

Ethernet Slip Ring

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The USB slip ring is designed to transmit the signal of USB1.0, USB2.0. With reliable transmission, no packet loss, no string of code, small return loss, low insertion loss etc. USB2.0 slip ring has been widely used in rotating systems to transfer high speed signals, the transmission rate of 480Mbps providing the best solutions for you to transfer data from a stationary to a rotating structure.



Features:

- Gold contact material which ensures low torque, stable rotation, long life, low electrical noise and good transmitting performance.
- Gold-on-gold contact
- No require lubrication
- Max 8 channels USB in one slip ring
- Can combine with power / signal or pneumatic/hydraulic slip ring

ETW SERIES MODEL#

Model#	ID(mm)	OD(mm)	USB2.0	Power / Signal
USB221	-	22	1~4	2~30
USB12	12.7	56	1~4	2~22
USB25	25.4	86	1~8	2~48
USB38	38.1	99	1~8	2~56
USB50	50	119	1~8	2~72

USB221 Series Overview

Description

Slip ring is a precision device can be used in any electromechanical system that transfer signal and power from a stationary to a rotating structure, and the power and all kinds of signal can combination in one slip ring.

USB221 slip ring with 22mm outer diameter , can be mixed transmission signal. With transmission stability, no packet loss, no string of code, low return and insertion loss. Ultra-low BER error rate and superior signal to noise ratio.



Specifications

Item	
Operating Speed	Max.250 RPM*
Number of Circuits	1x USB2.0 + 2~30 wires
Lead Wire	USB cable, AWG28# Teflon
Voltage	240V AC/DC
Operating Temperature	-20℃ to 60℃
Current Rating	Signal / 2A circuits
Noise	<0.01Ω
Torque	0.02N.m
Housing Material	Plastic
Protection Grade	IP51

* Please note that the operational life of the unit is dependent upon rotational speed, environment and temperature

Options

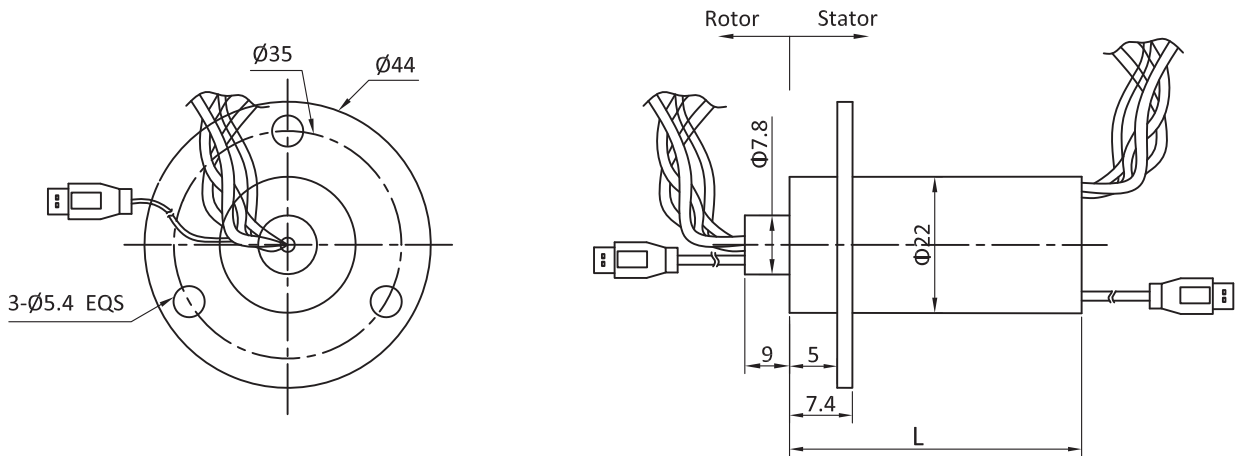
- Support mixed high speed data transmission
- Longer lead lengths are available
- Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- Terminal and heat-shrink tube are optional

INTRODUCE

USB221

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USB221 Series Dimensions



Notes:

1. Drawings not actual size, dimensions are in millimeters

Part# List

Model#	Power Circuits(5A/10A)	Signal (2A)	USB2.0	OD(mm)	Length(mm)
USB221-06S	-	6	1	22	26.4
USB221-12S	-	14	1	22	35
USB221-18S	-	26	1	22	42.5
USB221-30S	-	30	1	22	48.4

Lead wire color code(From the rotor)

Ring#	Color	Description/AWG	Ring#	Color	Description/AWG
1	BLK	Signal / 2A, AWG28#	7	BLU	Signal / 2A, AWG28#
2	BRN		8	VIO	
3	RED		9	GRY	
4	ORN		10	WHT	
5	YEL		11	PINK	
6	GRN		12	SOFT-BLU	

Notes:

12 wires for 1 group color, from 12~24 circuits would repeat the same color.

USB121 Series Overview

Description

Slip ring is a precision device can be used in any electromechanical system that transfer signal and power from a stationary to a rotating structure, and the power and all kinds of signal can combination in one slip ring.

USB12 slip ring with through bore 12.7mm, outer diameter 56mm, can be mixed transmission power current, signal, etc. With transmission stability, no packet loss, no string of code, low return and insertion loss. Ultra-low BER error rate and superior signal to noise ratio.



Specifications

Item	
Operating Speed	Max.300 RPM*
Number of Circuits	1x USB2.0 + 2~32 wires
Lead Wire	USB cable, AWG22#, AWG18# Teflon, 300mm
Voltage	380V AC/DC
Operating Temperature	-40℃ to 80℃
Current Rating	Signal / 5A , Power 8A circuits
Noise	<0.01Ω
Torque	0.1N.m; + 0.06N.m/6rings
Housing Material	Al Alloy
Protection Grade	IP51

* Please note that the operational life of the unit is dependent upon rotational speed, environment and temperature

Options

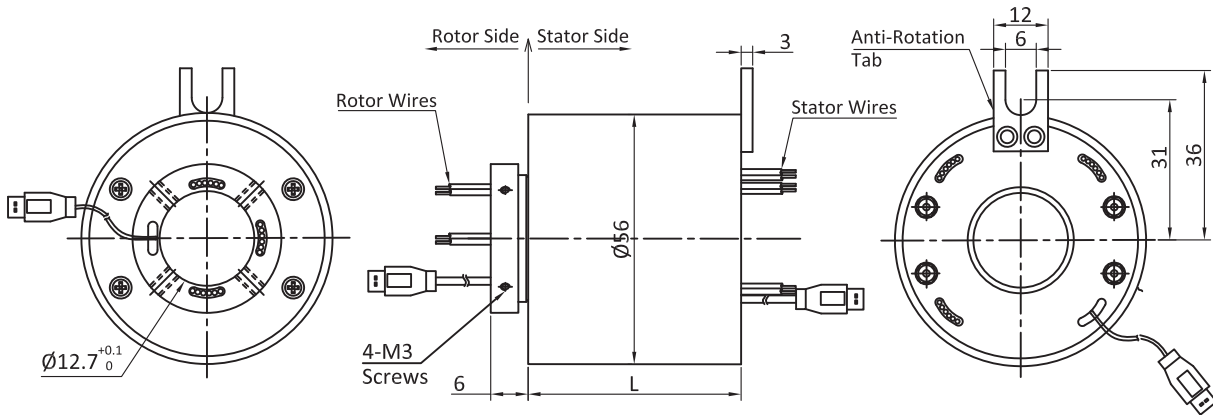
- Flange with 4 mounting holes
- Splash seals for dust and moisture resistance
- Various axial and radial lead exits are available
- Longer lead lengths are available
- Higher current and voltage capacity per circuit
- Support mixed high speed data transmission
- Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- Aviation plug, terminal and heat-shrink tube are optional
- IP 65 rated slip ring available

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USB121 Series Dimensions



Notes:

1. Drawings not actual size, dimensions are in millimeters
2. Rotor and stator leads exit 4 places, 90° apart
3. Flange mounting is options

Part# List

Model#	Power Circuits(10A)	Signal (2A/5A)	USB2.0	OD(mm)	Length(mm)
USB121-S02	-	2	1	56	39.5
USB121-P02	2	-	1	56	39.5
USB121-S08	-	8	1	56	56.9
USB121-P08	8	-	1	56	56.9
USB121-P04S04	4	4	1	56	56.9
USB121-P04S10	4	10	1	56	74.3
USB121-S14	-	14	1	56	74.3

Notes: Not all of the part number are list in this table, if can not find suitable products, please contact us!

Lead wire color code(From the rotor)

Ring#	Color	Description/AWG	Ring#	Color	Description/AWG
1	-	USB2.0 cable	5	RED	Signal / 5A, AWG22# Power/10A, AWG16#
2	-		6	BLK	
3	-		7	BLU	
4	-		8	BRN	
		9	WHT		
		10	GRY		

Notes:

6 wires for 1 group color, from 6~12 circuits would repeat the same color.

USB251 Series Overview

Description

Slip ring is a precision device can be used in any electromechanical system that transfer signal and power from a stationary to a rotating structure, and the power and all kinds of signal can combination in one slip ring.

SB25 slip ring with through bore 25.4mm, outer diameter 86mm, can be mixed transmission power current, signal, etc. With transmission stability, no packet loss, no string of code, low return and insertion loss. US military coating technology, ultra-low BER error rate and superior signal to noise ratio.



Specifications

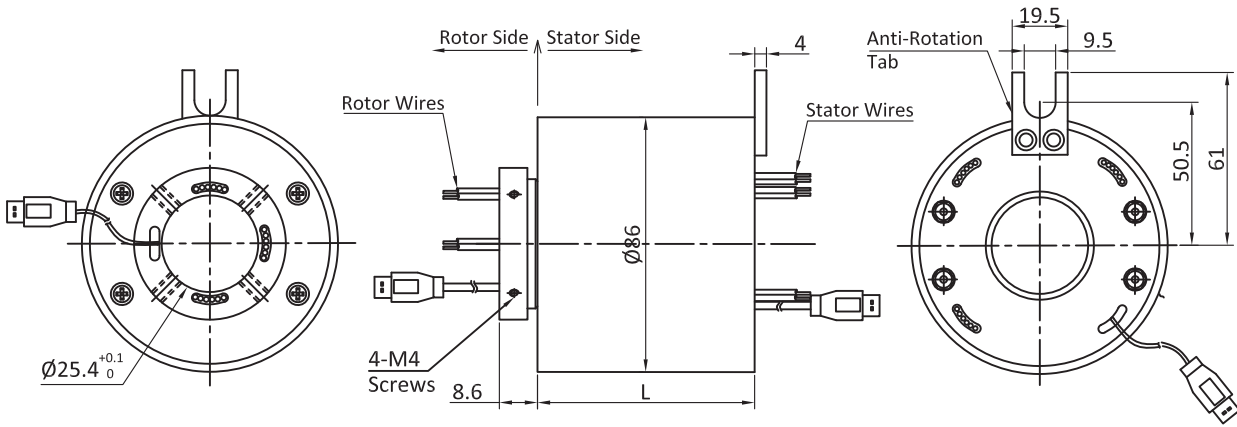
Item	
Operating Speed	Max.300 RPM*
Number of Circuits	1x USB2.0 + 2~32 wires
Lead Wire	USB cable, AWG22#, AWG16# Teflon, 300mm
Voltage	440V AC/DC
Operating Temperature	-40℃ to 80℃
Current Rating	Signal / 5A , Power 10A circuits
Noise	<0.01Ω
Torque	0.1N.m; + 0.06N.m/6rings
Housing Material	Al Alloy
Protection Grade	IP51

* Please note that the operational life of the unit is dependent upon rotational speed, environment and temperature

Options

- Flange with 4 mounting holes
- Splash seals for dust and moisture resistance
- Various axial and radial lead exits are available
- Longer lead lengths are available
- Higher current and voltage capacity per circuit
- Support mixed high speed data transmission
- Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- Aviation plug, terminal and heat-shrink tube are optional
- IP 65 rated slip ring available

USB251 Series Dimensions



Notes:

1. Drawings not actual size, dimensions are in millimeters
2. Rotor and stator leads exit 4 places, 90° apart
3. Flange mounting is options

Part# List

Model#	Power Circuits(10A)	Signal (2A/5A)	USB2.0	OD(mm)	Length(mm)
USB251-S02	-	2	1	86	44.2
USB251-P02	2	-	1	86	44.2
USB251-S08	-	8	1	86	65.2
USB251-P08	8	-	1	86	65.2
USB251-P04S04	4	4	1	86	65.2
USB251-S14	-	14	1	86	65.2
USB251-P04S10	4	10	1	86	86.2

Notes: Not all of the part number are list in this table, if can not find suitable products, please contact us!

Lead wire color code(From the rotor)

Ring#	Color	Description/AWG	Ring#	Color	Description/AWG
1	-	USB2.0 cable	5	RED	Signal / 5A, AWG22# Power/10A, AWG16#
2	-		6	BLK	
3	-		7	BLU	
4	-		8	BRN	
		9	WHT		
		10	GRY		

Notes:

6 wires for 1 group color, from 6~12 circuits would repeat the same color.

USB381 Series Overview

Description

Slip ring is a precision device can be used in any electromechanical system that transfer signal and power from a stationary to a rotating structure, and the power and all kinds of signal can combination in one slip ring.

USB38 slip ring with through bore 38.1mm, outer diameter 99mm, can be mixed transmission power current, signal, etc. With transmission stability, no packet loss, no string of code, low return and insertion loss. Ultra-low BER error rate and superior signal to noise ratio.



Specifications

Item	
Operating Speed	Max.300 RPM*
Number of Circuits	1x USB2.0 + 2~32 wires
Lead Wire	USB cable, AWG22#, AWG16# Teflon, 300mm
Voltage	440V AC/DC
Operating Temperature	-40℃ to 80℃
Current Rating	Signal / 5A , Power 10A circuits
Noise	<0.01Ω
Torque	0.1N.m; + 0.06N.m/6rings
Housing Material	Al Alloy
Protection Grade	IP51

* Please note that the operational life of the unit is dependent upon rotational speed, environment and temperature

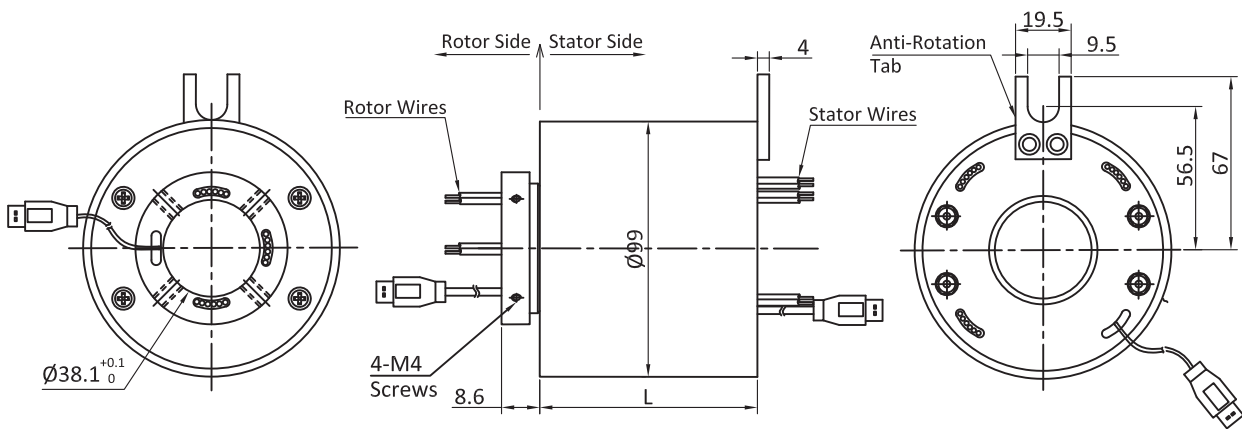
Options

- Flange with 4 mounting holes
- Splash seals for dust and moisture resistance
- Various axial and radial lead exits are available
- Longer lead lengths are available
- Higher current and voltage capacity per circuit
- Support mixed high speed data transmission
- Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- Aviation plug, terminal and heat-shrink tube are optional
- IP 65 rated slip ring available

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USB381

USB381 Series Dimensions



Notes:

1. Drawings not actual size, dimensions are in millimeters
2. Rotor and stator leads exit 4 places, 90° apart
3. Flange mounting is options

Part# List

Model#	Power Circuits(10A)	Signal (2A/5A)	USB2.0	OD(mm)	Length(mm)
USB381-S02	-	2	1	99	47.7
USB381-P02	2	-	1	99	47.7
USB381-S08	-	8	1	99	68.7
USB381-P08	8	-	1	99	68.7
USB381-P04S04	4	4	1	99	68.7
USB381-S14	-	14	1	99	89.7
USB381-P04S10	4	10	1	99	89.7

Notes: Not all of the part number are list in this table, if can not find suitable products, please contact us!

Lead wire color code(From the rotor)

Ring#	Color	Description/AWG	Ring#	Color	Description/AWG
1	-	USB2.0 cable	5	RED	Signal / 5A, AWG22# Power/10A, AWG16#
2	-		6	BLK	
3	-		7	BLU	
4	-		8	BRN	
		9	WHT		
		10	GRY		

Notes:

6 wires for 1 group color, from 6~12 circuits would repeat the same color.

USB501 Series Overview

Description

Slip ring is a precision device can be used in any electromechanical system that transfer signal and power from a stationary to a rotating structure, and the power and all kinds of signal can combination in one slip ring.

USB50 slip ring with through bore 50mm, outer diameter 119mm, can be mixed transmission power current, signal, etc. With transmission stability, no packet loss, no string of code, low return and insertion loss. Ultra-low BER error rate and superior signal to noise ratio.



Specifications

Item	
Operating Speed	Max.300 RPM*
Number of Circuits	1x USB2.0 + 2~32 wires
Lead Wire	USB cable, AWG22#, AWG16# Teflon, 300mm
Voltage	600V AC/DC
Operating Temperature	-40℃ to 80℃
Current Rating	Signal / 5A , Power 10A circuits
Noise	<0.01Ω
Torque	0.1N.m; + 0.06N.m/6rings
Housing Material	Al Alloy
Protection Grade	IP51

* Please note that the operational life of the unit is dependent upon rotational speed, environment and temperature

Options

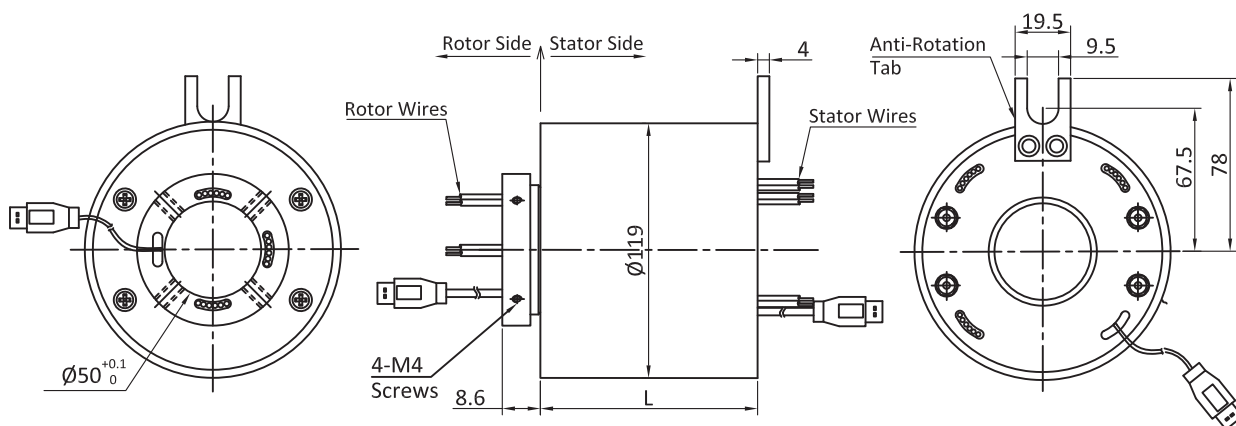
- Flange with 4 mounting holes
- Splash seals for dust and moisture resistance
- Various axial and radial lead exits are available
- Longer lead lengths are available
- Higher current and voltage capacity per circuit
- Support mixed high speed data transmission
- Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- Aviation plug, terminal and heat-shrink tube are optional
- IP 65 rated slip ring available

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USB501

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USB501 Series Dimensions



Notes:

1. Drawings not actual size, dimensions are in millimeters
2. Rotor and stator leads exit 4 places, 90° apart
3. Flange mounting is options

Part# List

Model#	Power Circuits(10A)	Signal (2A/5A)	USB2.0	OD(mm)	Length(mm)
USB501-S02	-	2	1	119	56
USB501-P02	2	-	1	119	56
USB501-S08	-	8	1	119	78.8
USB501-P08	8	-	1	119	78.8
USB501-P04S04	4	4	1	119	78.8
USB501-S14	-	14	1	119	101.6
USB501-P04S10	4	10	1	119	101.6

Notes: Not all of the part number are list in this table, if can not find suitable products, please contact us!

Lead wire color code(From the rotor)

Ring#	Color	Description/AWG	Ring#	Color	Description/AWG
1	-	USB2.0 cable	5	RED	Signal / 5A, AWG22# Power/10A, AWG16#
2	-		6	BLK	
3	-		7	BLU	
4	-		8	BRN	
		9	WHT		
		10	GRY		

Notes:

6 wires for 1 group color, from 6~12 circuits would repeat the same color.