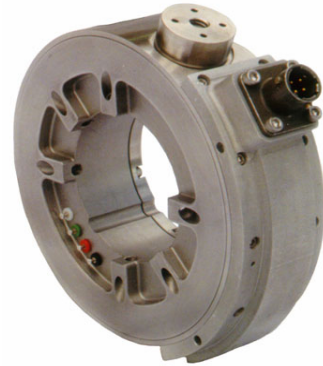


Weatherproof Tubular Slip Ring Assembly

Model B4-2W

- 4 circuit weatherproof slip ring
- Compact design
- Mounts on shafts up to 2" [50.8 mm] in diameter
- Permanently lubricated bearings
- Rugged stainless steel construction
- Instrumentation quality rings and brushes



Description

Michigan Scientific's *B4-2W Weatherproof Slip Ring Assembly* is ideal for applications that require the slip ring to be sealed and mounted directly on a rotating shaft. Typically used for automotive drive shaft measurement applications, this model employs specially designed seals that provide weatherproof protection from water, mud, snow, dust, and other contaminants. It is designed to fit on shafts up to 2" in diameter and make an 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.

Connections are made through color coded solder terminals located on the slip ring rotor and a connector on the slip ring stator. The compact design of these slip rings make them ideal for applications where limited space is available.

Specifications

Circuits	4
Current Capacity per Circuit	1A
Temperature Range	-40°F to 250°F (-40°C to 121°C)
RPM Rating	7000 RPM
Maximum Peak Noise*	0.1Ω
Width	1.264 in (32.11 mm)
Weight	2.75 lbs (1.25 kg)
Output Connector	Bendix PT02E-8-4P
Mating Connector	Bendix PT06E-8-4S (SR)

* Resistance variation across slip ring contact.

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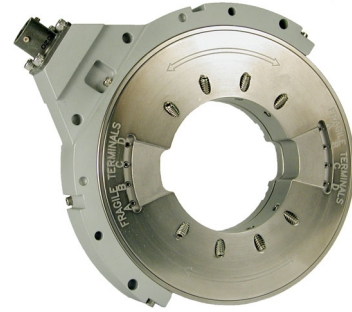
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Weatherproof Tubular “Thin” Slip Ring Assembly

Model B4-2WT

- Thin unit - only 0.79”[20 mm] thick
- 4 circuit weatherproof slip ring
- Non-contact labyrinth seals - seals will not wear out
- Mounts on shafts up to 2” [50.8 mm] in diameter
- Permanently lubricated bearings
- Rugged stainless steel construction
- Instrumentation quality rings and brushes



Description

Michigan Scientific’s *B4-2WT Thin Weatherproof Slip Ring Assembly* is ideal for applications that require the slip ring to be sealed and mounted directly on a rotating shaft. Typically used for automotive drive shaft measurement applications, this model employs specially designed seals that provide weatherproof protection from water, mud, snow, dust, and other contaminants. It is 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.

Connections are made through solder terminals located on the slip ring rotor and a connector on the slip ring stator. A lower profile terminal plate can be used to replace the stator connector. The compact design of this slip ring make it ideal for applications where limited space is available.

Specifications

Circuits	4
Current Capacity per Circuit	1A
Temperature Range	-40°F to 250°F (-40°C to 121°C)
RPM Rating	7000 RPM
Maximum Peak Noise*	0.1Ω
Width	0.790 (20.066 mm)
Weight	2.56lbs (1.16 kg)
Output Connector	Bendix PT02E-8-4P
Mating Connector	Bendix PT06E-8-4S (SR)

* Resistance variation across slip ring contact.

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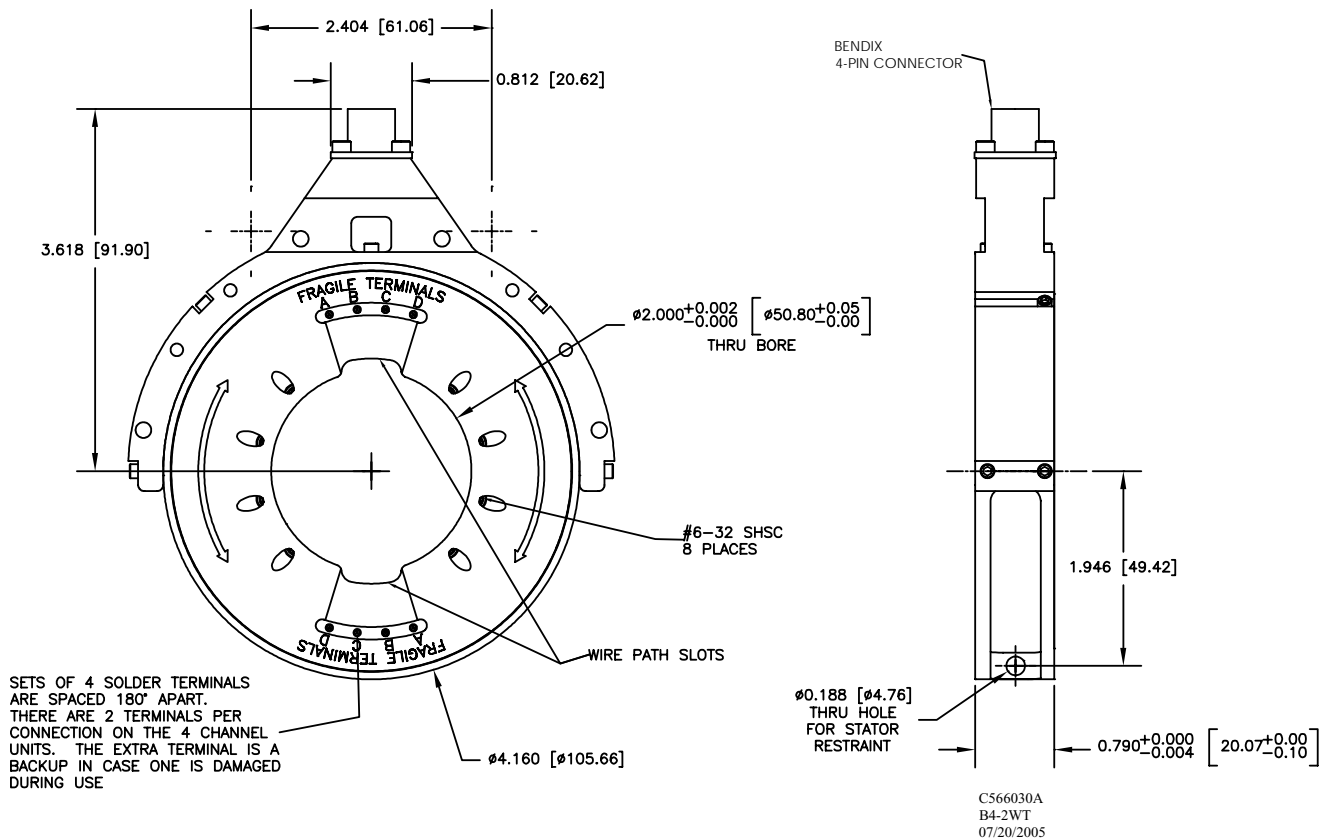
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Weatherproof Tubular "Thin" Slip Ring Assembly

B4-2WT Configuration



Mounting

The *B4-2WT Thin Slip Ring Assembly* 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 eight #6-32 set screws used for mounting. Signal wires from the sensors can be routed along the outside diameter of the shaft. A wire path slot is machined into the slip ring rotor, enabling wires to be routed under the slip ring and to the solder terminals.

Ordering Options

Special units are available for high speed applications that continuously exceed 7000 RPM. Contact Michigan Scientific for further information.

The slip ring rotates in both clockwise and counterclockwise directions. Mating Bendix connector included. For information regarding slip ring accessories, refer to the "Price List and Accessories" section.

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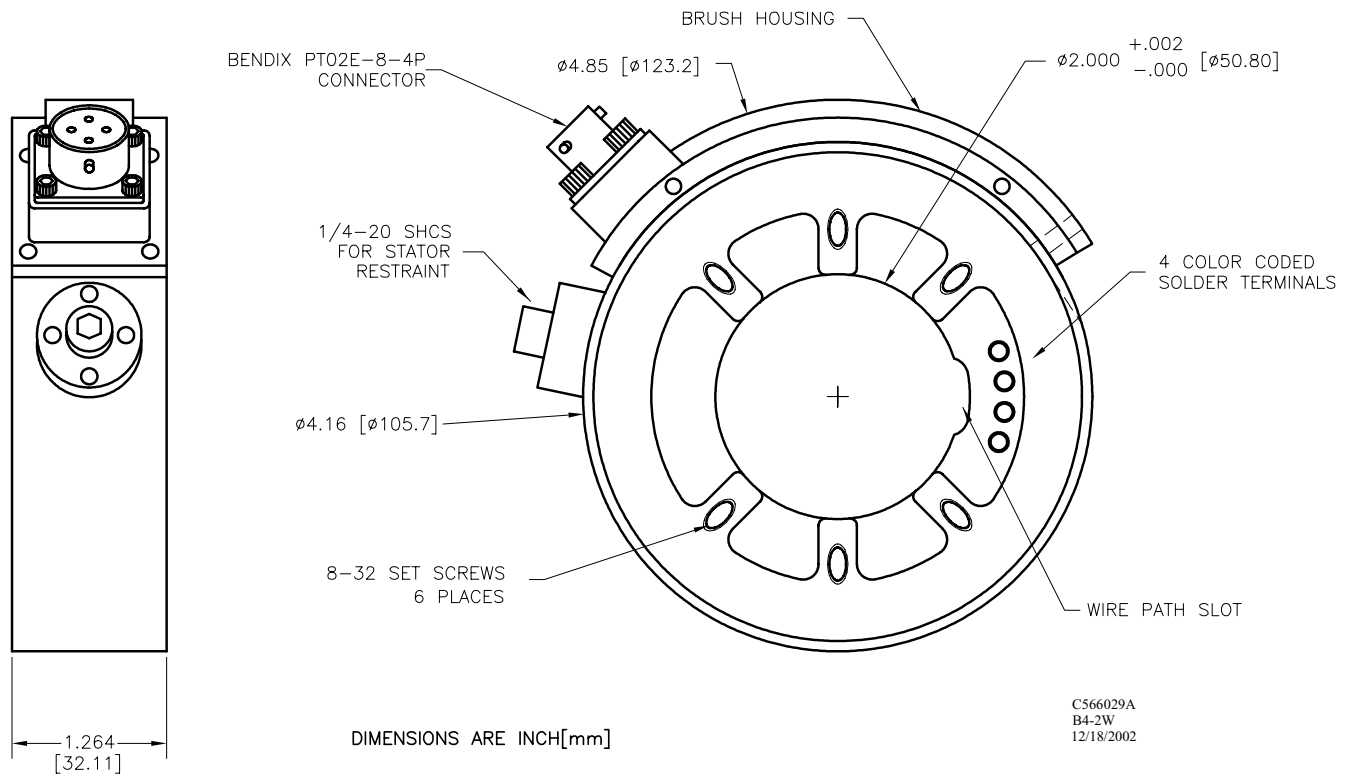
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Weatherproof Tubular Slip Ring Assembly

B4-2W Configuration



Mounting

The *B4-2W Slip Ring Assembly* 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. Signal wires from the sensors can be routed along the outside diameter of the shaft. A wire path slot is machined into the slip ring rotor, enabling wires to be mounted 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.

The slip ring rotates in both clockwise and counterclockwise directions; however, an optimal sealing direction may be specified.

Mating Bendix connector included. For information regarding slip ring accessories, refer to the "Price List and Accessories" section.

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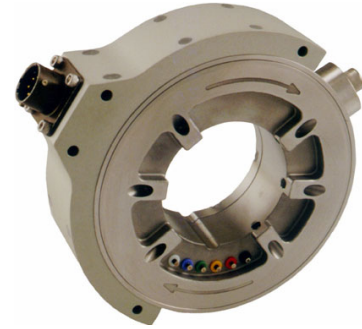
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Weatherproof Tubular Slip Ring Assembly

Models B6-2W

- 6 circuit weatherproof slip ring
- Compact design
- Mounts on shafts up to 2" [50.8 mm] in diameter
- Permanently lubricated bearings
- Rugged stainless steel construction
- Instrumentation quality rings and brushes



Description

Michigan Scientific's *B6-2W Weatherproof Slip Ring Assembly* is ideal for applications that require the slip ring to be sealed and mounted directly on a rotating shaft. Typically used for automotive drive shaft measurement applications, this model employs specially designed seals that provide weatherproof protection from water, mud, snow, dust, and other contaminants. It is designed to fit on shafts up to 2" in diameter and make an 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 six circuit capacity of this slip ring allows for more than one full bridge strain gage measurement channel. This is useful for drive shaft applications where both torque and axial measurements are needed. The *B6-2W* also 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. The compact design of these slip rings make them ideal for applications where limited space is available.

Specifications

Circuits	6
Current Capacity per Circuit	1A
Temperature Range	-40°F to 250°F (-40°C to 121°C)
RPM Rating	7000 RPM
Maximum Peak Noise*	0.1Ω
Width	1.264 in (32.11 mm)
Weight	2.75 lbs (1.25 kg)
Output Connector	Bendix PT02E-10-6P
Mating Connector	Bendix PT06E-10-6S (SR)

* Resistance variation across slip ring contact.

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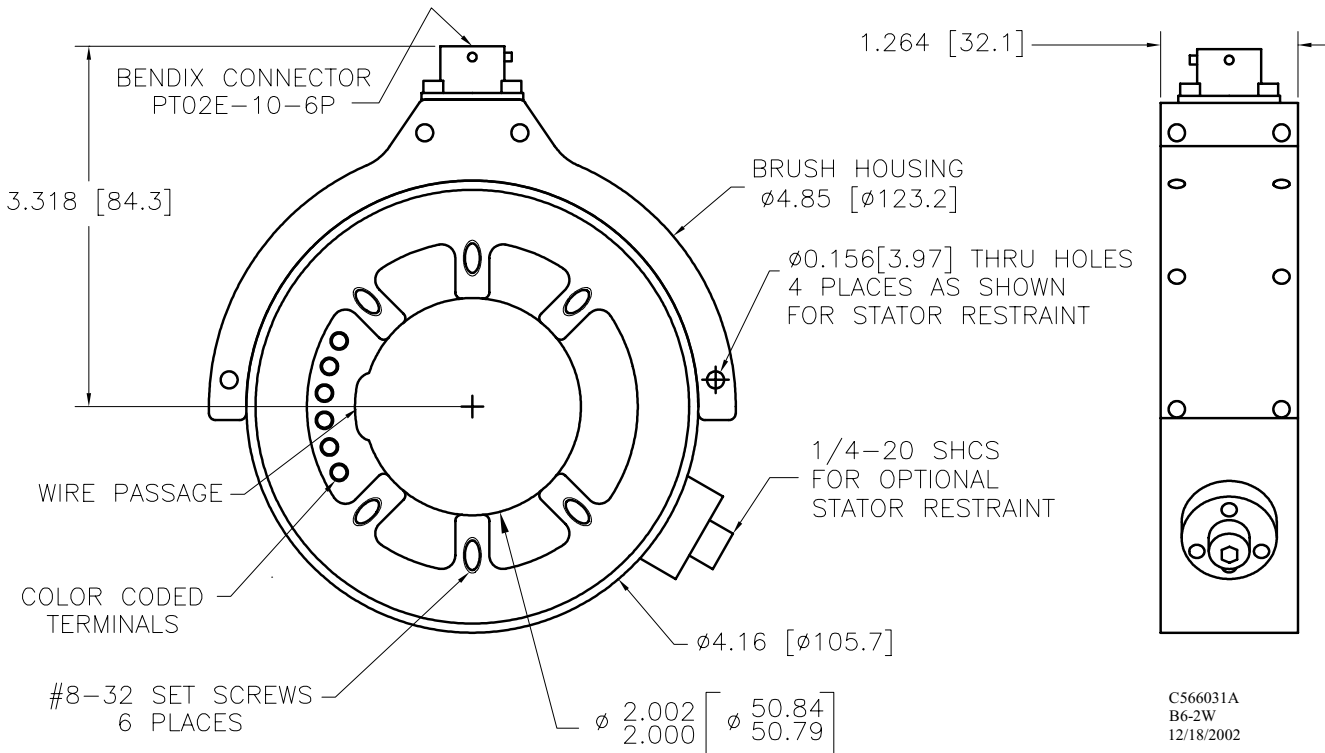
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Weatherproof Tubular Slip Ring Assembly

B6-2W Configuration



DIMENSIONS ARE INCH[mm]

Mounting

The *B6-2W Slip Ring Assembly* 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. Signal wires from the sensors can be routed along the outside diameter of the shaft. A wire path slot is machined into the slip ring rotor, enabling wires to be mounted 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.

The slip ring rotates in both clockwise and counterclockwise directions; however, an optimal sealing direction may be specified.

Mating Bendix connector included. For information regarding slip ring accessories, refer to the "Price List and Accessories" section.

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Tubular Slip Ring Assembly

Models B4-2/E60, B6-2/E60, B8-2/E60

- 4, 6, and 8 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
- 60 pulse per revolution encoder option



Description

Michigan Scientific's *B Series Slip Ring Assemblies* are ideal for applications that require the slip ring to be mounted directly on a rotating shaft. Typically used for automotive drive shaft measurement applications, they are designed to fit on shafts up to 2" in diameter and make an 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*-2/E60* models are available in 4, 6, & 8 circuit slip ring assemblies. The *B8-2/E60* is particularly useful for drive shaft applications where both torque and thrust measurements are needed. In addition, the *B8-2/E60* provides enough circuit connections for measuring up to five amplified strain gage or thermocouple signals.** Michigan Scientific's precision strain gage and thermocouple amplifiers, positioned on the rotation side of the slip ring, greatly improve signal quality. They reduce the amount of 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. Each slip ring assembly includes a 15 ft. cable with a single mating connector attached. The compact-width design of these slip rings make them ideal for applications where limited space is available.

Encoder option

The encoder included in the *B*-2/E60 Tubular Slip Ring Assembly* produces a 60 pulse/revolution 5-volt square wave. The TTL compatible signal is produced by a hall-effect sensor, which allows speed to be determined down to 0 rpm. The voltage required to drive the encoder can range from 5.5 to 45 DC volts.

**See product literature of Model AMP-SG-U3 amplifier for features and specifications.

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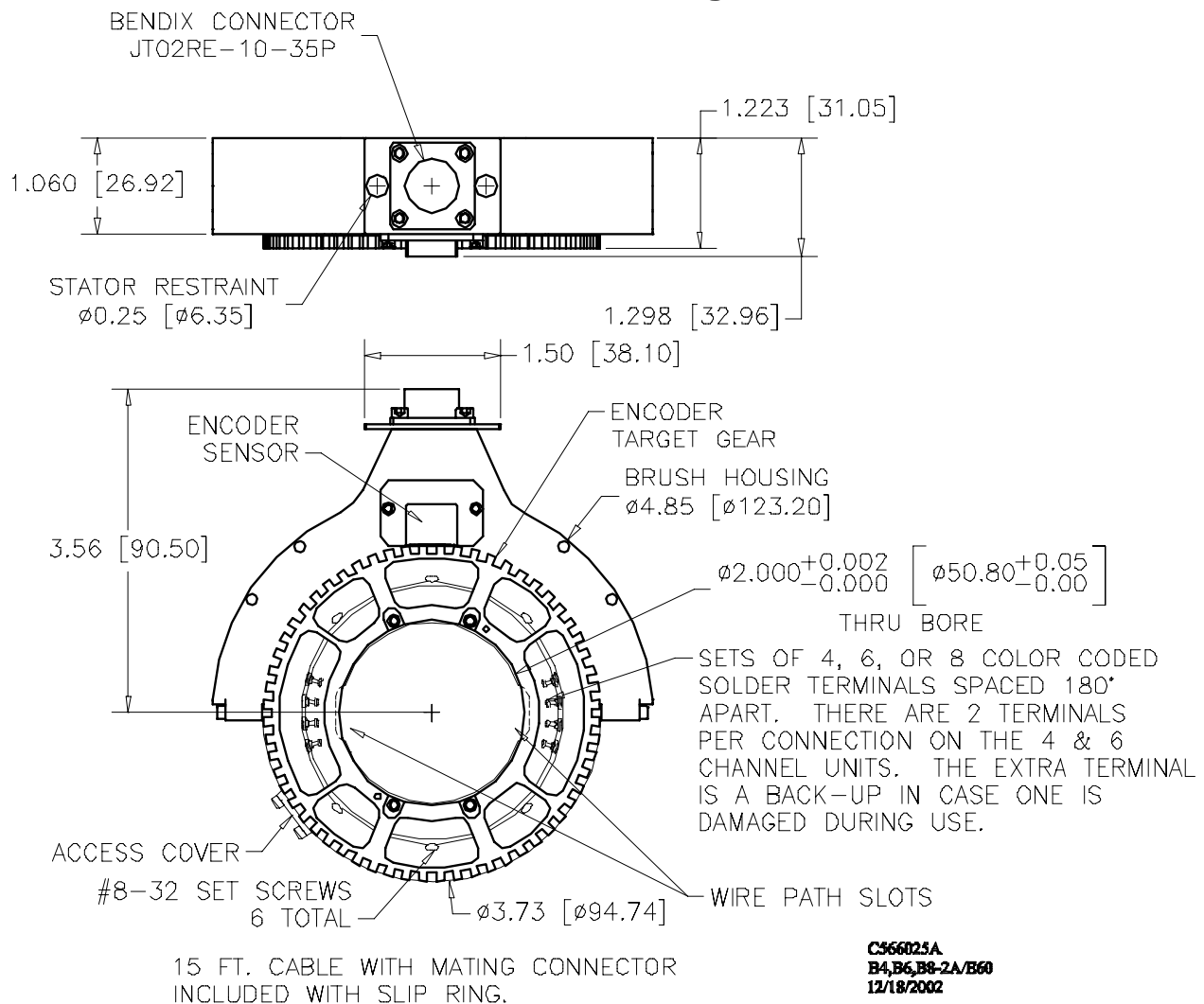
Tubular Slip Ring Assembly

Specifications

	B4-2/E60	B6-2/E60	B8-2/E60
Circuits	4	6	8
Current Capacity	1A		
Temperature Range	-40°F to 250°F (-40°C to 121°C)		
RPM Rating	7000 RPM		
Maximum Peak Noise*	0.1Ω		
Width	1.30 in. (32.96 mm)		
Weight	1.9 lbs (0.86 kg)		
Output Connector	Bendix JT02RE-10-35P		

* Resistance variation across slip ring contact.

B4-2/E60, B6-2/E60, B8-2/E60 Configuration



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