

Miniature Slip Ring Capsules

RK4288

*Miniature slip ring capsule
circuit configuration for commercial
and military applications*

Description

A slip ring capsule can be used in any electromechanical system that requires unrestrained, occasional or continuous rotation while transferring power and / or data.

Miniature slip ring capsule assemblies economically address both critical space and weight limitations. Each assembly includes the rotor, brush blocks, frame, ball bearings and dust cover.

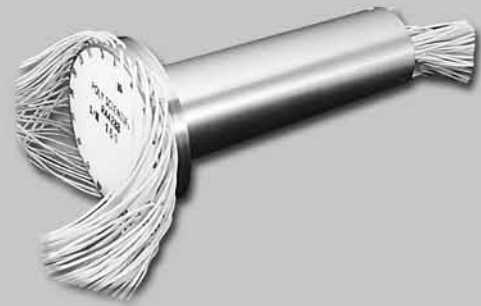
These slip rings can be configured with spacing between rings of 0.015 inch and brush diameters no larger than a human hair. Existing designs are available or we can custom design slip rings to meet your specific requirement.

Features

- Center-to-center adjacent ring spacings as small as 0.015 inch can be obtained
- 95 rings packaged in a self-contained envelope 3.3 inches long and 1.5 inch barrel diameter
- Gold-on-gold sliding contact technology
- Up to 40 rpm operation
- Low noise; as low as 15 milliohm per circuit pair
- Long life; several million total revolutions have been obtained

Benefits

- Precise, tight packaging capabilities for meeting stringent design criteria
- Proprietary plating techniques provide improved reliability, longer life and increased efficiency
- Unique signal handling performance to minimize noise and increase speed
- Other configurations are available from 16 to 80 circuits
- We also manufacture commercial slip rings from 6 to 24 circuits



Typical Applications

This slip ring provides high speed performance and is successfully serving in applications such as:

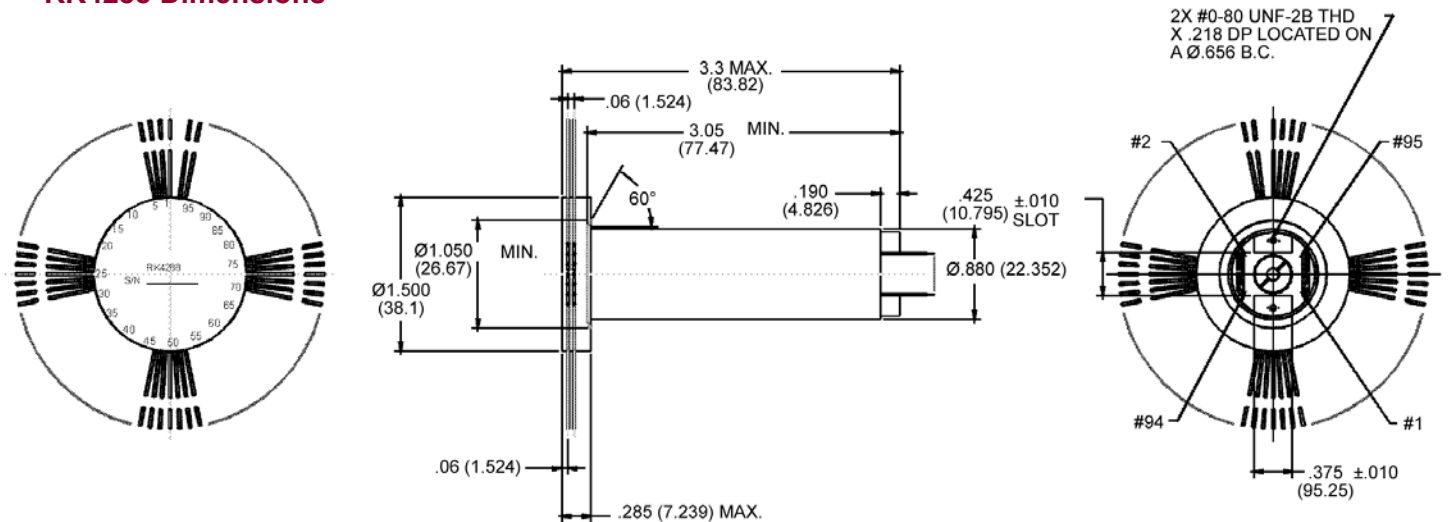
- Gimballed pitch, roll and yaw axes of inertial navigation systems
- Satellite de-spin assemblies
- Deep earth drilling projects
- Missile weapon systems
- Unmanned aerial vehicles (UAV)
- Airborne camera platforms

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RK4288 Specifications

Current Rating	0.8 amp per circuit
Lead Size	30 AWG
Dielectric Strength	1000 V (test)
Insulation Resistance	1000 megohms
Circuit Resistance	0.27 ohms (leads @ 24 in.)
Starting Torque	240 gm cm
Noise	30 milliohms max.
Rotational Speed	40 rpm max.
Lead Length	24 inches each end

RK4288 Dimensions



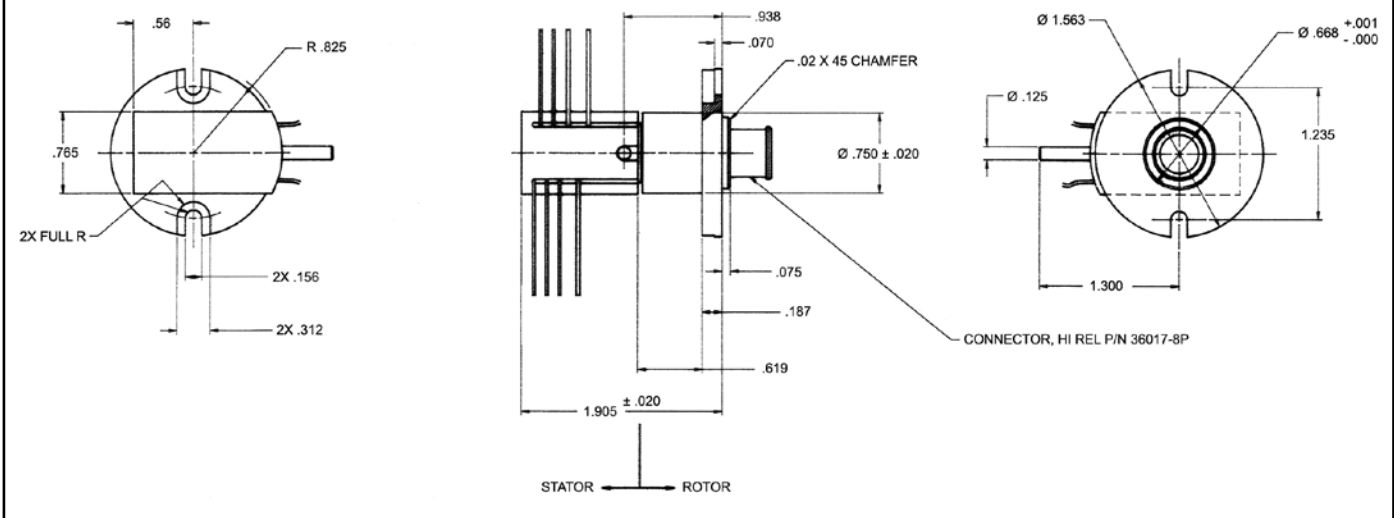
Dimensions in inches (millimeters)

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Part #	No. of Ckts.	Signal	Power	Length (inch)	O.D. Housing (inch)	O.D. Flange	Other
RT4922	5	5 @ 1A	0	1.10	0.47"	0.87"	1 segmented circuit
SJ4834	8	5 @ 1A	3 @ 4A	1.90	0.75"	1.56"	Integral rotor connector
RE4590	12	12 @ 1A	0	0.60	0.38"	0.48"	10 in. lead length
JJ6095	15	15 @ 1A		1.1	1.0"	1.4"	O'ring, sealed bearing, fiber brush
GS2725	29	23 @ 0.5A	6 @ 2A	0.83	0.39"	1.24"	Lead length is 11 in. min.
RE4815	32	32 @ 1A	0	1.32	0.50"	0.60"	Lead length is 24 in. rotor & 12 in. stator
GS2388	38	38 @ 1A	0	1.0	0.41"	1.26"	Rotor leads: 12 in.; brush block leads 8 in.
BB3199	39	39 @ 1A	0	1.03	0.59"	0.65"	24/12 in. lead length
BB2759	45	45 @ 1A	0	1.03	0.59"	0.65"	Rotor leads: 24 in.; brush block leads 12 in.
NH3302	60	60 @ 1A	0	2.24	0.50"	0.75"	Lead length is 12 in.
BB2871	65	65 @ 1A	0	1.28	0.65"	0.64"	Higher voltage on 5 ckts
AC6449	74	66 @ 1A	8 @ 3A	1.26	1.75"	2.25"	Concentric unit
AC6292	80	57 @ 1A	23 @ 3A	2.00	0.68"	1.15"	COTS - export w/out license
RK4288	95	95 @ 1A	0	3.3	0.88"	1.50"	Lead length is 24 in.

Typical Miniature Slip Ring Capsule Designs

SJ4834



AC6449

