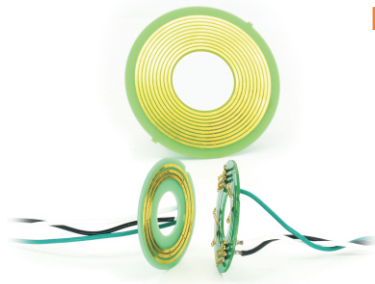


# P series PCB slip ring

SenRing P series PCB slip ring, a kind of ultrathin slip ring, designed specifically for devices with limited height space, need to extend horizontal space, thickness:6mm, min thickness:5mm. The typical characteristics are small thickness and large OD compared conventional SenRing slip ring. Precious metal brush has the advantages of high stability, low torque, low loss, no maintenance, low electrical noise and long working life, etc. Widely used in a variety of occasions with small installation space.



## Features

- thickness:6mm,min thickness:5mm;
- Adopting fiber brush technology make sure reliable contact under very low friction ;
- Low contact resistance, no friction debris;
- Can be combined to transmit precision signal and supply power;
- Precious metal brush ensure high stability and reliability.

## Part no. description

P	ID	power circuits	signal circuits	Product grade	Examples:
P012 series PCB slip ring ID:12.7mm OD;6mm					C : standard D : industrial
Examples: 12: ID 12.7mm 25: ID 25.4mm 38: ID 38.1mm 50: ID 50mm					Examples: 06S:6 circuits signal@2A (5A options) 12S:12 circuits signal@2A (5A options)
					Examples: 0610:6 circuits@10A 1230:12 circuits@30A

## Examples

P012-0310: P012 means hole size 12.7mm series PCB slip ring, 0310 means 3 circuits (10A each) current;

P025-1210-D: P025 means hole size 25.4mm series PCB slip ring, 1210 means 12 circuits (10A each) current, "D" means industrial grade;

P038-0810-04S: P038 means hole size 38.1 series PCB slip ring, 0810 means 8 circuits (10A each) current, 04s means 4 circuits signal;

## Model List

Model	ID(mm)	Thickness(mm)	Rings
P012	12.7	6	1~12
P025	25.4	6	1~12
P038	38.1	6	1~12
P050	50	6	1~12



## P012 series PCB slip ring

P012 series PCB slip ring, hole size 12.7mm, thickness 6mm, is more thinner than SenRing Pancake slip ring, adopt innovative PCB material, min thickness 5mm, ultra-hard gold plating and ultra-thick copper foil process, support power and signal combined transmission, make sure high stability, low torque, low loss, no maintenance, low electrical noise, long life, etc.

### Part No. Description

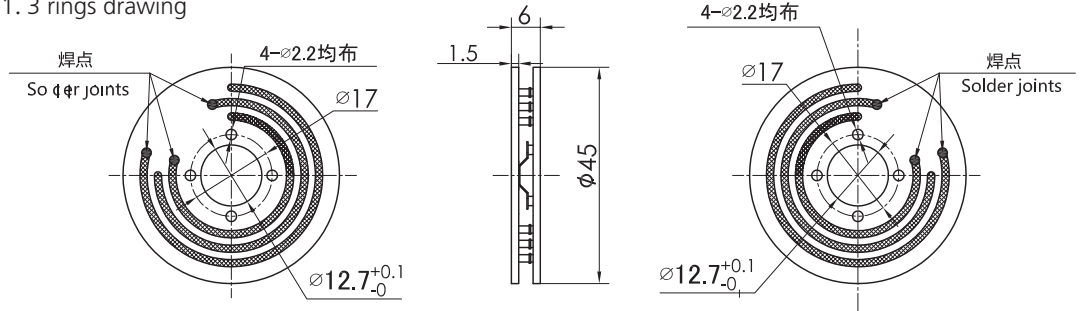
P012	- power circuits	- signal circuits	- Product grade	Examples :
P012 series PCB slip ring ID:12.7mm OD;6mm				C : standard D : industrial
Examples : 0610:6 circuits@10A 1230:12 circuits@30A				Examples : 06S:6 circuits signal@2A (5A options) 12S:12 circuits signal@2A (5A options)

### Examples

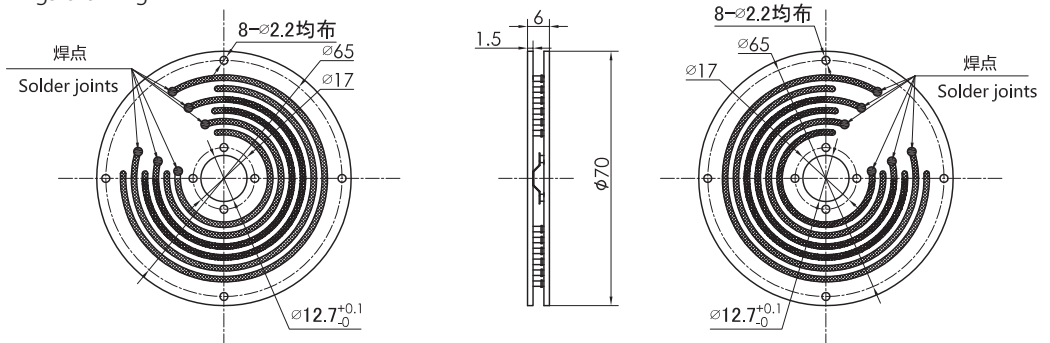
P012-0310: P012 means PCB slip ring, hole size 12.7mm ,0310 means 3 circuits(10A each)current;

P012-0810-02S: P012 means PCB slip ring, hole size 12.7mm,0810 means 8 circuits(10A each)current, 02s means 2 circuits signal;

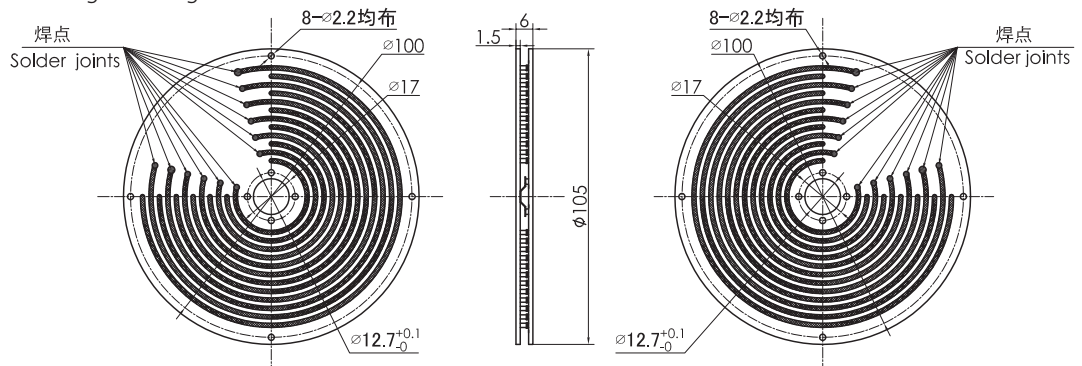
#### 1. 3 rings drawing



#### 2. 6 rings drawing



#### 3. 12 rings drawing



## Model List

Model	10A	signal/5A	Rings	Model	10A	signal/5A	Rings
P012-0310	3	0	3	P012-03S	0	3	3
P012-0210-04S	2	4	6	P012-0410-02S	4	2	6
P012-06S	0	6	6	P012-0610	6	0	6
P012-1210	12	0	12	P012-0210-10S	2	10	12
P012-0410-08S	4	8	12	P012-0610-06S	6	6	12
P012-0810-04S	8	4	12	P012-12S	0	1	12

\*Remark: Circuits can be combined in parallel for bigger current, N circuits of 10A to get N\*10A, such as 2 circuits of 10A in parallel for 20A use. if you need customize the hole size, OD, thickness, circuit no. and signal type of slip ring, pls contact the SenRing technician: 186 7557 7111.

## Technical Specification of the slip ring

Mechanical Data		Electrical Data		
spec	data	spec	data	
working life	refer to slip ring grade table		power	signal
Rotating speed	refer to slip ring grade table	voltage range	0~440VAC/VDC	0~440VAC/VDC
working temp.	-30℃ ~80℃	insulation resistance	≥ 1000MΩ/500VDC	≥ 1000MΩ/500VDC
work humidity	0~85%RH	lead wire spec.	AWG17# Silver-plated teflon	AWG22# Silver-plated teflon
contact material	refer to slip ring grade table			
housing material	PCB base	lead wire length	standard 300mm (can be customized)	
torque	0.1N.m; +0.03N.m/6 circuits	Dielectric Strength	500VAC@50Hz, 60s	
IP grade	IP51	Electrical noise	<0.01Ω	

## Grade code

Grade code	Max rotating speed	working life	contact material
C: standard	100RPM	5 millions	precious metal
D: industrial	300RPM	20 millions	gold-gold

## Color Code of Lead Wire

ring #	1	2	3	4	5	6	7	8	9	10	11	12
color	BLK	BRN	RED	ORG	YEL	GRN	BLU	PUR	GRY	WHT	PINK	LGT BLU
ring#	13	14	15	16	17	18	19	20	21	22	23	24
color	WHT/BLK	WHT/BRN	WHT/RED	WHT/ORG	WHT/YEL	WHT/GRN	WHT/BLU	WHT/PUR	WHT/GRY	BLK/RED	BLK/BRN	Transparent

Remark: "1" : the first wire from rotor side , P012-06S wire color sequence: BLK/BRN/RED/ORG/YEL/GRN , 24 color wires as one group , if more than 24wires, repeat as sequence , use number tube to tell group 1#, 2#....



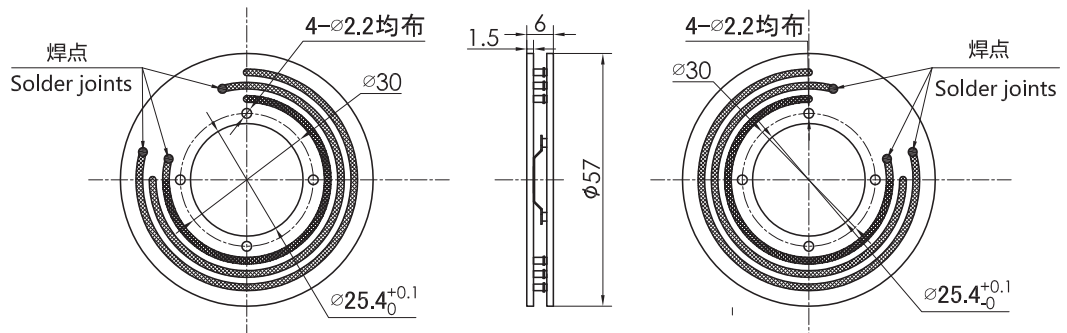
# P025 series PCB slip ring

P025 series PCB slip ring, hole size 25.4mm, thickness 6mm (min thickness 5mm). P025 series innovative PCB material, adopt ultra-hard gold plating and ultra-thick copper foil process, support power and signal combined transmission, make sure high stability, low torque, low loss, no maintenance, low electrical noise, long life, etc.

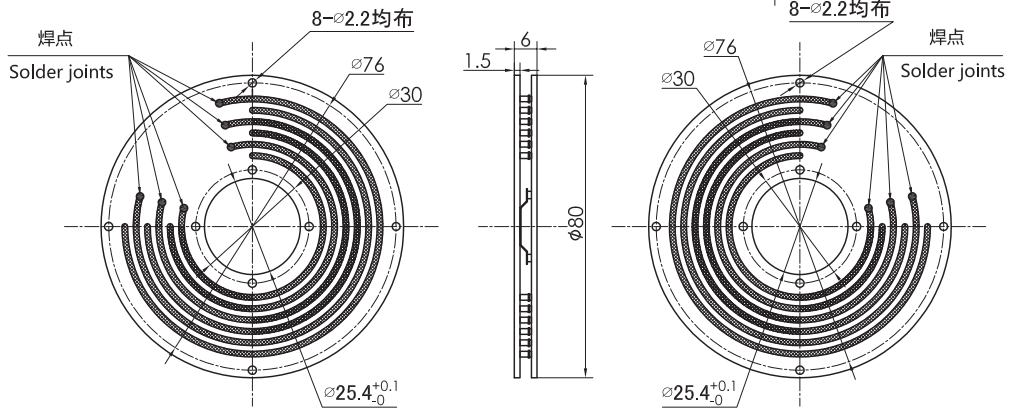
## Part No. Description

P025	- power circuits	- signal circuits	- Product grade	Examples :
P025 series PCB slip ring ID:25.4mm OD;6mm				C : standard D : industrial
Examples : 0610:6 circuits@10A 1230:12 circuits@30A				Examples : 06S:6 circuits signal@2A (5A options) 12S:12 circuits signal@2A (5A options)

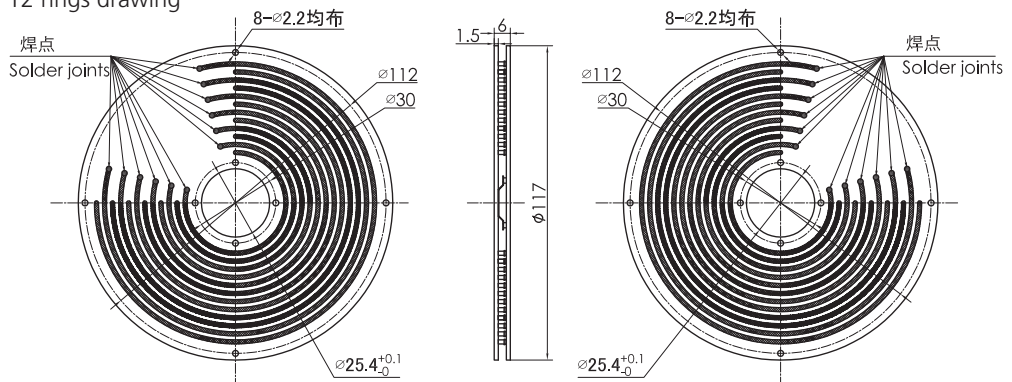
### 1. 3 rings drawing



### 2. 6 rings drawing



### 3. 12 rings drawing



### Model List

Model	10A	signal/5A	Rings	Model	10A	signal/5A	Rings
P025-0310	3	0	3	P025-03S	0	3	3
P025-0210-04S	2	4	6	P025-0410-02S	4	2	6
P025-06S	0	6	6	P025-0610	6	0	6
P025-1210	12	0	12	P025-0210-10S	2	10	12
P025-0410-08S	4	8	12	P025-0610-06S	6	6	12
P025-0810-04S	8	4	12	P025-12S	0	1	12

\*Remark:Circuits can be combined in parallel for bigger current,N circuits of 10A to get N\*10A,such as 2 circuits of 10A in parallel for 20A use. if you need customize the hole size,OD,thickness,circuit no.and signal type of slip ring,pls contact the SenRing technician:186 7557 7111.

### Technical Specification of the slip ring

Mechanical Data		Electrical Data		
spec	data	spec	data	
working life	refer to slip ring grade table		power	signal
Rotating speed	refer to slip ring grade table	voltage range	0~440VAC/VDC	0~440VAC/VDC
working temp.	-30℃~80℃	insulation resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
work humidity	0~85%RH	lead wire spec.	AWG17# Silver-plated teflon	AWG22# Silver-plated teflon
contact material	refer to slip ring grade table			
housing material	PCB base	lead wire length	standard 300mm (can be customized)	
torque	0.1N.m;+0.03N.m/6 circuits	Dielectric Strength	500VAC@50Hz, 60s	
IP grade	IP51	Electrical noise	<0.01Ω	

### Grade code

Grade code	Max rotating speed	working life	contact material
C:standard	100RPM	5 millions	precious metal
D:industrial	300RPM	20 millions	gold-gold

### Color Code of Lead Wire

ring #	1	2	3	4	5	6	7	8	9	10	11	12
color	BLK	BRN	RED	ORG	YEL	GRN	BLU	PUR	GRY	WHT	PINK	LGT BLU
ring#	13	14	15	16	17	18	19	20	21	22	23	24
color	WHT/BLK	WHT/BRN	WHT/RED	WHT/ORG	WHT/YEL	WHT/GRN	WHT/BLU	WHT/PUR	WHT/GRY	BLK/RED	BLK/BRN	Transparent

Remark: "1" : the first wire from rotor side , P025-06S wire color sequence: BLK/BRN/RED/ORG/YEL/GRN , 24 color wires as one group , if more than 24wires, repeat as sequence , use number tube to tell group 1#, 2#....



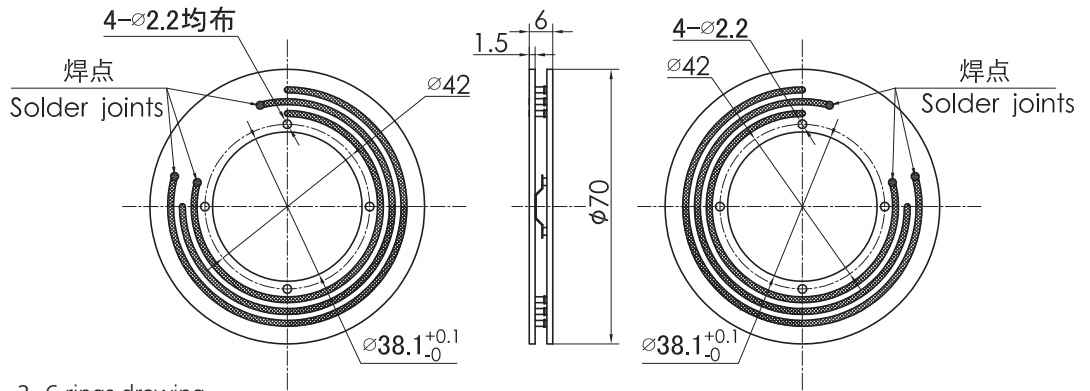
## P038 series PCB slip ring

P038 series PCB slip ring, hole size 38.1mm, thickness 6mm (min thickness 5mm). P038 series innovative PCB material, adopt ultra-hard gold plating and ultra-thick copper foil process, support 2~12 circuits power and signal combined transmission, make sure high stability, low torque, low loss, no maintenance, low electrical noise, long life, etc.

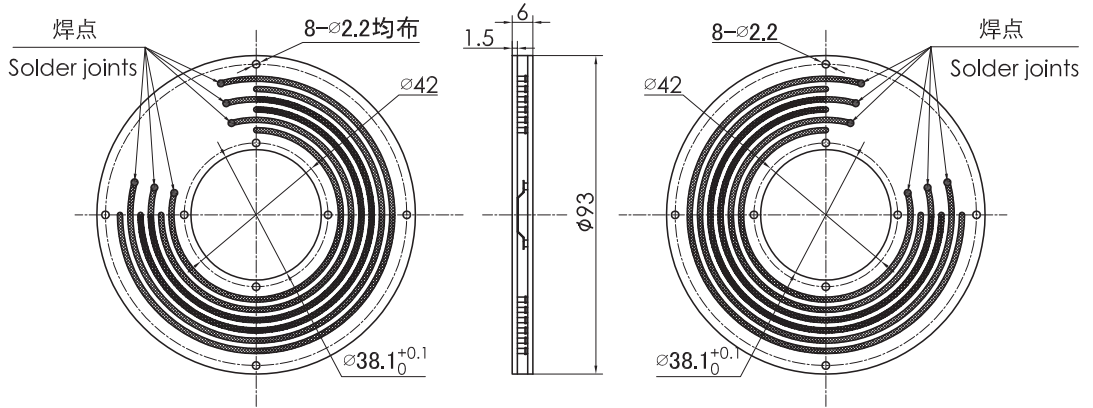
### Part No. Description

P038	- power circuits	- signal circuits	- Product grade	Examples :
P038 series PCB slip ring ID:38.1mm OD;6mm				C : standard D : industrial
Examples : 0610:6 circuits@10A 1230:12 circuits@30A				Examples : 06S:6 circuits signal@2A (5A options) 12S:12 circuits signal@2A (5A options)

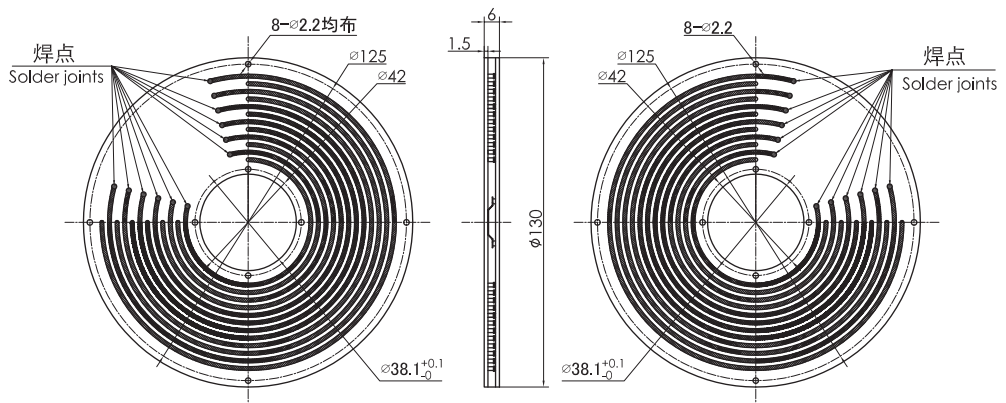
#### 1. 3 rings drawing



#### 2. 6 rings drawing



#### 3. 12 rings drawing



## Model List

Model	10A	signal/5A	Rings	Model	10A	signal/5A	Rings
P038-0310	3	0	3	P038-03S	0	3	3
P038-0210-04S	2	4	6	P038-0410-02S	4	2	6
P038-06S	0	6	6	P038-0610	6	0	6
P038-1210	12	0	12	P038-0210-10S	2	10	12
P038-0410-08S	4	8	12	P038-0610-06S	6	6	12
P038-0810-04S	8	4	12	P038-12S	0	1	12

\*Remark:Circuits can be combined in parallel for bigger current,N circuits of 10A to get N\*10A,such as 2 circuits of 10A in parallel for 20A use. if you need customize the hole size,OD,thickness,circuit no.and signal type of slip ring,pls contact the SenRing technician:186 7557 7111.

## Technical Specification of the slip ring

Mechanical Data		Electrical Data		
spec	data	spec	data	
working life	refer to slip ring grade table		power	signal
Rotating speed	refer to slip ring grade table	voltage range	0~440VAC/VDC	0~440VAC/VDC
working temp.	-30℃~80℃	insulation resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
work humidity	0~85%RH	lead wire spec.	AWG17# Silver-plated teflon	AWG22# Silver-plated teflon
contact material	refer to slip ring grade table			
housing material	PCB base	lead wire length	standard 300mm (can be customized)	
torque	0.1N.m;+0.03N.m/6 circuits	Dielectric Strength	500VAC@50Hz, 60s	
IP grade	IP51	Electrical noise	<0.01Ω	

## Grade code

Grade code	Max rotating speed	working life	contact material
C:standard	100RPM	5 millions	precious metal
D:industrial	300RPM	20 millions	gold-gold

## Color Code of Lead Wire

ring #	1	2	3	4	5	6	7	8	9	10	11	12
color	BLK	BRN	RED	ORG	YEL	GRN	BLU	PUR	GRY	WHT	PINK	LGT BLU
ring#	13	14	15	16	17	18	19	20	21	22	23	24
color	WHT/BLK	WHT/BRN	WHT/RED	WHT/ORG	WHT/YEL	WHT/GRN	WHT/BLU	WHT/PUR	WHT/GRY	BLK/RED	BLK/BRN	Transparent

Remark: "1" : the first wire from rotor side , P038-06S wire color sequence: BLK/BRN/RED/ORG/YEL/GRN , 24 color wires as one group , if more than 24wires, repeat as sequence , use number tube to tell group 1#, 2#....

# P050 series PCB slip ring

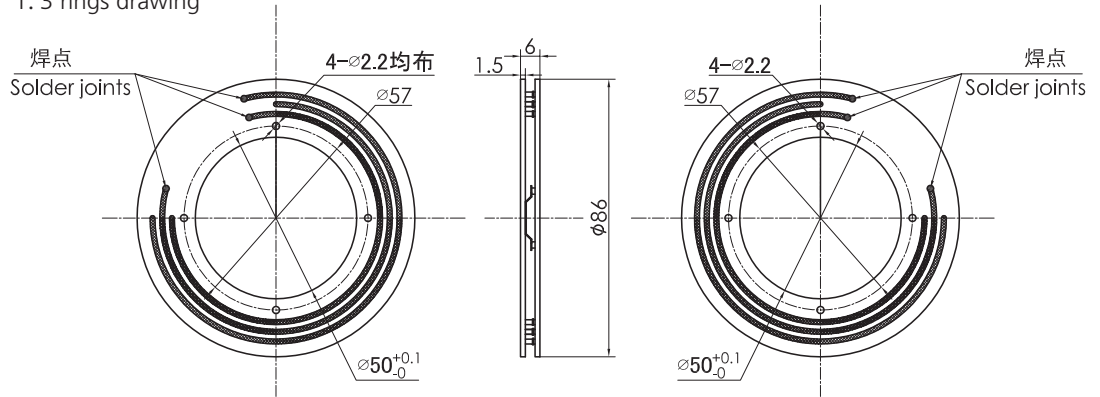


P050 series PCB slip ring, hole size 50mm, thickness 6mm (min thickness 5mm). P050 series innovative PCB material, adopt ultra-hard gold plating and ultra-thick copper foil process, support 2~12 circuits power and signal combined transmission, make sure high stability, low torque, low loss, no maintenance, low electrical noise, long life, etc.

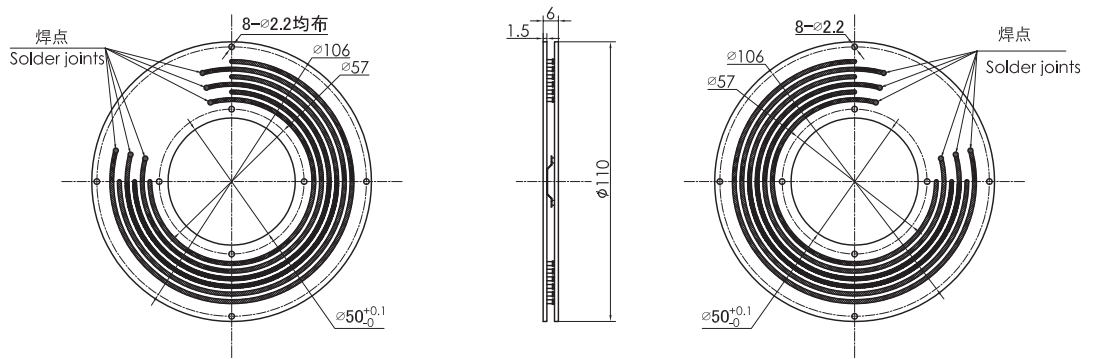
## Part No. Description

P050	- power circuits -	signal circuits -	Product grade	Examples :
P050 series PCB slip ring ID:50mm OD:6mm				C : standard D : industrial
Examples : 0610:6 circuits@10A 1230:12 circuits@30A			Examples : 06S:6 circuits signal@2A (5A options) 12S:12 circuits signal@2A (5A options)	

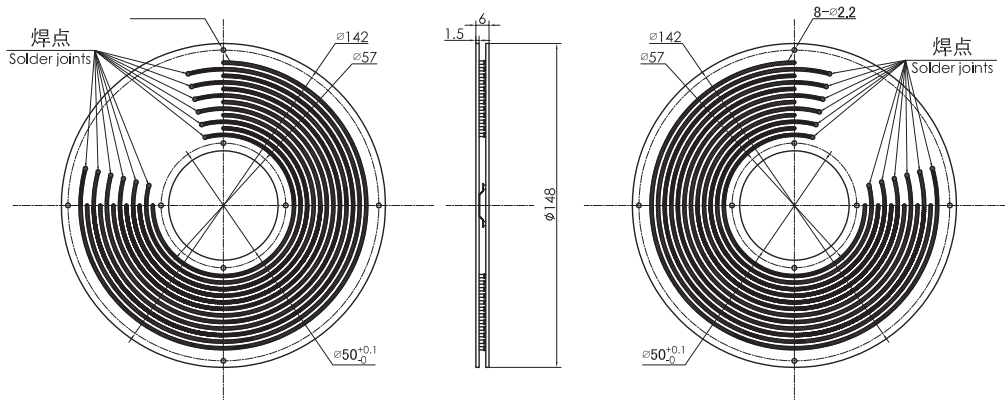
### 1. 3 rings drawing



### 2. 6 rings drawing



### 3. 12 rings drawing





### Model List

Model	10A	signal/5A	Rings	Model	10A	signal/5A	Rings
P050-0310	3	0	3	P050-03S	0	3	3
P050-0210-04S	2	4	6	P050-0410-02S	4	2	6
P050-06S	0	6	6	P050-0610	6	0	6
P050-1210	12	0	12	P050-0210-10S	2	10	12
P050-0410-08S	4	8	12	P050-0610-06S	6	6	12
P050-0810-04S	8	4	12	P050-12S	0	1	12

\*Remark: Circuits can be combined in parallel for bigger current, N circuits of 10A to get N\*10A, such as 2 circuits of 10A in parallel for 20A use. if you need customize the hole size, OD, thickness, circuit no. and signal type of slip ring, pls contact the SenRing technician: 186 7557 7111.

### Technical Specification of the slip ring

Mechanical Data		Electrical Data		
spec	data	spec	data	
working life	refer to slip ring grade table		power	signal
Rotating speed	refer to slip ring grade table	voltage range	0~440VAC/VDC	0~440VAC/VDC
working temp.	-30℃~80℃	insulation resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
work humidity	0~85%RH	lead wire spec.	AWG17# Silver-plated teflon	AWG22# Silver-plated teflon
contact material	refer to slip ring grade table	lead wire length	standard 300mm (can be customized)	
housing material	PCB base	Dielectric Strength	500VAC@50Hz, 60s	
torque	0.1N.m;+0.03N.m/6 circuits	Electrical noise	<0.01Ω	
IP grade	IP51			

### Grade code

Grade code	Max rotating speed	working life	contact material
C:standard	100RPM	5 millions	precious metal
D:industrial	300RPM	20 millions	gold-gold

### Color Code of Lead Wire

ring #	1	2	3	4	5	6	7	8	9	10	11	12
color	BLK	BRN	RED	ORG	YEL	GRN	BLU	PUR	GRY	WHT	PINK	LGT BLU
ring#	13	14	15	16	17	18	19	20	21	22	23	24
color	WHT/BLK	WHT/BRN	WHT/RED	WHT/ORG	WHT/YEL	WHT/GRN	WHT/BLU	WHT/PUR	WHT/GRY	BLK/RED	BLK/BRN	Transparent

Remark: "1": the first wire from rotor side, P050-06S wire color sequence: BLK/BRN/RED/ORG/YEL/GRN, 24 color wires as one group, if more than 24wires, repeat as sequence, use number tube to tell group 1#, 2#....