

**SPD for DSL Networks
RayTel 20**



IEC/EN Category: D1/C1/C2/C3
 Voltages: 110V DC
 Maximum Operating Voltage: 180V DC
 Frequency Range: up to 250MHz
 Surge Discharge Ratings: I_n : up to 20kA
 I_{imp} : up to 7.5kA
 Housing: Compact Design
 Compliance: IEC/EN 61643-21

The RayTel 20 is intended to protect DSL Networks from overvoltage surges and electrostatic discharges created by switching transients in buildings. Enables fast connection of one pair without tools and integrated strain relief for the connecting cable. Cut off frequency up to 250 MHz enables maximum transmission performance in case of high speed signal parts.

DSL systems are particularly prone to such disturbances due to long cable lengths. Carefully selected configuration and components enables very high bit rate transmission at all the types of ADSL (ADSL, ADSL2 and ADSL2+) and VDSL (VDSL and VDSL2) lines.

Technical Data

RayTel 20

Electrical

Type per IEC/EN 61643-21		D1/C1/C2/C3
Number of Protected Pairs		1 Pair (2 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	180V
Maximum Continuous Operating Voltage (AC)	U_c	127V
Nominal Current at 40°C	I_L	0.6A
C2 Total Nominal Discharge Current	(8/20 μ s) I_n	20kA
C2 Nominal Discharge Current per Line	(8/20 μ s) I_n	10kA
D1 Total Lightning Impulse Current	(10/350 μ s) I_{imp}	7.5kA
D1 Lightning Impulse Current per Line	(10/350 μ s) I_{imp}	2.5kA
Voltage Protection Level at at 1 kV/ μ s C3	(Line-Line) U_p	<250V
	(Lines-Ground)	<550V
Voltage Protection Level at I_n	(Lines-Ground) U_p	<750V
Series Resistance per Line	R_s	1.6 - 2.0 Ω
Bandwidth	f_G	up to 250 MHz
Capacitance	(Line-Line) C	\leq 20 pF
	(Lines-Ground) C	\leq 10 pF

Mechanical

Temperature Range	-13 °F to +104 °F [-25 °C to +40 °C]
Cross-sectional Area of the Signal Lines	0.13 - 2.5mm ² (solid)
Cross-sectional Area of the Signal Lines	0.13 - 2.5mm ² (flexible)
Cross-sectional Area of the Earth Terminal	0.2 - 2.5 mm ²
Connection Type	PCB Terminals
Degree of Protection IEC/EN 60529	IP 66
Housing Material	Polypropylene; Grey

Order Information

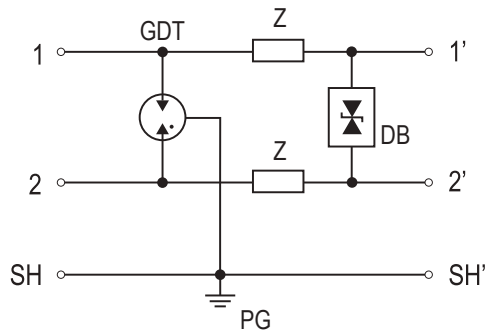
Order Code	
RayTel 20	124 152

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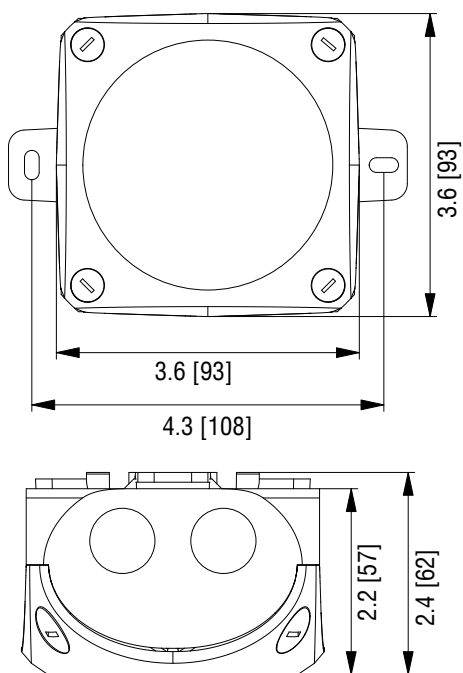
Internal Configuration

Legend

- DB Diode Block
- GDT Gas Discharge Tube
- PG Protective Grounding
- Z Impedance



Dimensions & Packaging



RayTel 20

Dimensions

Weight per Unit	5.29 oz [150g]
Packaging Dimensions (Single Unit)	3.6 x 3.6 x 2.4" [93 x 93 x 63mm]
Minimum Package Quantity	1 piece

inches
[mm]

Information contained in this document is subject to change at any time without notice.

