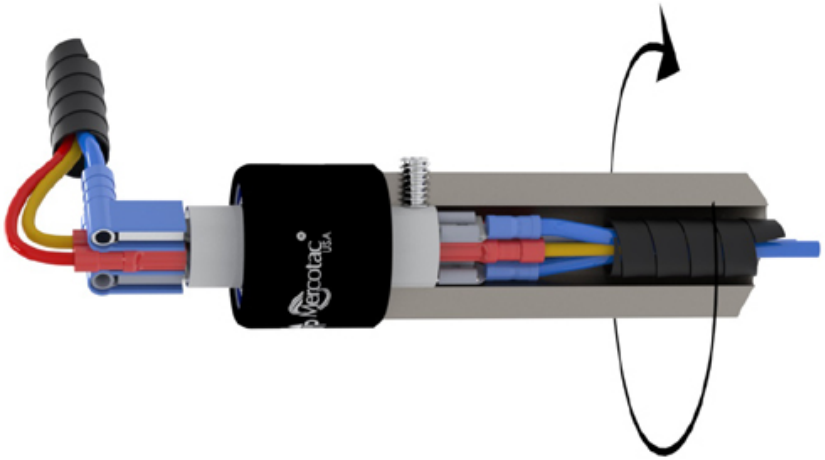


Good mounting method.
(but vertical orientation is better)



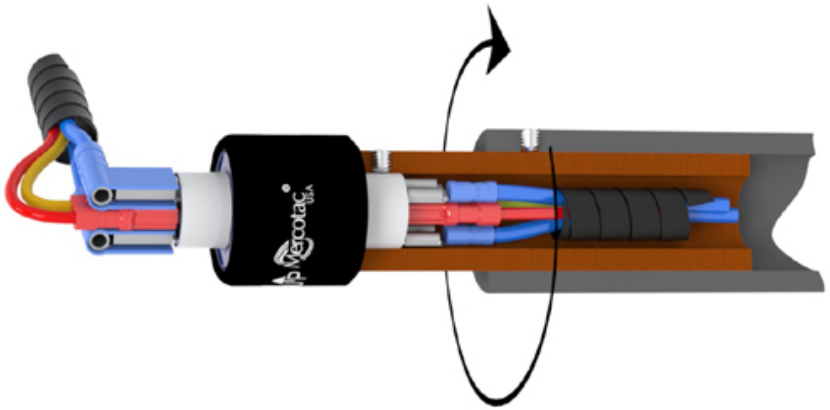
Use when the shaft diameter is smaller
than the body of the Mercotac.

Horizonal Mount to Bushing



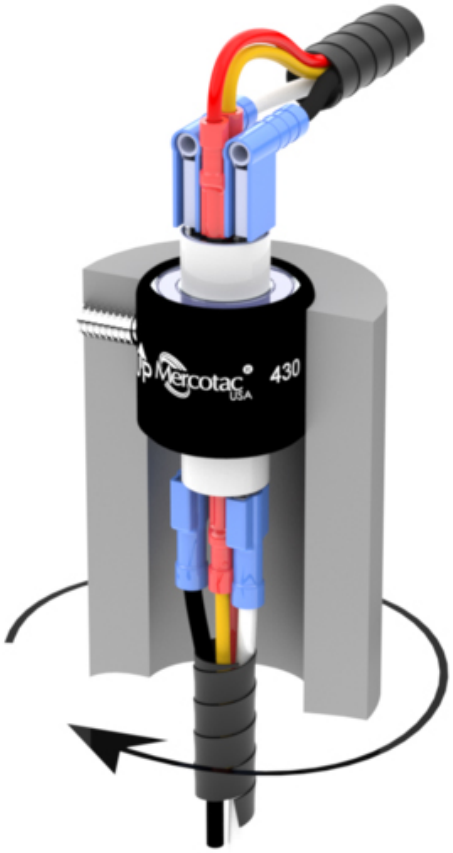
Used if the shaft cannot be fitted to the
body diameter.

Thermal Insulated Mount to Bushing



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

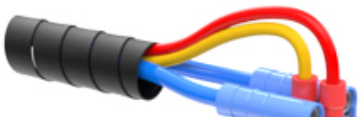
Top Mount to Body



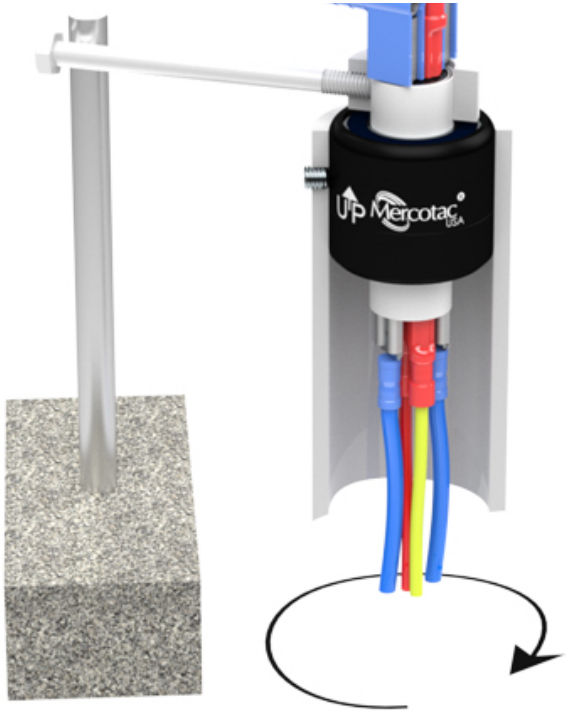
Best mounting method.

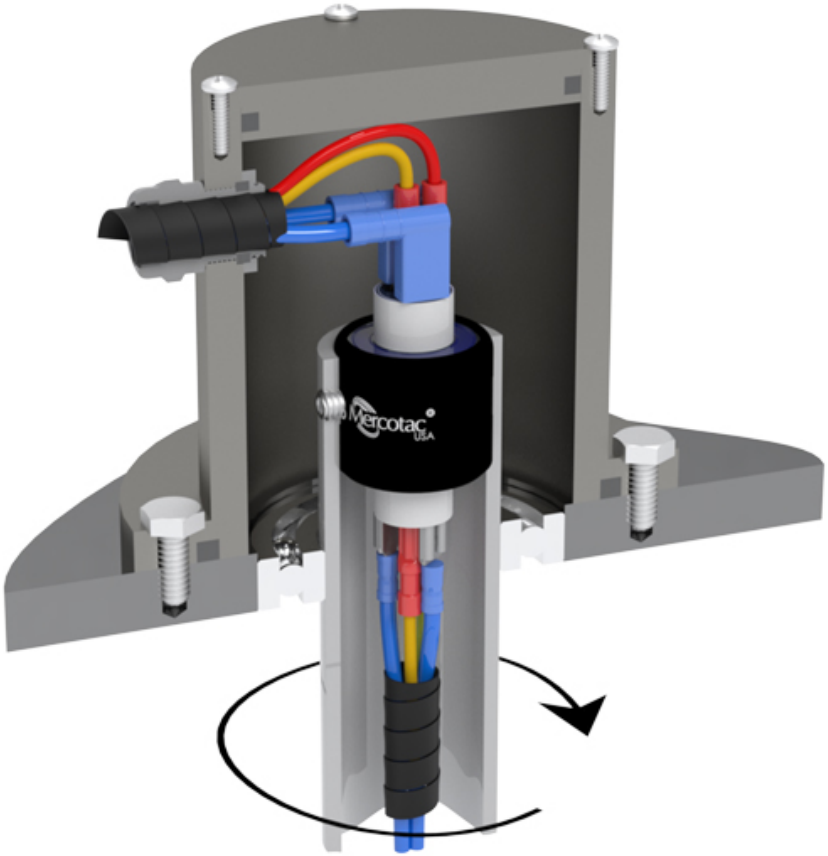
Bottom Mount to Bushing

Floating Torque Arm Mount to Body



Protective Housing Mount to Body

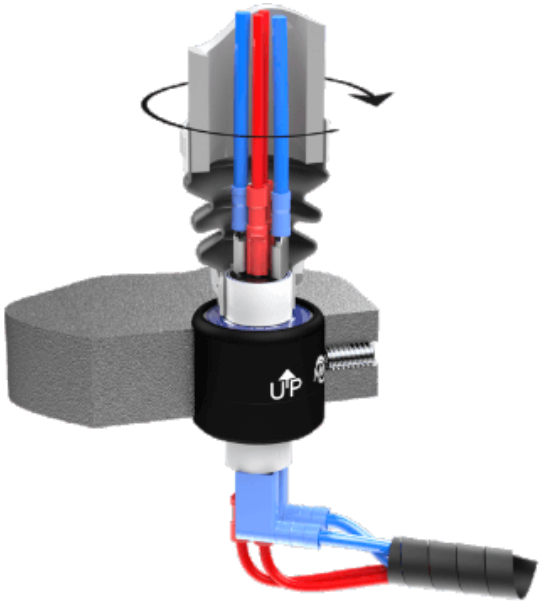




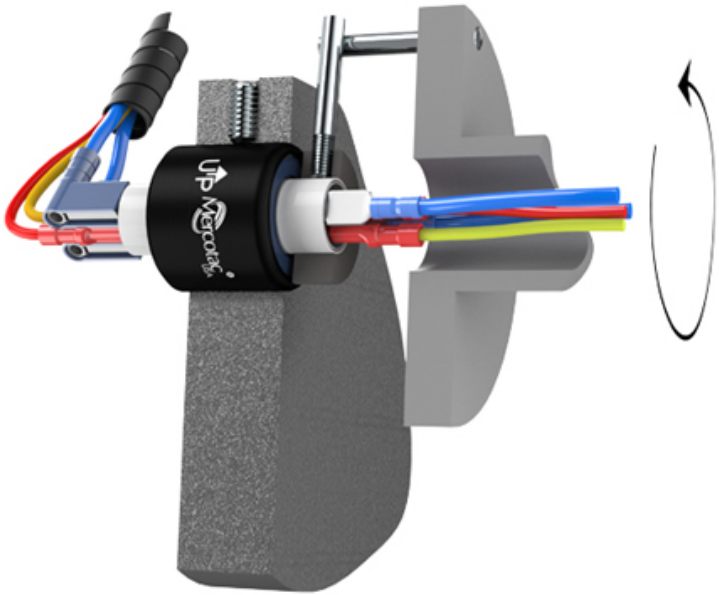
Recommended for wash-down or dirty environments.
Also recommended for food processing applications.

Vibration Isolation Mount to Body

Vibration Isolating Mount to Body



With flexible bellows.



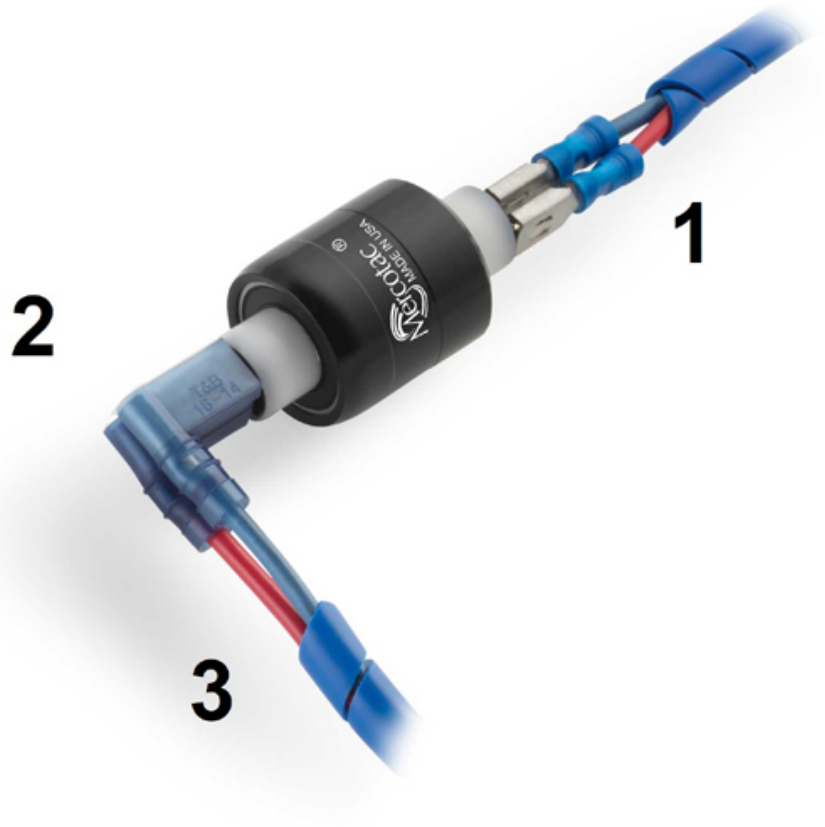
With floating drive coupling.

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 230 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 230 Wire Connections with Optional Boot Kit

Wire connections, mounted inside rotating shaft.

Stationary end showing optional boot kit.

Cutaway view.

Wire connections, mounted inside rotating shaft.

Stationary end showing optional boot kit.

Applications

The Mercotac model 230 brushless slip rings make a rotating 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 230 slip rings are specifically designed for up to 30A applications, making them well-suited for a variety of purposes, including:

- Airfield lighted windsocks: These brushless slip rings allow the windsock to rotate freely while maintaining electrical connectivity to the lighting system.
- Medical devices: Electrical power and signals are passed through a brushless slip ring that is mounted between rotating and stationary parts in devices such as MRI machines.

- Fans: Brushless slip rings transmit electrical power to the rotating fan blades, powering lights or other electronics.
- Packaging machinery: In order for packaging machines to operate quickly and efficiently, these brushless slip rings transmit electrical power and signals between rotating and stationary parts.
- Electric heating systems: Brushless slip rings transmit electrical power to the rotating heating elements, ensuring that the heating system can operate safely and efficiently.

The Mercotac model 230 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 230 slip rings benefit 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

Learn about Mercotac® Electrical Characteristics: Voltage Rating, Current

Learn about Mercotac® Rotational Characteristics: Rotational Speed,

Materials, Bearing Types, Conductors/Terminals, Thread Sizes, Mounting Options.
Learn More

Rating, Contact Resistance, Circuit Separation, Operating Temperature, Frequency.
Learn More

Rotational Torque.
Learn More

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