

# **ELECTRICAL SLIP RING**

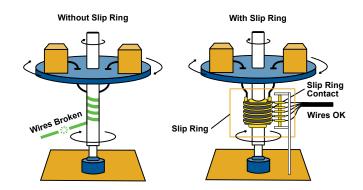
Power | Sensors | Digital | Analog | RF



SR 251 US www.deublin.com

### **How Slip Rings Work**

A Slip Ring is a device that allows continuous transmission of electrical power, signal or data from a stationary source to a continuously rotating machine. A Slip Ring consists of a conductive ring or band, or flat circular circuits mounted on an insulated shaft. Stationary brushes make sliding contact with the rotating ring or circuit creating the electrical connection. Slip Rings are available in a wide variety of configurations, termination types and materials to fit most applications.



### **Proven Solutions Configured from our Standard Line**

- Configurable designs utilizing stocked components available for quick delivery
- Global manufacturing operations poised to meet your needs

### Reliable Operation to Maximize your Machine Uptime

- Deublin Slip Rings are in service for billions of revolutions in some of the most demanding applications
- Dust/water-tight solutions and EMI shielded designs



# TOP SLIP RING CONSIDERATIONS

- Voltage and current
- Contact resistance
- Contact resistance variation
- Mixed signal handling
- Electromagnetic interference
- Operating temperatures
- IP requirements
- Packaging constraints
- Rotary Union integration

Deublin has seen and solved them all



# Integrated Slip Ring-Rotary Union Packages

Save space and weight, and simplify sourcing and installation, with a smart, seamless solution instead of a separate Slip Ring mounted with a Rotary Union.

- Smaller size
- · Lower weight
- · Easier installation



# **Expert Custom Solutions for Unique Requirements**

When your project has unique or challenging requirements, Deublin is determined to help you execute efficiently and effectively – providing technical expertise, a proven process and an Engineering mindset aimed at solving problems and optimizing results.

SLIP RING CAPABILITIES	
Voltage:	Up to 6,000 Volts AC (single or three phase), 5kV RF or DC
Current:	Up to 250 Amperes AC or DC
Signal types:	Analog signals such as sensors, thermocouples, audio, video, etc. Digital signals such as Ethernet, PROFIBUS, CANbus, RS-232, RS-422, RS-485 and other logic control
EMI shielding:	Shielding of analog, digital, RF and Microwave signals to prevent crosstalk with other signals and/or AC/DC power. Faraday shield style enclosures utilized
Contact technology:	Monofilament or Polyfilament precious metal (Palladium, Silver or Gold) Carbon based (Graphite, Copper/Graphite, Silver/Graphite) Brush material and technology is selected based on power or signal requirements
Electrical connection:	Cables/leads (length as specified by the customer), circular industrial or military connectors, modular industrial connectors, RJ45, screw or spring terminal blocks, etc.
Mounting:	Flanged rotor mount, threaded rotor mount, or hollow rotor mount. Through bore Slip Ring (hollow rotor mount) is optional to allow line(s) for other media to be routed through the center of the Slip Ring
Rotational speed:	Up to 2,500 RPM
Operating life:	Up to 800,000,000 revolutions
Ingress protection rating:	Up to IP67 or NEMA 12

DEUBLIN designs Slip Rings to a variety of channel counts, voltages and currents, communication protocols, operating temperatures, rotational speeds, mechanical vibration, and mechanical shock requirements as required by your application.

Since its founding in 1945 as a small, family-owned business, Deublin consistently has adhered to a policy of designing and building the best products of their kind in the world. The result of this policy has been continuous growth through the years, and for this we are grateful to our many loyal customers.

Today, Deublin is the world's largest manufacturer of Rotary Unions, with state-of-the-art factories, technical sales and services, and local stocking in 13 countries on four continents, as well as a worldwide distribution network operating in more than 60 countries. Our global organization and extensive catalog of field-tested products ensure a precise match between each customer's requirements and an engineered solution. Deublin has been part of the HOERBIGER Group since 2019 and forms the core of the Rotary Solution division.

We cordially invite you to visit our modern manufacturing facilities in Waukegan, Illinois, USA; Mainz, Germany; Monteveglio, Italy; Dalian, China; and Diadema, Brazil.



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# SERVICE AND STOCK ARE AVAILABLE THROUGHOUT THE WORLD