Surge Protection Made Simple™ for Coaxial Data Cables
UL Listed 497B DIN-Rail Mount Surge Protective Device for BNC Connector Cable Systems

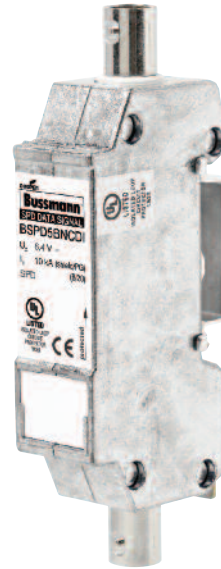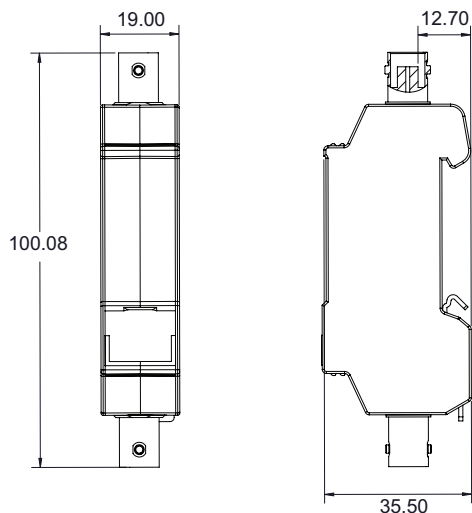UL LISTED   RoHS

Description

The Cooper Bussmann BSPD5BNCDD and BSPD5BNCDI two-stage DIN-Rail mounted surge arresters are for protecting coaxial cable-connected systems (such as video and camera systems) from potential damage. The BSPD5BNCDD features direct (VCD) shield connection while the BSPD5BNCDI features indirect shield connection (VCID) to prevent leakage pickups.

The BSPD5BNCDD and BSPD5BNCDI shielded surge arresters are mounted on the supplied bracket with cable lug or mounted on a rack mounted DIN-Rail with suitable grounding. BNC connector terminated data or video signal cables are plugged into surge arrester with the equipment plugged into the protected side.

Common applications include protecting outdoor video surveillance systems or video control centers or coaxial data lines. For BSPD5BNCDI, the cable shield is indirectly grounded via a gas discharge tube to avoid being influenced by leakage pickups.

- UL 497B Listed
- Plug-in surge protective device for easy retrofitting
- The space-saving surge arrester with BNC socket is mounted on supplied rail terminal lug or standard 35mm DIN-Rail
- Integrated direct or indirect shield grounding avoids leakage pickups
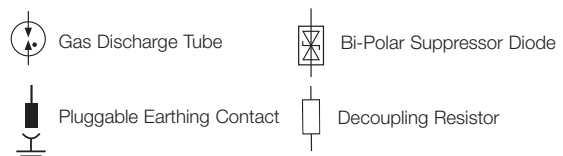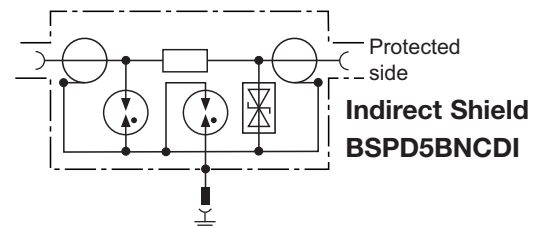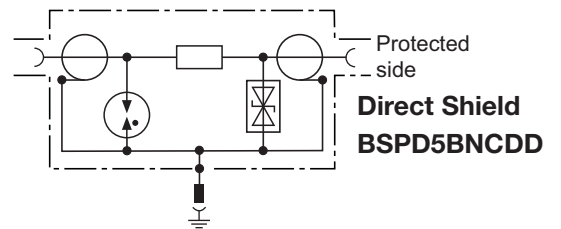- Easily adaptable due to BNC sockets

Dimensions-mm

BSPD5BNCDD

BSPD5BNCDI

5 YEAR WARRANTY

DIN-Rail Mount SPD
for BNC Coax

Circuit Diagrams

Protected side

Direct Shield
BSPD5BNCDD

Protected side

Indirect Shield
BSPD5BNCDI

Gas Discharge Tube   Bi-Polar Suppressor Diode

Pluggable Earthing Contact   Decoupling Resistor

www.cooperbussmann.com/Surge

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Technical Data		
Catalog Number	BSPD5BNCDD	BSPD5BNCDI
Return loss at 300MHz	≥8dB	≥10dB
Capacitance shield-PG (C)	—	≤20pF
Voltage protection level shield-PG for I_n C2 (U_p)	—	≤650V
Voltage protection level shield-PG at 1kV/µs C3 (U_p)	—	≤600V
Nominal voltage (U_N)	5V	
Max. continuous operating DC voltage (U_C)	6.4V	
Nominal current (I_L)	0.1A	
C2 Nominal discharge current (8/20µs) shield-PG (I_n)	10kA	
C2 Nominal discharge current (8/20µs) line-shield (I_n)	5kA	
Voltage protection level line-shield for I_n C2 (U_p)	≤35V	
Voltage protection level line-shield at 1kV/µs C3 (U_p)	≤13V	
Frequency range	0-300MHz	
Insertion loss at 160MHz	≤0.4dB	
Insertion loss at 300MHz	≤3dB	
Return loss at 130MHz	≥20dB	
Impedance (Z)	50Ω	
Series impedance per line	4.7Ω	
Capacitance line-shield (C)	≤25pF	
Operating temperature range	-40°C to +80°C	
Degree of protection	IP10	
For mounting on	35mm DIN-Rails per EN 60715	
Connection (input / output)	BNC Socket (female) / BNC Socket (female)	
Grounding	Via 35mm DIN-Rail per EN 60715	
Enclosure material	Zinc die casting	
Color	Bare surface	
Test standards	IEC 61643-21 / EN 61643-21	
Agency Information	UL 497B	
Warranty	5 Years*	

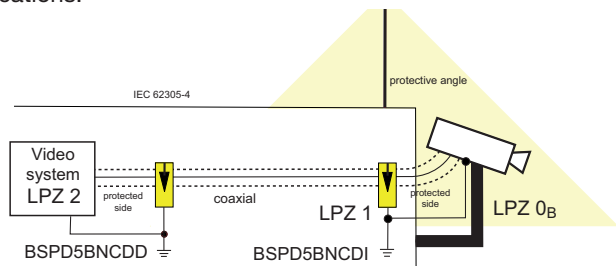* See Cooper Bussmann SPD Limited Warranty Statement (3A1502) for details at www.cooperbussmann.com/Surge.
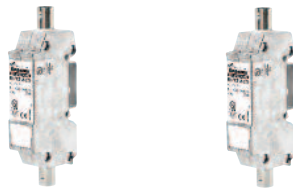
DIN-Rail BNC SPD Applications

Part Numbers	BSPD5BNCDD	BSPD5BNCDI
Bus Systems and Measuring, and Control Technology		
Control Net	X	X
Melsec Net 2	X	X
N1 LAN	X	X
Data Networks		
Arcnet	X	X
Video Systems		
Video (coax)	X	X

Direct vs. Indirect Shielding - Application Example

Apply the BSPD5BNCDD (direct shield) at the equipment location and apply the BSPD5BNCDI (indirect shield) near exterior protected equipment. The indirect shield grounding at the exterior device will help avoid picking up leakage currents that can degrade signal quality while providing surge protection when needed. See illustration below for installation locations.

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