

High Speed Slip Ring Capsules

AC3757

Miniature slip ring assembly

Description

A slip ring can be used in any electromechanical system that requires unrestrained, continuous rotation while transferring power and / or data from a stationary to a rotating structure. A slip ring is also called a rotary electrical interface, commutator, collector, swivel or a rotary joint.

The AC3757 high speed slip ring provides 36 circuits and operational speeds up to 6,000 rpm. Our fiber brush technology minimizes contact wear and resultant debris while it extends operational life.

Features

- 36 circuits
- High speed performance with customer's cooling systems:
 - 4,000 rpm without cooling
 - 6,000 rpm with gas cooling (nitrogen)
- Thermocoupled leads are available
- Low noise. The low contact force of the fiber brush design reduces resistance (noise) while providing superior power and data transfer capability.
- Cooling tubes

Benefits

- Fiber brush technology. The sliding electrical contacts used in the AC3757 slip ring features our fiber brush technology to provide these benefits:
 - Low contact force per fiber
 - Low contact wear rates
 - Contact surfaces that do not require lubrication
 - Ability to perform in vacuum and varied ambient conditions
- Improved system performance. Slip rings can improve mechanical performance, simplify system operation and eliminate damage-prone wires dangling from movable joints.



Typical Applications

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

- Centrifuges
- Tire testing
- Gasoline or diesel engine testing

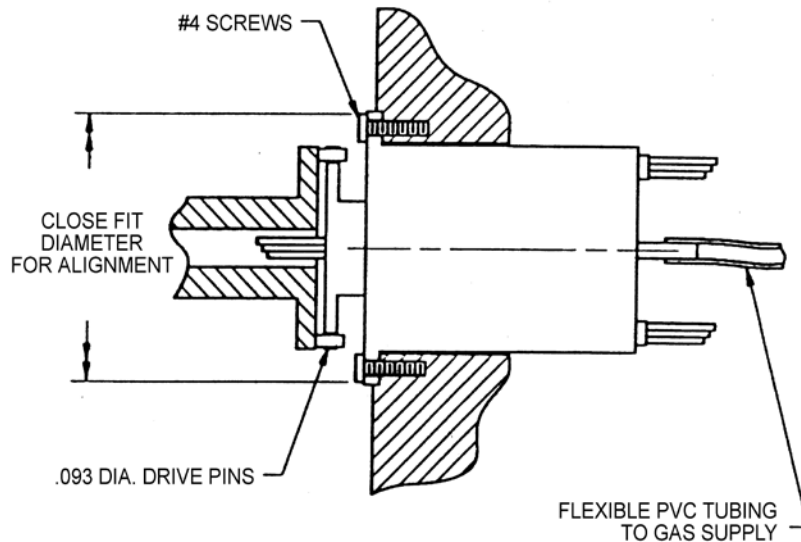
High Speed Slip Ring Capsules

| AC3757 Specifications | |
|--|--|
| Ring O.D. | 0.270 inch |
| Ring Pitch | 0.032 inch |
| Flange Diameter | 1.600 inch |
| Bore | None |
| Volts (Peak to Peak) | 70 |
| Circuits | Leads |
| 1-26 | 30 (19 / 42) AWG silver plated standard copper conductor |
| 27-36 | Solid chromel and alumel leads |
| All leads are color coded extruded teflon insulation. | |
| Chromel / alumel thermocouple pairs are attached to each bearing and to brushes #1 and #12 to monitor temperature. | |

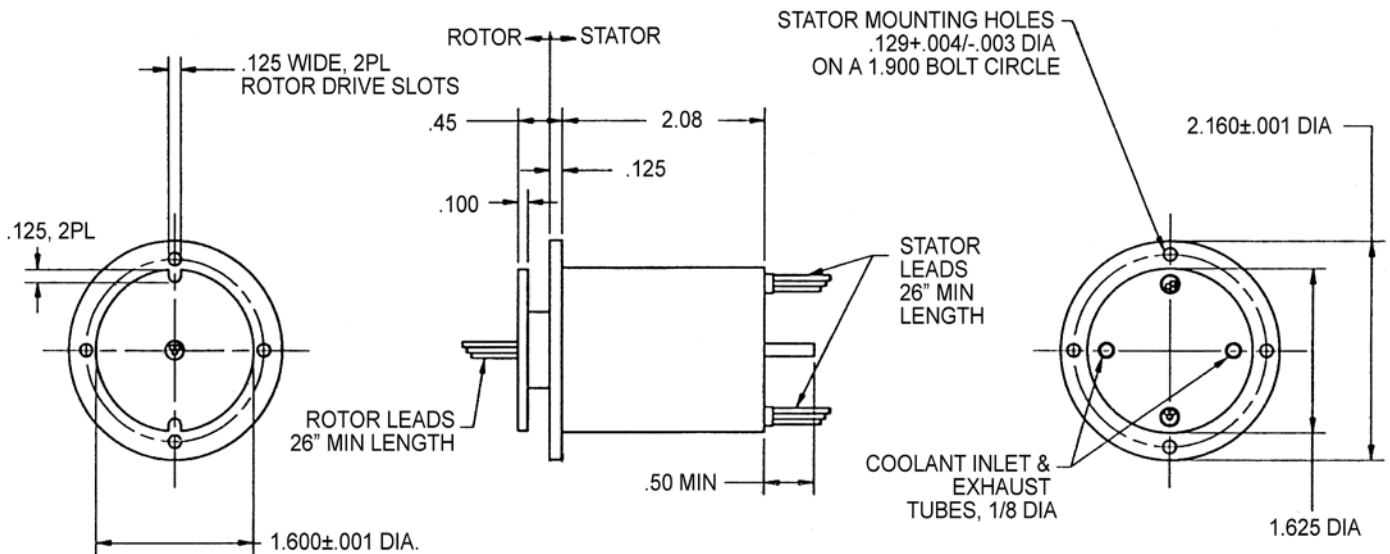
| Lead Wire Color Codes | | | | | | | |
|-----------------------|------------|--------|------------|--------|---------------|--------|---------------|
| Ring # | Color Code | Ring # | Color Code | Ring # | Color Code | Ring # | Color Code |
| 1 | BLK | 10 | WHT | 19 | WHT-GRY | 28 | ORN (ALUMEL) |
| 2 | BRN | 11 | WHT-BLK | 20 | WHT-BLK-BRN | 29 | BLK (CHROMEL) |
| 3 | RED | 12 | WHT-BRN | 21 | WHT-BLK-RED | 30 | BRN (ALUMEL) |
| 4 | ORN | 13 | WHT-RED | 22 | WHT-BLK-ORN | 31 | RED (CHROMEL) |
| 5 | YEL | 14 | WHT-ORN | 23 | WHT-BLK-YEL | 32 | ORN (ALUMEL) |
| 6 | GRN | 15 | WHT-YEL | 24 | WHT-BLK-GRN | 33 | BLK (CHROMEL) |
| 7 | BLU | 16 | WHT-GRN | 25 | WHT-BLK-BLU | 34 | BRN (ALUMEL) |
| 8 | VIO | 17 | WHT-BLU | 26 | WHT-BLK-VIO | 35 | RED (CHROMEL) |
| 9 | GRY | 18 | WHT-VIO | 27 | RED (CHROMEL) | 36 | ORN (ALUMEL) |

Note: Other combinations of standard conductors and thermocouple leads are available.

Recommended Mounting Arrangement



AC3757 Dimensions



Dimensions in inches