

# **24V DC-Powered Relay Modules**

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

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





ZL-RRL16-24-1

ZL-RRL16-24-2

Relay Module         Prog         Prog         Prog         Image: Second Se	Specifications								
Vire         ZL-RR_116-24-1         I         S216.00         1.45         ZL-RR_116-24-2         I         S216.00         1.45           Description         16 Output Relay module, sinking, with LEDs, 24VDC coll         16 Output Relay module, sourcing, with LEDs, 24VDC coll         16 Output Relay module, sourcing, with LEDs, 24VDC coll         16 Output Relay module, sourcing, with LEDs, 24VDC coll         1000VAC for 1 minute         1000VAC for 1 minute </th <th></th> <th>Part #</th> <th></th> <th>Price/Pkg</th> <th>Weight (lbs)</th> <th>Part #</th> <th></th> <th>Price/Pkg</th> <th>Weight (lbs)</th>		Part #		Price/Pkg	Weight (lbs)	Part #		Price/Pkg	Weight (lbs)
Operating Frequency         20 cycles per minute electrical, 300 cycles per minute mechanical           Isolation NC Contact         2500VAC for 1 minute           Isolation NC Contact to NO Contact Same Relay         1000VAC for 1 minute           Isolation Between Relays         000VAC for 1 minute           Operating Temperature Range         32 to 140°F (0 to 60°C)           Humidity Range         45 to 85% RH           Terminal Block Contacts         Cooper alloy, tin-lead plated           Wire Strip Length         0.2.4 AVKG Solid or Stranded Conductor           Wire Strip Length         0.2.4 AVKG Solid or Stranded Conductor           Wire Strip Length         0.2.4 AVKG Solid or Stranded Conductor           Connecting Cables         Click on link: Wiring Selection Caudes           (Sold Separately)         Click on link: Wiring Selection Caudes           Cannection Type         Molex Micro-Fit 3.0, 24 pin connector, example receptack 43020-2400, Pins 43031 Series, Male           Connecting Cables         Click on link: Wiring Selection Caudes           (Sold Separately)         Click on link: Wiring Selection Caudes           (Sold Separately)         Click on link: Wiring Selection Caudes           (Sold Separately)         Series           Cable:Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         **	Relay module	<u>ZL-RRL16-24-1</u>	1	\$216.00	1.45	<u>ZL-RRL16-24-2</u>	1	\$216.00	1.45
Isolation Coil to Contact         2500VAC for 1 minute           Isolation NC Contact to NO Contact Same Relay         1000VAC for 1 minute           Isolation Between Relays         000VAC for 1 minute           Red LED Indicator State Relay         ON = relay energized, OFF = relay de-energized         ON = relay de-energized, OFF = relay energized           Operating Temperature Range         32 to 140°F (0 to 60°C)         Humidity Range         45 to 85% RH           Terminal Block Contacts         Copper alloy, th-lead plated         Wire Range *         12–24 AWG Solid or Stranded Conductor           Wire Strip Length         0.24–0.27 in (6–7 mm)         Screw Torque         4.4 in this (0.5 N-m)           Connecting Cables         Click on link: Wiring Selection Guides, (Note Selection Guides, (Sold Separately)         Click on link: Contection Cable Specifications Tables.           Replacement Relays         2.L-RELAY-24XA, Oty. 4/pkg         Cables/           Contact Type         Horizontal mounting only, non-corrosive environment           Approvals         Flet E157382 UL, oUt. 508           Contact Coil           Contact Type         1 Form C (SPDT)           Maximum Power Inductive         2000VA General Use         Coil Resistance           Contact Type         1 Form C (SPDT)         Rated Current pr Coil         13.2 VDC           Contact Type <th>Description</th> <th colspan="4">16 Output Relay module, sinking, with LEDs, 24VDC coil 16 Output Relay module, sourcing, with LEDs, 24VDC co</th> <th>Ds, 24VDC coil</th>	Description	16 Output Relay module, sinking, with LEDs, 24VDC coil 16 Output Relay module, sourcing, with LEDs, 24VDC co				Ds, 24VDC coil			
Isolation NC Contact is NO Contact Same Relay Isolation Between Relay Rel LED Indicator State Relay Operating Temperature Range Operating Temperature Range Copperating Contacts Copperating Contacts Copperating Contacts Connecting Cables (Sold Separately) Contact Type Contact Contact Contact Contact Copperating Contacts Contact Contact Copperating Contacts Contact Copperating Contacts Contact Copperating Contacts Contact Contact Contact Copperating Contacts Contact Copperating Contacts Contact Copperating Contacts Contact Contact Contact Copperating Contacts Contact Copperating Contacts Contact Copperating Contacts Contact Contact Contact Copperating Contacts Contact Copperating Contacts Contact Contact Contact Contact Contact Contact Contact Copperating Contact Copperating Contact Copperating Contact Contact Copperating Contact Copperating Contact Contact Contact Contact Copperating Contact Copperating Copperating Contact Copperating Copperating Contact Copperating Contact Copperating Copperating Contact Copperating Copperating Copperating Contact Copperating Coppered Copperating Copperating Copperating Copperati	<b>Operating Frequency</b>	20 cycles per minute electrical, 300 cycles per minute mechanical							
Contact Same Relay         1000/VAC for 1 minute           Isolation Between Relays         0N = relay energized         ON = relay energized         ON = relay energized         ON = relay de-energized         ON = relay de-en	Isolation Coil to Contact	2500VAC for 1 minute							
Red LED Indicator State Relay         ON = relay energized, OFF = relay de-energized         ON = relay de-energized, OFF = relay energized           Operating Temperature Range         32 to 140°F (0 to 60°C)         45 to 85% RH           Terminal Block Contacts         Copper alloy, tin-lead pilatd           Wire Range *         12–24 AWG Solid or Stranded Conductor           Wire Strip Length         0.24–0.27 in (6–7 mm)           Screw Torque         4.4 in 158 (0.5 N m)           Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connecting Cables (Sold Separately)         Click on link: Wring Selection Guides.           Kold Separately)         Click on link: Wring Selection Guides.           Replacement Relays         24-RELAY-24X4, Ory. 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Contact         Cori           Contact Voltage (per point) *         250VAC/30VDC           Astimum Power Inductive         2000VA General Use           Contact Voltage         250VAC/30VDC           Maximum Dower Inductive         2000VA, DC 300W           Powere Consumption per Coil         0.4 W		1000VAC for 1 minute							
Operating Temperature Range         1         0<	Isolation Between Relays				1000VAC for	1 minute			
Humidity Range         45 to 85% RH           Terminal Block Contacts         Copper alloy, tin-lead plated           Wire Range *         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 hm)           Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connecting Cables (Sold Separately)         Click on link: Wring Selection, Guides. (Sold Separately)           Replacement Relays         ZL-RELAY-24XA, Qty, 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Contact           Contact         Coil           Contact         Coil           Contact Iype         1 Form C (SPDT)           Maximum Power Inductive         2000VA General Use           Coll Calle Quire Resistive         AC 2000VA, DC 300W           Power Consumption per Coil         0.4 W           Maximum Power Inductive         2000VA General Use           Contact Voltage         250VAC, 10VDC           Retay SVDC         Power Consumption per Coil           0.4 W<	Red LED Indicator State Relay	ON = relay energized, OFF = relay de-energized ON = relay de-energized, OFF = relay energi				energized			
Terminal Block Contacts         Copper alloy, tin-lead plated           Wire Range *         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           Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connecting Cables (Sold Separately)         Click on link: Wring Selectin Guides. (Sold Separately)           Replacement Relays         ZL-RELAY-24X4, Oly, 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Relay Specifications **         Contact           Contact Type         1 Form C (SPDT)           Maximum Power Inductive         2000VA General Use           Contact Type         1 Form C (SPDT)           Maximum Power Resistive         AC 2000VA, DC 300W           Maximum Power Inductive         2000VA General Use           Contact Type         1 form A @ 50DC <th><b>Operating Temperature Range</b></th> <th colspan="4">32 to 140°F (0 to 60°C)</th> <th></th>	<b>Operating Temperature Range</b>	32 to 140°F (0 to 60°C)							
Wire Range *         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           Connecting Cables (Sold Separately)         Click on link: Wring Selection Guides. Click on link: Connection Cable Specifications Tables.           Replacement Relays         ZL-RELAY-24X4, Qty. 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           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 Type         1 Form C (SPDT)         Maximum Power Inductive         200VA General Use         Coil Besistance         14400 (±10%)           Maximum Power Inductive         200VA General Use         Coil Resistance         14400 (±10%)         0.4 W           Maximum Power Resistive         AC 2000VA, DC 300W         Power Consumption per Coil	Humidity Range	45 to 85% RH							
Wire Strip Length         0.24–0.27 in (6–7 mm)           Screw Torque         4.4 in tbs (0.5 N·m)           Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connecting Cables (Sold Separately)         Click on link: Wring Selection Guides. Click on link: Wring Selection Guides. Click on link: Connection Cable Specifications Tables.           Replacement Relays         ZL-RELAY-24X4, Qty. 4/pkg           Cable/Wire Clearance         0.5 in (1.27 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Contact           Contact           Contact           Contact           Contact Topp           1 Form C (SPDT)         Maximum Continuous Coil Voltage         31.2 VDC           Contact Type         1 Form C (SPDT)         Maximum Continuous Coil Voltage         31.2 VDC           Maximum Power Inductive         200VA, DC 300W         Power Consumption per Coil         0.4 W           Maximum Power Resistive         AC 2000VA, DC 300W         Power Consumption per Coil         0.4 W           Maximum Power Resistive         AC 2000VA, DC 300W         Power Consumption per Coil         0.4 W	Terminal Block Contacts	Copper alloy, tin-lead plated							
Screw Torque         4.4 in /bs (0.5 N·m)           Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connecting Cables (Sold Separately)         Click on link: Wiring Selection Guides. Click on link: Connection Cable Specifications Tables.           Replacement Relays         ZL-RELAY-24X4, Qty. 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Contact           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) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           Maximum Power Inductive         2000VA, Dc 300W         Power Consumption per Coil         0.4 W           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max. per Coil         15mA           Contact Material         AgNi (Silver Nicke	Wire Range *	12–24 AWG Solid or Stranded Conductor							
Connector Type         Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male           Connecting Cables (Sold Separately)         Click on link: Wiring Selection Guides. Click on link: Connection Cable Specifications Tables.           Replacement Relays         ZL-RELAY-24X4, Qty. 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Relay Specifications **         Coil           Current Rating         30VDC @ 10A, 250VAC @ 8A, General Use         Input Voltage Rating         24VDC (-20%/+30%)           Contact         Contact         Coil         16.7 mA (±10%) @ 24VDC           Contact Type         1 Form C (SPDT)         Maximum Consumption per Coil         16.7 mA (±10%) @ 24VDC           Maximum Power Inductive         2000VA, DC 300W         Power Consumption per Coil         0.4 W           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max. per Coil         15mA           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         100 to 55 Hz d	Wire Strip Length	0.24–0.27 in (6–7 mm)							
Connecting Cables (Sold Separately)         Click on link: Wring Selection Guides. Click on link: Connection Cable Specifications Tables.           Replacement Relays         ZL-RELAY-24X4, Qty. 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Relay Specifications **         Coil           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) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           Maximum Power Inductive         2000VA General Use         Coil Resistance         1440Ω (±10%)           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max.         293mA (all relays on)           Winimum Load         10mA @ 5VDC         Drop-Out Voltage Min.         1.2 VDC           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC <th>Screw Torque</th> <th colspan="5">4.4 in·lbs (0.5 N·m)</th>	Screw Torque	4.4 in·lbs (0.5 N·m)							
(Sold Separately)         Click on link: Connection Cable Specifications Tables.           Replacement Relays         ZL-RELAY-24X4, Qty. 4/pkg           Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Relay Specifications **         Coil           Contact         Colin           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) *         250VAC/30VDC         Reted Current per Coil         16.7 mA (±10%) @ 24VDC           Maximum Power Inductive         2000VA, General Use         Coil Resistance         1440Ω (±10%)           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max.         19.2 VDC           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Minimum Load         10mA @ 5VDC         Drop-Out Voltage Min.         1.2 VDC           Minimum Load         100mΩ	Connector Type	Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male							
Cable/Wire Clearance         0.5 in (12.7 mm) required           Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Relay Specifications **           Contact         Coil           SoVDC @ 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) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           Maximum Power Inductive         2000VA General Use         Coil Resistance         1440Ω (±10%)           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max. per Coil         15mA           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	5	Click on link: <u>Wiring Selection Guides</u> . Click on link: <u>Connection Cable</u> Specifications Tables.							
Mounting Restrictions         Horizontal mounting only, non-corrosive environment           Approvals         File # E157382 UL, cUL 508           Relay Specifications **           Contact         Coil           Contact         Coil           Contact Type         104A, 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) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           Maximum Power Inductive         2000VA General Use         Coil Resistance         1440Ω (±10%)           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max. per Coil         15mA           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Replacement Relays	ZL-RELAY-24X4, Qty. 4/pkg							
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) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           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         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max. per Coil         15mA           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Cable/Wire Clearance	0.5 in (12.7 mm) required							
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) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           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         Total Coil Supply Current Max.         293mA (all relays on)           Minimum Load         10mA @ 5VDC         Pick Up Current Max. per Coil         15mA           Contact Resistance         100mΩ Max @ 1A, 6VDC         Drop-Out Voltage Min.         1.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Mounting Restrictions	Horizontal mounting only, non-corrosive environment							
ContactCoilCurrent Rating30VDC @ 10A, 250VAC @ 8A, General UseInput Voltage Rating24VDC (-20%/+30%)Contact Type1 Form C (SPDT)Maximum Continuous Coil Voltage31.2 VDCContact Voltage (per point) *250VAC/30VDCRated Current per Coil16.7 mA (±10%) @ 24VDCMaximum Power Inductive2000VA General UseCoil Resistance1440Ω (±10%)Maximum Power ResistiveAC 2000VA, DC 300WPower Consumption per Coil0.4 WMaximum Switching Voltage250VAC, 110VDCTotal Coil Supply Current Max.293mA (all relays on)Minimum Load10mA @ 5VDCPick Up Current Max. per Coil15mAContact MaterialAgNi (Silver Nickel Alloy)Pick-Up Voltage Max.19.2 VDCVibration Resistance10 to 55 Hz dual amplitude width 1.5 mmOff to On/On to Off Response Time12ms / 8ms	Approvals	File # E157382 UL, cUL 508							
Current Rating30VDC @ 10A, 250VAC @ 8A, General UseInput Voltage Rating24VDC (-20%/+30%)Contact Type1 Form C (SPDT)Maximum Continuous Coil Voltage31.2 VDCContact Voltage (per point) *250VAC/30VDCRated Current per Coil16.7 mA (±10%) @ 24VDCMaximum Power Inductive2000VA General UseCoil Resistance1440Ω (±10%)Maximum Power ResistiveAC 2000VA, DC 300WPower Consumption per Coil0.4 WMaximum Switching Voltage250VAC, 110VDCTotal Coil Supply Current Max.293mA (all relays on)Minimum Load10mA @ 5VDCPick Up Current Max. per Coil15mAContact Resistance100mΩ Max @ 1A, 6VDCDrop-Out Voltage Min.1.2 VDCVibration Resistance10 to 55 Hz dual amplitude width 1.5 mmOff to On/On to Off Response Time12ms / 8ms	Relay Specifications **								
Current RatingUseImput Voltage Rating24VDC (-20%/ + 30%)Contact Type1 Form C (SPDT)Maximum Continuous Coil Voltage31.2 VDCContact Voltage (per point) *250VAC/30VDCRated Current per Coil16.7 mA (±10%) @ 24VDCMaximum Power Inductive2000VA General UseCoil Resistance1440Ω (±10%)Maximum Power ResistiveAC 2000VA, DC 300WPower Consumption per Coil0.4 WMaximum Switching Voltage250VAC, 110VDCTotal Coil Supply Current Max.293mA (all relays on)Minimum Load10mA @ 5VDCPick Up Current Max. per Coil15mAContact Resistance100mΩ Max @ 1A, 6VDCDrop-Out Voltage Min.1.2 VDCVibration Resistance10 to 55 Hz dual amplitude width 1.5 mmOff to On/On to Off Response Time12ms / 8ms	۵	Contact			Coil				
Contact Voltage (per point) *         250VAC/30VDC         Rated Current per Coil         16.7 mA (±10%) @ 24VDC           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         Total Coil Supply Current Max.         293mA (all relays on)           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 Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Current Rating			Input	Voltage Rating		24VDC (-2	0%/+ <b>30%)</b>	
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         Total Coil Supply Current Max.         293mA (all relays on)           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 Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Contact Type	1 Form C (SPDT)		Maximum Continuous Coil Voltage		•	31.2 VDC		
Maximum Power Resistive         AC 2000VA, DC 300W         Power Consumption per Coil         0.4 W           Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           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 Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Contact Voltage (per point) *	250VAC/30VDC		Rated Current per Coil			16.7 mA (±10%) @ 24VDC		
Maximum Switching Voltage         250VAC, 110VDC         Total Coil Supply Current Max.         293mA (all relays on)           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 Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Maximum Power Inductive	2000VA General Use		Coil Resistance			1440Ω (±10%)		
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 Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Maximum Power Resistive	AC 2000VA, DC 300W		Power Consumption per Coil			0.4 W		
Contact Resistance         100mΩ Max @ 1A, 6VDC         Drop-Out Voltage Min.         1.2 VDC           Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Maximum Switching Voltage	250VAC, 110VDC		Total Coil Supply Current Max.			293mA (all relays on)		
Contact Material         AgNi (Silver Nickel Alloy)         Pick-Up Voltage Max.         19.2 VDC           Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Minimum Load	10mA @ 5VDC		Pick Up Current Max. per Coil 15n		mA			
Vibration Resistance         10 to 55 Hz dual amplitude width 1.5 mm         Off to On/On to Off Response Time         12ms / 8ms	Contact Resistance	100mΩ Max @ 1A, 6VDC		Drop-	Out Voltage Min.		1.2 VDC		
Off to On/On to Off Response Time 12ms / 8ms	Contact Material	AgNi (Silver Nickel Alloy)			Pick-	Up Voltage Max.		19.2	VDC
Shock Resistances 1000m/s <sup>2</sup> endurance 100m/s <sup>2</sup> operation	Vibration Resistance	10 to 55 Hz dual am	plitude v	vidth 1.5 mm	Off to On/On to Off Response Time			/ 8mc	
	Shock Resistances	1000m/s <sup>2</sup> endurance	e, 100m/	s <sup>2</sup> operation					

Mechanical: 10,000,000 Operations at no load condition; Electrical: 100,000 Operations at rated resistive load

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

Service Life

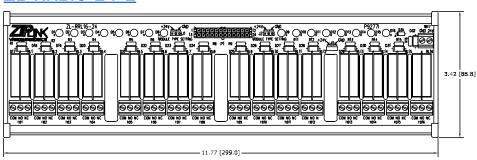
\*\* Relay modules are reverse polarity protected and will not operate if reverse voltage is connected.

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



# **Module Dimensions**

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

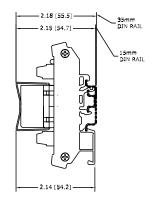


2.18 [55.5]

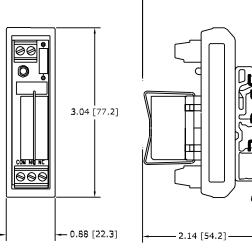
2.15 [54.7] -

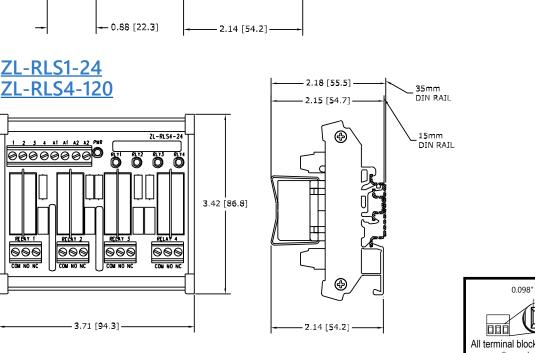
35mm DIN RAIL

15mm DIN RAIL

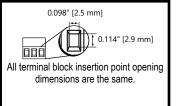


#### <u>ZL-RLS1-24</u> ZL-RLS1-120





Note: Dimensions shown in Inches [mm]







## **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-24X4 \$21.50



ZL-RELAY-120X4 \$29.00

	24VDC F	lelay Specifications		
Contact		Coil		
Queront Doting	30VDC @ 10A 250VAC @ 8A	Input Voltage Range	24VDC (-20%/+30%)	
Current Rating	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	Relay Specifications		
Contact		Coil		
Current Rating	30VDC @ 10A		115VAC (-20%/+30%),	
	250VAC @ 8A General Use	Input Voltage Range	50–60Hz	
		Input Voltage Hange Maximum Continuous Coil Voltage		
Contact Type	General Use		50–60Hz	
Contact Type Contact Voltage (per point)	General Use 1 Form C (SPDT)	Maximum Continuous Coil Voltage	50–60Hz 150VAC 7.65 mA (±10%) @ 115VAC 50Hz 6.30 mA (±10%) @ 115VAC	
Contact Type Contact Voltage (per point) Maximum Power Inductive Maximum Power Resistive	General Use 1 Form C (SPDT) 250VAC/30VDC	Maximum Continuous Coil Voltage Rated Current per Coil	50–60Hz 150VAC 7.65 mA (±10%) @ 115VAC 50Hz 6.30 mA (±10%) @ 115VAC 60Hz	
Contact Type Contact Voltage (per point) Maximum Power Inductive Maximum Power Resistive	General Use 1 Form C (SPDT) 250VAC/30VDC 2000VA General Use	Maximum Continuous Coil Voltage Rated Current per Coil Coil Resistance	50–60Hz 150VAC 7.65 mA (±10%) @ 115VAC 50Hz 6.30 mA (±10%) @ 115VAC 60Hz 8100Ω (±10%) 0.88 W @ 50Hz	
Contact Type Contact Voltage (per point) Maximum Power Inductive	General Use 1 Form C (SPDT) 250VAC/30VDC 2000VA General Use AC 2000VA, DC 300W	Maximum Continuous Coil Voltage Rated Current per Coil Coil Resistance Power Consumption per Coil	50–60Hz 150VAC 7.65 mA (±10%) @ 115VAC 50Hz 6.30 mA (±10%) @ 115VAC 60Hz 8100Ω (±10%) 0.88 W @ 50Hz 0.73 W @ 60Hz	
Contact Type Contact Voltage (per point) Maximum Power Inductive Maximum Power Resistive Maximum Switching Voltage	General Use 1 Form C (SPDT) 250VAC/30VDC 2000VA General Use AC 2000VA, DC 300W 250VAC, 110VDC	Maximum Continuous Coil Voltage Rated Current per Coil Coil Resistance Power Consumption per Coil Drop-Out Voltage Min.	50–60Hz 150VAC 7.65 mA (±10%) @ 115VAC 50Hz 6.30 mA (±10%) @ 115VAC 60Hz 8100Ω (±10%) 0.88 W @ 50Hz 0.73 W @ 60Hz 34.5 VAC	

### **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	<u>DN-EB35</u>	50	\$67.00	





### **Replacement Relays**

Replacement 24VDC relays are offered for use with the **ZIP**Link relay modules <u>ZL-RRL16F-24-1</u>/-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, 6VDC		Off to On/On to Off Response Time	12ms/8ms		
Contact Material	AgNi (Silver Nickel Alloy)	Weight (lbs)	0.11		