



24VDC 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

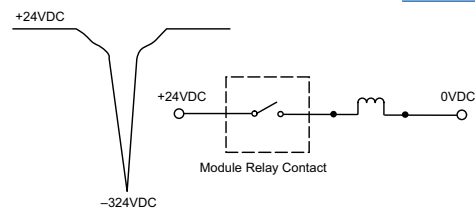
24VDC and 120VAC Transorb Modules	Part #	Pcs/ Pkg	Price/Pkg	Weight (lbs)	Part #	Pcs/ Pkg	Price/Pkg	Weight (lbs)
	<u>ZL-TSD8-24</u>	1	\$43.00	0.19	<u>ZL-TSD8-120</u>	1	\$43.50	0.22
Description **	8-Channel Transient Voltage Suppressor Module, 24VDC				8-Channel Transient Voltage Suppressor Module, 120VAC			
Number of Circuits	8							
UL Voltage Rating	24VDC Voltage Breakdown: Min: 28.5 VDC Normal: 30VDC Max: 31.5 VDC				120VAC Voltage Breakdown: Min: 209 Normal: 220 Max: 231			
Peak Power Dissipation	1500W surge capability at 1ms							
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 mm²)							
2-Wire Range (Rated Cross Section) *	16–24 AWG Solid or Stranded Copper Conductor (2.5 mm²)							
Wire Strip Length	0.24–0.27 in (6–7 mm)							
Screw Torque	4.4 in-lbs (0.5 N-m)							
Surrounding Temperature Range	32 to 140°F (0 to 60°C)							
Cable/Wire Clearance	0.5 in (12.7 mm) 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.

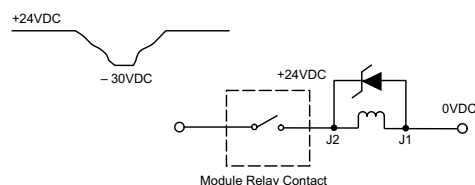
**Connecting cables are for internal wiring only.

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

Notice the large voltage spike.

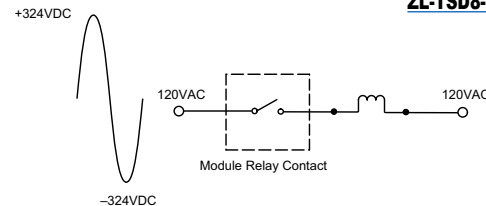
ZL-TSD8-24

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

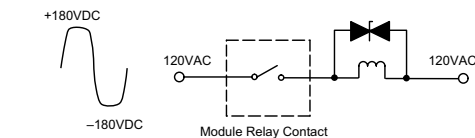


The waveform in the figure below shows the energy released when opening a contact switching a 120VAC solenoid.

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.

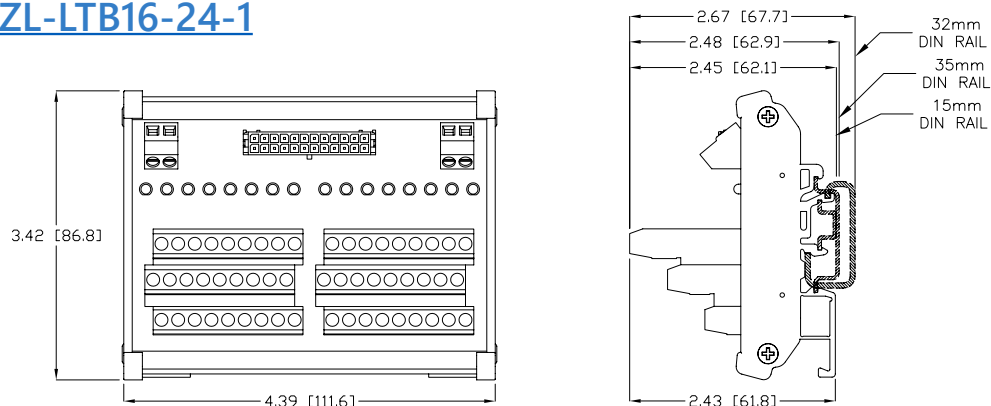


Note: See wiring details and dimensional drawings on our Web site at: <http://www.automationdirect.com/static/manuals/ziplinks/ziplinks.html>.

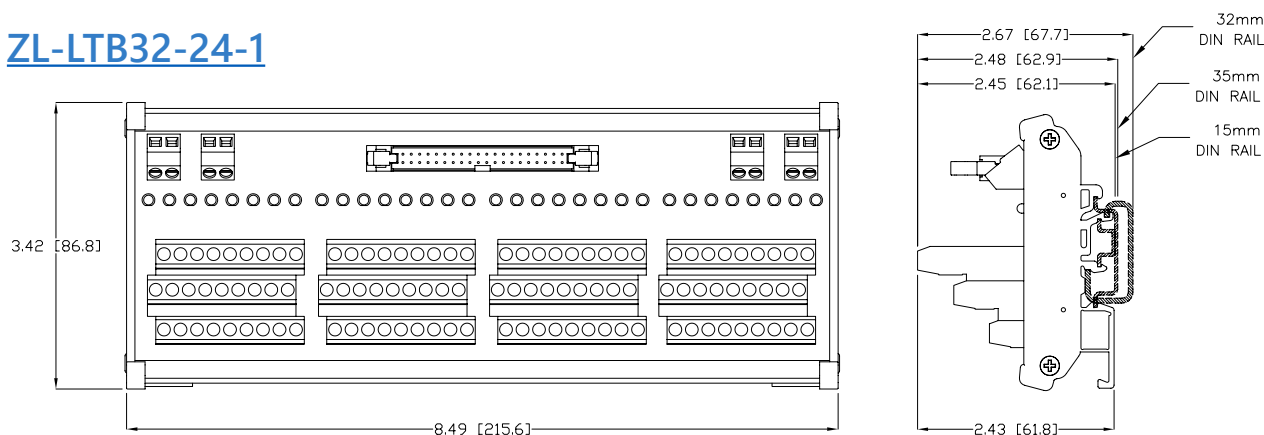


Module Dimensions

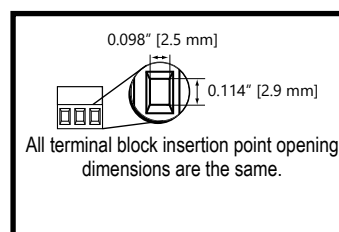
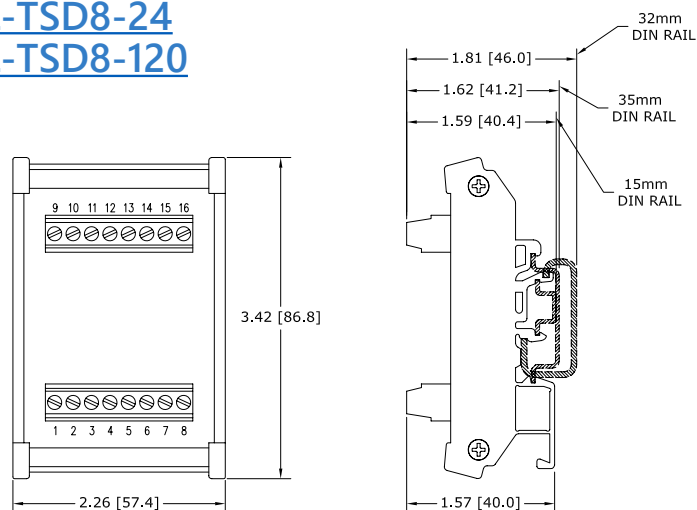
ZL-LTB16-24-1



ZL-LTB32-24-1



ZL-TSD8-24 ZL-TSD8-120



Note: Dimensions shown in Inches [mm]