

Modular SPD for Single Pair

# SPT-DC 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,  $I_{imp}$ : 2.5 kA

Series Load Current: 1 A

Enclosure: DIN 43880 2/3 TE, DIN Rail Mount

Terminals: Stranded to 4 mm<sup>2</sup>

Housing: Modular Design

Compliance: IEC/EN 61643-21

UL 497B 4th Edition



Dimensions

Basic circuit diagram

## Technical Data

### SPT-DC Series

		5	12	15	24	30*	48	60	110
<b>Electrical</b>									
Lines Protected		1							
Nominal Operating Voltage (DC)	$U_n$	5V	12 V	15 V	24 V	30 V	48 V	60 V	110 V
Maximum Continuous Operating Voltage (DC)	$U_c$	6V	15 V	18 V	28 V	33 V	52 V	64 V	170 V
Rated Load Current at 25°C	$I_L$	1A							
C2 Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	10kA							
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	20kA							
D1 Impulse Current (10/350 $\mu$ s)	$I_{imp}$	2.5kA							
Residual Voltage at 5 kA (8/20 $\mu$ s)	$U_{res}$	<22V	<42 V	<48 V	<70 V	<80 V	<140 V	<160 V	<450 V
Rated Spark Overvoltage	(Line-Ground)	7-10V	16-21 V	21-25 V	31-37 V	36-44 V	57-69 V	68-84 V	184-264 V
	(Line-Line)	7-10V	16-21 V	21-25 V	31-37 V	36-44 V	57-69 V	68-84 V	184-264 V
Response Time Overvoltage Protection	$t_A$	< 1 ns							
Thermal Protection		Yes							
Cut-off Frequency	$f_G$	30 MHz							
<b>Mechanical</b>									
Temperature Range		-40 °F to +176 °F [-40 °C to +80 °C]							
Terminal Cross Section Multi-strand (max.)		12 AWG [4 mm <sup>2</sup> , 2.5 mm <sup>2</sup> Q Version]							
Degree of Protection IEC/EN 60529		IP 20 (built-in)							
Mounting IEC/EN 60715		35 mm DIN Rail							
<b>Order Information</b>									
Order Code		5	12	15	24	30*	48	60	110
SPT-DC-xxx		9086.33	9086.34	9086.35	9086.36	9082.80	9086.37	9086.38	9086.39
SPT-DC-xxxM (module)		9086.40	9086.41	9086.42	9086.43	9082.81	9086.44	9086.45	9086.46