INNOTECH®

DS 3.01

August 2013

Models:

IAR4012: Actuator Floating Output and 2 Stage Relay

IAR4012

Actuator Staging Relay

Specifications

Power Supply:

Voltage: 24VAC ±10% @ 50/60Hz OR
Power Consumption: 4VA Max.

Input:

Two separate 0-10VDC Inputs

Outputs:

Two Isolated Triac Switched Outputs
Two N/C Change Over Contacts (2A Max.)

Terminal Identification:

7	0-10VDC input for floating outputs
8	0-10VDC input for relay outputs
9	Common / 0VAC supply
10	24VAC Supply

Triac Relay Terminal Identification:

A	Triac switched floating output-close
B	Triac switched floating output-open
C	Common of triac switched floating output
E & H	N/O voltage free contacts
F & I	N/C voltage free contacts
G & J	Common voltage free contacts

Temperature Ratings:

Storage: 0-50°C non-condensing
Operating: 0-40°C non-condensing

Enclosure:

Manufactured from an ignition resistant grade of ABS which meets the requirements of AS2420.
Colour: Grey
Mounting: DIN rail mounted

DIN Rail Mounted Enclosure:

The INNOTECH enclosure is designed to provide tight positive locking to varying thicknesses of DIN rail. When fitting to thick DIN rail, it may be necessary to remove the packing tabs on the back of the base.

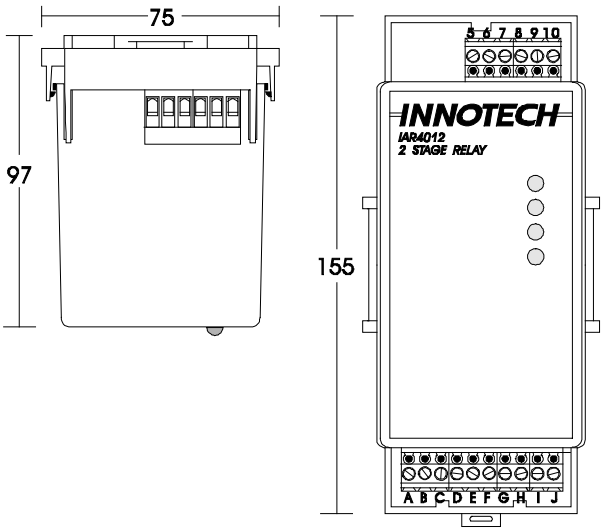
Lugs on each side of the base ensure that correct spacing is maintained between units on the same DIN rail.

Installation

1. Mount controller is a dry and reasonably clean location free or excessive vibration.
2. Fit to DIN Rail.
3. Wire in accordance with INNOTECH connection diagrams and local bylaws or refer to your local distributor.

Wiring

1. Earth one side of the 24VAC at the transformer.
2. Connect the EARTHED side of the 24VAC to terminal 9.
3. DO NOT connect 24VAC to terminals 5 through 8.



Application

The INNOTECH IAR Actuator and Staging Relay is designed for applications where it is required to control an actuator with a floating output and where the staging of heating and cooling needs to be customised.

Features:

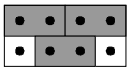
- Isolated 24VAC floating output for actuator positioning
- Relay ON/OFF voltages independently and accurately adjustable from 0 to +10VDC
- LED indication of actuator drive and relay status
- The INNOTECH enclosure saves space and reduces installation time

Approved:

The IAR4012 conforms to the Australia/New Zealand requirements for standard AS/NZS1044:1995 including Amendment 1:1997 for RCM.

IAR4012 Settings and Adjustment

Output Jumpers



Triacs are controlled by terminal 7 and the relays are controlled by terminal 8.

Triac Switched Outputs

The switching of the triac outputs is determined by the rate of change of the voltage applied to their control circuit and the settings of the Dead Zone, Rate and Step potentiometers on the IAR card.

Dead Zone sets the "No Change Zone". Rate sets the time that the triac output is off and the actuator is paused. Step sets the time that the triac output is on and driving the actuator.

The rate of change of the input affects the Rate and Step settings - a high rate of change causes the actuator to pulse at a faster rate.

Relay Contact Configuration

The staging relays are supplied as standard with change over contacts on both relays.

Relay On/Off Voltage Adjustment

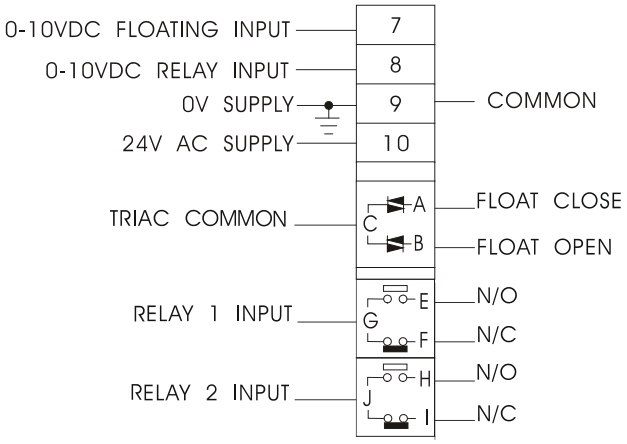
The turn ON and turn OFF points for each stage are individually adjustable by the ON and OFF multi-turn pots. The settings can be read at the individual test points with a suitable multimeter.

Power On Delay

The relays are locked out for approximately five seconds at power on to prevent relay chatter while the control circuit is being powered up.

STANDARD CONNECTION

IAR40xx



* Requires link changes before this option is used

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