

MSDI Series (HD-SDI/1080P High-Definition Slip Ring)



MSDI series HD-SDI slip rings are high-end products, specially designed to support high definition video signal 1080P. This series slip ring can support max rate 3GHZ, also can combine with 1~24 circuits signal and weak current. It deals with brushes for hard gold plating, which guarantees the low resistance fluctuation and long working life. This product is mainly used for transmitting weak controlling signal for small and medium application, such as video, control, sensor, power, Ethernet, etc.
Typical application: HD security monitor, photographic camera, HD camera.

MSDI Series Models

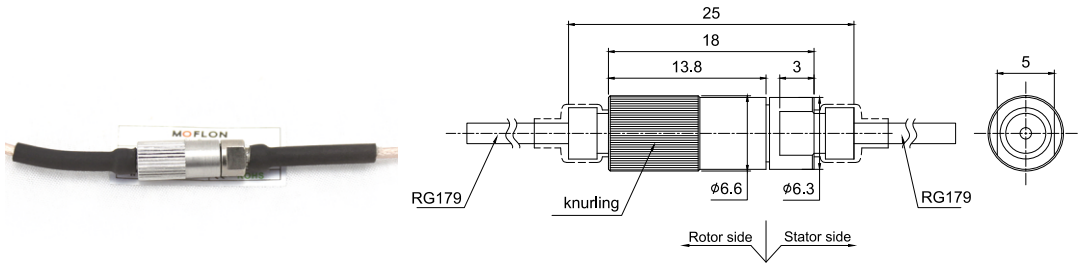
Part#	HD-SDI	Frequency	signal (2A)	10A	OD*L
MSDI200	1 channel RG-179(75Ω)	DC-3GHz	0	0	Φ6.6mm*18mm
MSDI212	1 channel RG-179(75Ω)	DC-3GHz	12	0	Φ24.8mm*29.6mm
MSDI216	1 channel RG-179(75Ω)	DC-3GHz	16	0	Φ22.0mm*28.8mm
MSDI224	1 channel RG-179(75Ω)	DC-3GHz	24	0	Φ32.8mm*46.71mm
MSDI230	1 channel RG-179(75Ω)	DC-3GHz	30	0	Φ32.8mm*46.71mm
MSDI056	1 channel RG-179(75Ω)	DC-3GHz	1~42	1~24	Φ56mm*(38~122mm)

MSDI Series HD-SDI Slip Ring

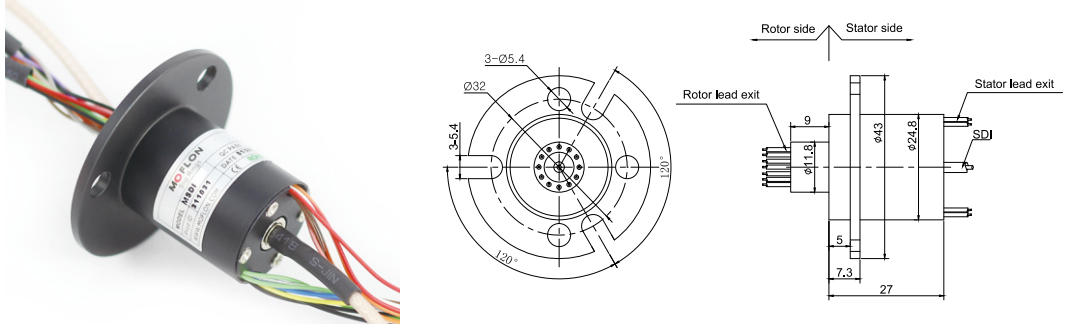
Single channel HD-SDI + 12~30 circuit signal (2A)

MSDI212 high-definition slip ring supports 1 channel HD-SDI signal (coaxial-cable) + 12~30 circuits Signal (2A). MSDI series slip rings are high-end products, specially designed to support high definition video signal 1080P. This series slip ring can support max rate 3GHZ, also can combine with 1~30 circuits signal and weak current. This series product brings in and adopts military-grade surface treatment process in USA. It deals with brushes for hard gold plating, which guarantees the low resistance fluctuation and long working life. This product is mainly used for transmitting weak controlling signal for small and medium application, such as video, control, sensor, power, Ethernet, etc. Typical application: HD security monitor, photographic camera, HD camera.

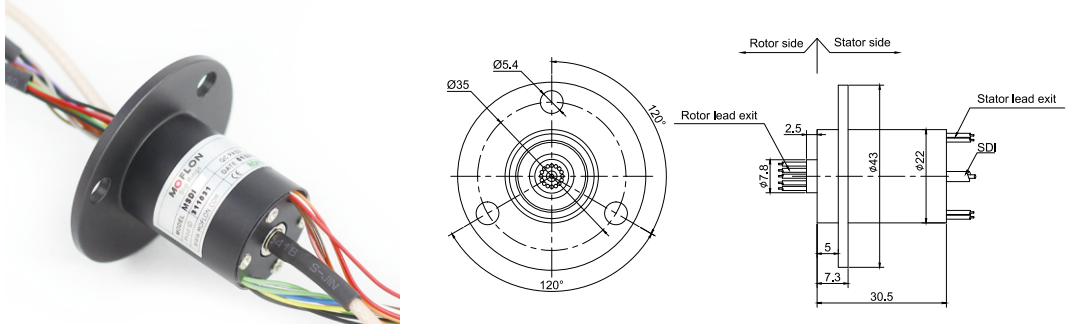
High-definition Core MSDI200 Dimensions



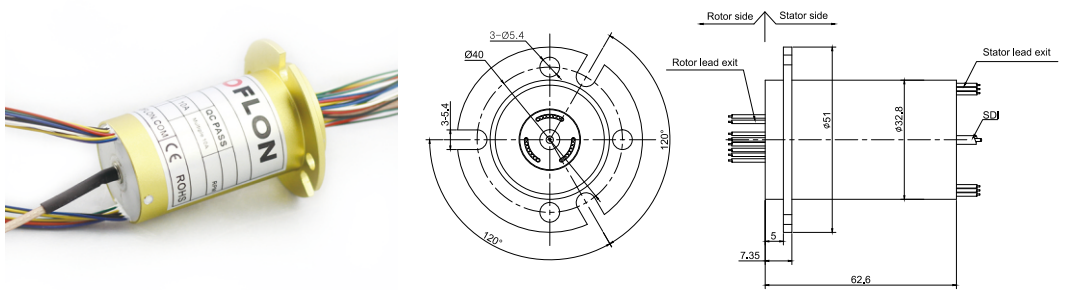
MSDI212 MSDI212 Dimensions



MSDI216 MSDI216 Dimensions

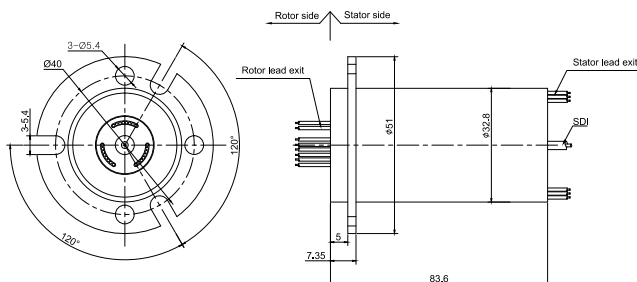


MSDI224 MSDI224 Dimensions



MSDI230

MSDI230 Dimensions



Parts# List

MSDI High-definition slip ring part list

Parts#	HD-SDI	Communication Rate	signal (2A)	OD*L
MSDI200	1 channel RG-179(75Ω)	DC-3GHz	0	Φ6.6mm*18mm
MSDI212	1 channel RG-179(75Ω)	DC-3GHz	12	Φ24.8mm*29.6mm
MSDI216	1 channel RG-179(75Ω)	DC-3GHz	16	Φ22.0mm*28.8mm
MSDI224	1 channel RG-179(75Ω)	DC-3GHz	24	Φ32.8mm*46.71mm
MSDI230	1 channel RG-179(75Ω)	DC-3GHz	30	Φ32.8mm*46.71mm

Note: N rings 2A in parallel can be used as 1 channel N*2A current. For example: 2 rings 2A in parallel can be used as 1 channel 4A

Specifications

RF Rotary Joint Specifications			
Frequency Rate	DC-3GHz	Insertion Loss	0.65dB/1GHz Max
Insertion Loss Typical	+/-0.05dB	Return Loss	-18 dB/1GHz Max
Input And Output	RG-179/U	Max Speed	50RPM
Volt Standing Wave Ratio	VSWR≤1.3	Wave Ratio Typical	+/-0.05
Working Life	200million revolutions	Connector Types	BNC/F
Impedance	75 ohms	Rating Current	DC 1A Max
Electrical data			
Parameter	Power		Signal
Rated Voltage	0~440VAC/VDC		0~440VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC		≥1000MΩ/500VDC
Lead Wire	AWG28#Teflon		AWG28#Teflon
Lead Length	standard length 300mm (adjustable)		
Insulation Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Ω		
Mechanical data			
Parameter	Value		
Working Life	50 million revs		
Rotating Speed	250RPM		
Working Temperature	-30°C~80°C		
Operating Humidity	0~85% RH		
Contact Material	gold-gold		
Housing Material	aluminum alloy		
Torque	0.05N.m ; +0.01N.m/6 rings		
Protection Grade	IP51		

Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Color	BLK	RED	YEL	GRN	BLU	WHT	BLK	RED	YEL	GRN	BLU	WHT

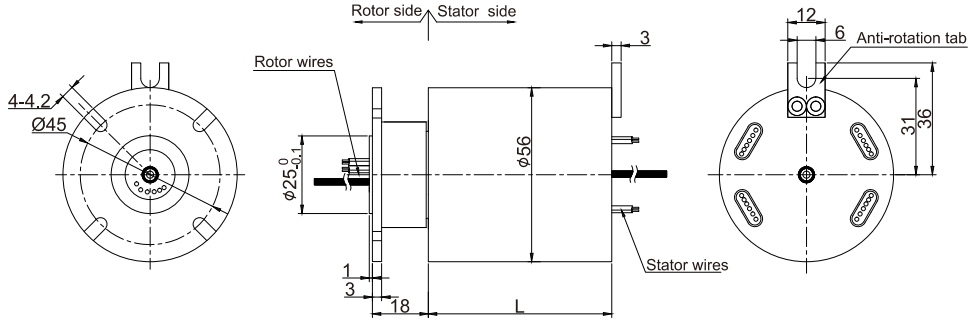
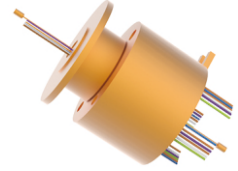
(6 wires for 1 group color, from 7-12, repeat the same color as 1...6, indicated with number code pipe.)

MSDI056 Series HD-SDI Slip Ring

Single channel HD-SDI + 2~30 circuits 10A/signal (5A)

MSDI056 high-definition slip ring supports 1 channel HD-SDI signal (coaxial-cable) + 1~48 circuit/circuits signal (2A). MSDI series slip rings are high-end products, specially designed to support high-definition video signal 1080P. This series slip ring can support max rate 3GHZ, also can combine with 1~30 circuit/circuits signal and power 10A or above. This series product brings in and adopts military-grade surface treatment process in USA. It deals with brushes for hard gold plating, which guarantees the low resistance fluctuation and long working life. This product is mainly used for transmitting weak controlling signal for small and medium application, such as video, control, sensor, power, Ethernet, etc.

Typical application: HD security monitor, photographic camera, HD camera.



Parts# List

MSDI056 HD-SDI part list									
Parts#	HD-SDI	10A	Signal or 5A	Length (mm)	Parts#	HD-SDI	10A	Signal 5A	Length (mm)
MSDI056-S02	1xRG179(75Ω),2.3Ghz	0	2	26.8	MSDI056-P1010-S08	1xRG179(75Ω),2.3Ghz	10	8	71.5
MSDI056-P0210	1xRG179(75Ω),2.3Ghz	2	0	26.8	MSDI056-P1210-S06	1xRG179(75Ω),2.3Ghz	12	6	71.5
MSDI056-S03	1xRG179(75Ω),2.3Ghz	0	3	29.6	MSDI056-P1410-S04	1xRG179(75Ω),2.3Ghz	14	4	71.5
MSDI056-P0310	1xRG179(75Ω),2.3Ghz	3	0	29.6	MSDI056-P1610-S02	1xRG179(75Ω),2.3Ghz	16	2	71.5
MSDI056-S06	1xRG179(75Ω),2.3Ghz	0	6	38	MSDI056-S24	1xRG179(75Ω),2.3Ghz	0	24	88.4
MSDI056-P0210-S04	1xRG179(75Ω),2.3Ghz	2	4	38	MSDI056-P0410-S20	1xRG179(75Ω),2.3Ghz	4	20	88.4
MSDI056-P0410-S02	1xRG179(75Ω),2.3Ghz	4	2	38	MSDI056-P0610-S18	1xRG179(75Ω),2.3Ghz	6	18	88.4
MSDI056-P0610	1xRG179(75Ω),2.3Ghz	6	0	38	MSDI056-P1210-S12	1xRG179(75Ω),2.3Ghz	12	12	88.4
MSDI056-S12	1xRG179(75Ω),2.3Ghz	0	12	54.8	MSDI056-P1810-S06	1xRG179(75Ω),2.3Ghz	18	6	88.4
MSDI056-P0210-S10	1xRG179(75Ω),2.3Ghz	2	10	54.8	MSDI056-P2410	1xRG179(75Ω),2.3Ghz	24	0	88.4
MSDI056-P0310-S09	1xRG179(75Ω),2.3Ghz	3	9	54.8	MSDI056-S30	1xRG179(75Ω),2.3Ghz	0	30	105.2
MSDI056-P0610-S06	1xRG179(75Ω),2.3Ghz	6	6	54.8	MSDI056-P0210-S28	1xRG179(75Ω),2.3Ghz	2	28	105.2
MSDI056-P0810-S04	1xRG179(75Ω),2.3Ghz	8	4	54.8	MSDI056-P0410-S26	1xRG179(75Ω),2.3Ghz	4	26	105.2
MSDI056-P1010-S02	1xRG179(75Ω),2.3Ghz	10	2	54.8	MSDI056-P0610-S24	1xRG179(75Ω),2.3Ghz	6	24	105.2
MSDI056-P1210	1xRG179(75Ω),2.3Ghz	12	0	54.8	MSDI056-S36	1xRG179(75Ω),2.3Ghz	0	36	122
MSDI056-S18	1xRG179(75Ω),2.3Ghz	0	18	71.5	MSDI056-P0410-S32	1xRG179(75Ω),2.3Ghz	4	32	122
MSDI056-P0210-S16	1xRG179(75Ω),2.3Ghz	2	16	71.5	MSDI056-P0610-S30	1xRG179(75Ω),2.3Ghz	6	30	122
MSDI056-P0410-S14	1xRG179(75Ω),2.3Ghz	4	14	71.5	MSDI056-S42	1xRG179(75Ω),2.3Ghz	0	42	138.8
MSDI056-P0610-S12	1xRG179(75Ω),2.3Ghz	6	12	71.5	MSDI056-P0410-S38	1xRG179(75Ω),2.3Ghz	4	38	138.8
MSDI056-P0810-S10	1xRG179(75Ω),2.3Ghz	8	10	71.5	MSDI056-S48	1xRG179(75Ω),2.3Ghz	0	48	155.6

Note: 1.N rings 10A in parallel can be used as 1 channel N*10A. For example: 2 rings 10A in parallel can be used as 1 channel 20A

2.10A,5A (signal) can combine freely in any way.It can be customized based on standard slip ring,please contact customer service for more details

Specifications

RF Rotary Joint Specifications			
Frequency Rate	DC-3GHz	Insertion Loss	0.65dB/1GHz Max
Insertion Loss Typical	+/-0.05dB	Return Loss	-18 dB/1GHz Max
Input And Output	RG-179/U	Max Speed	50RPM
Volt Standing Wave Ratio	VSWR≤1.3	Wave Ratio Typical	+/-0.05
Working Life	200million revolutions	Connector Types	BNC/F
Impedance	75 ohms	Rating Current	DC 1A Max
Electrical Data			
Parameter	Power		Signal
Rated Voltage	0~440VAC/VDC		0~440VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC		≥1000MΩ/500VDC
Lead Wire	AWG28#Teflon		AWG28#Teflon
Lead Length	standard length 300mm (adjustable)		
Insulating Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Ω		
Mechanical Data			
Parameter	Value		
Working Life	50 million revs		
Rotating Speed	250RPM		
Working Temperature	-30°C~80°C		
Operating Humidity	0~85% RH		
Contact Material	gold-gold		
Housing Material	aluminum alloy		
Torque	0.05N.m ; +0.01N.m/6 rings		
Protection Grade	IP51		

Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Color	BLK	RED	YEL	GRN	BLU	WHT	BLK	RED	YEL	GRN	BLU	WHT

(6 wires for 1 group color, from 7-12, repeat the same color as 1...6, indicated with number code pipe.)

Options for custom slip ring

Note: Below special demands can be customized. According, the delivery date will be extended 3 to 15 days; also the cost will be increased 30% to 50%. Most of our basic parts are standard and modular, which can save the cost and lead time.

- ① Cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube are optional.
- ⑤ Hybrid slip ring for Yaskawa/Panasonic/Siemens servo control signal, power line and encoder line.
- ⑥ Support mixed high speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.)
- ⑦ Can combine temperature control signal with thermocouple signal.
- ⑧ Special environment can be customized, such as quakeproof, high temperature, etc.
- ⑨ Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- ⑩ Frequency value and connector type can be customized.
- ⑪ High-frequency power can be customized.
- ⑫ Channel number can be customized on your request.
- ⑬ Maximum current can up to 5000 amperes.
- ⑭ Military grade.
- ⑮ Optional for underwater IP65, Ip68.
- ⑯ Optional for stainless steel housing

Technical support: technical@moflon.com