

# SSR Relay Board 2.5A



Solid State Relays, or SSRs, are devices designed to operate like standard relays but without mechanical motion.

The SSR Board is safe to use with sensitive control devices like microprocessors, and will not damage a Phidget device or your PC. Optoisolation between the control inputs and outputs of the SSR in the form of a GaAs LED paired with a set of optically-controlled MOSFETs provides protection from output to input. An on-board 47V bidirectional transorb across the relay output protects the board from static electricity and surges from inductive loads.

## Product Specifications

### Electrical Properties

|                        |                   |
|------------------------|-------------------|
| Relay Output Type      | MOSFET            |
| Isolation Method       | Photoelectric     |
| Dielectric Strength    | 5.3 kV AC         |
| Control Voltage Min    | 3 V DC            |
| Control Voltage Max    | 30 V DC           |
| Control Current        | 10 mA             |
| Load Voltage Max (DC)  | 40 V DC           |
| Load Voltage Max (AC)  | 28 V AC           |
| Load Current Max (AC)  | (per channel) 9 A |
| Load Current Max (DC)  | (per channel) 9 A |
| Turn-on Time Max       | 1.9 ms            |
| Turn-off Time Max      | 0.16 ms           |
| Contact Resistance Max | 50 mΩ             |
| Switching Speed Max    | 300 cps           |

### Physical Properties

|                                 |             |
|---------------------------------|-------------|
| Recommended Wire Size (Control) | 16 – 26 AWG |
| Recommended Wire Size (Load)    | 12 – 24 AWG |

|                           |         |
|---------------------------|---------|
| Operating Temperature Min | -40 B°C |
| Operating Temperature Max | 100 B°C |