

South Korea Official Branch

Inspirnet. Co., Ltd.

Address : #804, 8F, Woominuww, 121, Dongtan-daero 23-gil,
Hwaseong-si, Gyeonggi-do, Republic of Korea.

Tel:+ 82-31-203-8921

Fax: +82-31-206-8633

Email: martin@inspirnet.com

Zip code: 18468

Site : www.inspirnet.com

Blog : blog.naver.com/inspirnet0825

SENRING ELECTRONICS CO.,LIMITED

Add: No.1, Dahua Road,Yanchuan,Songgang,Bao'an, Shenzhen,Guangdong,China

Tel:+86-755-29717812

Fax: +86-755-33250183

Email: info@senring.com

Zip code: 518105

Website: www.senring.com



SENRING 森瑞普

Professional manufacturer of slip Ring&rotary joint



Profile

Senring Electronics Co., Limited, is a worldwide designer, manufacturer of slip rings and rotary joints integrating research, testing, production and sales .With innovative technology, reliable products with long working life and excellent solutions, Senring obtains trusts from more and more customers all over the world.

Overall quality control system, strict management in designing, manufacturing and testing , and advanced devices& technology contribute to leading level of Senring products in slip ring industry. Depending on strong R&D ability and close cooperation with well-know enterprises & research institutes , Senring could not only provide standard industrial slip rings, but also customize different slip rings according to customer' s requirements :circuits from 1 to 600, current from milliamp to 800 Amp, rotating speed from 0 rpm to 12000rpm, and from electrical slip ring to fiber optic rotary joint.....

Factory View / Certificates

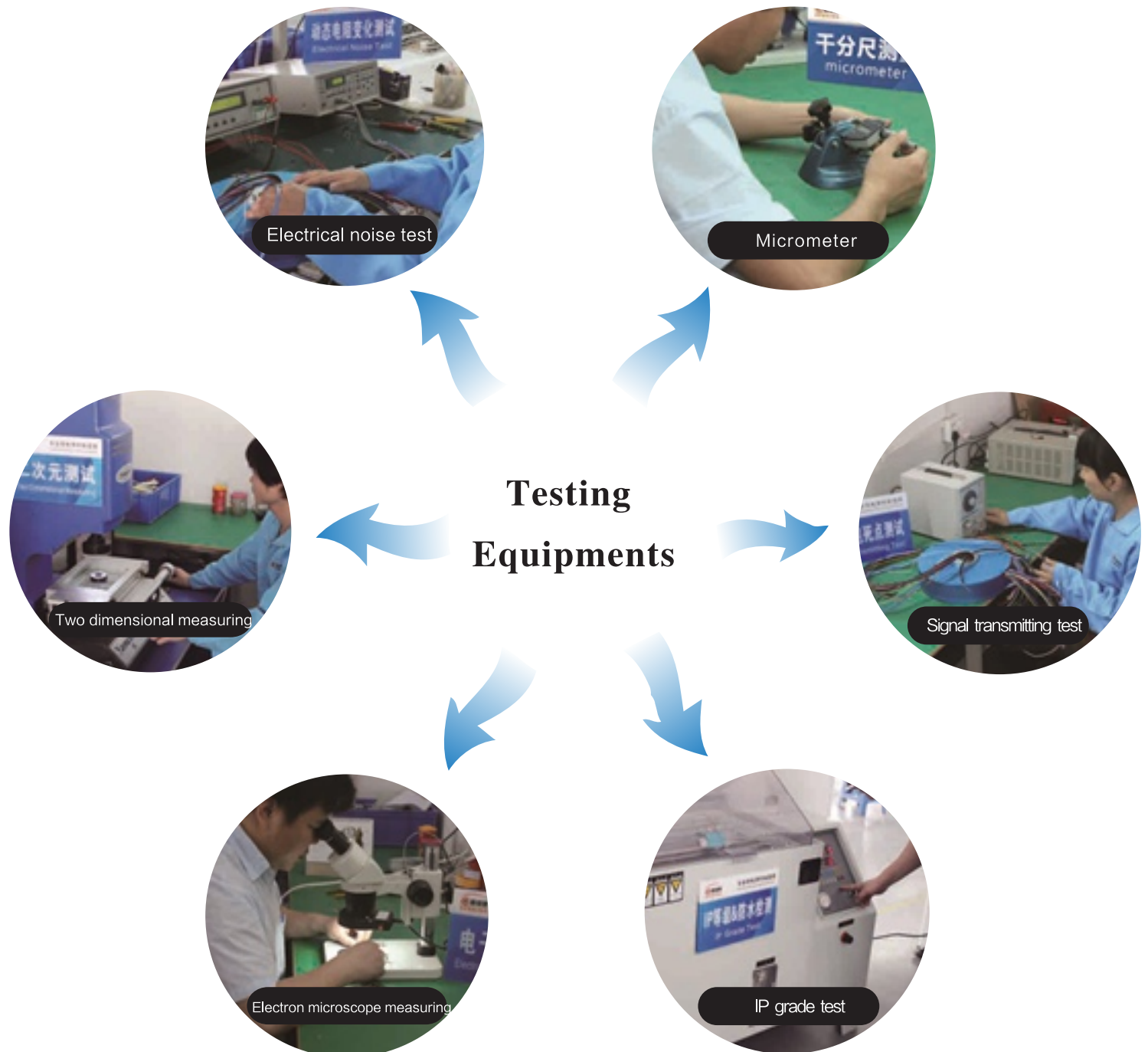


All Senring products are manufactured according to national standards, industrial standards and European standards, CE/ROHS compliant.

SENRING LABORATORY TESTING EQUIPMENT

Testing Equipments

Senring gives high priority to the quality, a full set of strict tests will be conducted for each product





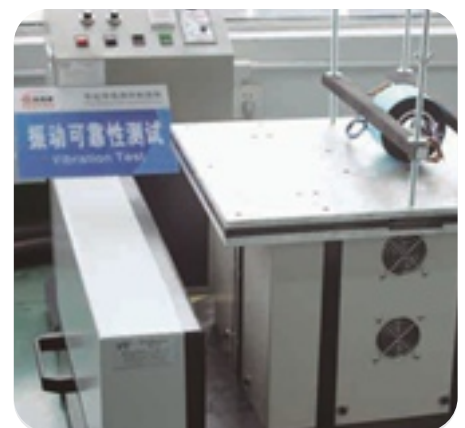
For ensure the quality , Senring brings in a full set of testing equipments to test each slip ring including Signal transmitting test,Life test,Vibration test,Low-high temperature test,Salt spray test,Hi-pot test, Torque test,IP grade test,Large current test,Vacuum test,Two dimensional measuring,Insulation resistance/Dielectric strength test, Electron microscope measuring, Contact resistance test....



Salt Spray Test



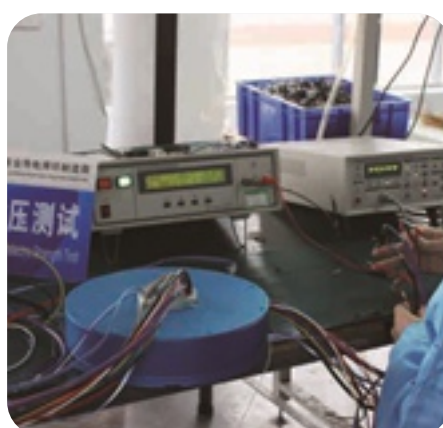
Low-high temperature test



Vibration test



Hi-pot test



Insulation resistance & Dielectric strength test



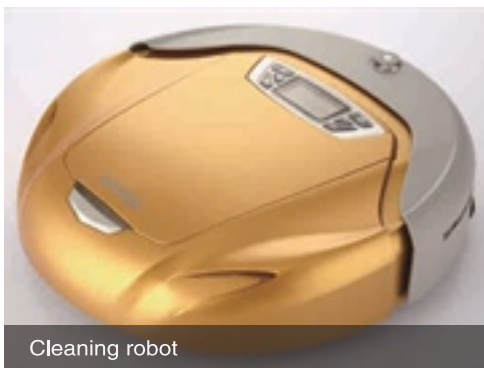
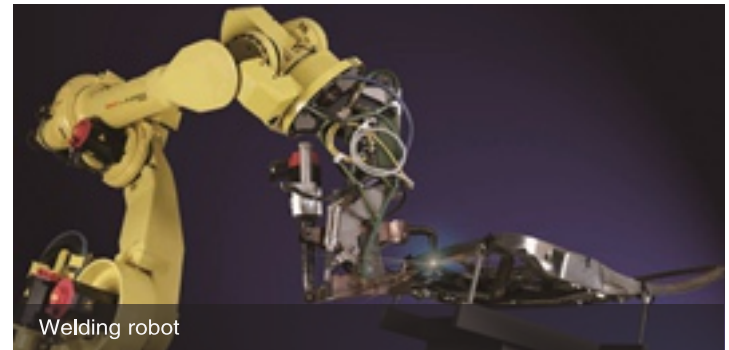
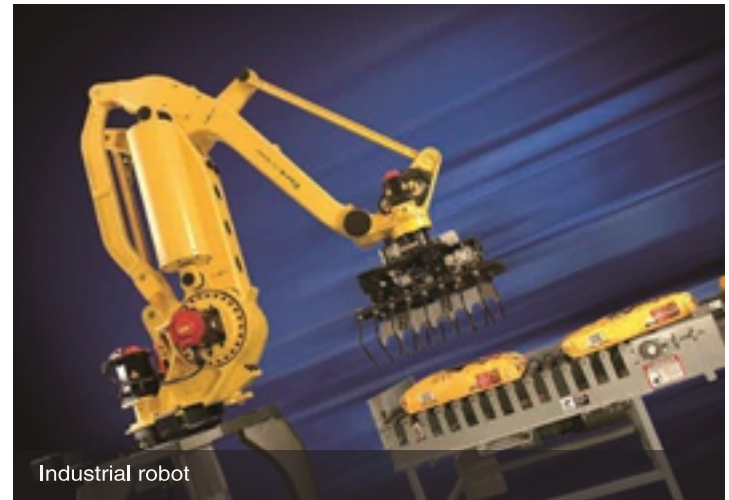
Contact resistance test

PRODUCT APPLICATION

Sensing slip rings could be applied to any devices where requires to transmit power and signals when 360 ° rotating, such as CCTV systems, medical equipment, robots, drones, laboratory equipment, mechanical arm, beer production equipment, rotating light box, dairy production equipment, helicopters, Speed dome Camera, radar, communications equipment, packaging machines, aviation equipment, hot rollers, tanks, molding machine, revolving door, winding machines, spiraling machine ,entertainment equipments, LED advertising lights, production lines, rotating silver-plating production line, surgical lights, children Intelligent toys, wind turbine



Application in robot & automation equipment



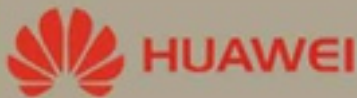
Global Partners

Senring establishes good business relations with global companies such as Siemens, Huawei, Foxconn, BYD, Flextronics, Yaskawa, Raymarine, Fluke, providing them customized slip ring/rotary joint solutions as well as technical support.

Corporations



SIEMENS



Raymarine



FLUKE®



FLEXTRONICS X

Research Institutes & Universities



Tsinghua University



Chinese Academy Of Sciences



China Institute of Water Resources
and Hydropower Research



BMSTU



Beijing Research Institute of
Automation for Machinery Industry

Military partners



China Aerospace Science
& Industry Corporation



China Electronic Technology Corporation



China Shipbuilding Industry Corporation



China North Industries Group
Corporation, Norinco Group



wzu (Poland)

SNH series through hole slip ring



SNH through hole slip ring series are specially designed with a center hole routing hydraulic, pneumatic channel or driving shaft, advanced multi-point contact brush technology ensures reliable contact with low friction, through hole slip rings could be customized for through hole size from 5mm to 800mm and current from 2 Amps to 500 Amps, which meets customer' s different transmitting requirements for tiny voltage, high-frequency, EMF, thermocouple, computer signals, Strain gauge, Can-Bus, Profibus, RS422, RS485, PLC control, digital / analog video, 1000M Ethernet, sensor signal and power transmitting. Standard products, integrated structure, easy installation.

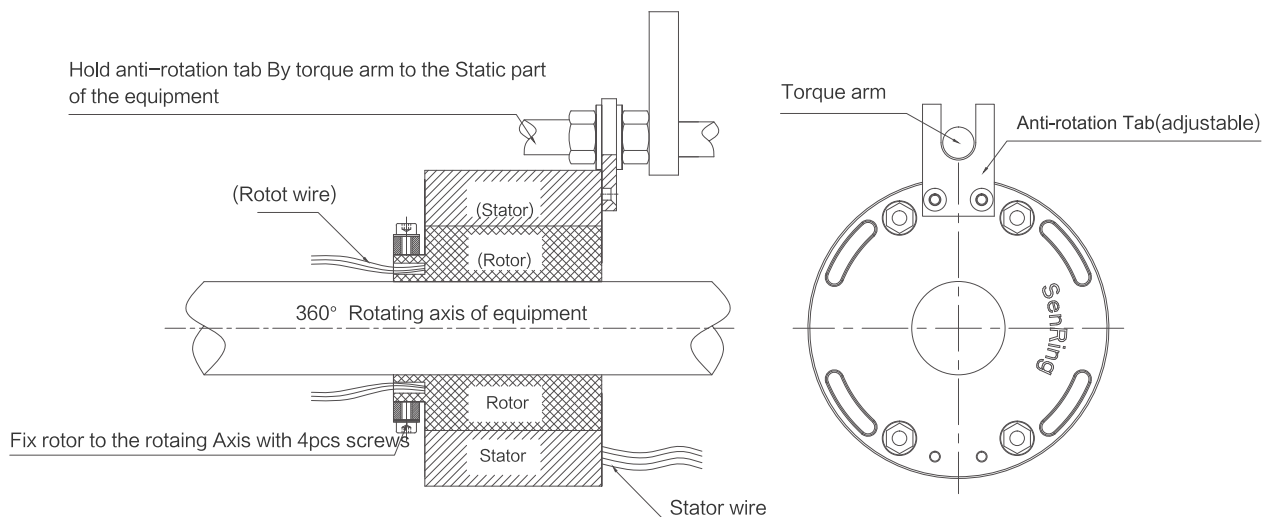
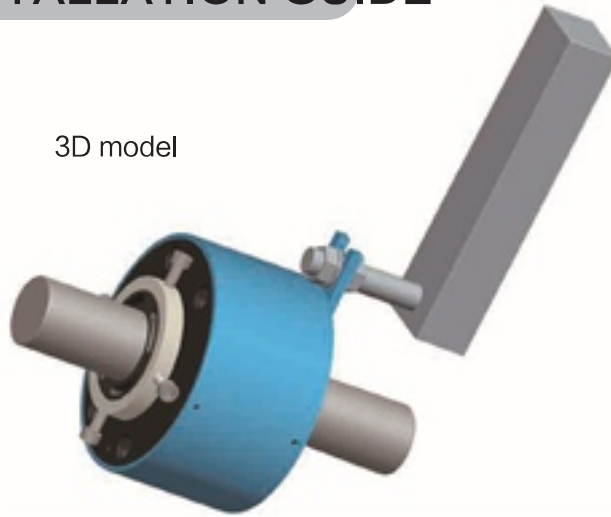
Technical Data			
Housing material	AL alloy	Torsion	0.1N.m;+0.03N.m/6circuit
Working life	>80millions revolutions(depends on working speed, environment)	Contact material	precious metal: gold-gold
Electrical Noise	<10mΩ @6VDC,50mA,5RPM	Voltage	440VAC / 250VDC
Dielectric Strength	500VDC@50Hz,6s	Lead wire Spec	UL Teflon@Awg22(signal 5A) , Awg17(10A)
Insulation Resistance	500MΩ @500VDC,6s	Lead wire Length	300mm
Work Temperature	-20 ℃ ~ +80 ℃ (-5 ℉ ~ +175 ℉)	IP grade	IP51
Mechanical vibration	MIL-STD-810E	Work Humidity	10% ~ 85% RH
Material	RoHS compliant	CE certificated	YES

INSTALLATION GUIDE

Instructions

Since it is difficult to keep the rotor and stator concentric, suggest to fix the slip ring on the rotating shaft with four screws and insert the torque arm into the anti-rotation tab, do not force to fix anti-rotation tab which may cause damage and shorten working life

3D model



How to Choose

Standard Part No. Description

SNH050-0610-12S

SN: Senring Company code
H: Through hole slip ring
50: hole size 50mm
0610: 6circuits, 10A per circuit
12S: 12circuits signal, 2A per circuit

SNH012-0610 : through hole slip ring, hole size 12.7mm, OD 56mm, total 6circuits, 10A per circuit ;

SNH038-12S : through hole slip ring, hole size 38.1mm, OD 99mm, total 12circuits signal , 2A per circuit;

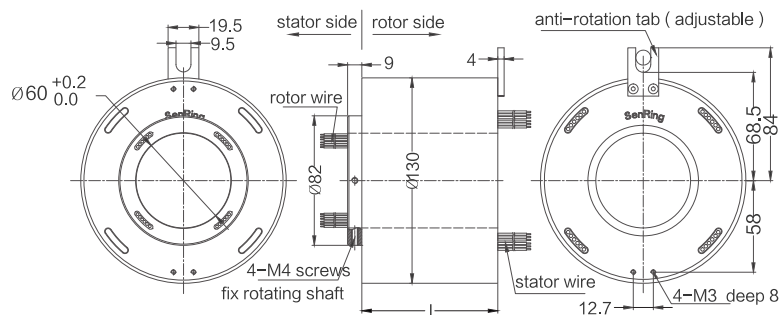
SNH050-0610-12S: through hole slip ring, hole size 50mm, OD 120mm, total 18circuits, 6circuits, 10A per circuit + 12circuits signal , 2A per

*Remark: 10A circuits could be connected in parallel to be used as circuits no.*10A , such as two paralleling 10A circuits could be used as one 20A circuit

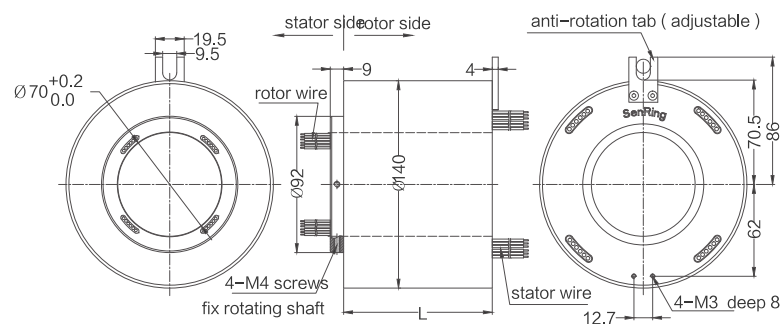
through hole slip ring

SNH060

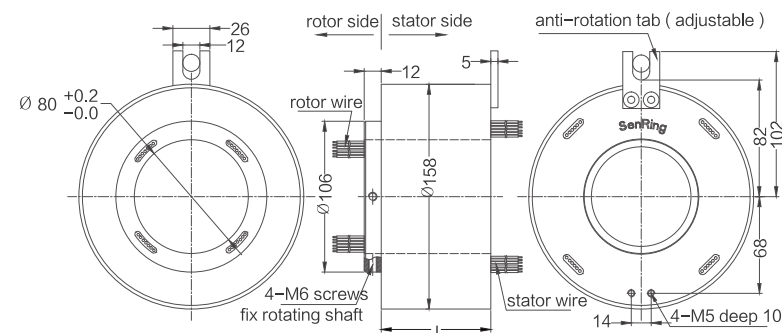
hole size: 60mm
 OD: 130mm
 Circuits: 1~72circuits optional
 Current per ring: 5A or 10A optional
 Voltage: 440VAC/250VDC
 Working speed: 0~300RPM

**SNH070**

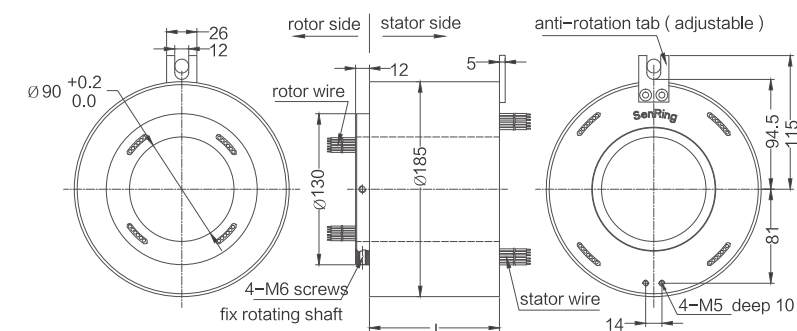
hole size: 70mm
 OD: 140mm
 Circuits: 1~72circuits optional
 Current per ring: 5A or 10A optional
 Voltage: 440VAC/250VDC
 Working speed: 0~250RPM

**SNH080**

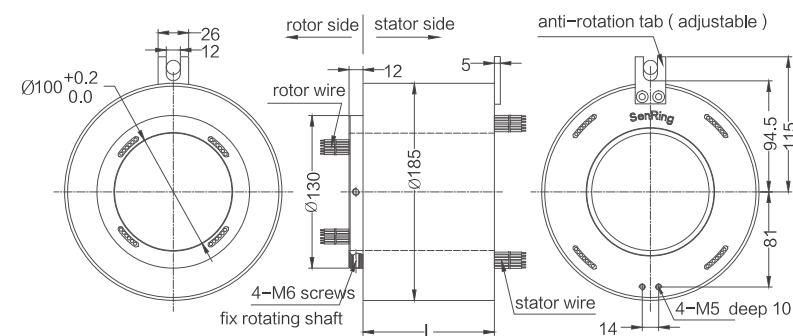
hole size: 80mm
 OD: 158mm
 Circuits: 1~72circuits optional
 Current per ring: 5A or 10A optional
 Voltage: 440VAC/250VDC
 Working speed: 0~250RPM

**SNH090**

hole size: 90mm
 OD: 185mm
 Circuits: 1~96circuits optional
 Current per ring: 5A or 10A optional
 Voltage: 440VAC/250VDC
 Working speed: 0~250RPM

**SNH100**

hole size: 100mm
 OD: 185mm
 Circuits: 1~96circuits optional
 Current per ring: 5A or 10A optional
 Voltage: 440VAC/250VDC
 Working speed: 0~250RPM
 Length" L"(mm) : 40+N(rings no.)



SNH120	Hole size: 120mm OD: 215mm Circuits: 1~120circuits optional Current per ring: 5A or 10A optional Voltage: 440VAC/250VDC Working speed: 0~200RPM	Technical drawing of SNH120 slip ring. The rotor side shows a diameter of $\varnothing 120^{+0.2}_{0.0}$ and a hole size of 26mm. The stator side shows a diameter of $\varnothing 215$ and a hole size of 12mm. The anti-rotation tab is adjustable. Dimensions include 15mm, 5mm, 109.5mm, 130mm, 96mm, 14mm, and 4-M5 deep10. The rotor wire is connected to the rotor side, and the stator wire is connected to the stator side. The rotor is fixed by 4-M6 screws.
SNH150	Hole size: 150mm OD: 248mm Circuits: 1~120circuits optional Current per ring: 5A or 10A optional Voltage: 440VAC/250VDC Working speed: 0~150RPM	Technical drawing of SNH150 slip ring. The rotor side shows a diameter of $\varnothing 150^{+0.2}_{0.0}$ and a hole size of 26mm. The stator side shows a diameter of $\varnothing 248$ and a hole size of 12mm. The anti-rotation tab is adjustable. Dimensions include 16mm, 5mm, 128.5mm, 149mm, 115mm, 14mm, and 4-M5 deep10. The rotor wire is connected to the rotor side, and the stator wire is connected to the stator side. The rotor is fixed by 4-M8 screws.
SNH180	Hole size: 180mm OD: 298mm Circuits: 1~120circuits optional Current per ring: 5A or 10A optional Voltage: 440VAC/250VDC Working speed: 0~150RPM	Technical drawing of SNH180 slip ring. The rotor side shows a diameter of $\varnothing 180^{+0.2}_{0.0}$ and a hole size of 35mm. The stator side shows a diameter of $\varnothing 298$ and a hole size of 15mm. The anti-rotation tab is adjustable. Dimensions include 16mm, 6mm, 156mm, 184mm, 136.5mm, 20mm, and 4-M5 deep10. The rotor wire is connected to the rotor side, and the stator wire is connected to the stator side. The rotor is fixed by 4-M8 screws.
SNH200	Hole size: 200mm OD: 320mm Circuits: 1~120circuits optional Current per ring: 5A or 10A optional Voltage: 440VAC/250VDC Working speed: 0~150RPM	Technical drawing of SNH200 slip ring. The rotor side shows a diameter of $\varnothing 200^{+0.3}_{0.0}$ and a hole size of 35mm. The stator side shows a diameter of $\varnothing 320$ and a hole size of 15mm. The anti-rotation tab is adjustable. Dimensions include 16mm, 6mm, 164.5mm, 183.5mm, 145mm, 20mm, and 4-M5 deep10. The rotor wire is connected to the rotor side, and the stator wire is connected to the stator side. The rotor is fixed by 4-M8 screws.
SNH250	Hole size: 250mm OD: 396mm Circuits: 1~120circuits optional Current per ring: 5A or 10A optional Voltage: 440VAC/250VDC Working speed: 0~150RPM	Technical drawing of SNH250 slip ring. The rotor side shows a diameter of $\varnothing 250^{+0.5}_{0.0}$ and a hole size of 35mm. The stator side shows a diameter of $\varnothing 396$ and a hole size of 15mm. The anti-rotation tab is adjustable. Dimensions include 16mm, 6mm, 200mm, 226mm, 180.5mm, 20mm, and 4-M5 deep10. The rotor wire is connected to the rotor side, and the stator wire is connected to the stator side. The rotor is fixed by 4-M8 screws.

SNH300	Hole size: 300mm OD: 430mm Circuits: 1~120circuits optional Current per ring: 5A or 10A optional Voltage: 440VAC/250VDC Working speed: 0~150RPM	Technical drawing of SNH300 showing rotor side, stator side, and anti-rotation tab (adjustable) views. Dimensions include: rotor side (Ø300⁺¹₀, 35, 15, 25, 6, 4-M10 screws fix rotating shaft, Ø340, Ø430), stator side (20, 4-M5 deep 10), and anti-rotation tab (adjustable) (222, 247, 202.5, 20).
SNH005	Hole size: 5mm OD: 22mm Circuits: 12circuits Current per ring: 2A Voltage: 250VAC/250VDC Working speed: 0~250RPM Length" L"(mm): 25.5	Technical drawing of SNH005 showing rotor side, stator side, and anti-rotation tab (adjustable) views. Dimensions include: rotor side (Ø5^{+0.05}_{-0.00}), stator side (Ø9, 5, 25.5, 34.5, M2 fixing hole), and anti-rotation tab (adjustable) (Ø22, Ø9).
SNH012A	Hole size: 12.7mm OD: 35mm Circuits: 6circuits,12circuits, 24circuits Current per ring: 2A Voltage: 250VAC/250VDC Working speed: 0~250RPM Length" L"(mm): 6rings 23.5mm 12rings 34mm	Technical drawing of SNH012A showing rotor side, stator side, and anti-rotation tab (adjustable) views. Dimensions include: rotor side (12, 6, 5, (8.7), Ø12.7^{+0.1}_{0.0}, 2-M3 screws fix rotating shaft, Ø20, Ø35), stator side (1.5, 6, 23.5, L), and anti-rotation tab (adjustable) (18.5, 26.5, Ø30).
SNH020A	Hole size: 20mm OD: 42mm Circuits: 12circuits Current per ring: 2A Voltage: 250VAC/250VDC Working speed: 0~250RPM Length" L"(mm): 29mm	Technical drawing of SNH020A showing rotor side, stator side, and anti-rotation tab (adjustable) views. Dimensions include: rotor side (8, 3.2, 20, Ø20^{+0.1}_{0.0}, 4-M2 screws fix rotating shaft, 5.2, Ø25, Ø42), stator side (2, 29), and anti-rotation tab (adjustable) (21.5, 29, Ø40).

Sensing not only provides standard industrial slip rings, but also customizes different slip rings according to customer' s requirements :circuits from 1 to 600, current from milliamp to 800 Amp, rotating speed from 0 rpm to 12000rpm, from electrical slip ring to fiber optic rotary joint.....

Above list is part of Senring standard models, pls contact us for more models or ask for customized solutions.

SNM series capsule slip ring

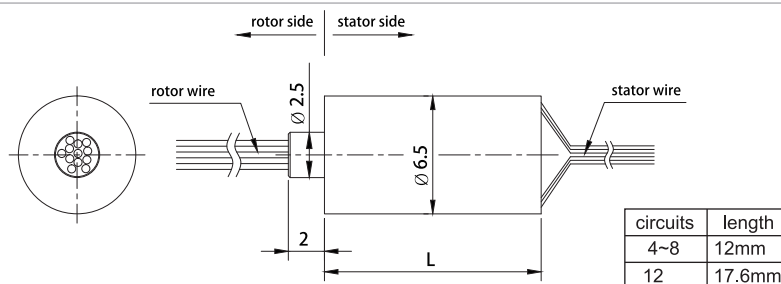


SNM series capsule slip rings with mini size , min OD 6.5mm, specially designed for speed dome Camera, children Intelligent toys, stage lights and drones which have compact dimension requirements. It can be combined to transmit power, video, Ethernet and encoder signals.....and so on. Advantages : low torque , low loss, low electric noise, maintenance free.

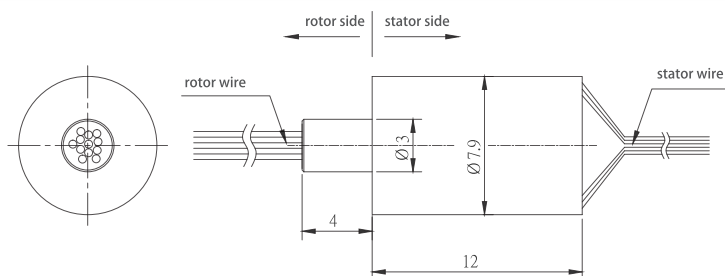
Technical Data			
Circuits No.	1~56 (can be customized)	current	1~30A (can be customized)
Voltage	0~250VDC/VAC (can customized)	Max speed	250RPM
OD	≥6.5mm	Length	12~87mm
Housing material	Plastic (can be customize metal housing)	Torque	<0.06N.m
Working life	>10 millions revolutions(depends on work speed, environment)	Contact material	gold-gold
Electrical noise	<10mΩ @6VDC,50mA,5RPM	Lead wire Spec	UL Teflon@Awg12~32
Dielectric Strength	300VDC@50Hz,6s	Lead wire Length	200mm
Insulation	100MΩ @300VDC,6s	IP grade	IP51
Resistance	-20℃ ~ 80℃	Work Humidity	10% ~ 85% RH
Work Temperature	MIL-STD-810E	CE certificated	YES
Mechanical	RoHS compliant		--

SNM006

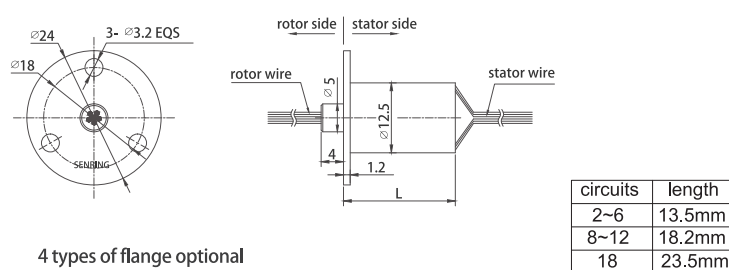
OD: 6.5mm
 Length: 17.6mm
 Circuits No.: 4~12 circuits
 Current: 1A/circuit
 Voltage: 250 VDC/AVC
 Max speed: 150RPM
 Lead wire Spec: UL Teflon@Awg32

**SNM008**

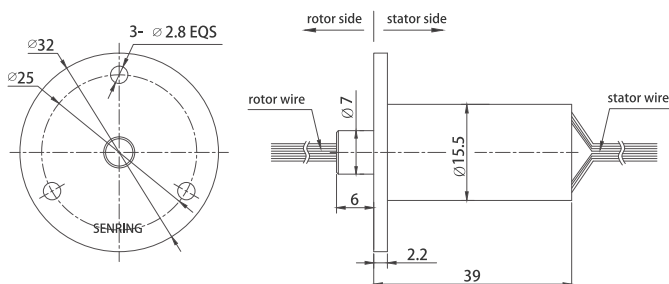
OD: 7.9mm
 Length: 12mm
 Circuits No.: 4, 6, 8 circuits
 Current: 1A/circuit
 Voltage: 250 VDC/AVC
 Max speed: 150RPM
 Lead wire Spec: UL Teflon@Awg30

**SNM012**

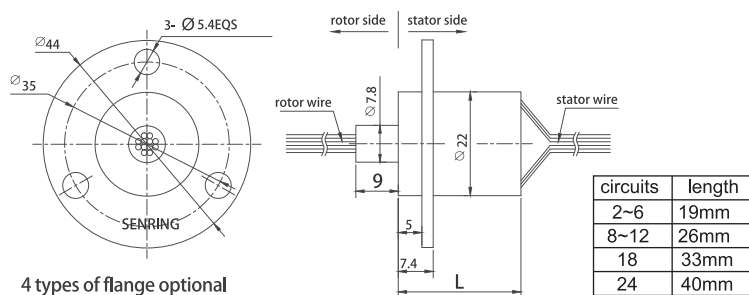
OD: 12.5mm
 Length: 13.5~23.5mm
 Circuits No.: 2~18 circuits
 Current: 2A/circuits
 Voltage: 250 VDC/AVC
 Max speed: 250RPM
 Lead wire Spec: UL Teflon@Awg30

**SNM015**

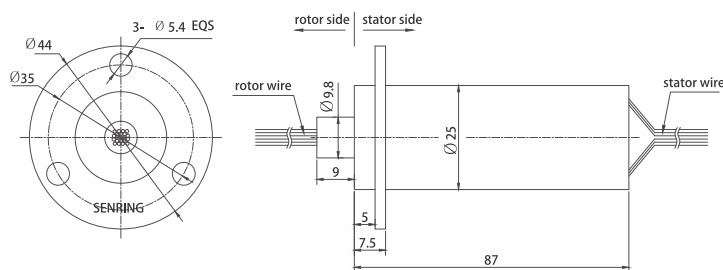
OD: 15.5mm
 Length: 39mm
 Circuits No.: 24circuits
 Current: 2A/circuit
 Voltage: 250 VDC/AVC
 Max speed: 250RPM
 Lead wire Spec: UL Teflon@Awg30

**SNM022**

OD: 22mm
 Length: 19~57.3mm
 Circuits No.: 2~36circuits
 Current: 2A/circuit
 Voltage: 250 VDC/AVC
 Max speed: 250RPM
 Lead wire Spec: UL Teflon@Awg26

**SNM025**

OD: 25mm
 Length: 87mm
 Circuits No.: 56 circuits
 Current: 2A/circuit
 Voltage: 250 VDC/AVC
 Max speed: 250RPM
 Lead wire Spec: UL Teflon@Awg28



SNQ series pneumatic, hydraulic-Electrical rotary joints



- SNQ series 360 ° rotating to transmit compressed air, cooling water, hot oil..., can be combined to transmit power, control signal, switch signal, micro signal +fiber +mercury +servo motor signal of instruments and computer automatic control , video signal even HD signal together.
- 1、2、3、4、6、8、12、16 channels optional
- Through bore or solid optional
- Main applications: high-tech auto-equipments, packing machine
- 50% of pneumatic, hydraulic-Electrical slip rings/rotary joints are customized

Rotary joint-technical data			
Channels No.	1~16 channels optional	Torque	<5 N.m
Media Type	cooled liquid, gas/air, hot oil, water, steam ...	pressure	0~20MPa
Max working speed	250RPM	Work Temperature	-20℃~120℃
Tube size	4~25mm (could be customized)	Materials	Shaft :stainless steel

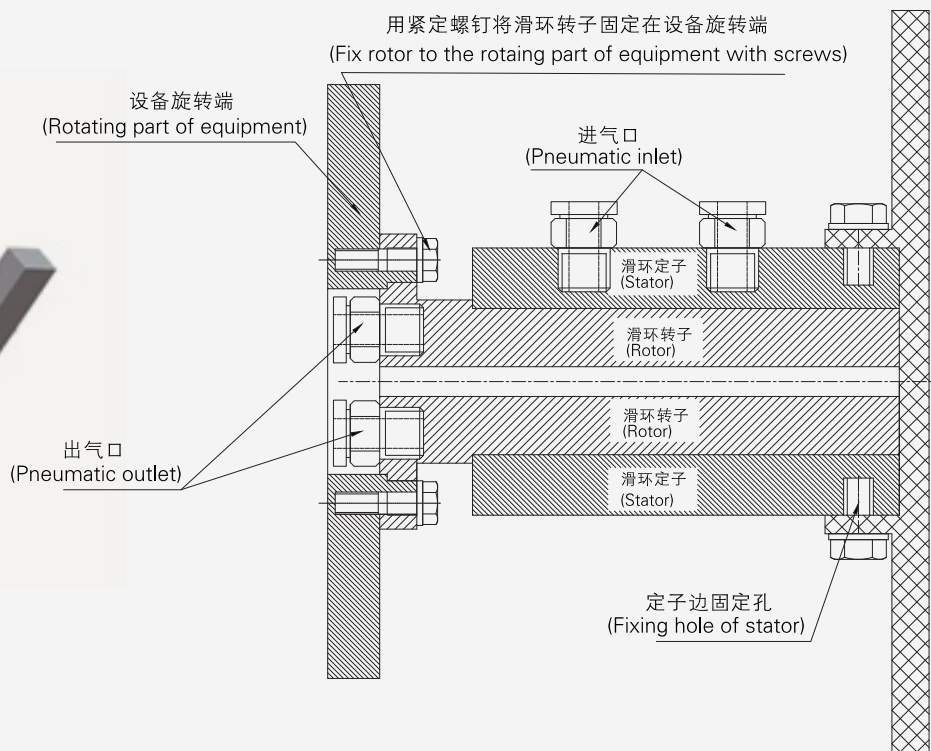
Electric slip ring-technical data			
Voltage	440 VAC/250VDC	Contact material	gold-gold
Dielectric Strength	500VDC@50Hz, 6s	Lead wire Spec	UL Teflon@Awg22(signal 5A) , Awg17(10A)
Insulation Resistance	500MΩ@500VDC	Lead wire Length	300mm
Work Temperature	-20℃~80℃	IP grade	IP51
Mechanical vibration	MIL-STD-810E	Work Humidity	10% ~85% RH
Material	RoHS compliant	CE certificated	YES

Channel Num	Circuits Num	Current	Circuits Num	Signal	Media Type	Pipe Size
SNQ1:1 channel SNQ2:2 channel	Power wires For Example: 12 Circuits-12 6 Circuits-06	Examples: 5A-05 10A-10 100A-100	Signal wires For Example: 12 Circuits-12 6 Circuits-06	For Example: Signal-S	Gases-G Coolant-C Oil-O Steam-S Water-W	For Example: 4mm-P04 10mm-P10 25mm-P25

Customization: if customer have special requirements, such as dimensions(length, height...), exit direction of wires , wire length, high temperature, large current, connectors , military level, pls contact us: info@senring.com

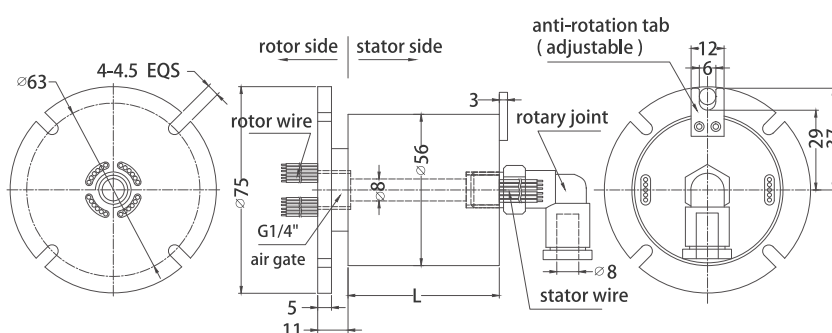
3D model

3D model



SNQ01

pneumatic/hydraulic
channels no.: 1
Electrical circuits no.: 1~96
Tube size: 4mm~25mm



SNQ02	pneumatic/hydraulic channels no.: 12 Electrical circuits no.: 1~96 Tube size:4mm-25mm $L=24+N \times 4$(N:rings no.)	
SNQ03	pneumatic/hydraulic channels no.: 8 Electrical circuits no.: 1~96 Tube size:4mm-25mm $L=24+N \times 4$(N:rings no.)	
SNQ04	pneumatic/hydraulic channels no.: 6 Electrical circuits no.: 1~96 Tube size:4mm-25mm $L=24+N \times 4$(N:rings no.)	
SNQ06	pneumatic/hydraulic channels no.: 4 Electrical circuits no.: 1~96 Tube size:4mm-25mm $L=21.2+N \times 2.8$(N:rings no.)	
SNQ08	pneumatic/hydraulic channels no.: 3 Electrical circuits no.: 1~96 Tube size:4mm-25mm $L=21.2+N \times 2.8$(N:rings no.)	
SNQ12	pneumatic/hydraulic channels no.: 2 Electrical circuits no.: 1~96 Tube size:4mm-25mm $L=21.2+N \times 2.8$(N:rings no.)	

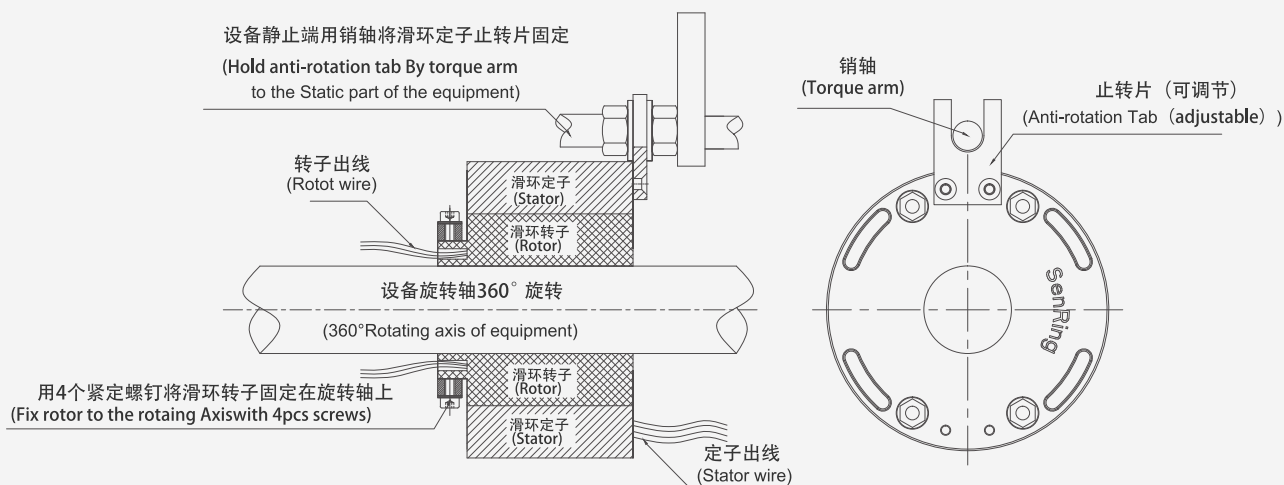
SNZ series servo motor encoder slip rings



- Flange design at rotor side for easy installation, can serve 4pcs servo motors at the meantime
- Gold-gold contact, high reliability
- Special inner wiring and shielding design to avoid encoder errors
- Can combine with power or signals, such as Profibus, Profinet...
- Can combine with pneumatic, hydraulic rotary joints
- Designed for the servo motor/encoder of automatic control systems of SIMENS,YASKAWA,HEIDENHAIN....

Technical Data			
Servo motor no.	1~4pcs	power	<3KW
Voltage	<440VAC/250VDC	Max speed	1000RPM
Housing material	AL alloy	Torque	0.05N.m;+0.03N.m/6circuits
Working life	>80 millions revolutions(depends on work speed, environment)	Contact material	gold-gold
Electrical noise	<5mΩ	Lead wire Spec	AWG17# /multi-cores shielding wires
Dielectric Strength	800VDC@50Hz	Lead wire Length	300mm
Insulation Resistance	1000MΩ@600VDC	IP grade	IP51
Work Temperature	-20℃ ~ 80℃	Work Humidity	10% ~85% RH
Mechanical vibration	MIL-STD-810E	CE certificated	YES
Material	RoHS compliant	--	--

INSTALLATION GUIDE



Standard model list

Part no.		Servo motor no.	length (mm)	hole size (mm)	max speed (rpm)	drawing
SNZ	SNZ-01	1pcs	55	Solid	1000	
	SNZ-02	2pcs	89			
	SNZ-03	3pcs	122			
	SNZ-04	4pcs	156			
SNZ030	SNZ030-01	1pcs	76	30mm	800	
	SNZ030-02	2pcs	124			
	SNZ030-04	4pcs	220			
	SNZ030-08	8pcs	430			
SNZ080	SNZ080-01	1pcs	88	80mm	500	
	SNZ080-02	2pcs	136			
	SNZ080-04	4pcs	230			
	SNZ080-08	8pcs	440			

L长度 (mm)

Product Show



Product: USB/Power/Singnal slip ring
Part No.: SNH030-1410-14S Application: 3D Scanner



Product: USB,VGA,Ethernet,Singnel slip ring
Part No.: SNH055-0330-34S



Product: High frequency rotary joint
Part No.: SNHF-01



Product: 1080P HD-SDI slip ring
Part No.: SHD-24S



Product: Mercury slip ring



Product: PCB Slip Ring Part No.: SNK-03



Product: pneumatic, hydraulic-Electrical slip ring
Part No.: SNQ04-20S-GW-P080



Product: Mini through hole slip ring
Part No.: SNH012A-06



Product: Square Slip Ring
Part No.: SNH025-5F

Product Show



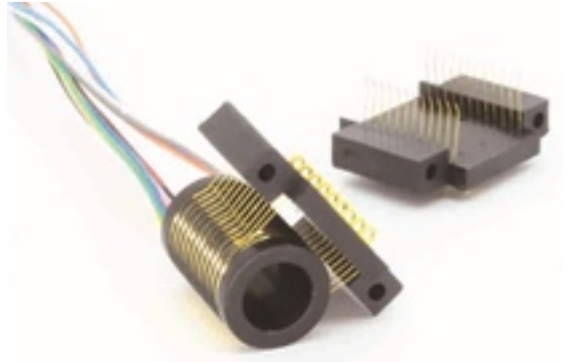
Product: Customized slip ring, 2 wires input, lot of wires output Part No.: SNH060-0250-48



Product: Ethernet Slip Ring Part No.: SNH2599-102-60641



Product: High Frequency Slip Ring Part No.: SNHF-0810-04S-04



Product: Separate slip ring Part No.: SNS010-12



Product: Pancake slip ring Part No.: SNK050-0210-02S



Product: Dustproof & waterproof Slip Ring Application: marine equipment Part No.: SNH-55SFL

Product Show



Product: Large current brush slip ring Part No.: SNH-04500-0160



Product: High speed slip ring Part No.: SNG012-12



Product: Servo motor encoder Application: servo motor Part No.: SNZ080-02



Product: Fiber optic-electrical slip ring Part No.: SNFO018-12S



Product: Fiber optic rotary joint Part No.: SNFO-004

Product Show



Product: Fiber Optic-Electrical waterproof Slip Ring
Part No.: SNFO088-0650-0410 Application: marine



Product: Dustproof&waterproof Slip Ring
Part No.: F038-36S Application: Logging equipment



Product: Separate Slip Ring Part No.: SNS160-20



Product: pneumatic, hydraulic-Electrical slip ring Part No.: SNQ04-0610-G06



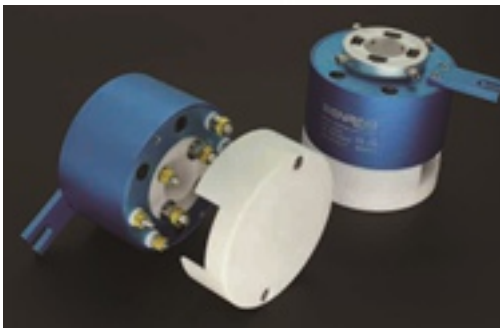
Product: Pneumatic, hydraulic slip ring Part No.: SNQ-0820-4L



Product: Through hole slip ring Part No.: SNH-02150-0315



Product: pneumatic-Electrical slip ring with through hole



Product: High Temperature Slip Ring
Part No.: SNH2586-0240-02SGW



Product: HDMI Slip Ring
Part No.: SNM022A-05S-HDMI