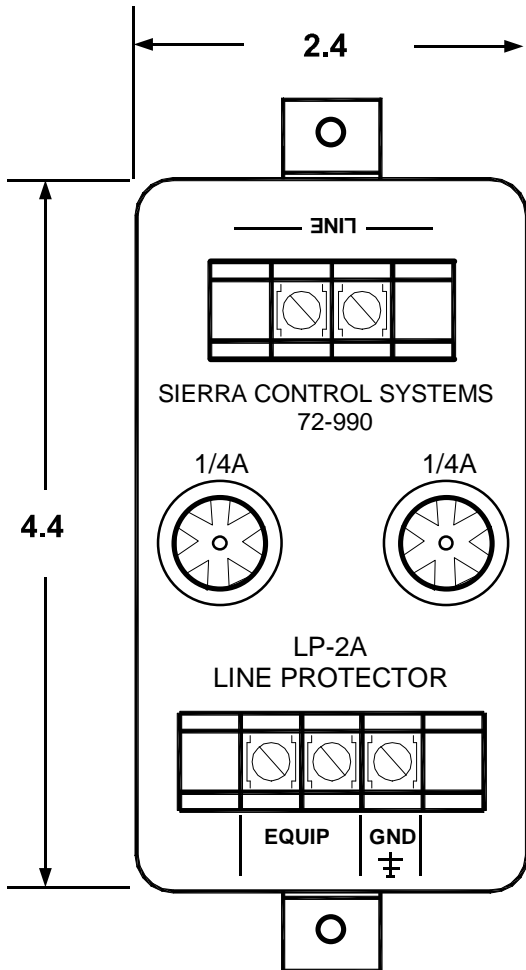




**LP-2 Line Protector
P/N 72-990**



Description

The LP-2 Line Protector is a voltage suppressor used to protect telemetry or current loop equipment from high voltage—high energy transients.

The LP-2 is to be connected between the incoming wire line and the equipment being protected.

Protection is provided between line- to- line and Line- to- ground.

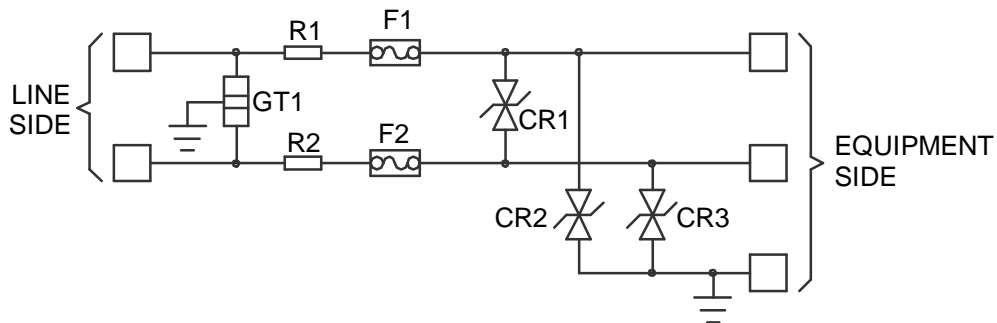
Features

- Multi-stage Protection
 1. Gas Tube-90 Volts
 2. Fuse-1/4 Amp
 3. Line-to-line - 9 and 26 Volts
 4. Line-to-ground -9 to 36 Volts

Low Feed Through Resistance

Fast Response Time

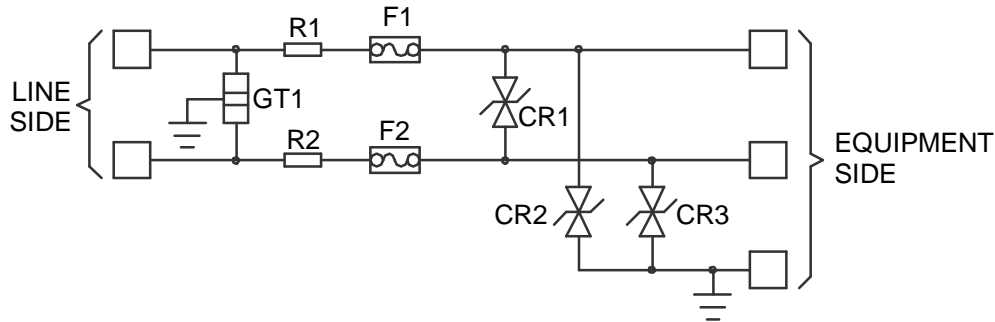
SCHEMATIC





LP-2 Line Protector P/N 72-990

SCHEMATIC



Operation

The first element on the Line terminals is a gas tube surge voltage suppressor. The gas tube has a breakdown voltage of 90 volts and ca withstand an impulse of 10,000 amps. The impulse life is 200 impulses. If the line voltage exceeds 90 volts the voltage is shunted to ground.

The second stage of protection consists of two fuses that are preceded by a current limiting resistor. The fuse values can vary from 1/4 amp to 1 amp depending on the application. Normally a fast blow fuse is used.

Stage three consists of a high wattage zener diode across the EQUIPMENT leads. Typical values for the zener diode are 9 volts for telemetry protection and 26 volts for loop protection. If an incoming voltage transient is greater than the zener voltage, the zener will conduct to hold the voltage to the rated value. If the energy of the incoming transient exceeds the fuse current, the fuse will blow. The function of the current limiting resistors is to prevent damage to the zener diodes.

