

PENLÍNK

Electro-Optical Slip Rings for Offshore Applications

Our strength is producing slip rings for harsh environments. We know what technical specifications and requirements that are important for slip rings to minimize downtime offshore.

We can offer modified solutions based on our standard electro-optical slip rings or a total customized solution if your application need it. APPLICATION NOTE

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Optimize the Electro-Optical Slip Ring

We optimize the design to meet your requirements

Talk to us about your needs and we will create an electro-optical slip ring that will meet the requirements of your project. We will optimize all the important aspect of the component – this means that we can modify ampere, voltage, how many rings for signals, data, and power, type of cable exits, number of fiber channels, and the diameter and length of the component according to the specifications. Our electro-optical slip rings are all made of stainless steel as it's a very common component for offshore operations.



1. It's possible to optimize the amount of rings depending on the voltage and ampere, higher voltage also means more space between the rings.

2. Depending on how many channels the fiber has – it affects the diameter of the slip ring.

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APPLICATION NOTE

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Brush Technology

Advantages using fiber brush technology

Our fiber brushes offers significant improvement over carbon brushes in both data and current transfer, offering extended brush and slip ring service life, high current capacity, and limit any service need to none, and reduce the electrical noise significantly. Depending on the ring surface, you can have even longer life-time and higher speed of the transmission.

Fibre Brush Technology

- \rightarrow Multiple points of ring contact per brush bundle.
- → Ability to perform in ambient conditions as well as in vacuum conditions.
- \rightarrow Contact surfaces that do not require lubrication.
- \rightarrow Long life, 8 million revolutions.
- → Low contact force per fiber.
- \rightarrow High power circuit density.
- \rightarrow Low dynamic contact resistance (noise).
- \rightarrow High and low current carrying abilities.
- \rightarrow Very little debris generation.
- \rightarrow Wide operating temperature range.
- \rightarrow Wide range of brush/ring surface speeds.

Fiber Brushes and Insolation Plates

Both the fiber brushes and the isolation plates are possible to modify in material, size, and voltage to optimize the design.

Connection for the power and signals enables for free transmission in attached fiber brushes and parallel rings.

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APPLICATION NOTE

Example of Electro-Optical Slip Rings

Compact Electro-Optical Slip Ring

The smaller models are suitable for ROV, fishing vessels, seismic surveys or deck machinery. The slip rings can have up to 3000V and 10-20A for each circuit.

We can modify solutions for higher current, if needed. The slip rings can also be equipped with up to four independent optical passages.



Example Specifications

Sizes	Voltage/Current	Fiber Channels	Sealing Degree	Material
Ø72mm	1500V/10A	1	IP66	Alu/SS304
Ø102mm	3000V/20A	4	IP66	SS304/316

Mid-size Electro-Optical Slip Ring

Our mid-size slip ring is designed for offshore winches, for example ROVs, and can be used with up to 12 optical passages, and the slip ring can be designed with AIR Purge and Internal heaters. The slip ring is also available in a subsea version suitable for oil filling.

The slip ring is available in standard configurations 20A circuits and 3300V or 5000V versions. It is possible to modify the slip rings to higher ampere.



Quick Specifications

Sizes	Voltage/Current	Fiber Channels	Sealing Degree	Material
Ø140mm	3300V/20A (configurable)	4	IP66	SS304/316
Ø168mm	3300V/80A	12	IP66	SS304/316

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Get in touch with us today to start your next project!

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H E A D Q U A R T E R S

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