

Hybrid Rotary Joint

Description

Hybrid Rotary Joint would be designed for the most demanding requirements and tested for those rugged environment and superb optical performance. All of materials and components have been selected to ensure the highest reliability in extreme conditions, including shock & vibration, working temperature, working humidity and dust. The design of these series has proven performance records in both industrial and military applications. Also the package can be configured to fit the customer's specific need.

Hybrid Rotary Joint are available in single and multi-channel options. The most cost and size efficient options are the single and dual channel design. If more than two fibers are present in a system, multiplexing solutions are available to combine multiple channels onto one or two fiber to allow the use of a one or two channels.

Main Application

- ◆ Vehicle Turrets
- ◆ Medical Systems
- ◆ Radar Antennas
- ◆ Robotics Vehicles
- ◆ Security Systems
- ◆ Material Handling Systems
- ◆ Sensor Platforms
- ◆ Remotely Operated Vehicles
- ◆ Video Surveillance Systems
- ◆ Fiber Optic Cable Reels
- ◆ Marine Population Systems
- ◆ Wind Energy Turbines

Contact us to discuss your special needs

Features

- ◆ Ruggedized for harsh environments
- ◆ High return loss and low crosstalk
- ◆ Compact size and package
- ◆ High transmission rates and low resistance
- ◆ Variety of configuration options
- ◆ Custom designs available

Option

- ◆ Housing material/ Package style
- ◆ Over 200,200 hrs working life time
- ◆ Working in high shock environment
- ◆ Exceed 100km fiber data connector
- ◆ Integrated power channel and signal channel
- ◆ Single channel design and Muti channel design
- ◆ Single mode or Multimode & Single channel or Multichannel

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Specification					
Main parameters					
Protection Grade	IP 54				
Working Temperature	-20℃~+80℃				
Working Humidity (Max)	60%RH				
Working Speed	0~300rpm				
Fiber Channel	2~3				
Circuits (Max)	24				
Current (Max)	15A				
Working Life	8,000,000 Rotations				
Optical					
Fiber Type	SM&MM				
Wavelength Range (nm)	850-1550				
Insertion Loss	<5				
Insertion Loss Fluctuation	<±1.0 dB				
Return Loss	>45				
Connector Types	All types				
Power Capacity (dBm)	23				
Electrical					
Voltage Rating	380 VAC/DC				
Dielectric Strength (Min)	1000VAC@50Hz				
Insulation Resistance	100MΩ@500VDC				
Electrical Noise	≤0.07Ω				
Lead Wire Size	Silver Plated /AFR Aviation Line				
Contact Material	Silver				
Housing Material	Aluminum Alloy				
L—Length of electrical slip ring					
Circuits Length(mm) Current	6	12	18	24	Lead Wire Size
5A	115	115	115	130	AWG22/AFR-200-0.35
10A	115	115	125	145	AWG16/AFR-200-1.0
Other current magnitude can be customized. Electrical slip rings are through bore slip ring LPT060 series.					

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Outline Drawing

