



- Technical Data Sheet: LPI TLP ISO-K10
 - 10 pair Telephone Line Protection for Krone* LSA-Plus Series II disconnect modules
 - Line-to-line and line-to-ground protection – Surge rating: a+b-e 20kA, 8/20 μ s
 - Multi-stage protection technology and simple plug in operation

LPI™ Telephone Line Protector for Krone 10 Pairs: TLP ISO - K10

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• Product Description

LPI™ TLP ISO-K10 is a multistage overvoltage protection module designed for the protection of telephone circuits against transient over-voltages caused by lightning, induced impulses and other over voltage surges.

Designed to protect ten circuits on a single PCB. Each circuit consists of primary three terminal gas filled arrester followed by secondary transient clamping circuit. The primary protection is offered by the gas filled arrester whilst secondary clamp circuit (resistor possessing inherent inductance) acts virtually instantaneously, limiting the initial voltage and giving the gas arrester time to operate followed by the tertiary stage transient clamping through metal oxide varistors connected in shunt. The effect is that fast rise time events with high dv/dt are reflected back to the primary gas filled arrester rather than passed through to the switching equipment line circuits.

Following the series impedance is a shunt connected MOV element providing transverse mode fine protection, greatly improving the inherent line-to-line protection afforded by the gas filled arrester.

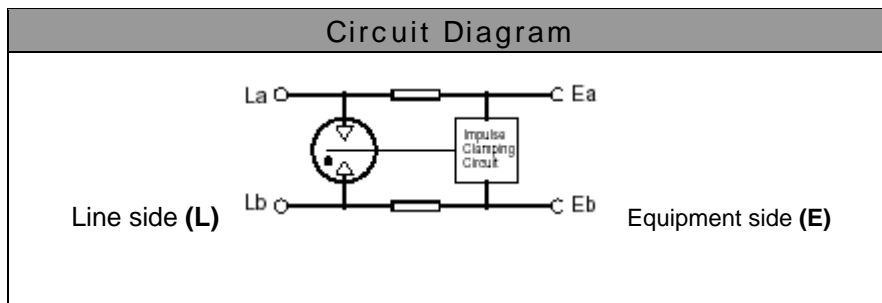
The LPI TLP ISO-K10 possesses negligible capacitance to ground eliminating possible high frequency ground loops important at sites with high RF levels. The protector is earthed via Beryllium Copper spring clips on each of the board directly to the Krone* back mount frame.

• Application

LPI™ TLP ISO-K10 is designed for installation into the Krone LSA-Plus* series II termination system. The protector must be installed into disconnection type modules to allow the series impedance elements to be inserted in circuit.

The TLP ISO-K10 could be used to protect exchange MDF (Main Distribution Frame at the point of entry in buildings or campus), IDF locations (floor distributors), Public Exchange (PSTN), PBX, Key Telephone Systems (KTS), Pay phones, Security systems and Fire alarms as well as data distribution systems, remote instrumentation, radio transmitters etc.

The module is supplied fitted with a clear plastic cover to protect the components and board from damage. The clear area above the components allows for inspection of the surge suppression components and PCB tracks after a suspected transient event or during routine inspections.





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- **Technical Data**

Application:	Designed for Krone LSA-Plus* Series II Disconnection Modules for protection of sensitive telecommunications equipment line cards and circuits.
Ordering code:	LPI TLP ISO-K10
Protection Stages:	Gas arrester / series impedance / MOV per pair
DC Breakdown:	230V line to earth nominal 200 V line to line
Impulse breakdown:	250V line to earth, nominal, 10/700µs pulse 200V line to line, nominal, 10/700µs pulse
Surge rating:	a+b-e 20kA @ 8/20µs a-b 10kA @ 8/20µs
AC discharge current:	a+b-e 10A @ 50Hz for 1s
Insulation resistance:	>1010 ohms at 100Vdc
Capacitance:	a-e, b-e < 5pF a-b 350pF
Loop resistance:	16.4 Ohms
Loop inductance:	2 µH
Insertion loss:	0.12dB at 600 Ohms
Frequency response:	-3dB at 1MHz typical
Dimensions:	136mm (Long) x 39mm (from front of Krone* block when plugged in x 20mm high
Weight:	80g
Construction:	PCB to plug into Krone LSA* disconnect module
Earthing:	Via BeCu spring clips to Krone* back mount frame
Temperature range:	0 - 45°C / 10 – 95% Humidity
Tested:	ACA TS001-1997, ACA TS002-1997, AS/NZS 3260
Location:	BD, CD or FD in Krone LSA* disconnection module

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- LPI has a policy of continuing product development. Therefore, the above specifications are subject to change without notice.



LPI™ - Innovative Lightning and Surge Protection Solutions



Direct Strike Protection



Surge & Transient Protection for Power, Data, Communications and RF lines



Grounding Products & Solutions

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