

# SDD-DH485

Data Highway 485  
DIN-Rail Mount

Surge Suppressor



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## Features:

- ▶ Vertical universal mounting on any standard DIN-Rail.
- ▶ Fast, direct wire termination to 6-position plug-in screw connector.
- ▶ Sub nanosecond response time stops failures due to lightning, spikes and over-voltage surges while minimizing other electrical noise.
- ▶ Unique multi-stage design provides the most effective suppression available and requires no additional secondary protection.
- ▶ Automatically resets after each transient. No maintenance is required.
- ▶ Two grounding options: DIN-Rail foot to grounded rail or screw post.
- ▶ Exceeds severity level 4 of IEC/EN 61000-4-4 (Provides 2.5 kA/line of surge protection).
- ▶ Space efficient protector is hermetically sealed and suitable for the most harsh environments
- ▶ Line termination resistance of  $120\Omega$  provided between B & Termination lines by bridging Termination & A lines.

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## Applications:

The SDD-DH485 is designed to protect programmable controllers, computers and other devices that communicate through communication networks similar to an Allen Bradley DH-485 local area network.

Select the SDD-DHP DIN-Rail mount suppressor for Allen Bradley Data Highway Plus applications.

Select the SDP-120 Series DIN-Rail mount suppressor for 120VAC protection.

Select the SDD-DN DIN-Rail mount suppressor for DeviceNet applications.

Panel-mount versions of all models are also available.

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## Typical Installation:

Mount the SDD-DH485 suppressor on any standard DIN-Rail. Connect the suppressor as indicated on the back of this sheet. Connect the protected lines to the equipment and dress away from the incoming field lines. The suppressor must be connected to a good earth ground. Keep the ground wire (#12 AWG or larger) short and place the suppressor as near to the equipment it is to protect as possible. Equipment ground and suppressor ground should be common.

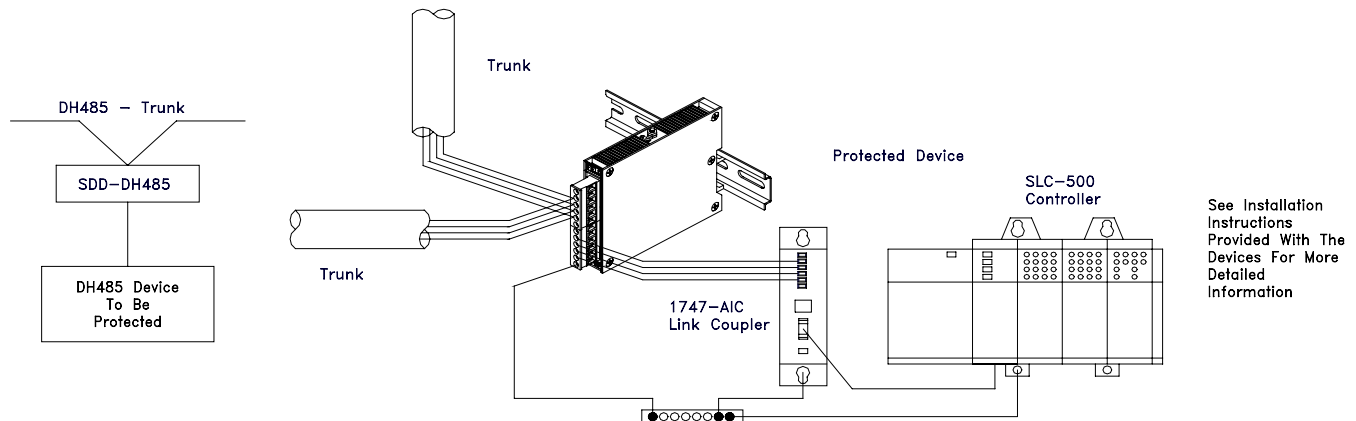
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# SDD-DH485 Operating Specifications:

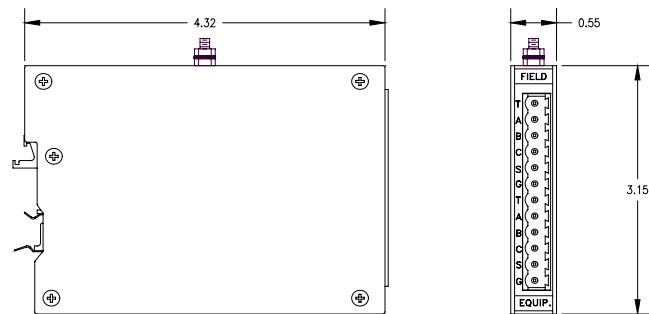
Specifications	Lines A to B	Lines A & B to GND	Shield to GND
Operating Voltage	18 Volts	10 Volts	N/A
Maximum Operating Voltage	20 Volts	12 Volts	N/A
Maximum Operating Current	200 mA		N/A
Clamping Action Turn-On	22.2 Volts	13.3 Volts	6.4 Volts
Maximum Clamping at 2 kA (8 x 20 mSec)	37 Volts	21 Volts	10 Volts
Maximum Surge Voltage	20 kV		
Maximum Surge Current (8 x 20 mSec)	3 kA		
Maximum Current Leakage/Line At Operating Voltage	10 $\mu$ A		500 $\mu$ A
DC Series Resistance per Line	N/A		N/A
Capacitance per Line	100 pF max		
Response Time	Less than 1 nanosecond		
Operating and Storage Temperature	-40 Degrees Celsius to +85 Degrees Celsius		

Note: Consult the factory for other applications and operating conditions and specifications. All specifications at 25 degrees Celsius.

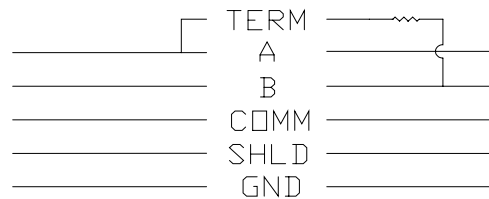
## Typical Installation:



## Outline Dimensions:



## Termination Connection:



If end-of-network termination is desired, bridge line A to Terminal line at Field side of SDD-DH485 to connect internal 120 $\Omega$  resistor. Do not jumper at link coupler.

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