

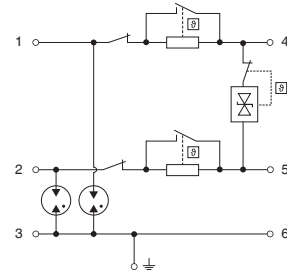
DATA SHEET

Modular SPD for Single Pair RayDat NSP-2 Series D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Voltages: 24, 110 V DC
 Frequency Range: 120 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 UL 497B 4th Edition

Configuration:



Technical Data

NSP-2 Series	24	48*	110*
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Electrical

Lines Protected	1 (2 Conductors)			
Nominal Operating Voltage (DC)	U_n	24V	48V	110V
Maximum Continuous Operating Voltage (DC)	U_c	30V	54V	170V
Rated Load Current at 40 °C	I_L		800 mA	
Rated Load Current at 70 °C	I_L		600 mA	
C2 Nominal Discharge Current (8/20 μs)	(Line-Line) I_n		10 kA	
	(Line-Ground)		10 kA	
C2 Total Nominal Discharge Current (8/20 μs)	I_n		20 kA	
C2 Voltage Protection Level (10kV/5kA)	(Line-Line) U_p	180V	240V	400V
	(Line-Ground)	950V	960V	980V
C3 Voltage Protection Level (1 kV/μs)	(Line-Line) U_p	70V	140V	300V
	(Line-Ground)		650V	
D1 Impulse Current (10/350 μs)	(Line-Line) I_{imp}		2.5 kA	
	(Line-Ground)		2.5 kA	
D1 Total Impulse Current (10/350 μs)	I_{imp}		5 kA	
Rated Spark Overvoltage	(Line-Line)	33V-51V	60V-70V	188V-255V
	(Line-Ground)	184V-286V	184V-276V	184V-276V
Response Time Overvoltage Protection	t_A		< 1 ns	
Thermal Protection			Yes	
Insulation Resistance of the Protection	(Line-Line) R_{iso}	> 15 MΩ	> 27 MΩ	> 85 MΩ
Serial Resistance per Path	R		1 Ω	
Capacitance	(Line-Line) C		typ. 25 pF	
	(Line-Ground)		typ. 15 pF	
Maximum Frequency	f_G		120 MHz	

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Conductor Cross Section (max.)	12 AWG / 4 mm ² (solid) 14 AWG / 2.5 mm ² (flexible)
Degree of Protection IEC/EN 60529	IP20 (built-in)
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0
Mounting IEC/EN 60715	35 mm DIN Rail
Operating State / Fault Indication	Green Flag / Red Flag

Order Information

Order Code	24	48*	110*
NSP-2-xx	7088.05	7088.50	7088.07
NSP-2-xxM (module)	7088.06	7088.51	7088.08

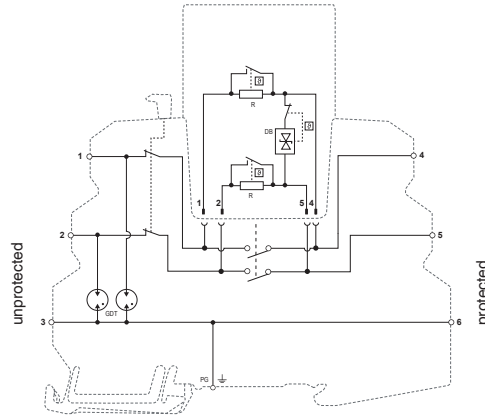
*No UL Certification.

RayDat NSP-2 Series

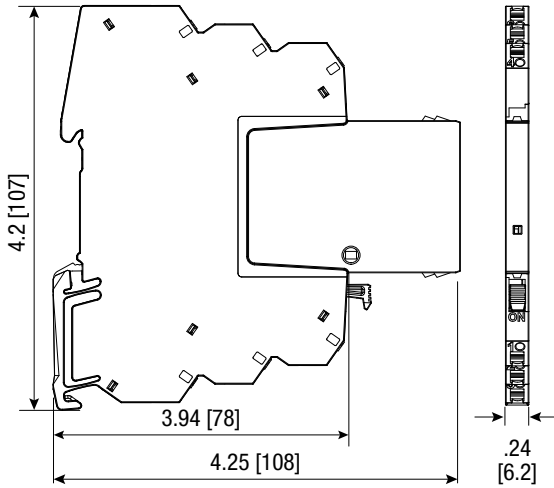
Configuration

Legend

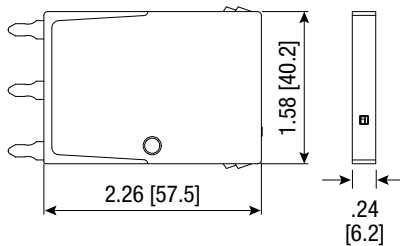
- DB Diode Block
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor



Dimensions & Packaging



NSP-2 Series	24	48*	110*
Dimensions			
Weight per Unit	2.12 oz [60g]		
Dimensions DIN 43880	.24" [6.2mm]		
Packaging Dimensions (Single Unit)	4.72×4.33×0.39" [120×110×10mm]		
Minimum Package Quantity	15 pieces		



NSP-2-xxxM Series	24	48*	110*
Dimensions			
Weight per Unit	0.56 oz [16g]		
Packaging Dimensions (Single Unit)	4.72×4.33×0.39" [120×110×10mm]		
Minimum Package Quantity	15 pieces		



Monitoring Unit
Transmitter
& Receiver
available for all
product variants.

inches
[mm]

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

