



# 3050510 Alternate Action Relays

## REMOTE LOAD CONTROL DELIVERED IN A SMART DESIGN



Innovative Controls Inc. 3050510 Alternate Action Relays are used to remotely control a load by momentarily switching the input to ground. The load is controlled by a 30 amp single pole, double throw relay with integral 1/4" quick connect terminals. The Alternate Action Relay is ideal for multiway switching applications where more than one switch is used to control a load.

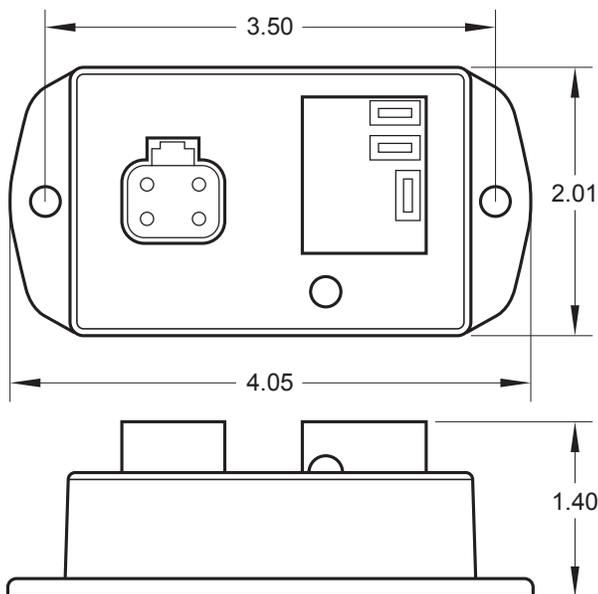
When power is first applied to the Alternate Action Relay, the relay is deenergized. Momentarily connecting the control input to ground causes the relay to change states from OFF to ON, or ON to OFF. An integral LED indicator is used to show when the relay is energized. An active low output on the Alternate Action Relay can be used to operate remote indicators or repeater relays. The relay is deenergized when power is removed. The Innovative Controls Inc. Alternate Action Relays are fully-potted modules that are suitable for automotive applications.

The Alternate Action Relay is available in two versions with either a 4 or 6 pin control connector identified as 3050510-01 and 3050510-02. The 6 pin version has two Control Switch inputs that simplifies daisy chaining switches by eliminating the need to use splices.

### FEATURES

- Alternate Action SPDT Power Relay with 40A N.O. and 30A N.C. Contacts
- Sealed Deutsch 4 or 6 Pin Control Connector
- Relay with Integral Quick Connect Terminals
- LED Indicator for Relay Status
- -40C to +105C (-40F to +220F) AEC-Q100 Level 2 Operating Temperature
- Potted Module for Dust and Water Ingress Protection

### DIMENSIONS



### MODELS

| Description                                      | IC Part Number |
|--|----------------|
| Single Control Switch Input with 4 Pin Connector | 3050510-01     |
| Dual Control Switch Inputs with 6 Pin Connector  | 3050510-02     |

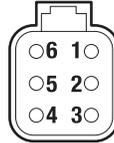
# TECHNICAL SPECIFICATIONS

|   |   |
|---|---|
| <b>Operating Voltage</b>                                      | 7 to 32VDC  |
| <b>Current Consumption with relay deenergized at 13.8 VDC</b> | 2mA   |
| <b>Current Consumption with relay energized at 13.8 VDC</b>   | 80mA  |
| <b>Operating Temperature Range</b>                            | -40°C to +105°C (-40°F to +220°F)   |
| <b>Storage Temperature Range</b>                              | -40°C to +105°C (-40°F to +220°F)   |
| <b>Ingress Protection</b>                                     | IP67  |
| <b>EElectrical Protection</b>                                 | Reverse voltage polarity protection on all connections<br>ESD protected to J1113-13 specifications<br>Transient voltage protected to J1113-11 and J1113-42<br>Indicator output is protected from reverse polarity, over-current, over-voltage, and voltage transients<br>Power input is protected from reverse polarity, over-current, over-voltage, and voltage transients |
| <b>Indicator Output Current Max</b>                           | Low side polarity 700mA max   |
| <b>Dimensions</b>   | 4.05" wide x 1.40" high x 2.10" deep  |
| <b>Weight</b>   | 136 grams (0.3 pounds)  |



| Deutsch DTP15-4P Connector |                           |
|----------------------------|---------------------------|
| Terminal                   | Description               |
| 1                          | +12VDC Power              |
| 2                          | Ground                    |
| 3                          | Control Switches          |
| 4                          | Low Side Indicator Output |

Mating connector is Deutsch DTP06-4S with W4S wedgelock and 0462-201-16141 sockets

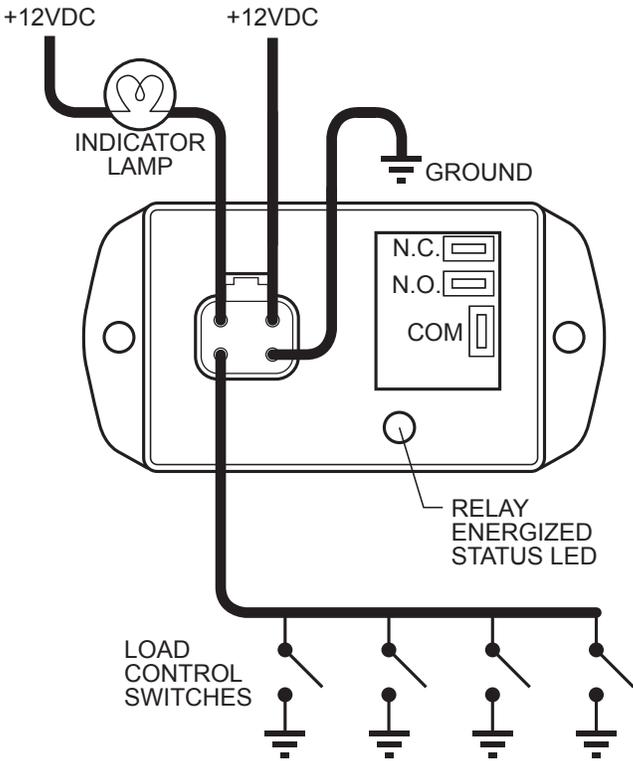


| Deutsch DTP15-6P Connector |                           |
|----------------------------|---------------------------|
| Terminal                   | Description               |
| 1                          | +12VDC Power              |
| 2                          | Ground                    |
| 3                          | Ground                    |
| 4                          | Control Switches          |
| 5                          | Control Switches          |
| 6                          | Low Side Indicator Output |

Mating connector is Deutsch DTP06-6S with W6S wedgelock and 0462-210-16141 sockets

## WIRING

3050510-01 Alternate Action Relay 4 Pin Connector Wiring



3050510-02 Alternate Action Relay 6 Pin Connector Wiring

