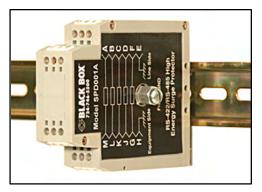
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Model SPD001A

# DIN Rail Dataline Surge Suppressor CE

# Introduction

The Model SPD001A 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 SPD001A 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 SPD001A 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:

### Connections

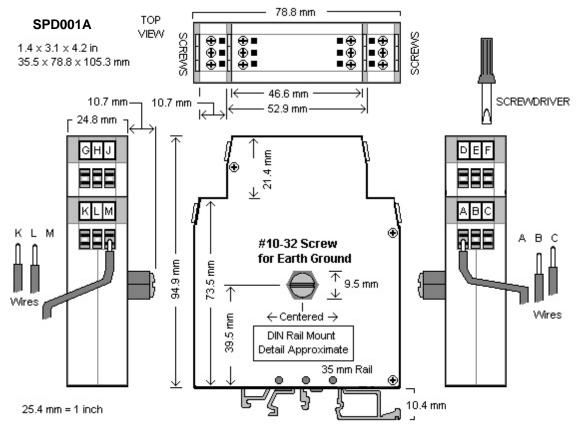
- 1. The SPD001A should be located as close as possible to the equipment being protected.
- 2. A good ground connection must be made between the SPD001A and earth ground. This can be done with the #10 grounding screw.
- 3. The earth ground connection should be kept as short as possible for best performance. 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.

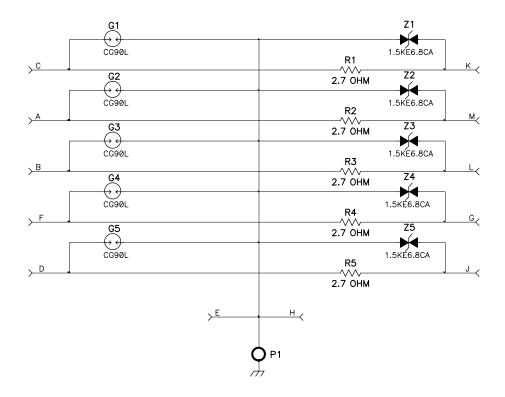
## Specifications

<ul> <li>Clamping Voltage, stage one:</li> </ul>	Min. 72 VDC, Max.108 VDC
<ul> <li>Series Resistance, stage two:</li> </ul>	2.7 Ohms
<ul> <li>Clamping Voltage, stage three:</li> </ul>	Min. 6.45V, Max. 7.14 V
<ul> <li>Clamping Time:</li> </ul>	Less than 5 x 10 <sup>-9</sup> seconds
•Connectors:	Two 6-position terminal blocks
•Temperature:	-40 to +80°C (-40 to +176°F)
•Humidity:	0-95% non-condensing
•Dimensions:	Approximately 35.5 x 78.8 x 105.3 mm (1.4 x 3.1 x 4.2 in)
•Weight:	Approximately 0.22 kg (0.5 oz)

Model Number:	SPD001A	
Description:	Dataline Surge Suppressor	
Type:	Light industrial ITE equipment	
Application of Council Directive:	89/336/EEC	
Standards:	EN 55022 EN 61000-6-1 EN 61000 (-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11)	CE

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