

# HW-P™ PROTECTOR SERIES

## **SURGE PROTECTION FOR OUTDOOR HARD WIRED INTERFACES**

INSTRUMENTATION  
PROCESS CONTROL  
NETWORK INTERFACES  
DATA  
VOICE  
SIGNAL  
AUDIO  
4 - 20 mA  
ETHERNET  
RS-232  
RS-422  
RS-485



## **COMMUNICATION LINE SURGE PROTECTION**

*The ZapTech HW-P series protection devices were specifically designed to address the electronic designers need to integrate surge suppression at a sub-system level. Devices can be specifically configured to protect virtually any communication, data or voice interface from damage caused by lightning storms, Electro Static Discharge (ESD), secondary effects of power surges and transient ground potential energies.*

*HW-P devices are available for a wide range of protection technology options including choices of suppression component, clamp voltage, pin configuration, mix of line types and grounding methods. Mounting options include: daughter card mounting for use at sub system level or in a compact outdoor weather resistant enclosure.*

*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. HW-P series devices are specifically configured for installation directly at the communication port on your equipment. The devices provide protection for hard wired communication interfaces including RS422, RS485, RS232, 4 - 20 mA, audio, data, instrumentation and most other applications using 26 to 12 AWG wire. Versions are available for up to eight wires.*

*The HW-P series grounding point must be connected to earth, Ideally, to the same electrical safety ground as the protected equipment. It is important that the protected equipment's chassis is properly grounded to electrical safety ground via a standard 3-prong power cord.*

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**Zap-Tech**  
Corporation

# ZAP-TECH

## Electrical Specifications

The Following information is needed to specify an HW-P Series Protector:

1. Mounting requirement. (Daughter Board, or Enclosure Mounted).
2. Number of protected circuits
3. Protection technology desired (if known) Or, provide: maximum signal voltage and current, frequency or maximum data rate.
4. Clamp voltage desired.

Model Number Example:

**HW-P-A-08-L-7**

See charts below for model number logic:

### 1. Mounting Options:

	Daughter Board	Outdoor Enclosure
Option code	A	(Blank)

### 2. Number of Protected Circuits:

One circuit equals one wire. Options include up to 8 protected circuits.

	1	2	3	4	5	6	7	8
Option Code	01	02	03	04	05	06	07	08

### 3. Protection Technology:

	SAD	Low Capacitance SAD	Gas Tube & Thyristor	Thyristor	MOV	Mixed
Option Code	A	L	G	C	V	S

SAD = Silicon Avalanche Diode, MOV = Metal Oxide Varistor. Mixed "S" configurations must include pin to technology assignments. "S" config.parts are assigned a 80-XXX-XXX series part number. Contact supplier for assignment.

### 4. Clamp Voltage:

	7 V	18 V	50 V	280 V	Mixed
Option Code	7	18	50	280	S

Clamp Voltages can be selected from 6.8 to 330 volts, specify actual voltage. Mixed "S" or other voltage configurations are assigned an 80-XXX-XXX series part number. Contact supplier for assignment.

### 5. Installation:

Zap-Tech protectors should be installed in series with the incoming communication line as close as practical to 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 using a ground wire of #6 AWG or larger. Protectors should be installed at both ends of communication lines to ensure equipment protection at each end.

**Custom variations are available**  
**Contact your supplier for details**

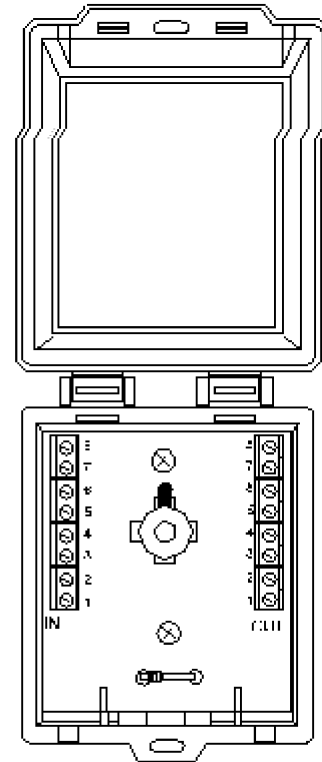
Detailed specifications for specific versions available on request.  
 All specifications are subject to change without notice.

# HW-P SERIES

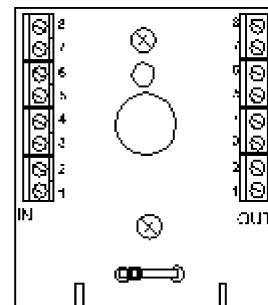
## Mechanical Specifications

### 6. Dimensions:

**Enclosure: 3.25"W x 4.375"L x 2.10"D**  
**Daughter Card: 2.75" W x 3.0"L x 1.1"D**



**ZapTech HW-P Series Surge Protector with integral outdoor enclosure.**



**ZapTech HW-P Series Daughter Board Surge Protector Sub-Assembly.**

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