

Weatherproof Slip Ring & Encoder Assembly

Model SR_AW/E60/A

- 0, 4, 6, 8, or 10 circuit weatherproof slip ring
- 60 pulse encoder
- Color coded terminals
- Lightweight and compact
- Permanently lubricated bearings
- Rugged stainless steel construction
- Instrumentation quality rings and brushes



Description

The Michigan Scientific *SR_AW/E60/A Weatherproof Slip Ring and Encoder Assembly* is used for applications requiring both a sealed slip ring and an encoder. It is designed to mount on the end of a rotating shaft, and make an electrical connection to strain gages, thermocouples, or other rotating sensors, while simultaneously providing pulses to measure rotational speed. Specially designed seals provide complete weatherproof protection from water, dust, and other contaminants. The slip ring brushes and rings are made of precious metals, which minimize noise and enable the assembly to be used for low level instrumentation signals.

The *SR_AW/E60/A* accepts up to 10 circuit connections and incorporates a pulse encoder that enables rotational speed to be measured. The encoder generates a 60 pulse per revolution square wave signal with a range of 0 to 6000 RPM. Since the pulses per second are equivalent to RPM, rotor speed can be recorded directly from a frequency display without scale conversion. Analog output signals for rotational speed can be obtained by using this slip ring and encoder model with Michigan Scientific's frequency to voltage encoder electronics.

Connections to the slip ring rotor are made through a military style connector. For complete weatherproofing of this assembly, it must be used with a sealed metal cap or rubber boot to protect the terminals on the slip ring stator. Both of these options incorporate a military style connector, enabling all connections to the slip ring and encoder to be made through connectors. In addition, permanently lubricated bearings eliminate the need for routine cleaning and maintenance.

Specifications

| | |
|--|---------------------------------|
| Circuits | 0, 4, 6, 8, or 10 |
| Current Capacity | 500 mA |
| Temperature Range* | -40°F to 212°F (-40°C to 100°C) |
| RPM Rating | 2000 RPM |
| Maximum Peak Noise** | 0.1Ω |
| Weight | 7.5 oz. (213 g) |
| *For operation below 0°F, specify low temperature lubricant. | |
| ** Resistance variation across slip ring contact | |

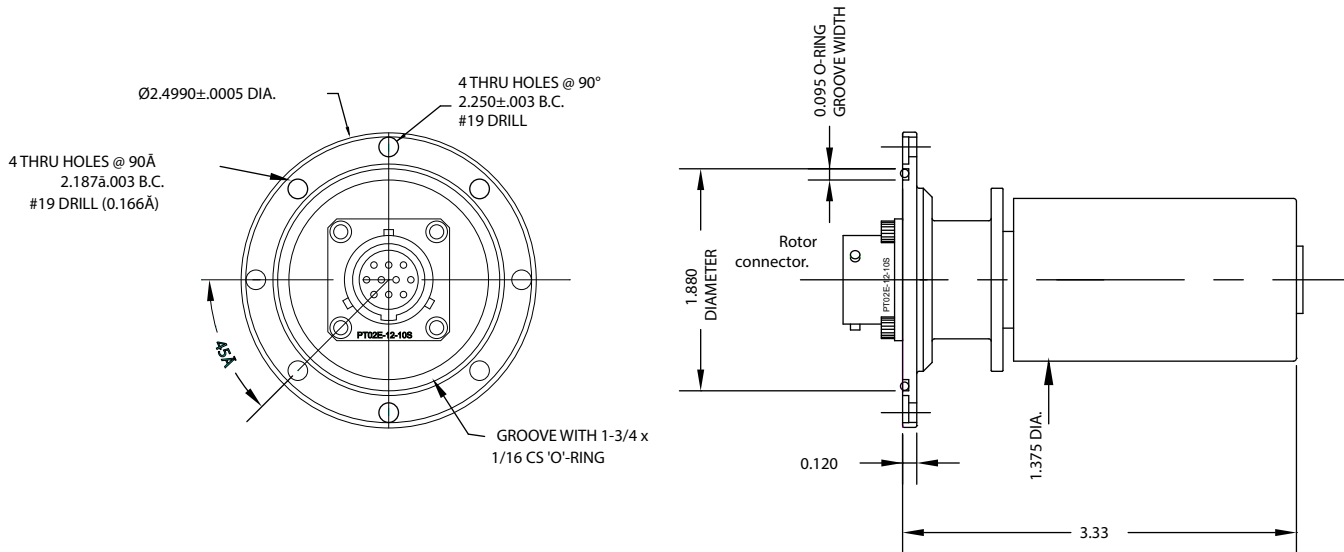
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SR_AW/E60/A Configuration



DRAWING # C178022B.DWG
REV DATE: 10-13-11 KDL

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Mounting

The SR_AW/E60/A can easily be mounted to the end of a shaft. Refer to the literature on *SR Series Slip Ring Assemblies* for a detailed drawing and description of the mounting procedure. Contact Michigan Scientific for applications where the slip ring assembly is subjected to extreme vibration.

Ordering Options

Weatherproof units and accessories are available for applications operating in harsh environmental conditions. For information regarding slip ring accessories, refer to Tech Note 107 section of the catalog.

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