

TECHNICAL DATA SHEET

LPI® Very High Speed Data Line Protector: VHS-K10

Features



- VHS range is a multistage protection module for digital telephone and data circuits against transient over-voltages
- Very High Speed data line protection for 10 pair Krone LSA-Plus
- High Bandwidth - 12 MHz (-0.3dB, 120Ω)
- Effective clamping with lower let-through voltage
- High reliability surface mount technology
- Ten line protection circuits
- Earthed via two spring clips which connect to the Krone LSA* frame

Technical Data

Ordering Code	VHS-K10-72	VHS-K10-230
Configuration:	10 pair plug in module	
Protection Stages:	Gas arrester / series impedance / Silicon Protection	
Max. bit rate & Bandwidth:	8 Mbits/s (12 MHz)	
DC Breakdown: Line – Earth	65 - 88V	190 - 276V
Line - Line	65 - 88V	190 - 262V
Max working voltage: Line – Earth	65V	190V
Line - Line	65V	190V
Typical Let-through Voltage: (5kV, 10/700µs)	100V	240V
Surge rating:	a+b-e 20kA (8/20µs) a-b or a-e 10kA (8/20µs)	
Max. Line Current:	150mA @ 25°C	
AC discharge current:	a+b-e 10A @ 50Hz for 1second	
Return loss:	>44dB @ 3.4kHz 600Ω >32dB @ 1MHz 120Ω >32dB @ 3MHz 120Ω >25dB @ 12MHz 120Ω	
Capacitance	a-e, b-e < 5pF a-b < 30pF	
Loop resistance:	6.6 Ω nominal	
Insertion loss:	<0.05dB @ 600Ω, 3.4kHz <0.25dB @ 120Ω, 1MHz <0.26dB @ 120Ω, 3Mz <0.3dB @ 120Ω, 12MHz	
Insulation Resistance:	> 5MΩ	
Dimensions	119mm long x 20mm high 45mm from front of KRONE* Series 2 block when plugged in	
Weight	80 g	
Connection:	PCB plug in, to Krone LSA* disconnect block	
Earthing:	Via spring clips to KRONE* frame	
Temperature range:	0 - 45°C, 10 – 90% RH	
Location:	BD, CD or MDF in Krone LSA* disconnect block	
Warranty:	5 Years	

Note: Specifications are subject to change without notice.

*KRONE, KRONE LSA and PROFIL are registered trademarks of KRONE GmbH, Germany.

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Application

The LPI VHS-K10 is designed for installation into the Krone LSA-Plus Series 2* termination system. The LPI VHS-K10 must be installed into disconnect blocks to allow the series impedance elements to be inserted in circuit.

Applications include the protection of data networks used for process control and automation. The LPI VHS-K10 will protect equipment in data acquisition and will protect ISDN circuits.

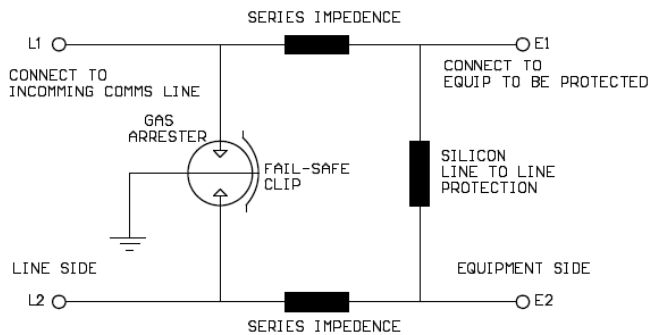


Figure 1: Circuit Diagram

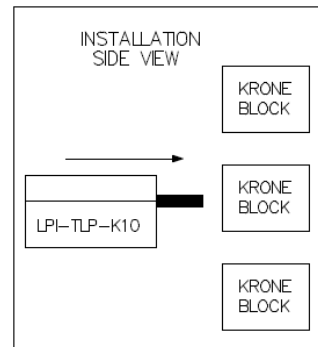


Figure 2: Installation

Installation

To install the LPI VHS-K10 plug into a Krone LSA* disconnect block. Ensure that the module is plugged in as Figure 2.

Make sure that the LPI VHS-K10 is plugged fully into the KRONE* block. The **edge** of the plastic cover **should be level** with the front of the KRONE* block when the module is fully inserted.

The earth connection for the LPI VHS-K10 is derived from the spring clips on each end of the board which engage with the KRONE* frame upon insertion of the module. The LPI VHS-K10 may be fitted to the KRONE* blocks in either a standard or PROFIL* type frame. It is absolutely essential that the frame is earthed in accordance with ACA TS009. The frame must connect to the stations protective earth.

If a PROFIL* frame is used, it is important that earthing clips are fitted to each disconnect block before it is attached to the frame. These are the KRONE* supplied clips which fit into the ends of the disconnect block, and then engage with the bars on the PROFIL* frame when the block is fitted into the frame.