L-com Global Connectivity

HyperLink brand Weatherproof High Power 10/100 Base-T CAT5e Lightning Surge Protector

Applications

- 10/100 Base-T Ethernet Equipment
- Wireless Access Points & Bridges
- PoE Switches
- IP Cameras

Features

- CAT5 and CAT5e compatibility
- 3- Stage Design
- PTC Resettable Fuses
- Power-Over-Ethernet (PoE) compatible
- Shielded RJ45 Jacks
- Weatherproof ABS enclosure with gasketed cover and shielded RJ45 jacks

Model AL-CAT5EHPW

RoHS Compliant

Description

The HyperLink brand AL-CAT5EHPW high performance 3-stage Lightning Protector provides superior protection of both indoor and outdoor 10/100 Base-T Ethernet network appliances. The unit is compatible with 802.3af Power-over-Ethernet (PoE) devices. The product protects the four data pairs of the Ethernet line.

Three stages of Protection

The first stage is comprised of a differential gas discharge tube. Stage two is a PTC resettable fuse and the third stage is a low capacitance diode array. The second stage series resistance limits the power dissipation of the third stages faster diode clamp array. This allows time for the slower but higher power gas tubes to turn on. The diode array clamps the leading edge of fast transients to safe levels until the high power gas tubes turn on. This eliminates the damaging leading edge spike that single stage gas tube protectors let leak through. The use of resettable PTC fuses minimizes downtime. In the case of an overload, the PTC fuse switches to a high impedance state. The PTC fuse will return to a low impedance state after cooling down. The low capacitance of the diode array assures that the high speed signals will not be degraded by the suppressor. The design utilizes a Thyristor diode which switches to a low impedance state once triggered. This offers superior power handling capability compared to TVS or Zener diode based designs. The limits are +/- 58 volts on the four cable pairs. The 3-stage design can handle higher-level transients than a protector that uses only diodes. For more complete surge protection of data lines, the use of two units is recommended, one at each end of the line.

This unit supports normal and reverse polarity PoE used in some Cisco Access Points. The AL-CAT5EHPW is compatible with Wireless Access Points, Routers, Switches and IP Cameras, with or without Power-over-Ethernet (PoE) functionality.
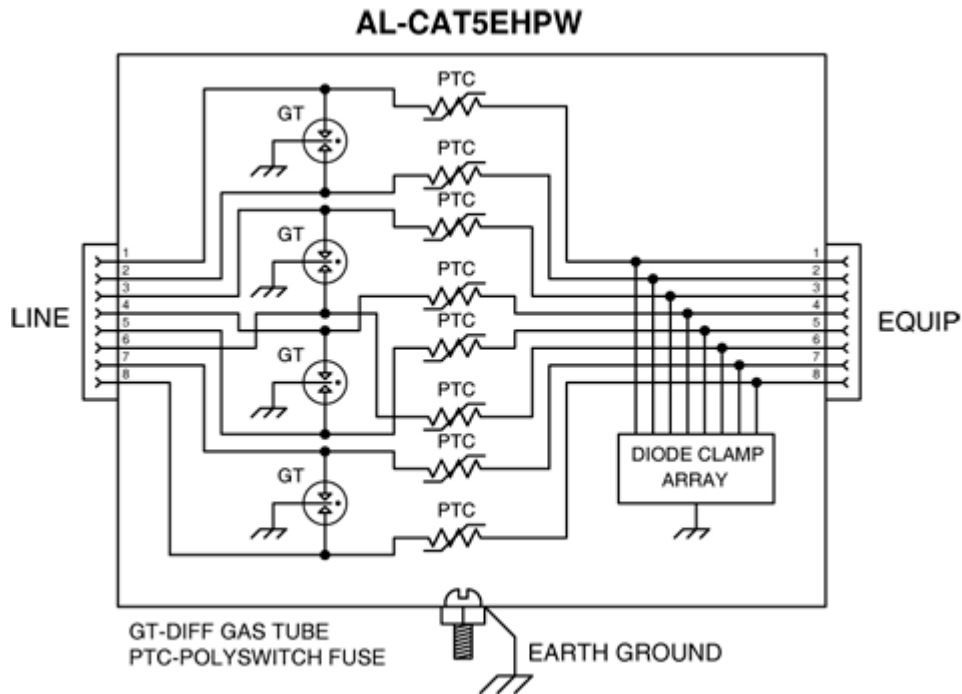
Specifications

Electrical Specifications

Ethernet Connectors	(2) Shielded RJ45 Jacks
Gas Tube Voltage	+/- 90 Volts
PTC Fuse Rating	+/- 1 Amp
Clamping Voltage	+/- 58 Volts
CAT5e Data Lines	Pair 1: Pins 1 and 2 Pair 2: Pins 3 and 6 Pair 3: Pins 4 and 5 Pair 4: Pins 7 and 8
PoE Mode Support	Mode A and B for power

Mechanical Specifications

Enclosure Material	ABS
Enclosure Color	Dark Gray
Ground Lug	10 AWG Max.
Operating Temperature	-40 C (-40 F) to +80 C (+176 F)
Weight	.38 lb. (.17 kg)
Dimensions (WxHxL)	6.3 x 3.15 x 2.17 (inches) 160.6 x 80 x 55 (mm)
RoHS Compliant	Yes

AL-CAT5EHPW

This unit features a weatherproof ABS enclosure with gasketed cover and concealed mounting holes. A ground clamp is provided outside the enclosure.

TOP VIEW

Cable Conduit

Ground Clamp

3.157"
4.157"

BOTTOM VIEW

5.840" (2X)   .237"

.592"

1.973" (2X)

.176" Dia. Mounting Holes (4x)

SIDE VIEW

6.313"

2.170"

1.680"   2.950"

.980" (2X)

Mounting Screw (4x)
(#6 or M3.5 Pan Hd.)

(Cover Removed)