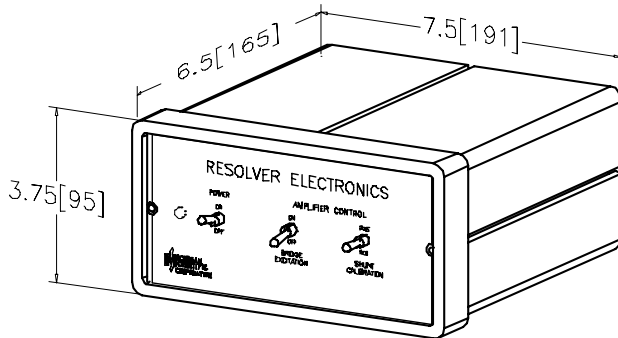


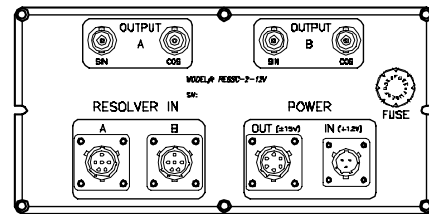
Resolver Electronic Unit

Model RESSC-2-12V

- Provides continuous Sine/Cosine analog outputs
- Designed for use with Michigan Scientific's SR/ERT Series or compatible resolvers*
- Powers up to 10 strain gage amplifiers†
- Input power (9-36 VDC) for vehicle based use
- Remote bridge excitation On/Off for spinning strain gage amplifiers
- Remote electronic shunt calibration capability
- Rugged aluminum enclosure



DIMESIONS ARE INCH[mm]



REAR PANEL

C566041A
RESSC-2-12V
12/27/2002

Description

The model *RESSC Resolver Electronic Unit* provides signal demodulation for Michigan Scientific slip ring/resolver units. It can be used to transform measurements from rotating coordinates into stationary coordinates (e.g., forces from a rotating wheel transducer to a vehicle chassis coordinate system). Resolver signals from the resolver slip ring are converted into continuous sine/cosine analog outputs. These outputs provide the sine/cosine functions of the angle of rotation which are necessary for calculating stationary force components of rotating force measurements. Calculations can be done in the user's data acquisition software or in post processing.

The *RESSC Resolver Electronic Unit* includes an oscillator for resolver excitation, and a 1.0 Ampere power supply for powering strain gage and/or thermocouple amplifiers. When used with Michigan Scientific's strain gage amplifiers, the RESSC resolver unit can control the strain gage electronic shunt calibration and bridge excitation on/off features incorporated into the amplifier.

The RESSC resolver is available in single or dual channel configurations.

*50 Ohm Impedance

†Michigan Scientific AMP-SG Series, or AMP-TC Series

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Resolver Electronic Unit

Specifications

| PARAMETER | SPECIFICATION |
|-------------------------------|---|
| RESOLVER EXCITATION | |
| Type | Sinusoidal Voltage |
| Frequency | 10 KHz |
| Magnitude | 16 V p-p |
| Load (stator impedance) | 50 Ω or greater |
| AMPLIFIER POWER OUTPUT | |
| Type | DC Constant Voltage (Bipolar) |
| Magnitude | ± 15 V |
| Load | max 10 Strain Amplifiers @ 350 Ω bridge suggested use: Amplifier Models AMP-SG-U2 and AMP-SG-U3 |
| RESOLVER OUTPUT | |
| Voltage Output (Nominal) | Voltages related to Resolver angle (ϕ) : [5 * Sin (ϕ)] V [5 * Cos (ϕ)] V |
| Frequency Response | Determined by 8-pole Bessel 3.2 kHz low pass filter |
| Rise Time | 100 μ s |
| Noise | Noise \leq 8.0 mV p-p |
| POWER REQUIREMENTS | |
| Voltage | 9-36 VDC |
| Maximum Current | 1.5 A |
| ENVIRONMENT | |
| Operating Temperature | 0 to +70° C (+32 to +158° F) |

Ordering Options

Dual or single channel models are available. Model RESSC-1-12V is the single channel unit. Model RESSC-2-12V is the dual channel unit.

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