

High Frequency Slip Ring



Main Application

- ◆ Electrical test equipment
- ◆ Manufacturing and process control equipment
- ◆ Indexing tables.
- ◆ CCTV pan / tilt camera mounts
- ◆ Robotics, rotary sensors, urgent illumine equipment
- ◆ Exhibit / display equipment.
- ◆ Aviation military, instrument, medical equipment
- ◆ Mini-type wire-rolling machine
- ◆ Closed-circuit control

Option

- ◆ Placement of custom circuitry directly onto the unit
- ◆ Custom mechanical integration features
- ◆ Addition of special components
- ◆ Inclusion of coax and miniature data bus cables

Contact us to discuss your special needs

LPC-1C2402

Slip Ring RF Coaxial Connector

Description

This unit can be used in any electromechanical system that requires unrestrained, continuous rotation while transferring power or data from a stationary to a rotating structure.

It is also called a rotary electrical interface, commutator, collector, swivel or an electrical rotary joint. It can improve electromechanical capability, simplify system design, eliminate possible damage while rotation. It's the key apparatus of various precision rotary worktable, electric test instrument, manufacture and process control instrument.

The LPC-1C2402 slip ring is a special unit with RF Coaxial Connector. The Bandwidth could achieve to 50MHz—3GHz; The Insert Wastage $\leq 0.2\text{dB}@1.0\text{GHz}$; The Loop Wastage $\geq 30\text{dB}@1.0\text{GHz}$. Color-coded lead wires are used on both the stator and rotor for simplifying electrical connections.

Using a 90° V-groove ring design for each ring, the LPC-1C2402 provides smoother running, lower torque and lower electrical noise than competitive slip rings.

Features

- ◆ 24 circuits models
- ◆ 2 amps per circuit, 240VAC/DC
- ◆ Precision ball bearings meet or exceed life requirements for most commercial applications
- ◆ Gold-gold contacts
- ◆ Compatible with data bus protocols
- ◆ Sealed units are available
- ◆ Flexible, color-coded, silver-plated, lead wires
- ◆ Transfers analog and digital signals

Advantage

- ◆ Low torque minimizes system torque budget
- ◆ Compact design to fit in the most demanding space.
- ◆ Smooth running
- ◆ Low electrical noise
- ◆ Quick shipment per your urgent requirement
- ◆ 360° continuous rotation
- ◆ High bandwidth transfer capability
- ◆ Transferring SDI signal

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Specifications

Operating Speed	50rpm max
Number of Circuits	24
Voltage	240 VAC/DC
Current Rating	2 amps per circuit
Temperature Range	-20°C ~ +60°C
Working Humidity	60%RH or higher
Contact Material	Gold to Gold
Lead Size	AWG30 silver plated copper
Housing Material	Aluminum alloy
Lead Length	Standard 250 mm (9.843inch)
Insulation Resistance	100mΩ@500VDC
Electric Noise	≤50mΩ
IP	IP54

The Description of Coaxial Connector:

Specific Impedance	50Ω
Static Resistance Value	Outer Conductor : ≤100mΩ Inner Conductor : ≤50mΩ
Electric Noise	Inner Conductor : ≤50mΩ
Insulation Resistance	1000 mΩ@500VDC
Cable size	RG316/U (Flexible Coaxial Cable)
Housing Material	Engineering plastic
Cable Length	250mm
Connector Model	SMA/BNC/TNC/SMB
Contact Material	Metal

Capsule Length = L

# of Circuits	L (mm)	Part No
24	54.8	LPC-1C2402

Contact us on wire color codes

- ◆ The operating life of the unit depends upon temperature, rotation speed and environment.
- ◆ The operating life ≥50,000,000 runs ref.

