LPM — Miniature Capsule Slip Rings

LPM series is a family of Miniature Capsule Slip Rings of compact size manufactured by ZRAHC with diameter from 6mm to 12mm. The rotor and stator are made of precision machined brass with plated finish (gold-gold contact), such miniature slip rings are suitable perfectly for transmitting weak signal. It can transmit thousands of signals with a low contact resistance (mΩ level) and super long service life. All military standard raw materials permit a high temperature resistance and ensure a high-quality transmission of weak signals that sensor signal in a harsh environment. The electrical slip ring of LPM series can be used independently or combined with other series of slip rings to transmit power and signal, providing more than 20 pairs. Its quality and reliability have been certified over and over again and gained much recognition of global customers.

Parameters

Electrical Performance	
Contact Resistance	≤ 20mΩ
Insulation Resistance	≥ 500MΩ
Dielectric Withstand Voltage	100VAC/min
Capacitance	≤ 1pF
Signal Frequency	DC - 1GHz
Signal Rate	10M - 1G
Signal Attenuation	0.5dB - 3dB
Signal Interference	0.5mV - 1mV

Mechanical Performance	
Working Speed	0-10000RPM
Life Cycle	10M Revolutions
Load Force	0.5N-1N (Depending on Wire Diameter)
Torque	≤ 0.1N·cm

Environmental Performance	
Temperature	-20°C~+70°C
Humidity	95% (Non-condensing)
IP	IP54

Material
Housing: Stainless Steel
Contact Ring: Brass (Gold Plated)

Features & Benefits

- 360° Sealing Implementation of Weak Signals
- Compatible with Wire Pin Contact
- Smooth running, compact structure
- Low torque, extremely low contact resistance
- Long service life, maintenance-available
- Large productivity, rapid delivery

Application

LPM Series

Model	Outline Drawing	Product
LPM-04A		
LPM-05A		
LPM-06B		
LPM-06C		
LPM-06D		
LPM-06A		
LPM-06F		
LPM-06G		
LPM-06H		
LPM-06I		
LPM-06J		
LPM-12A		
LPM-12B		
LPM-12C		
LPM-12D		
LPM-12E		
LPM-12F		
LPM-12G		
LPM-12H		
LPM-12I		
LPM-12J		
LPM-12K		
LPM-12L		
LPM-12M		
LPM-06N		
LPM-06P		
LPM-06Q		
LPM-06R		
LPM-06S		
LPM-06T		
LPM-06U		
LPM-06V		
LPM-06W		
LPM-06X		
LPM-06Y		
LPM-06Z		
LPM-06AA		
LPM-06AB		
LPM-06AC		

* For LPM-06AA-06AC, length is 30mm and 50mm.

Wire Color Code

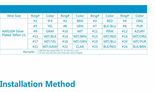
Wire Size	Range1	Color1	Range2	Color2	Range3	Color3	Range4	Color4
AWG32#-35#Enamel Wire-Φ0.2	#1	YELLOW	#36	BLUE	#71	BLACK	#106	PINK
	#2	GRAY	#37	WHITE	#72	BROWN	#107	ORANGE
	#3	PURPLE	#38	GREEN	#73	RED	#108	GREEN
	#4	RED-YELLOW	#39	RED-GREEN	#74	RED-BLUE	#109	RED-PINK
	#5	RED-GRAY	#40	CLAR	#75	BLACK-RED	#110	BLACK-PINK

Remarks: 1.Wire color is based on the AWG32#-35#Enamel Wire-Φ0.2mm.

Installation Method

Use and Installation Instruction

1. Take out of the series is recommended with a Rotary Stand or a sleeve holder.
2. Stator should be fixed by a bracket or sleeve made of non-conducting material such as rubber hose or nylon tube, cover screw and other fixing methods are also available.
3. As the following picture shows, the screw with gasket is used for mounting the ring, which can avoid flange being tightened too much.
4. Due to the limited space and complex complexity of the connecting equipment, hence rotary devices should be looked up to avoid the weight being added on its shaft.
5. The slip ring should be protected from dust and moisture. For example, protective cover should be equipped with about the employed equipment.
6. The surface of all wires should be protected from damaging when the equipment creates, and all ends of wires should be protected from short circuit and damage.
7. Don't damage wire and wire shielding cable and wire.



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