

ELECTRO

SWITCH MODE DC-DC POWER CONVERTER

PB-6

USER'S MANUAL

INTRODUCTION

PB-6 DC-DC converter is designed to provide a regulated fixed output voltage from unregulated or fluctuating DC input source.

Advanced and efficient switch mode circuit design makes convection cooling possible. Compact extruded aluminum case and plastic clip-on mounting system makes installation easy in tight and hard to reach places.

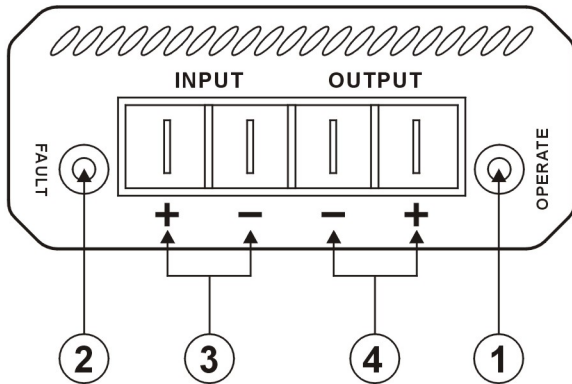
Typical applications where PB-6 can be used: 12V control circuits, instrumentation, telecommunication, voltage sensitive electronic equipment, LCD screens, audio and video equipment.

FEATURES

1. Step-up and Step-down DC voltage conversion.
2. Regulated DC output voltage.
3. Advanced and efficient Switch Mode circuit design.
4. Input over and under voltage protection.
5. Output over voltage protection.
6. Output over load protection.
7. Over temperature protection.
8. Reverse polarity protection.
9. Constant current limiting.
10. Input and output isolated.
11. LED indicators for Operate and Fault status.

PB-6

FRONT PANEL



1. OPERATE INDICATOR (Green LED): Lights up when unit is on.
2. FAULT INDICATOR: (Red LED): Lights up when fault occurs and when in overload or short circuit condition.
3. INPUT: Push-On Terminals.
4. OUTPUT: Push-On Terminals.

CAUTION

1. **DO NOT** over load the unit.
2. **DO NOT** connect inductive loads that require high starting surge currents.
3. If the internal fuse blows find the cause before replacing the fuse.
Replace the fuse with same type and rating.
4. Only connect to input voltage that is between 10-16VDC.
5. Mount the unit in a well ventilated area as heat is generated during operation.
6. **DO NOT** install the unit near heat sensitive materials as the casing temperature can reach up to 60°C.
7. Although the unit has very low standby current draw it is advisable to switch the DC input off when the unit is not in use.

CONNECTION and OPERATION

1. Crimp the input and output cables with terminals provided.
Use different colour cables for input, output, positive and negative polarity.
2. Connect Input Positive Cable to Input terminal (+) and Input Negative Cable to Input terminal (-).
The green LED should light up.
3. Switch Off the equipment before connecting to output terminals making sure of correct polarity.

Trouble Shooting:

A. Operate Green LED is off:

1. Check the input source for open circuit, loss of earth and polarity. Make sure input voltage is within the operating range (10-16V).

B. Fault Red LED is on:

1. Disconnect the load to see if Green LED will come on.
2. If Green LED comes on the unit may have been in over load or short circuit protection mode.
3. Check the power rating and condition of the connected equipment.
4. Loads such as high power halogen /quartz lamps and inductive loads that require high starting surge currents can trigger protection mode.

SPECIFICATIONS

Model

PB-6

Input Voltage Range	10Vdc to 16Vdc
Output Voltage	13.5Vdc
Continuous Output Current	4.5A
Maximum Output Current (30 Min.)	6A
No Load Current	<120mA
Ripple & Noise (p-p)	<50mV
Ripple & Noise (r.m.s.)	10mV
Load Regulation	10mV
Line Regulation	10mV
Efficiency	86% - 90%
Protections	Reverse Polarity, Overload, Short Circuit, Input Over and Under Voltage, Output Over Voltage and Over Temperature
Indicators	Green LED-OPERATE and Red LED-FAULT
Input & Output Connection type	Push on Connectors
Cooling Method	Natural Convection
Input Fuse (glass type)	10A
Approval Type	N2926
Dimension (W x H x D) mm	77 x 75 x 32
Weight	250g
Standard Accessory	Clip on mounting bracket with screws. Push on type terminals.

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