MUSB series(USB1.0,USB2.0)

MOFLON's USB slip ring solutions have been developed to provide reliable products to allow transfer of the USB protocol through a rotating interface. The innovative designs meet the challenge of matching impedance, controlling crosstalk and managing losses. Wide range of product solutions are offered with combinations of data and power in multiple mechanical configurations to meet your application needs..

- Configured for USB signal transmission
- female/male connector for direct plug-and-play
- High performance contact technology
- Available with multiple USB, power and signal combinations

MODEL#	USB2.0 CHANNEL	POWER/SIGNAL WIRES	BORE	OVERALL DIAMETER
MUSB2121	1	1~24	12.7MM	56MM
MUSB2122	2	1~24	12.7MM	56MM
MUSB2251	1	1~48	25.4MM	86MM
MUSB2252	2	1~48	25.4MM	86MM
MUSB2381	1	1~56	38.1MM	99MM
MUSB2382	2	1~56	38.1MM	99MM
MUSB2501	1	1~72	50.8MM	120MM
MUSB2502	2	1~72	50.8MM	120MM

MUSB2121 (USB slip rings)

1 channel USB2.0 + 1~20 circuits Power/signal

MUSB2121,support 1 channel USB2.0 slip rings, with through bore size 12.7mm (0.5"), overall diameter 56mm, are standard, off-the-shelf, Color-coded lead wires are used on both the stator and rotor for simplified electrical connections.

PART# Explanation:

MUSB2121 - P0610 - S06

- S06: signal/5A each @ 6 circuits
- P0610: 10A each @ 6 circuits

Specifications

PART ##	OD *L	SIGNAL/2A	10A	20A	USB
MUSB2121-S02	56mm*37mm	2	0	0	1
MUSB2121-P0210	56mm*37mm	0	2	0	1
MUSB2121-S08	56mm*54mm	8	0	0	1
MUSB2121-P0810	56mm*54mm	0	8	0	1
MUSB2121-P0210-S06	56mm*54mm	6	2	0	1
MUSB2121-P0410-S04	56mm*54mm	4	4	0	1
MUSB2121-S14	56mm*70.5mm	14	0	0	1
MUSB2121-P1410	56mm*70.5mm	0	14	0	1
MUSB2121-P0410-S10	56mm*70.5mm	10	4	0	1
MUSB2121-P0810-S06	56mm*70.5mm	6	8	0	1
MUSB2121-S20	56mm*87.5mm	20	0	0	1

USB Specifications

USB	USB1.0,USB2.0	connectors	rotor:male,stator:male
BER	10E-11	Insert loss	2db

Power/signal Specifications
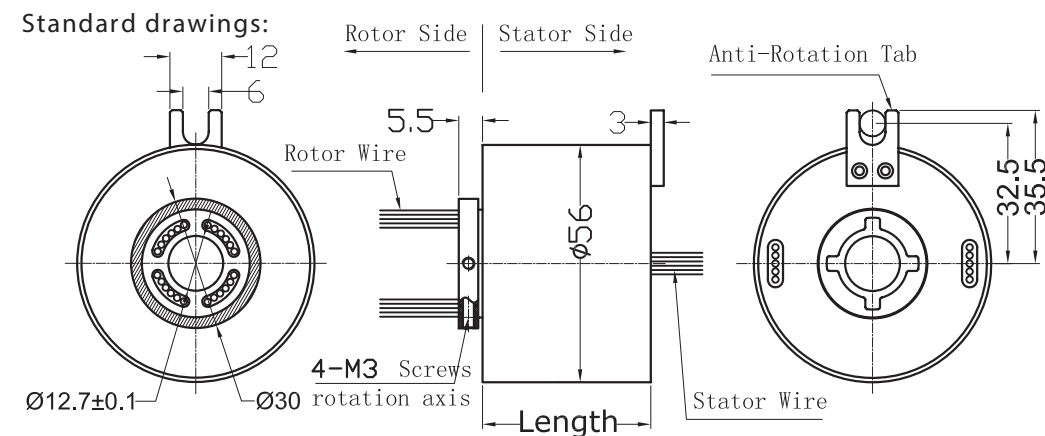
Circuits	1-20 (see table as above)	Current	Signal(2A),10A,Multiple 10A
Voltage	250 VDC/VAC	Max speed	600RPM
Through bore size	12.7mm(1/2")	Overall diameter	56mm(2.2")
Housing Material	Aluminium Alloy	Contact material	0.8N.m
Working life	150million revolutions	Torque	Precious Metal:Gold-Gold
Electrical noise	<10 milliohms	Contact Resistance	<100mOhm(AWG16#,300mm)
Dielectric strength	1000VDC@50Hz	Lead Wire	UL Teflon®
Insulation resistance	1000MΩ@600VDC	Lead Lengths	250mm
Operating Temp.	-40°C to 80°C	Protection	IP51
Mechanical vibration	MIL-SID-810E	Humidity	10% to 90% RH
Materials	Lead Free,RoHS compliant	CE Certified	YES

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Notes: 10A rings parallel can be used as multiple 10A large current.
For Example: 3 rings parallel = 1 wires 30A, please see order instructions

1)The operational life of the unit is dependent upon rotational speed, environment and temperature.
2)Lead Wire size: 5A/signal -> AWG22, 10A -> AWG16, 20A -> Awg14, colored code.
3)Electrical noise is dependent upon the rotating speed and current,voltage.

Drawings

Standard drawings:

MUSB2121

12 wires for one group color. from 13 … 24, repeat the same color as 1 … 12,indicated with number code pipe.

Lead wire Color codes

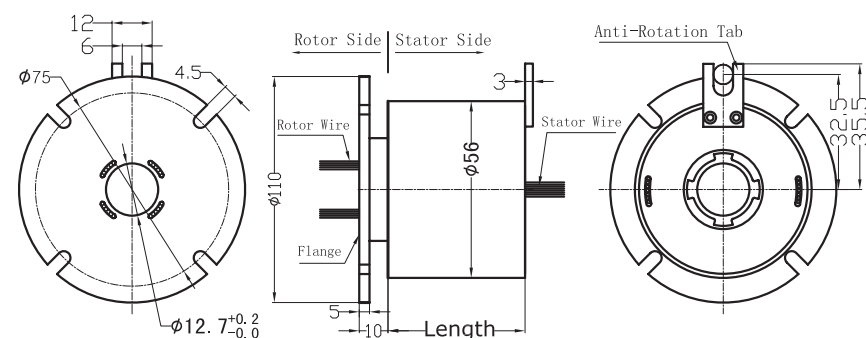| Rings#	Color Code	Rings#	Color Code	Rings#	Color Code
1	BLK	5	YEL	9	GRY
2	BRN	6	GRN	10	WHT
3	RED	7	BLU	11	PINK
4	ORN	8	PURPLE	12	AZURY

Optional Flanges mounting:

At sometimes, we need a different flange for mounting instead, how should we do?
Great! Moflon supply flange style as below:
(when you order, pls add FL01 at the suffix of Part#, for example: MUSB2121-06S-FL01 means MUSB2121-06S with optional flange FL01.)
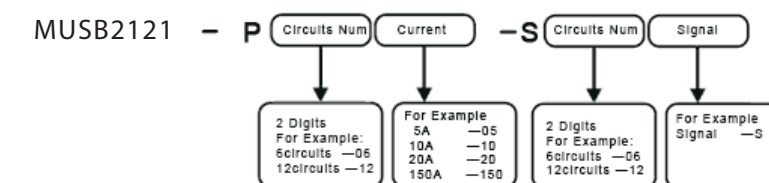

Suffix - FL01

Options

- Can combine more wires:1-96Ring
- Specified connectors and Heat-shrink tube.
- Longer lead lengths available.
- Shielded cables
- Connectors
- Frequencies up to 500 MHz
- High-speed data transmission for fast Ethernet and EtherCat
- Signal, Coax, and Power combinations
- Thermocouples
- Shock, Vibration, and Temperature Qualified
- Pneumatic/Hydraulic Capability
- High temperature---up to 450 degree
- High Voltage & large Current(1000A)
- Military Grade.

Build On Request

how to build on request?

Please see ordering information instructions as below   :

For example:

- if order MUSB2121 with 6wires*signal,the model should be MUSB2121-S06.
- if order MUSB2121 with 12wires*signal + 3wires*10A,the model should be MUSB2121-P0310-S12
- if you have other optional requirements,such as lead wire length,connectors,military grade, Please descrip in your email.