



## PENLINK

### INTRODUCTION

## Slip Rings in Unmanned Aerial Systems (UAVs)

Unmanned Aerial Systems (UAVs), commonly referred to as drones, have become increasingly integral in various industries, including agriculture, surveillance, mapping, and entertainment. These applications often demand the seamless transmission of signals and data as UAVs perform complex manoeuvres and collect critical information.

Penlink offers high-quality slip rings specifically designed for UAVs, ensuring continuous and reliable data transmission during 360° rotations. In this application note, we will focus on Penlink's smaller series of slip rings, emphasizing their benefits and suitability for UAV applications.



## PENLINK SOLUTION

### Ensuring Optimal Performance

Penlink's slip rings are engineered to facilitate uninterrupted signal and data transmission during 360° rotation. This feature is crucial for UAVs as they frequently need to transmit real-time information, such as video feeds, telemetry data, and control signals, while in flight. The smaller series ensures that these critical data streams remain consistent and reliable throughout the UAV's operation.

Our slip rings are designed with minimal noise levels, guaranteeing that signal quality remains uncompromised. Moreover, these slip rings have a long operational life, reducing the need for frequent maintenance and replacements, which is especially advantageous in remote or hard-to-reach locations where UAVs often operate.

The slip rings offer low torque and smooth rotation, ensuring that UAVs can make precise and controlled movements. This is essential for applications such as aerial photography, where smooth, jitter-free camera movements are paramount to capture high-quality images and videos.

#### High-Quality Materials

Penlink's slip rings use gold-gold contacts, which offer exceptional conductivity and reliability. This choice of materials enhances the slip rings' durability and ensures consistent performance under various environmental conditions.

#### IP65 Protection Grade

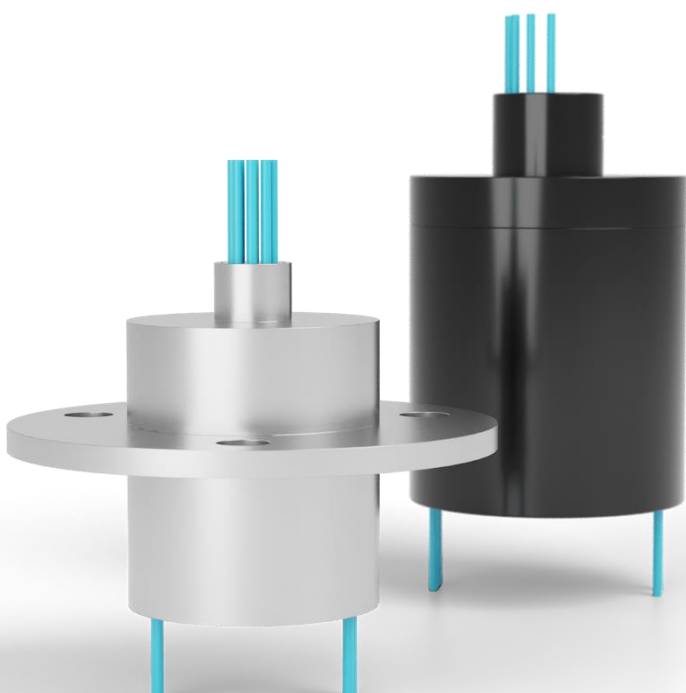
The slip rings can be configured with an IP65 protection grade, making them resistant to dust and water ingress. This level of protection is essential for UAVs operating in challenging environments, including adverse weather conditions.

#### Flexible Wires

Our slip rings come with flexible, color-coded, silver-plated, Teflon® insulated lead wires. These wires are designed to withstand mechanical stress and environmental factors, ensuring consistent signal transmission.

#### Tailored Current Capacity

Our slip rings can be specially designed to handle currents higher than 2A, catering to the specific power requirements of your UAV system.





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## Unleash UAV Potential with Penlink's Slip Rings Precision, Reliability, and Connectivity

In the fast-paced world of Unmanned Aerial Systems (UAVs), where precision and reliability are crucial, Penlink's slip rings are the top choice.

These carefully designed slip rings provide uninterrupted signal and data transmission, reduce noise, and last a long time, all while being compact. We are committed to meeting the high standards of UAV applications to ensure your important missions go smoothly

To begin your journey towards seamless UAV connectivity, tailored to your specific needs, or to explore customization options, please reach out to our dedicated team at [info@penlink.se](mailto:info@penlink.se).

Enhance your UAV's performance with Penlink's slip rings, the trusted choice for reliability.

### Key Features

- High-Quality Material
- High IP Grade Protection
- Tailored Current Capacity
- Flexible Wires

### CONTACT INFORMATION

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