Features

■ GDT/TBU® High-Speed Protector technology
■ Low impulse let-through
■ High surge current rating
■ Available in isolated and grounded versions
■ 10/100/1000 data compatibility
■ 5 kV isolation
■ ⓤ Listed per UL 497B (File: E153537)

Applications

■ Data communications
■ Highly exposed Ethernet
■ 1000 Base-T Gigabit Ethernet
■ Indoor/controlled environment installations
■ Telecommunications and industrial installations

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1500 Series Gigabit Ethernet SPD

The 1500 Series Ethernet Surge Protective Device (SPD) incorporates multiple Bourns® circuit protection technologies. These technologies are designed to work together to provide an unmatched level of surge protection for exposed Ethernet applications. The 1500 Series is designed to meet key surge and AC power cross requirements of GR-1089-Core Issue 6. The isolated model is designed to withstand voltages up to 5 kV.

The 1500 Series is available as a wall mount unit with optional DIN Rail hardware.

Characteristics

Test methods per UL 497B, GR-1089 Issue 6, and CSA C22.2.

Parameter	Isolated Version	Grounded Version
DC Breakdown Line to Line	150 V Typical Input / 7 V Typical Output	
DC Breakdown Line to Ground	N/A	150 V Typ.
Line Series Resistance (Loop)	12 Ω Typ.	
Line Series Balance	0.5 Ω Typ. / 1.0 Ω Max	
Capacitance Line to Line @ 1 MHz	N/A	10 pF Typ.
Time-to-block (t_{block})	<1 μs	

First Level Surge
    1 kV – 10/1000 μs, 100 A
    2.5 kV – 2/10 μs, 500 A
    800 V – 1.2/50 μs, 8/20 μs Combo Wave
	>10 operations
	>10 operations
	>10 operations	

Second Level Surge
    2.5 kV – 2/10 μs, 500 A, Inductive Kick
    6 kV / 3 kA – 1.2/50 μs, 8/20 μs Combo Wave
	> 1 operation
	> 1 operation	

First Level Power Fault
    220 mA Below Protection Threshold
    600 V / 1 A / 1 Second
    1000 V / 1 A / 1 Second
    425 V / 0.5 A / 4 Seconds
	15 minutes
	> 60 operations
	> 60 operations
	> 1 operation	

Second Level Power Fault
    120 V / 25 A [1]
    425 V / 40 A / 1.5 Second [1]
    425 V / 7 A / 5 Seconds [1]
    425 V / 2.2 A
	15 minutes
	1 operation
	1 operation
	15 minutes	

BER Performance Testing
    10/100 Mbps
    1 Gbps
	> 100 meters
	Up to 100 meters	

Storage and Operating Temperature	-40 to +65 °C	
Ground Connection	Screw Lug or DIN Rail Clip	

Notes:
Isolated version does not require a ground connection.
1) Fuse may fail open and disconnect from circuit.

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Product Dimensions

65.10
(2.563)

25.12
(0.989)

NETWORK

107.01
(4.213)

B®

DIMENSIONS: $\dfrac{\text{MM}}{\text{(INCHES)}}$
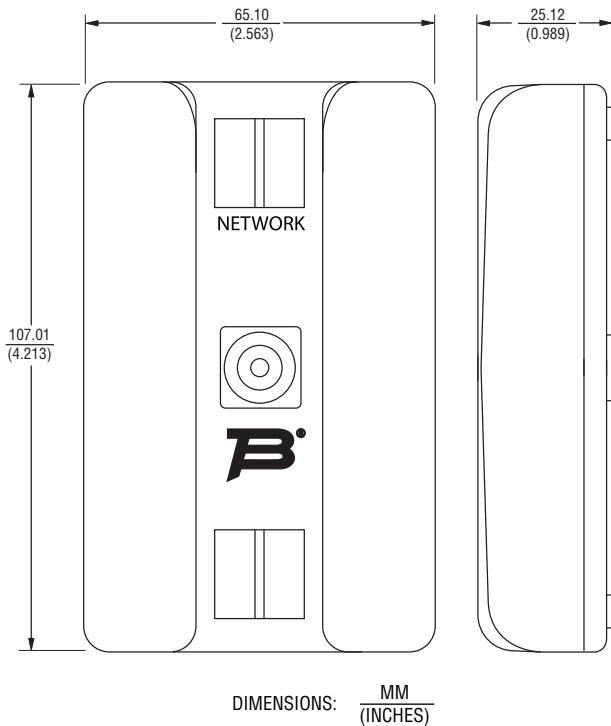
DIN Rail Hardware Dimensions

15.75
(0.62)

40.64
(1.60)

46.48
(1.83)

16.25
(0.65)
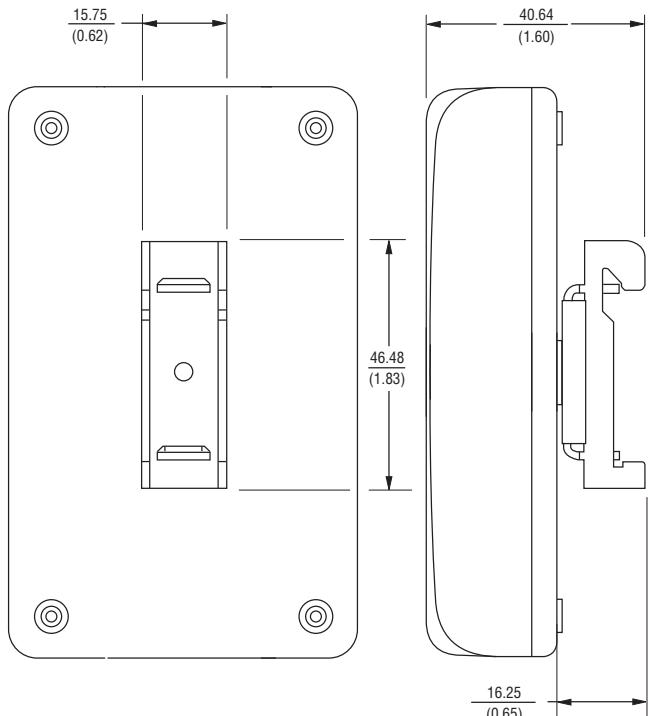
How To Order

1500 - X Y - W

Model Number Designator

Configuration
- 1 = Isolated*
- 2 = Grounded

Hardware Options
- S = Screw Lug
- D = DIN Rail

Ground Wire (Optional)
- W = #14 AWG Ground Wire, 3 Ft.

* Isolated unit requires no ground.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Bourns](#):
 [1500-1S](#) [1500-2D](#) [1500-2D-W](#) [1500-2S-W](#) [1500-1D](#)