

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-RLS4-24

| Specifications 1 | | | | | | | | |
|--|---|-------------|-----------|--------------|-------------------|-------------|-----------|--------------|
| 24VDC Stand-Alone | Part # | Pcs/ Pkg | Price/Pkg | Weight (lbs) | Part # | Pcs/ Pkg | Price/Pkg | Weight (lbs) |
| Relay Modules | ZL-RLS1-24 | 1 | \$31.50 | 0.10 | <u>ZL-RLS4-24</u> | 1 | \$86.00 | 0.45 |
| Description | Single-socketed relay with 24VDC relay with LEDs Four-socketed relays with 24VDC relays with LEDs | | | | th 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/s ² endurance, 100m/s ² 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 | ZL-RELAY-24X4, Qty. 4/pkg | | | | | | | |
| Cable/Wire Clearance | 0.5 in (12.7 mm) Required | | | | | | | |
| Approvals | File # E157382 UL, cUL 508 | | | | | | | |

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

¹ These modules do not provide transient protection on the relay coil.

² 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.

www.automationdirect.com ZIPLinks tZIP-31



Accessories

Replacement Relays

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

Sold in packages of 4.







ZL-RELAY-120X4 \$29.00

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

Installation Accessories

| Accessories | | | | | |
|------------------------|----------|---------|-----------|--|--|
| | Part # | Pcs/Pkg | Price/Pkg | | |
| DIN Rail | DN-R35S1 | 10 | \$39.00 | | |
| Angled Support Bracket | DN-ASB1 | 50 | \$107.00 | | |
| End Bracket | DN-EB35 | 50 | \$67.00 | | |

www.automationdirect.com ZIPLinks tZIP-39



Accessories

Replacement Relays

Replacement 24VDC relays are offered for use with the *ZIP*Link relay modules ZL-RRL16F-24-1/-2.

Sold in packages of 4.



ZL-RELAY-F24X4 \$24.00

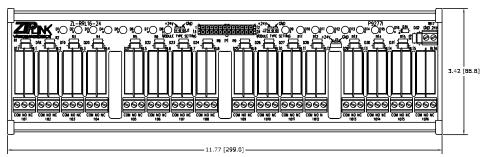
| ZL-RELAY-F24x4 24VDC Relay Specifications | | | | | |
|---|----------------------------|-----------------------------------|------------------------|--|--|
| Contact | | Coil | | | |
| Current Poting | 30VDC @ 8A | Input Voltage Range | 24VDC (-20%/+30%) | | |
| Current Rating | 250VAC @ 8A General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

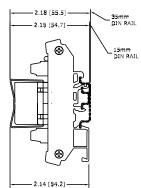
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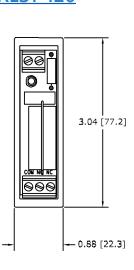
Module Dimensions

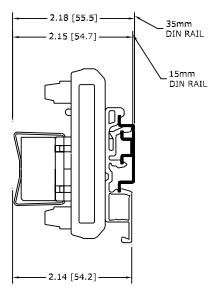
ZL-RRL16-24-1 ZL-RRL16-24-2



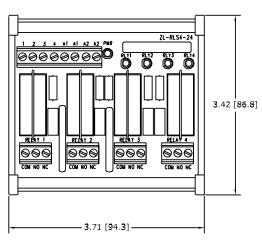


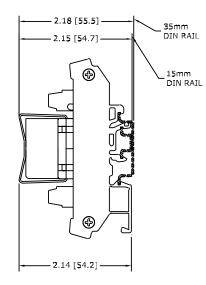
ZL-RLS1-24 ZL-RLS1-120





ZL-RLS1-24 ZL-RLS4-120





0.098" [2.5 mm]

0.114" [2.9 mm]

All terminal block insertion point opening dimensions are the same.

Note: Dimensions shown in Inches [mm]