



24 VDC and 120VAC Transorb Modules

Our transorb diode modules are 8-channel devices used to suppress counter-electromotive force (CEMF) generated by switching inductive loads such as solenoids, contactors, motor starters, interposing relays, etc., that may cause an unexpected PLC system shutdown.

Modules mount on 35mm DIN rail (part #DN-R35S1) or 15mm DIN rail (part #DN-R15S1).



ZL-TSD8-24



ZL-TSD8-120

Specifications								
24 VDC and 120 VAC Transorb Modules	Part #	Pcs/Pkg	Price/Pkg	Weight (lbs)	Part #	Pcs/Pkg	Price/Pkg	Weight (lbs)
		ZL-TSD8-24	1	\$47.50	0.19	ZL-TSD8-120	1	\$48.00
Description **	8-Channel Transient Voltage Suppressor Module, 24 VDC				8-Channel Transient Voltage Suppressor Module, 120 VAC			
Number of Circuits								8
UL Voltage Rating	24 VDC Voltage Breakdown: Min: 28.5 VDC Normal: 30 VDC Max: 31.5 VDC			120 VAC Voltage Breakdown: Min: 209 Normal: 220 Max: 231				
Peak Power Dissipation								1500W surge capability at 1 ms
Maximum Surge Current								2A
Terminal Block Contacts								Copper alloy, tin-lead plated
1-Wire Range (Rated Cross Section) *								12–24 AWG Solid or Stranded Copper Conductor (2.5 mm ²)
2-Wire Range (Rated Cross Section) *								16–24 AWG Solid or Stranded Copper Conductor (2.5 mm ²)
Wire Strip Length								0.24–0.27in (6–7mm)
Screw Torque								4.4 in·lbs (0.5 N·m)
Surrounding Temperature Range								32 to 140 °F (0 to 60 °C)
Cable/Wire Clearance								0.5in (12.7mm) Required
Mounting Restrictions								None
Approvals								File # E200031 UL, cUL, Class 1, Division 2, Groups A,B,C,D Hazardous Locations, CE, EN 61131-2:2007

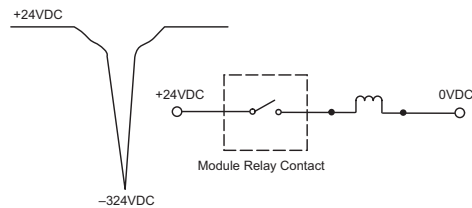
* Use conductors rated for 60 ° / 75 °C.

**Connecting cables are for internal wiring only.

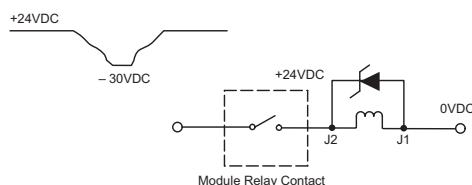
The waveform in the figure below shows the energy released when opening a contact switching a 24VDC solenoid.

Notice the large voltage spike.

ZL-TSD8-24



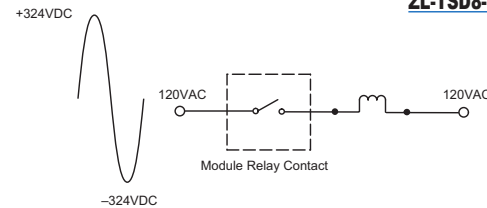
This figure shows the same circuit with a transorb (TVS) across the coil. Notice that the voltage spike is significantly reduced.



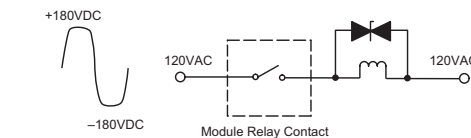
The waveform in the figure below shows the energy released when opening a contact switching a 120VAC solenoid.

Notice the large voltage spike.

ZL-TSD8-120



This figure shows the same circuit with a transorb (TVS) across the coil. Notice that the voltage spike is significantly reduced.

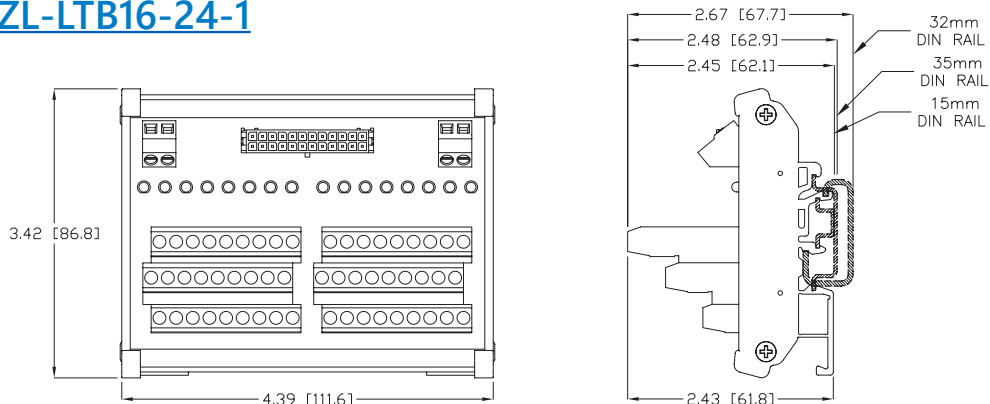


Note: See wiring details and dimensional drawings on our Web site at: <http://www.automationdirect.com/static/manuals/ziplinks/ziplinks.html>.

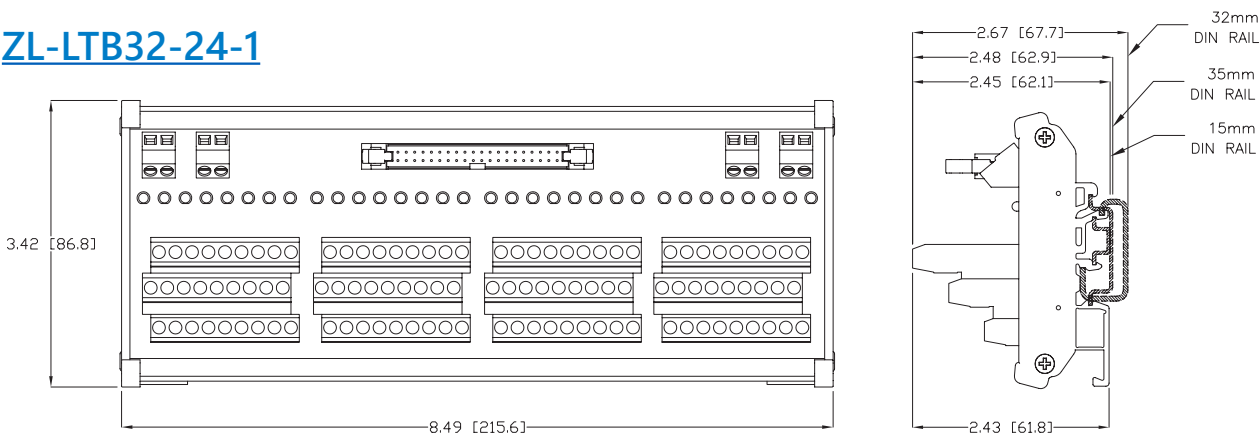


Module Dimensions

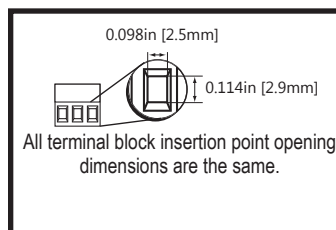
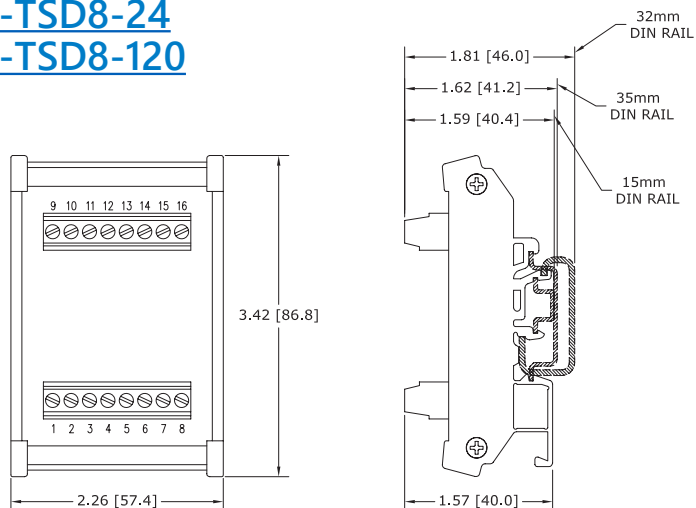
ZL-LTB16-24-1



ZL-LTB32-24-1



ZL-TSD8-24 ZL-TSD8-120



Note: Dimensions shown in Inches [mm]