

# Tubular Slip Ring Assembly

## Models B4-2, B6-2

- ◆ 4 and 6 circuit slip rings
- ◆ Compact design
- ◆ Mounts on shafts up to 2" in diameter
- ◆ Permanently lubricated bearings
- ◆ Rugged stainless steel construction
- ◆ Instrumentation quality rings and brushes
- ◆ Color coded terminals in tandem provide redundant connections



## Description

The Michigan Scientific *B Series Slip Ring Assemblies* are ideal for applications which require the slip ring to be mounted directly on a rotating shaft. These slip rings are typically used for automotive drive shaft measurement applications. They are designed to fit on shafts up to 2" in diameter and make electrical connection to strain gages, thermocouples, or other sensors that have been installed on rotating equipment. The slip ring brushes and rings are made of precious metals which minimize noise and enable the assemblies to be used for low level instrumentation signals.

The *B Series* models are available in 4 or 6 circuit slip ring assemblies. The *B6-2* is particularly useful for drive shaft applications where both torque and axial measurements are needed. In addition, the *B6-2* provides enough circuit connections for use with spinning amplifiers. Locating precision amplifiers on the rotating side of the slip ring greatly improves signal quality because the amplifier is located closer to the sensor. This reduces errors due to long lead wires, connector resistance variations, electro-magnetic interference, and temperature gradients across slip ring contacts.

Connections are made through color coded solder terminals located on the slip ring rotor and a connector on the slip ring stator. Redundant terminals are included to provide back-up connections. The compact width design of these slip rings make them ideal for applications where limited space is available.

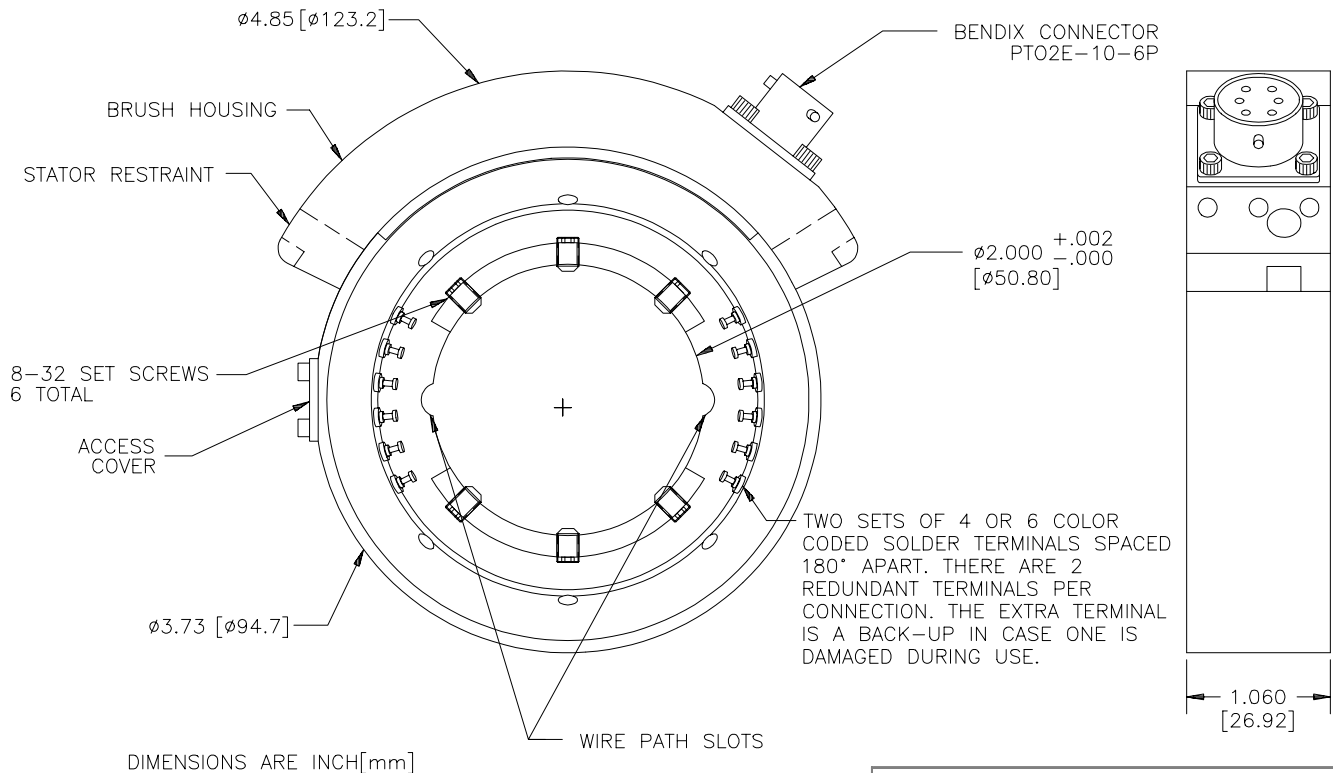
## Specifications

	B4-2	B6-2
Circuits	4	6
Current Capacity	1 A	
Temperature Range	-40°F to 250°F (-40°C to 121°C)	
RPM Rating	7000 RPM	
Maximum Peak Noise*	0.1 $\Omega$	
Width	1.06 in (26.9mm)	
Weight	2.0 lbs (0.9 kg)	
Output Connector	Bendix PT02E-10-6P	
Mating Connector	Bendix PT06E-10-6S (SR)	

\*Resistance variation across slip ring contact.

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## B4-2, B6-2 CONFIGURATION



SLIP RING INTERNAL WIRING		
Connector	B4-2 Terminal	B6-2 Terminal
Pin A	White	White
Pin B	Green	Blue
Pin C	Red	Green
Pin D	Black	Yellow
Pin E	No Connection	Red
Pin F	No Connection	Black

## Mounting

The *B Series Slip Ring Assemblies* can be easily mounted on a shaft. An additional bushing is required when using the slip rings on shafts smaller than 2" in diameter. The slip ring rotor is configured with six #8-32 set screws used for mounting. Proper alignment requires the slip ring to be positioned square and concentric to the shaft rotation axis, particularly for high speed applications. Signal wires from the sensors can be routed along the outside diameter of the shaft. Wire path slots machined into the slip ring rotor enable wires to be routed under the slip ring and to the color coded solder terminals.

## Ordering Options

- Special units are available for high speed applications that continuously exceed 7000 RPM. Contact Michigan Scientific for further information.
- Mating Bendix connector included. For information regarding slip ring accessories, refer to the "Price List and Accessories" section.