

# Solving challenges from the inside out.™

With a customer-centered process, we strive to meet your slip ring specifications and exceed your expectations.





## Alpha Slip Rings

At Alpha Slip Rings, our passion is solving problems. Our unique slip ring product line works to create solutions for extreme environments and small size applications. We utilize a customercentered process where our engineers, sales and customer service teams step up to create a custom slip ring solution for your application.

### History

Alpha Slip Rings, Inc. was founded in 1985 under the name "Alpha Instruments." In October of 2018, Alpha Slip Rings was acquired by United Equipment Accessories (UEA), a manufacturer of slip rings, rotary unions, cable reels and shift controls. Founded in 1952, UEA is a family owned ISO 9001:2015 organization. For more information visit www.uea-inc.com.

### **Our Products**

Alpha slip rings offer design versatility with a wide selection of circuitry and many combinations of amperage and voltage (AC or DC). Pre-wired harnesses are available for ease of installation. Alpha slip rings come in a variety of diameters, from 1.25" to 5.5". Through bore designs are also available.

### **Custom Solutions**

Special applications often call for special slip rings. By combining standard, off-the-shelf components into custom slip rings, Alpha designs meet the parameters and environmental conditions of the application. Every order is custom designed for your specific motion application need.





### **Electro-Optic Slip Rings**

This small size model can handle several electrical passes with a single channel fiber rotary joint. This type of slip ring is typically used in radar systems and can be delivered with hybrid electro-optic connectors and twisted pair or straight wire.

#### **Specifications**

- Small size electrical slip ring with 1 fiber optic pass
- Up to 24 electrical passes
- 600V and 5A standard
- 1 channel fiber rotary joint
- 1.73-inch diameter anodized or Chem Film aluminum housing, IP50

### **High Speed Slip Rings**

This model is for high speed applications up to 3K RPM.

#### **Specifications**

- Up to 10 electrical passes and a singlechannel fiber rotary joint
- 600V and 5A
- High speed, up to 3K RPM maximum
- 1.73-inch diameter anodized aluminum housing, IP50

### **Through Bore Slip Rings**

Customized solutions for high temperature requirements, molded cables, bulkhead connectors, and sealing options are available.

#### **Specifications**

- All models have a through bore to allow mounting over a shaft
- Various bore sizes available up to 3.5 inches
- Stainless steel and anodized aluminum housings

### Large Industrial Slip Rings

These models are used when electrical current requirements exceed 10 amps and can handle up to 40 amps per pass. This line is often used for industrial applications or in cable reels.

### **Specifications**

- Up to 70+ electrical passes
- 3.5KV and 5/10/20/40A standard (higher voltage and amperage possible)
- Large channel count (16+) fiber rotary joints can be integrated
- 3.5" or 5.5" diameter stainless steel body standard
- Subsea environment (with oil-fill and pressurecompensation) configuration available
- Mounting flange on shaft or on body
- Similar functionality, size and mounting to "Model 176" slip rings
- IP 65 standard (higher level sealing optional)





### **Small Industrial Slip Rings**

This model family is easily configurable for new design variations. Subsea versions are available.

#### **Specifications**

- Up to 60 electrical passes
- 600V and 5/10A standard
- 2.4" or 2.9" diameter stainless steel body standard
- Optional fiber rotary joints with up to 7 channels
- Often used with small cable reels with the body mounted externally or in industrial equipment
- Mounting flange on shaft or on body
- Similar functionality, size and mounting to "Model 180" slip rings
- IP 65 standard (higher level sealing)



### **Downhole Slip Rings**

This compact model is rugged enough for use in a downhole environment. These slip rings are designed for high temperature and shock environments. High temperature plastics and assembly materials are used to ensure industry leading performance.

#### **Specifications**

- Oil-filled/pressure compensated enclosure or a sealed 1 atmosphere enclosure
- Up to 28 electrical passes
- Up to 600V and 5A standard
- 1.25-inch diameter stainless steel body standard

### Wireline Logging Slip Rings

This Alpha model of slip ring is designed for wireline logging trucks. These slip rings are well protected against moisture with a condensation shield and are tightly sealed from harsh conditions.

### **Specifications**

- 5A or 10A
- 1KV rating
- Very compact, rugged design
- Stainless steel IP 65 housing
- UHF or MS-style connector





## **Hybrid Slip Rings**

Alpha slip rings are designed to work in conjunction with other rotary media devices. Our designs have been used in conjunction with fluid, air and radio frequency rotary unions.

#### **Fiber Optic Slip Ring**

We offer a variety of single and multi-channel (up to 16 optical passes) fiber rotary joints. Fiber types can be single mode, multimode or mixed. Units can be configured with receptacles or terminated fiber pigtails (most standard connector types available). We also offer subsea versions of both single and multichannel (pressure compensated) models.

#### **Radio Frequency-Electrial Slip Ring**

Radio frequency rotary joints are used to transmit signals between stationary and rotating radar and other systems. RF rotary joints with 1 or 2 channels and with 0 to 50 GHz frequency range can be integrated into your custom slip ring application.

#### **Electro-Hydraulic Slip Rings**

Rotary unions are precision components designed to transfer fluid from a stationary source to a rotating piece of machinery. Alpha can provide rotary union-slip ring combination units in a single self-contained, multimedia rotational assembly. Our rotary unions are custom-built to your exact specifications and application requirements.



## **How to Order**

#### **Contact Alpha Slip Ring:**

- 512.535.2353
- alpha@uea-inc.com
- www.uea-inc.com

## Provide us with the following information:

- RPM
- Continuous or Intermittent use
- Bidirectional or Unidirectional
- Application and Working Conditions
- Estimated Annual Usage
- Environmental Conditions
- Nema or Ingress Protection Rating
- Size Limitations
- Number of circuits
- Amperage and voltage rating of each circuit
- Mounting Position
- Connectors
- Hybrid Options Required- Fiber Optic, Radio Frequency, Hydraulic



## Industries

Alpha Slip Rings provides customized slip rings for an array of industries. Don't see your application listed? We can still help! We offer custom slip rings for a wide variety of applications. Our engineers will work with you to find a solution for your application.

- Oil & Gas
- Marine
- Industrial
- Defense & Aviation
- Food & Pharmaceutical
- Entertainment
- Construction



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