B&B ELECTRONICS

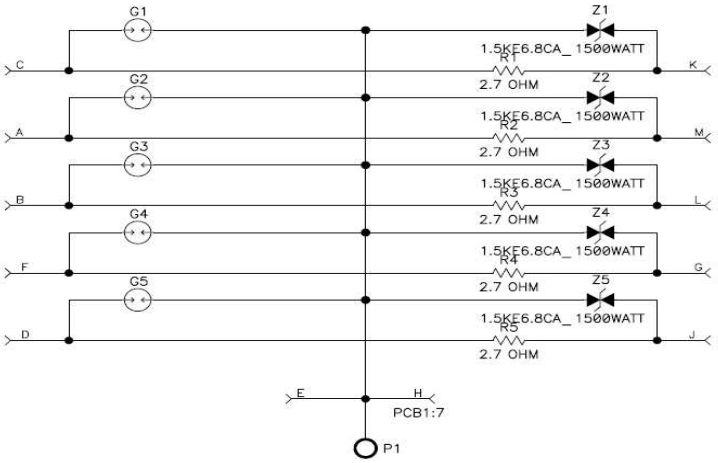
PRODUCT INFORMATION

HESP4DR

DIN Rail Mounted, Data Line Surge Suppressor

- ✓**Protects Serial Equipment from Data Line Surges**
- ✓**Wide Operating Temperature**
- ✓**Three Stages of Protection**
  - **Gas Discharge Tube**
  - **Series Resistor**
  - **Transient Voltage Suppressor**
- ✓ **Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment**

Model HESP4DR is designed to help protect against lightning strikes, power surges, and other types of voltage disturbances to components on a DIN rail. Five RS-422/485 signals on terminal blocks are supported with a clamping voltage of approximately 6.8 volts. The HESP4DR offers three stages of protection starting with a gas discharge tube followed by a series resistor and finally a Transient Voltage Suppressor (TVS).



In order for a surge protector to work properly it is important to have a good connection to earth ground. The HESP4DR has a #10 grounding screw, which provides a solid ground connection for the user. This design has been tested to two specifications at 6 kilovolts, IEC 1000-4-5: 1995 “Surge Immunity Test” and IEEE C62.41-1991 “IEEE Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits”. To ensure the best protection of your equipment some simple connection guidelines should be followed.

1. The HESP4DR should be located as close as possible to the equipment being protected.
2. A good ground connection must be made between the HESP4DR and earth ground. This can be done with the #10 grounding screw.
3. The earth ground connection should be kept as short as possible for best performance. As a recommendation a minimum of 10 gauge copper wire of no more than 3 feet should be used. If it is not possible to achieve the short distance a braided cable made specifically for grounding purposes should be used.
4. The chassis ground of the equipment should be connected to the building’s 3-prong plug ground.

Specifications

Surge Suppression	
Clamping Voltage Stage 1	72 VDC MIN, 108VDC Max
Series Resistance Stage 2	2.7 Ohms
Clamping Voltage Stage 3	6.45 V Min, 7.14 V Max
Clamping Time	Less Than $5x10^{-9}$ Seconds
Data Line Connectors	Terminal Blocks
Mechanical	
Dimensions (mm)	35.5 x 78.8 x 105.3 mm
Dimensions (inches)	1.4 x 3.1 x 4.2 in
Weight	0.114 kg (4.02 oz)
Environmental	
Operating Temperature	-40 to 80°C
Storage Temperature	-40 to 85°C
Operating Humidity	0 to 95% Non-condensing
NEMA TS1 & TS2	Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment

Ordering Information

Model Number	Description
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