

# NRJ1-50000-56

Singal Channel, DC~50GHz, 56mm

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

### Electrical (Rotary Joint)

Frequency:	DC~50GHz
VSWR:	1.7 max.
VSWR Flatness:	0.2 max.
Insertion Loss:	0.9dB max.
Insertion Loss Flatness:	0.1 dB max..
Phase Flatness:	2° max.
Average Power:	50W max. @1GHz 15W max. @10GHz 5W max. @26.5GHz 3W max. @50GHz
Peak Power:	500W max.
IP Grade:	IP40 acc. EN 60529

### Mechanical (Rotary Joint)

Connectors:	2.4mm female
Rotating Speed:	150RPM max.
Starting Torque:	0.5N.cm max.
Connector Axial Load:	±0.1N max.
Rotating Torque:	0.5N.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
Impedance of Dielectric (Power/Signal):	500/300MΩ min.
Lead Wire (Power):	AWG#17 Silver plated Teflon
Lead Wire (Signal):	AWG#22 Silver plated Teflon
Dielectric Resistance:	500V AC @50Hz, 60s
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

**NRJ1-50000-56-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.

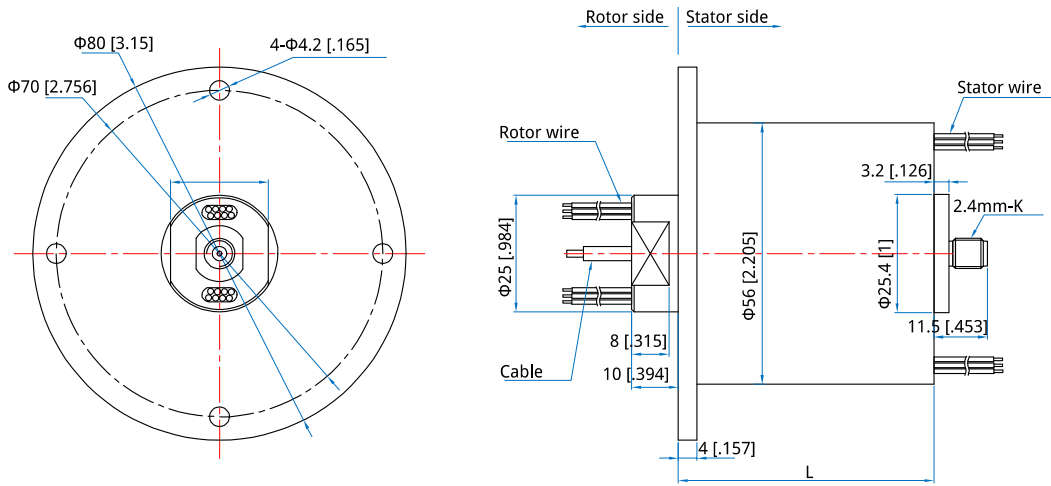
### Color Code of Lead Wire

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	Transparet

Remark: "1" : the first wire from rotor side , NRJ1-50000-56-12S wire color sequence: BLK/BRN/RED/ORG/YEL/GRN/BLU/PUR/GRY/WHT/PINK/LGT BLU, 24 color wires asone group, if more than 24wires, repeat as sequence, use number tube to tell group 1#, 2#....

### Outline Drawings



Unit: mm [in]      Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

### Standard Part Number List

Part Number	RF Channel	Frequency (GHz)	Circuits no. (10A)	Circuits no. (O- 2A)	Length L(mm/in)
NRJ1-50000-56-0610	1	DC~ 50	6	0	38 [1.496]
NRJ1-50000-56-06S	1	DC~ 50	0	6	38 [1.496]
NRJ1-50000-56-0610-06S	1	DC~ 50	6	6	55 [2.165]
NRJ1-50000-56-1210	1	DC~ 50	12	0	55 [2.165]
NRJ1-50000-56-12S	1	DC~ 50	0	12	55 [2.165]
NRJ1-50000-56-0610-12S	1	DC~ 50	6	12	71.5 [2.815]
NRJ1-50000-56-1810	1	DC~ 50	18	0	71.5 [2.815]
NRJ1-50000-56-18S	1	DC~ 50	0	18	71.5 [2.815]
NRJ1-50000-56-0610-18S	1	DC~ 50	6	18	88.5 [3.484]
NRJ1-50000-56-1210-12S	1	DC~ 50	12	12	88.5 [3.484]
NRJ1-50000-56-2410	1	DC~ 50	24	0	88.5 [3.484]
NRJ1-50000-56-24S	1	DC~ 50	0	24	88.5 [3.484]
NRJ1-50000-56-36S	1	DC~ 50	0	36	122 [4.803]
NRJ1-50000-56-48S	1	DC~ 50	0	48	156 [6.142]