

# 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)		
	ZL-RRL16HDF-24-2	1	\$165.00	1.06		
Description	16 Fused Output Relay module, sourcing, with LEDs, 24VDC coil					
Mechanical Life	1,000,000 Operations no load condition					
Electrical Life	50,000 Operations at rated resistive load (Normally Open) 30,000 Operations at rated resistive load (Normally Closed)					
Operating Frequency	6 cycles per minute electrical, 180 cycles per minute mechanical					
Isolation Coil to Contact	2500VAC for 1 minute					
Isolation NC Contact to NO Contact	1000VAC for 1 minute					
Isolation Between Relays	1000VAC for 1 minute					
Red LED Indicator State Relay	ON = relay energized, OFF = relay de-energized					
Operating Temperature Range	32 to 140°F (0 to 60°C)					
Humidity Range	45 to 85% RH					
Vibration Resistance	10 to 55 Hz dual amplitude width 1.5 mm					
Shock Resistance	1000m/s² endurance, 100m/s² operation					
Terminal Block Contacts	Copper alloy, tin-lead plated					
Wire Range 1	12–24 AWG Solid or Stranded Conductor					
Wire Strip Length	0.24–0.27 in (6–7 mm)					
Screw Torque	4.4 in⋅lbs (0.5 N⋅m)					
Connector Type	Molex Micro-Fit 3.0, 24-pin connector, example receptacle 43020- 2400, Pins 43031 Series, Male					

Replacement Fuses* (Sold Separately)						
Current Rating	Pcs/Pkg	Price/Pkg				
3A	4	\$5.00				
4A	4	\$5.00				
5A	4	\$5.00				
6.3 A	4	\$5.00				
8.35 x 3.95 x 7.55 mm or 8.4 x 8.3 mm						
Littlefuse, Subminiature TR5 Series or Equivalent						
	Current Rating  3A  4A  5A  6.3 A  8.35 x 3.95	Current Rating         Pcs/Pkg           3A         4           4A         4           5A         4           6.3 A         4           8.35 x 3.95 x 7.55 mm c         Littlefuse, Subm				

<sup>\*</sup> Sixteen fuses required.



**ZL-FUSE-HXX** 

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

ZL-RELAY-HDF24X4, Qty. 4/pkg

Sixteen 8.35 x 3.95 x 7.55 mm or 8.4 x 8.3 mm

0.5 in (12.7 mm)

File # E139594 UL, cUL 508, CE, EN61131-2:2007

Littelfuse, Subminiture TR5 Series or Equivalent

Replacement Relays

Recommended Fuses

Cable/Wire Clearance

Approvals

Fuses (Sold Separately)

<sup>&</sup>lt;sup>2</sup> 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.

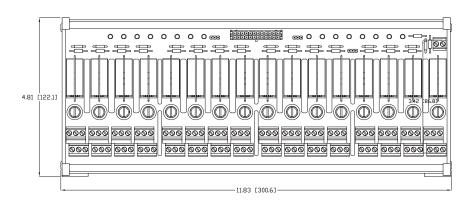
tZIP-30 1-800-633-0405 **ZIPLinks** 

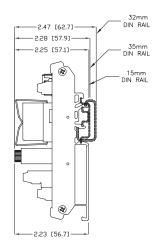
<sup>1</sup> Use conductors rated for 60°/75°C for relay outputs.



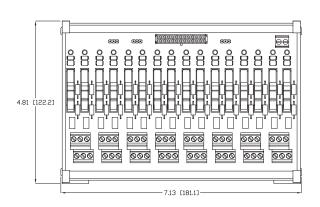
## **PINC** Module Dimensions

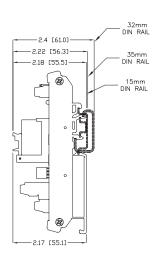
#### ZL-RRL16F-24-1 ZL-RRL16F-24-2



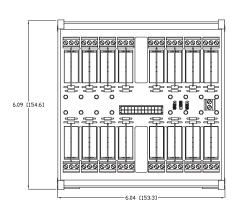


#### ZL-RRL16HDF-24-1 ZL-RRL16HDF-24-2

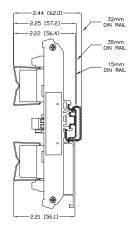


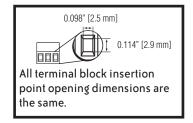


### ZL-RRL16W-24-1 ZL-RRL16W-24-2



Note: Dimensions shown in Inches [mm]





**tZIP-46** ZIPLinks 1 - 800 - 633 - 0405