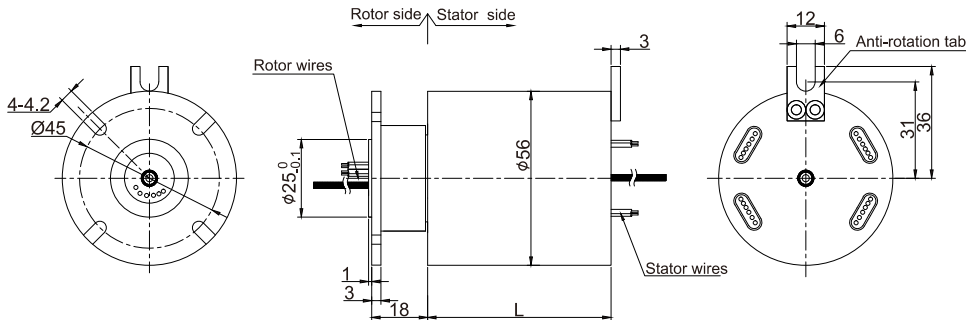
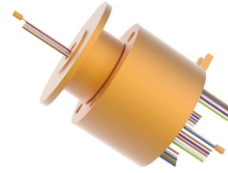


# MSDI056 Series HD-SDI Slip Ring

## 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        | 125         |
| MSDI056-S18              | 1xRG179(75Ω),2.3Ghz | 0   | 18           | 71.5        | MSDI056-P0410-S32 | 1xRG179(75Ω),2.3Ghz | 4   | 32        | 125         |
| MSDI056-P0210-S16        | 1xRG179(75Ω),2.3Ghz | 2   | 16           | 71.5        | MSDI056-P0610-S30 | 1xRG179(75Ω),2.3Ghz | 6   | 30        | 125         |
| MSDI056-P0410-S14        | 1xRG179(75Ω),2.3Ghz | 4   | 14           | 71.5        | MSDI056-S48       | 1xRG179(75Ω),2.3Ghz | 0   | 48        | 158.6       |
| MSDI056-P0610-S12        | 1xRG179(75Ω),2.3Ghz | 6   | 12           | 71.5        |                   |                     |     |           |             |
| MSDI056-P0810-S10        | 1xRG179(75Ω),2.3Ghz | 8   | 10           | 71.5        |                   |                     |     |           |             |

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 detmalls

## 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 $\leq$ 1.3                    | Wave Ratio Typical            | +/-0.05         |
| Working Life                   | 10million revolutions              | Connector Types               | BNC/F           |
| Impedance                      | 75 ohms                            | Rating Current                | DC 1A Max       |
| Electrical Data                |                                    |                               |                 |
| Parameter                      | Value                              |                               |                 |
|                                | Power                              | Signal                        |                 |
| Rated Voltage                  | 0~440VAC/VDC                       | 0~440VAC/VDC                  |                 |
| Insulation Resistance          | $\geq$ 1000M $\Omega$ /500VDC      | $\geq$ 1000M $\Omega$ /500VDC |                 |
| Lead Wire                      | AWG17#Teflon                       | AWG26#Teflon                  |                 |
| Lead Length                    | standard length 300mm (adjustable) |                               |                 |
| Insulating Strength            | 500VAC@50Hz, 60s                   |                               |                 |
| Electrical Noise               | <0.01 $\Omega$                     |                               |                 |
| Mechanical Data                |                                    |                               |                 |
| Parameter                      | Value                              |                               |                 |
| Working Life                   | 10 million revs                    |                               |                 |
| Rotating Speed                 | 250RPM                             |                               |                 |
| Working Temperature            | -30 $^{\circ}$ C~80 $^{\circ}$ 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