



CATALOG



Superior Connections for a World in Motion

Mercotac, Inc.

6195 Corte del Cedro #100 Carlsbad, CA 92011 USA

Telephone: (760) 431-7723 Fax: (760) 431-0905

Email: sales@mercotac.com Support: techsupport@mercotac.com



Our Company

Mercotac was founded in 1978 to manufacture brushless slip rings. Our products are used in a variety of industries, including robotics, wind turbines, packaging machinery, and many other types of industrial machinery. Mercotac is committed to providing high-quality products, competitive pricing, and excellent customer service. We are located in Carlsbad, California, just a few miles from the Pacific Ocean.



Our Products



Mercotac brushless slip rings are superior to conventional slip rings in several ways:

- They have extremely low electrical noise.
- They have less than one milliohm resistance.
- They are durable and compact.
- They do not require maintenance and do not degrade the signal over time.
- They last much longer than conventional slip rings.
- They are more cost-effective than conventional slip rings of comparable capacity.

Warranty

Units are guaranteed for one year from date of purchase against defective materials and workmanship. Replacement will be made except for defects caused by abnormal use or mishandling. All statements and technical information contained herein, or presented by the manufacturer or his representative are rendered in good faith. User must assume responsibility to determine suitability of the product for intended use. The manufacturer shall not be liable for any injury, loss or damage, direct or consequential arising out of the use, or attempt to use the product.

Quality



At Mercotac, we are continuously innovating to provide our customers with the highest quality products. We utilize the latest equipment available and time-tested quality control measures to ensure reliable products. Fortune 500 companies in the USA and thousands of companies around the world purchase Mercotac products for their slip ring needs. To service our customers worldwide, Mercotac supports a network of approved international distributors.

Technical

We take great effort to provide accurate technical product information. Mercotac Inc. reserves the right to change specifications, drawings, depictions, accessories, and any other details listed at any time without notice.

More technical information and details can be found in our product datasheets and on the Mercotac website. The product catalog lists cautions and safety requirements in Table C and Table F.

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Coaxial Models

Table A

Use Table A to find basic specifications by model,
and to find the catalog page for each Coaxial model.

Type	Catalog Page #'s	Model Number*	Conductors**	Max. Rotational Torque (gf-cm)	Voltage Range (VAC / VDC)	Max. Current Rating*** (Amps)	Max. Rotational Speed (RPM)	Operating Temp. Min°F (°C) Max °F (°C)
Coaxial	6,7	104 104-SS 105 105-SS	1	<10	N/A	4	7500	Min 45 (7) Max 140 (60)
	6,7	110 110-SS 110-T 110-TS	1	35	N/A	10	3600	Min -20 (-29) Max 140 (60)
	6,7	110-L 110-TL	1	10	N/A	10	1200	Min -20 (-29) Max 140 (60)
	8	130 130-SS	1	75	N/A	30	2000	Min -20 (-29) Max 140 (60)
	9	205 205-SS	2	75	0-250	4	2000	Min 45 (7) Max 140 (60)
	9	205-H 205-HS	2	35	0-250	4	3600	Min 45 (7) Max 140 (60)
	9	205-L	2	20	0-250	4	1200	Min -20 (-29) Max 140 (60)
	9	205-LS	2	75	0-250	4	1200	Min -20 (-29) Max 140 (60)
	10	305	3	100	0-250	4	1800	Min 45 (7) Max 140 (60)
	10	305-L	3	100	0-250	4	1000	Min -20 (-29) Max 140 (60)

***Model Number:** Check for other specifications on the relevant product pages, such as: low torque models, stainless steel options, and bearing materials.

****Conductors:** The quantity of conductive terminals; synonymous to "Terminals"

*****Max Current Rating:** 2@4 denotes 2 terminals rated for a maximum of 4 amps, 1@20 signifies 1 terminal rated for a max. of 30 amps; and so forth.

**Note: Follow all Technical Information
and guidance listed in Table C & Table F**

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Modular Models

Use Table B to find basic specifications by model, and to find the catalog page for each Modular model.

Table B

Type	Catalog Page #s	Model Number*	Conductors**	Max. Rotational Torque (gf-cm)	Voltage Range (VAC / VDC)	Max. Current Rating*** (Amps)	Max. Rotational Speed (RPM)	Operating Temp. Min °F (°C) Max °F (°C)
Modular	11	1250 1250-SC 1250-SS 1250-MS 1250-SX 1250-MSX	1	250	N/A	250	1200	Min -20 (-29) Max 140 (60)
	11	1250-LS 1250-LSX	1	125	N/A	250	1200	Min -20 (-29) Max 140 (60)
	12	1500 1500-SS 1500-1 1500-1-SS	1	750	N/A	500	300	Min -20 (-29) Max 140 (60)
	13	215-2K 215-2KSS	2	400	0-2,000	15	1200	Min -20 (-29) Max 140 (60)
	14	230 230-SS	2	200	0-250	30	1800	Min -20 (-29) Max 140 (60)
	15	235 235-SS	2	400	0-500	30	1200	Min -20 (-29) Max 140 (60)
	16	330 330-SS	3	300	0-250	30	1200	Min -20 (-29) Max 140 (60)
	17	331 331-SS	3	200	0-250	2@4/1@30	1800	Min -20 (-29) Max 140 (60)
	18	335 335-SS	3	700	0-500	30	500	Min -20 (-29) Max 140 (60)
	19	430 430-SS	4	400	0-250	2@4/2@30	1200	Min -20 (-29) Max 140 (60)
	20	435 435-SS	4	850	0-500	30	300	Min -20 (-29) Max 140 (60)
	21	630 630-SS	6	700	0-250	2@4/4@30	300	Min -20 (-29) Max 140 (60)
	22	830 830-SS	8	1000	0-250	2@4/6@30	200	Min -20 (-29) Max 140 (60)

***Model Number:** Check for other specifications on the relevant product pages, such as: low torque models, stainless steel options, and bearing materials.

****Conductors:** The quantity of conductive terminals; synonymous to "Terminals"

*****Max Current Rating:** 2@4 denotes 2 terminals rated for a maximum of 4 amps, 1@20 signifies 1 terminal rated for a max. of 30 amps; and so forth.

Note: Follow all Technical Information guidance listed in Table C & Table F

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Technical Information

Table C

IMPORTANT: Using Table C, follow all technical information and manufacturer guidelines & install requirements by model.

#	TOPIC	APPLICABLE MODELS	DETAILS
1	BODY ELECTRICALLY "HOT"	Single Channel Units & their derivatives: 104, 105, 1250, 1500	The Mercotac body is electrically "hot" to the internal conductor.
2	WET/CORROSIVE ENVIRONMENTS	Any models indicating Stainless Steel parts are used.	Stainless Steel parts, such as bearings and Mercotac bodies, are recommended for wet or corrosive environments. Boot kits can protect from dripping or splashing water.
3	HIGH TEMPERATURE	All models	It is important to keep the Mercotac operating temperature below its maximum temperature rating.
4	LOW TEMPERATURE MODELS —NO MOUNTING LIMITATIONS	110-L, 110-TL, 205-L, 205-LS, 305-L	Some units are designed for use in low temperature applications.
4	LOW TORQUE MODELS —NO MOUNTING LIMITATIONS	104, 104-SS, 105, 105-SS, 110-L, 110-TL, 205-L	Some units are designed for use in low torque applications.
5	LOW TEMPERATURE & LOW TORQUE —WITH MOUNTING LIMITATIONS	1250-LS, 1250-LSX	Some units are designed for use in low temperature and low torque applications. These models may only be operated vertically.
6	MOUNTING ORIENTATION	All models except some Low Torque units, as specified.	The Mercotac Brushless Slip Rings can be mounted at any angle between vertical and 90 degrees horizontal, with the arrow pointing in the appropriate direction. Never rigid mount both ends of the connector. This will cause connector failure. Find mounting illustrations in Table D & Table E.
7	CURRENT PROTECTION	All models	Provide quick acting current protection (fuse) on wires attached to connector. Over-current conditions can cause failure of the Mercotac. CAUTION: The aluminum body may be electrically "hot" after failure. Disable power source before handling a suspected failed connector.
8	DO NOT SOLDER	All models	Do not solder or excessively bend tabs on Mercotac products, as this will void the warranty and cause failure.
9	WIRE ATTRIBUTES	All models	Use stranded wires of ample length and flexibility, avoid taut wires, and use a floating torque arm to prevent mechanical loads and wire wrapping. Use wires and terminals that are rated for the current to prevent overheating.
10	TERMINALS	All models	Use supplied push-on terminals, crimp securely, and provide quick acting current protection (fuse) to prevent overheating and Mercotac failure.
11	VIBRATION	All models	Vibration and mechanical shock will reduce service life or cause Mercotac failure. Some installations may require a shock isolating mounting, such as rubber tubing.
12	FOOD APPLICATIONS	All models	As a precaution, a protective housing is required to isolate the rotating connector from the food product.
13	HANDLING / SAFETY	All models	Mercotac units should be handled in a way that is free of vibration and mechanical shock. Disconnect electrical power when working on or near a Mercotac.
14	RECYCLING	All models	Mercotac units contain a small amount of liquid elemental metal mercury and should be recycled through Mercotac's recycling service.
15	BOOT KIT	130, 1250, 215-2K, 230, 235, 330, 331, 335, 430, 630, 830	The boot kit is not watertight or intended for waterproofing but is designed to give protection to the wire terminals from splashing water or dust. The protection rating is IP51.

Note: Follow guidance above as relevant by model. There are additional guidelines in Table F.

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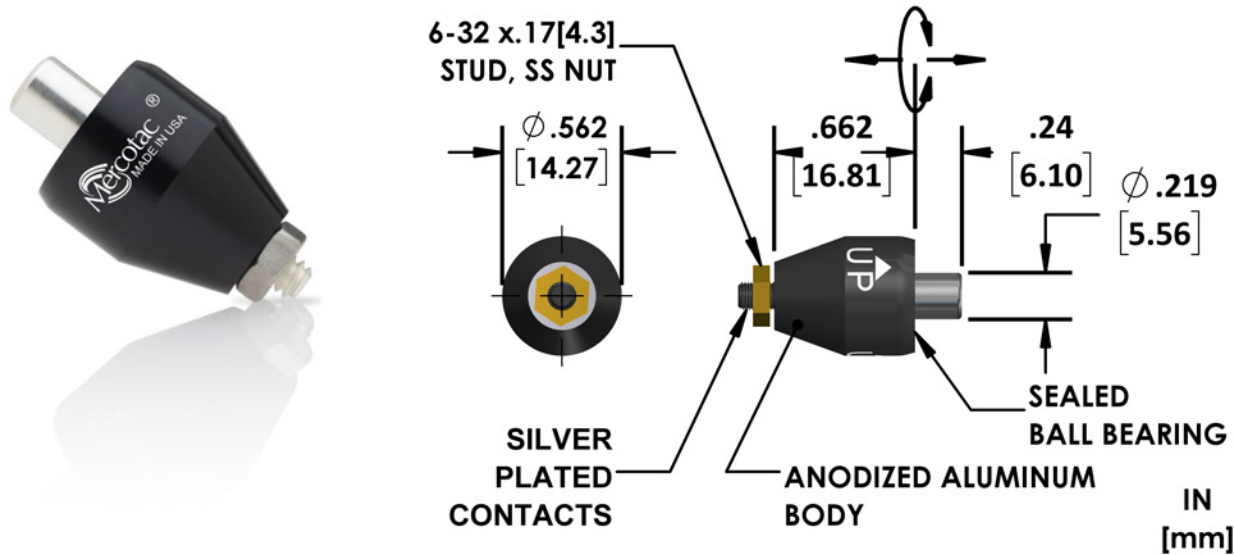
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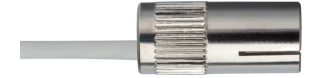
MODEL 104 & 110



ACCESSORIES



5920 one contact receptacle



5921-S One contact receptacle w/ 6" wire



5952 one contact cap w/solder lug



55337 ring terminal (12-10 AWG)

Receptacle used for mounting to rotating device. Accessories required for wire connections. Order Separately.

The body of the 104 & 110 series Mercotac™ units are electrically "hot" to the internal conductor.

MODEL NO.	CONDUCTORS	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)	
104	1	Anodized Aluminum	Chrome Steel	<10	N/A	4	7500	Min 45 (7) Max 140 (60)	200	<1	N/A	
104-SS			Stainless Steel									
110			Chrome Steel	35		10	3600					Min -20 (-29) Max 140 (60)
110-SS			Stainless Steel									
110-L			Chrome Steel									

Note: Follow all Technical Information guidance listed in Table C & Table F

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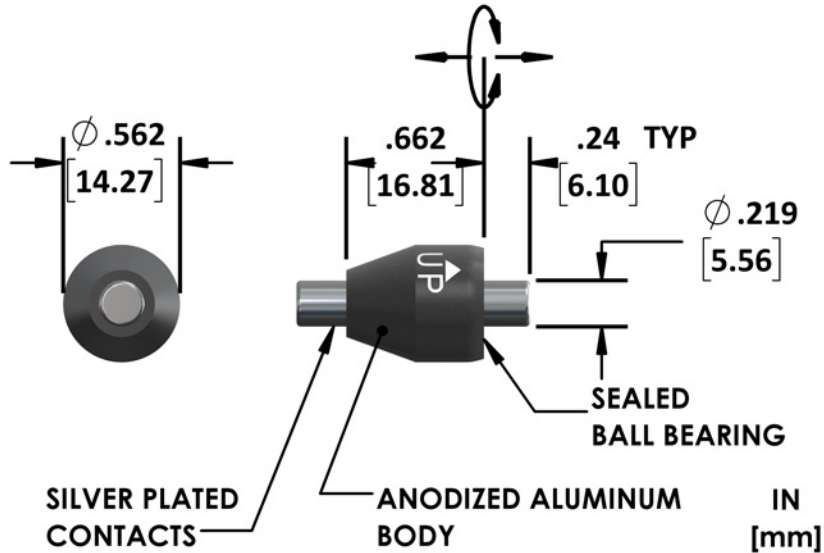
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MODEL 105 & 110-T



ACCESSORIES



5920 one contact receptacle



5921-S One contact receptacle w/ 6" wire



5952 one contact cap w/solder lug

Receptacle used for mounting to rotating device. Accessories required for wire connections. Order Separately.

The body of the 105 & 110T series Mercotac™ units are electrically "hot" to the internal conductor.

MODEL NO.	CONDUCTORS	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)
110-T	1	Anodized Aluminum	Chrome Steel	35	N/A	10	3600	Min -20 (-29) Max 140 (60)	200	<1	N/A
110-TS			Stainless Steel								
110-TL			Chrome Steel	10			1200				
105			Chrome Steel			4	7500				
105-SS			Stainless Steel	<10							

Note: Follow all Technical Information guidance listed in Table C & Table F

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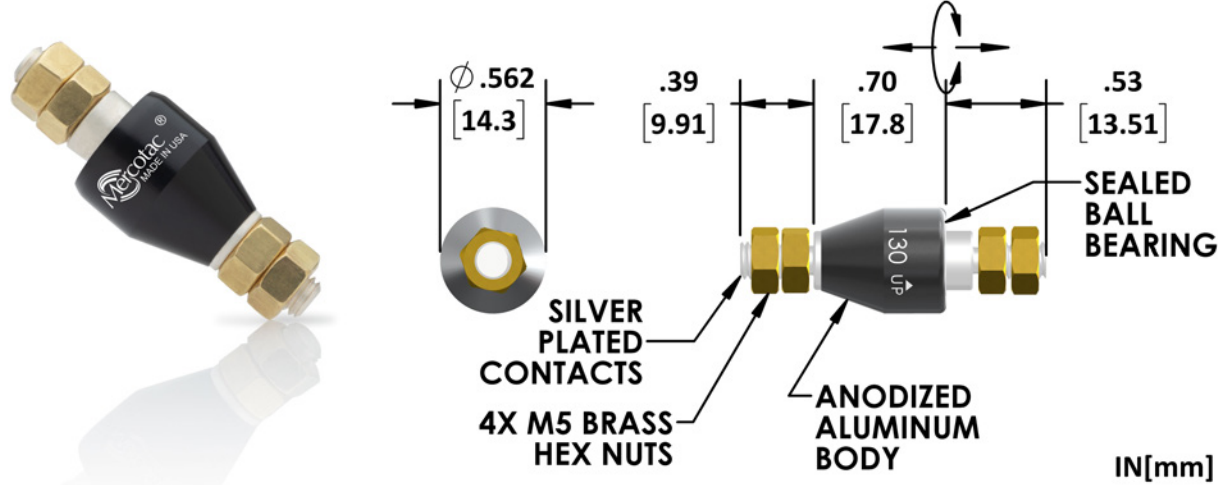
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MODEL 130



ACCESSORIES



57130 Vinyl Boot Kit
Order separately.

The body of the 130 series Mercotac™ units is electrically "hot" to the internal conductor.

MODEL NO.	CONDUCTORS	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)
130	1	Anodized Aluminum	Chrome Steel	75	N/A	10	2000	Min -20 (-29) Max 140 (60)	200	<1	N/A
130-SS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

Mercotac, Inc.

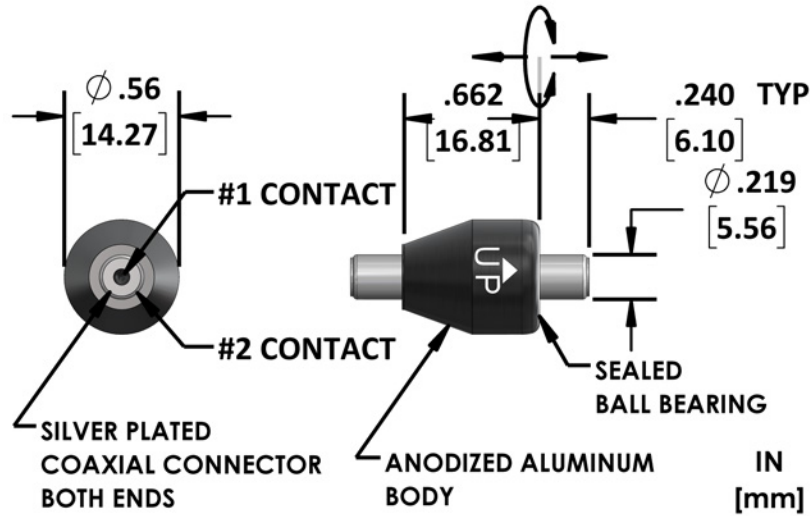
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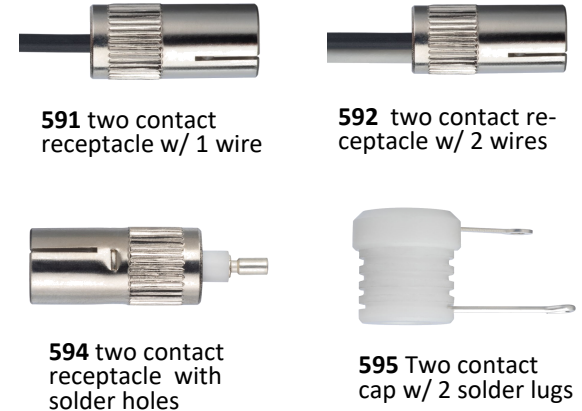
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MODEL 205



ACCESSORIES



A receptacle is used for mounting to the rotating device. The accessories are required for wire connections, since the Mercotac units cannot be soldered to directly. Order Separately.

MODEL NO.	CONDUCTORS	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)
205	2	Anodized Aluminum	Chrome Steel	75	250	4	2000	Min 45 (7) Max 140 (60)	200	<1	>25
205-SS			Stainless Steel								
205-L			Chrome Steel	20			1200				
205-LS			Stainless Steel	75							
205-H			Chrome Steel	35			3600	Min 45 (7) Max 140 (60)			
205-HS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

Mercotac, Inc.

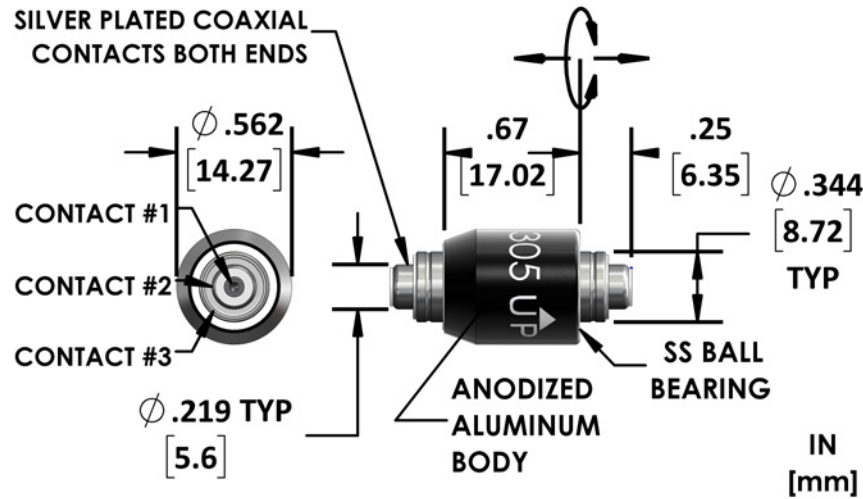
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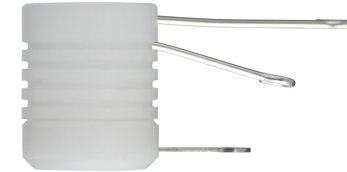
MODEL 305



ACCESSORIES



593 three contact receptacle w/ 2 wires



553 three contact cap w/3 solder lugs

A receptacle is used for mounting to the rotating device. The accessories are required for wire connections, since the Mercotac units cannot be soldered to directly. Order Separately.

MODEL NO.	CONDUCTORS	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)
305	3	Anodized Aluminum	Stainless Steel	100	250	4	1800	Min 45 (7) Max 140 (60)	200	<1	>25
305-L							1000	Min -20 (-29) Max 140 (60)			

Note: Follow all Technical Information guidance listed in Table C & Table F

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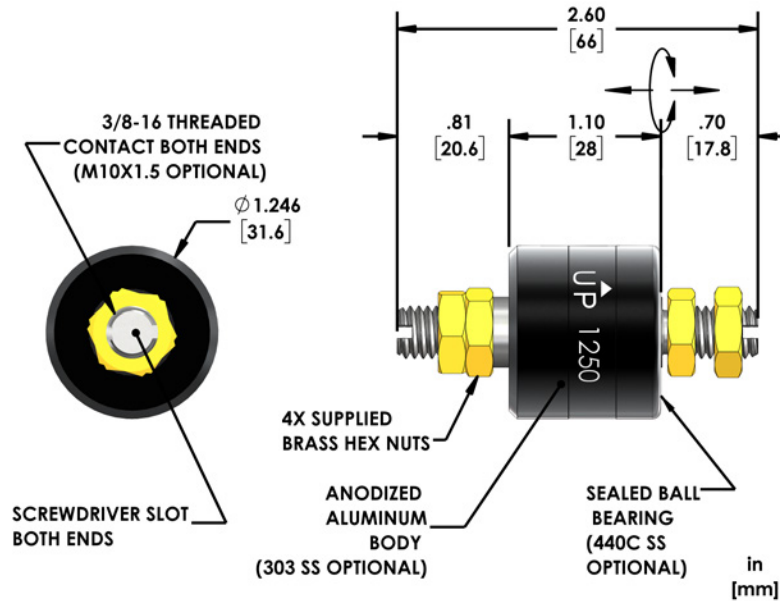
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MODEL 1250



ACCESSORIES



57125 Vinyl Boot Kit
Order Separately.

The body of the 1250 series Mercotac™ unit is electrically "hot" to the internal conductor.

MODEL NO.	COND.	BODY MATERIAL	BEARING TYPE	BEARING ENCLOSURE	MOUNTING THREAD SIZE	MAX. ROTATIONAL TORQUE (gf-cm)	MOUNTING NUT CONFIG.*	MAX. VOLTAGE RATING (AC/DC)	MAX. CURRENT RATING (AMPS)	MAX. ROTATIONAL SPEED (RPM)	OPERATING TEMP. MIN °F (°C) MAX °F (°C)
1250	1	Anodized Aluminum	Chrome Steel	Seal	3/8-16	250	1	N/A	250	1200	Min -20 (-29) Max 140 (60)
1250-M				Seal	M10 x 1.5		2				
1250-SC				Seal	3/8-16		3				
1250-SS			Stainless Steel	Seal	3/8-16	1					
1250-MS				Seal	M10 x 1.5	2					
1250-LS				Shield	3/8-16	1					
1250-SX		Stainless Steel	Seal	3/8-16	1						
1250-MSX			Seal	M10 x 1.5	2						
1250-LSX			Shield	3/8-16	1						

Other Specifications:

Max Frequency: 200 MHz
Contact Resistance: <1 mΩ
Circuit Separation: >25 MΩ

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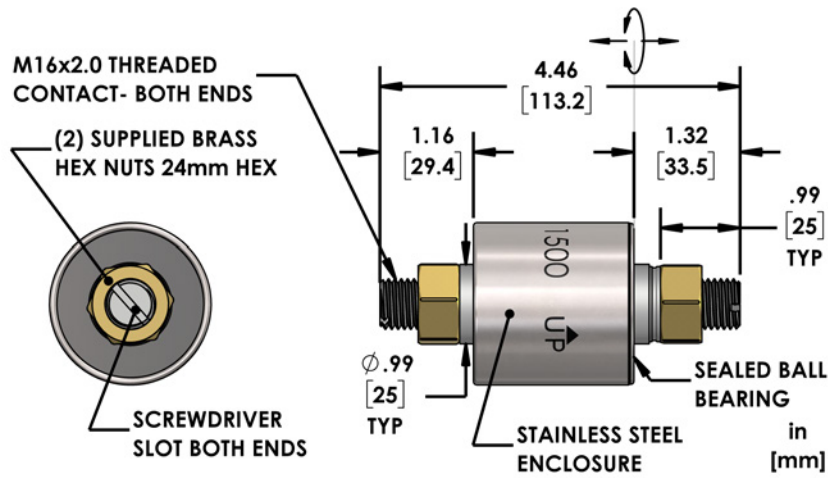
See website for illustrations of Mounting Nut Config.

*Mounting Nut Configurations:

1. 4x Jam Nuts
2. 2x Jam Nuts, 2x Full Nuts
3. 3x Jam Nuts, 1x Full Nut

Note: Follow all Technical Information guidance listed in Table C & Table F

MODEL 1500



ACCESSORIES

There are no accessories currently for this model, however, if an external dust seal with an IP51 protection rating is needed, select the Model 1500-1.



The body of the 1500 series Mercotac™ units is electrically "hot" to the internal conductor.

MODEL NO.	CONDUCTORS	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)
1500	1	Stainless Steel	Chrome Steel	750	N/A	500	300	Min -20 (-29) Max 140 (60)	200	<1	N/A
1500-SS			Stainless Steel								
1500-1			Chrome Steel								
1500-1-SS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

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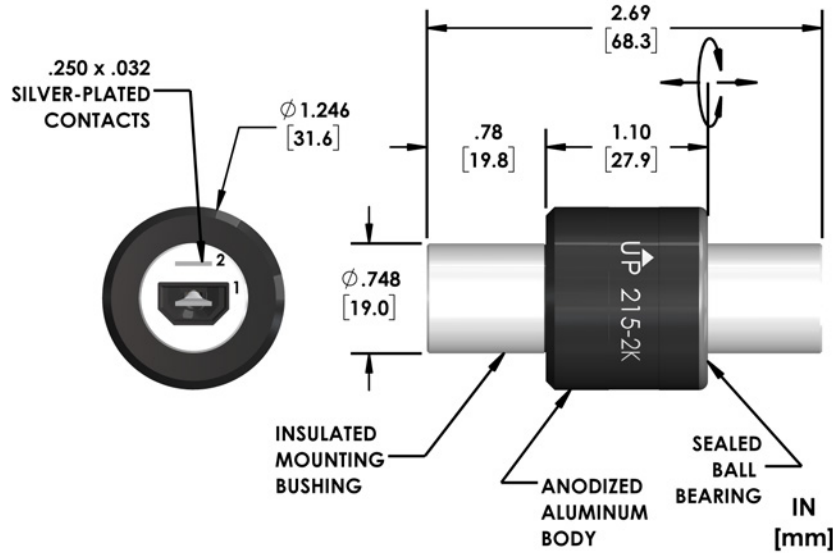
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MODEL 215-2K



ACCESSORIES



552KA Large Straight Disconnect, Insulated (22—18 AWG). Qty. 4 included.



55253 Shrink Tube. Qty. 6 included.



57235 Vinyl Boot Kit
Order Separately.

MODEL NO.	CONDUCTORS	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)
215-2K	2	Anodized Aluminum	Chrome Steel	400	2000	15	1200	Min -20 (-29) Max 140 (60)	100	<1	>50
215-2KSS			Stainless Steel								

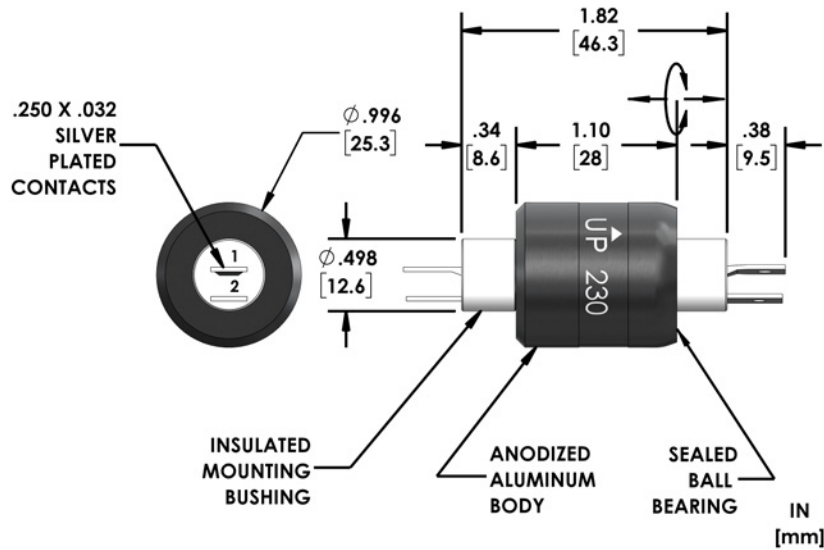
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MODEL 230



ACCESSORIES



MODEL NO.	CONDUCTORS	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								

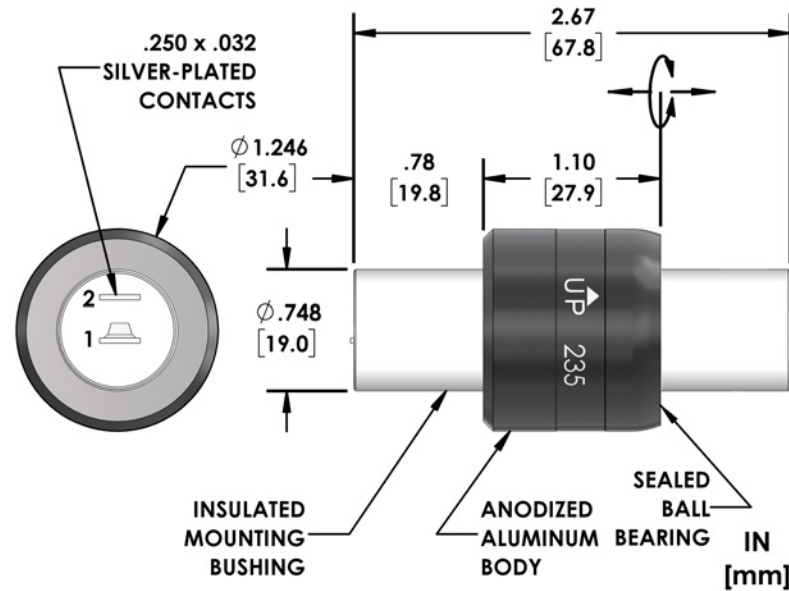
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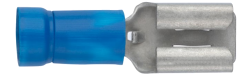
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MODEL 235



ACCESSORIES



MODEL NO.	CONDUCTORS	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	Min -20 (-29) Max 140 (60)	100	<1	>50
235-SS			Stainless Steel								

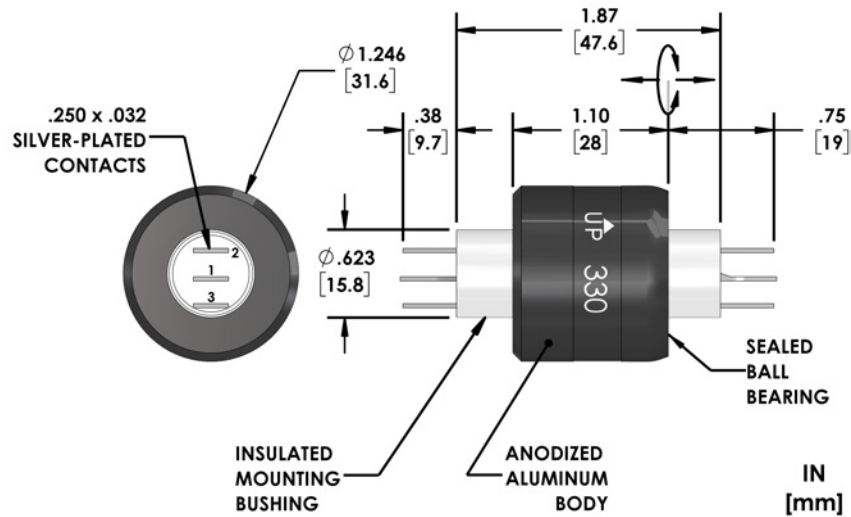
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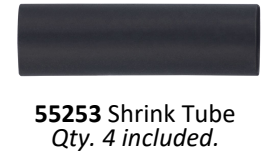
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MODEL 330



ACCESSORIES



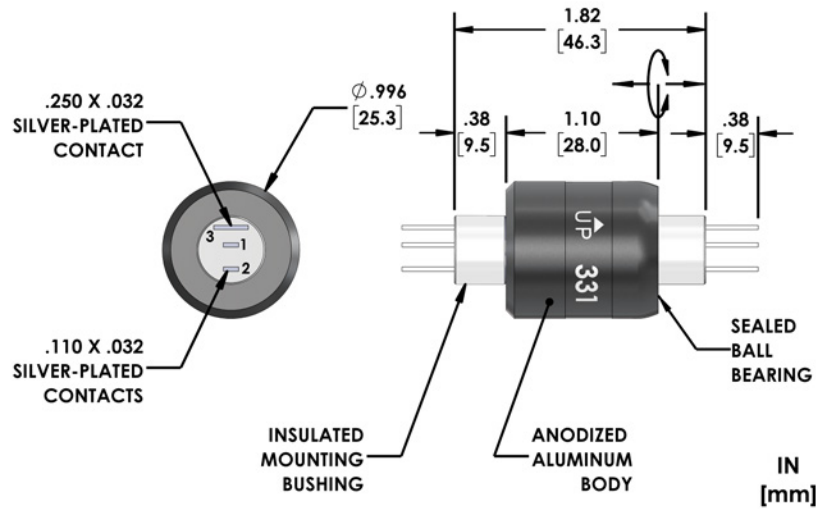
MODEL NO.	CONDUCTORS	BODY MATERIAL	BEARING TYPE	MAX. ROTATIONAL TORQUE (gf-cm)	MAX. VOLTAGE RATING (AC/DC)	MAX. CURRENT RATING (AMPS)	MAX. ROTATIONAL SPEED (RPM)	OPERATING TEMP. MIN °F (°C) MAX °F (°C)	MAX. FREQUENCY (MHz)	CONTACT RESISTANCE (mΩ)	CIRCUIT SEPARATION (MΩ)
330	3	Anodized Aluminum	Chrome Steel	300	250	30	1200	Min -20 (-29) Max 140 (60)	100	<1	>25
330-SS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

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MODEL 331



ACCESSORIES



55251 Large Flag Disconnect, Insulated (16—14 AWG)
Qty. 1 included



55250 Small Straight Disconnect, Insulated (16—14 AWG)
Qty. 1 included.



55110 Small Straight Disconnect, Insulated (22—18 AWG)
Qty. 4 included.



57230 Vinyl Boot Kit
Order Separately.

MODEL NO.	CONDUCTORS	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)
331	3	Anodized Aluminum	Chrome Steel	200	250	2@4 & 1@30	1800	Min -20 (-29) Max 140 (60)	100	<1	>25
331-SS			Stainless Steel								

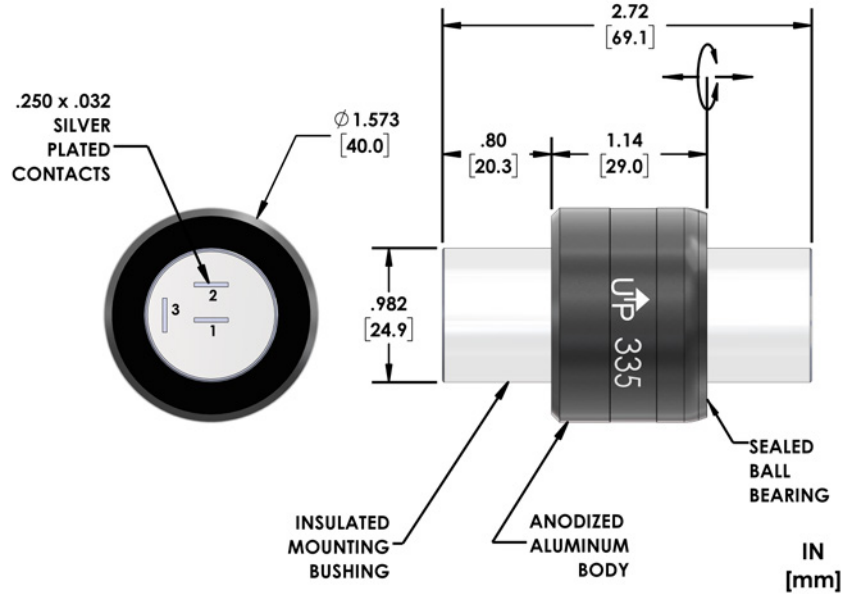
Note: Follow all Technical Information guidance listed in Table C & Table F

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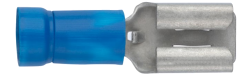
MODEL 335



ACCESSORIES



55251 Large Flag Disconnect, Insulated (16—14 AWG)
Qty. 3 included.



55250 Small Straight Disconnect, Insulated (16—14 AWG)
Qty. 3 included.



57335 Vinyl Boot Kit
Order separately.

MODEL NO.	CONDUCTORS	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)
335	3	Anodized Aluminum	Chrome Steel	700	500	30	500	Min -20 (-29) Max 140 (60)	100	<1	>50
335-SS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

Mercotac, Inc.

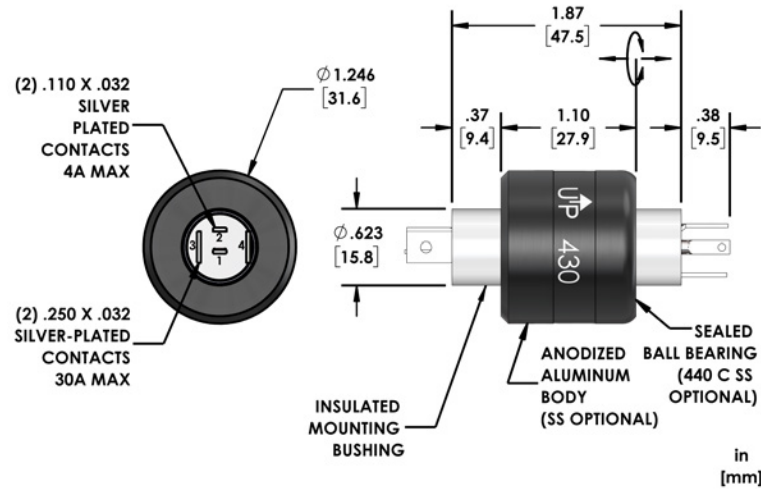
6195 Corte del Cedro #100 Carlsbad, CA 92011 USA

Telephone: (760) 431-7723 Fax: (760) 431-0905

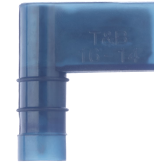
Email: sales@mercotac.com Support: techsupport@mercotac.com



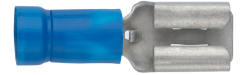
MODEL 430



ACCESSORIES



55251 Large Flag Disconnect, Insulated (16—14 AWG) Qty. 2 included.



55250 Small Straight Disconnect, Insulated (16—14 AWG) Qty. 2 included.



55110 Small Straight Disconnect, Insulated (22—18 AWG) Qty. 2 included.

ORDER SEPARATELY



50430 Plug Kit



50431 Plug Assembly



5030-T Plug Terminal Crimping Tool



57430 Vinyl Boot Kit

MODEL NO.	CONDUCTORS	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)
430	4	Anodized Aluminum	Chrome Steel	400	250	2@4 & 2@30	1200	Min -20 (-29) Max 140 (60)	100	<1	>25
430-SS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

Mercotac, Inc.

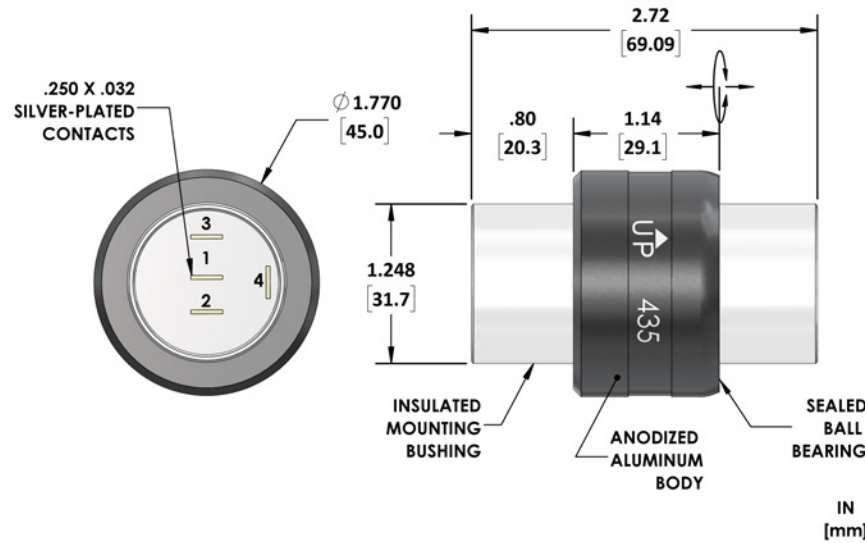
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MODEL 435



ACCESSORIES



55251 Large Flag Disconnect, Insulated (16—14 AWG)
Qty. 4 included



55250 Small Straight Disconnect, Insulated (16—14 AWG)
Qty. 4 included.



57435 Vinyl Boot Kit
Order separately.

MODEL NO.	CONDUCTORS	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								

Note: Follow all Technical Information guidance listed in Table C & Table F

Mercotac, Inc.

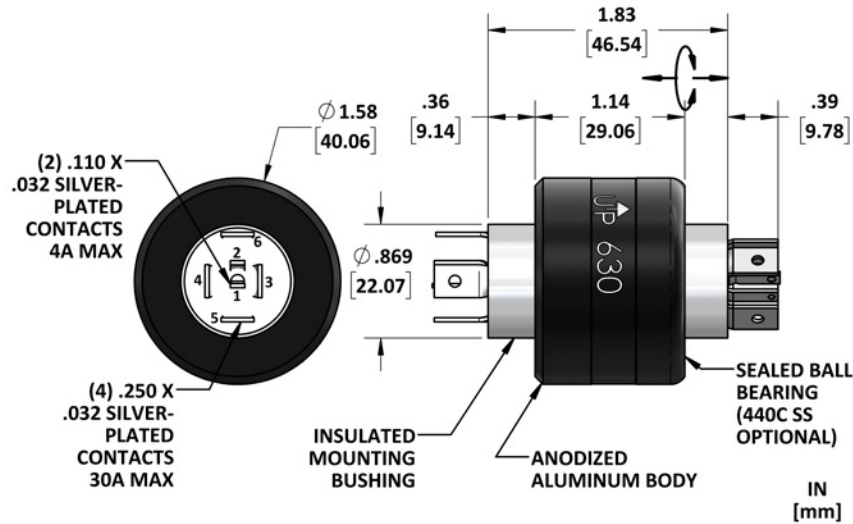
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MODEL 630



ACCESSORIES



55251 Large Flag Disconnect, Insulated (16—14 AWG) Qty. 4 included



55253 Shrink Tube Qty. 4 included.



55250 Small Straight Disconnect, Non-Insulated (16—14 AWG) Qty. 4 included.



57630 Vinyl Boot Kit Order separately.



55110 Small Straight Disconnect, Insulated (22—18 AWG) Qty. 4 included.

MODEL NO.	CONDUCTORS	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)
630	6	Anodized Aluminum	Chrome Steel	700	250	2@4 & 4@30	300	Min -20 (-29) Max 140 (60)	100	<1	>25
630-SS			Stainless Steel								

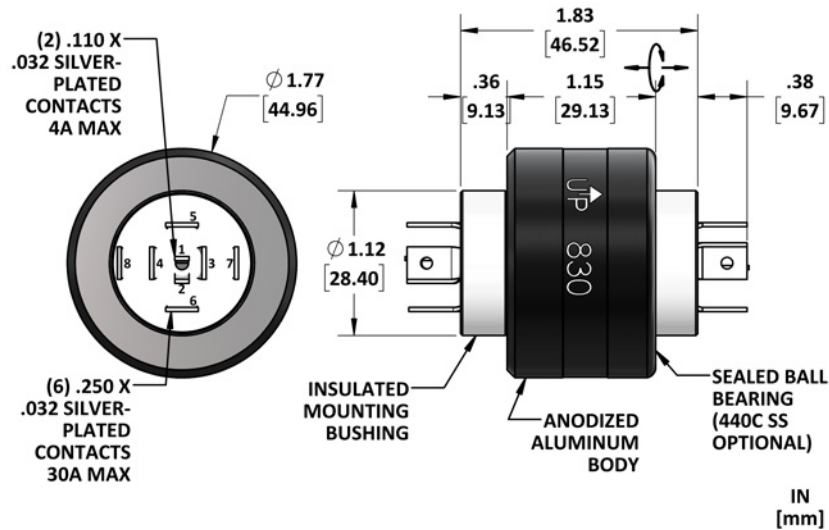
Note: Follow all Technical Information guidance listed in Table C & Table F

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MODEL 830



ACCESSORIES



55251 Large Flag Disconnect, Insulated (16–14 AWG)
Qty. 6 included.



55253 Shrink Tube
Qty. 6 included.



55250 Small Straight Disconnect, Non-Insulated (16–14 AWG)
Qty. 6 included.



57830 Vinyl Boot Kit
Order separately.



55110 Small Straight Disconnect, Insulated (22–18 AWG)
Qty. 4 included.

MODEL NO.	CONDUCTORS	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)
830	8	Anodized Aluminum	Chrome Steel	1000	250	2@4 & 6@30	200	Min -20 (-29) Max 140 (60)	100	<1	>25
830-SS			Stainless Steel								

Note: Follow all Technical Information guidance listed in Table C & Table F

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Mounting—Coaxial

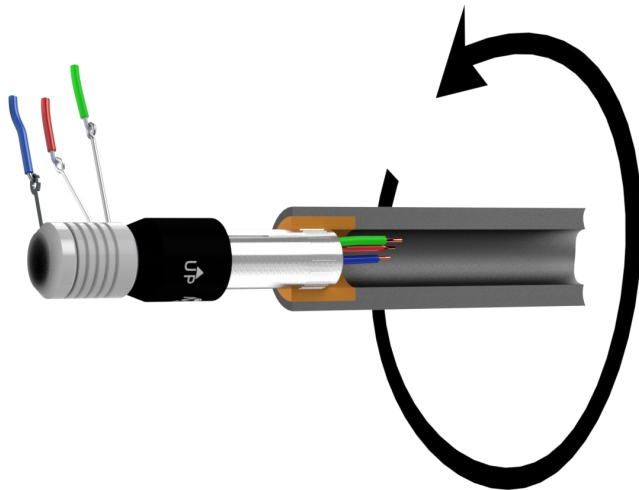


Table D

- Mercotac Brushless Slip Rings may be used in any position between vertical and 90 horizontal except for certain low torque models (See Table C, note#5). The UP arrow should not point below horizontal.
- The Coaxial models 104, 105, 110-T, 205, and 305 Mercotac units use the knurled receptacle inserted into the rotating member for mounting. This receptacle holds the Mercotac unit using a spring fit.
- In horizontal applications, mount the Mercotac with the body rotating to reduce mechanical loads on the bearing.
- Limit mounting eccentricity to a maximum of .005" TIR.
- Mercotac products are not designed to carry mechanical loads. One end should be allowed to float, attached only by the connecting wires.

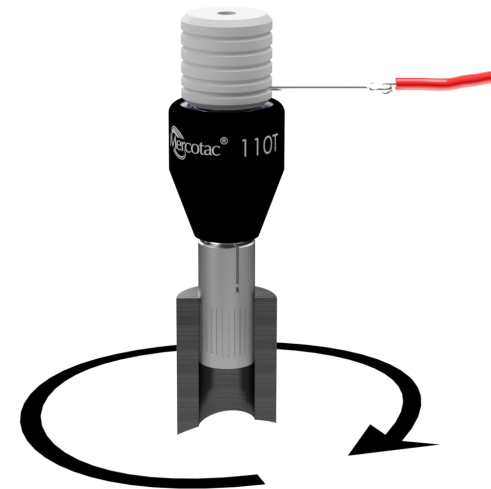


Preferred mounting orientation.



For certain models, the Mercotac body is electrically "hot" to the internal conductor. See Table C, note#1.

An electrically insulated shaft can isolate it, if needed.



Note: Follow all Technical Information guidance listed in Table C & Table F

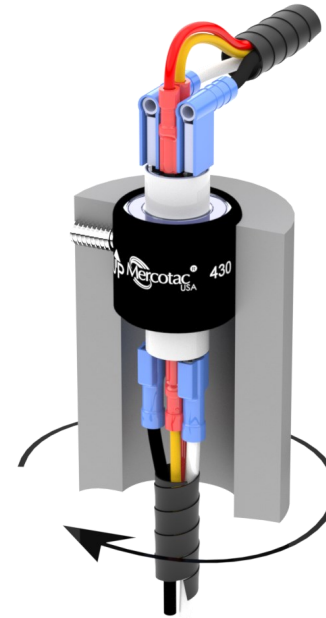
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Mounting—Modular

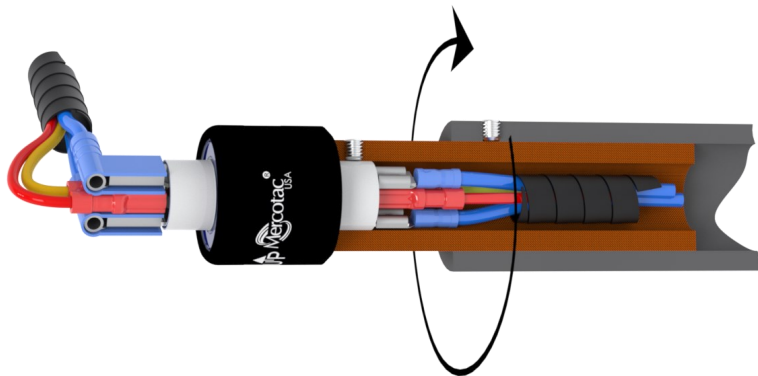


Table E

- Mercotac Brushless Slip Rings may be used in any position between vertical and 90 horizontal except for certain low torque models. The UP arrow should not point below horizontal.
- The Modular models 1250, 1500, 215-2K, 230, 235, 330 331, 335, 430, 435, 630, 830 use either the body, the plastic collar, or threaded stud for mounting to the rotating member.
- In horizontal applications, mount the Mercotac with the body rotating to reduce mechanical loads on the bearing.
- Limit mounting eccentricity to a maximum of .005" TIR.
- Mercotac products are not designed to carry mechanical loads. One end should be allowed to float, attached only by the connecting wires.



Preferred mounting orientation.



For certain models, the Mercotac body is electrically "hot" to the internal conductor. See Table C, note#1.

An electrically insulated shaft can isolate it, if needed.



Note: Follow all Technical Information guidance listed in Table C & Table F

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MOUNTING

- Mercotac Brushless Slip Rings may be used in any position between vertical and 90 horizontal except for certain low torque models. The UP arrow should not point below horizontal.
- The Coaxial models 104, 105, 110-T, 205, and 305 Mercotac units use the knurled receptacle inserted into the rotating member for mounting. This receptacle holds the Mercotac unit using a spring fit.
- The Modular models 1250, 1500, 215-2K, 230, 235, 330 331, 335, 430, 435, 630, 830 use either the body, plastic collar, or the threaded stud for mounting to the rotating member.
- In horizontal applications, mount the Mercotac with the body rotating to reduce mechanical loads on the bearing.
- Limit mounting eccentricity to a maximum of .005" TIR.
- Mercotac products are not designed to carry mechanical loads. One end should be allowed to float, attached only by the connecting wires.

TEMPERATURE

- Provide thermal insulation where necessary to prevent the Mercotac temperature from exceeding 140F (60C). Mercotac slip rings contain plastic materials which are sensitive to heat.
- Electrical current heat rise, rotational heat rise, and the ambient temperature are factors contributing to the operating temperature of the Mercotac.
- Overheating will cause connector failure and voids the warranty.

VIBRATION / SHOCK

- Vibration or mechanical shock will reduce Mercotac Brushless Slip Ring life or cause failure.
- If vibration or shock is present, we suggest a flexible isolating mounting.

BOOT KIT

- The boot kit is not watertight or intended for waterproofing but is designed to give protection to the wire terminals from splashing water or dust. The protection rating is IP51.

CONNECTION

- Use stranded wires of ample length and flexibility for the Mercotac connection in order to avoid mechanical loads.
- It is important to use provided push-on terminals and crimp them securely. Push-on quick disconnects crimp onto the connecting wires and push onto the Mercotac tabs.
- Do **not** solder wires to the Mercotac Brushless Slip Ring or bend tabs, as such misuse will cause failure and void the warranty.
- Provide quick-acting overload protection to the electrical circuit containing the Mercotac slip ring to prevent overheating and Mercotac failure.
- If wire wrapping occurs from too much connect torque, it is suggested to use a torque arm positioned to float against a fixed stop.

FOOD APPLICATIONS

- Mercotac Brushless slip rings are factory sealed but do contain mercury and other fluids.
- As a precaution, a protective housing is required to isolate the rotating slip ring from the food product.

HANDLING / SAFETY

- Mercotac units should be handled in a way that is free of vibration and mechanical shock.
- Disconnect electrical power when working on or near a Mercotac.

RECYCLING

- Mercotac brushless slip rings contain mercury and should not be disposed of in the trash but only through mercury recycling programs. Mercotac Inc. offers a mercury recycling service for this purpose. Ship spent connectors to our Carlsbad facility by UPS ground enclosed in a plastic bag. Include paperwork stating, "for recycling" with your company name, phone and fax numbers. **Do not send** through the US mail.

Note: Follow all Technical Information guidance listed in Table C & Table F

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Note: Follow guidance above as relevant by model. There are additional guidelines in Table C.

The image features the Mercotac logo at the top, which consists of the word "Mercotac" in a white, sans-serif font with a registered trademark symbol. To the left of the text is a stylized graphic of three curved lines in orange, red, and yellow, suggesting motion or a globe. Below the logo is a photograph of a modern, two-story office building with a prominent glass-enclosed entrance. The building is surrounded by lush green trees and flowering plants, including blue irises in the foreground. The sky is a dramatic mix of orange, red, and purple, indicating a sunset or sunrise. The building's interior lights are on, and the entrance is well-lit.

Mercotac®

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