

RJ™ PROTECTOR SERIES

**SURGE
PROTECTION FOR
MODULAR JACK
COMMUNICATION INTERFACES**

PROCESS CONTROL
NETWORK INTERFACES

ETHERNET

DATA

VOICE

SIGNAL

AUDIO

T-1 /DDS

RS-232

RS-422

RS-485



COMMUNICATION PORT SURGE PROTECTION

The ZapTech RJ series protection devices were specifically designed to protect communication interfaces from damage caused by lightning storms, Static Discharge, secondary effects of power surges and transient ground potential energies.

As a significant measure to prevent electrical damage to your system, surge suppression also extends the life of sensitive circuits at the component level while improving system reliability. Zap-Tech protectors are best applied as near as physically practical to sensitive electronic equipment, components and system ground references. RJ series devices are specifically configured for installation directly onto the communication port on your equipment. The devices provide protection for Modular RJ11 and RJ45 interfaces to protect RS422, RS485, RS232, Ethernet, T-1, DDS and most other applications using Modular RJ11 and RJ45 interface connectors. It is essential that one protector be installed at each end of a long communication cable.

The RJ series grounding wire must be connected to earth Ideally, Via the chassis ground of the protected equipment. It is important that the equipment chassis is properly grounded to electrical safety ground via a standard 3-prong power cord.

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Zap-Tech
Corporation™

ZAP-TECH

RJ SERIES

Electrical Specifications

MAXIMUM REPETITIVE SELF RESET SURGE:
3500Volts,1750 Amps for 100 pulses using 2 Ω source.
per: EN61000-4-5 Specification.

***MAXIMUM FAIL SAFE SURGE:**
4000 Volts 2000 Amps for 100 pulses using 2Ω source.
per EN61000-4-5 Specification. Exceeds EN6100-4-5, level 4.

CLAMPING VOLTAGES:

Common Mode - Line to line
Differential Mode - Line to ground

*CAPACITANCE:

Line/line: <40pF
Line/Ground: <40pF

COMPONENT RESPONSE TIME:

Less than 10 Nanoseconds

OPERATING TEMPERATURE:

(-40°C TO +85°C)

PART NUMBER SELECTION:

Format:

RJ-(connector type 11 or 45)-(clamp voltage)

(Standard units protect all wires except 260V protects 2 center Pins)

APPLICATION	MODEL	MAX OPERATING VOLTAGE	CLAMP VOLTAGE
RS422, RS423,RS485	RJ(-)-7	5.5V	07V
RS232, DIGITAL CURRENT LOOP	RJ(-)-18	16.0V	18V
ANALOG CURRENT LOOP	RJ(-)-27	25.5V	27V
LEASED LINE, ISDN, T-1, DDS	RJ(-)-62	60.0V	62V
DIAL UP – POTS LINE	RJ(-)-260	250V	260V

OPERATION:

The Zap-Tech protector will repetitively protect and reset without degradation up to its maximum repetitive self-reset surge. If it is subjected to more than its maximum repetitive self-reset surge, the device will remain in a clamped mode indicating that it should be removed or replaced while keeping the equipment safe from subsequent surges.

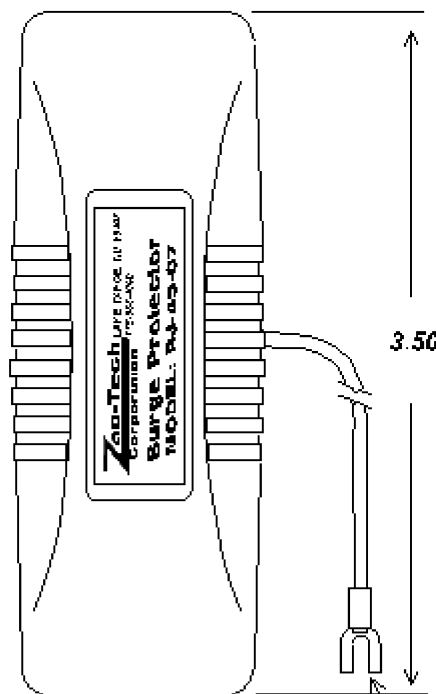
INSTALLATION:

Zap-Tech protectors should be installed in series with the incoming communication line at the port of the equipment being protected. The protector's grounding wire must be connected to the chassis ground of the protected equipment.

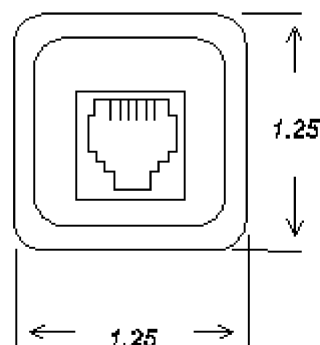
IMPORTANT!

It is important that the protector and the chassis of the equipment to be protected are both properly grounded to a properly earthed electrical safety ground via the equipment's 3-prong power cord and/or a ground wire of 14 AWG or larger. Protectors should be installed at both ends of communication lines to ensure equipment protection at each end.

Mechanical Specifications



14 AWG WIRE, 8.0" LONG



RJ SERIES

(Male / Male RJ cord, 5" long is included for in-line installation)

Custom variations are available including mixed or special voltages, different connectors or pin outs. Contact your supplier for details.

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* Applies to all units except 62V and 260V Devices
Detailed specifications for specific versions available on request.
All specifications are subject to change without notice.

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