



# FO109 series 1 channel fiber-electric slip ring

1 channel fiber(support single mode/multi-mode), can transmit 1 channel fiber@1~72 circuits signal at the same time. Suitable for some applications which requires to keep 360° unrestricted, continuous or intermittent rotating and transmit mass data/signal from static side to rotation side, which can improve mechanical performance, simplify system operation and avoiding damages to fiber.

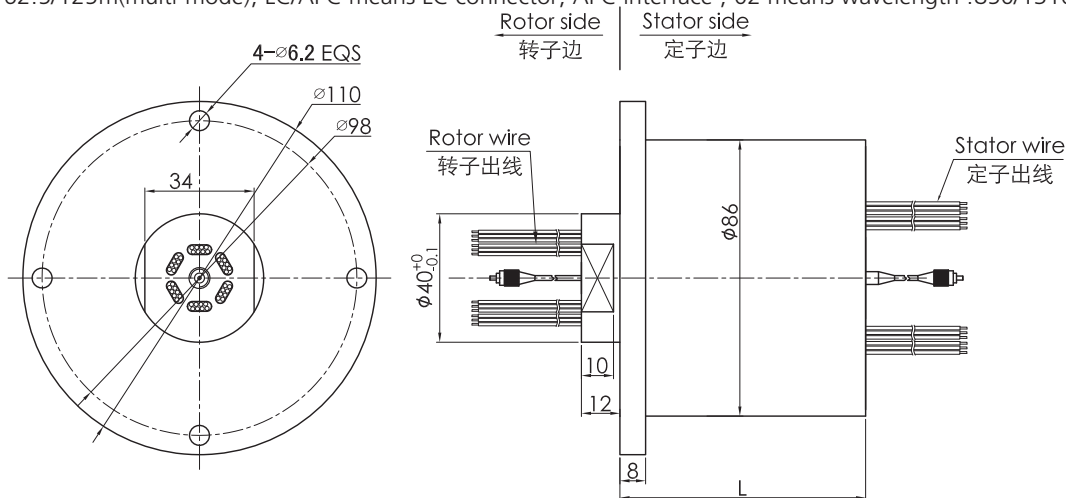
## Part No. Description

FO109	Power circuits no.	Signal circuits no.	Fiber type	Connector type	wavelength
1 channel Fiber -Electric slip ring Fiber Optic rotary joint					
Example : 0610:06 means 6 circuits, 10 means 10A per circuit					
Example : 06S:06 means 6 circuits, S means signal					
				Connector type code : FC:FC connector ST:ST connector SC:SC connector LC:LC connector t connector interface is PC by default, if need APC FC/APC pls add APC, as FC/APC	
				Fiber type code : 01:9/125um(Single mode) 02:50/125um(multi mode) 03:62.5/125um(multi mode)	Wavelength : 01:1310/1550 (Single mode) 02:850/1310 (multi mode)

## Examples

FO109-06S-01-FC-01: FO109 means single channel Fiber Optic rotary joint, 06S means can be combined to transmit 6 circuits signal, with the first 01 means Fiber type 9/125um(single mode), FC means FC connector, fiber interface PC, the second 01 means wavelength :1310/1550;

FO109-1210-12S-03-LC/APC-02: FO109 means 1 channel Fiber-Electric rotary joint, 1210 means 12 circuits 10A, 12S means can be combined to transmit 12 circuits signal, 03 means Fiber type 62.5/125m(multi-mode), LC/APC means LC connector, APC interface, 02 means wavelength :850/1310;



## Model List

Model	Fiber Channel no.	10A	Signal /5A	Length L(mm)	Model	Fiber Channel no.	10A	Signal /5A	Length L(mm)
FO109-02S	1	0	2	32	FO109-1210-12S	1	12	12	120
FO109-0210	1	2	0	32	FO109-1810-06S	1	18	6	120
FO109-03S	1	0	3	36	FO109-2410	1	24	0	120
FO109-0310	1	3	0	36	FO109-30S	1	0	30	144
FO109-06S	1	0	6	48	FO109-0610-24S	1	6	24	144
FO109-0210-04S	1	2	4	48	FO109-1210-18S	1	12	18	144
FO109-0410-02S	1	4	2	48	FO109-1810-12S	1	18	12	144
FO109-0610	1	6	0	48	FO109-2410-06S	1	24	6	144
FO109-12S	1	0	12	72	FO109-3010	1	30	0	144

Model	Fiber Channel no.	10A	Signal /5A	Length L(mm)	Model	Fiber Channel no.	10A	Signal /5A	Length L(mm)
FO109-0210-10S	1	2	10	72	FO109-36S	1	0	36	168
FO109-0310-09S	1	3	9	72	FO109-0610-30S	1	6	30	168
FO109-0610-06S	1	6	6	72	FO109-1210-24S	1	12	24	168
FO109-0810-04S	1	8	4	72	FO109-3610	1	36	0	168
FO109-1010-02S	1	10	2	72	FO109-42S	1	0	42	192
FO109-1210	1	12	0	72	FO109-0610-36S	1	6	36	192
FO109-18S	1	0	18	96	FO109-1210-30S	1	12	30	192
FO109-0210-16S	1	2	16	96	FO109-48S	1	0	48	216
FO109-0410-14S	1	4	14	96	FO109-0610-42S	1	6	42	216
FO109-0610-12S	1	6	12	96	FO109-0910-39S	1	9	39	216
FO109-0810-10S	1	8	10	96	FO109-1210-36S	1	12	36	216
FO109-1010-08S	1	10	8	96	FO109-1810-30S	1	18	30	216
FO109-1210-06S	1	12	6	96	FO109-2410-24S	1	24	24	216
FO109-1410-04S	1	14	4	96	FO109-60S	1	0	60	264
FO109-1610-02S	1	16	2	96	FO109-0610-54S	1	6	54	264
FO109-24S	1	0	24	120	FO109-0910-51S	1	9	51	264
FO109-0410-20S	1	4	20	120	FO109-1210-48S	1	12	48	264
FO109-0610-18S	1	6	18	120	FO109-72S	1	0	72	312

### Technical Specification of the slip ring

item	type	Single mode (SM)	multi mode (MM)
Bandwidth(nm)		± 50	
Max insertion Loss, 23℃(dB)		1.2	0.7
Insertion loss fluctuation(dB)		≤0.6	≤0.4
Return loss(dB)		≥ 55( without connector)	≥ 40( without connector)
max power(W)		0.5	
Storage temperature(℃)		-50~85	

spec	data	
	power	signal
voltage range	0~440VAC/VDC	0~440VAC/VDC
insulation resistance	≥ 1000mΩ /500VDC	≥ 1000mΩ /500VDC
lead wire spec.	AWG17# Silver-plated teflon	AWG22# Silver-plated teflon
lead wire length	standard 300mm (can be customized)	
Dielectric Strength	500VAC@50Hz, 60s	
Electrical noise	<0.01Ω	
Mechanical Data		
spec	data	
working life	8000 millions for ref(depends on working conditions)	
Rotating speed	250RPM	
Work Temperature	-20℃~60℃	
work humidity	0~85% RH	
contact material	precious metal	
housing material	aluminum alloy	
torque	0.1N.m;+0.03N.m/6 circuits	
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