

# HF0103-32 series high frequency/microwave rotary joint

Signal Channel, Frequency DC~3GHz, OD 32.8mm

Senring HF0103-22 series RF rotary joint is used transmitting of analog and digital signals, RF Channel, can be customized to combine power/signal transmitting (18~24 wires), RG405 connector, Can add SMA, MCX, MMCX, etc connectors.

### Part No. Description

#### HF0103-32 - Power Circuits - Signal Circuits

Single Channel RF Rotary Joint  
Frequency DC~3GHz, OD 32.8mm

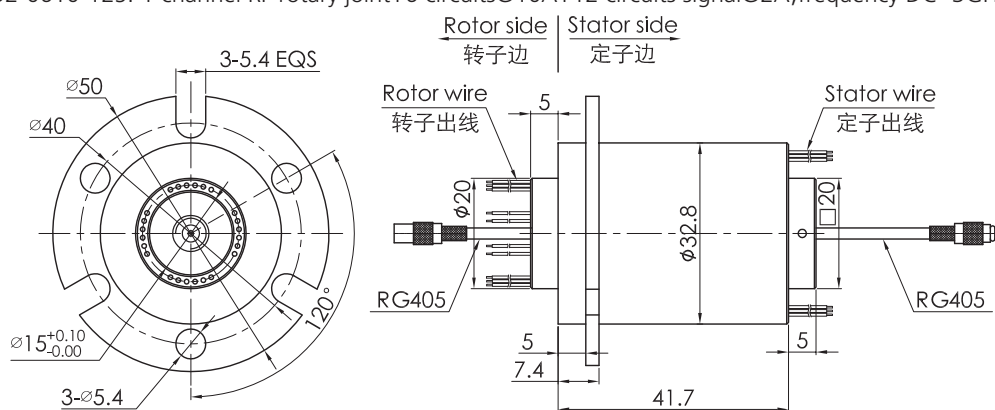
For example:  
06S:6 circuits signal@2A  
12S:12 circuits signal@2A  
  
For example:  
0610:6 circuits@10A  
1230:12 circuits@30A

### Examples

F0103-32: 1 channel RF rotary joint, frequency DC~3GHz, OD 32.8mm:

HF0103-32-12S: 1 channel RF rotary joint+12 circuits signal@2A, frequency DC~3GHz, OD 32.8mm:

HF0103-32-0610-12S: 1 channel RF rotary joint+6 circuits@10A+12 circuits signal@2A, frequency DC~3GHz, OD 32.8mm;



### Standard Model List

Model	ListRF Channel	Frequency	Circuits no. (10A)	Circuits no. (0~2A)	Length L(mm)
HF0103-32-18	1 channel	DC~3GHz	0	18 channels	41.7mm
HF0103-32-24	1 channel	DC~3GHz	0	24 channels	41.7mm

### Rotary joint Spec.

Connector type	coax RG405 (can add SMA, MCX, MMCX connectors)	Style	I type
Frequency	DC to 3 GHz	Phase WOW ( Max degree)	1°
VSWR(max)	1.7@DC to 3 GHz	Insertion loss	0.25 dB @ DC to 1.5 GHz 0.30 dB @10 to 3 GHz
VSWR fluctuation(max)	0.05	Insertion loss fluctuation	0.05 dB
Peak power(max)	500W	Average power(max)	200 W @1.5 GHz 150 W @3GHz
Rotating speed(max)	250RPM	working life	> 10 millions for ref(depe-nds on working conditions)
Starting torque(max)	0.5N.cm	Rotating torque(max)	0.5 N.cm
Connector axial load(max)	±0.1N	Connector radial load(max)	±0.1N
Insulating material	PTFE	IP grade	IP 40 acc. EN 60529
Temperature	-55 to +85°C(work temperature) -55 to +85°C(storage temperature)	Humidity	95% (work humidity) 85% (storage humidity)

## Electrical slip ring Spec.

Mechanical		Electrical		
Working life	> 10 millions for ref (depends on working conditions)	Spec.	Power	Signal
		Voltage range	0~240VAC/VDC	0~240VAC/VDC
Rotating speed	250RPM	Insulation resistance	$\geq 300M\Omega/300VDC$	$\geq 300M\Omega/300VDC$
Temperature	-30°C ~ 80°C	Lead wire spec.	AWG#26 Silver-plated teflon	
Humidity	0~85% RH	Lead wire length	standard 150mm(can be customized)	
Contact material	gold-gold	Insulation resistance	300VAC@50Hz,60s	
Housing material	Aluminum alloy	Electrical noise	< 0.01Ω	
Torque	0.05N.m+0.01N.m/6 channels			
IP grade	IP51			

## 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 , HF0103-32-12S 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#....