

Modular & Compact Surge Protective Devices (SPDs) for Telecommunication Systems

Telecommunication Systems

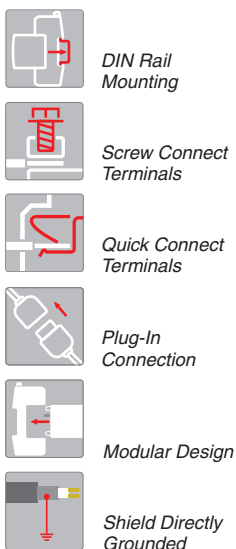
Special features:

- Very high surge ratings
- Equipped with screw or quick connect (spring loaded) or RJ 45 terminals
- Wall mounting or DIN rail mounting versions available
- High frequency range (up to 250MHz) suitable for all DSL lines

RayTel 10
 RayTel 20
 RayDat SPH-2-230
 RayDat SPH-4-230
 RayDat SLH-2-110
 RayDat SLH-4-110
 RayDat SUI-4-110
 RayDat SRH-2-110
 RayDat SGH-3-110



Symbol Legend:



These SPDs protect a subscriber's telecommunication equipment from overvoltages, caused by lightning strikes, switching operations, and surges coming from the telecommunication networks. The complete surge protection on the telecommunication side fully enables signal transmission of the DSL technologies, even in systems with extreme cable runs.

Operational deterioration and insertion loss are 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.

DATA SHEET

SPD for Telecommunication Side

RayTel 10**C1 • C2 • C3**

IEC/EN Category: C1/C2/C3
Surge Discharge Ratings: I_n : 5 kA, I_{max} : 10 kA
Voltages: 175 V DC
Max. Operating Voltage: 175 V DC
Housing: Compact Design
Compliance: IEC/EN 61643-21

**Technical Data****RayTel 10****Electrical**

Maximum Continuous Operating DC Voltage	U_c	175 V
Maximum Operating Current	I_L	150 mA
Nominal Discharge Current (8/20 μ s) (a/b-PE, a-b)	I_n	2.5 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	5 kA
Protection Level at [U_p] at [I_n] (8/20 μ s) (a-b)	U_p	≤ 300 V
Protection Level at [U_p] at [I_n] (8/20 μ s) (a/b-PE)	U_p	≤ 1000 V
Series Resistance at 20°C [R]	R	0.2 - 0.4 Ω
Series Inductance [L]	L	2 x 25 μ H
Capacitance [C]	C	<100 pF
Frequency Range	f_G	up to 10 MHz
Response Time (a-b)	t_A	<5 ns
Response Time (a, b-PE)	t_A	<100 ns
Connection (Input/Output)		RJ11 or RJ45

Mechanical

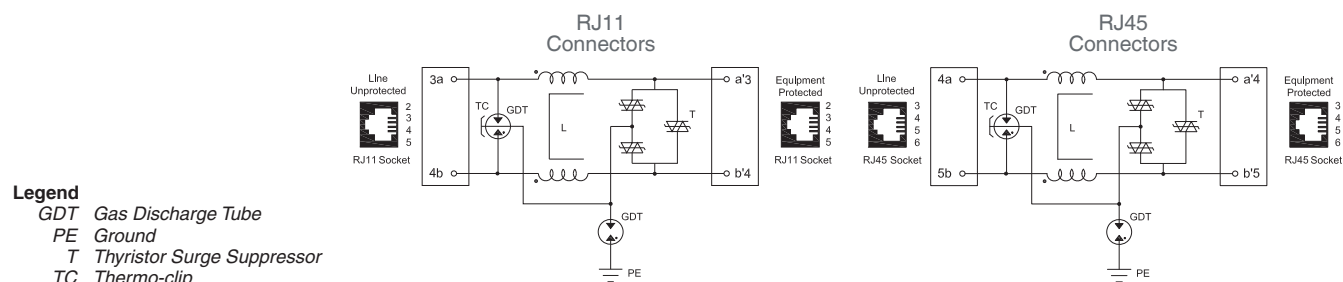
Temperature Range	-40 °F to +140 °F [-40 °C to +60 °C]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0

Order Information

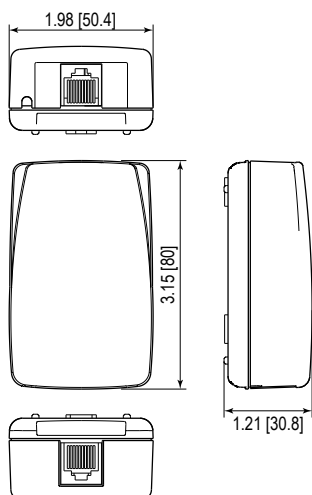
Order Code	
RayTel 10	124 150

RayTel 10

Internal Configuration



Dimensions & Packaging



RayTel 10

Dimensions

Weight per Unit	2.46 oz [70 g]
Packaging Dimensions (Single Unit)	4.2 × 2.9 × 1.4" [108 × 75 × 36 mm]
Minimum Package Quantity	8 pieces

inches
[mm]

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



Raycap

www.raycap.com

© 2020 Raycap All rights reserved.
G29-01-047 201120

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 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	≤ 20 pF
(Lines-Ground)	C	≤ 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 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

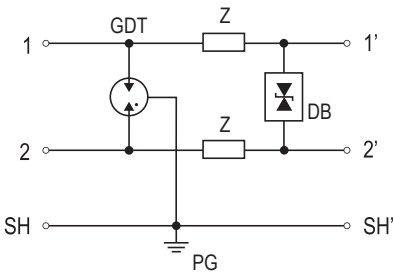
Order Information

Order Code	
RayTel 20	124 152

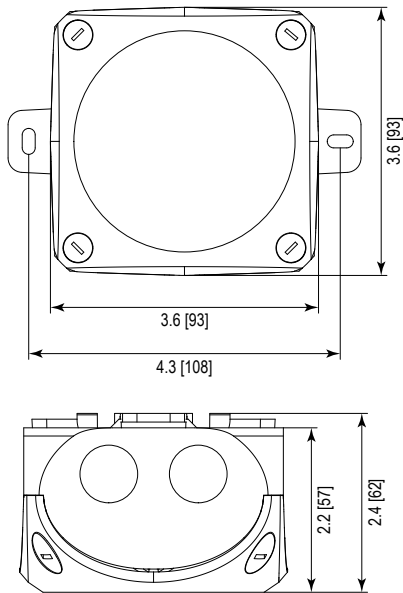
RayTel 20

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.



DATA SHEET

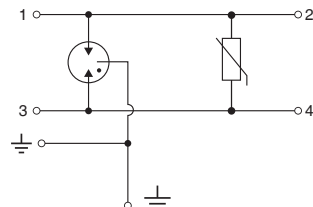
Modular SPD for Single Pair

RayDat SPH-2-230

D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA
 Voltages: 230 V DC
 Frequency Range: 30 MHz, 10 MHz
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SPH-2-xxx

230

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	230 V
Maximum Continuous Operating Voltage (DC)	U_c	320 V
Rated Load Current at 25°C	I_L	5 A
C2 Nominal Discharge Current (8/20 µs)	I_n	10 kA
Maximum Discharge Current (8/20 µs)	I_{max}	20 kA
D1 Impulse Current (10/350 µs)	I_{imp}	2.5 kA
Residual Voltage at 5 kA (8/20 µs)	(Line-Line) U_{res}	< 700 V
Rated Spark Overvoltage	(Line-Ground)	350-550 V
	(Line-Line)	350-429 V
Response Time Overvoltage Protection	(Line-Line) t_A	< 25 ns
	(Line-Ground)	< 100 ns
Insulation Resistance of the Protection	(Line-Ground) R_{iso}	> 1 GΩ/100 V
	(Line-Line)	≥ 100 MΩ
Serial Resistance per Path	R	0.1 Ω
Transverse Capacitance	(Line-Line) C	100 pF
	(Line-Ground)	5 pF
Cut-off Frequency	f_G	10 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG
	4 mm², 2.5 mm² Q Version
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail

Order Information

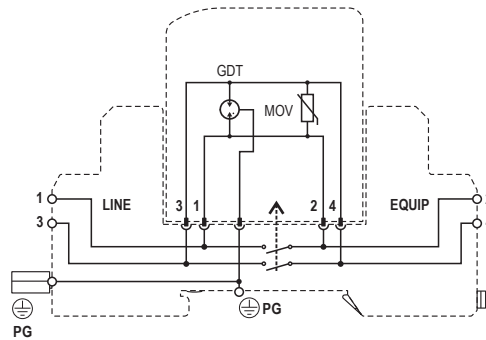
Order Code	230
SPH-2-xxx	7081.06
SPH-2-xxxQ (Quick Connect Terminals)	7085.26
SPH-2-xxxM (module)	7081.08

RayDat SPH-2-230

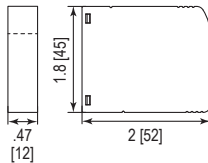
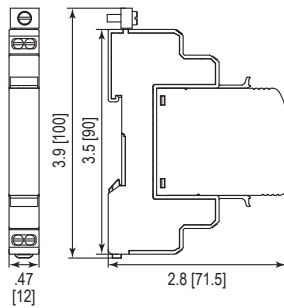
Internal Configuration

Legend

GDT Gas Discharge Tube
MOV Metal Oxide Varistor
PG Protective Grounding



Dimensions & Packaging



SPH-2-xxx

230

Dimensions

Weight per Unit	2.11 oz [60 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

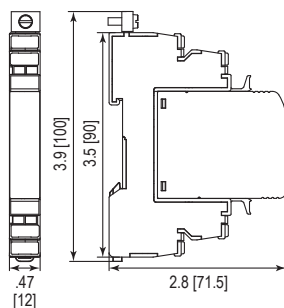
SPH-2-xxxM Series

230

Dimensions

Weight per Unit	.91 oz [26 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

Quick Connect Terminals



SPH-2-xxxQ Series

230

Dimensions

Weight per Unit	2.18 oz [62 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches
[mm]

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

RoHS
COMPLIANT  CE

Raycap

www.raycap.com

© 2020 Raycap All rights reserved.
G29-01-048 201120

DATA SHEET

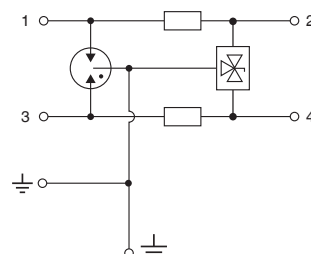
Modular SPD for Single Pair

RayDat SLH-2-110

D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA
 Voltages: 110V DC
 Frequency Range: 30 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SLH-2-xxx

110

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	170V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20µs)	I_n	10 kA
Maximum Discharge Current (8/20µs)	I_{max}	20 kA
D1 Impulse Current (10/350µs)	I_{imp}	2.5 kA
Residual Voltage at 5kA (8/20µs)	U_{res}	<450V
Rated Spark Overvoltage	(Line-Ground)	184-264V
	(Line-Line)	184-264V
Response Time Overvoltage Protection	t_A	< 1 ns
Thermal Protection		Yes
Insulation Resistance of the Protection	R_{iso}	≥ 170 MΩ
Serial Resistance per Path	R	1.6-2.0 Ω
Transverse Capacitance	C	50 pF
Cut-off Frequency	f_G	30 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG [4 mm², 2.5 mm² Q Version]
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail

Order Information

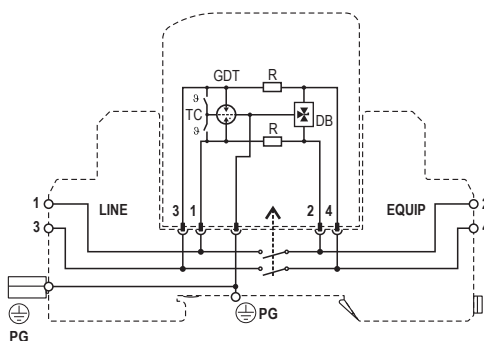
Order Code	110
SLH-2-xxx	7086.39
SLH-2-xxxQ (Quick Connect Terminals)	7085.12
SLH-2-xxxM (module)	7086.46

RayDat SLH-2-110

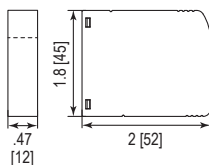
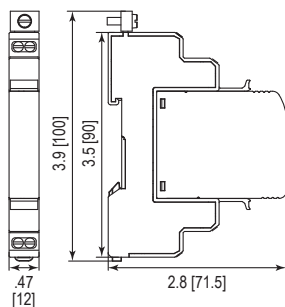
Internal Configuration

Legend

- DB Diode Block
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor
- TC Thermo-clip



Dimensions & Packaging



SLH-2-xxx

110

Dimensions

Weight per Unit	1.83 oz [52 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

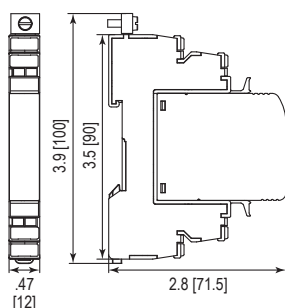
SLH-2-xxxM Series

110

Dimensions

Weight per Unit	.84 oz [24 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

Quick Connect Terminals



SLH-2-xxxQ Series

110

Dimensions

Weight per Unit	1.90 oz [54 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches
[mm]

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

RoHS COMPLIANT  CE

Raycap

www.raycap.com

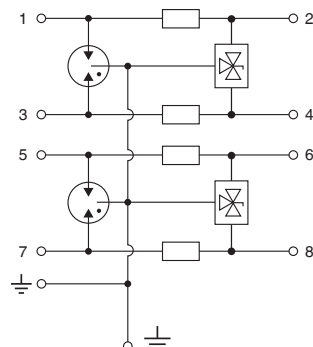
© 2020 Raycap All rights reserved.
G29-01-049 201120

DATA SHEET

Modular SPD for Two Pair **RayDat SLH-4-110** D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 5 kA
Voltages: 110V DC
Frequency Range: 30 MHz
Housing: Modular Design
Compliance: IEC/EN 61643-21
Configuration:



Technical Data

SLH-4-xxx

110

Electrical

Lines Protected		2 (4 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	170V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20µs)	I_n	10 kA
Maximum Discharge Current (8/20µs)	I_{max}	20 kA
D1 Impulse Current (10/350µs)	I_{imp}	5 kA
Residual Voltage at 5 kA (8/20µs)	U_{res}	< 450V
Rated Spark Overvoltage	(Line-Ground)	184-264V
	(Line-Line)	184-264V
Response Time Overvoltage Protection	t_A	< 1 ns
Thermal Protection		Yes
Insulation Resistance of the Protection	R_{iso}	≥ 170 MΩ
Serial Resistance per Path	R	1.6-2.0 Ω
Transverse Capacitance	C	50 pF
Cut-off Frequency	f_G	30 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG [4 mm², 2.5 mm² Q Version]
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail

Order Information

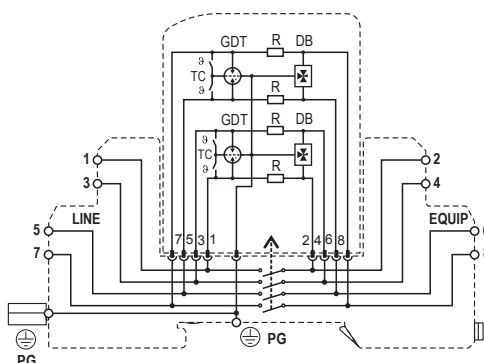
Order Code	110
SLH-4-xxx	7086.53
SLH-4-xxxQ (Quick Connect Terminals)	7085.20
SLH-4-xxxM (module)	7086.60

RayDat SLH-4-110

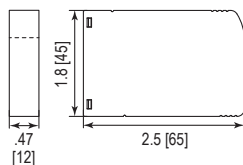
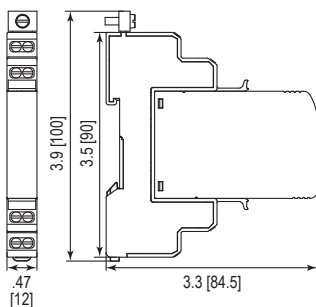
Internal Configuration

Legend

- DB Diode Block
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor
- TC Thermo-clip



Dimensions & Packaging



SLH-4-xxx

110

Dimensions

Weight per Unit	2.32 oz [66 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

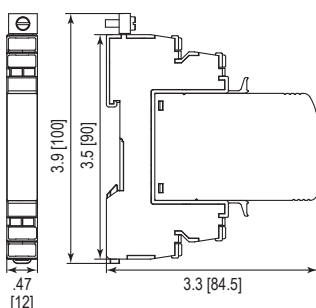
SLH-4-xxxM Series

110

Dimensions

Weight per Unit	1.05 oz [30 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

Quick Connect Terminals



SLH-4-xxxQ Series

110

Dimensions

Weight per Unit	2.32 oz [66 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches
[mm]

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

RoHS
COMPLIANT  CE

Raycap

www.raycap.com

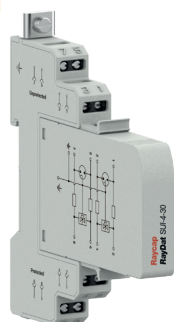
© 2020 Raycap All rights reserved.
G29-01-050 201120

DATA SHEET

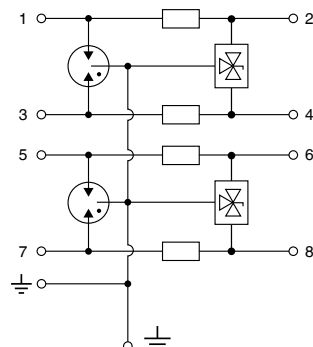
SPD for Two Pair Exposed Lines

RayDat SUI-4-110

D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 20 kA, I_{max} : 30 kA, I_{imp} : 5 kA
 Voltages: 110V DC
 Frequency Range: 30 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SUI-4-xxx

110

Electrical

Lines Protected		2 (4 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	170V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20µs)	I_n	20 kA
Maximum Discharge Current (8/20µs)	I_{max}	30 kA
D1 Impulse Current (10/350µs)	I_{imp}	5 kA
Residual Voltage at 5 kA (8/20µs)	U_{res}	< 450V
Rated Spark Overvoltage	(Line-Ground)	184-264V
	(Line-Line)	184-264V
Response Time Overvoltage Protection	t_A	< 1 ns
Thermal Protection		Yes
Insulation Resistance of the Protection	R_{iso}	≥ 170 MΩ
Serial Resistance per Path	R	1.6-2.0 Ω
Transverse Capacitance	C	50 pF
Cut-off Frequency	f_G	30 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG [4 mm²]
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail

Order Information

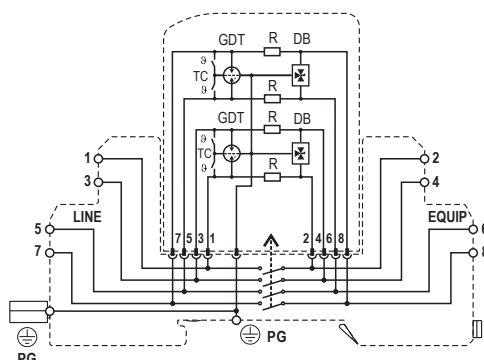
Order Code	110
SUI-4-xxx	7083.28
SUI-4-xxxM (module)	7083.36

RayDat SUI-4-110

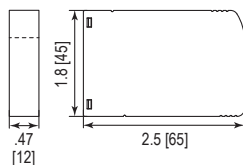
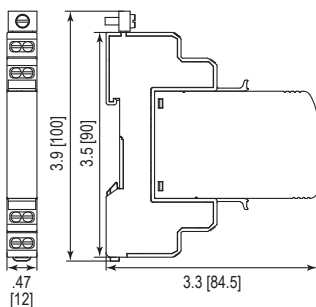
Internal Configuration

Legend

- DB Diode Block
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor
- TC Thermo-clip



Dimensions & Packaging



SUI-4-xxx

110

Dimensions

Weight per Unit	2.46 oz [70 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

SUI-4-xxxM Series

110

Dimensions

Weight per Unit	1.05 oz [30 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches
[mm]

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

RoHS
COMPLIANT  CE

Raycap

www.raycap.com

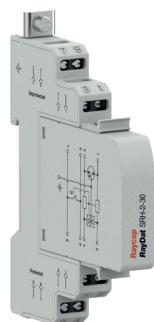
© 2020 Raycap All rights reserved.
G29-01-051 201120

DATA SHEET

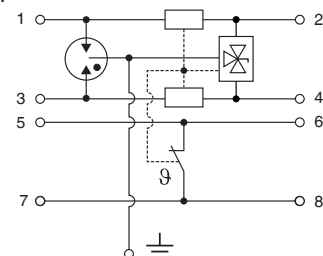
SPD with Remote Contacts

RayDat SRH-2-110

D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA
 Voltages: 110V DC
 Frequency Range: 30 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SRH-2-xxx

110

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	170V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20µs)	I_n	10 kA
Maximum Discharge Current (8/20µs)	I_{max}	20 kA
D1 Impulse Current (10/350µs)	I_{imp}	2.5 kA
Residual Voltage at 5kA (8/20µs)	U_{res}	<450V
Rated Spark Overvoltage	(Line-Ground)	184-264V
	(Line-Line)	184-264V
Response Time Overvoltage Protection	t_A	< 1 ns
Thermal Protection		Yes
Insulation Resistance of the Protection	R_{iso}	≥ 170 MΩ
Serial Resistance per Path	R	1.6-2.0Ω
Transverse Capacitance	C	50 pF
Cut-off Frequency	f_G	30 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG [4 mm², 2.5 mm² Q Version]
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail
Remote Contacts Ratings	AC 250V/0.5 A, DC 50V/1 A

Order Information

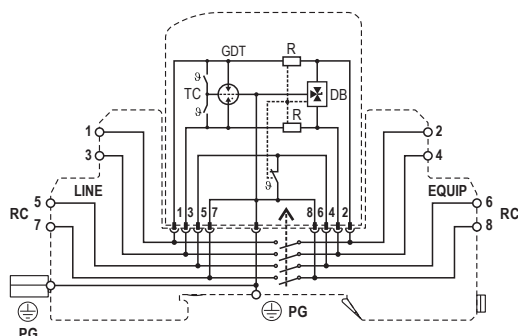
Order Code	110
SRH-2-xxx	7086.24
SRH-2-xxxQ (Quick Connect Terminals)	7085.40
SRH-2-xxxM (module)	7086.32

RayDat SRH-2-110

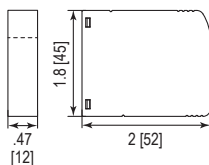
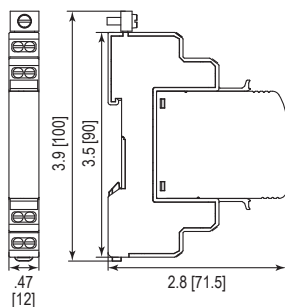
Internal Configuration

Legend

- DB Diode Block
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor
- RC Remote Control (NC)
- TC Thermo-clip



Dimensions & Packaging



SRH-2-xxx

110

Dimensions

Weight per Unit	2.04 oz [58 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

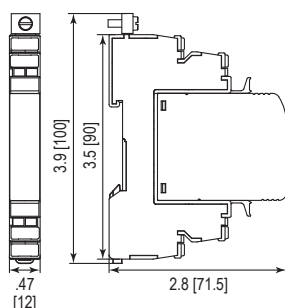
SRH-2-xxxM Series

110

Dimensions

Weight per Unit	.84 oz [24 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

Quick Connect Terminals



SRH-2-xxxQ Series

110

Dimensions

Weight per Unit	2.11 oz [60 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches
[mm]

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

RoHS
COMPLIANT



Raycap

www.raycap.com

© 2020 Raycap All rights reserved.
G29-01-052 201120

DATA SHEET

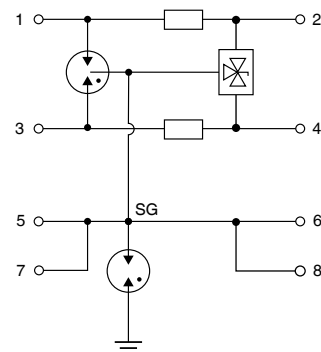
SPD with Separated Signal Ground (RS 232)

RayDat SGH-3-110

D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA
 Voltages: 110V DC
 Frequency Range: 30 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SGH-3-xxx

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	170V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20µs)	I_n	10 kA
Maximum Discharge Current (8/20µs)	I_{max}	20 kA
D1 Impulse Current (10/350µs)	I_{imp}	2.5 kA
Residual Voltage at 5kA (8/20µs)	(Line-Line) U_{res}	<450V
Rated Spark Overvoltage	(SG-Ground)	184-276V
	(Line-Line), (Line-SG)	184-264V
Response Time Overvoltage Protection	(Line-Line) t_A	<1 ns
	(Line-Ground)	<100ns
Insulation Resistance of the Protection	(Line-Line) R_{iso}	≥ 170 MΩ
	(Line-Ground)	> 1 GΩ/100V
Serial Resistance per Path	R	1.6-2.0 Ω
Transverse Capacitance	(Line-Line) C	50 pF
	(Line-Ground)	5 pF
Cut-off Frequency	f_G	30 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG [4 mm², 2.5 mm² Q Version]
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]
Degree of Protection IEC/EN 60529	IP 20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail

Order Information

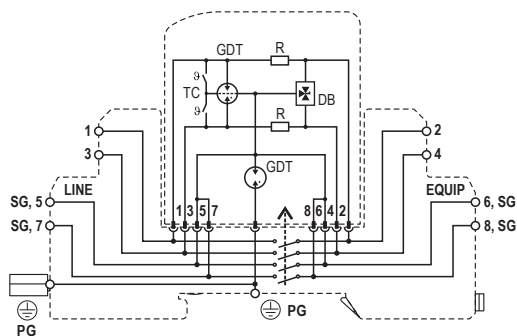
Order Code	110
SGH-3-xxx	7086.68
SGH-3-xxxM (module)	7086.76

RayDat SGH-3-110

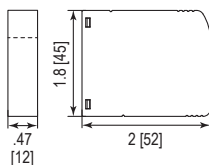
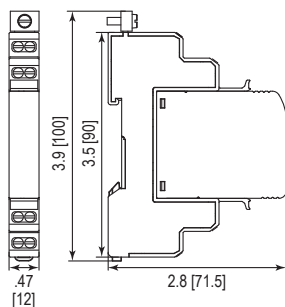
Internal Configuration

Legend

- DB Diode Block
- GDT Gas Discharge Tube
- R Resistor
- PG Protective Grounding
- SG Signal Grounding
- TC Thermo-clip



Dimensions & Packaging



SGH-3-xxx

110

Dimensions

Weight per Unit	2.11 oz [60 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

SGH-3-xxxM Series

110

Dimensions

Weight per Unit	.91 oz [26 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches
[mm]

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

RoHS
COMPLIANT  CE

Raycap

www.raycap.com

© 2020 Raycap All rights reserved.
G29-01-053 201120