KP - LSA-Plus® Protection

KRONE™ LSA-Plus® Signal Protection

Use the Novaris KP series of products for telephone and signal line protection for signals utilising the KRONE™ LSA-PLUS 10-way connection blocks.

Two Stages of Protection

Standard KRONE™ surge arresters only provide a single stage of protection which cannot prevent equipment from being exposed to excessive voltages during a surge event. The KP series of products utilise a two stage protection approach that keeps the voltage let through to an absolute minimum.

Telephone and Signal protection

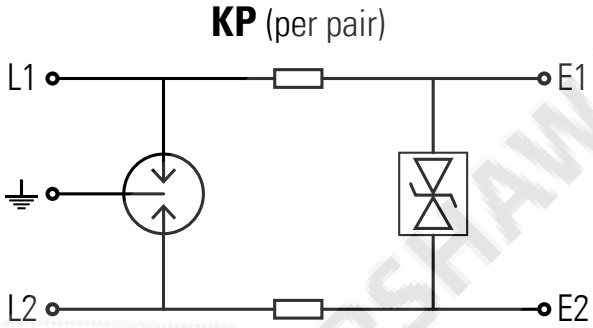
The KPx-T devices are designed for protecting PSTN and digital PABX signals with a maximum line voltage of up to 200V.

The KPx-xxDC product range has been engineered to protect all common signalling systems. A single KP10-xxDC can be used to efficiently protect up to 10 signal pairs.

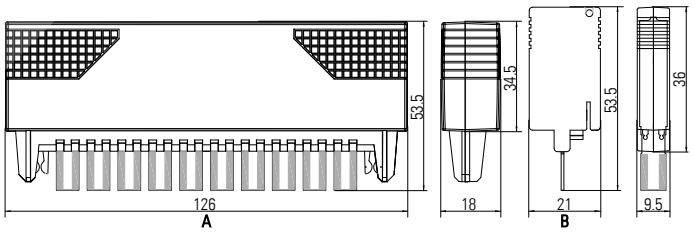
1 Pair and 10 Pair Configurations

Choose your protection width based on the number of lines you need to protect.

Diagram / Installation



Dimensions



Ordering Information

Model	Signal Type				Ordering Code	
					1 pair	10 pairs
KPx-T	PSTN	PABX	–	–	KP1-T	KP10-T
KPx-06DC	0 - 6 V analog	5 V digital	RS 485	RS 422	KP1-06DC	KP10-06DC
KPx-12DC	0 - 12 V analog	12 V digital	–	–	KP1-12DC	KP10-12DC
KPx-24DC	0 - 24 V analog	24 V digital	RS 232	Data Highway	KP1-24DC	KP10-24DC
KPx-48DC	–	48 V digital	–	–	KP1-48DC	KP10-48DC

Note: KRONE LSA-PLUS® is a trademark of KRONE GmbH, Germany

Product Specifications

Model		KPx-T	KPx-06DC	KPx-12DC	KPx-24DC	KPx-48DC
Electrical Specifications						
Connection Type		Series	Series	Series	Series	Series
Number of lines		x = 1 → 1 pair x = 10 → 10 pairs				
Modes of protection		Transverse and Common Mode				
Maximum continuous voltage (DC)	U_c	200 V	8 V	15 V	30 V	56 V
Maximum continuous voltage (AC)	U_c	140 V	6 V	11 V	22 V	40 V
Maximum discharge current (8/20 µs)	I_{max}	5 kA per line (10 kA common mode)				
Maximum discharge current (10/350 µs)	I_{imp}	–	–	–	–	–
Impulse durability		C2 10 x 5 kA 8/20 µs				
Maximum load current	I_L	250 mA	250 mA	250 mA	250 mA	250 mA
L-L Voltage protection level @ 1 kV/ µs	U_p	220 V	10 V	17 V	36 V	60 V
L-L Voltage protection level @ 3 kA 8/20 µs	U_p	–	–	–	–	–
L-L Voltage protection level @ 100 V/ s		235 V	25 V	35 V	48 V	76 V
L-PE Voltage protection level @ 1 kV/ µs	U_p	350 V	350 V	350 V	350 V	350 V
L-PE Voltage protection level @ 3 kA 8/20 µs	U_p	600 V	600 V	600 V	600 V	600 V
L-PE Voltage protection level @ 100 V/ s		230 V	230 V	230 V	230 V	230 V
AC durability		5 x 1 s, 1 A rms				
Overstressed fault mode		Mode 3 (open circuit)				
Response time	t_A	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns
Line resistance		2.7 Ω	2.7 Ω	2.7 Ω	2.7 Ω	2.7 Ω
Line inductance		–	–	–	–	–
L-L capacitance		18 pF	18 pF	18 pF	18 pF	18 pF
L-PE capacitance		4.5 pF	4.5 pF	4.5 pF	4.5 pF	4.5 pF
Insertion loss @ 150 Ω		< 0.5 dB (< 1 MHz)				
3 dB Frequency @ 150 Ω	f_c	70 MHz	70 MHz	70 MHz	70 MHz	70 MHz
Mechanical Specifications						
Operating temperature		-40 to +85 ºC				
Humidity Range		5 to 95% non–condensing				
Connection type / capacity		KRONE LSA-PLUS®				
Terminal screw torque		–				
Environmental		IP 20 / indoor				
Dimensional Drawing		x = 1 → B x = 10 → A				
Mounting		KRONE LSA-PLUS®				
Earthing		KRONE LSA-PLUS®, additional earth bar for KP1				
Enclosure / Colour		ABS / black				
Standards						
IEC 61643-21:2012		SPD connected to telecommunications and singalling networks - Cat C2, D1				
AS/NZS 1768:2007		Signalling/Telecommunications surge protection				
UL 1449 3rd edition & UL 497B		Protectors for data communications and fire-alarm circuits				
ITU-T K.44: 2012		Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents				
AS/CA S008:2010		Requirements for Customer Cabling Products				
AS/NZS 4117:1999		Surge Protective Devices for Telecommunications Applications				
Shipping						
Weight		x = 1 → 6.5 g x = 10 → 150 g				
Customs Tariff		85363000	85363000	85363000	85363000	85363000

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