

# Through Bore Slip Ring



## Main Application

- ◆ Packaging / wrapping machinery
- ◆ Semiconductor handling systems
- ◆ Industrial machinery
- ◆ Exhibit Display machinery
- ◆ Medical equipment
- ◆ Rotary index tables
- ◆ Process control equipment
- ◆ Emergency lighting, robotics Palletizing machines,
- ◆ Heavy equipment turrets or cable reels

## 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

## LPT050 Series Slip Ring with Through Bore 50mm

### Description

A slip ring can be used in any electromechanical system that requires unrestrained, continuous rotation while transferring power or data from a stationary to a rotating structure. A slip ring is also called a rotary electrical interface, collector, swivel or a commutation. A slip ring can improve system performance by simplifying operations and eliminating damage-prone wires dangling from movable joints.

The 50mm unobstructed through-bore provides routing space for hydraulics, pneumatics or for a concentric shaft mount. The LPT050 uses our fiber brush technology which offers several advantages over conventional slip ring contacts including multiple points of contact per brush bundle, low contact force per fiber and low contact wear rates. In addition, fiber brushes do not require lubrication and produce virtually no wear debris. The LPT050 features field serviceable brush blocks.

### Features

- ◆ 50 mm through-bore
- ◆ Compact 119mm outside diameter
- ◆ Modular design - a single module can have: one 50 amps ring; two 30 amps rings; one, two or three 10 amps rings or six 5 amps signals
- ◆ Up to 20-50 amps circuits
- ◆ Speed up to 500 rpm continuous
- ◆ Steel bearings and machined shaft and housing for harsh environment
- ◆ Collar mounting is standard; flange mounting is optional
- ◆ Various lead exits are available
- ◆ Silver plated rings are standard. Gold plated optional.
- ◆ Continuous 360° rotation of power or data signals
- ◆ Sealed unit

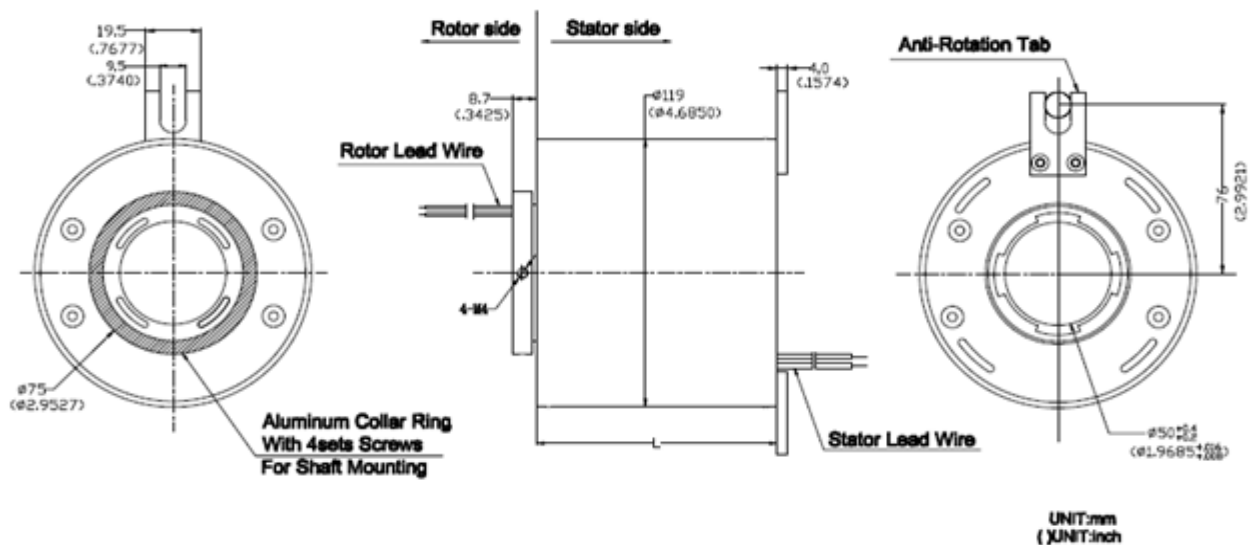
### Advantage

- ◆ Transfers control and data signals
- ◆ Fiber brush technology provides maintenance-free operation (no lubrication required)
- ◆ Modular design meets special requirements through off-the-shelf manufacturing techniques
- ◆ Customized configurations for your application

# Through Bore Slip Ring

Specification	
Circuits	1-24 circuits
Operating Speed	0-500rpm
Working Temperature	-20℃ ~ +60℃
Working Humidity	60%RH or higher
<b>Electrical:</b>	
Voltage Rating	380VAC/DC or higher
Current Rating	2A/5A/10A/15A per circuit
Dielectric Strength	≥1000V@50Hz between each circuit
Insulation Resistance	1000MΩ@ 500VDC
Electrical Noise	1mΩ Min
<b>Mechanical:</b>	
Contact Material	Precious metal
Lead Wire Size	Teflon <sup>®</sup> UL
Lead Wire Length	Standard 300mm (11.81inch)
Housing Material	Aluminum alloy
Torque	≤9.25 g·m (for reference )
Protection	IP54 or higher

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



# Through Bore Slip Ring

**L---The length of through bore slip ring(mm)**

Part Number	Current/Circuit	6 circuits	12 circuits	18circuits	24 circuits
LPT050(Inner diameter50mm)	5A	50	69.8	89.6	109.4
	10A	54.2	78.2	102.2	126.2
	15A	59	87.8	116.6	145.4

**Lead Wire Color Code**

Lead Wire Size	Ring#	Color	Ring#	Color	Ring#	Color	Ring#	Color
AWG22 Tinning Teflon® UL (2A/5A)	#1	BLK	#2	RED	#3	YEL	#4	GRN
	#5	BLU	#6	WIT	#7	BRN	#8	ORG
	#9	GRAY	#10	CLAR	#11	WIT-RED	#12	WIT-BLU
	#13	WIT-YEL	#14	WIT-GRN	#15	WIT-BLK	#16	WIT-BRN
	#17	WIT-ORG	#18	WIT-GRAY	#19	BLK-RED	#20	BLK-YEL
	#21	BLK-GRN	#22	BLK-BLU	#23	BLK-BRN	#24	BLK-GRAY
<b>24 different kinds of colors for a circle. #1 from rotor side ( The color of the lead wire may be changed )</b>								
AWG17 Tinning Teflon® UL (10A)	#1	BLK	#2	RED	#3	YEL	#4	GRN
	#5	BLU	#6	WIT	#7	BRN	#8	ORG
	#9	GRAY	#10	CLAR	#11	WIT-RED	#12	WIT-BLU
	#13	WIT-YEL	#14	WIT-GRN	#15	WIT-BLK	#16	WIT-BRN
	#17	WIT-ORG	#18	WIT-GRAY	#19	BLK-RED	#20	BLK-YEL
	#21	BLK-GRN	#22	BLK-BLU	#23	BLK-BRN	#24	BLK-GRAY
<b>24 different kinds of colors for a circle. #1 from rotor side ( The color of the lead wire may be changed )</b>								
AWG14 Tinning Teflon® UL (15A)	#1	BLK	#2	RED	#3	YEL	#4	GRN
	#5	BLU	#6	WIT	#7	BRN	#8	ORG
	#9	GRAY	#10	CLAR	#11	WIT-RED	#12	WIT-BLU
<b>12 different kinds of colors for a circle. #1 from rotor side ( The color of the lead wire may be changed )</b>								