

SERIES SS2 SOLID-STATE RELAY

2 Output / 2 Input Microcontroller



innovative microcontroller technology



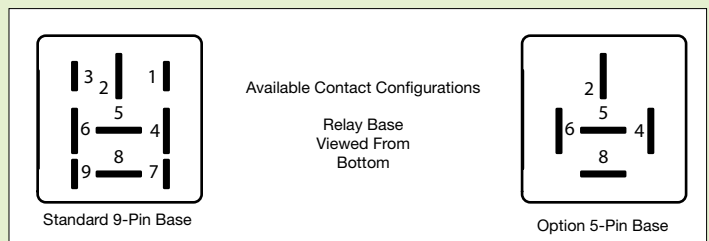
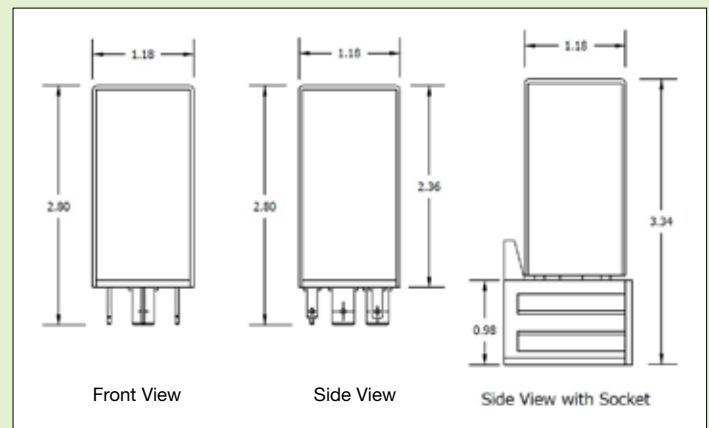
The SS2 solid-state relay was developed for adding simple I/O to engines and mobile equipment. This compact microcontroller with two solid-state independently configurable outputs resembles an automotive style cube relay with plug-in connector socket; however this module is completely controlled by a powerful microprocessor. Originally designed for the off-highway industry, these solid-state modules can withstand high vibration, fluctuating battery voltages, moisture, extreme high and low temperature conditions as well as overload or short circuits conditions. Not only is this module practically indestructible, the SS2 also includes two high power outputs each capable of 10 amps continuous at 12 volts or up to 70 amps for one second. Each solid-state output is powered by intelligent semiconductor technology and is capable of controlling a wide variety of high-current

devices such as solenoids, DC electric motors, or lighting directly to the outputs without external electromechanical relays. Other features available include two independently configured high-side outputs, two digital or analog inputs and Modbus RS-485. The SS2 module can be configured for a wide variety of application including but not limited to: alternating output module, load sharing, on-delay timers, off-delay timers, interval-delay timers, flashers, starter motor protection, automatic load switch, RPM over-speed protection, after-run timer, DC voltage monitoring, impulse sensing, latching output, PWM, and even Modbus RS-485 control and/or monitoring. Since each module is equipped with a microprocessor, custom turn-key software programs can be easily created by our software development team to meet your application's specific needs.

SS2 Module Shown with Optional Wire Harness 042-9011-0001

Specification:

- Operating Temperature: -40 to +85 Degrees C
- Voltage: 8 to 32 Volts
- Current Draw: 3.5 mA with Load Off and 8 mA with Load On
- Output Quiescent Current (i.e. Leakage is 15uA Maximum)
- Timing Accuracy: +/- 1%
- Voltage Input Accuracy +/- 1%
- Vibration and Shock Resistant
- Solid State Inputs/Outputs
- Outputs (10 A Continuous, 70A for 1 Second)
- Inputs: Maximum 2 (Digital or Analog)
- Reverse Polarity Protection
- Housing Dimension: 1.18" x 1.18" x 2.36" (30 x 30 x 60mm)
- Housing Material: PA 6.6 + 30% Glass Fiber
- Environmental Protected Waterproof Design
- Accepts Standard 9-Pin Automotive Style Relay Socket
- Contact Material: CuZn Tin Plated
- Contact size: 5x .250"(6.3mm) 4x .110" (2.8mm)
- 2-Year Limited Warranty



Accessories

- 041-9000-0000** Terminal Kit .250" (6.3mm) Fast-on
- 041-9000-0001** Terminal Kit .250 (6.3mm) / .110 (2.8mm) Fast-on
- 041-9010-0001** Relay Connector & Terminal Kit 9-Position Basic
- 041-9010-0002** Relay Connector & Terminal Kit 9-Position Deluxe
- 042-9011-0002** Harness (SS2) 9-Position Relay Socket / Bracket 48" (12 AWG Power Wires)
- 042-9011-0001** Harness (SS2) 9-Position Relay Socket / Bracket 48" (14 AWG Power Wires)
- 043-9020-0009** Socket 9-Position with Mounting Bracket Black



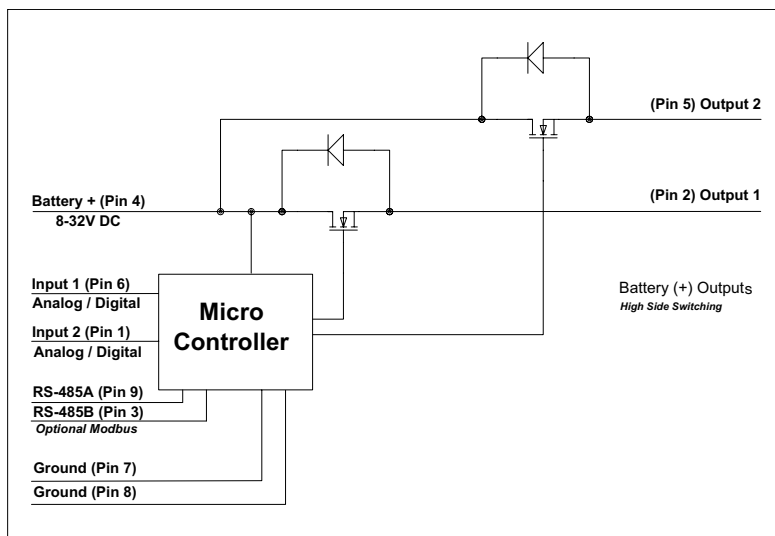
Configurable Parameters:

- Time Duration
- Debounce Timing
- Input Signals:
 - Digital: High-side or Low-side
 - Analog: 0 to 36 Volts, 0-5V or 4-20mA
 - Analog: Frequency
- Input Function: Normally Open or Normally Closed
- Digital Output Function: Normally Open or Normally Closed

Typical Applications:

- Load Sharing Module
- Alternating Output Module
- Timer Module
- Battery Voltage Monitoring Device
- Automatic Glow Plug Controller
- Solenoids Pull /Hold Controller
- Engine Run Timer
- After-run Timer Module
- Automatic Hydraulic Load Controller
- Starter Motor Protection Module
- Energize to Stop Output Module
- Engine Prestart Alarm
- Engine Over-speed Shutdown
- Engine Exercise Timer
- Headlight Flasher
- Analog to RS-485 Converter

Schematics:



Options:

- Modbus RS-485
- PWM Output
- Automotive Style 5-Pin Contact Base
(Note: This Option Eliminates Input 2 and RS-485 Contacts)
- Private Labeling Name Branding
- Custom Wire Harnesses
- DIN Rail Mounting Bracket
- Custom Software