

REVISIONS				
REV.	DESCRIPTION	ECN	DATE	APPROVED
A	PRODUCTION RELEASE		10/10/13	DWR

PRODUCT CHARACTERISTICS

Application:

The DRI-120 surge suppressor is designed to protect 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-120 product uses 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. The 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-120 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.

Electrical Performance:

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-120 Nominal 170 Vdc, Max 180 Vdc
 Maximum Continuous Operating Signal Current: 5 Amp
 Indication: With indicating power applied green LED not illuminated if failed
 Dry Contact Relay: NO-C-NC, ≤ 125 Vac, ≤ 3 Amps
 Positions noted with power applied, suppressor operational: ≤ 30 Vdc, ≤ 3 Amps
 Standby Power: 110-125 Vac, 50/60 Hz, 1.2 Watt Max. draw

Testing:

Ipk (to IEEE 10/1000us Long Wave): < 290 Vdc peak @ 85 A peak
 Ipk (to IEEE 8/20us Combination Wave): < 320 Vdc peak @ 1000 A peak
 Response Time (Max): 5 nanoseconds

Mechanical:

Dimensions: 86mm H x 73mm W x 43mm L
 Weight (Max.): 5 Oz. (0.14 Kg)
 Material: Nylon (PA4.6)

Environmental:

Operating Temperature: -40°C to $+85^{\circ}\text{C}$
 Storage Temperature: -40°C to $+85^{\circ}\text{C}$
 Relative Humidity: 99% (non-condensing)

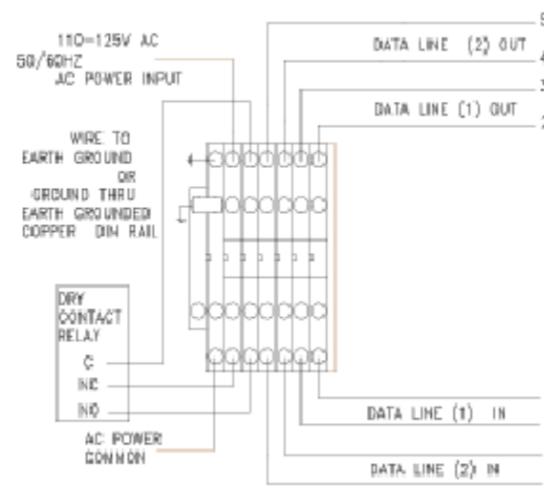
Certifications:

Hazardous Locations; FM Approvals Class I Division 2, Groups A, B, C, D US, Canada and EU

Wiring data:

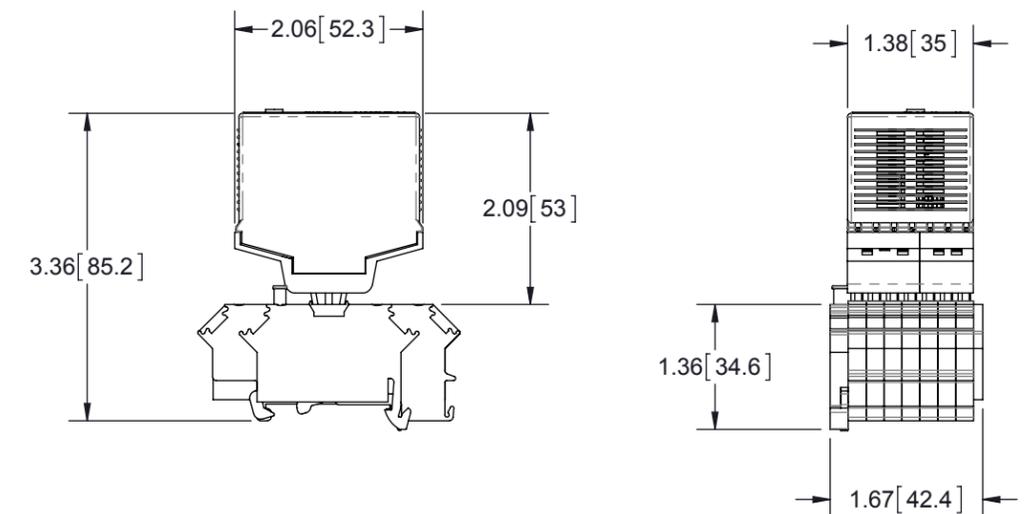
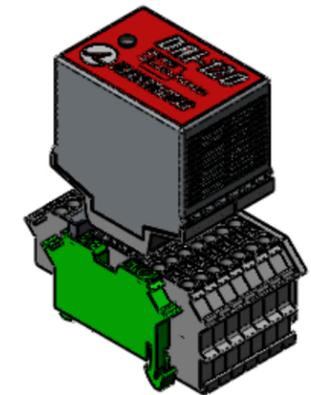
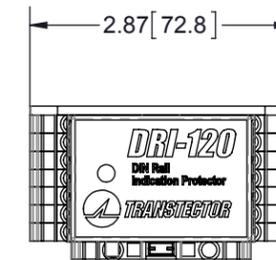
All wiring connections are made to the WAGO cage clamp terminal for use with 28AWG-12AWG solid or multi-strand wire. The suppressor terminal block assembly is provided with a ground block that if mounted to a copper or aluminum 35mm DIN Rail will ground the suppressor when bonded to the best ground (Earth) 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-120 connects into the WAGO 280 base via terminal connections as depicted in wiring diagram.

Note: Suppressor must be connected to a solid earth ground for proper operation.



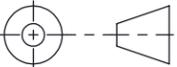
NOTES:

- INSTALLATION DATA LINE (Vdc): 170 V
MAXIMUM INSTALLATION (Vdc): 180V PEAK
- DRY CONTACT RELAY RATING: 3A/30 Vdc, 3A/125 Vac



CUSTOMER APPROVAL: _____ DATE: _____

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS TOLERANCES: FRACTIONS=± 1/32 .XX± .01 ANGLES=± 1° .XXX± .005	DRAWN	HMB	DATE	10/7/13	 DRI-120			
	ENG APPD	DWR		10/10/13				
	PRODUCT MGR	MLH		11/22/13				
	MARKETING APPD	LJ		11/26/13				
MATERIAL NOTED	PROJECT NO.				CUSTOMER SPECIFICATION			
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