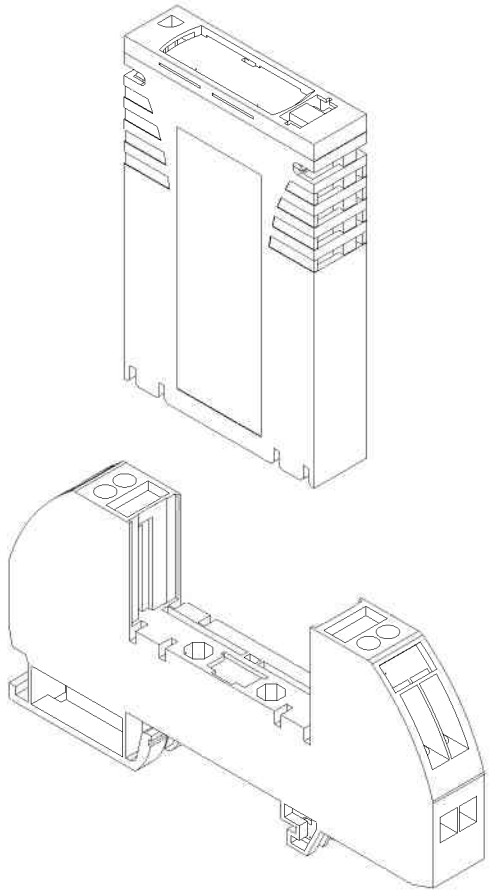
THIS DRAWING HAS BEEN GENERATED AND IS MAINTAINED BY A CAD SYSTEM. CHANGES SHALL ONLY BE INCORPORATED AS DIRECTED BY THE DESIGN ACTIVITY.

REVISIONS

LTR	DESCRIPTION	ECO NUM.	DATE	APPROVED
O	PRODUCTION RELEASE		1/08/03	DWR
A	ADDED DRDC 70 TO SPEC	5133	2/10/04	CDD
B	HAZARDOUS LOCATIONS CERTIFICATION – CLASS 1 DIV 2 APPROVAL	8689	3/15/10	MPD



UNLESS OTHERWISE SPECIFIED DIM. IN INCHES BEFORE PLATING

MATERIAL: N/A

DRAWN:	DWR	DATE 1/08/03
CHECKED:	BJK	1/15/03
ENGR. APPD:	JDW	1/15/03
PROJ. APPD:	DWR	1/15/03
APPROVED:		

TRANSTECTOR®
SUPERIOR SURGE SUPPRESSION

TITLE:

Product Specification
DRDC Series

SIZE	CAGE	DRAWING NUMBER	REV
A	30992	1400-477	B

SCALE = N/A

SUPPRESSOR PERFORMANCE SPECIFICATIONS
DRDC 7 (1101-678)
DRDC 12 (1101-679)
DRDC 24 (1101-680)
DRDC 48 (1101-681)
DRDC 70 (1101-724)

1. **GENERAL DESCRIPTION:** The DRDC Series Din-Rail surge suppressors are modular, 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. Data lines that benefit from DRDC suppression include: Ethernet, RS-485/232, Profibus, Foundation Fieldbus, DH+ or DeviceNet.

   The DRDC Series surge suppressors utilize only silicon avalanche suppression diodes (SASD). The suppressor provides continuous, bipolar protection and automatically resets after a surge event with no degradation to its protection capabilities.

   The suppressor includes a removable module with a base that mounts on standard 35mm DIN (EN5022) rail. The suppressor size and form factor allows for convenient replacement of existing terminal blocks. The suppressor connects in a series (pass-through) configuration, the screw terminals accept two wire pairs (28 - 12AWG), and the device is rated for up to 10A of continuous current. Note: The DRDC surge suppressor REQUIRES that the DIN rail have a low impedance path to Earth ground.

   The DRDC Series 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 ..... 28-12AWG Screw Terminal
   2.2. Configuration ..... 2 pair / 4 wire
   2.3. Protection Modes ..... L-G
   2.4. Pass-Through Current (Max.) 10A
   2.5. Maximum Continuous Operating Voltage
      2.5.1. DRDC-7 ..... 13VDC
      2.5.2. DRDC-12 ..... 16VDC
      2.5.3. DRDC-24 ..... 32VDC
      2.5.4. DRDC-48 ..... 64VDC
      2.5.5. DRDC-70 ..... 118VDC

3. **ELECTRICAL PERFORMANCE:**

   3.1. Response Time (All Models) ..... 5 ns (Max)
   3.2. Voltage Protection Level
      3.2.1. Maximum Vpl Tested to IEEE/ANSI C62.41 10/1000μs Long Wave
         3.2.1.1. DRDC-7 ..... 20Vpk @ 164A
         3.2.1.2. DRDC-12 ..... 25Vpk @ 134A
         3.2.1.3. DRDC-24 ..... 50Vpk @ 134A
         3.2.1.4. DRDC-48 ..... 100Vpk @ 134A
         3.2.1.5. DRDC-70 ..... 165Vpk @ 66A

3.2.2. Maximum Vpl Tested to IEEE/ANSI C62.41 8/20μs Combination Wave
- **3.2.2.1.** DRDC-7 ..... 25Vpk @ 1400A
- **3.2.2.2.** DRDC-12 ..... 30Vpk @ 1200A
- **3.2.2.3.** DRDC-24 ..... 60Vpk @ 1200A
- **3.2.2.4.** DRDC-48 ..... 120Vpk @ 1200A
- **3.2.2.5.** DRDC-70 ..... 185Vpk @ 600A

4. CERTIFICATIONS:

4.1. UL 498B, excluding DRDC-70

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
DRDC-(voltage) 1101-xxx

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.

The DRDC-(voltage) shall be installed in an enclosure which provides an ingress protection rating of at least IP54.

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 ..... [100] H x [12,5] W x [100] L
6.2. Weight (Max.) ..... 2 Oz.

Note: Din-Rail must be connected to a solid earth ground for proper suppressor operation.