

Compact SPD for Two Pair  
**RayDat SCH-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: Up to 5MHz  
 Surge Discharge Ratings:  $I_n$ : 10kA,  $I_{max}$ : 20kA,  $I_{imp}$ : 5kA  
 Series Load Current: 0.8A  
 Enclosure: DIN 43880 2/3TE, DIN Rail Mount  
 Terminals: Stranded to 4 mm<sup>2</sup>  
 Housing: Compact Design  
 Compliance: IEC/EN 61643-21

Like the RayDat SCH-2 Series, the SCH-4 provides the same level of protection but in a compact enclosure which can provide protection to two independent circuits 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.

**Technical Data**

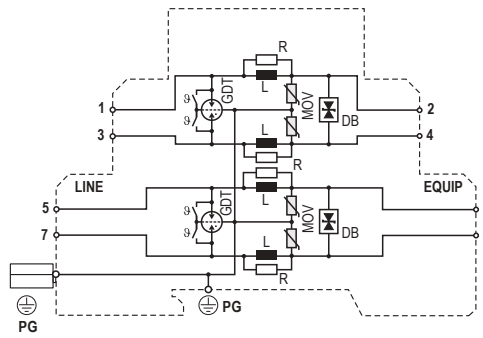
SCH-4 Series		5V	12V	15V	24V	30V	48V	60V	110V	
<b>Electrical</b>										
Lines Protected		2 (4 Conductors)								
Nominal Operating Voltage (DC)	$U_n$	5V	12V	15V	24V	30V	48V	60V	110V	
Maximum Continuous Operating Voltage (DC)	$U_c$	6V	15V	18V	28V	33V	52V	64V	170V	
Rated Load Current at 25°C	$I_L$	1 A								
C2 Nominal Discharge Current (8/20µs)	$I_n$	10kA								
Maximum Discharge Current (8/20µs)	$I_{max}$	20kA								
D1 Impulse Current (10/350µs)	$I_{imp}$	5kA								
Residual Voltage at 5kA (8/20µs)	(Line-Line) $U_{res}$	<22V	<42V	<48V	<70V	<80V	<140V	<160V	<450V	
Rated Spark Overvoltage	(Line-Ground)	7-10V	16-21V	20-24V	30-36V	35-43V	55-68V	67-86V	184-264V	
	(Line-Line)	7-10V	16-21V	20-24V	30-36V	35-43V	55-68V	67-86V	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	0.5Ω								
Transverse Capacitance	C	500 pF				250 pF				
Cut-off Frequency	$f_G$	3 MHz				5 MHz				
<b>Mechanical</b>										
Temperature Range		-40 °C to +80 °C								
Terminal Cross Section Multi-strand		4 mm <sup>2</sup>								
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								
<b>Order Information</b>										
Order Code		5V	12V	15V	24V	30V	48V	60V	110V	
SCH-4-xxx		7072.09	7072.10	7072.11	7072.12	7072.13	7072.14	7072.15	7072.16	

## RayDat SCH-4 Series

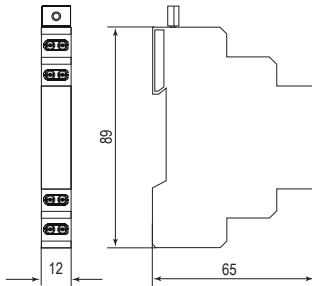
### Internal Configuration

#### Legend

- D Diode
- DB Diode Block
- GDT Gas Discharge Tube
- L Inductor
- MOV Metal Oxide Varistor
- PG Protective Grounding
- R Resistor
- TC Thermo-clip



### Dimensions & Packaging



SCH-4 Series	5V	12V	15V	24V	30V	48V	60V	110V
<b>Dimensions</b>								
Weight per Unit	64 g							
Dimensions DIN 43880	2/3 TE							
Packaging Dimensions (Single Unit)	70 x 16 x 110 mm							
Minimum Package Quantity	15 pieces							