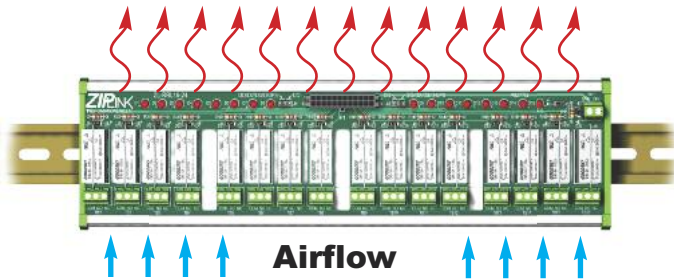


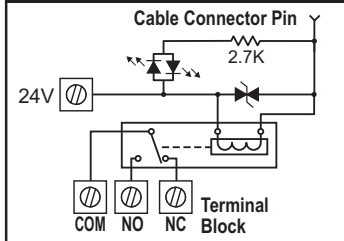
Heat Dissipation Mounting Requirements



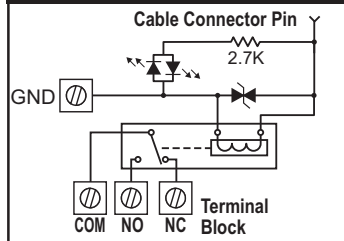
IMPORTANT! Mount Module horizontally to provide proper ventilation.

ZL-RRL16-24 Pinouts	
Connector Pin	Relay
3	Relay 1 (TB1)
4	Relay 2 (TB2)
5	Relay 3 (TB3)
6	Relay 4 (TB4)
9	Relay 9 (TB9)
10	Relay 10 (TB10)
11	Relay 11 (TB11)
12	Relay 12 (TB12)
15	Relay 5 (TB5)
16	Relay 6 (TB6)
17	Relay 7 (TB7)
18	Relay 8 (TB8)
21	Relay 13 (TB13)
22	Relay 14 (TB14)
23	Relay 15 (TB15)
24	Relay 16 (TB16)

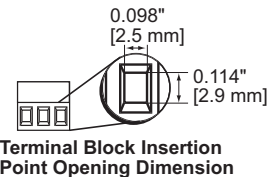
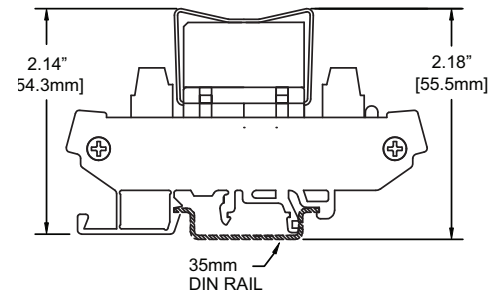
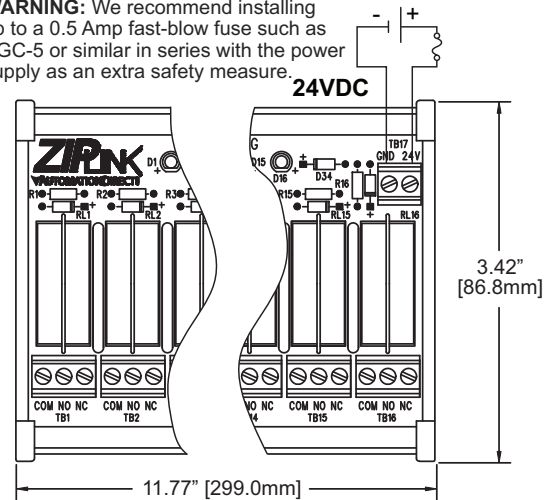
ZL-RRL16-24-1 Sinking Typical Internal Circuit



ZL-RRL16-24-2 Sourcing Typical Internal Circuit



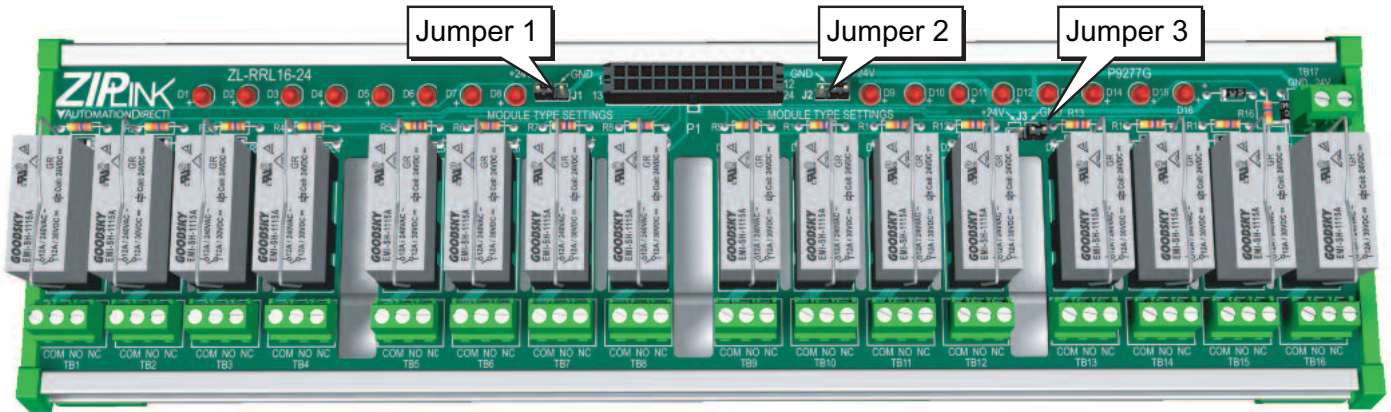
WARNING: We recommend installing up to a 0.5 Amp fast-blow fuse such as AGC-5 or similar in series with the power supply as an extra safety measure.



General Module Specifications**		Relay Contact Specifications	
Description	16 Output Relay module with LEDs, 24 VDC coil	Current Rating	30VDC @ 10A General Use 250VAC @ 8A General Use
Operating Frequency	20 cycles per minute electrical 300 cycles per minute mechanical	Contact Type	1 Form C (SPDT)
Isolation Coil to Contact	2500VAC for 1 minute	Contact Voltage (per point)*	250VAC/30VDC
Isolation NC Contact to NO Contact Same Relay	1000VAC for 1 minute	Maximum Power Inductive	2000VA General Use
Isolation Between Relays	1000VAC for 1 minute	Maximum Power Resistive	AC 2000VA, DC 300W
Red LED Indicator State Relay	ON = relay energized, OFF = relay de-energized	Maximum Switching Voltage	250VAC, 110VDC
Operating Temperature Range	32 to 140°F (0 to 60°C)	Minimum Load	10mA @ 5VDC
Humidity Range	45 to 85% RH	Contact Resistance	100mΩ Max @ 1A, 6VDC
Terminal Block Contacts	Copper alloy, tin-lead plated	Contact Material	AgNi (Silver Nickel Alloy)
Wire Range*	12-24AWG Solid or Stranded Conductor	Vibration Resistance	10 to 55 Hz dual amplitude width 1.5mm
Wire Strip Length	0.24-0.27" (6-7mm)	Shock Resistances	1000m/s ² endurance, 100m/s ² operation
Screw Torque	4.4 in-lbs (0.5 Nm)	Coil Specifications	
Replacement Relay	ZL-RELAY-24X4	Input Voltage Rating	24VDC (-20 / +30%)
Connector Type	Molex Micro-Fit 3.0, 24 pin connector, example receptacle 43020-2400, Pins 43031 Series, Male	Maximum Continuous Coil Voltage	31.2VDC
Dimensions (LxWxH)	11.77" x 3.42" x 2.14" (299mm x 86.8mm x 54.3mm)	Rated Current Per Coil	16.7mA (±10%) @ 24 VDC
Approvals	File # E157382 UL, cUL 508, CE, EN 61131-2:2007	Coil Resistance	1440Ω (±10%)
Cable/Wire Clearance	0.5" (12.7mm)	Power Consumption Per Coil	0.4W
Weight (lbs)	1.45	Total Coil Supply Current Max.	293mA (All relays on)
Relay Service Life	Mechanical: 10,000,000 Operations at no load condition; Electrical: 100,000 Operations at rated resistive load	Pick Up Current Max. Per Coil	15mA
		Drop-Out Voltage Min.	1.2VDC
		Pick-Up Voltage Max.	19.2VDC
		Off to On/On to Off Response Time	12mS/8mS

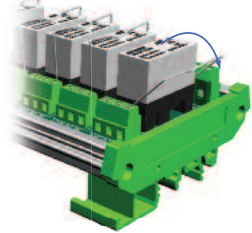
*Use conductors rated 60°/75°C for relay outputs.

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

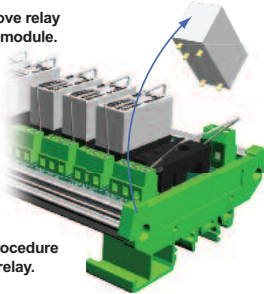


Remove or Install Relay

1 Rotate retaining clip away from relay.



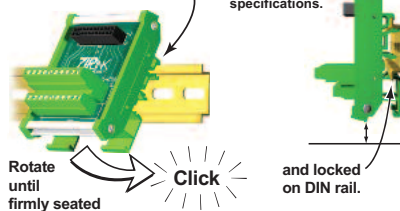
2 Remove relay from module.



Reverse procedure to replace relay.

DIN Rail Installation and Removal

To install ZIPLINK module, insert upper tab into DIN rail.

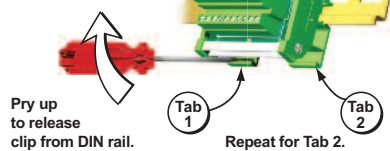


Rotate until firmly seated

Click

and locked on DIN rail.

To remove ZIPLINK module, insert screwdriver between Tab 1 and module.

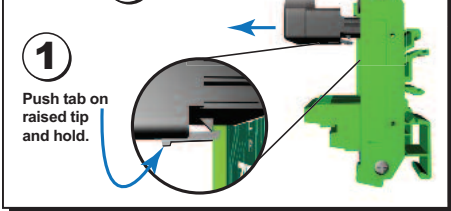


Pry up to release clip from DIN rail.

Repeat for Tab 2.

ZIPLink Cable Removal

2 Pull connector from socket.



1 Push tab on raised tip and hold.

For Replacement Relay
Use ZL-RELAY-24X4, Qty. 4/pkg.

WARNING: To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call Technical Support at 770-844-4200.

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ZL-RRL16-24-1 Sinking	ZL-RRL16-24-2 Sourcing	Position	Jumper Connection
Jumper J1*			
DirectLOGIC and Productivity3000	CLICK		+24VDC to Connector Pins 1, 7, 13, & 19
CLICK	DirectLOGIC and Productivity3000		GND to Connector Pins 1, 7, 13, & 19
Jumper J2*			
CLICK	DirectLOGIC and Productivity3000		+24VDC to Connector Pins 2, 8, 14, & 20
DirectLOGIC and Productivity3000	CLICK		GND to Connector Pins 2, 8, 14, & 20
Jumper J3*			
Factory Set	Not Possible**		+24VDC to Relay Commons
Not Possible***	Factory Set		GND to Relay Common

*All jumpers **MUST** be positioned according to the above diagram for appropriate module operation.

**Not possible – Pin 3 is removed.

***Not possible – Pin 1 is removed.