

2 W Low - Power Regulator, RLP - 2 W ^{T M}

Regulator for industrial and solar power applications

DATA SHEET

FEATURE SUMMARY

- Direct input from solar charge controller
- 12.5 V to 36 V Input
- 250 mA Output
- Reverse voltage protection
- Surge protection
- On/Off Control
- 0.1 mA Quiescent
- 35 mm DIN rail clip
- Fully potted
- Made in USA.



DESCRIPTION

Low-Power Regulator RPL-2WTM provides a simple, low-cost solution for unstable voltage encountered in solar powered stations and industrial control environments.

RLP-2W uses a linear regulator to eliminate noise that may be induced by solar charge controllers. The regulator can also provide a stable voltage 12 V output for systems powered by 12 V lead-acid batteries or AC/DC adapters.

Analog sensors designed for operation on 12 V to 24 V often can experience instability when the input voltage varies. Some solar charge controllers utilize a pulsed wave form for battery charging. While the battery may be able to absorb this energy, devices on the system may be adversely affected by the electrical noise.

RLP-2W is useful for:

- Solar powered data acquisition systems
- Solar powered weather stations
- Broadband relay equipment
- Industrial automation

KEY FEATURES

Construction: **RLP-2W** is fully potted (sealed) in flame retardant ABS enclosure.

35 mm DIN rail clip and mounting flanges provide a variety of mounting methods.

Power Control: The regulator can also function as a power switch for peripheral devices. The On/Off wire can be connected to a 5 V logic signal to control 12 V devices. This may be desirable to minimize system power, reset peripherals, or multiplex sensor inputs.

ELECTRICAL SPECIFICATIONS

Input Voltage (Vin)	12.5 VDC to 36 VDC
Output Voltage (Vout)	12 VDC +/- 2%
Current	250 mA
Max Regulator Power Dissipation	2 W Continuous
Dropout	0.3 V typical
On/Off Control	Internal pull-up (100 kohm) to Vin Off: 1.5 Vmax
Quiescent Current	Off: 0.1 mA
Loss	0.2 mA @ 1 mA load 10 mA @ 250 mA load
Reverse Voltage	36 Vmax
Input Surge Protection	500 A

MECHANICAL FEATURES

Sealed	Fully potted
Enclosure Material	Flame retardant ABS, UL94V-0
Dimensions	60.5 mm x 40 mm x 21 mm (2.38 in x 1.6 in x 0.81 in)
Weight	49 g (1.7 oz)
Wire	22 AWG, Stranded, PVC
Wire Length	450 mm (18 in)
Operating Temperature	-40°C to 60°C (-40°F to 140°F)

