Telecommunications Side - Surge Protective Device (SPD)

RayTel 10

Overvoltage Protection Junction Box

The protection module RayTel10 protects subscriber's telecommunication equipment from overvoltages, caused by lightning strikes, switching operations at extensive consumers, and surges coming from the telecommunication networks.

The complete surge protection on the telecommunication side fully enables signal transmission of the DSL technologies even at extreme lengths of the system. Operational deterioration and insertion loss is negligible in the operating frequency range. The protective module is adapted to the frequency characteristic of the subscriber's twisted pairs since the same module can be used in ADSL, ADSL2 and ADSL2+ protocols over POTS and ISDN lines.
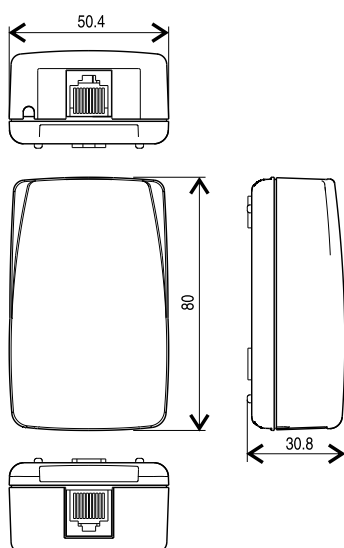
Electrical	
Maximum Continuous Operating DC Voltage [U_c]	175V
Maximum Operating Current [I_L]	150mA
Nominal Discharge Current [I_n] (8/20µs) (a/b-PE, a-b)	2.5kA
Maximum Discharge Current [I_{max}] (8/20µs)	5kA
Protection Level at [U_p] at [I_n] (8/20µs) (a-b)	≤ 300V
Protection Level at [U_p] at [I_n] (8/20µs) (a/b-PE)	≤ 1000V
Series Resistance at 20ºC [R]	0.2 - 0.4 Ω
Series Inductance [L]	2 x 25 µH
Capacitance [C]	<100 pF
Frequence Range [f]	up to 10 MHz
Response Time [t_A] (a-b)	<5ns
Response Time [t_A] (a, b-PE)	<100ns
Connection (Input/Output)	RJ11 or RJ45

Mechanical	
Operating Temperature (°C)	-20° C to + 60° C
Housing Material	Thermoplastic, V-0
Environmental Ingress Protection Rating	IP 20
Dimensions (L × W × H)	80.0 × 50.4 × 30.8 mm

Part Number	
Ordering Part No.	6000040058

50.4

80

30.8
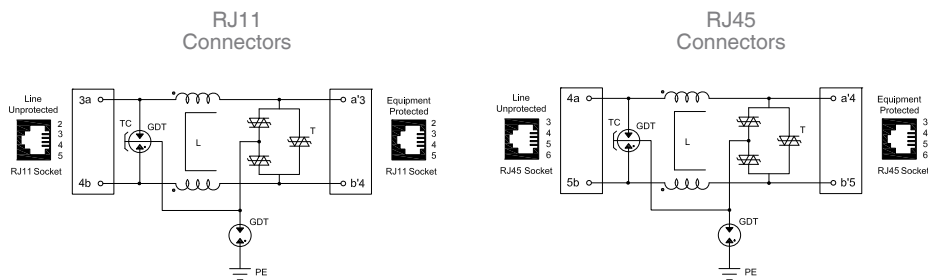
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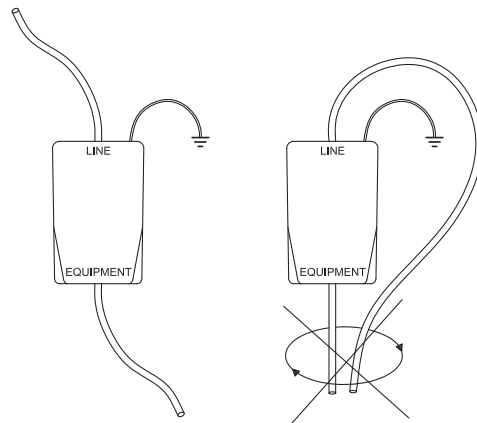# Installation Instructions:
RayTel 10

Please read the following before installing your RayTel Signal Protection Device

- The installation of the device should be as close as possible to the protective earth.
- The module is connected to the line through RJ45 or RJ11 connectors.
- The ground wire of the module must be connected to the protective conductor of the installation.
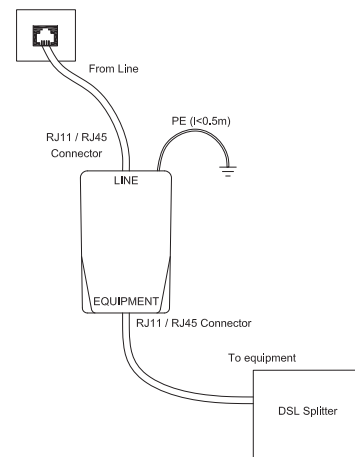
Basic Circuit Diagram

Cable Routing

Connection

Note:

- The security module is an electrical device, which cannot be used in wet areas.
- The external mechanical integrity of the device must be checked before installation. Products with visible damage should not be installed.
- Its use is only permitted within the limits shown and stated in these installation instructions. Opening or tampering with the device invalidates the warranty.