

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



IEC/EN Category: D1/C1/C2/C3
 Mode of Protection: Longitudinal, Transverse
 Coarse Protection: 3 Terminal GDT
 Voltages: 5, 12, 15, 24, 30, 48, 60, 110V DC
 Frequency Range: 30 MHz
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 5 kA
 Series Load Current: 1 A
 Enclosure: DIN 43880 2/3TE, DIN Rail Mount
 Terminals: Stranded to 4 mm²
 Housing: Modular Design
 Compliance: IEC/EN 61643-21

Like the RayDat SLH-2 Series, the SLH-4 provides the same level of protection to two independent circuit pairs. A number of protection voltages are available to ensure the user is able to select the closest clamping voltage to the normal signal operation of the equipment being protected.

The plug-in module/base design facilitates replacement of a failed module without the need to remove system wiring. If the module is unplugged out of the base, the connection lines remain enabled.

Technical Data

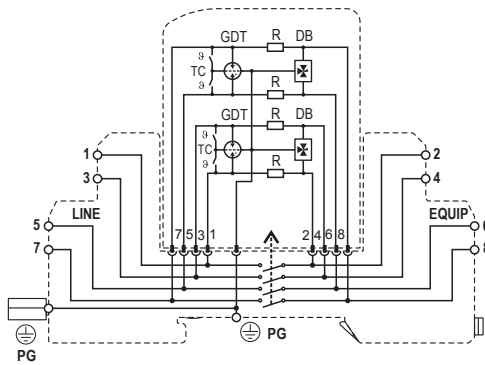
SLH-4 Series		5V	12V	15V	24V	30V	48V	60V	110V
Electrical									
Lines Protected		2 (4 Conductors)							
Nominal Operating Voltage (DC)	U_n	5V	12V	15V	24V	30V	48V	60V	110V
Maximum Continuous Operating Voltage (DC)	U_c	6V	15V	18V	28V	33V	52V	64V	170V
Rated Load Current at 25°C	I_L	1 A							
C2 Nominal 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 5kA (8/20µs)	U_{res}	<22V	<42V	<48V	<70V	<80V	<140V	<160V	<450V
Rated Spark Overvoltage	(Line-Ground)	7-10V	17-21V	21-25V	31-37V	36-44V	57-69V	68-84V	184-264V
	(Line-Line)	7-10V	17-21V	21-25V	31-37V	36-44V	57-69V	68-84V	184-264V
Response Time Overvoltage Protection	t_A	< 1 ns							
Thermal Protection		Yes							
Insulation Resistance of the Protection	R_{iso}	≥ 6 KΩ	≥ 15 MΩ	≥ 18 MΩ	≥ 28 MΩ	≥ 33 MΩ	≥ 52 MΩ	≥ 64 MΩ	≥ 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 °C to +80 °C							
Terminal Cross Section Multi-strand		4 mm ² , 2.5 mm ² Q Version							
Terminal Screw Torque		0.5 Nm							
Degree of Protection IEC/EN 60529		IP20							
Housing Material		Thermoplastic; Grey; Extinguishing Degree V-0							
Mounting IEC/EN 60715		35 mm DIN Rail							
Order Information									
Order Code		5V	12V	15V	24V	30V	48V	60V	110V
SLH-4-xxx		7086.47	7086.48	7086.49	7086.50	7082.78	7086.51	7086.52	7086.53
SLH-4-xxxQ (Quick Connect Terminals)		7085.13	7085.14	7085.15	7085.16	7085.17	7085.18	7085.19	7085.20
SLH-4-xxxM (module)		7086.54	7086.55	7086.56	7086.57	7082.79	7086.58	7086.59	7086.60

RayDat SLH-4 Series

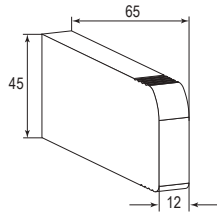
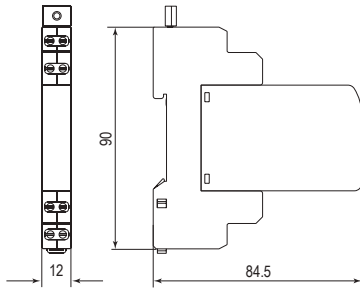
Internal Configuration

Legend

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



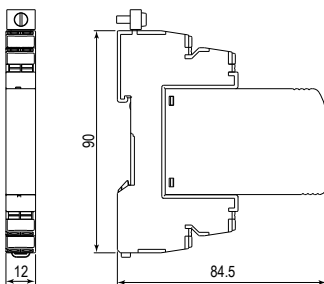
Dimensions & Packaging



SLH-4 Series	5V	12V	15V	24V	30V	48V	60V	110V
Dimensions								
Weight per Unit	66 g							
Dimensions DIN 43880	2/3 TE							
Packaging Dimensions (Single Unit)	87 × 15 × 102 mm							
Minimum Package Quantity	15 pieces							

SLH-4-xxxM Series	5V	12V	15V	24V	30V	48V	60V	110V
Dimensions								
Weight per Unit	30g							
Packaging Dimensions (Single Unit)	87 × 15 × 102 mm							
Minimum Package Quantity	15 pieces							

Quick Connect Terminals



SLH-4-xxxQ Series	5V	12V	15V	24V	30V	48V	60V	110V
Dimensions								
Weight per Unit	66 g							
Dimensions DIN 43880	2/3 TE							
Packaging Dimensions (Single Unit)	87 × 15 × 102 mm							
Minimum Package Quantity	15 pieces							



Bases with Quick Connect Terminals enable faster installation and have built-in contacts to enhance vibration resistance.