

FRJ1-18000-56

Single Channel, DC~18GHz, 56mm

Features:	Applications:
* Low VSWR	* High Speed Digital Signal
* Low VSWR Flatness	Transmission
* Low Insertion Loss Flatness	* Analog Signal Transmission

Electrical (Rotary Joint)

Frequency:	DC~18GHz
VSWR:	1.4 max.
VSWR Flatness:	0.05 max.
Insertion Loss:	0.3dB max.
Insertion Loss Flatness:	0.05 dB max.
Phase Flatness:	1° max.
Average Power:	500W max. @1GHz
	200W max. @6GHz
	100W max. @12GHz
	30W max. @18GHz
Peak Power:	3000W max.
IP Grade:	IP40 acc. EN 60529

Mechanical (Rotary Joint)

Connectors:	SMA female
Rotating Speed:	250RPM max.
Starting Torque:	0.5N.cm max.
Connector Axial Load:	±0.1N max.
Rotating Torque:	0.5 N.cm max.
Connector Radial Load:	±0.1N max.
Operation Life:	10M Cycles
Dielectric:	PTFE

Environmental

Temperature (Rotary Joint):	-55~+85°C
Temperature (Slip Ring):	-30~+80°C

Electrical (Slip Ring)

Voltage (Power/Signal):	0~440V/0~240V(Outline A)
	0~240V/0~240V(Outline B)
Impedance of Dielectric	500/300MΩ min.(Outline A)
(Power/Signal):	300/300MΩ min.(Outline B)
Lead Wire (Power/Signal):	AWG#17 Silver plated
	Teflon/AWG#22 Silver plated
	Teflon(Outline A)
	AWG#26 Silver plated
	Teflon(Outline B)
Dielectric Resistance:	500V AC @50Hz, 60s(Outline A)
	300V AC @50Hz, 60s(Outline B)
Electrical Noise:	0.01Ω max.
IP Grade:	IP51

Mechanical (Slip Ring)

Operation Life:	10M Cycles
Rotating Speed:	250RPM max.
Contact Material:	Gold
Housing:	Aluminum alloy
Torque:	0.01N.m @6 Channels + 0.05N.m

How To Order

FRJ1-18000-56-X-Y

X: Power Circuits

For example:

0610 - 6 circuits@10A

Y: Signal Circuits

For example:

06S - 6 circuits signal@2A

Customization is available upon request.

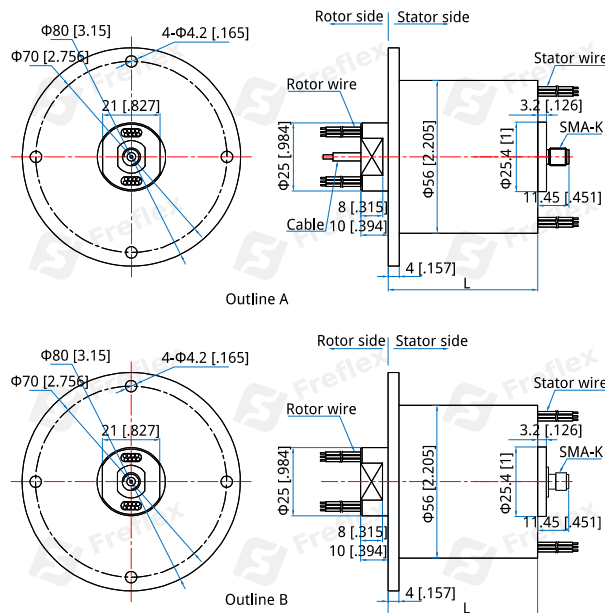
Color Code of Lead Wire

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	Transpare

Remark: "1": the first wire from rotor side, FRJ1-18000-56-12S wire color sequence: BLK/BRN/RED/ORG/YEL/GRN/BLU/PUR/GRY/WHT/PINK/LGT BLU, 24 color wires as one group, if more than 24 wires, repeat as sequence, use number tube to tell group 1#, 2#....

Outline Drawings



Unit: mm [in] Tolerance: ±0.2mm [±0.008in]

Standard Part Number List

Part Number	RF Channel	Frequency (GHz)	Circuits no. (10A)	Circuits no. (2A)	Length L(mm/in)
FRJ1-18000-56-0610	1	DC~18	6	0	38 [1.496]
FRJ1-18000-56-06S	1	DC~18	0	6	38 [1.496]
FRJ1-18000-56-0610-06S	1	DC~18	6	6	55 [2.165]
FRJ1-18000-56-1210	1	DC~18	12	0	55 [2.165]
FRJ1-18000-56-12S	1	DC~18	0	12	55 [2.165]
FRJ1-18000-56-0610-12S	1	DC~18	6	12	71.5 [2.815]
FRJ1-18000-56-1810	1	DC~18	18	0	71.5 [2.815]
FRJ1-18000-56-18S	1	DC~18	0	18	71.5 [2.815]
FRJ1-18000-56-0610-18S	1	DC~18	6	18	88.5 [3.484]
FRJ1-18000-56-1210-12S	1	DC~18	12	12	88.5 [3.484]
FRJ1-18000-56-2410	1	DC~18	24	0	88.5 [3.484]
FRJ1-18000-56-24S	1	DC~18	0	24	88.5 [3.484]
FRJ1-18000-56-36S	1	DC~18	0	36	122 [4.803]
FRJ1-18000-56-48S	1	DC~18	0	48	156 [6.142]