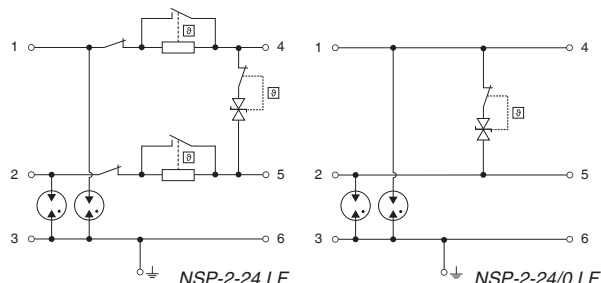


DATA SHEET

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



IEC/EN Category: D1/C1/C2/C3
 Voltages: 24, 24/0 V DC
 Frequency Range: 1.5 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21, UL 497B 4th Edition
 Configuration:



Technical Data

NSP-2 LF Series

Electrical

Lines Protected		1 (2 Conductors)	
Nominal Operating Voltage (DC)	U_n	24V	24V
Maximum Continuous Operating Voltage (DC)	U_c	30V	30V
Rated Load Current at 40 °C	I_L	800 mA	12 A
Rated Load Current at 70 °C	I_L	600 mA	10 A
C2 Nominal Discharge Current (8/20 μ s)	(Line-Line) I_n	10 kA	250 A
	(Line-Ground)	10 kA	
C2 Total Nominal Discharge Current (8/20 μ s)	I_n	20 kA	
C2 Voltage Protection Level (10kV/5kA)	(Line-Line) U_p	140V	-
	(Line-Ground)	950V	950V
C3 Voltage Protection Level (1 kV/ μ s)	(Line-Line) U_p	60V	60V
	(Line-Ground)	650V	
D1 Impulse Current (10/350 μ s)	(Line-Line) I_{imp}	2.5 kA	
	(Line-Ground)	2.5 kA	
D1 Total Impulse Current (10/350 μ s)	I_{imp}	5 kA	
Rated Spark Overvoltage	(Line-Line)	33V - 49V	33V - 51V
	(Line-Ground)	184V - 286V	184V - 286V
Response Time Overvoltage Protection	t_A	< 1 ns	
Thermal Protection		Yes	
Insulation Resistance of the Protection	(Line-Line) R_{iso}	> 15 M Ω	
Serial Resistance per Path	R	1 Ω	0.1 Ω
Capacitance	(Line-Line) C	typ. 1 nF	typ. 1 nF
	(Line-Ground)		typ. 15 pF
Maximum Frequency	f_G	1.5 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

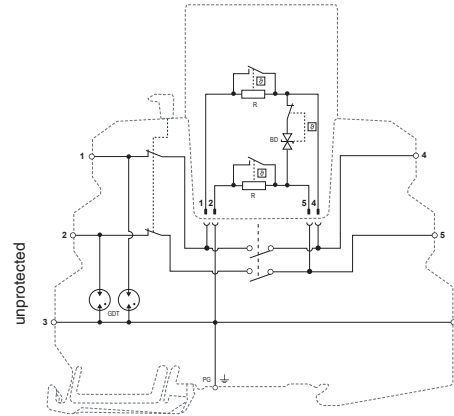
Order Code	24	24/0
NSP-2-xx LF	7088.03	7088.60
NSL-2-xxM LF (module)	7088.04	7088.61

RayDat NSP-2 LF Series

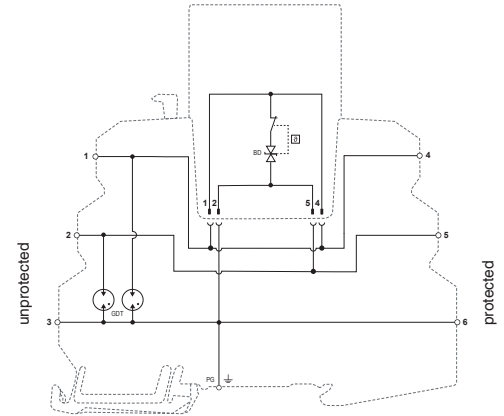
Configuration

Legend

- BD Bi-directional TVS Diode
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor

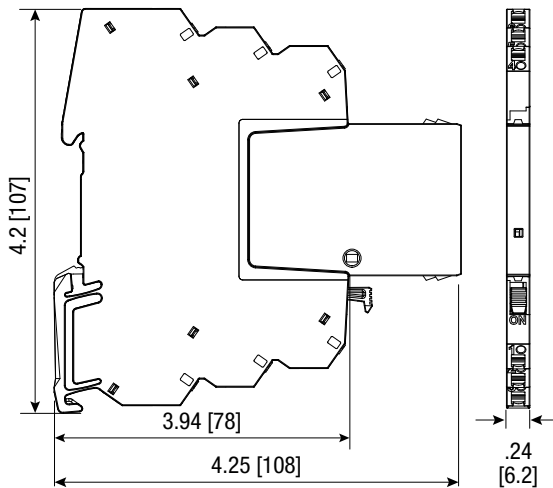


NSP-2-24 LF



NSP-2-24/0 LF

Dimensions & Packaging



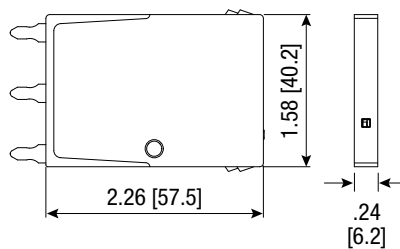
NSP-2 LF Series

24

24/0

Dimensions

Weight per Unit	2.12 oz [60 g]	2.05 oz [58 g]
Dimensions DIN 43880	.24" [6.2 mm]	
Packaging Dimensions (Single Unit)	4.45×4.37×0.43" [113×111×11 mm]	
Minimum Package Quantity	15 pieces	



NSP-2-xxxM LF Series

24

24/0

Dimensions

Weight per Unit	0.56 oz [16 g]	0.49 oz [14 g]
Packaging Dimensions (Single Unit)	4.45×4.37×0.43" [113×111×11 mm]	
Minimum Package Quantity	15 pieces	



Monitoring Unit
Transmitter
& Receiver
available for all
product variants.

inches
[mm]



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