



LPKS Pancake Slip Rings



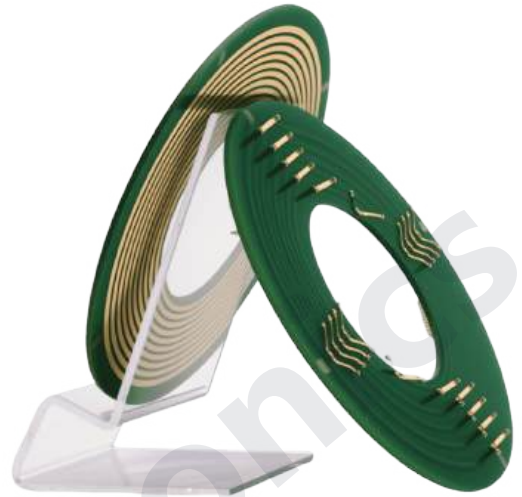
● Features

Minimum thickness up to 5.4m

Transmit analog and digital signal

The power and signal are mixed transmitted, and the signal categories are as follows:

- ⊗Ethernet: Rate (10Mbps/100Mbps/1000Mbps)
- ⊗Industrial Ethernet: ProPNet, Powerlink, SercosIII, EtherCAT, EtherNet/IP, etc.
- ⊗HD video: SDI, LVDS, etc.
- ⊗Serial communication: RS232, RS485, RS422, etc.
- ⊗Universal Serial Bus: USB2.0
- ⊗Industrial Fieldbus: CANBus, CC-Link, InterBus, DeviceNet, ProPBus, etc.
- ⊗Sensor signal: thermal resistance, thermocouple, strain gauge, etc.
- ⊗Shock-resistant, maintenance-free



● Technical specification parameters

Electrical & Electronics		Mechanical		Environmental	
Number of Circuits	1~10 circuits	Rotating Speed	0~100rpm	Temperature	Industrial: -20°C~+60°C
					Military: -55°C~+80°C
Current	5A/Signal	Contact Material	Precious metal/ Gold to gold	Humidity	Below 60%RH
Voltage	240VAC/DC	Housing Material	FR-4	Protection Grade	/
Dielectric Strength	500VAC@50Hz (power) 300VAC@50Hz (signal)	Torque	0.1N.m(Reference	Others	
Insulation Resistance	≥500MΩ@500VDC	Wire Type	AWG20# Teflon®UL	Life Span	10 million (customizable)
Dynamic Contact Resistance	≤20MΩ (At the speed of 50rpm)	Wire Length	Stator:300mm Rotor:300mm		

● Selection table

LPKS Pancake Slip Rings						
Model	Number of Circuits	Voltage (AC/DC)	Current (A)	OD*Length (L) / (mm)	(ID) (mm)	Reference Circle (D)/ (mm)
LPKS005-0105	1	240V	5	φ34*7	5	30
LPKS005-0205	2	240V	5	φ42*7	5	38
LPKS005-0305	3	240V	5	φ52*7	5	46
LPKS005-0405	4	240V	5	φ60*7	5	54
LPKS005-0505	5	240V	5	φ68*7	5	63
LPKS005-0605	6	240V	5	φ76*7	5	70
LPKS005-0705	7	240V	5	φ84*7	5	78
LPKS005-0805	8	240V	5	φ92*7	5	86
LPKS005-0905	9	240V	5	φ100*7	5	94
LPKS005-1005	10	240V	5	φ108*7	5	102
LPKS019-0905	9	240V	5	φ108*7	19	102
LPKS028-0805	8	240V	5	φ108*7	28	102
LPKS036-0705	7	240V	5	φ108*7	36	102
LPKS045-0605	6	240V	5	φ108*7	45	102
LPKS053-0505	5	240V	5	φ108*7	53	102
LPKS061-0405	4	240V	5	φ108*7	61	102
LPKS069-0305	3	240V	5	φ108*7	69	102
LPKS076-0205	2	240V	5	φ108*7	76	102
LPKS084-0105	1	240V	5	φ108*7	84	102

- This series is divided into an integrated pancake slip ring and a separate pancake slip ring. The integrated pancake slip rings provide vias of different size; the separate pancake slip ring consists of a separate rotor and a stator to meet more stringent height requirements, and can be installed by the customer according to the application environment.

LPX XXX-XXXX-XXXX-XX - X X

- ⊗ Combination type:
- ⊗ HF for High Frequency,
- ⊗ FO for Fiber Optic
- ⊗ A for Air Over,
- ⊗ L for Liquid Over,
- ⊗ G for Oil Over

⊗ is the number of paths of the combined rotary couplings

- ⊗ Same signals are counted together, different signals are listed in wiring order; special signals (e.g. USB, Ethernet, IF) are listed at the end.
U1/U2/U3: represent USB1.0 / 2.0 / 3.0 respectively
E1/E2/E3: represent 10M / 100M / 1000M Ethernet respectively
MF: represent IF signal (above 30MHz)
Other signals are unified with S.

- ⊗ Number of rings and current, number of rings with the same current, if there are several groups with different currents, arranged by current from largest to smallest

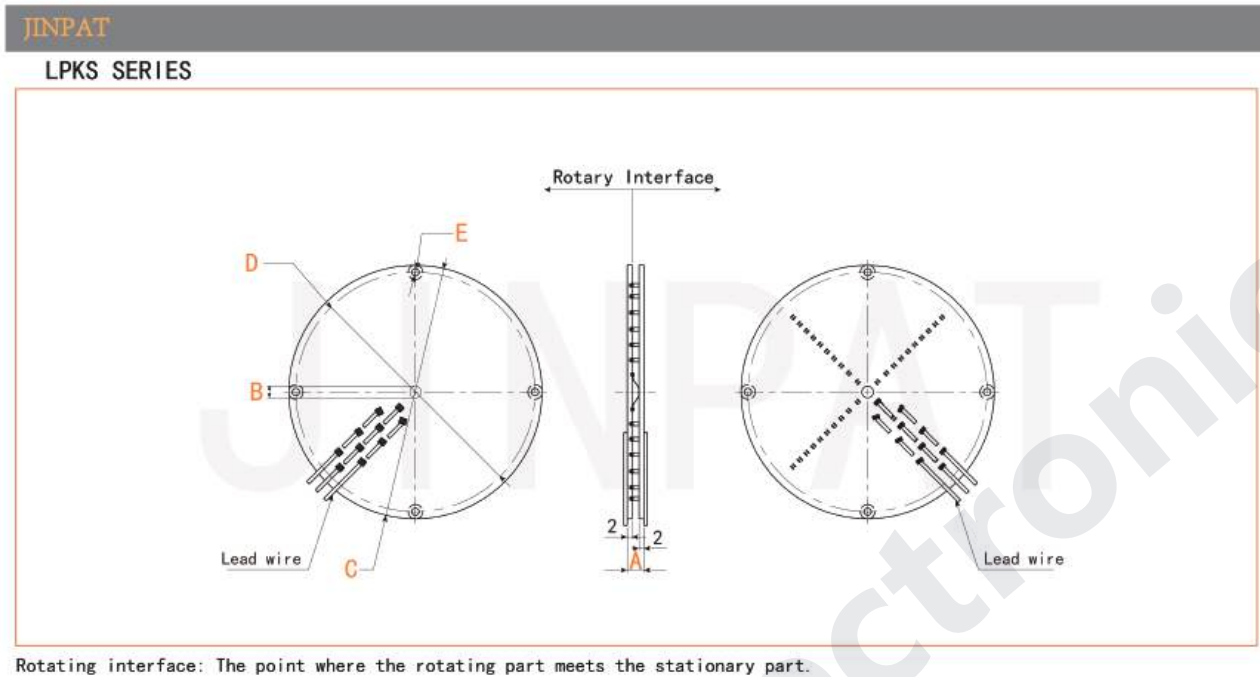
- ⊗ For through-hole or half-through-hole sizes, always round to the nearest whole number, or "000" for solids.

- ⊗ LPT: Standard Hollow Shaft Slip Rings / LPTS: Hollow Shaft Slip Rings for Heavy Machinery
LPK: Integral Disk Slip Rings / LPKS: Separate Disk Slip Rings / LPS: Split Disk Slip Rings
LPA: High Current Slip Rings / LPW: Wind Power Slip Rings

Product Selection Example Description

- Example 1: LPT025-0615-02U2
→ Hollow shaft slip ring, 25mm overbore, 6-way 15A current, 2 sets of USB2.0 signals
- Example 2: LPT000-0210-02E2FS-01A
→ Electrical combination hollow shaft slip ring, solid shaft (no bore), 2-way 10A current, 2 sets of 100Mbps Ethernet signals, with Waterproof (up to IP65), 1 channel over air

● Product Dimension Drawing



● 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