PSH-X50 STANDARD HOLLOW SHAFT

Slip rings can be used in any electromechanical system requiring unrestrained, cont continuous rotation, while transmitting power and/or data from a stationary to a rotating structure. A slip ring is sometimes referred to as a rotary electrical interface, collector, swivel or rotary joint.

The PSH-X Series uses multiple contact point technology, allowing for low contact electric resistance between brushes and ring. This reduces electrical noise and the slip ring gets a longer lifetime. No lubrication required.

We can also offer modified design. As a customer you have the possibility to specify the slip ring to comply with your needs. We can also offer hybrid units, for example a combined slip ring and fiber optic rotary joint, integrated into one small housing. Other options we can offer inclusion of coax and miniature data bus cables, harnessing of lead wires into chosen crimps and connectors.

TECHNICAL SPECIFICATION

Dimensions	Inner: Ø50mm, Outer:Ø120mm
Number Of Circuits	6-72
Current	15A, 10A & 5A
Cable Size	AWG22 sliver plated, PTFE insulated
Cable length	Standard 500mm
Dielectric Strength	500VAC/50Hz, 60s
Insulation Resistance	≥500MΩ/500VDC
Noise	≤10mΩ
Operation Speed	0~400rpm
Temperature	-20°C to +80°C
Rating Life	80 million revolutions (depending on speed and on environmental conditions)
Contact	Precious metal
Protection	IP51 or higher on request

PRODUCT FEATURES

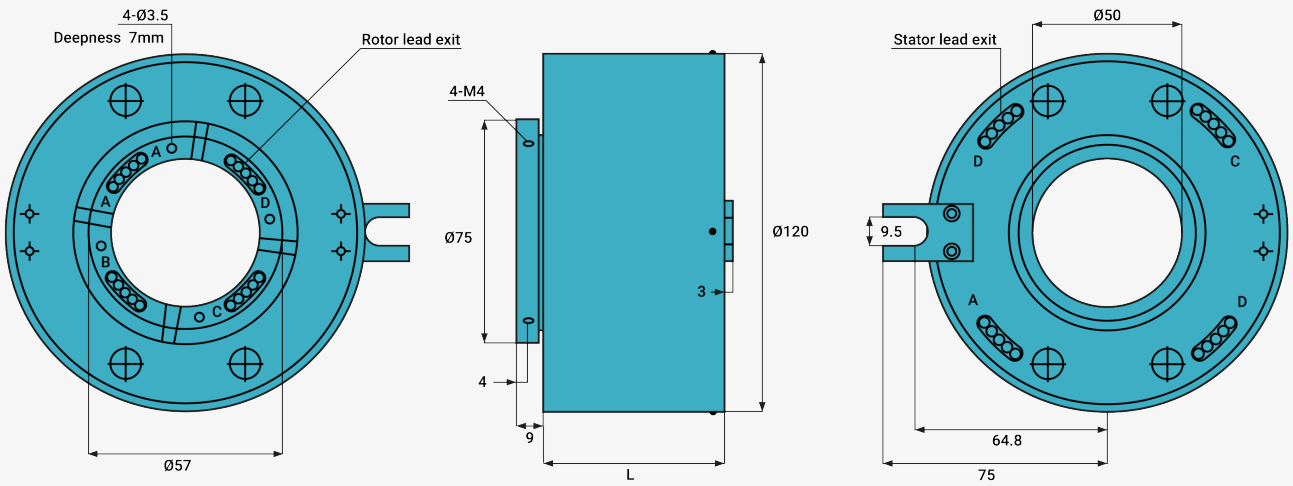
- Quick Delivery
- Low Cost
- Ideal For Video & Digital Signals
- Gold Alloy Rings & Brushes
- High Reliability
- Low Friction Torque
- Smooth Rotation
- In Compliance With Ce & Rohs Standards

APPLICATIONS

- Cable reels
- Medical equipment
- Packaging machines

STANDARD MODEL PSH-X50

OUTLINE DIMENSIONS



Model	No. Of Circuits			Length
	Total	10A/15A	5A	(mm)
PSH-X50-6P	6	6	—	70
PSH-X50-12S	12	—	12	70
PSH-X50-12P	12	12	—	100
PSH-X50-6P/12S	18	6	12	100
PSH-X50-24S	24	—	24	100
PSH-X50-18P	18	18	—	130
PSH-X50-12P/12S	24	12	12	130
PSH-X50-6P/24S	30	6	24	130
PSH-X50-36S	36	—	36	130
PSH-X50-24P	24	24	—	160
PSH-X50-18P/12S	30	18	12	160
PSH-X50-12P/24S	36	12	24	160
PSH-X50-6P/36S	42	6	36	160
PSH-X50-48S	48	—	48	160
PSH-X50-30P	30	30	—	190
PSH-X50-24P/12S	36	24	12	190
PSH-X50-18P/24S	42	18	24	190
PSH-X50-12P/36S	48	12	36	190
PSH-X50-6P/48S	54	6	48	190
PSH-X50-60S	60	—	60	190
PSH-X50-36P	36	36	—	220
PSH-X50-30P/12S	42	30	12	220
PSH-X50-24P/24S	48	24	24	220
PSH-X50-18P/36S	54	18	36	220
PSH-X50-12P/48S	60	12	48	220
PSH-X50-6P/60S	66	6	60	220
PSH-X50-72S	72	—	72	220

Lead Colour Codes

Contact Penlink with your drawing for more information on Lead Colour Codes.

Signal and Bus Compliances

Contact Penlink for signal possibilities and modifications on our standard PSH slip rings.

MODIFY ACCORDING TO YOUR NEEDS

Our standard range of slip ring can be modified to suit your applications requirement. It is possible to modify the current capacity and signal type through the slip ring, or integrate the electrical slip ring with optical or fluid rotary joint, or why not integrate the slip ring with an angle transducer, or modify the slip ring with mechanical flanges and connectors.

Through modifying our standard slip rings, we can offer a solution that suit your application and fulfils your requirement.

Get in touch with us today to learn more about possibilities, as they are endless. We work hard to bring you the very best and quality that will last.

CABLES

- Twisted Cables
- Colour Coded
- Rg Cable For Video

HOLLOW SHAFT

- Size according to requirements
- Packing/sealing

TRANSFER

- EtherCAT
- Profinet
- Powerlink
- Can Bus
- Gigabit Ethernet

HOUSING

- IP-rating of 51 or
- Higher on request.
- Plastic
- Aluminium
- Stainless steel

PSH LEAD COLOURS

Standard Colour Codes

Standard Colour Codes						
Circuits 1-6 Exit A Red Shrink Tube	1.RED	2.YELLOW	3.BLACK	4.BLUE	5.GREEN	6.WHITE
Circuits 7-12 Exit B Black Shrink Tube	7.PURPLE	8.GRAY	9.BROWN	10.ORANGE	11.DEEP BLUE	12.KHAKI
Circuits 13-18 Exit C Blue Shrink Tube	13.RED	14.YELLOW	15.BLACK	16.BLUE	17.GREEN	18.WHITE
Circuits 19-24 Exit D Green Shrink Tube	19.PURPLE	20.GRAY	21.BROWN	22.ORANGE	23.DEEP BLUE	24.KHAKI

DISCLAIMER

Colour can mismatch depending on configuration. The colours listed in the table above are standard colour codes, this means that they can change on different models and housing. Please contact Penlink with your PSH model to get correct colour coding.

SIGNALS & BUS

Our standard slip rings comes with signals for data, video and power transmission. Your transmission requirements are key when picking out the right product. Knowing the transmission will enable us to find the right slip ring for your project.

If you can't find a model with the right transmission we can always modify the slip ring for you. This may alter the design of the slip ring so always get in touch with us for more information regarding your model and specification.

DATA CIRCUITS

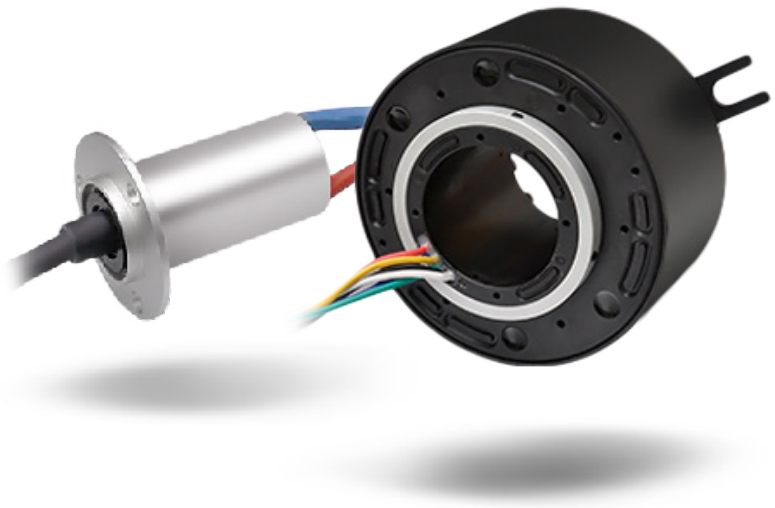
Our slip ring handle up to 1 GB of data (1000Base-X), and can be equipped with different cable to be used for all known industry standard data, as example, Profinet, Can-bus, Profibus, DMX, 100Base-X or similar type. It's even possible to transfer several independent data channels through one slip ring.

VIDEO SIGNALS

Our slip ring handle both standard and high definition videos, up to SMPTE 424M/2,97 gb/s with 3G HD-SDI. Combined with our optical joint, the slip ring handle up to 24G-SDI.

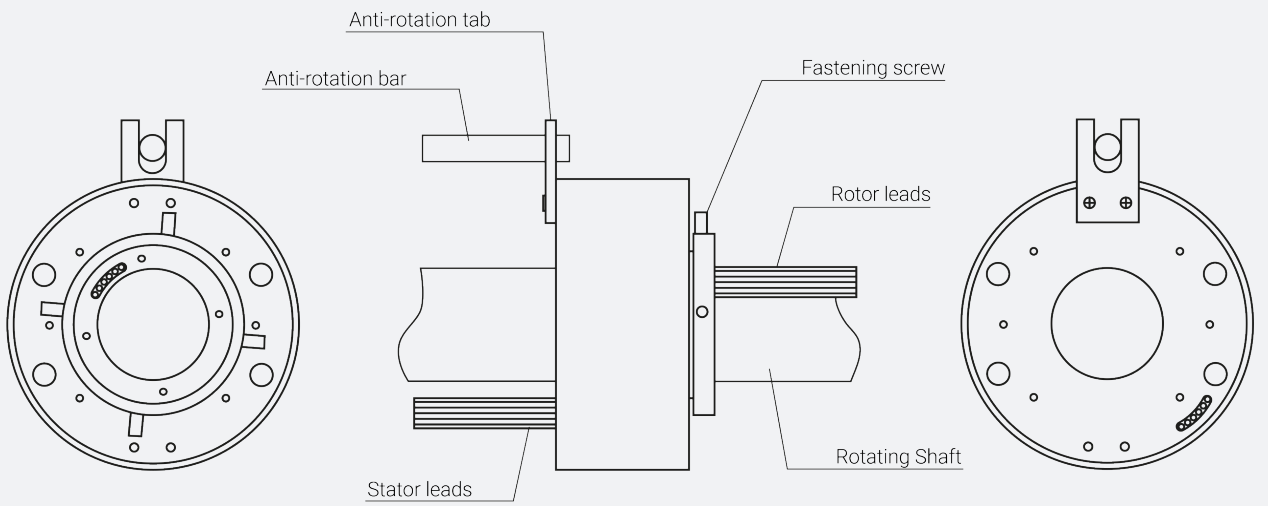
POWER CIRCUITS

For the compact PSC Series, 2A rings are default, but it can be combined up to 16A depending on your needs and the slip ring configurations. Please contact us for help to specify your slip ring!



INSTALLATION

Slip Ring Simple Installation



IMPORTANT READ BEFORE INSTALLATION

- The slip ring should not be used for load bearing; the cables should not be stressed nor tensed.
- When installing the slip rings, the cables should be well protected.
- The slip ring should be used in dry, low dust environment. If the working environment is harsh, more protection measures should be taken. *For example it should be modified with a higher IP-rating.*

Please make sure that rotor and stator are aligned properly, it is recommended to use the four set screws to alight it with your best ability. The anti-rotation stop is used on the stator side to stop the slip ring rotating on its own axis. Our slip rings shall not be forcibly fixed as the inertia is low. When forcibly fixed it can shorten expected lifetime significantly.

Contact us for any questions you have regarding installation if you are unsure.