



Model 435 Brushless Slip Ring

Conductors: Four Conductor

Amps: 4@30

Volts: 500

The Mercotac® model 435 brushless slip rings are frequently used in machinery to allow continuous electrical connectivity between the stationary elements like the control panel and the rotating part of the machine. They are made of high-quality materials and are designed to withstand demanding environments.

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

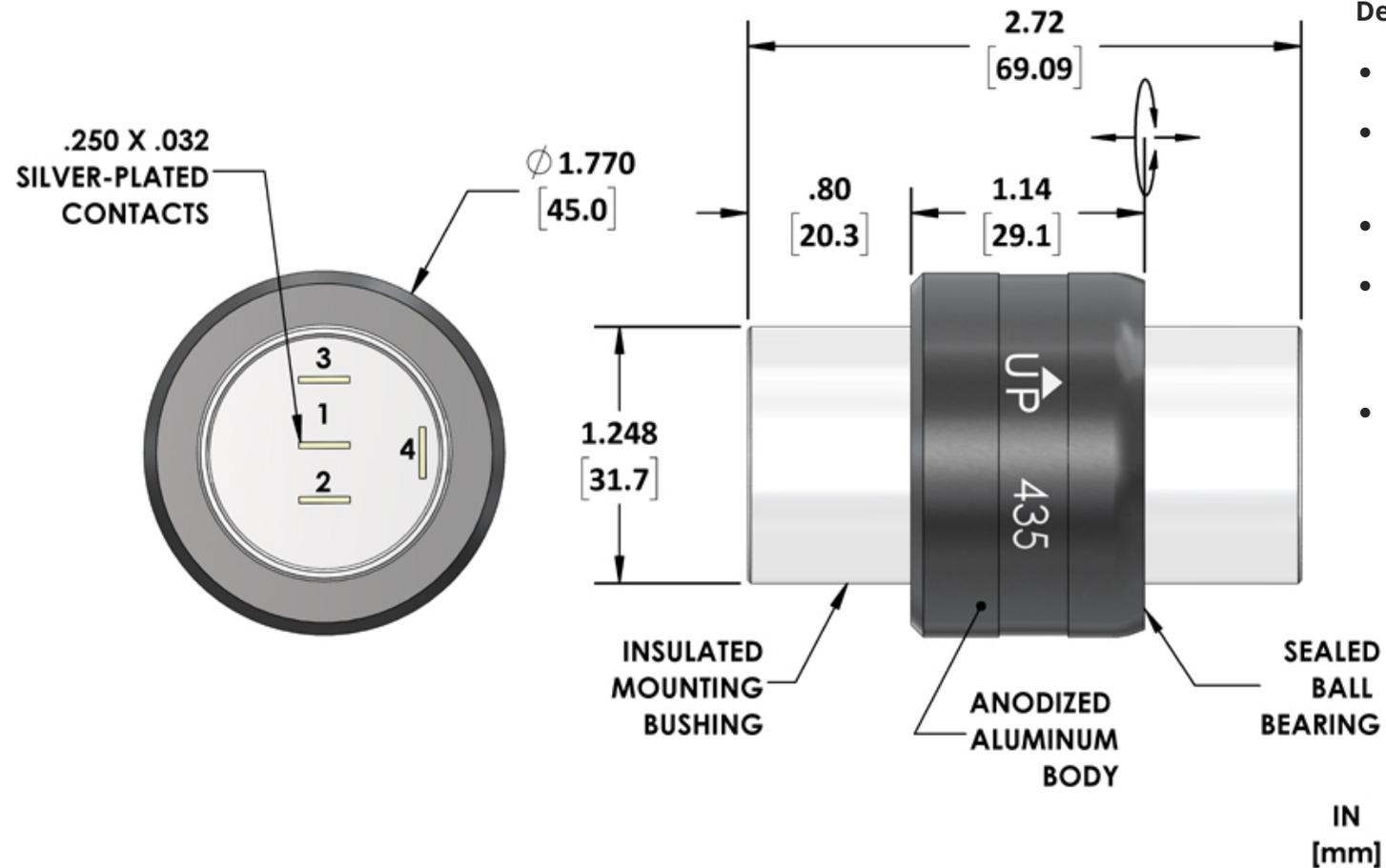
Long-lasting, energy efficient, and no maintenance

Made in the USA



Model 435 Product Specifications

Dimensions



Details:

- Disconnects are included
- 55250 Large Straight Disconnect (Qty. 4)
- 55251 Large Flag Disconnect (Qty. 4)
- Available with stainless steel ball bearing (435-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)
435	4	Anodized Aluminum	Chrome Steel	850	500	30	300	Min -20 (-29) Max 140 (60)	100	<1	>50
435-SS			Stainless Steel								

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

Accessories

Description: Boot Kit Parts
Item #: 57435

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



Description: Boot Kit Shown Assembled
Item #: 57435

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



Description: Large Flag Disconnect, Insulated
Item #: 55251

- 16 AWG - 14 AWG
- Qty. 4 included
- Maximum recommended Amps: 15



Description: Large Straight Disconnect, Insulated
Item #: 55250

- 16 AWG - 14 AWG
- Qty. 4 included
- Maximum recommended Amps: 15



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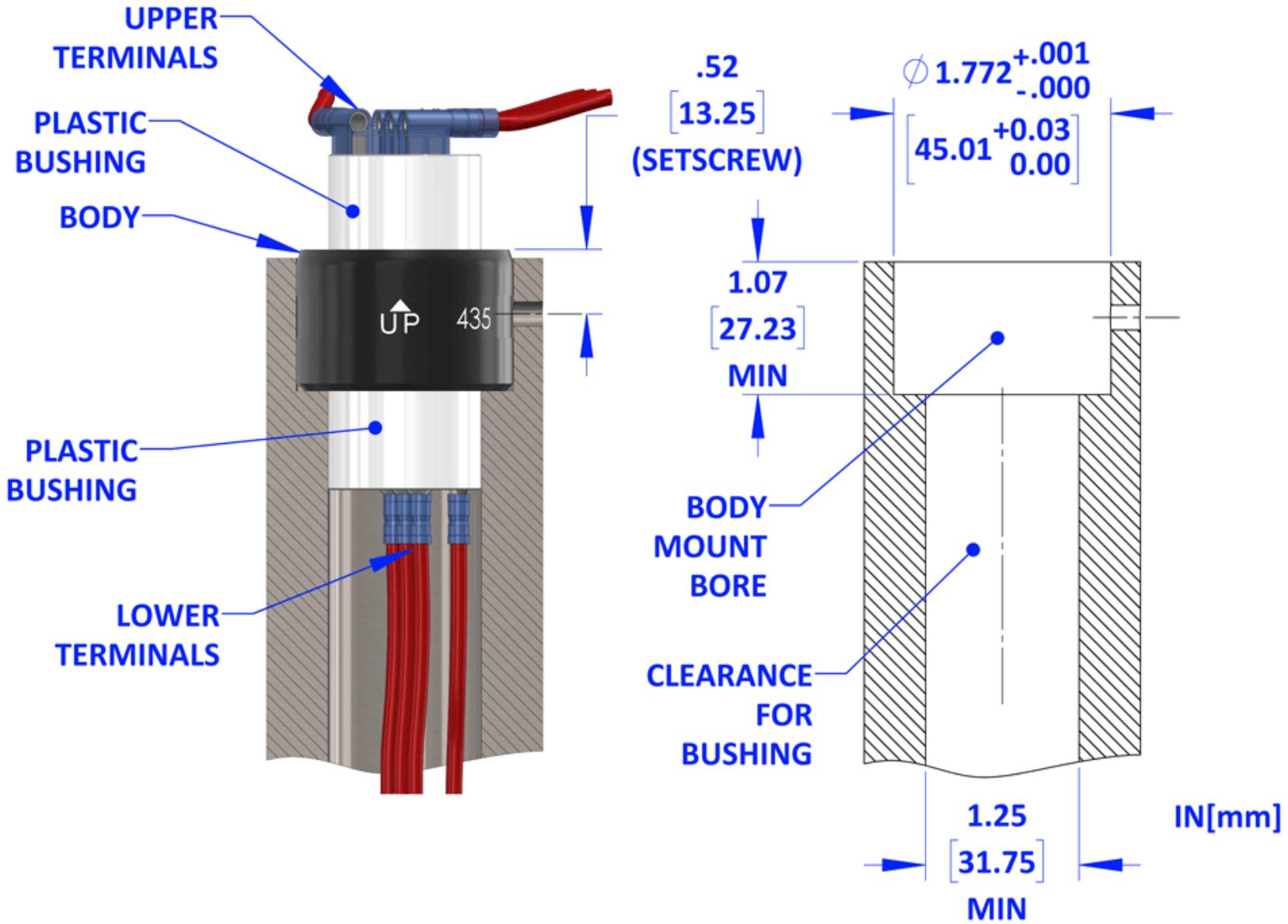
Description: Other Disconnects

- 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

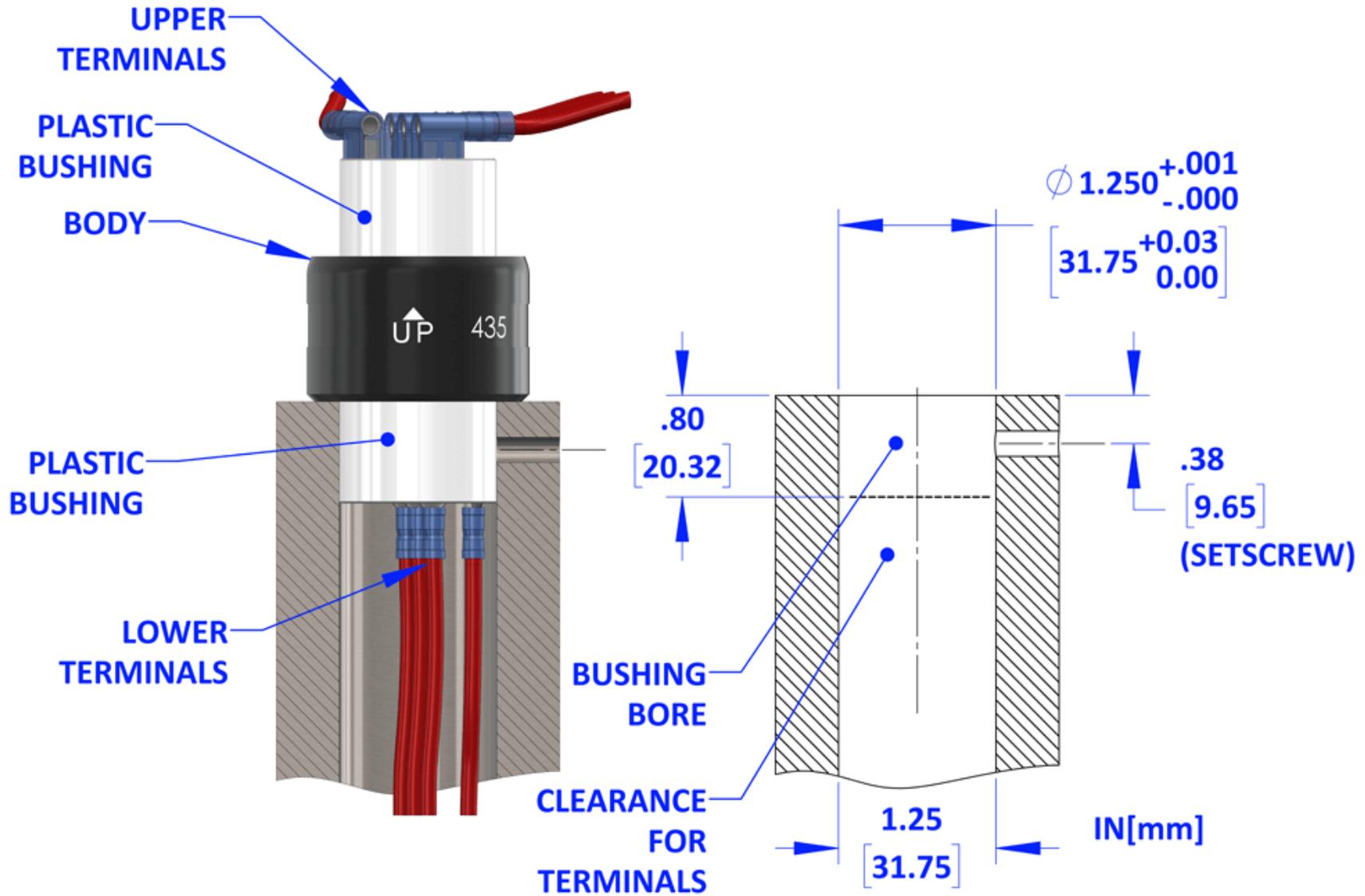
Model 435 is typically mounted by either the black body or the white plastic bushing on either end using a set screw or split clamp. When used horizontally, mount the Mercotac so the body of the connector rotates

Body Mount

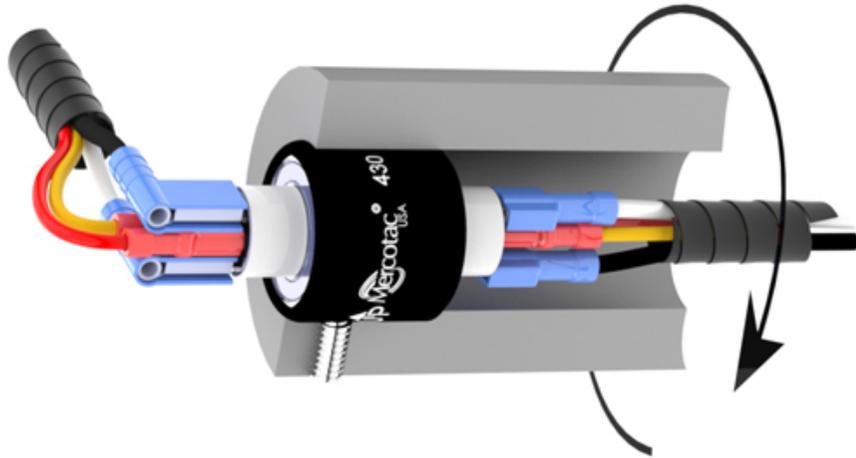


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Bushing Mount

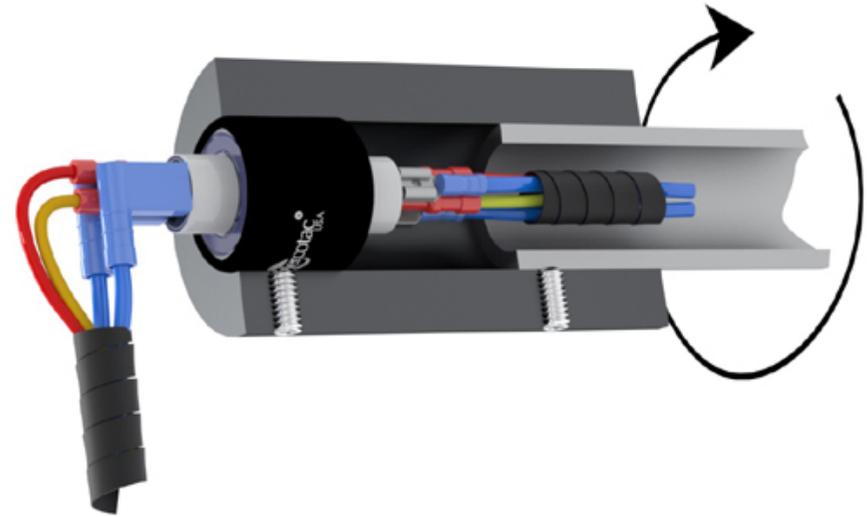


Horizontal Mount to Body



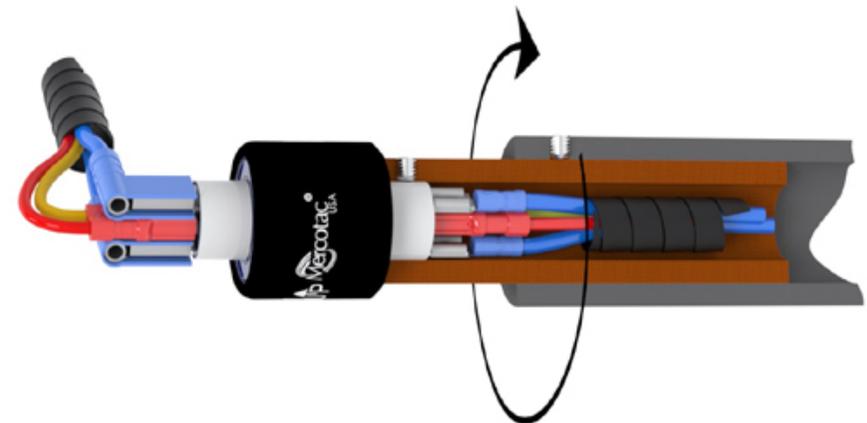
Good mounting method
(but vertical orientation is better)

Adaptor Mount to Body

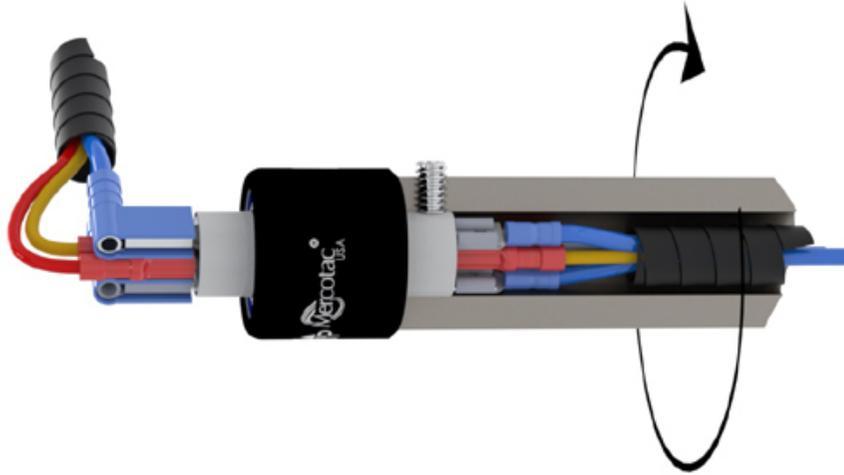


Use when the shaft diameter is smaller
than the body of the Mercotac.

Horizontal Mount to Bushing



Thermal Insulated Mount to Bushing

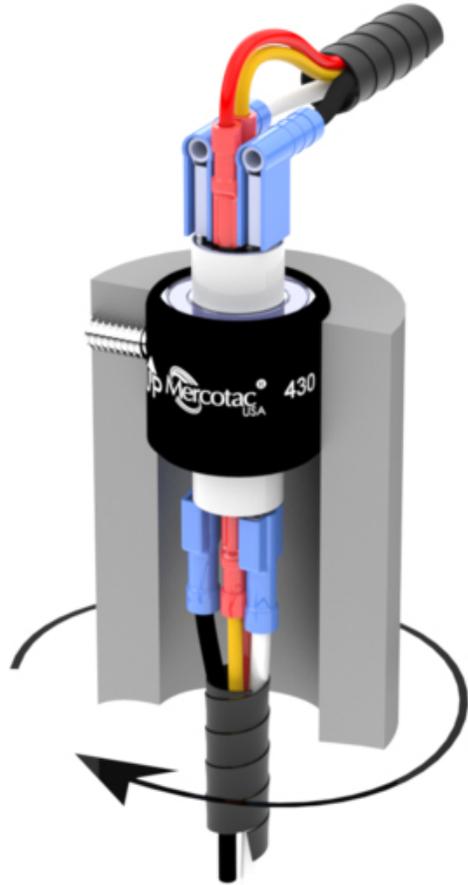


Used if the shaft cannot be fitted to the body diameter.

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



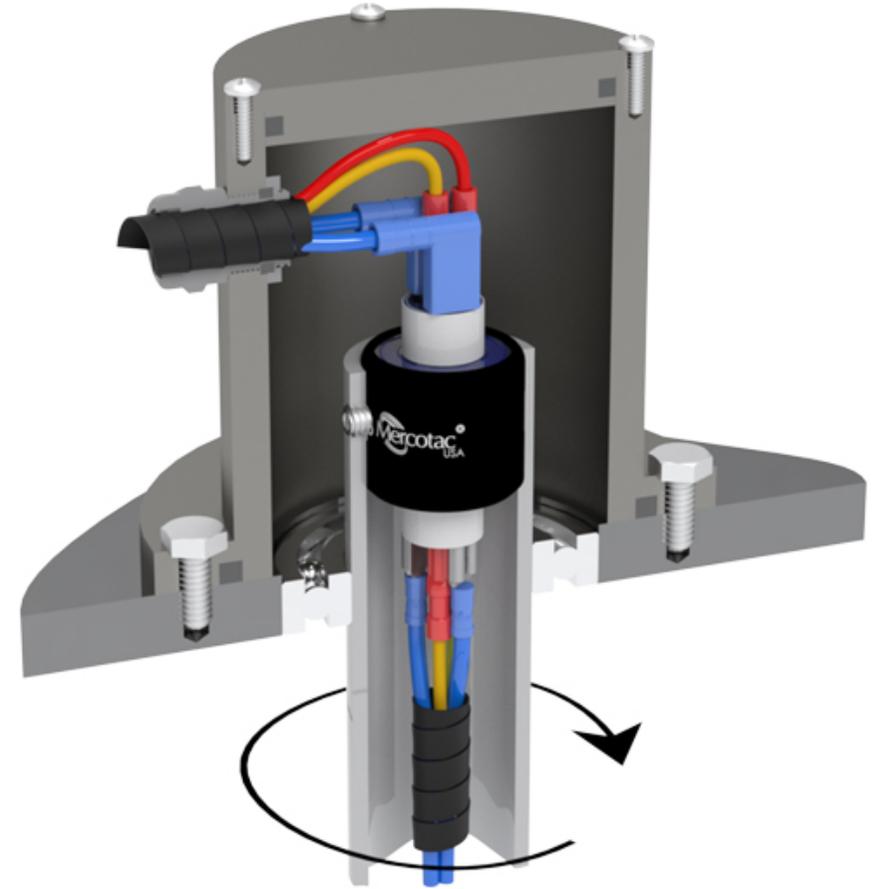
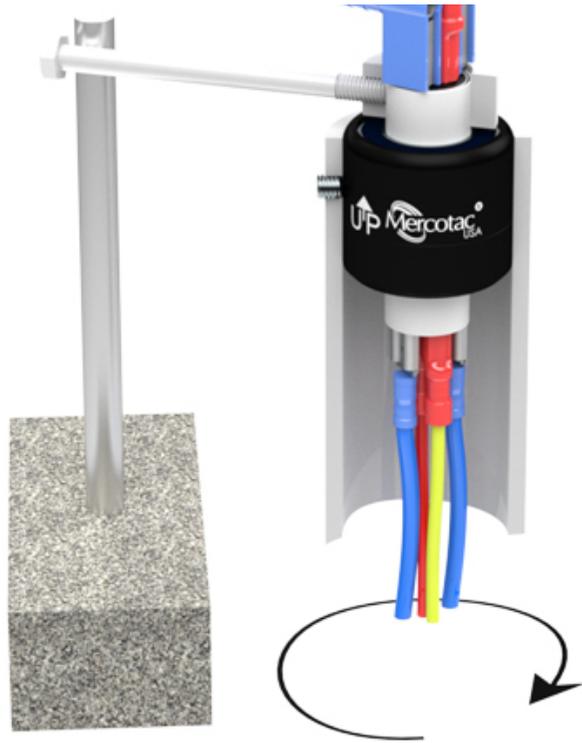
Best mounting method.



Floating Torque Arm Mount to Body



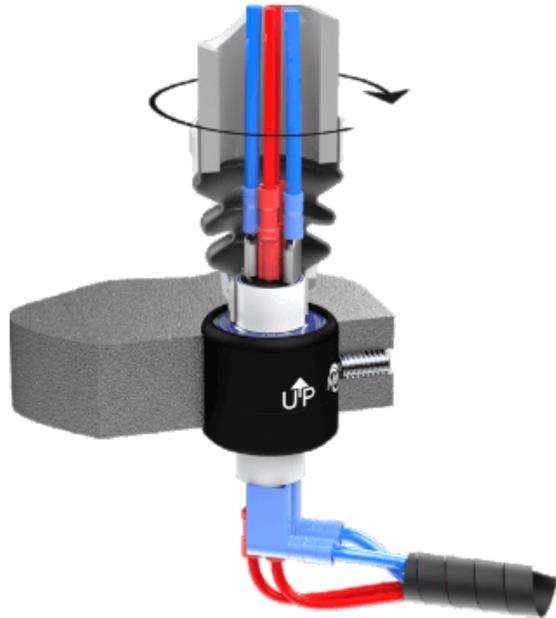
Protective Housing Mount to Body



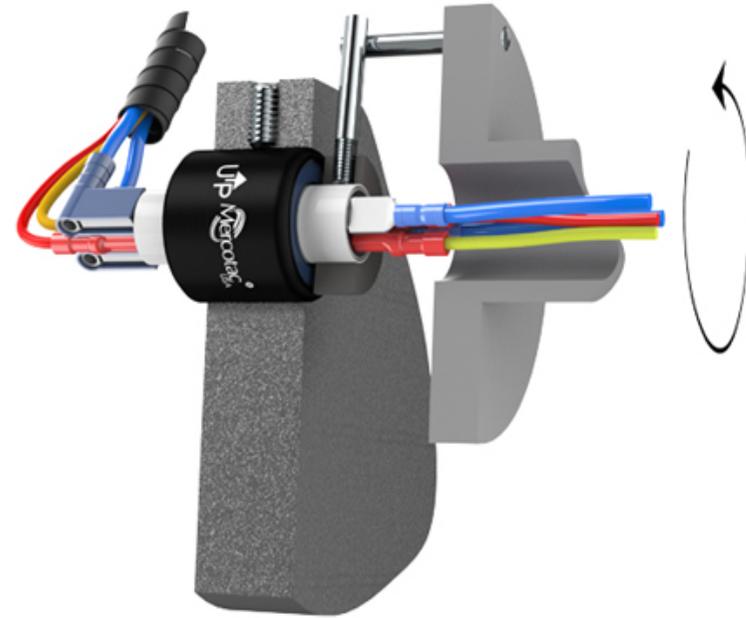
Recommended for wash-down or dirty environments.
Also recommended for food processing applications.

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 435 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 435 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 435 brushless slip rings are 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 435 slip rings are specifically designed to be used in up to 30 Amp and



500 Volt applications, making them well-suited for a variety of purposes, including:

- Filling machines: The Mercotac model 435 slip rings are frequently used in filling machines to allow continuous electrical connectivity between the stationary elements like the control panel and the rotating part of the machine. This ensures that the filling machine can operate safely and reliably, even in demanding environments.
- Robotic pipe manufacturing: The Mercotac model 435 slip rings are often used in robotic pipe manufacturing to transmit electrical power and signals between the rotating robot arm and the stationary control unit. This ensures that the robotic pipe manufacturing can operate efficiently and reliably, even in demanding environments.
- Food packaging: The Mercotac model 435 slip rings are often used in food packaging to transmit electrical power and signals between the rotating components of the machinery and the stationary control unit. This ensures that the food packaging can operate safely and reliably, even in demanding environments.
- Engraving machinery: The Mercotac model 435 slip rings are often used in engraving machinery to transmit electrical power and signals between the rotating components of the machinery and the stationary control unit. This ensures that the engraving machinery can operate safely and reliably, even in demanding environments.

The Mercotac model 435 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 435 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, Mounting Options.
[Learn More](#)



Learn about Mercotac® Electrical Characteristics: Voltage Rating, Current Rating, Contact Resistance, Circuit Separation, Operating Temperature, Frequency.
[Learn More](#)



Learn about Mercotac® Rotational Characteristics: Rotational Speed, Rotational Torque.
[Learn More](#)

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