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REVISIONS

LTR	DESCRIPTION	ECO NUM.	DATE	APPROVED
A	CHANGE DRAWING TITLE	4309	11/02/01	MLH
B	ADD PDS-2	4423	01/18/02	
C	WIRE LENGTH 18+ TO 16++	4554	5/24/02	MLH
D	HAZARDOUS LOCATIONS CERTIFICATION . CLASS 1 DIV 2 APPROVAL	8689	3/15/10	MPD



UNLESS OTHERWISE SPECIFIED DIM. IN INCHES BEFORE PLATING

DRAWN:	MLH	DATE	10/01/01
CHECKED:	MWG		10/18/01
ENGR. APPD:	DE		10/19/01
PROJ. APPD:	MLH		10/19/01
APPROVED:			



TITLE:
**Product Specification
PDS Series**

MATERIAL:

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SIZE A	CAGE 30992	DRAWING NUMBER 1400-404	REV D
SCALE = N/A		PAGE 1 OF 3	

SUPPRESSOR PERFORMANCE SPECIFICATION

PDS-1 (1101-586)

PDS-2 (1101-587)

- 1. GENERAL DESCRIPTION:** The PDS Series Pipe Data surge suppressors are high-speed, high-current, solid-state devices designed to protect electronic equipment and systems from transient overvoltages. The suppressor limits the magnitude of transient overvoltages that may occur on low voltage DC power lines, 4-20mA current loops or low frequency data lines. Systems where the PDS Series have been installed include:

The PDS Series surge suppressors are hybrid technology designed products that utilize silicon avalanche suppression diodes (SASD) for the primary protection and Gas Discharge Tubes (GDT) for secondary or backup protection. The SASD suppressor provides continuous, bipolar protection and automatically resets after a surge event with no degradation to its protection capabilities.

The suppressors are intended to be installed anywhere power or communication lines are run through ½+schedule pipe. The PDS-1 suppressor provides the input and output wires on one end, allowing for a T connector system installation. The PDS-2 provides the input and output wires on opposite ends, allowing for a straight in-line system installation. The PDS Series connect via 18AWG wire.

Note: The PDS surge suppressors REQUIRE a low impedance path to Earth ground.

The PDS-1 and PDS-2 surge suppressors are approved for hazardous locations that require a rating of **Class1 Division 2, Groups A, B, C, D.**

2. ELECTRICAL SERVICE:

- 2.1. Input/Output Connection 16+ length 18AWG Wires
- 2.2. Configuration 2 pair/4 wire
- 2.3. Protection Modes Line-GND
- 2.4. Pass-Through Current (Max.) 10A
- 2.5. Maximum Continuous Operating Voltage 13VDC
- 2.6. Capacitance < 8pF L-L, L-G

3. ELECTRICAL PERFORMANCE:

- 3.1. Response Time (All Models) 5 nanoseconds (Max.)
- 3.2. Gas Discharge Tube ratings
 - 3.2.1. V_{br} ~90Vpk @ 5mADC L-L, L-G
 - 3.2.2. V_{pl} 20kV / 10kA (8x20us) L-L, L-G
- 3.3. SASD suppressor ratings
 - 3.3.1. V_{br} ~35Vpk @ 5mADC L-L, L-G
 - 3.3.2. V_{pl} 125Vp @ 6kV / 3kA (8x20us) L-L, L-G
 - 3.3.3. V_{pl} 250Vp @ 20kV / 10kA (8x20us) L-L, L-G
 - 3.3.4. V_{pl} 250Vp @ 100A (10x1000us) L-L, L-G



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4. CERTIFICATIONS:

- 4.1. Meet requirements of UL 497b and Belcore GR1089
- 4.2. Hazardous Locations; FM Approvals Class I Division 2 US, Canada and EU
- 4.3. Labeling Requirements
 - 4.3.1. Main Product Label

Transtector
 10701 Airport Drive, Hayden ID 83835
PDS-1 1101-586
 (PDS-2 1101-587)



AEx/Ex nA IIC T4 Tamb = -40°C to +65°C
 Class 1, Division 2, Groups A, B, C, D;
 T4A Tamb = -40°C to +65°C



II 3 G Ex nA IIC
 T4 Tamb = -40°C to +65°C
 FM10ATEX0002X.

4.3.2. Secondary Label

Serial Number
 Date Code (year of construction)

5. ENVIRONMENTAL:

- 5.1. Storage/Operating Temperature: -40°C to +65°C
- 5.2. Relative Humidity..... 95%

6. MECHANICAL:

- 6.1. Dimensions ½+Diameter x 6+L
- 6.2. Material Schedule 40 Stainless Steel
- 6.3. Threads..... ½+NPT threaded ends
- 6.4. Weight (Max.)..... 2 Oz.

Note: Green Ground wire must be connected to a solid earth ground for proper suppressor operation.



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