



# 24VDC Stand-Alone Relay Modules

Our single and four-socket 24 VDC stand-alone relay modules use plug-in relays for switching high current (10A) loads. Relays are included with the modules.

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

**ZL-RLS1-24****ZL-RLS4-24**

## Specifications 1

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24VDC Stand-Alone Relay Modules	Part #	Pcs/Pkg	Price/Pkg	Weight (lbs)	Part #	Pcs/Pkg	Price/Pkg	Weight (lbs)
	<a href="#">ZL-RLS1-24</a>	1	\$31.50	0.10	<a href="#">ZL-RLS4-24</a>	1	\$86.00	0.45
Description	Single-socketed relay with 24VDC relay with LEDs				Four-socketed relays with 24VDC relays with LEDs			
Mechanical Life	10,000,000 Operations at no load condition							
Electrical Life	100,000 Operations at rated resistive load							
Operating Frequency	20 cycles per minute electrical, 300 cycles per minute mechanical							
Isolation Coil to Contact	2500VAC for 1 minute							
Isolation NC Contact to NO Contact Same Relay	1000VAC for 1 minute							
Isolation Between Relays	N/A				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 Resistances	1000m/s² endurance, 100m/s² operation							
Terminal Block Contacts	Copper alloy, tin-lead plated							
Wire Range 2	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)							
Replacement Relays	<a href="#">ZL-RELAY-24X4</a> , Qty. 4/pkg							
Cable/Wire Clearance	0.5 in (12.7 mm) Required							
Approvals	File # E157382 UL, cUL 508							

## Relay Specifications

Contact		Coil	
<b>Current Rating</b>	<b>30VDC @ 10A 250VAC @ 8A 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) 2</b>	250VAC/30VDC	Rated Current per Coil	16.7 mA (±10%) @ 24 VDC
<b>Maximum Power Inductive</b>	2000VA General Use	Coil Resistance	1440Ω (±10%)
<b>Maximum Power Resistive</b>	AC 2000VA, DC 300W	Power Consumption per Coil	0.4 W
<b>Maximum Switching Voltage</b>	250VAC, 110VDC	Pick Up Current Max. per Coil	15mA
<b>Minimum Load</b>	10mA @ 5VDC	Drop-Out Voltage Min.	1.2 VDC
<b>Contact Resistance</b>	100mΩ Max @ 1A, 6VDC	Pick-Up Voltage Max.	19.2 VDC
<b>Contact Material</b>	AgNi (Silver Nickel Alloy)	Off to On/On to Off Response Time	12ms / 8ms

<sup>1</sup> These modules do not provide transient protection on the relay coil.

<sup>2</sup> Use conductors rated for 60°/75°C for relay outputs.



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



# Accessories

## Replacement Relays

Replacement relays are offered with a 24VDC coil or 120VAC coil and are for use with the **ZIPLink** relay modules.

Sold in packages of 4.



**ZL-RELAY-24X4**  
\$21.50



**ZL-RELAY-120X4**  
\$29.00

24VDC Relay Specifications			
Contact		Coil	
<b>Current Rating</b>	30VDC @ 10A 250VAC @ 8A General Use	<b>Input Voltage Range</b>	24VDC (-20%/+30%)
		<b>Maximum Continuous Coil Voltage</b>	31.2 VDC
<b>Contact Type</b>	1 Form C (SPDT)	<b>Rated Current per Coil</b>	16.7 mA (±10%) @ 24VDC
<b>Contact Voltage (per point)</b>	250VAC/30VDC	<b>Coil Resistance</b>	1440Ω (±10%)
<b>Maximum Power Inductive</b>	2000VA General Use	<b>Power Consumption per Coil</b>	0.4 W
<b>Maximum Power Resistive</b>	AC 2000VA, DC 300W	<b>Pick Up Current Max. per Coil</b>	15mA
<b>Maximum Switching Voltage</b>	250VAC, 110VDC	<b>Drop-Out Voltage Min.</b>	1.2 VDC
<b>Minimum Load</b>	10mA @ 5VDC	<b>Pick-Up Voltage Max.</b>	19.2 VDC
<b>Contact Resistance</b>	100mΩ Max @ 1A, 6VDC	<b>Off to On/On to Off Response Time</b>	12ms/8ms
<b>Contact Material</b>	AgNi (Silver Nickel Alloy)	<b>Weight (lbs)</b>	0.11
120VAC Relay Specifications			
Contact		Coil	
<b>Current Rating</b>	30VDC @ 10A 250VAC @ 8A General Use	<b>Input Voltage Range</b>	115VAC (-20%/+30%), 50–60Hz
		<b>Maximum Continuous Coil Voltage</b>	150VAC
<b>Contact Voltage (per point)</b>	250VAC/30VDC	<b>Rated Current per Coil</b>	7.65 mA (±10%) @ 115VAC 50Hz
			6.30 mA (±10%) @ 115VAC 60Hz
<b>Maximum Power Inductive</b>	2000VA General Use	<b>Coil Resistance</b>	8100Ω (±10%)
<b>Maximum Power Resistive</b>	AC 2000VA, DC 300W	<b>Power Consumption per Coil</b>	0.88 W @ 50Hz 0.73 W @ 60Hz
<b>Maximum Switching Voltage</b>	250VAC, 110VDC	<b>Drop-Out Voltage Min.</b>	34.5 VAC
<b>Minimum Load</b>	10mA @ 5VDC	<b>Pick-Up Voltage Max.</b>	92VAC
<b>Contact Resistance</b>	100mΩ Max @ 1A, 6VDC	<b>Off to On / On to Off Response Time</b>	12ms/8ms
<b>Contact Material</b>	AgNi (Silver Nickel Alloy)	<b>Weight (lbs)</b>	0.11

## Installation Accessories

Accessories			
	Part #	Pcs/Pkg	Price/Pkg
<b>DIN Rail</b>	DN-R35S1	10	\$39.00
<b>Angled Support Bracket</b>	<a href="#">DN-ASB1</a>	50	\$107.00
<b>End Bracket</b>	<a href="#">DN-EB35</a>	50	\$67.00



# Accessories

## Replacement Relays

Replacement 24VDC relays are offered for use with the **ZIPLink** relay modules [ZL-RRL16F-24-1/-2](#).

Sold in packages of 4.



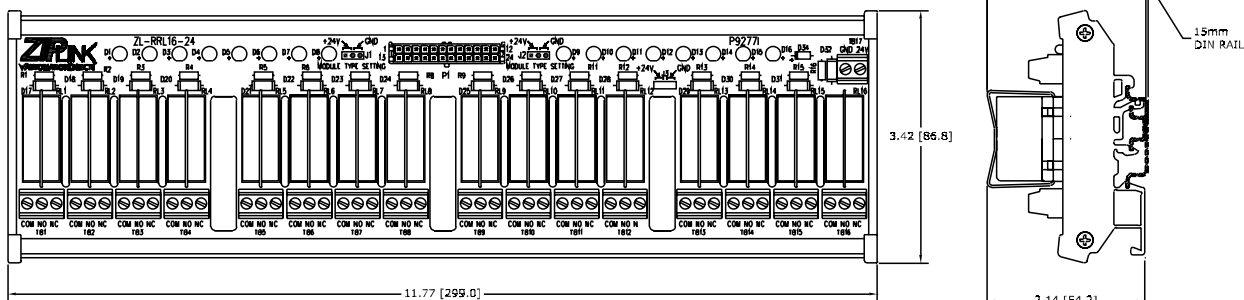
**ZL-RELAY-F24X4**  
**\$24.00**

ZL-RELAY-F24x4 24VDC Relay Specifications			
Contact		Coil	
<b>Current Rating</b>	30VDC @ 8A 250VAC @ 8A General Use	<b>Input Voltage Range</b>	24VDC (-20%/+30%)
		<b>Maximum Continuous Coil Voltage</b>	31.2 VDC
<b>Contact Type</b>	1 Form C (SPDT)	<b>Rated Current per Coil</b>	16.7 mA (±10%) @ 24VDC
<b>Contact Voltage (per point)</b>	250VAC / 30VDC	<b>Coil Resistance</b>	1440Ω (±10%)
<b>Maximum Power Inductive</b>	2000VA General Use	<b>Power Consumption per Coil</b>	0.4 W
<b>Maximum Power Resistive</b>	AC 2000VA, DC 240W	<b>Pick Up Current Max. per Coil</b>	15mA
<b>Maximum Switching Voltage</b>	250VAC, 300VDC	<b>Drop-Out Voltage Min.</b>	1.2 VDC
<b>Minimum Load</b>	10mA @ 5VDC	<b>Pick-Up Voltage Max.</b>	19.2 VDC
<b>Contact Resistance</b>	100mΩ Max @ 1A, 6VDC	<b>Off to On/On to Off Response Time</b>	12ms/8ms
<b>Contact Material</b>	AgNi (Silver Nickel Alloy)	<b>Weight (lbs)</b>	0.11

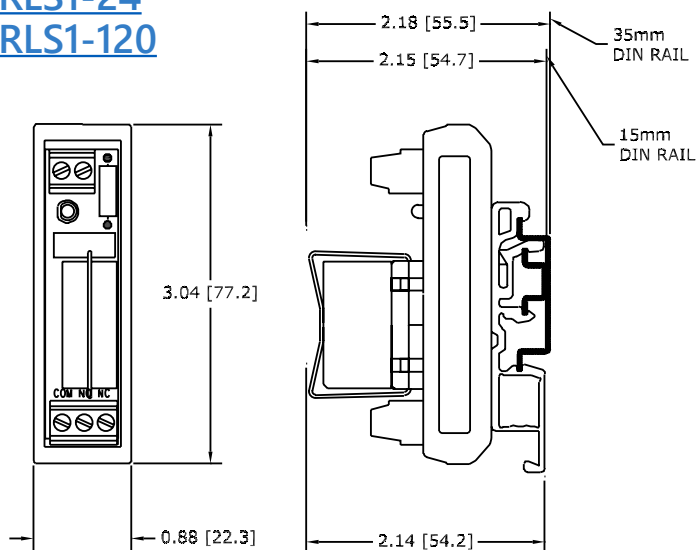


# Module Dimensions

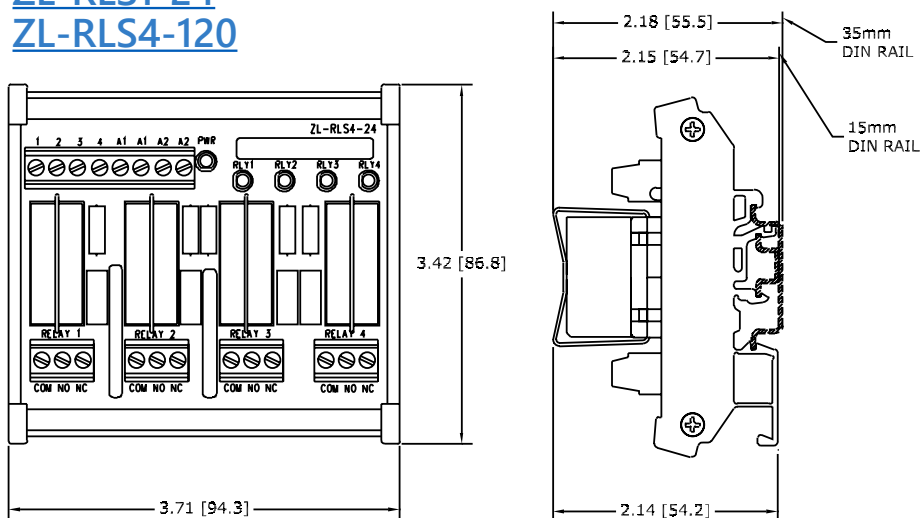
## ZL-RRL16-24-1 ZL-RRL16-24-2



## ZL-RLS1-24 ZL-RLS1-120



## ZL-RLS1-24 ZL-RLS4-120



Note: Dimensions shown in Inches [mm]

