

RIPEENERGY Gateway RY-Uni-Directional Relay

RIPEENERGY Gateway RY-Uni-Directional Relays are designed to switch a source to a load. Devices are strictly DC, and have no mechanical contacts or moving parts which means no arcing or degradation in performance over time. Much like conventional relays, devices are provided an input trigger signal to turn on or off. An integrated microcontroller provides additional functionality including:

- differentiation between in-rush and shorted conditions
- response to low or high voltage thresholds
- timers to delay turn on or off
- overcurrent protection
- under-voltage protection
- over-voltage protection
- over temperature protection
- precision circuit breaker functionality
- fault status and troubleshooting feedback

Uni-directional relay can be programmed to behave as follows:

- Circuit Breakers are specifically programmed for precision current monitoring and circuit breaking functionality.
- Voltage Sensitive Disconnects, also known as low voltage disconnects (LVD) are specifically programmed for popular low voltage/high voltage cutout applications.

Benefits

- 99.9 % efficiency at max. current
- Fully Encapsulated solid state design
- Light weight
- Dramatically smaller than conventional devices
- Market-leading, ultra-low on-state resistance
- No heat sinks or airflow required
- Quik-turn capability
- Recommended by top battery manufacturers

APPLICATIONS

Common uses include military, aeronautic, automotive, marine, industrial machinery, photovoltaic, and fleet utility.

The RIPEENERGY Gateway is factory programmable to behave as follows:

- Manually triggered relay
- Low Voltage Disconnect (fully autonomous)
- Combination of manual and automatic response
- Precision Circuit Breaker

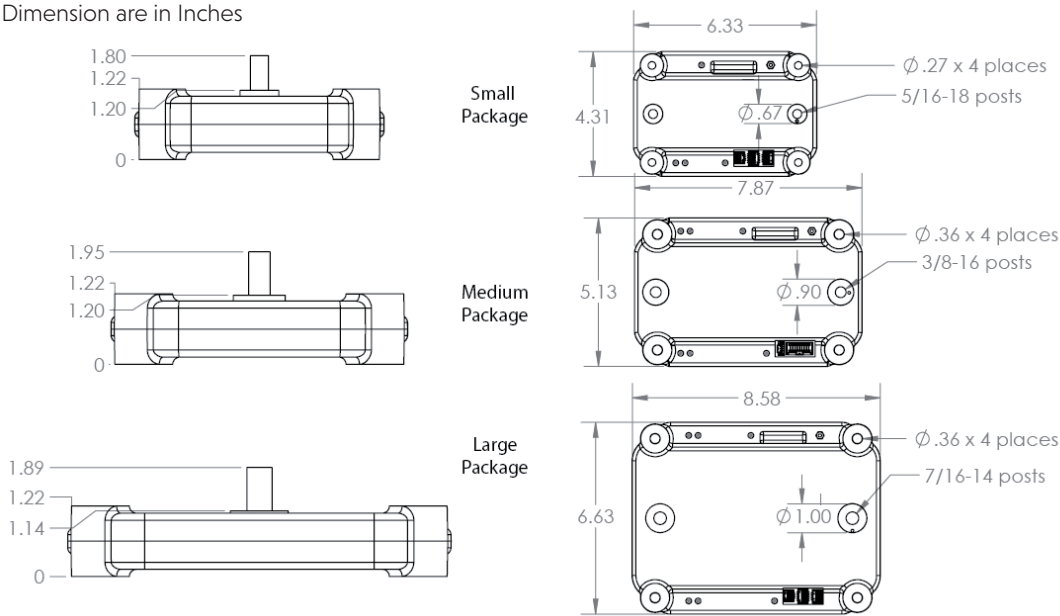
FEATURES

- Low voltage cutoff
- High voltage cutoff
- Overcurrent protection
- Overtemperature protection
- Timers / programmable Delays
- Manual override trigger
- Manual activation trigger
- Short circuit protection
- Voltage transient self-protection
- Fully autonomous operation
- On-board fault diagnostics
- Automatically disconnects loads preventing battery drain
- Automatically reconnects loads to the battery when a charging source is applied
- Automatically prevents loads from being disconnected from the battery during momentary dips in voltage due to high current draw like engine starting
- Prolongs battery life by preventing deep battery discharge
- Optional Sleep Mode for minimal quiescent current draw
- Easy to install with no external mechanical relays or wiring to fuss with
- Ultra-fast over-voltage response protects sensitive equipment like computers, GPS modules, and computers
- MIL STD 461E CE101 and RE102

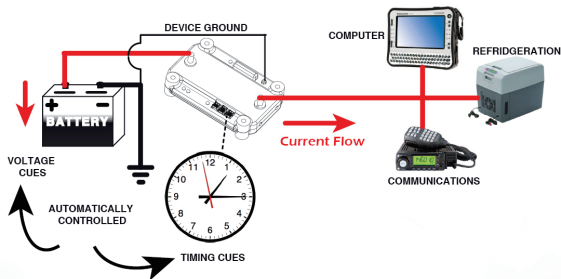
SPECIFICATIONS

Gateway Model		12V device	24V device
Electrical Specifications			
Nominal DC-Input Voltage	VDC	4.8 - 18	4.8 - 36
Maximum Continuous Load Current	ADC	50 - 600	
Input to Output Voltage Drop	mVDC	35 - 55 Typical	
Trigger Voltage	VDC	3.3 - 36	
Trigger Current	uADC	173	413
Operating Current	mADC	18.0 Trigger @ 10VDC	21.7 Trigger @ 10VDC
Quiescent Current Sleep Mode	mADC	2.5	2.8
Ambient Temperature	° C	-40 to +105	
Internal Overtemp Shutdown	° C	135	

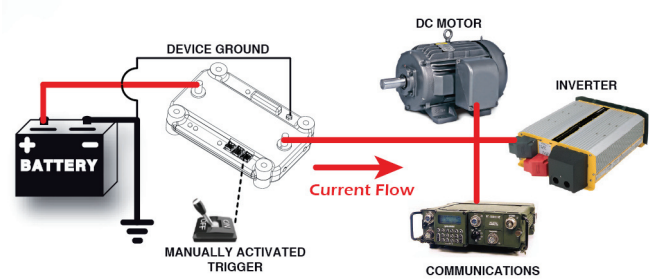
Dimension are in Inches



SAMPLE APPLICATION



A Uni-directional relay can be programmed to automatically respond to low-voltage or high voltage battery conditions, and various timing cues making the device highly customizable. The ability to handle both high and low current in a single, easy-to-install module makes RIPEENERGY Gateway a compelling choice when programmed to behave as a low voltage disconnect and preserve battery health.



The RIPEENERGY Gateway Uni-directional relay can be manually activated or ignition-switched to power or de-power all high and low current accessories including motors, inverters, communications equipment, lighting, refrigerators/freezers and sensitive computer equipment.

