

Data & signal protection

ESP PCB/E Series



LPZ 0→3	FULL MODE Bonding + Equipment Protection	HIGH BANDWIDTH	SIGNAL/ TELECOM TEST CAT D + C + B	e ENHANCED Low let-through voltage	LOW IN-LINE RESISTANCE 1 Ω	CURRENT RATING 1.25 A
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Combined Category D, C, B tested protector (to BS EN 61643) for ‘through hole’ mounting directly onto the PCB of data communication, signal or telephone equipment which require a lower in-line resistance, an increased current or a higher bandwidth than the PCB/**D Series. Available for working voltages of up to 110 Volts for AC & DC power applications up to 125 Amps. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Suitable for wave soldering
- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Very low (1 Ω) in-line resistance for resistance critical applications
- High (1.25 A) maximum running current
- Higher bandwidth enables higher frequency data communications
- 2 pin clean end and 3 pin line end to ensure correct insertion

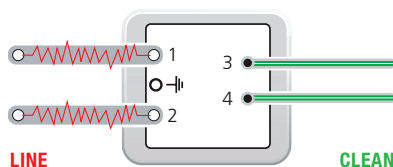
Installation

Connect in series, soldering pins direct onto PCB. Tracks to line and earth pins should be as wide as practical (see Furse Application Note AN003). Dirty (line) tracks should be routed parallel and as close together as possible. This should also be implemented on clean tracks, however clean tracks should never be routed close and parallel to line tracks or dirty barrier earth connections as earth connections as transients can be re-introduced after the protector due to electromagnetic coupling.

The use of an earth layer or plane is highly recommended as this reduces the electromagnetic field produced by a transient discharging to earth considerably, and hence the chance of the transient being picked up on clean tracks.

Full product range order codes can be found on pages 17/8-17/9

Maximum line to clean separation. Large input tracks and pads (using top and bottom copper layers). Earth pin is bonded to an earth layer/plane.



All dirty (line) incoming tracks are separated from the clean output tracks, individual line and clean tracks are routed close together. Earth pins are bonded to an earth layer/plane.

