LPT Series — Through Hole Slip Rings

LPT series is a family of robust through hole slip rings, with a central hole up to φ980mm, designed and manufactured by JINPAT Electronics with patented technology. Apart from characteristics of water- and pressure-proof and vibration resistance, it can integrate high-frequency, fiber optic and pneumatic hydraulic (16 channels at most) rotary joints, together with customizable lead wires and connectors, to meet more challenges. Keeping to manufacturing of outstanding quality and reliability for years, such slip rings have been set up successive checks by JINPAT full-fledged quality management system. Boasting a stable transmission with a long service life (230 million turns), slip rings of LPT series have been highly appraised by customers throughout the world for over 20 years.

Parameters

Electric & Electronic	
Voltage Rating	240VAC
Dielectric Strength	≥500VAC@50Hz ≥300V@50Hz(signal)
Insulation	500MΩ@500VDC 100MΩ@300VDC(signal)
Signal Compatible	Industrial Bus, Switch Limit, Thermal Resistance, Sensor

Mechanical	
Working Speed	0~300 RPM
Contact	Precious Metal
Housing	Aluminum Alloy
Lead Wire	Silver Plated Teflon® 300 mm

Environment	
Working Temperature	-40℃~+80℃
Humidity	≤95%RH
IP	IP54

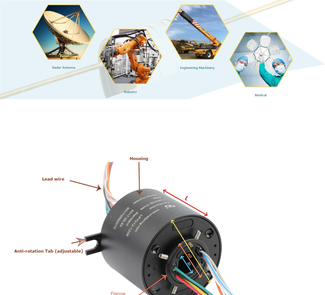
Life
≥ 10 million turns

* Any request beyond specification above, please feel free to contact us.

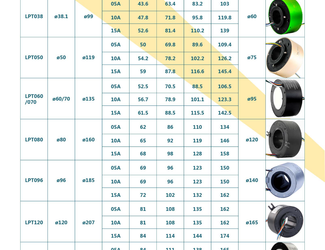
* Life test was done under JINPAT laboratory condition.

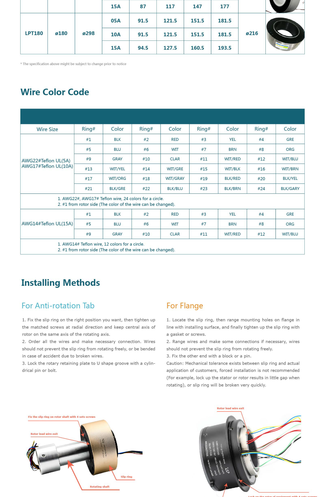
Features & Benefits

- Modular design, custom option
- Compatible with data bus signal
- Long service life, maintenance free
- Technical service available
- Mass production, rapid delivery



Application





LPT Series

Model	Inner Diameter (mm)	Outer Diameter (mm)	Current (A)	Length(L, mm) 6 Circuits	12 Circuits	18 Circuits	24Circuits	Al Ring Diameter (mm)	Picture
LPT012	ø12.7	ø56	05A	34	47.8	61.6	75.4	ø30	
			10A	37	53.8	70.6	87.4		
LPT025	ø25.4	ø86	05A	43.5	62.7	81.9	101.1	ø50	
			10A	47.7	71.7	94.5	117.9		
			15A	52.5	80.7	108.9	137.1		
LPT038	ø38.1	ø99	05A	43.6	63.4	83.2	103	ø60	
			10A	47.8	71.8	95.8	119.8		
			15A	52.6	81.4	110.2	139		
LPT050	ø50	ø119	05A	50	69.8	89.6	109.4	ø75	
			10A	54.2	78.2	102.2	126.2		
			15A	59	87.8	116.6	145.4		
LPT060 /070	ø60/70	ø135	05A	52.5	70.5	88.5	106.5	ø95	
			10A	56.7	78.9	101.1	123.3		
			15A	61.5	88.5	115.5	142.5		
LPT080	ø80	ø160	05A	62	86	110	134	ø120	
			10A	65	92	119	146		
			15A	68	98	128	158		
LPT096	ø96	ø185	05A	69	96	123	150	ø140	
			10A	69	96	123	150		
			15A	72	102	132	162		
LPT120	ø120	ø207	05A	81	108	135	162	ø165	
			10A	81	108	135	162		
			15A	84	114	144	174		
LPT150	ø150	ø250	05A	84	111	138	165	ø184	
			10A	84	111	138	165		
			15A	87	117	147	177		
LPT180	ø180	ø298	05A	91.5	121.5	151.5	181.5	ø216	
			10A	91.5	121.5	151.5	181.5		
			15A	94.5	127.5	160.5	193.5		

* The specification above might be subject to change prior to notice

Wire Color Code

Wire Size	Ring#	Color	Ring#	Color	Ring#	Color	Ring#	Color
AWG22#Teflon UL(SA) AWG27#Teflon UL(15A)	#1	BLK	#2	RED	#3	YEL	#4	GRE
	#5	BLU	#6	WHT	#7	BRN	#8	ORG
	#9	GRAY	#10	CLAR	#11	WT/RED	#12	WT/BLU
	#13	WT/YEL	#14	WT/GRE	#15	WT/BLK	#16	WT/BRN
	#17	WT/ORG	#18	WT/GRAY	#19	BLK/RED	#20	BLK/YEL
	#21	BLK/GRE	#22	BLK/BLU	#23	BLK/BRN	#24	BLK/GARY
	1. AWG22#, AWG27# Teflon wire, 24 colors for a circle. 2. #1 from rotor side (The color of the wire can be changed).							
AWG14#Teflon UL(15A)	#1	BLK	#2	RED	#3	YEL	#4	GRE
	#5	BLU	#6	WHT	#7	BRN	#8	ORG
	#9	GRAY	#10	CLAR	#11	WT/RED	#12	WT/BLU
	1. AWG14# Teflon wire, 12 colors for a circle 2. #1 from rotor side (The color of the wire can be changed).							

Installing Methods

For Anti-rotation Tab

1. Fix the slip ring on the right position you want, then tighten up the matched screws at radial direction and keep central axis of rotor on the same axis of the rotating axis.
2. Order all the wires and make necessary connection. Wires should not prevent the slip ring from rotating freely, or be bended in case of accident due to broken wires.
3. Lock the rotary retaining plate to it shape groove with a cylindrical pin or bolt.

For Flange

1. Locate the slip ring, then range mounting holes on flange in line with installing surface, and finally tighten up the slip ring with a gasket or screws.
2. Range wires and make some connections if necessary, wires should not prevent the slip ring from rotating freely.
3. Fix the other end with a block or a pin.
Caution: Mechanical tolerance exists between slip ring and actual application of customers, forced installation is not recommended (For example, lock up the stator or rotor results in little gap when rotating), or slip ring will be broken very quickly.

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