



# Electro-Optical Rotary Joints



## ● Features

- ⦿ All-in-One Transmission: Combines fiber optics, high current, and control signals in one compact module.
- ⦿ Interference-Free: Patented design provides >60dB EMI suppression with fully separated optical and electrical channels.
- ⦿ Military-Grade Reliability: Gold contacts, optional IP68 protection, 10G vibration resistance, salt spray tested, over 5 million revolutions.
- ⦿ Compact Design: Efficient layout for easy integration in space-constrained systems.
- ⦿ Customizable: Tailored for applications in gimbals, medical imaging, HD surveillance, and remote systems.

## ● Electro-Optical Rotary Joints

JINPAT's Electro-Optical Rotary Joints combine fiber optic and electrical slip ring channels for simultaneous transmission of optical, power, and control signals through a single rotating interface. Designed for compact integration, they offer high-speed, interference-free performance in demanding environments. Ideal for UAV gimbals, HD video, medical devices, and remote sensing platforms, with customized solutions across over 20 industries.

## ● Customization & Services

Customize your slip ring with specific signal types, channels, protection levels, or mounting styles. 3D CAD models and technical support available.

Need help? Contact us 24/7 for technical assistance.

For full specifications, check datasheets or reach out to our sales team.

## ● Selection table

Typical Models of Electro-Optical Rotary Joints						
Typical Model	RF Channels		Power Channels		Supported Signal Types	Outer Diameter (mm)
	No. of RF Channels	Insertion Loss	No. of Circuits	Voltage		
LPC-D35-0315 -2502-01E3-01FO	1	2dB	28	0-220V	USB 2.0 , Fast Ethernet , Gigabit Ethernet , HD-SDI , Common Signals	φ35
LPC-D60-2005 -30S-01FO			20	0-220V	USB 2.0 , Fast Ethernet , Gigabit Ethernet , HD-SDI , Common Signals	φ60
LPT000-0210 -02FO	2-7	4dB	2	0-380V	Fast Ethernet , Gigabit Ethernet , Common Signals	φ112
LPT000-0320 -03FO			3	0-380V	Fast Ethernet , Gigabit Ethernet , Common Signals	φ190
LPT000-0415- 12S-02E3-04FO			4	0-380V	Fast Ethernet; Gigabit Ethernet; Common Signals	φ108
LPT000-0305 -05FO			3	0-380V	Fast Ethernet , Gigabit Ethernet , Common Signals	φ145
LPT000-0640 -0210-06FO			6	0-380V	Fast Ethernet , Gigabit Ethernet , Common Signals	φ190
LPT000-1210 -39S-01E3-12FO	8-18	5dB	12	0-380V	Fast Ethernet , Gigabit Ethernet , Common Signals	φ140
LPA000-12400 -0454-0827-0423 -0813-04S-32FO	18-35	5dB	32	/	Fast Ethernet; Gigabit Ethernet; Common Signals	φ1080

## ● Selection table

### Typical Models of Electro-Optical Rotary Joints

#### ● Electro-Optical Rotary Joints Customization Options

1. Customizable mechanical dimensions
2. Configurable power and signal channels
3. Full-frequency compatibility up to DC–67GHz RF
4. Integration with pneumatic and hydraulic rotary unions
5. Customizable IP protection level
6. Optional housing materials (aluminum alloy, stainless steel, etc.)
7. Mixed high-speed data transmission supported, including:
  - USB 2.0
  - Analog HD video (CVBS/CVI/AHD/TVI/XVI; PAL/NTSC/SECAM)
  - Ethernet slip rings (Fast/Gigabit/Industrial Ethernet)
  - Fieldbus slip rings (RS422, RS485, ProPbus, Modbus, DeviceNet, CC-Link, CAN/CANbus, InterBus)
  - Serial communication (I2C, BISS, SSI, SPI, UART, RS232, TTL, MIL-STD-1553B, IEEE 1394b)
  - RTD signals
  - Thermocouple signals
  - Sensor signals
  - Encoder signals

## ● Customization options

Note: The following special requirements can be customized, JINPAT most of the basic accessories are standardized, modular, non-standard customization can also greatly reduce the cost and delivery time.

- 1、 Customized rotor and stator outlet and outlet length
- 2、 Due to structural limitations, can be customized in accordance with the specified length or height or external diameter
- 3、 Yasukawa, Panasonic, Siemens and other servo system signals, power lines, and encoder lines mixed slip ring
- 4、 Mixed high-speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CANBUS, CANPUS). CANOPEN, DeviceNET, CC-LINK, ProPNET, EtherCAT and other types of industrial lines).
- 5、 Anti-shock, high temperature and other special environment customization
- 6、 Can be mixed with pneumatic, hydraulic rotary joints integrated pneumatic-electrical-hydraulic slip ring
- 7、 Military grade
- 8、 Waterproof, underwater mode optional, IP65,IP68 optional