

# MUSB Series–USB2.0 slip rings



USB slip ring is designed for USB signal, applying to transmit USB1.0/USB2.0, it can transmit signal stably and has low insertion loss. It can combine with signal cable and power cable and can transmit 8 channels USB in the same time. Using military depositing technique, precious metal and super hard gold-plated processing, it has minimum BER error rate and high signal-to-noise ratio (SNR).

## MUSB Series Models

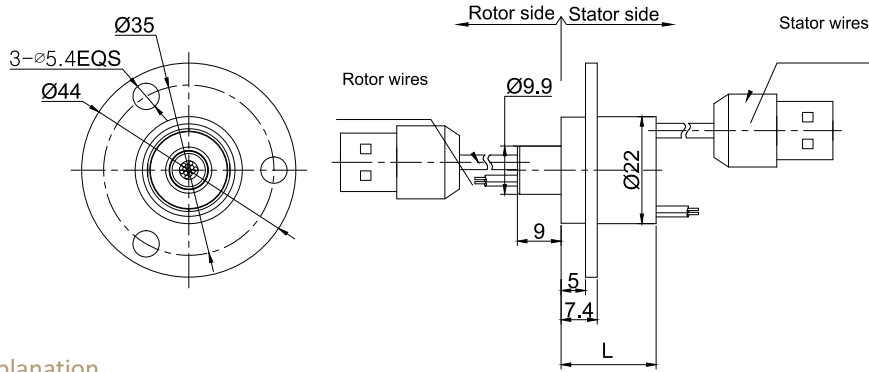
Model#	ID(mm)	OD(mm)	USB passage	Power/signal wire number
MUSB1221	Solid without holes	22	1	1~32
MUSB1222	Solid without holes	22	2	1~28
MUSB2121	12.7	56	1	1~32
MUSB2122	12.7	56	2	1~34
MUSB2251	25.4	86	1	1~32
MUSB2252	25.4	86	2	1~34
MUSB2381	38.1	99	1	1~32
MUSB2382	38.1	99	2	1~34
MUSB2501	50	119	1	1~32
MUSB2502	50	119	2	1~34

# MUSB1221 (1 Channel USB slip Rings)

## 1 channel USB + 1~32 wires power/signal

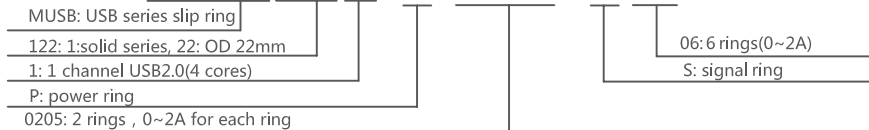
MUSB1221 USB series slip ring , solid flange design , OD 22mm, supporting 1 channel USB1.0/2.0, can transmit power and signal.

It can transmit signal stably and has low insertion loss. Using military depositing technique, precious metal and super hard gold-plated processing, it has minimum BER error rate and high signal-to-noise ratio(SNR)



### Part# Explanation

## MUSB1221 - P 02 02 - S 06



### Parts# List

MUSB1221 1 channel USB series part#list				
Part#	USB channel	5A	Signal or 2A	Length(mm)
MUSB1221-S02	1	0	2	19
MUSB1221-S08	1	0	8	26
MUSB1221-S14	1	0	14	33
MUSB1221-S20	1	0	20	43.6
MUSB1221-S32 *	1	0	32	57.3

Note:1) N channels 5A rings parallel can be used as 1 channel N\*5A current. For example: 2 rings 5A parallel could be used as 1 wires 10A  
 2) 10A, 20A, 5A can be combined according to your requirements, please contact customer service for more details.  
 3) Please contact customer service for drawing (marked by asterisks "\*").

### Specifications

USB Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
USB	USB1.0, USB2.0		Working Life	10 million
Connector	USB TYPE-A female connector		Rotating Speed	250RPM
BER	10E-11		Working Temperature	-30°C~80°C
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	Gold-Gold
	Power	Signal	Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG28#Teflon	AWG28#Teflon		
Lead Length	Standard 300mm ( adjustable )			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

### Lead Wires Color Code

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

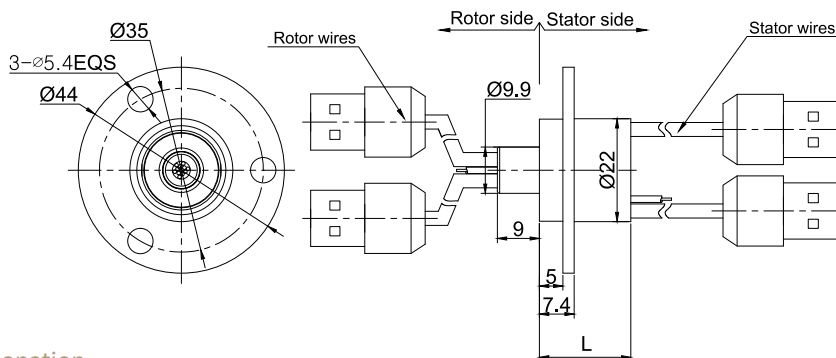
6 wires for 1 group color, from 7-12, repeat the same color as 1...6, indicated with number code pipe

# MUSB1222 (2 Channels USB Slip Rings)

## 2 channels USB + 1~28 wires power/signal

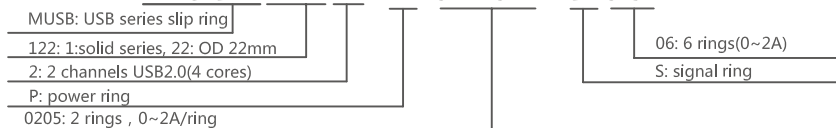
MUSB1222 USB series slip ring , solid flange design , OD 22mm, supporting 2 channels USB1.0/2.0, can transmit power and signal.

It can transmit signal stably and has low insertion loss. Using military depositing technique, precious metal and super hard gold-plated processing, it has minimum BER error rate and high signal-to-noise ratio(SNR)



### Part# Explanation

## MUSB1222 - P 02 02- S 06



### Parts# List

MUSB1222 2 channels USB series part#list				
Part#	USB channel	5A	Signal or 2A	Length(mm)
MUSB1222-S04	2	0	4	26
MUSB1222-S10	2	0	10	33
MUSB1222-S16	2	0	16	43.6
MUSB1222-S28 *	2	0	28	57.3

- Note:1) N channels 5A rings parallel can be used as 1 channel N\*5A current. For example: 2 rings 5A parallel could be used as 1 wires 10A  
 2) 10A, 20A, 5A can be combined according to your requirements, please contact customer service for more detmalls.  
 3) Please contact customer service for drawing(marked by asterisks "\*\*").

### Specifications

USB Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
USB	USB1.0,USB2.0		Working Life	10 million
Connector	USB TYPE-A female connector		Rotating Speed	250RPM
BER	10E-11		Working Temperature	-30°C~80°C
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	Gold-Gold
	Power	Signal	Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG28#Teflon			
Lead Length	Standard 300mm ( adjustable )			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

### Lead Wires Color Code

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

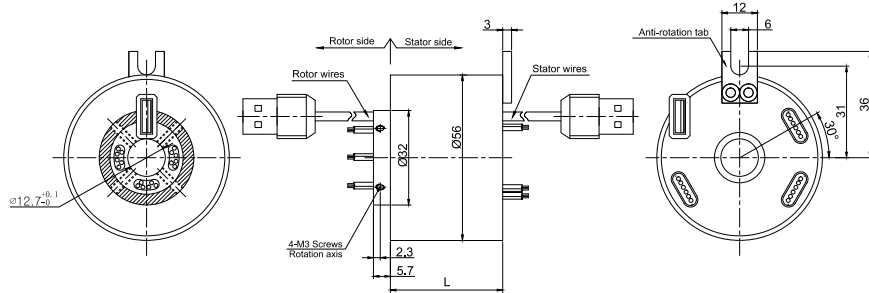
6 wires for 1 group color, from 7-12, repeat the same color as 1...6, indicated with number code pipe

# MUSB2121 (1 Channel USB Slip Rings)

## 1 channel USB2.0+ 1~32 wires power/signal

MUSB2121 USB series slip ring with bore size 12.7mm,outer diameter 56mm,support 1 channel USB1.0/USB2.0,it can transmit signal stably,without code loss and low insertion loss.

Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



### Part# Explanation

## MUSB2121 - P 02 10- S 06



### Parts# List

MUSB2121 1 channel USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2121-S02	1	0	0	2	38
MUSB2121-P0210	1	2	0	0	38
MUSB2121-P0420	1	0	4	0	54.8
MUSB2121-S08	1	0	0	8	54.8
MUSB2121-P0210-S06	1	2	0	6	54.8
MUSB2121-P0610-S02	1	6	0	2	54.8
MUSB2121-S14	1	0	0	14	71.6
MUSB2121-P1410	1	14	0	0	71.6
MUSB2121-P0410-S10	1	4	0	10	71.6
MUSB2121-P0810-S06	1	8	0	6	71.6
MUSB2121-S20	1	0	0	20	88.4
MUSB2121-S26	1	0	0	26	105.2
MUSB2121-S32	1	0	0	32	122

Note:1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A

2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmails.

### Specifications

USB Specifications		Mechanical Data		
Parameter	Value	Parameter	Value	
USB	USB1.0,USB2.0	Working Life	20 million	
Connector	USB TYPE-A female connector	Rotating Speed	600RPM	
BER	10E-11	Working Temperature	-30°C~80°C	
Electrical Data		Operating Humidity	0~85% RH	
Parameter	Value	Contact Material	Gold-Gold	
	Power	Signal	Housing Material	
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Aluminium Alloy	
Insulation Resistance	$\geq 1000\text{M}\Omega/500\text{VDC}$	$\geq 1000\text{M}\Omega/500\text{VDC}$	Torque	0.1N.m ; +0.03N.m/6rings
Lead Wires	AWG16#Teflon	AWG22#Teflon	Protection Grade	IP51
Lead Length	Standard 300mm ( adjustable )			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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.

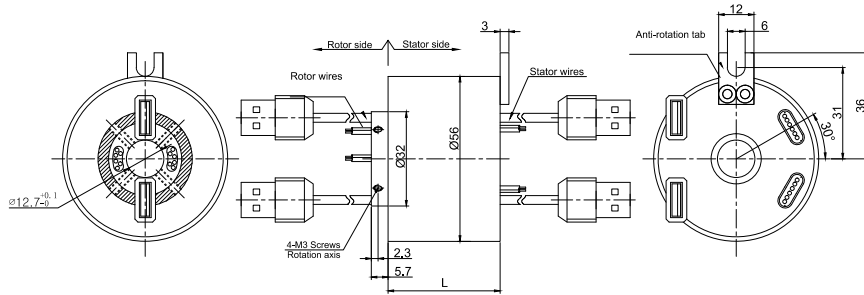
- ① Bore diameter can be customized; cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)

# MUSB2122 (2 Channels USB Slip Rings)

2 channels USB2.0+ 1~30 wires power/signal

MUSB2122 USB series slip ring with bore size 12.7mm,outer diameter 56mm,support 2 channels USB1.0/USB2.0,it can transmit signal stably,without code loss and low insertion loss. Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



## Part# Explanation

### MUSB2122 - P 02 10- S 06



## Parts# List

MUSB2122 2 channels USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2122-S04	2	0	0	4	54.8
MUSB2122-P0410	2	4	0	0	54.8
MUSB2122-P0420	2	0	4	0	71.6
MUSB2122-S10	2	0	0	10	71.6
MUSB2122-P0210-S08	2	2	0	8	71.6
MUSB2122-P0610-S04	2	6	0	4	71.6
MUSB2122-S16	2	0	0	16	88.4
MUSB2122-P1610	2	16	0	0	88.4
MUSB2122-P0610-S10	2	6	0	10	88.4
MUSB2122-P1010-S06	2	10	0	6	88.4
MUSB2122-S22	2	0	0	22	105.2
MUSB2122-S28	2	0	0	28	122
MUSB2122-S34	2	0	0	34	138.8

Note:1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
 2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmails.

## Specifications

USB Specifications		Mechanical Data		
Parameter	Value	Parameter	Value	
USB	USB1.0,USB2.0	Working Life	20 million	
Connector	USB TYPE-A female connector	Rotating Speed	600RPM	
BER	10E-11	Working Temperature	-30°C~80°C	
Electrical Data		Operating Humidity	0~85% RH	
Parameter	Value	Contact Material	Gold-Gold	
	Power	Signal	Housing Material	
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Aluminium Alloy	
Insulation Resistance	$\geq 1000\text{M}\Omega/500\text{VDC}$	$\geq 1000\text{M}\Omega/500\text{VDC}$	Torque	0.1N.m ; +0.03N.m/6rings
Lead Wires	AWG16#Teflon	AWG22#Teflon	Protection Grade	IP51
Lead Length	Standard 300mm ( adjustable )			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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.

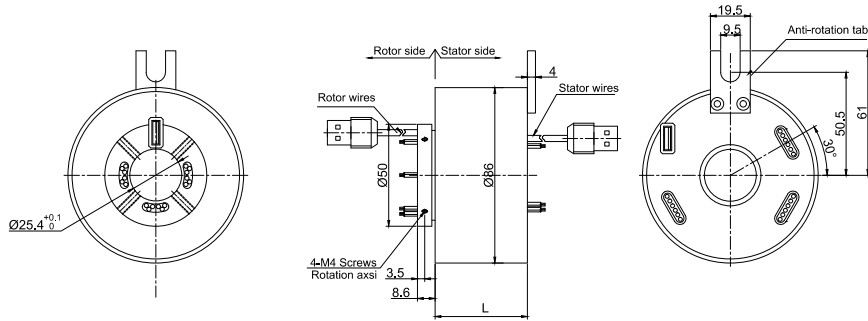
- ① Bore diameter can be customized; cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)

# MUSB2251 (1 Channel USB Slip Rings)

## 1 channel USB2.0+ 1~32 wires power/signal

MUSB2251 USB series slip ring with bore size 25.4mm,outer diameter 86mm,support 1 channel USB1.0/USB2.0,It can transmit signal stably,without code loss and low insertion loss. Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



### Part# Explanation

## MUSB2251 - P 02 10- S 06



### Parts# List

MUSB2251 1 channel USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2251-S02	1	0	0	2	45.2
MUSB2251-P0210	1	2	0	0	45.2
MUSB2251-P0420	1	0	4	0	65.6
MUSB2251-S08	1	0	0	8	65.6
MUSB2251-P0210-S06	1	2	0	6	65.6
MUSB2251-P0610-S02	1	6	0	2	65.6
MUSB2251-S14	1	0	0	14	86
MUSB2251-P1410	1	14	0	0	86
MUSB2251-P0410-S10	1	4	0	10	86
MUSB2251-P0810-S06	1	8	0	6	86
MUSB2251-S20	1	0	0	20	106.4
MUSB2251-S26	1	0	0	26	126.8
MUSB2251-S32	1	0	0	32	147.2

Note: 1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
 2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmails.

### Specifications

USB Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
USB	USB1.0,USB2.0	Working Life	20 million
Connector	USB TYPE-A female connector	Rotating Speed	600RPM
BER	10E-11	Working Temperature	-30°C~80°C
Electrical Data		Operating Humidity	0~85% RH
Parameter	Value	Contact Material	Gold-Gold
		Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG16#Teflon		
Lead Length	Standard 300mm ( adjustable )		
Dielectric Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Ω		



### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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 Bore diameter can be customized; 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- ⑬ Maximum current can up to 5000 amperes.
- ⑭ Military grade
- ⑮ Optional for underwater IP65, IP68.
- ⑯ Optional for stainless steel housing

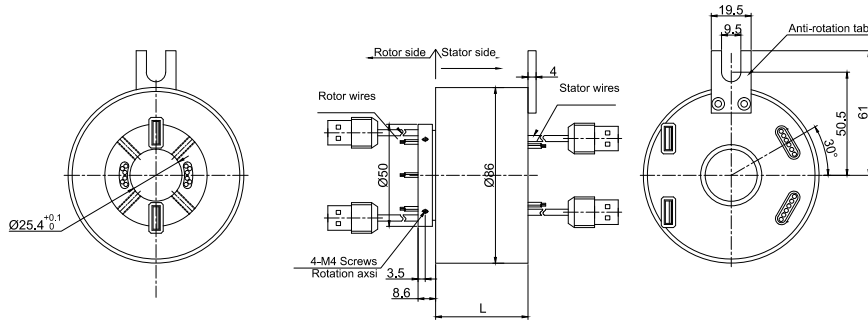
Technical support: [technical@moflon.com](mailto:technical@moflon.com)

# MUSB2252(2 Channels USB Slip Rings)

2 channels USB2.0+ 1~30 wires power/signal

MUSB2252 USB series slip ring with bore size 25.4mm,outer diameter 86mm,support 2 channels USB1.0/USB2.0,It can transmit signal stably,without code loss and low insertion loss.

Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



## Part# Explanation

### MUSB2252 - P 02 10- S 06



## Parts# List

MUSB2252 2 channels USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2252-S04	2	0	0	4	65.6
MUSB2252-P0410	2	4	0	0	65.6
MUSB2252-P0420	2	0	4	0	86
MUSB2252-S10	2	0	0	10	86
MUSB2252-P0210-S08	2	2	0	8	86
MUSB2252-P0610-S04	2	6	0	4	86
MUSB2252-S16	2	0	0	16	106.4
MUSB2252-P1610	2	16	0	0	106.4
MUSB2252-P0610-S10	2	6	0	10	106.4
MUSB2252-P1010-S06	2	10	0	6	106.4
MUSB2252-S22	2	0	0	22	126.8
MUSB2252-S28	2	0	0	28	147.2
MUSB2252-S34	2	0	0	34	167.6

Note: 1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmalls.

## Specifications

USB Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
USB	USB1.0,USB2.0	Working Life	20 million
Connector	USB TYPE-A female connector	Rotating Speed	600RPM
BER	10E-11	Working Temperature	-30°C~80°C
Electrical Data		Operating Humidity	0~85% RH
Parameter	Value	Contact Material	Gold-Gold
		Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG16#Teflon		
Lead Length	Standard 300mm ( adjustable )		
Dielectric Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Ω		

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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.

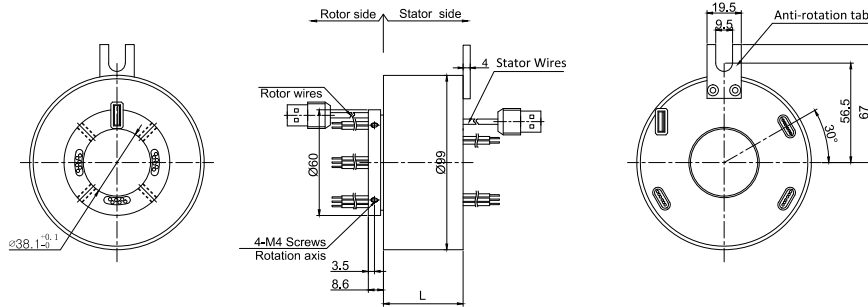
- ① Bore diameter can be customized; cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)

# MUSB2381 (1 Channel USB Slip Rings )

## 1channel USB2.0+ 1~32 wires power/signal

MUSB2381 USB series slip ring with bore size 38.1mm,outer diameter 99mm,support 1 channel USB1.0/USB2.0,it can transmit signal stably,without code loss and low insertion loss. Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



### Part# Explanation

## MUSB2381 - P 02 10- S 06



### Parts# List

MUSB2381 1 channel USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2381-S02	1	0	0	2	45.2
MUSB2381-P0210	1	2	0	0	45.2
MUSB2381-P0420	1	0	4	0	65.6
MUSB2381-S08	1	0	0	8	65.6
MUSB2381-P0210-S06	1	2	0	6	65.6
MUSB2381-P0610-S02	1	6	0	2	65.6
MUSB2381-S14	1	0	0	14	86
MUSB2381-P1410	1	14	0	0	86
MUSB2381-P0410-S10	1	4	0	10	86
MUSB2381-P0810-S06	1	8	0	6	86
MUSB2381-S20	1	0	0	20	106.4
MUSB2381-S26	1	0	0	26	126.8
MUSB2381-S32	1	0	0	32	147.2

Note:1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmails.

### Specifications

USB Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
USB	USB1.0,USB2.0	Working Life	20 million
Connector	USB TYPE-A female connector	Rotating Speed	600RPM
BER	10E-11	Working Temperature	-30°C~80°C
Electrical Data		Operating Humidity	0~85% RH
Parameter	Value	Contact Material	Gold-Gold
		Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG16#Teflon		
Lead Length	Standard 300mm ( adjustable )		
Dielectric Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Ω		

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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.

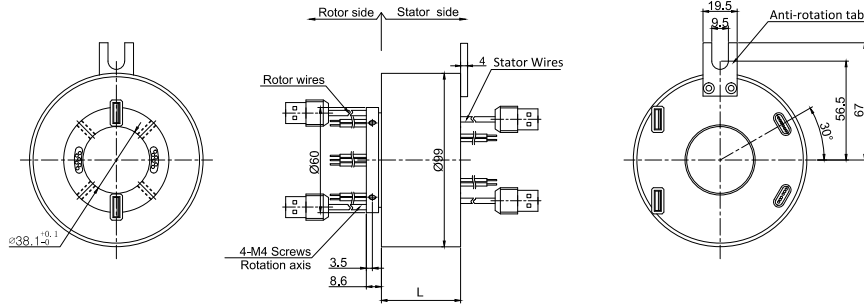
- ① Bore diameter can be customized; cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)

# MUSB2382 (2 Channels USB Slip Rings)

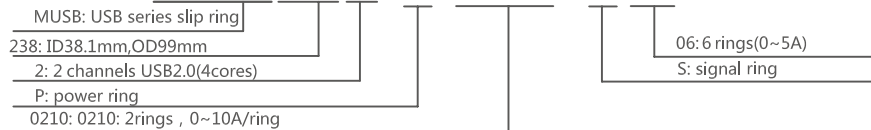
2 channels USB2.0+ 1~30 wires power/signal

MUSB2381 USB series slip ring with bore size 38.1mm,outer diameter 99mm,support 2 channels USB1.0/USB2.0,it can transmit signal stably,without code loss and low insertion loss. Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



## Part# Explanation

### MUSB2382 - P 02 10- S 06



## Parts# List

MUSB2382 2 channels USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2382-S04	2	0	0	4	65.6
MUSB2382-P0410	2	4	0	0	65.6
MUSB2382-P0420	2	0	4	0	86
MUSB2382-S10	2	0	0	10	86
MUSB2382-P0210-S08	2	2	0	8	86
MUSB2382-P0610-S04	2	6	0	4	86
MUSB2382-S16	2	0	0	16	106.4
MUSB2382-P1610	2	16	0	0	106.4
MUSB2382-P0610-S10	2	6	0	10	106.4
MUSB2382-P1010-S06	2	10	0	6	106.4
MUSB2382-S22	2	0	0	22	126.8
MUSB2382-S28	2	0	0	28	147.2
MUSB2382-S34	2	0	0	34	167.6

Note:1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
 2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmails.

## Specifications

USB Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
USB	USB1.0,USB2.0	Working Life	20 million
Connector	USB TYPE-A female connector	Rotating Speed	600RPM
BER	10E-11	Working Temperature	-30°C~80°C
Electrical Data		Operating Humidity	0~85% RH
Parameter	Value	Contact Material	Gold-Gold
		Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG16#Teflon		
Lead Length	Standard 300mm ( adjustable )		
Dielectric Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Q		

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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.

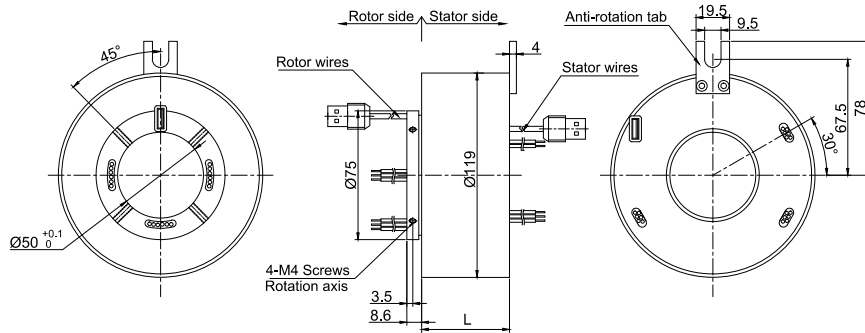
- ① Bore diameter can be customized; cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)

# MUSB2501 (1 Channel USB Slip Rings)

## 1 channel USB2.0+ 1~32 wires power/signal

MUSB2501 USB series slip ring with bore size 50mm, outer diameter 119mm, support 1 channel USB1.0/USB2.0, it can transmit signal stably, without code loss and low insertion loss. Using military depositing technique, precious metal and super hard gold-plated processing, it has minimum BER error rate and high signal-to-noise ratio(SNR)



### Part# Explanation

## MUSB2501 - P 02 10- S 06



### Parts# List

MUSB2501 1 channel USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2501-S02	1	0	0	2	51.2
MUSB2501-P0210	1	2	0	0	51.2
MUSB2501-P0420	1	0	4	0	74
MUSB2501-S08	1	0	0	8	74
MUSB2501-P0210-S06	1	2	0	6	74
MUSB2501-P0610-S02	1	6	0	2	74
MUSB2501-S14	1	0	0	14	96.8
MUSB2501-P1410	1	14	0	0	96.8
MUSB2501-P0410-S10	1	4	0	10	96.8
MUSB2501-P0810-S06	1	8	0	6	96.8
MUSB2501-S20	1	0	0	20	119.6
MUSB2501-S26	1	0	0	26	142.4
MUSB2501-S32	1	0	0	32	165.2

Note:1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
 2) 10A, 20A, 5A can be combined according to your requirements, please contact customer service for more details.

### Specifications

USB Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
USB	USB1.0,USB2.0	Working Life	20 million
Connector	USB TYPE-A female connector	Rotating Speed	600RPM
BER	10E-11	Working Temperature	-30°C~80°C
Electrical Data		Operating Humidity	0~85% RH
Parameter	Value	Contact Material	Gold-Gold
		Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG16#Teflon		
Lead Length	Standard 300mm ( adjustable )		
Dielectric Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Ω		



### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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.

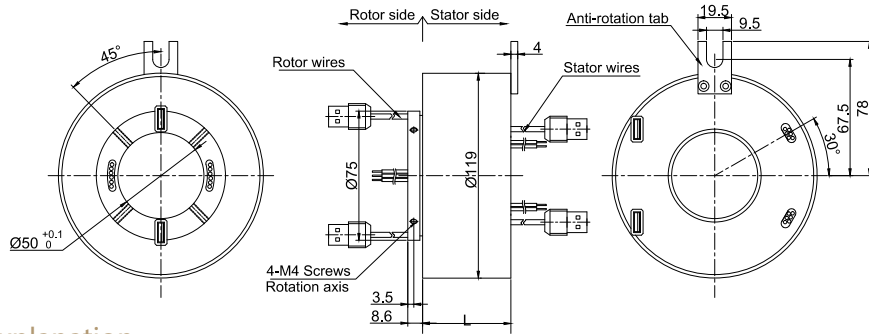
- ① Bore diameter can be customized; cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)

# MUSB2502 (2 Channels USB Slip Rings)

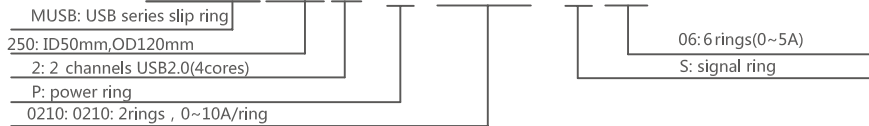
2 channels USB2.0+ 1~32 wires power/signal

MUSB2502 USB series slip ring with bore size 50mm,outer diameter 119mm,support 2 channels USB1.0/USB2.0,it can transmit signal stably,without code loss and low insertion loss. Using military depositing technique,precious metal and super hard gold-plated processing,it has minimum BER error rate and high signal-to-noise ratio(SNR)



## Part# Explanation

### MUSB2502 - P 02 10- S 06



## Parts# List

MUSB2502 2 channels USB series part#list					
Part#	USB channel	10A	20A	Signal or 5A	Length(mm)
MUSB2502-S04	2	0	0	4	74
MUSB2502-P0410	2	4	0	0	74
MUSB2502-P0420	2	0	4	0	96.8
MUSB2502-S10	2	0	0	10	96.8
MUSB2502-P0210-S08	2	2	0	8	96.8
MUSB2502-P0610-S04	2	6	0	4	96.8
MUSB2502-S16	2	0	0	16	119.6
MUSB2502-P1610	2	16	0	0	119.6
MUSB2502-P0610-S10	2	6	0	10	119.6
MUSB2502-P1010-S06	2	10	0	6	119.6
MUSB2502-S22	2	0	0	22	142.4
MUSB2502-S28	2	0	0	28	165.2
MUSB2502-S34	2	0	0	34	188

Note:1) N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A  
2) 10A, 20A, 5A can be combined according to your requirements,please contact customer service for more detmails.

## Specifications

USB Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
USB	USB1.0,USB2.0	Working Life	20 million
Connector	USB TYPE-A female connector	Rotating Speed	600RPM
BER	10E-11	Working Temperature	-30°C~80°C
Electrical Data		Operating Humidity	0~85% RH
Parameter	Value	Contact Material	Gold-Gold
		Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	Torque	0.1N.m ; +0.03N.m/6rings
Insulation Resistance	$\geq 1000\text{M}\Omega/500\text{VDC}$	Protection Grade	IP51
Lead Wires	AWG16#Teflon		
Lead Length	Standard 300mm ( adjustable )		
Dielectric Strength	500VAC@50Hz , 60s		
Electrical Noise	<0.01Q		

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Code	BLK	RED	YLW	GRN	BLU	WHT	RED	RED	YLW	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 Bore diameter can be customized; 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 High temperature can up to 500 degrees.
- ⑪ High pressure can up to 110KV
- ⑫ Rotating speed can up to 10000RPM
- 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](mailto:technical@moflon.com)