

TLP-Series Telecom Line Protection



The PD Devices TLP series - telecommunication line surge suppressors are designed to provide complete system protection for business PABX and single line applications.

This series of Telecom Line Protectors are designed to the recommendations of BS6651: 1999 (Annex C) for location category C which requires 10kA (8/20µs) surge capacity. These products are primary rated devices for protecting systems connected to dial-up PSTN (or "external") lines or where PABX extensions are routed between buildings.

Conventional telecom surge suppressors such as gas discharge tubes (GDT's) or metal oxide varistors (MOV's) exhibit a higher clamping or "let-through" voltage with respect to fast acting solid state devices. In other words, they are designed to clamp voltages somewhere above the largest expected line signal, i.e. the voice line ringing signal. Consequently, the suppressor allows harmful spikes of up to 500V to attack the equipment.

The PD Devices TLP series uses a combination of GDT's and fast acting solid state devices to seriously enhance the protection provided.

The combination of GDT and fast acting solid state technology offers the benefits of a higher surge withstand capability together with lower clamping level and extremely fast reaction time. This means the TLP series offers much improved equipment protection and reduced component fatigue.

Features:

- Rugged construction
- High surge handling capabilities
- Low "let through" voltages.
- Fast response times.
- High surge handling capabilities.
- Negligible effect on normal line operation.
- Many models offer lower line resistance and higher line current capability than most other competitors' products.

DIN rail mount models:

- DIN rail mounting for modular installation
- DIN rail earthing provided for ease of installation
- Panel mounting screw holes for permanent installation
- Additional earth stud provided for installation versatility
- TLP/4 provided with two part push in screw terminal connection for ease of installation or replacement

Applications include:

- Private Automatic Branch Exchange systems (PABX)
- Voice lines on the public network (PSTN)
- Fax
- Modem/Router



Telecom Line Protection Series



TLP1ALR

TLP1PALR



TLP/6/BT



TLP10



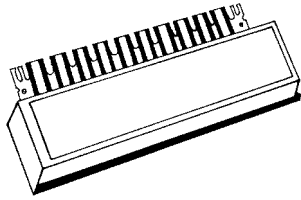
TLP/4

Revision: vPD3, 26/03/19
Information subject to change without notice.

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application.



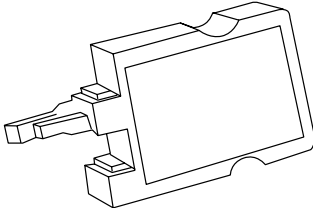
TLP-Series Telecom Line Protection



TEN PAIR PABX SURGE MODULE – TLP10 / TLP10LR

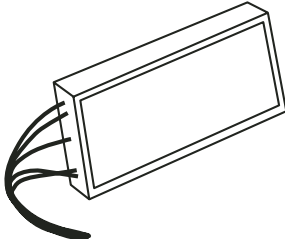
Provides harsh environment, primary level protection for PABX systems against surges on incoming PSTN voice and data lines. The unit fits directly into LSA-Plus[1] type 237A termination strips and provides a maximum surge withstand capability of 10,000 Amps for up to 10 pairs.

[1] "LSA-Plus" is a registered trademark of Krone




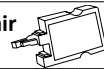

SINGLE PAIR PABX SURGE MODULE – TLP1PA / TLP1PALR

Provides harsh environment, primary level protection for PABX systems against surges on incoming PSTN voice and data lines. The unit fits directly into LSA-Plus[1] type 237A termination strips and provides a maximum surge withstand capability of 10,000 Amps for 1 pair.



SINGLE PAIR PABX SURGE MODULE – TLP1A / TLP1ALR

Provides harsh environment, primary level protection for PABX systems against surges on incoming PSTN voice and data lines. The unit is designed for hard-wired applications where durable, shockproof connections are required and provides a maximum surge withstand capability of 10,000 Amps for 1 pair.

Specifications						
Module Type	10 Pair PABX 		Single Pair PABX 		Single Pair Hardwired 	
Connector Type	LSA Plus™ Plug-In	LSA Plus™ Plug-In	LSA Plus™ Plug-In	LSA Plus™ Plug-In	Flying Lead	Flying Lead
Circuits	10 x 2 wire	10 x 2 wire	1 x 2 wire	1 x 2 wire	1 x 2 wire	1 x 2 wire
Max. Working Voltage	190V	190V	190V	190V	190V	190V
Current Rating (Signal)	300mA	300mA	300mA	300mA	300mA	300mA
Rated Impulse Discharge, 8/20µs, per line (2 wires)	10kA	10kA	10kA	10kA	10kA	10kA
Minimum DC Breakover	220V	220V	220V	220V	220V	220V
Impulse Voltage Performance 10/700µs (125A Peak)	<247V All Modes	<265V All Modes	<247V All Modes	<265V All Modes	<247V All Modes	<265V All Modes
Typical Loop Resistance (25°C)	50Ω	9.4Ω	50Ω	9.4Ω	50Ω	9.4Ω
Response Time	<10ns	<10ns	<10ns	<10ns	<10ns	<10ns
Maximum Line Capacitance	130pF	130pF	130pF	130pF	130pF	130pF
System Exposure Level ⁽¹⁾	High	High	High	High	High	High
Operating Temperature	-25° to +70°C	-25° to +70°C	-25° to +70°C	-25° to +70°C	-25° to +70°C	-25° to +70°C
Dimensions (in mm):						
W	130	130	9	9	12	12
D	47	47	50	50	40	40
H	20	20	22	22	16	16
Part Code:	TLP10	TLP10LR	TLP1PA	TLP1PALR	TLP1A	TLP1ALR

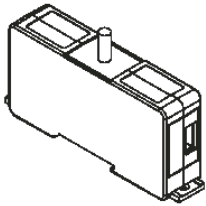
Revision: vPDS, 26/03/19

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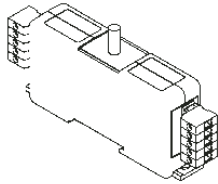


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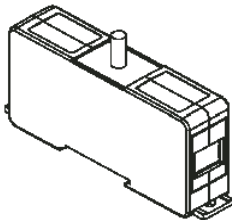
INLINE 6 WIRE BT TYPE PLUG IN MODULE – TLP/6/BT

Provides harsh environment, primary level protection for PABX systems against surges on incoming PSTN voice and data lines. This DIN rail mountable unit is designed for connection to stand alone apparatus such as fax, modem and telephone equipment using the standard BT type plug and socket. This unit provides a maximum surge withstand capability of 10,000 Amps for 1 line (6 wire).



INLINE HARD WIRED 4 WIRE MODULE – TLP/4




Provides harsh environment, primary level protection for PABX systems against surges on incoming PSTN voice and data lines. This DIN rail mountable unit is designed for similar applications to the above where a hard wired connection is required. This unit provides a maximum surge withstand capability of 10,000 Amps for 1 line (4 wire) or two lines (2 wire).



INLINE 2,4,6 WIRE RJ11 TYPE PLUG IN MODULE – TLP/2/RJ11, TLP/4/RJ11, TLP/6/RJ11

Provides harsh environment, primary level protection for PABX systems against surges on incoming PSTN voice and data lines. This DIN rail mountable unit is designed for connection to stand alone apparatus such as fax, modem and telephone equipment using RJ11 connections. This unit provides a maximum surge withstand capability of 10,000 Amps for 1 line (2 wire), (4 wire) or (6 wire).

Specifications

Module Type	Inline 6 Wire BT Type Plug-In Module 	Inline Hard Wired 4 Wire Module 	Inline 2,4,6 Wire RJ11 Type Plug-In Module 		
Connector Type	BT Line jack Plug-In	Screw Terminals	RJ11 Plug-In	RJ11 Plug-In	RJ11 Plug-In
Mounting	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail
Circuits	1 x 6 wire	2 x 2 wire 1 x 4 wire	1 x 2 wire	1 x 4 wire	1 x 6 wire
Max. Working Voltage	190V	190V	190V	190V	190V
Current Rating (Signal)	300mA	300mA	300mA	300mA	300mA
Rated Impulse Discharge, 8/20µs, per line (2 wires)	10kA	10kA	10kA	10kA	10kA
Minimum DC Breakover	200V	220V	220V	220V	220V
Impulse Voltage Performance 10/700µs (125A Peak)	<265V All Modes	<265V All Modes	<265V All Modes	<265V All Modes	<265V All Modes
Typical Loop Resistance (25°C)	9.4Ω	9.4Ω	9.4Ω	9.4Ω	9.4Ω
Response Time	<10ns	<10ns	<10ns	<10ns	<10ns
Maximum Line Capacitance	200pF	200pF	200pF	200pF	200pF
System Exposure Level ⁽¹⁾	High	High	High	High	High
Operating Temperature	-25° to +70°C	-25° to +70°C	-25° to +70°C	-25° to +70°C	-25° to +70°C
Dimensions (in mm):					
W	100	100	100	100	100
D	23	23	23	23	23
H	50	50	50	50	50
Part Code:	TLP/6/BT	TLP/4	TLP/2/RJ11	TLP/4/RJ11	TLP/6/RJ11

Revision: vPD3, 26/03/19

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