



MECHANICAL RELAY ISOLATION INTERFACE SERIES

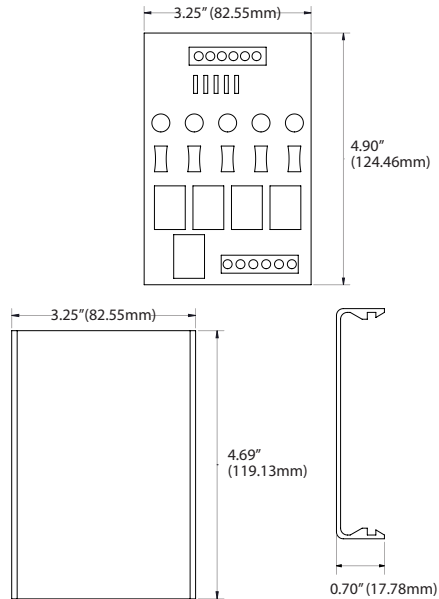
Installation & Operation Instructions
A/RIM-5

Phone: 1-888-967-5224
Website: workaci.com

GENERAL INFORMATION

The RIM-5 was designed for use in any application where you would like to replace a stand-alone thermostat with your building management system as well as any other similar application in which multiple isolation relays are needed. While some building management systems or controllers are equipped with relay contacts, many others have a Universal or TRIAC (Solid State) digital output. In the case where your building management system has a Universal or TRIAC output, the RIM-5 should be used to replace your thermostat contacts with up to five SPST pilot or isolation relays rated to a maximum contact rating of 10A in order to control your end devices tied to the thermostat contacts. The RIM-5 will accept either a 12 VDC or 24 VAC power source by adjusting the field selectable jumpers in the field and also includes a "Status" LED indicator for each of the relays that can be used to aid in the trouble shooting of your mechanical equipment by displaying the current operating state of your mechanical equipment.

FIGURE 1: DIMENSIONS



MOUNTING INSTRUCTIONS

Ground yourself to discharge static electricity before touching any electronic equipment, as some components are static sensitive.

The interface device can be mounted in any position. If circuit board slides out of snap track, a non-conductive "stop" may be required. Use only fingers to remove board from snap track. Slide out of snap track or push up against side of snap track and lift that side of the circuit board to remove. Do not flex board or use tools.

WIRING INSTRUCTIONS

PRECAUTIONS

- **Remove power before wiring. Never connect or disconnect wiring with power applied.**
- **When using a shielded cable, ground the shield only at the controller end. Grounding both ends can cause a ground loop.**
- **It is recommended you use an isolated UL-listed class 2 transformer when powering the unit with 24 VAC. Failure to wire the devices with the correct polarity when sharing transformers may**

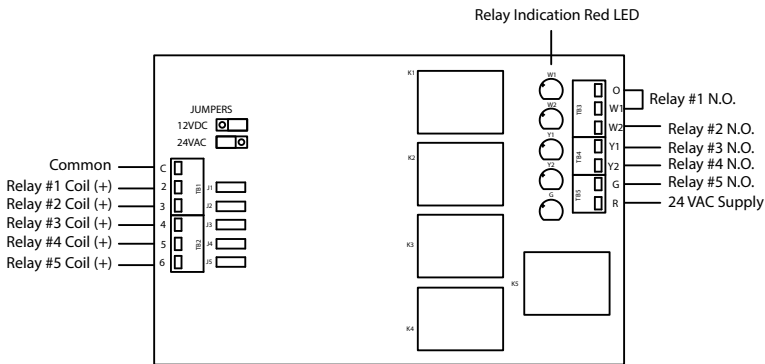


result in damage to any device powered by the shared transformer.

- If the 24 VDC or 24VAC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, DC/AC Transorb, Transient Voltage Suppressor (ACI Part: 142583), or diode placed across the coil or inductor. The cathode, or banded side of the DC Transorb or diode, connects to the positive side of the power supply. Without these snubbers, coils produce very large voltage spikes when de-energizing that can cause malfunction or destruction of electronic circuits.
- All wiring must comply with all local and National Electric Codes.

1. Connect the 24 VAC Supply to the R terminal
2. Set Input Signal Jumpers (J1-J5) to either 12 VDC or 24 VAC (See Figure 1)
3. Connect Input Signals. Ground/Common will go into the C Input/Terminal Block.
4. Connect Relay Outputs.

FIGURE 2: WIRING



Checkout

The corresponding red LED light will come on when the relay is on. (See **Figure 2**)

- If the input signal is 2, the K1 relay will turn on, W1 LED will light and the O/W1 relay outputs will be active
- If the input signal is 3, the K2 relay will turn on. W2 LED will light and the W2 relay output will be active.
- If the input signal is 4, the K3 relay will turn on. Y1 LED will light and the W3 relay output will be active.
- If the input signal is 5, The K4 relay will turn on. Y2 LED will light and the W4 relay output will be active.
- If the input signal is 6, The K5 relay will turn on. G LED will light and the W5 relay output will be active.

PRODUCT SPECIFICATIONS

NON-SPECIFIC INFORMATION	
Coil Voltage:	12 VDC(+/- 30%), or 24 VAC, (+/- 10%), 50/60 Hz
Supply Current:	170 mA maximum
Coil Voltage Selection:	Jumper Selectable
Digital Output Type:	Five SPST Form "A" Relays
Relay Contact Rating:	Total current of all relay outputs used must be no greater than 2.44A
Relay Electrical Life:	100,000 operations minimum
Relay Mechanical Life:	10,000,000 operations
Connections:	Screw Terminal Blocks
Wire Size:	16 AWG (1.31 mm²) to 26 AWG (0.129 mm²)
Terminal Block Torque Rating:	0.5 Nm nominal 0.6 Nm (maximum)
Operating Temperature Range:	35 to 113°F (1.6 to 45°C)
Operating Humidity Range:	0 to 95% non-condensing
Storage Temperature:	-20 to 150°F (-40 to 65.5°C)
Snaptrack Material:	Polyvinyl Chloride (PVC)

WARRANTY

The A/RIM-5 Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's website: www.workaci.com.



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