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DESIGN ACTIVITY.

## REVISIONS

LTR	DESCRIPTION	ECO NUM.	DATE	APPROVED
A	PRELIMINARY RELEASE	DD086	5/22/07	MLH
B	SEC. 1 REMOVE RAIL YARD AND SWITCHING	6913	7/17/07	MLH
C	ADD -W MODELS CHANGE PERFORMANCE VOLTAGE	7332	3/25/08	MPD
D	ADD AC RATING TO MAX OPERATING VOLTAGE	7446	8/25/08	MPD



UNLESS  
OTHERWISE  
SPECIFIED DIM.  
IN INCHES  
BEFORE  
PLATING

DRAWN:

MLH

DATE

5/22/07

CHECKED:

TC

5/26/07

ENGR. APPD:

SEH

6/26/07

PROJ. APPD:

MPD

6/26/07

MATERIAL:

NOTED

APPROVED:



**Transtector Systems, Inc.**

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TITLE:

**SPECIFICATION**

**DRI-24 pn 1101-869, 1101-869-W  
DRI-120 pn 1101-870, 1101-870-W**

**NOTICE:** THE INFORMATION  
AND DESIGN CONTAINED HEREIN IS  
THE PROPERTY OF TRANSTECTOR  
SYSTEMS. WHO RESERVES ALL  
RIGHTS THERETO

SIZE

**A**

CAGE

**30992**

DRAWING NUMBER

**1400-613**

REV

**D**

SCALE = N/A

PAGE 1 OF 4

**1. GENERAL DESCRIPTION:** The **DRI** (Rail Indicator) series of surge suppressors are designed to protect AC and DC data/signal circuits and provide positive status indication for all suppression components. This advancement in surge protection now allows a positive indication of the condition of the suppressor for continuous low voltage signal lines as well as intermittent circuits where power is not always applied. The surge suppressor is a high-speed, high-current solid state device designed to protect up to four low speed data, power signal, or two differential pair signals per unit. **DRI products use only silicon avalanche suppression diodes (SASD) for surge protection.** The indication circuit is externally powered to provide reliable suppressor status indication separate from the protected circuits. Each module (as depicted on page 1) connects into a WAGO 280 series base for mounting onto standard 35mm copper or aluminum DIN rail. Surge currents are shunted to ground through the earth ground connected DIN rail or separate wired ground. All terminations and wiring are connected into the WAGO cage clamp base with the DRI module snapping into base for trouble-free suppressor replacement. The suppressor module connects in parallel circuit configuration when in normal operation, and opens all four data lines for testing when the suppressor module is removed from its base. A visual LED indicator along with dry contact relay connections allow for visual indication of suppressor failure and remote monitoring.

Signal Rate.....	DC power to 30 Kb/s
Configuration.....	4 (four) wires – pass through when module inserted
Input Connection.....	Wire Cage Clamp (28-12 AWG)
Protection Modes.....	Line to Line, Line to Ground
Maximum Continuous Operating Voltage.....	DRI-24 Nominal..... 24VDC..... Max 34VDC
	DRI-120 Nominal 120VAC, 170VDC .. Max 127VAC, 180VDC
Maximum Continuous Operating Signal Current .....	5 Amp
Indication.....	With indicating power applied green LED not illuminated if failed
Dry Contact Relay.....	NO-C-NC .....
	≤ 125VAC..... ≤ 3 Amps
Positions noted with power applied, suppressor operational ..	≤ 30VDC..... ≤ 3 Amps
Standby Power.....	110-125VAC.....50/60 HZ.....1.2 Watt Max. draw

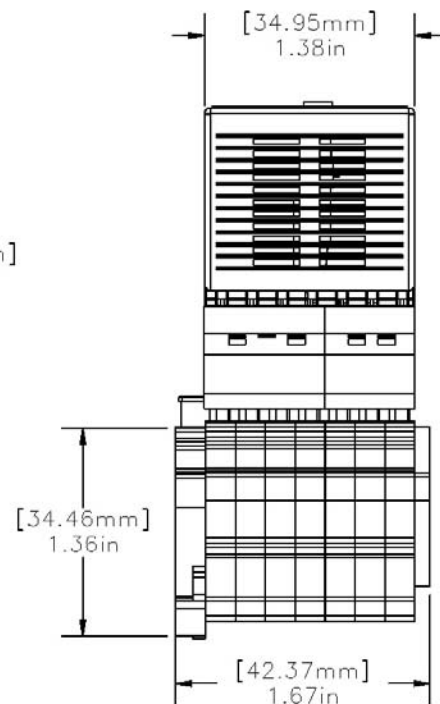
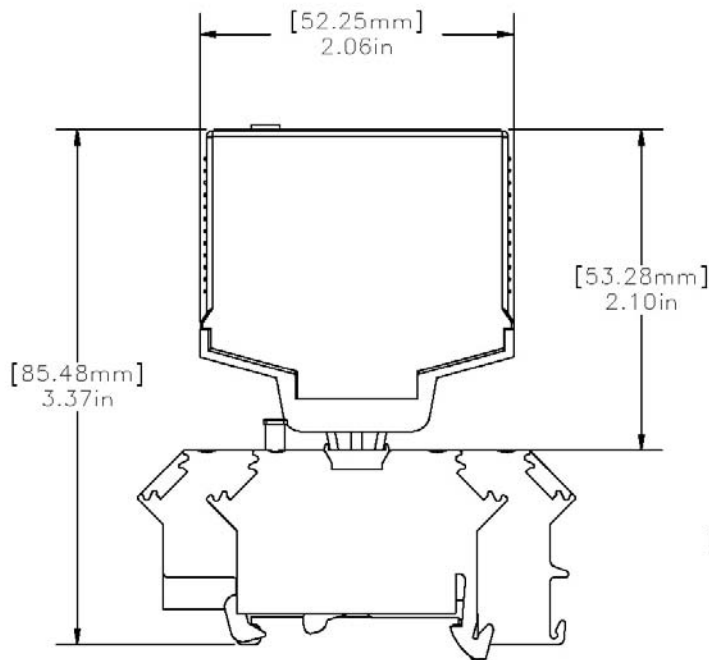
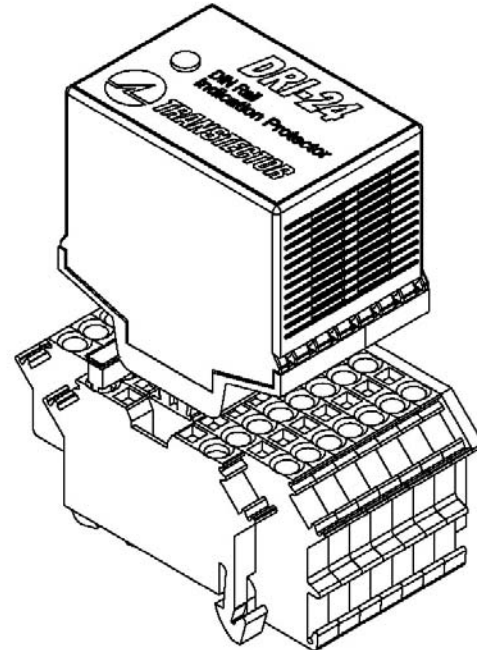
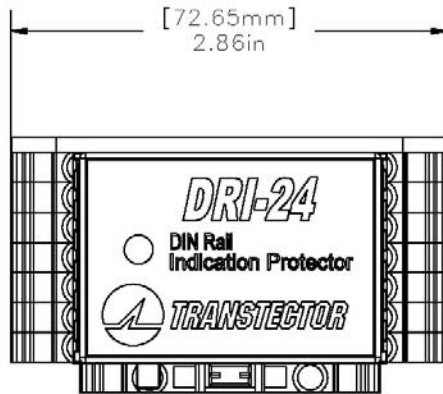
lpk( to IEEE 10/1000us Long Wave).....< 48VDC peak @ 100A peak  
lpk( to IEEE 8/20us Combination Wave)..... < 110VDC peak @ 1000A peak

l<sub>pk</sub>( to IEEE 10/100us Long Wave).....< 250VDC @ 85A  
l<sub>pk</sub>( to IEEE 8/20us Combination Wave) .....< 310VDC @ 1000A

Operating Temperature:.....-40°C to +85°C  
Storage Temperature: .....-40°C to +85°C  
Relative Humidity:.....99% (non-condensing)

Weight: .....Maximum 0.30 Lbs (.136 Kg)

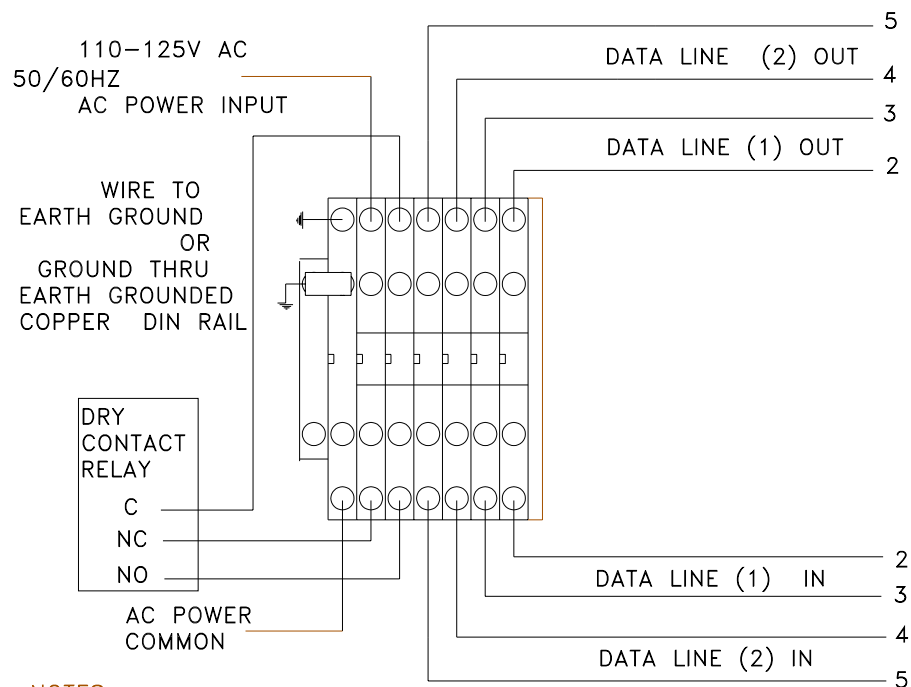
Mounting data: See diagram below.



[X.XX] = millimeters  
X.XX = inches

5. **Wiring data:** All wiring connections are made to the WAGO cage clamp terminal for use with 28AWG-12AWG solid or multi-strand wire. The suppressor terminal block assembly is provided with a ground block that if mounted to a copper or aluminum 35mm DIN Rail will ground the suppressor when bonded to the best ground (Earth) connection available. If using steel DIN rail remove the ground block and use a minimum 14 AWG stranded wire connected between the best ground available and the terminal block grounding input.

The DRI units connect into the WAGO 280 base via terminal connections as depicted below.



**NOTES:**

1. INSTALLATION DATA LINE (VDC).....MAXIMUM INSTALLATION (VDC)  
DRI-24..... 24V ..... 34V PEAK  
DRI-120.... 170V ..... 180V PEAK
2. DRY CONTACT RELAY RATING: 3A/30V DC, 3A/125V AC.