



Model 330 Brushless Slip Ring

Conductors: Three Conductor

Amps: 3@30

Volts: 250

The Mercotac® model 330 brushless slip rings are an excellent solution for a variety of applications. One example is in crane booms, where they enable the continuous transmission of power, control signals, and data between the base and rotating boom. These units can also support components like lights, sensors, and cameras, as well as extension, retraction, and rotation functions.

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

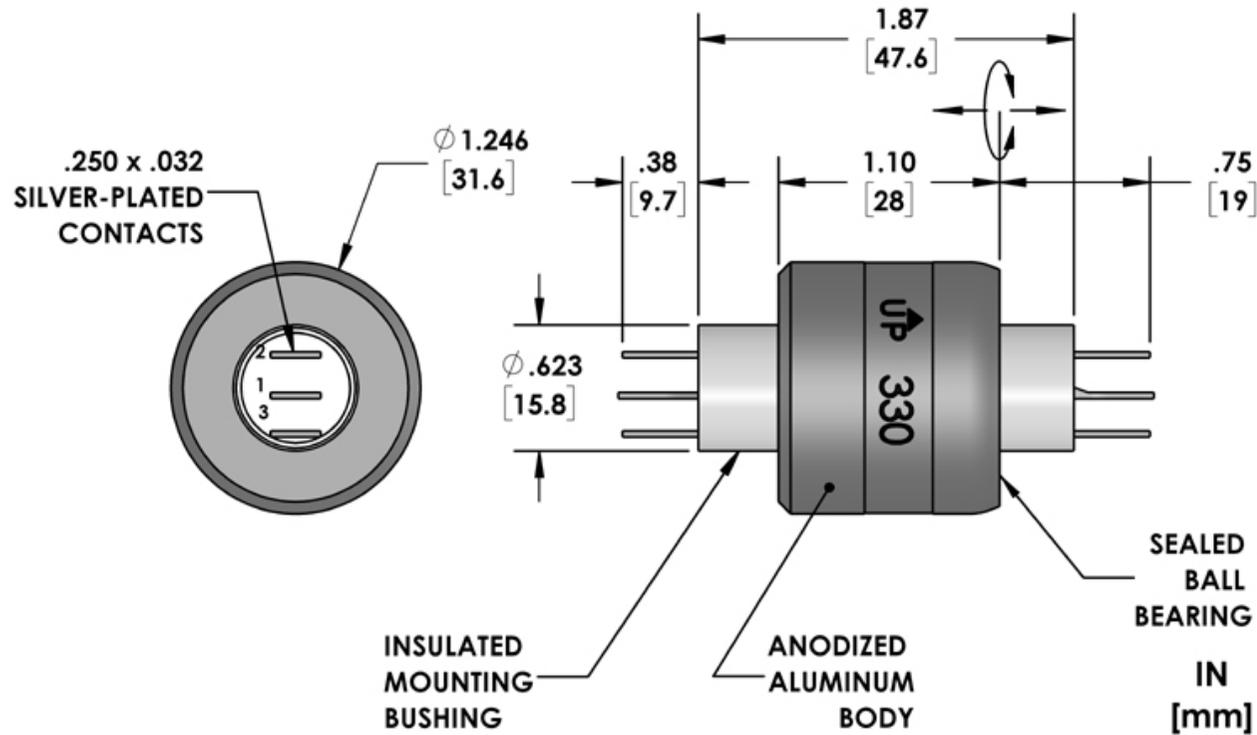


 [SPEC SHEET](#)

 [CAD DOWNLOAD](#)

Model 330 Product Specifications

Dimensions



Details:

- Disconnects are included
- 55251 Large Flag Disconnect (Qty. 3)
- 55252 Large Straight Disconnect (Qty. 3)
- 55253 Shrink Tube (Qty. 3)
- Available with stainless steel ball bearing (330-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)
330	3	Anodized Aluminum	Chrome Steel	300	250	30	1200	Min -20 (-29) Max 140 (60)	100	<1	>25
330-SS			Stainless Steel								

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

Accessories

Description: Boot Kit Parts
Item #: 57430

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



Description: Boot Kit Shown Assembled
Item #: 57430

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



Description: Large Flag Disconnect, Insulated
Item #: 55251

- 16 AWG - 14 AWG
- Qty. 3 included
- Maximum recommended Amps: 15



Description: Large Straight Disconnect, Non-Insulated
Item #: 55252

- 16 AWG - 14 AWG
- Qty. 3 included
- Maximum recommended Amps: 15



Description: Other Disconnects

Description: Shrink Tube
Item #: 55253



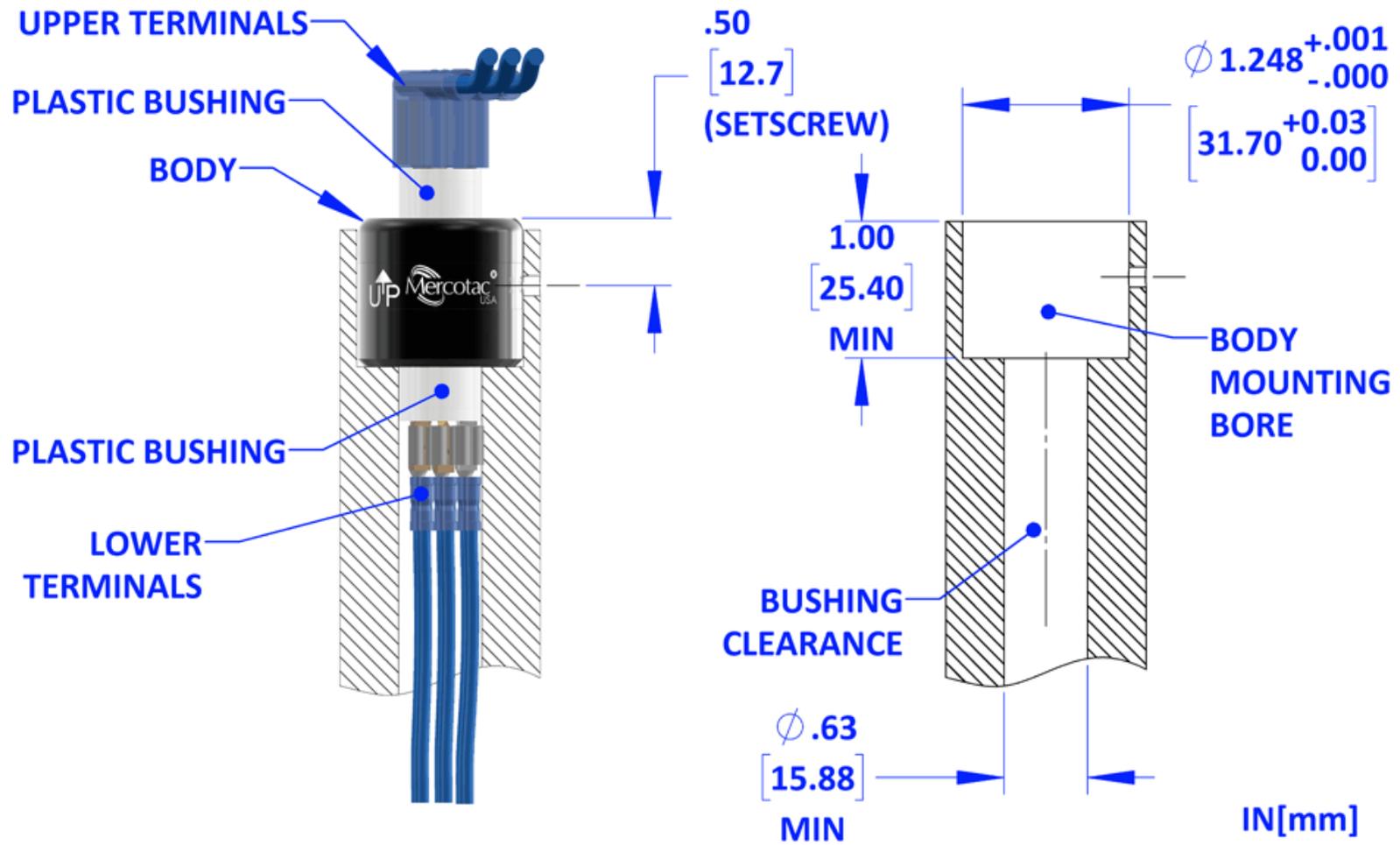
- Qty. 4 included

- 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

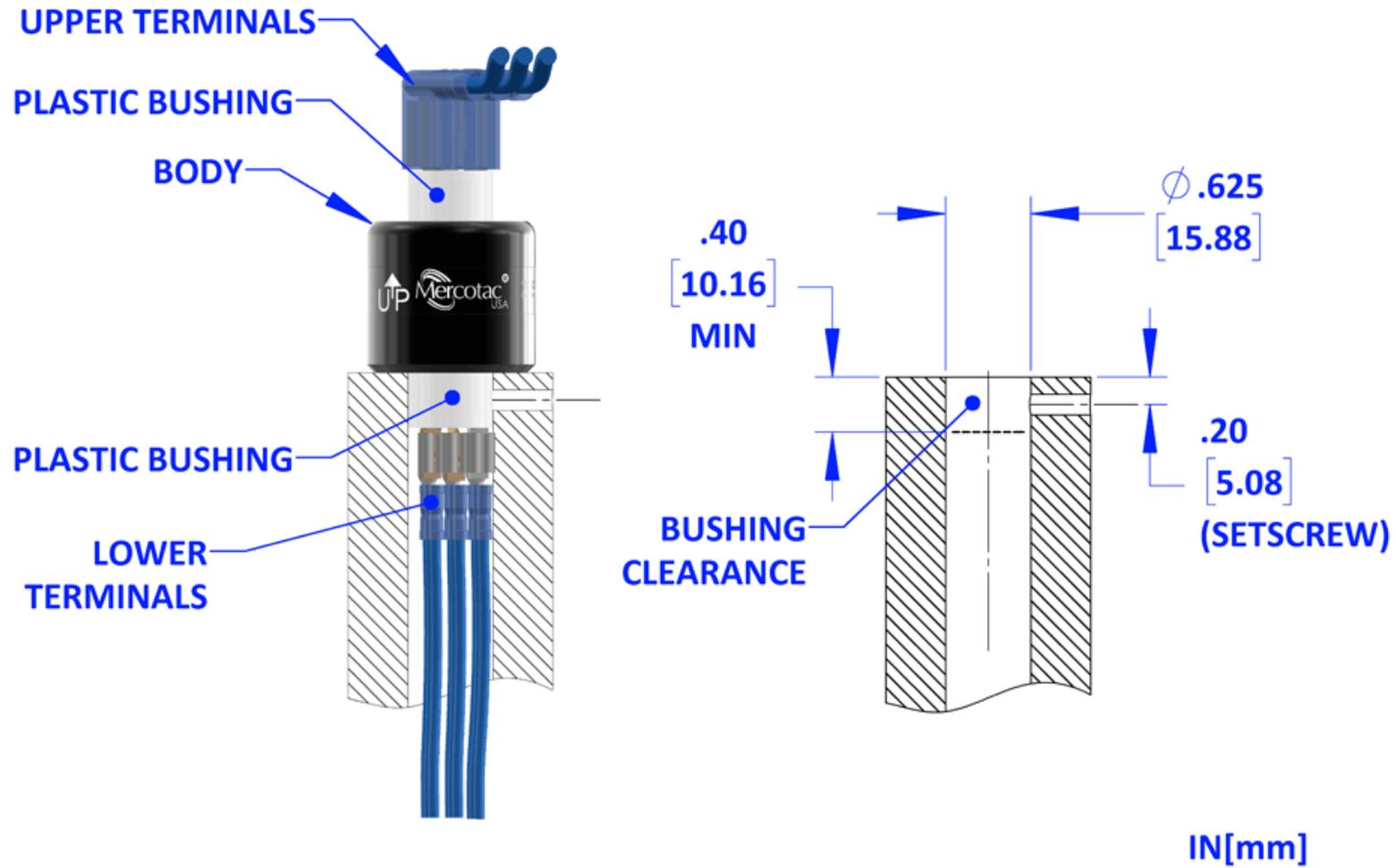
Model 330 is typically mounted by either the black body or the white plastic bushing on either end using a set screw or split clamp. When used horizontally, mount the Mercotac so the body of the connector rotates.

Body Mount



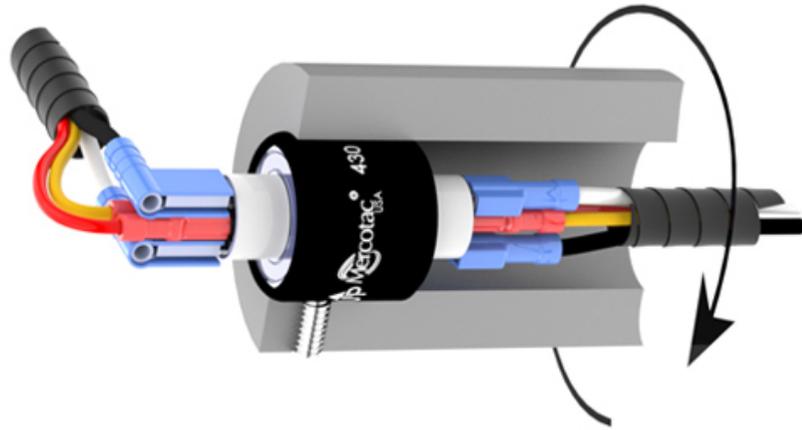
BLACKBOX AI

Bushing Mount



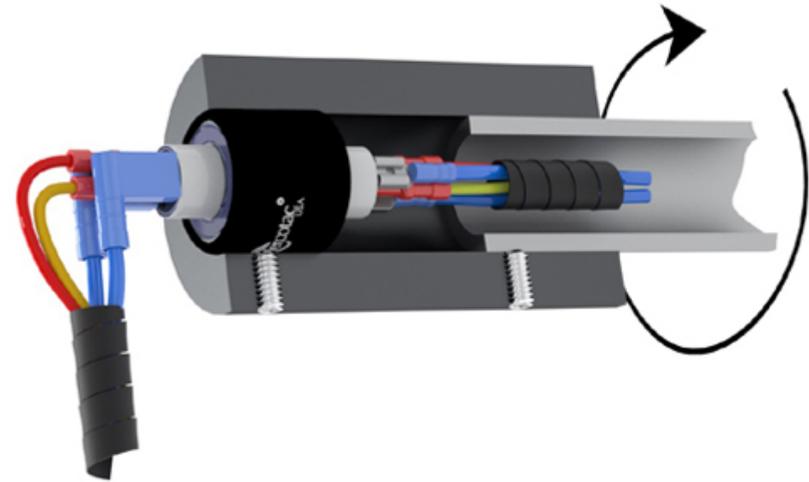
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Horizontal Mount to Body



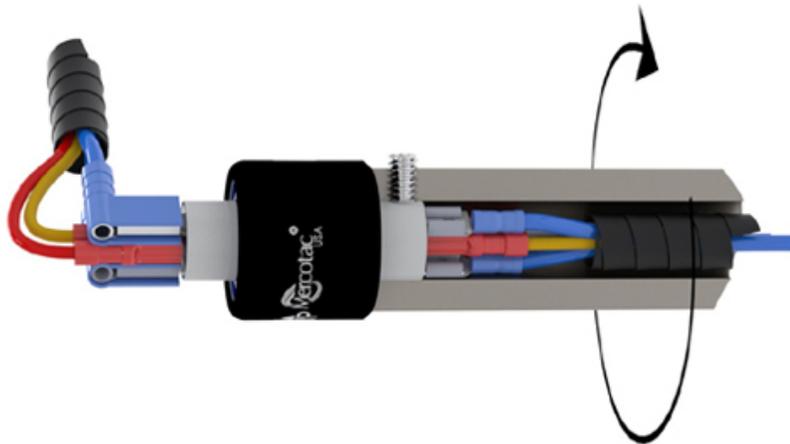
Good mounting method
(but vertical orientation is better)

Adaptor Mount to Body

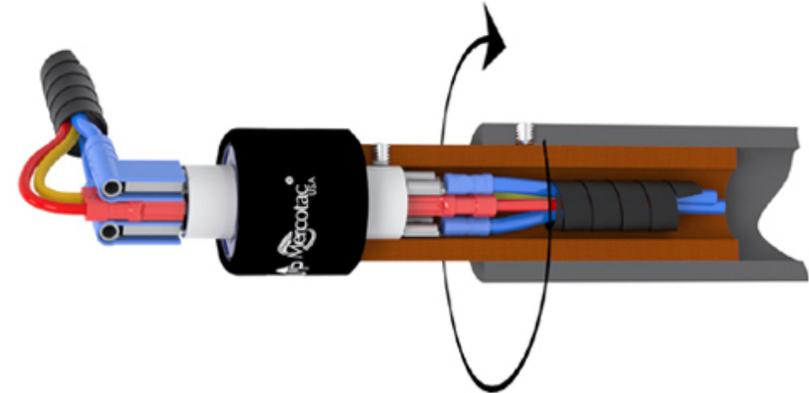


Use when the shaft diameter is smaller
than the body of the Mercotac.

Horizontal Mount to Bushing



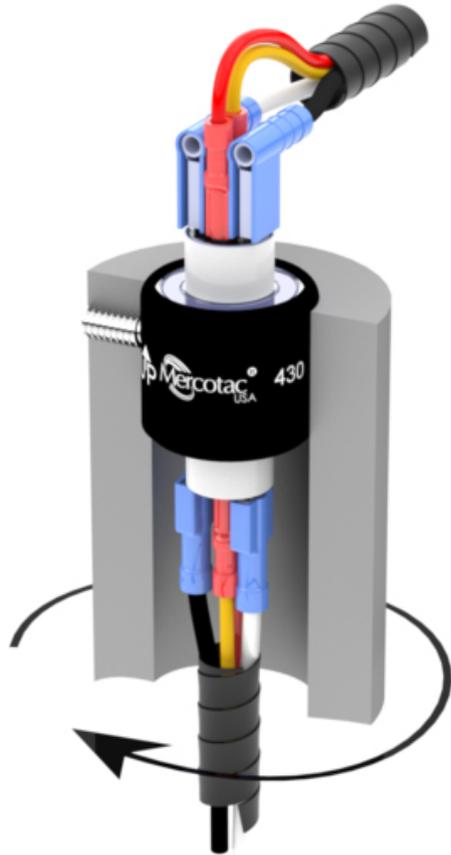
Thermal Insulated Mount to Bushing



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



Best mounting method.

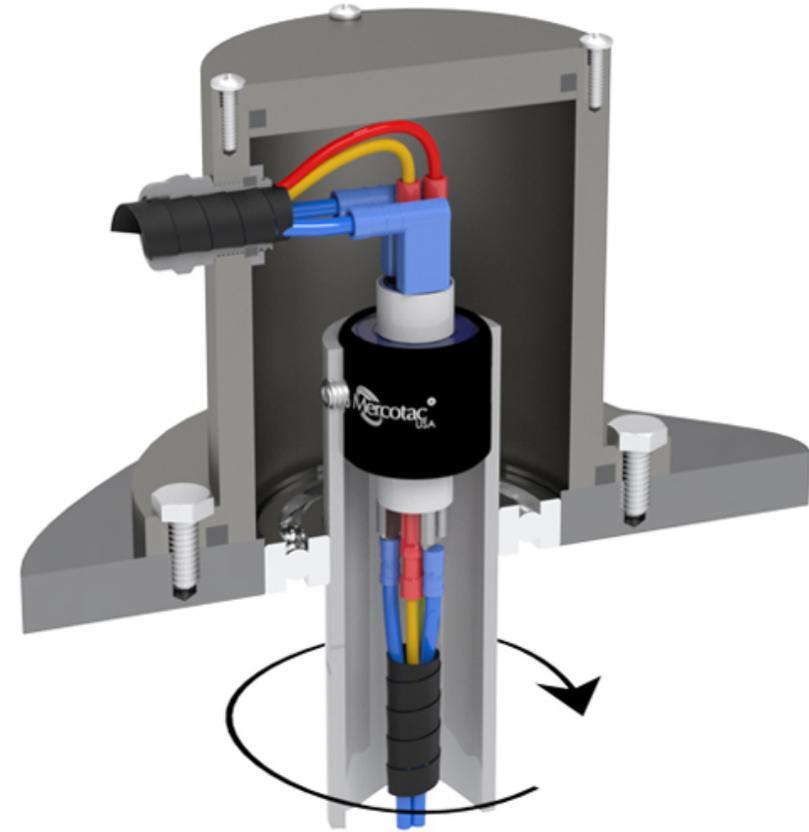
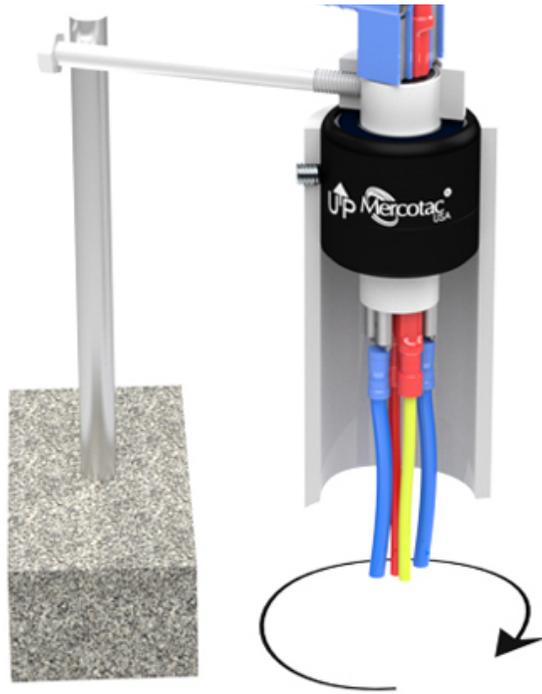
Bottom Mount to Bushing



Floating Torque Arm Mount to Body



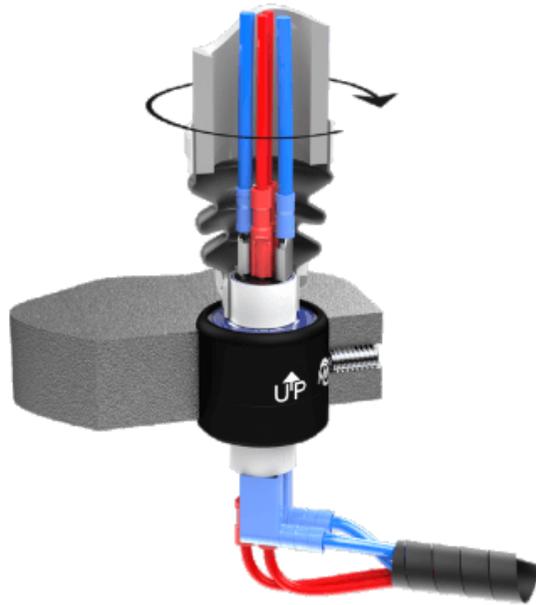
Protective Housing Mount to Body



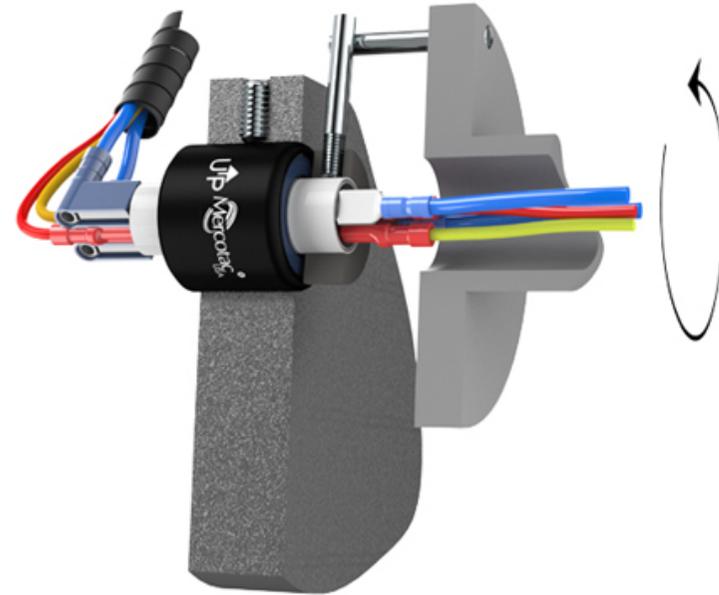
Recommended for wash-down or dirty environments.
Also recommended for food processing .

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 330 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 330 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 330 brushless slip rings are versatile components that find applications beyond crane booms. They are well-suited for agriculture equipment, welding reels, and motors providing continuous power, control signals, and data transmission between stationary and rotating components.

- In agriculture equipment, the model 330 slip rings ensure reliable performance and precise control, supporting various machinery such as irrigation systems, seeders, harvesters, and sprayers. They contribute to the efficiency and productivity of agricultural operations.
- For welding reels, these slip rings facilitate smooth and efficient welding processes in industries like automotive, construction, and manufacturing. They transmit power, control signals, and



data between the stationary welding equipment and the rotating welding reel.

Overall, the Mercotac model 330 brushless slip rings offer dependable solutions in crane booms, agriculture equipment, and welding reels. Their advanced technology and robust construction enhance power and signal transmission, optimizing performance in these applications.

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. [Learn More](#)

Mounting Options.

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Frequency.

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