



Features

- UL listed dataline protector per UL 497B standard
- Signal transmission is not interrupted when exchanging modules
- Two-stage protection circuit limits the transients associated with gas discharge tubes and diodes
- Complies with UL 497B, and IEC 61643-21, category D1/C1/C2/C3
- Pluggable surge protection for DIN-Rail mounting
- Impulse current capacity up to 2.5 kA, 10/350 μ s

2520 Series Data and Signal Surge Protective Device

General Information

The Bourns® Model 2520 Series is a Data and Signal Surge Protective Device (SPD) designed to protect datalines, providing surge protection for 2-pair lines or 4 single lines with common reference potential in the data, signal and communication systems.

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Electrical Characteristics

| Characteristic | | 2520-4L1-xx | | | |
|--|---------------------------------------|--------------------------|-----------|-----------|------------|
| | | 5 | 12 | 24 | 48 |
| Compliance | | UL 497B; IEC 61643-21 | | | |
| Nominal Voltage (VDC) | U_n | 5 | 12 | 24 | 48 |
| Max. Continuous Operating Voltage (VDC/VAC) | U_c | 6/4.2 | 15/10.6 | 33/23.3 | 54/38.1 |
| C2 Nominal Discharge Current (8/20 μ s) per Line | I_n | 10 kA | | | |
| C2 Max. Discharge Current (8/20 μ s) per Line | I_{max} | 20 kA | | | |
| D1 Lightning Impulse Current (10/350 μ s) per Line | I_{imp} | 2.5 kA | | | |
| Voltage Protection Level (V) | L-L@ I_n , C2 (8/20 μ s) U_p | ≤ 30 | ≤ 45 | ≤ 55 | ≤ 100 |
| | L-PG@ I_n , C2 (8/20 μ s) U_p | ≤ 30 | ≤ 45 | ≤ 55 | ≤ 100 |
| Nominal Current | I_L | 1 A | | | |
| Cut-off Frequency | f_G | 100 MHz | | | |
| Series Impedance per Line | | 0.68 Ohm | | | |
| Protection Line | | 2-pair or 4 single lines | | | |

Agency Recognition

| Agency | Category | Agency File No. |
|--------|----------|-------------------------|
| | UL 497B | E153537 |

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*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Applications

- RS-232, RS-422 and RS-485 interfaces
- Telecommunications
- Low voltage alarm circuits
- High-frequency transmission systems
- Analog/digital communications

2520 Series Data and Signal Surge Protective Device

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Electrical Characteristics (continued)

| Characteristic | | 2520-4L2-xx | | | |
|--|---------------------------------------|--------------------------|------------|------------|------------|
| | | 5 | 12 | 24 | 48 |
| Compliance | | UL 497B; IEC 61643-21 | | | |
| Nominal Voltage (VDC) | U_n | 5 | 12 | 24 | 48 |
| Max. Continuous Operating Voltage (VDC/VAC) | U_c | 6/4.2 | 15/10.6 | 33/23.3 | 54/38.1 |
| C2 Nominal Discharge Current (8/20 μ s) per Line | I_n | 10 kA | | | |
| C2 Max. Discharge Current (8/20 μ s) per Line | I_{max} | 20 kA | | | |
| D1 Lightning Impulse Current (10/350 μ s) per Line | I_{imp} | 2.5 kA | | | |
| Voltage Protection Level (V) | L-L@ I_n , C2 (8/20 μ s) U_p | ≤ 30 | ≤ 45 | ≤ 55 | ≤ 100 |
| | L-PG@ I_n , C2 (8/20 μ s) U_p | ≤ 500 | ≤ 500 | ≤ 500 | ≤ 500 |
| Nominal Current | I_L | 1 A | | | |
| Cut-off Frequency | f_G | 100 MHz | | | |
| Series Impedance per Line | | 0.68 Ohm | | | |
| Protection Line | | 2-pair or 4 single lines | | | |

| Characteristic | | 2520-4L3-xx | | | |
|--|---------------------------------------|---------------------------|------------|------------|------------|
| | | 5 | 12 | 24 | 48 |
| Compliance | | UL 497B; IEC 61643-21 | | | |
| Nominal Voltage (VDC) | U_n | 5 | 12 | 24 | 48 |
| Max. Continuous Operating Voltage (VDC/VAC) | U_c | 6/4.2 | 15/10.6 | 33/23.3 | 54/38.1 |
| C2 Nominal Discharge Current (8/20 μ s) per Line | I_n | L-L: 300 A, L-G: 10 kA | | | |
| C2 Max. Discharge Current (8/20 μ s) per Line | I_{max} | L-L: 500 A, L-G: 20 kA | | | |
| D1 Lightning Impulse Current (10/350 μ s) per Line | I_{imp} | 2.5 kA | | | |
| Voltage Protection Level (V) | L-L@ I_n , C2 (8/20 μ s) U_p | ≤ 30 | ≤ 45 | ≤ 55 | ≤ 100 |
| | L-PG@ I_n , C2 (8/20 μ s) U_p | ≤ 500 | ≤ 500 | ≤ 500 | ≤ 500 |
| Nominal Current | I_L | 2 A | | | |
| Cut-off Frequency | f_G | 100 MHz | | | |
| Series Impedance per Line | | 0 Ohm | | | |
| Protection Line | | 2-pair or 4 single lines | | | |

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2520 Series Data and Signal Surge Protective Device

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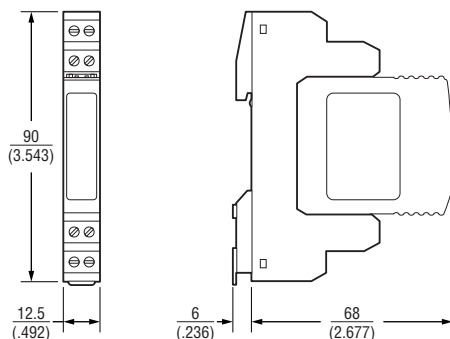
General Characteristics

| Characteristic | 2520-4Lx-xx |
|-----------------------------|---|
| Mounting | 35 mm DIN-Rail in accordance with EN 50022/DIN46277-3 |
| Type of Connection IN/OUT | screw/screw |
| Dimensions (mm) | 90 x 12 x 74 |
| Operating Temperature Range | -40 °C ~ +85 °C |
| Enclosure Material | Thermoplastic, extinguishing degree, UL 94V-0 |

Standards Compliance

IEC 61643-21 Category D1/C1/C2/C3
 UL497B
 IEEE C62.41
 RoHS RoHS Directive 2015/863, Mar 31, 2015 and Annex

Product Dimensions



DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

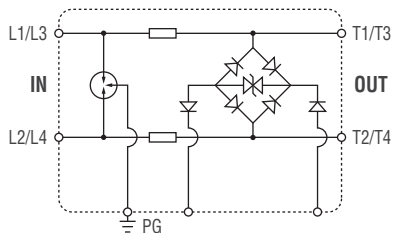
How to Order

2520 - 4L n - xx

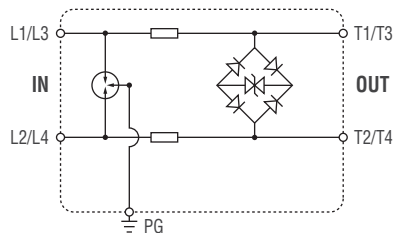
Model Designator
 2520 = Data and Signal SPD
 Number of Datalines
 4L = 2-Pair or 4 Single Lines
 Circuit Configuration (Refer to Product Schematics)
 1 = Circuit Type 1
 2 = Circuit Type 2
 3 = Circuit Type 3
 Nominal Voltage
 05 = 5 VDC
 12 = 12 VDC
 24 = 24 VDC
 48 = 48 VDC

Product Schematics

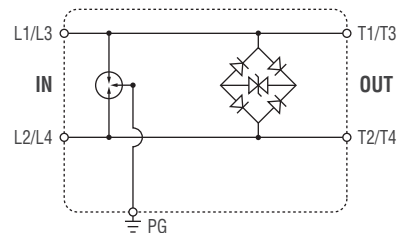
Circuit Type 1



Circuit Type 2



Circuit Type 3



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