

# TECHNICAL DATA SHEET

**LIGHTNING PROTECTION INTERNATIONAL PTY LTD**  
*Comprehensive Lightning and Surge Protection* ABN 11 099 190 897

- Direct Strike Protection
- Earthing Products & Solutions
- Surge & Transient Protection for Power, Data, Communications and RF Lines



## LPI® Power Over Ethernet Protector

### Features

- Protection for CAT5 10/100 Base-T data and 48V DC power signals
- Simple plug-in connection using industry standard RJ-45 sockets
- IP65 rated weatherproof housing for outdoor installation
- Configurable for either standard PoE or proprietary systems



### Product Description

LPI™ POE RJ45-CAT5 offers effective protection against transient over-voltages on PoE circuits. The simple plug-in design provides protection for both the data and power circuits.

The unit is fully automated, with all protection components self-resetting once the surge impulse has passed.

Ordering code:	LPI POE RJ45-CAT5	
Application:	Protection of standard and proprietary PoE systems	
Connectors	2 x Modular RJ-45 Female Jacks (8 Contact, 8 Position) 1 x M4 earth stud	
Pin Configuration	STANDARD	PROPRIETARY
	1: Data TX-      2: Data TX+ 3: Data RX-      6: Data RX+ 4+5: +48VDC 7+8: 48VDC RTN	1: Data TX-      2: Data TX+ 3: Data RX-      6: Data RX+ 4: 48VDC RTN   5: +48VDC 7 & 8: SYNC
Clamping Voltage: (1kV/us impulse)		Power: < 60V Data: < 15V
Maximum Impulse Current: (8/20us impulse)		Power: 20kA Data: 20kA
Max. Transmission Speed:		100 Mbit/s (CAT 5)
Operating Temperature:		- 40°C to +80°C, 0 – 90%
Dimensions:		115 x 65 x 55mm
Enclosure		IP65 rated ABS Cable entry via IP65 rated cable glands
Warranty:		5 Years – Contact LPI for full warranty details.

## Installation Details:

In order to provide complete protection, and ensure correct operation of the protector unit, one LPI POE RJ45 CAT5 unit should be installed at each end of an exposed cable run.

1. Remove the lid from the LPI POE RJ45 CAT5 unit so as to access the mounting holes. Mount the unit in the desired location with the cable glands facing down, so as to avoid water ingress into the housing
2. Apply one section of the supplied self amalgamating tape to the cables in the position shown in Figure 1, approximately 110mm from the end of the connector. This will ensure a water tight fit around the cable gland once the cable is installed in the protector.
3. Connect the line cable to the input marked "LINE" and the equipment cable to the input marked "EQUIP". Secure the cable glands firmly around the cables.
4. Check to ensure the configuration jumper pins are in the correct location. For standard PoE configuration, the jumper pins should be positioned at the locations marked with a white ■. For the proprietary configuration, the jumper pins should be in the locations without a marking next to them. There should be 3 jumper pins for each of the LINE and EQUIP inputs.
5. Connect a minimum 2.5mm<sup>2</sup> earth cable to the earth terminal post on the side of the housing. This should then be connected to the nearest earthing point via the shortest, most direct route.
6. Replace the lid and tighten the fixing screws. The unit is now installed.

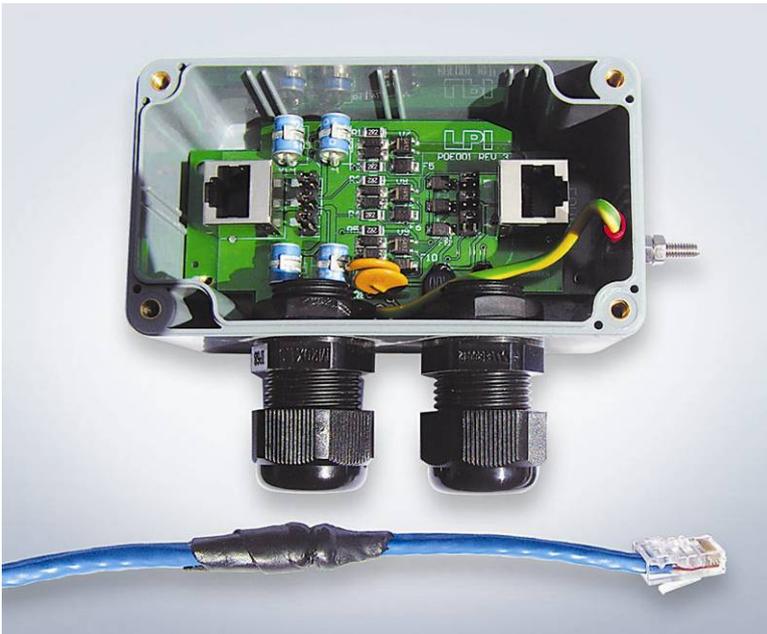


Figure 1

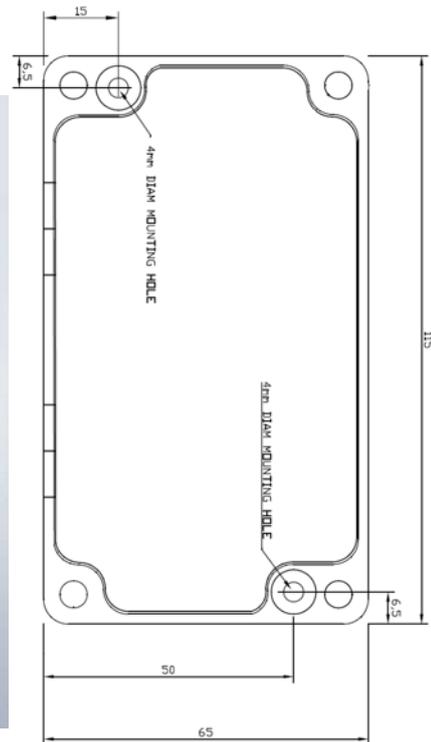


Figure 2



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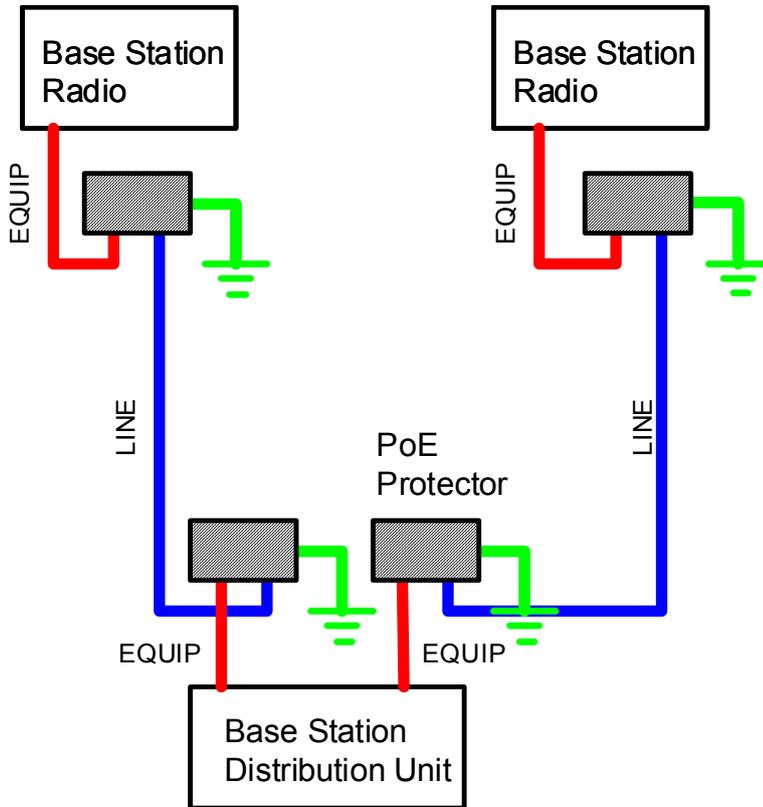
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### Typical Installation:

One PoE Protector should be installed at each end of the exposed cable run. This will ensure all equipment is adequately protected from induced surges on the Ethernet cable.

Current limiting resistors integral to the power protection circuit provide over-current protection, ensuring crowbar protection components will reset once the surge impulse has passed.

Figure 3



Figure 4 - Configuration Jumper pins are shown circled



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