Low Voltage Load Disconnect(LVLD)

DPLVD-1014 Product Specifications

CE RoHS COMPLIANT

Overview

The DPLVD-1014 Low Voltage Load Disconnect (LVLD) device senses battery voltage and automatically disconnects either the battery or load when the voltage drops to a preset critically low level.

The DPLVD-1014 reconnects the battery or load when the voltage returns to the preset desired voltage level.

The DPLVD-1014 is a smart programmable device that allows for soft configuration adjustments, enabling specific voltage levels for disconnecting and reconnecting and customizing various alarm functions.

The DPLVD-1014 provides power for both audible and visual LED warning alarms.

The DPLVD-1014 helps prolong battery life by preventing damage due to excessive low-level discharging.

Its small size and lightweight design make for easier and more discrete mounting, optimizing the use of available space and improving wire routing.

The DPLVD-1014 is fully sealed with encapsulation and has an IP67 protection class, ensuring it can withstand exposure to harsh environments.

Key Features

- Automatic disconnection
- Operating voltage range: 7Vdc to 20Vdc
- Automatic shut-off at 11.4Vdc
- Automatic reconnection at 12.4Vdc
- Programmable presets for load disconnection and reconnection
- Customizable to meet specific system requirements
- LED and buzzer indicators for low battery voltage alarms
- Compatible with 12Vdc vehicle systems
- Rugged and reliable design
- Fully sealed with IP67 protection

Applications

- Military tactical vehicles
- Type 1, 2 and 3 Ambulances
- Fire and ladder trucks
- Recreational Vehicles
- Mobile communications
- In-city transit and airport shuttle

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DPLVD-1014 - Electrical Specifications

Parameter	Condition
Operating voltage range	7 - 20 Vdc
Main Relay Max. output drive current	Maximum source current 2A, short circuit protected
Battery Low Voltage Load Disconnect	Vbatt: 11.4V(±0.2V) Ambient temperature: 0°C to 50°C
Battery High Voltage Load Reconnect	Vbatt: 12.4V(±0.2V) Ambient temperature: 0°C to 50°C
Battery Low LED Alarm Indication	Maximum source current 2A
Battery Low Buzzer Alarm Indication	Suitable for buzzers with output sound pressure level up to 100÷125dB
LVLD operation according to Vbatt and Acc/Ignition switch for output state transfer voltage points: • Output state delay time: • Vbatt rising output state delay – 2Sec • Vbatt declining output state – 4Sec	For Vbatt<7V: All outputs are OFF. For 7V(±0.2V)<Vbatt<12.4V(±0.2V): Main Relay OFF, Alarm ON, Buzzer ON. When Vbatt rises over 12.4V Main Relay ON, Alarm OFF, Buzzer OFF. When Vbatt falls under 11.4V Main Relay OFF, Alarm ON, Buzzer ON (In ACC position). In Ignition position the Buzzer is always OFF.

Pin Assignment – LVLD Controls

Pin	Function	Description
1	Buzzer Indication	Positive output, supplying
2	Ignition switch	Positive input signal, receives Vbatt or N.C.
3	ACC	Vbatt LVLD input supply voltage
4	Alarm Indication	Positive output, supplying
5	GND	Ground
6	Main Relay	Positive output, supplying

Pin Assignment – LVLD Programing

Pin	Function	Comments
1	MCLR	
2	VDD	(3.25V)
3	GRD	
4	PGD	
5	GNC	

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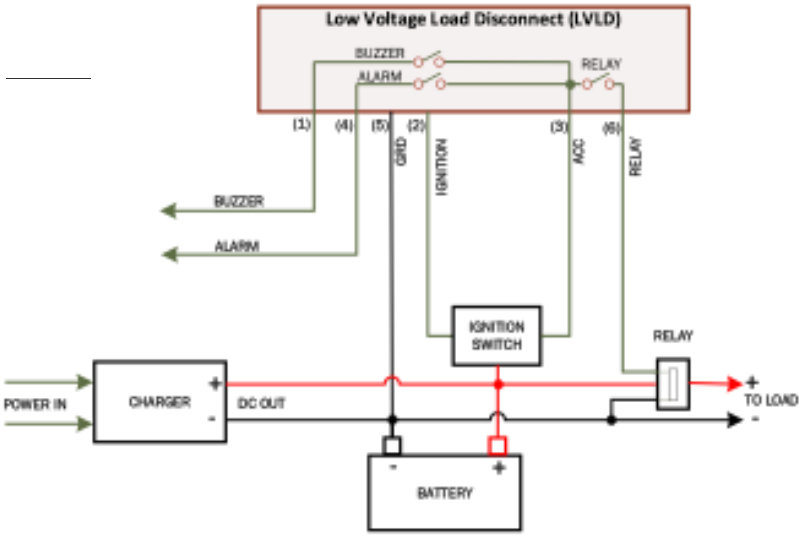
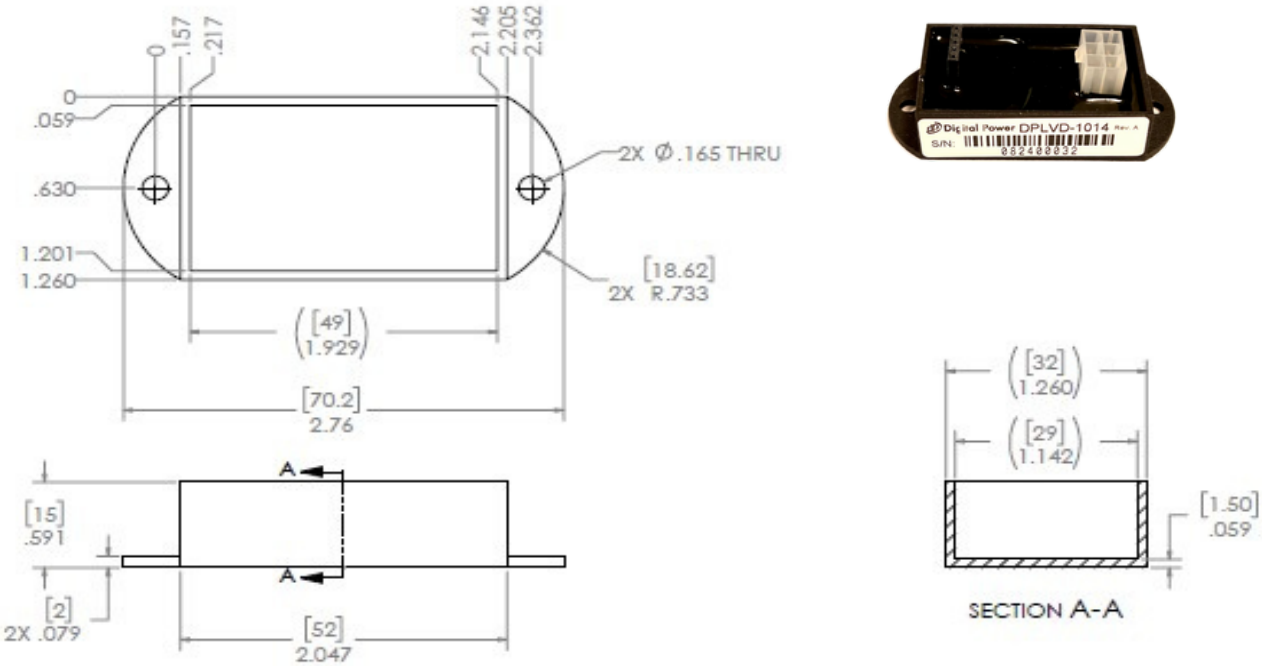
DPLVD-1014 Connections Schematic



DPLVD-1014 Outline Drawing



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