



Fabricast, Inc.[®]

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PERFORMANCE

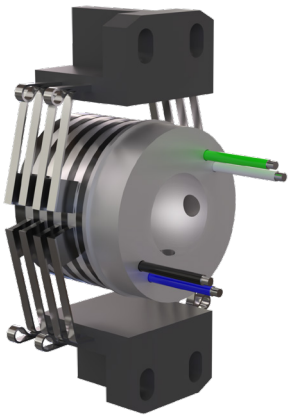
SLIP RINGS

At Fabricast, we focus on what we do best, delivering high-performance, reliable slip rings no matter the RPM. Our designs fit smoothly into complex systems and are built for industries that rely on accuracy, repeatability, and dependable motion.

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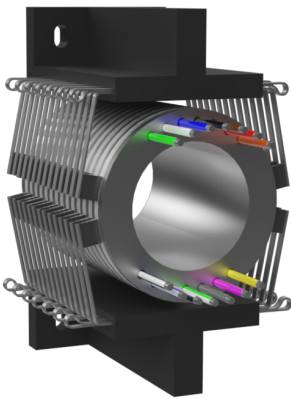
SLIP RINGS

DESIGNED WITH A SEPARATE ROTOR AND DEDICATED BRUSH BLOCK



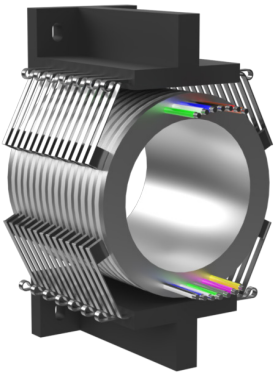
0.50 in Bore Separate Rotor Slip Rings

Compact slip rings built for rotary systems where space and mass are limited. Ideal for small gimbals, robotic joints, and precision equipment with minimal pass-through.



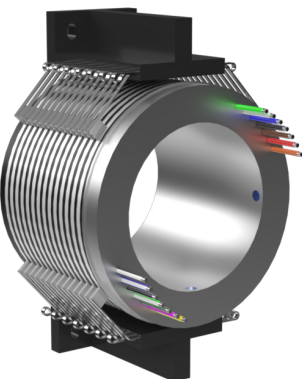
1.00 in Bore Separate Rotor Slip Rings

A balanced slip ring offering a combination of channel capacity and compact form, making it a good choice for rotary systems where space and signal integrity both matter.



1.50 in Bore Separate Rotor Slip Rings

Designed for larger rotary assemblies, 1.50 in Bore Slip Rings support continuous power and signal transmission while accommodating expanded through-bore requirements.



2.00 in Bore Separate Rotor Slip Rings

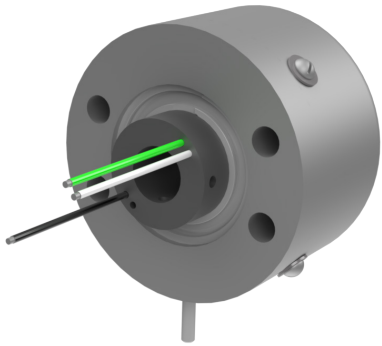
These slip rings deliver stable electrical continuity for rotating systems that require the largest through-bore size in the standard product line. Built to accommodate large-diameter shafts, tubing, or bundled cabling.

Feature	Specification
Current Rating	5A standard, 10A optional
Voltage Rating	Up to 60V standard, up to 1000V optional
Speed Capability	Designed to support high rotational speeds up to 22,250 RPM
Data Capability	Gb+ Ethernet capable for high-speed data transfer
Ring Material	Solid coin silver
Brush Material	Silver graphite (various grades)
Brush Options	2 or 4 brushes per ring
Circuit Capacity	Multiple ring configurations available
Noise	10 mΩ (2 brushes), 5 mΩ (4 brushes)
Hi-Pot Rating	1000 VAC
Rotor Construction	Molded ring complement with diallyl phthalate dielectric
Mounting Options	Multiple configurations available
Customization	Designed for application-specific configurations
Optional Features	Higher current ratings, vacuum-compatible designs, custom builds
Application Fit	Scales from compact systems to large, high-capacity rotary applications

NOTE: Separate rotor slip rings with a 1.00 to 2.00 inch bore are available in standard brush block or reduced-clearance brush block configurations.

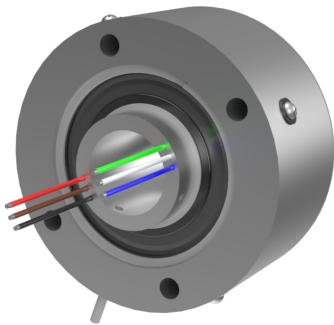
SLIP RINGS

DESIGNED WITH A SELF-CONTAINED INTEGRATED HOUSING



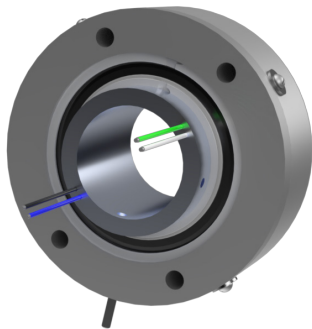
0.50 in Bore Self-Contained Slip Rings

Fabricast Self-Contained 0.50 in Bore Slip Rings combine the rotor, brushes, and housing into a compact assembly for reliable electrical transfer in space-limited rotary systems.



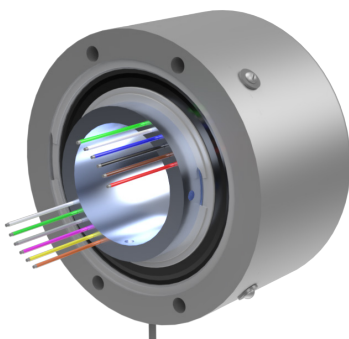
1.00 in Bore Self-Contained Slip Rings

A practical balance between internal routing space and compact assembly design. This configuration supports predictable performance while reducing sensitivity to installation variables in mid-size rotary systems.



1.50 in Bore Self-Contained Slip Rings

This slip ring provides increased internal clearance within a compact, factory-aligned assembly. Its integrated design supports consistent electrical contact while allowing additional space for routing through the center bore.



2.00 in Bore Self-Contained Slip Rings

Designed for large rotating systems where internal routing space and system layout drive the overall design. The expanded bore provides maximum clearance for shafts, cabling, or bundled lines, while the fully enclosed rotor and brush assembly maintains fixed electrical alignment within the housing.

Feature	Specification
Current Rating	5A standard, 10A optional
Voltage Rating	Up to 60V standard, up to 1000V optional
Speed Capability	Designed to support high rotational speeds up to 17,000 RPM
Data Capability	Gb+ Ethernet capable for high-speed data transfer
Ring Material	Solid coin silver
Brush Material	Silver graphite (various grades)
Brush Options	2 or 4 brushes per ring
Circuit Capacity	Multiple configurations available
Noise	10 mΩ (2 brushes), 5 mΩ (4 brushes)
Hi-Pot Rating	1000 VAC
Rotor Construction	One-piece aluminum sleeve, molded dielectric
Housing Construction	One-piece enclosed aluminum housing
Installation Advantage	Simplified installation with factory-aligned components
Protection	Enclosed design protects internal components
Customization	Configurable circuits, leads, and layouts
Optional Features	Higher current ratings, vacuum-compatible designs, custom builds
Application Fit	Compact to large enclosed rotary systems requiring simplified integration

CUSTOM SLIP RINGS ENGINEERED TO YOUR APPLICATION REQUIREMENTS

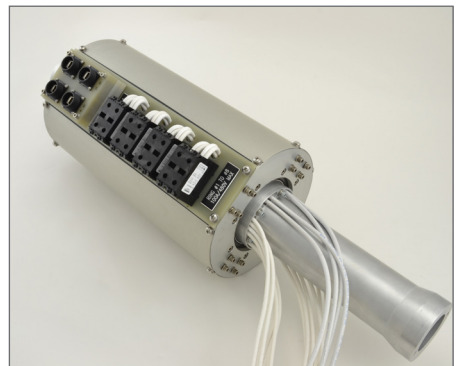
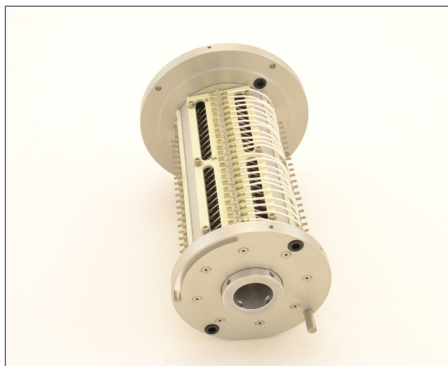
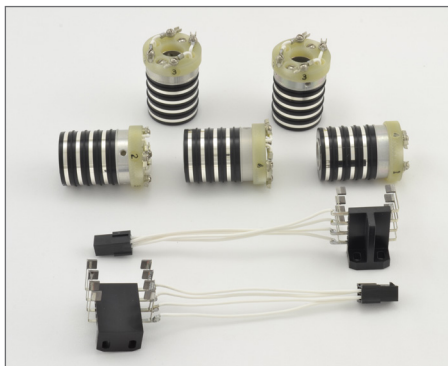
Fabricast custom slip rings are developed in close collaboration with your team, to ensure a shared understanding of your application, operating environment, and technical goals. All requirements are carefully reviewed upfront, allowing our engineers to optimize electrical and mechanical performance. This collaborative approach helps reduce risk and shorten development timelines.

Not every application fits a catalog solution. Fabricast designs and manufactures custom slip rings for systems that require specific electrical performance, mechanical constraints, or environmental considerations.

Custom slip rings are engineered to match your exact requirements, whether that involves higher current capacity, unique bore sizes, compact envelopes, mixed power and signal circuits, or integration into existing assemblies. Each design builds on Fabricast's proven ring and brush technology while allowing flexibility in materials, configurations, and packaging.

Speeds up to 30,000 RPM are available on certain configuration variations.

WE DESIGN AND BUILD SLIP RINGS UNIQUE TO YOUR APPLICATION



SLIP RING BRUSHES

HIGH-PERFORMANCE ELECTRICAL CONTACTS

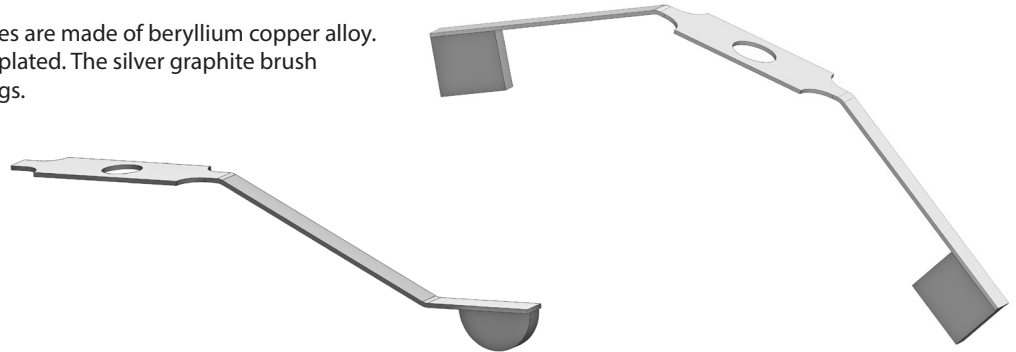
Fabricast offers a complete line of silver graphite leaf and plunger brushes. These assemblies can be used to replace worn brushes in Fabricast slip rings or in other applicable applications. Our engineers will work with you to specify the best brush grade for your application.

- FAG180: Standard low-noise grade. 5 mΩ or 10 mΩ maximum noise depending on brush count.
- FAG150: Higher surface speed and longer brush life (about 2×), with slightly higher noise; suited for high-speed or long-life needs.
- FAG180A / FAG150A: Same as above with added molybdenum disulfide for altitude, vacuum, and inert environments.

Grade	Recommended Surface Speed	Carrying Capacity
Various Grades of Silver Graphite	Up to 6000 feet per minute	Up to 250 amps per square inch

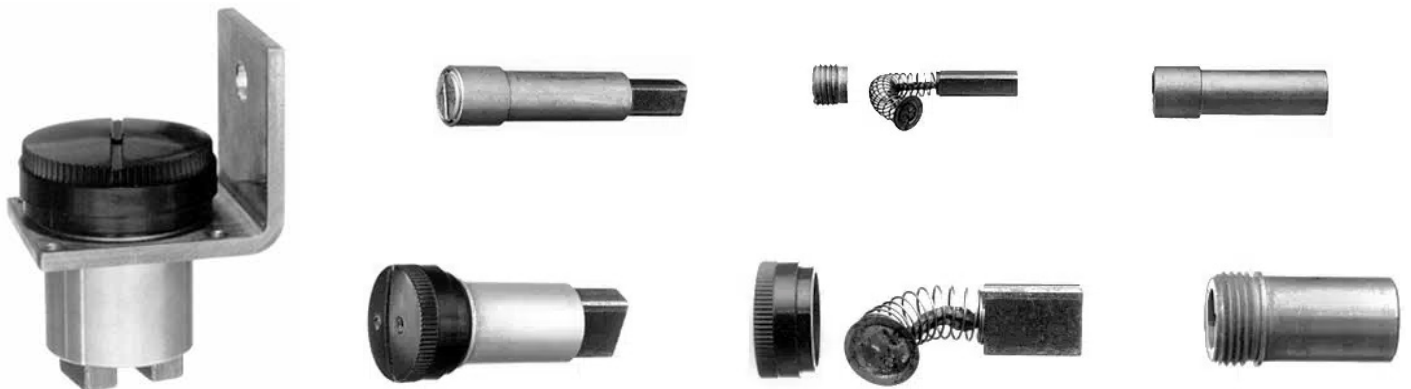
Leaf Type Brushes

Leaf springs for Fabricast leaf type brushes are made of beryllium copper alloy. The leaf springs are heat treated and tin plated. The silver graphite brush contacts are soldered onto the leaf springs.



Plunger Type Brushes

Plunger type brushes feature a brass holder with cap and a spring-loaded silver graphite plunger brush. Brush holders are most commonly press fit into a dielectric brush block, or soldered/brazed to a bus that is then bolted to the brush block. Both the holder and bus are tin plated. A variety of bus assemblies are available.



NEED HELP FINDING THE BEST SLIP RING FOR YOU?

Discover custom slip ring solutions that enhance performance and reliability.
Reach out today for a consultation with our engineering specialists!



Specifications are subject to change without notice.

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