

## **Product Profile & Reference List**

### **DC Isolating Amplifiers**

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## B-LP Series

## DC Isolating Amplifiers

### Features

- Optical Isolation
- Immune to magnetic fields
- Advanced Sigma-Delta A/D Conversion technology and Chopper stabilized amplifiers to achieve high linearity and low drift.
- Wide choice of input voltage

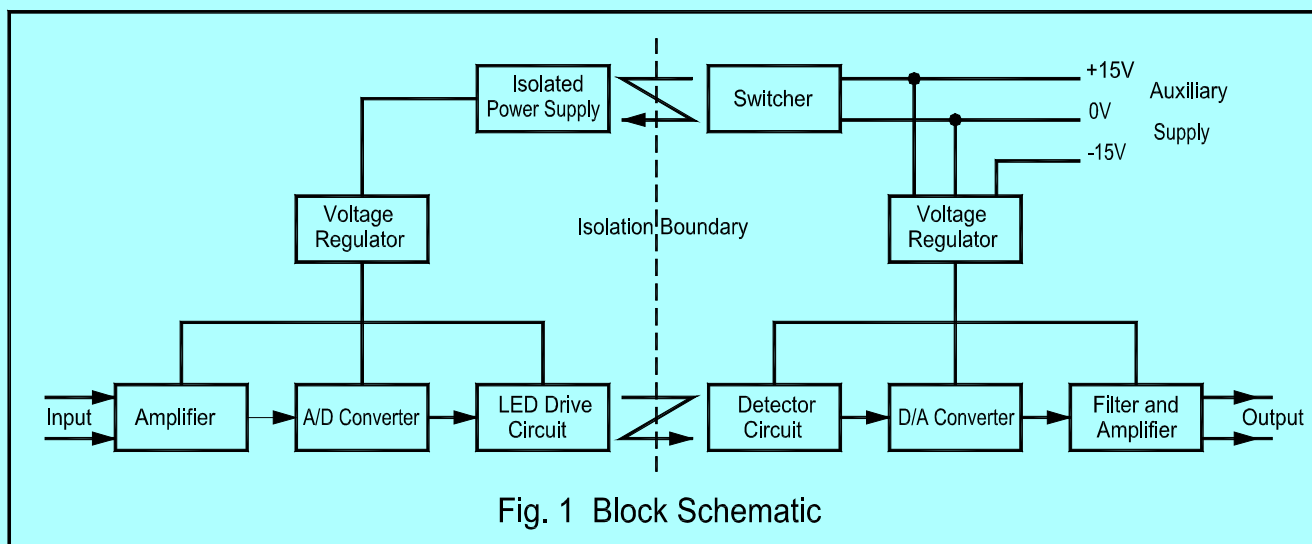
### Applications

- Current sensing - using external Shunt
  - DC Drives of any rating
  - Traction Motors
  - AC Drives
  - Battery Chargers
  - Switch Mode Power Supplies
- Voltage sensing - using voltage dividers
  - Power Systems
  - DC Drives
  - Ac Drives
- General Purpose Analog Signal Isolation
- Feedback signal isolation for Switched Mode Power Supplies

B-LP Series Isolating Amplifiers are based on optical isolation methods using high speed GaAl LED and a high speed noise shielded detector. Unlike the conventional Hall effect device based systems, optical isolation systems are totally immune to surrounding magnetic fields.

The analog input voltage is converted into digital signal using advanced Sigma- Delta conversion techniques, transferred across an isolation barrier optically inside an optically sealed enclosure and converted back into analog form. Fig. 1 shows the block schematic of the unit.

The device requires only one auxiliary power supply. The isolated power supply for the input side of the device is generated internally using Switched Mode power supply techniques. The Signal ground of the isolated analog output is connected to the auxiliary input supply ground.



## Specifications

All specifications apply @ +25°C ambient unless otherwise stated

### Input Specifications

Input Voltage : **See Table 1**  
Input Resistance : >5Mohm

### Output Specifications

Output Voltage : 10V  
Non-linearity : 0.5%  
Output current : 10mA

### Auxiliary Power supply specification

Supply Voltage : +15V,0,-15Vdc  
Tolerance : ±5%  
Consumption : +40mA, -10mA

### Isolation Specification

Maximum Working : 600V<sub>RMS</sub>  
Insulation Voltage  
Input-Output Isolation : 3000V<sub>RMS</sub>  
Voltage  
Input-Out Isolation : >100Mohms  
resistance

### Environmental Specification

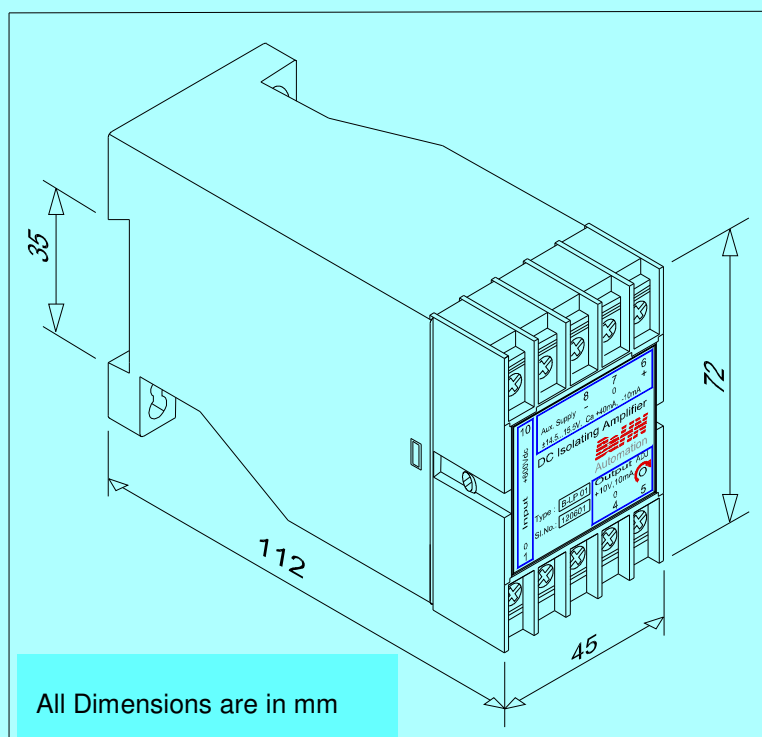
Storage temperature : 0 to +80°C  
Operating temperature : 0 to +50°C

### Physical Specifications

Enclosure Mounting : Panel, Corner Screws,  
35mm DIN Rail  
Enclosure Material : ABS  
Weight : ≅160g

**Table 1**

Input Voltage	Type No.
600Vdc	B-LP 01
300Vdc	B-LP 02
100Vdc	B-LP 03



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