



# 24V DC-Powered Fused Relay Modules

DC-powered fused relay modules provide isolation, switch high current (10A) loads, and include diode and fused protection to prevent voltage spikes at the relay coil from damaging connected 16-point PLC I/O modules. Relays are included with these modules.

Module mounts on 35mm DIN rail (part #DN-R35S1) or 15mm DIN rail (part #DN-R15S1)



**ZL-RRL16HDF-24-2**

Specifications				
24V DC-Powered Fused Relay Module	Part #	Pcs/Pkg	Price/Pkg	Weight (lbs)
		<b>ZL-RRL16HDF-24-2</b>	<b>1</b>	
<b>Description</b>	16 Fused Output Relay module, sourcing, with LEDs, 24VDC coil			
<b>Mechanical Life</b>	1,000,000 Operations no load condition			
<b>Electrical Life</b>	50,000 Operations at rated resistive load (Normally Open) 30,000 Operations at rated resistive load (Normally Closed)			
<b>Operating Frequency</b>	6 cycles per minute electrical, 180 cycles per minute mechanical			
<b>Isolation Coil to Contact</b>	2500VAC for 1 minute			
<b>Isolation NC Contact to NO Contact</b>	1000VAC for 1 minute			
<b>Isolation Between Relays</b>	1000VAC for 1 minute			
<b>Red LED Indicator State Relay</b>	ON = relay energized, OFF = relay de-energized			
<b>Operating Temperature Range</b>	32 to 140°F (0 to 60°C)			
<b>Humidity Range</b>	45 to 85% RH			
<b>Vibration Resistance</b>	10 to 55 Hz dual amplitude width 1.5 mm			
<b>Shock Resistance</b>	1000m/s <sup>2</sup> endurance, 100m/s <sup>2</sup> operation			
<b>Terminal Block Contacts</b>	Copper alloy, tin-lead plated			
<b>Wire Range 1</b>	12–24 AWG Solid or Stranded Conductor			
<b>Wire Strip Length</b>	0.24–0.27 in (6–7 mm)			
<b>Screw Torque</b>	4.4 in-lbs (0.5 N·m)			
<b>Connector Type</b>	Molex Micro-Fit 3.0, 24-pin connector, example receptacle 43020-2400, Pins 43031 Series, Male			
<b>Fuses (Sold Separately)</b>	Sixteen 8.35 x 3.95 x 7.55 mm or 8.4 x 8.3 mm			
<b>Recommended Fuses</b>	Littelfuse, Subminiature TR5 Series or Equivalent			
<b>Cable/Wire Clearance</b>	0.5 in (12.7 mm)			
<b>Approvals</b>	File # E139594 UL, cUL 508, CE, EN61131-2:2007			

Replacement Fuses* (Sold Separately)			
Part Number	Current Rating	Pcs/Pkg	Price/Pkg
<b>ZL-FUSE-H3</b>	<b>3A</b>	<b>4</b>	
<b>ZL-FUSE-H4</b>	<b>4A</b>	<b>4</b>	
<b>ZL-FUSE-H5</b>	<b>5A</b>	<b>4</b>	
<b>ZL-FUSE-H63</b>	<b>6.3 A</b>	<b>4</b>	
<b>Dimensions</b>	8.35 x 3.95 x 7.55 mm or 8.4 x 8.3 mm		
<b>Alternate Fuse</b>	Littelfuse, Subminiature TR5 Series or Equivalent		

\* Sixteen fuses required.



**ZL-FUSE-HXX**

Relay Specifications 2			
Contact		Coil	
<b>Current Rating</b>	<b>30VDC @ 5A, 250VAC @ 5A, General Use</b>	<b>Input Voltage Rating</b>	<b>24VDC (-20%/ +30%)</b>
<b>Contact Type</b>	1 Form C (SPDT)	Maximum Continuous Coil Voltage	31.2 VDC
<b>Contact Voltage (per point) *</b>	250VAC/30VDC	Rated Current per Coil	7.1 mA (±10%) @ 24VDC
<b>Maximum Power Inductive</b>	1250VA General Use	Coil Resistance	3388Ω (±10%)
<b>Maximum Power Resistive</b>	AC 1250VA, DC 150W	Power Consumption per Coil	0.17 W
<b>Maximum Switching Voltage</b>	250VAC, 30VDC	Total Coil Supply Current Max.	275mA (Total 16 relays)
<b>Minimum Load</b>	10mA @ 5VDC	Pick Up Current Max. per Coil	15mA
<b>Contact Resistance</b>	100mΩ Max @ 1A, 6VDC	Drop-Out Voltage Min.	1.2 VDC
<b>Contact Capacity</b>	D300, 0.8 A/ 240VAC Pilot Duty FLA 2A @ 277VAC/125VAC 1/8HP @ 250VAC	Pick-Up Voltage Max.	19.2 VDC
<b>Contact Material</b>	AgNi (Silver Nickel Alloy)	Off to On/On to Off Response Time	8ms/4ms

1 Use conductors rated for 60°/75°C for relay outputs.

2 Relay modules are reverse polarity protected and will not operate if reverse voltage is connected.

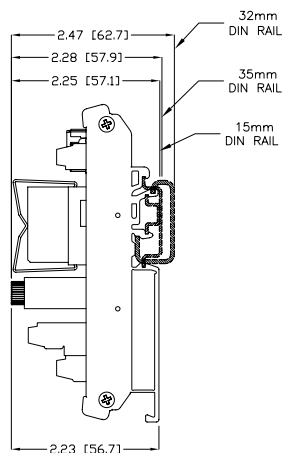
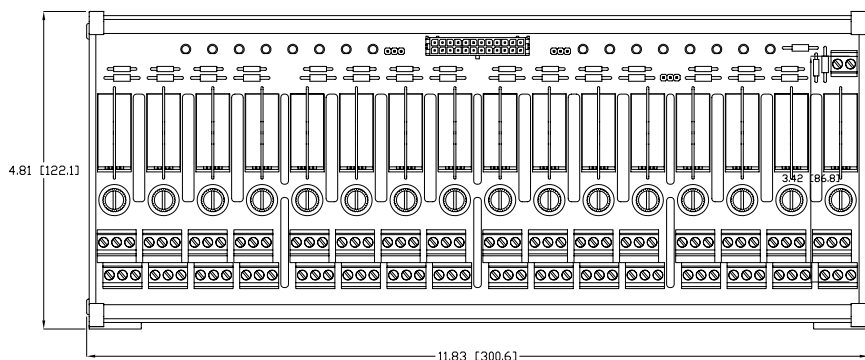


**Note:** See wiring details and dimensional drawings on our Web site at: <http://www.automationdirect.com/static/manuals/ziplinks/ziplinks.html>.

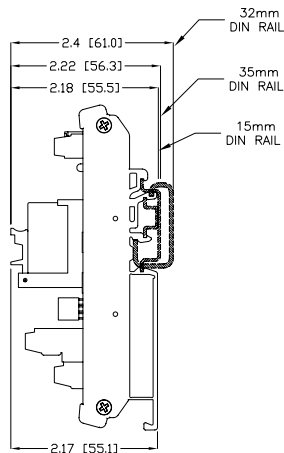
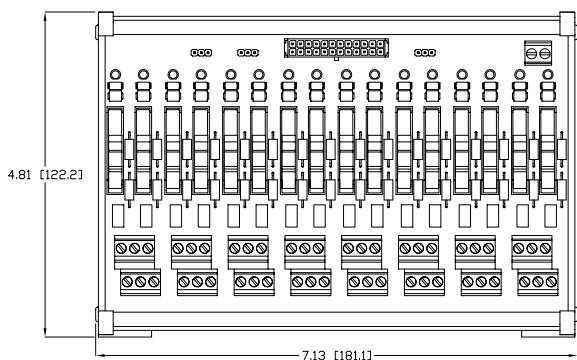


# Module Dimensions

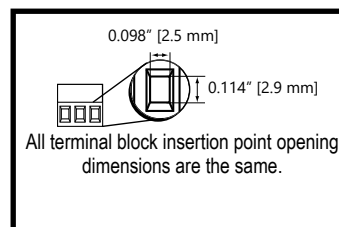
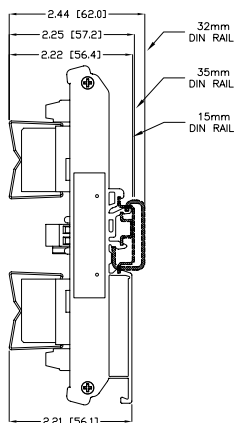
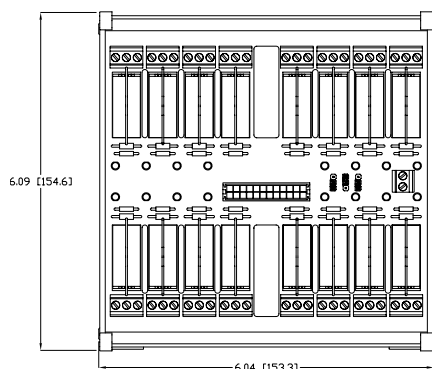
## ZL-RRL16F-24-1 ZL-RRL16F-24-2



## ZL-RRL16HDF-24-1 ZL-RRL16HDF-24-2



## ZL-RRL16W-24-1 ZL-RRL16W-24-2



Note: Dimensions shown in Inches [mm]