

# DATA SHEET SPD for DSL Networks RayTel 20



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



## 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 $\mu$ s)	$I_n$	20kA
C2 Nominal Discharge Current per Line (8/20 $\mu$ s)	$I_n$	10kA
D1 Total Lightning Impulse Current (10/350 $\mu$ s)	$I_{imp}$	7.5kA
D1 Lightning Impulse Current per Line (10/350 $\mu$ s)	$I_{imp}$	2.5kA
Voltage Protection Level at at 1 kV/ $\mu$ 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 $\Omega$
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 +176 °F [-25 °C to +80 °C]
Cross-sectional Area of the Signal Lines	0.13-2.5mm <sup>2</sup> (solid)
Cross-sectional Area of the Signal Lines	0.13-2.5mm <sup>2</sup> (flexible)
Cross-sectional Area of the Earth Terminal	0.2-2.5 mm <sup>2</sup>
Connection Type	PCB Terminals
Degree of Protection IEC/EN 60529	IP 66
Housing Material	Polypropylene; Grey

#### Order Information

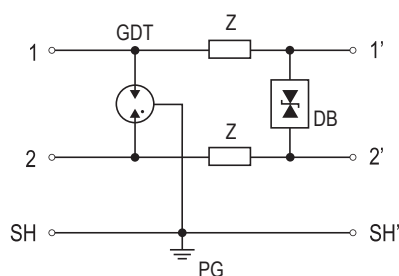
Order Code	
RayTel 20	124 152

## RayTel 20

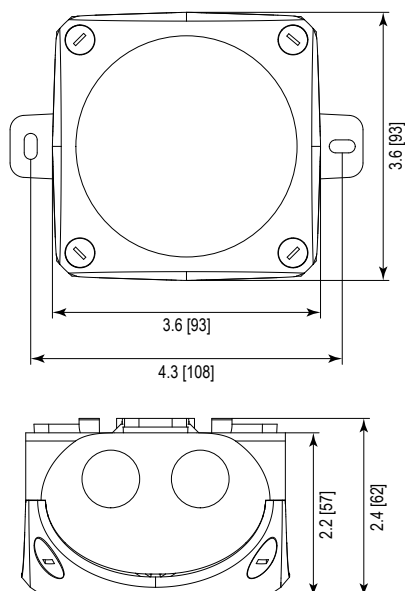
### Internal Configuration

#### Legend

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



### Dimensions & Packaging



#### RayTel 20

##### Dimensions

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

inches  
[mm]

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

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