



PENLINK

INTRODUCTION

Penlink Winch Slip Rings for Winches, ROV's and Other Marine Applications

Penlink's winch slip rings are engineered to deliver dependable performance across a wide range of offshore and marine systems. Designed for topside installations and mission-critical operations—including ROV systems, oceanographic platforms, seismic equipment, and research vessels—they ensure stable and continuous transmission of power, signals, and fiber optics.

To accommodate diverse operational needs, every slip ring can be configured with custom circuit layouts and fiber-optic options. This modular approach allows each unit to be tailored to the electrical, data, and mechanical requirements of your specific application.

Key Features

- Multiple standard housing sizes for different winch classes
- 1:1 replacement options for industry-standard units
- Integrated thermal and condensation control
- Maintenance-free operation with service life exceeding 80,000,000 revolutions
- Fiber brush technology for clean, debris-free performance



PENLINK SOLUTION

Winch Slip Rings for Top Side Applications

Penlink winch slip rings are designed to deliver stable and reliable transmission of power, signals, and fiber optics across all topside winch systems regardless of size. Each unit is built around a shared design approach focused on mechanical robustness, consistent electrical performance, long operational life, and flexibility to adapt to a wide range of offshore requirements.

Every slip ring is engineered to handle vibration, saltwater exposure, mechanical shock, and continuous rotation. To meet different installation and system conditions, the slip rings are available with corrosion-resistant housings, IP-rated sealing, precious-metal contact systems, and tailored combinations of power, signal, and fiber-optic channels.

Thanks to our modular architecture, you can configure circuit counts, fiber channels, voltage and current ratings, and connector interfaces to suit the exact requirements of your winch, ROV system, deck machinery, or other topside equipment.

Winch Slip Ring – Key Highlights

Electrical Performance

- Mixed power and signal circuits
- Support for industrial protocols (Ethernet, RS485, Profibus, COAX)
- Low-noise, stable transmission with precious-metal contacts
- Modular circuit configurations

Fiber Optics

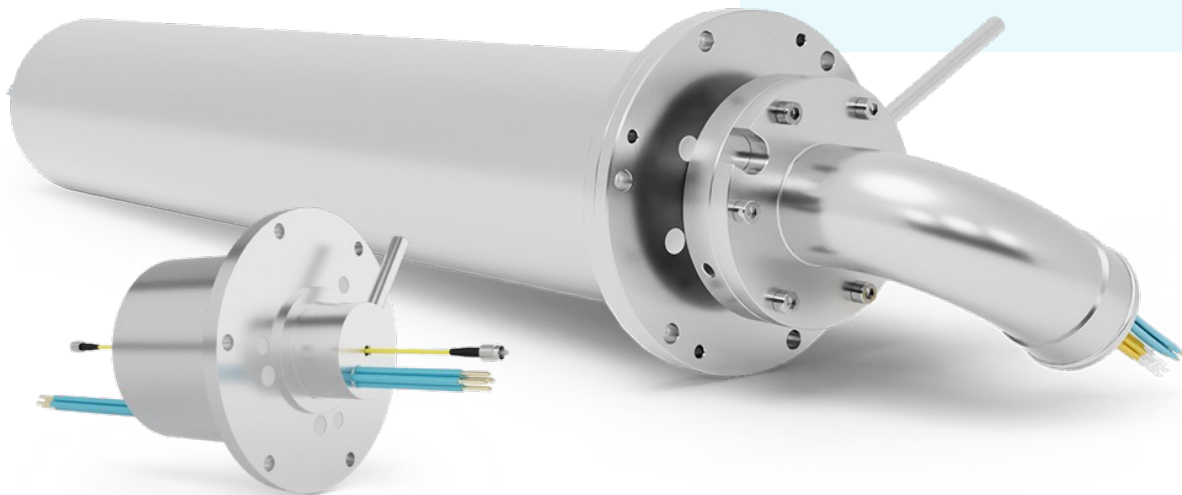
- Single channel or multi channel options
- Single-mode or multi-mode
- Multiple connector standards

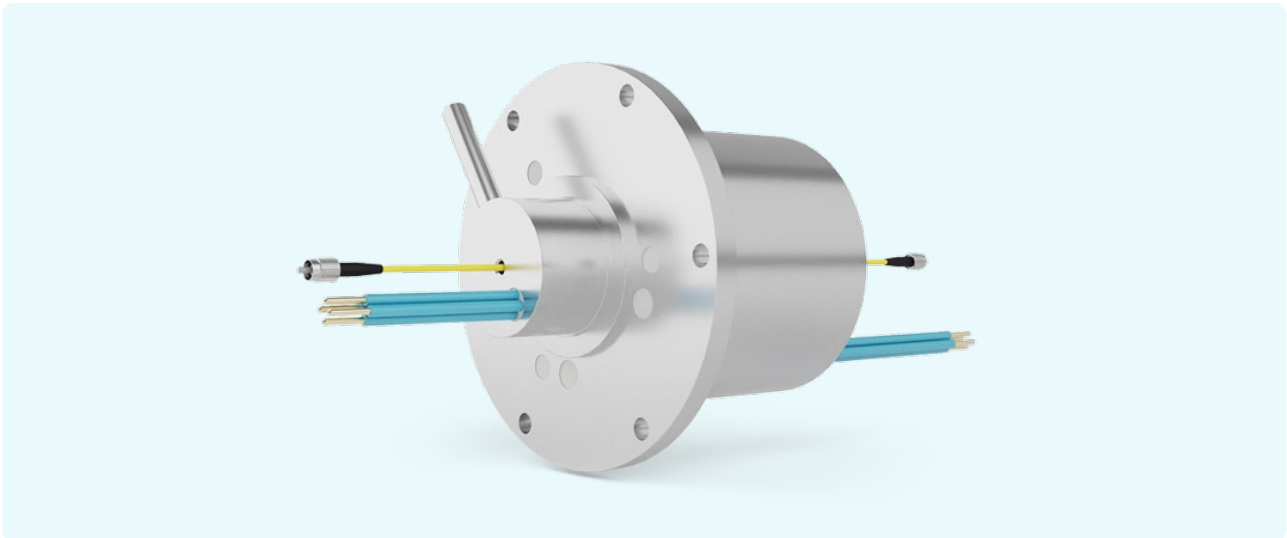
Environmental Protection

- IP-rated sealing (commonly IP66)
- Designed for marine/offshore environments
- Corrosion-resistant housings (Aluminum, SS304, SS316L)

Mechanical & Design Features

- Modular internal design
- Custom flanges, mounts, and cable glands
- Optional heaters or air-purge systems
- Engineered for long life under vibration, shock, and continuous rotation





Ø72-78 mm

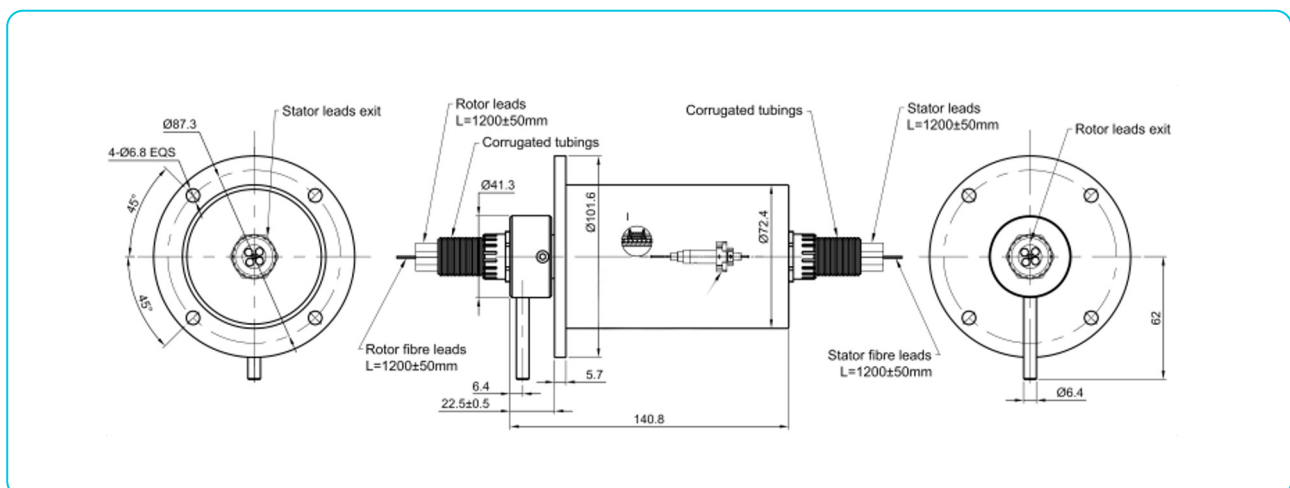
Small Winch Slip Ring

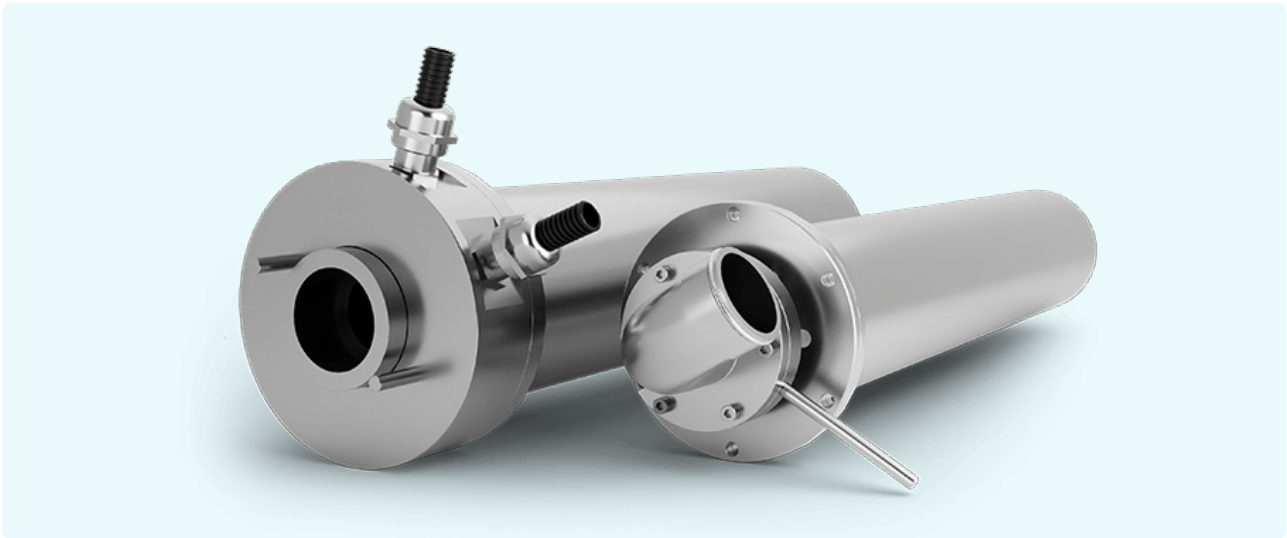
Penlink's Ø72-78 mm winch slip rings are designed for compact offshore and marine systems where space and weight are limited but performance cannot be compromised. Despite their small size, they provide stable transmission of power, signals, and fiber optics, making them well-suited for small ROVs, coastal survey tools, fishing vessels, and portable marine platforms.

These units offer a durable and efficient solution for operators who need dependable rotation in a compact footprint. With optional single-channel fiber optics, IP-rated protection, and corrosion-resistant housing materials, the Ø72-78 mm series delivers consistent electrical performance while keeping installation lightweight and straightforward.

Common Applications

- ROV winches
- Coastal survey systems
- Fishing and aquaculture equipment
- Compact deck machinery





Ø140-168 mm

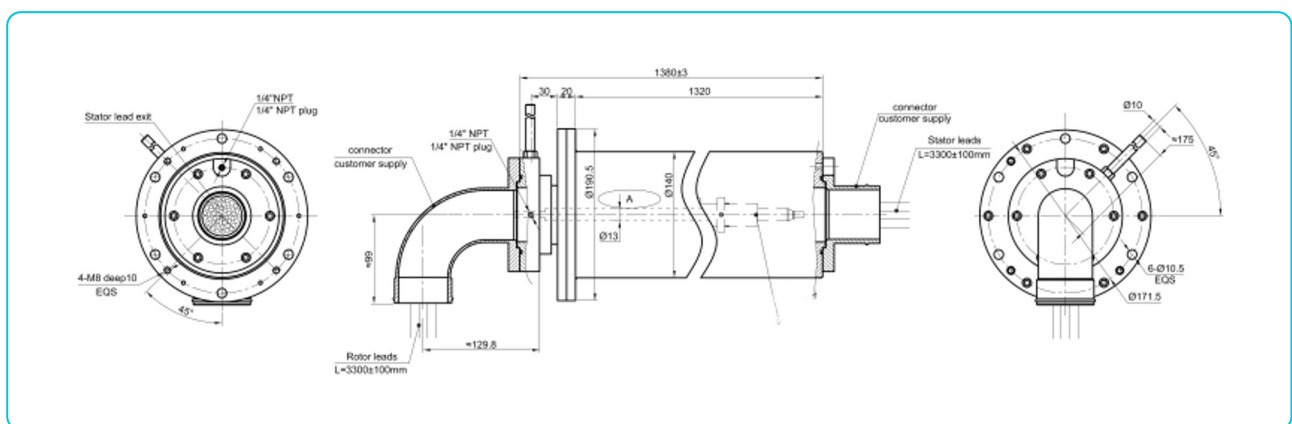
Large Winch Slip Ring

Penlink's Ø140–168 mm winch slip rings are built for heavy-duty offshore systems that demand maximum power capacity, high signal counts, and advanced electro-optical capability. Designed for full-size ROVs, LARS/TMS platforms, seismic survey winches, and other high-load deck machinery, they ensure reliable transmission of power, data, and fiber optics in the most demanding operations.

With modular configurations supporting high-voltage and high-current circuits, plus extensive fiber-optic options, the large-format series can be tailored to meet specific system requirements. Optional features such as internal heaters, air-purge systems, custom flanges, and multiple housing materials further enhance durability and integration across complex offshore platforms.

Common Applications

- Work-class ROV Systems
- LARS & TMS Platforms
- Seismic and oceanographic winches
- Heavy deck machinery
- High-demand offshore equipment



WHY CHOOSE PENLINK**Modular Winch Slip Rings**

Penlink's winch slip rings are fully modular, allowing each unit to be configured for specific installation, environmental, and electrical requirements. By combining standardized technology with decades of offshore experience, we ensure every solution integrates seamlessly into topside and marine systems.

Fiber Brush Technology

Our advanced fiber brush technology delivers long service life and maintenance-free performance. Unlike traditional carbon brushes, fiber brushes produce no debris, maintain low electrical noise, and provide consistent conductivity throughout the slip ring's operating life. Optimized brush design, PCB layouts, and thermal management ensure stable performance even in challenging offshore conditions.

Circuit Configurations

Penlink slip rings can be customized with a wide range of electrical circuits—from low-voltage signal channels to high-power circuits and high-voltage options. Whether your application requires mixed power and data, 10–100 A circuits, or specialized high-voltage channels, our modular platform allows us to tailor each unit to your exact needs.

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SCAN QR CODE FOR
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SLIP RINGS