

MODELS:

IHV4002: Two Channel
IHV4004: Four Channel

IHV400x

Heat Valves for Solid State Relays

Specifications

Power Supply

- Voltage: 24V $\pm 10\%$ @ 50/60Hz
- Power Consumption: 3VA max

Inputs

- IHV4002 - two 0-10VDC control signals
- IHV4004 - four 0-10VDC control signals

Outputs

- IHV4002 - two 3mA DC fixed current outputs
- IHV4004 - four 3mA DC fixed current outputs
- One 10VDC supply (10mA max optional)

Terminal Identification

- | | |
|-----|---|
| 1 | 0-10VDC channel input 1. |
| 2 | 0-10VDC channel input 2. |
| 3 | 0-10VDC channel 3 input (IHV4004 only). |
| 4 | 0-10VDC channel 4 input (IHV4004 only). |
| 8 | 10VDC positive supply (optional). |
| 9 | Common and 0VAC supply. |
| 10 | 24VAC supply. |
| +1- | Channel 1 output. |
| +2- | Channel 2 output. |
| +3- | Channel 3 output (IHV4004 only). |
| +4- | Channel 4 output (IHV4004 only). |

Temperature Ratings

- | | |
|-----------|---------------------------|
| Storage | 0 to 50°C non-condensing. |
| Operating | 0 to 50°C non-condensing. |

Enclosure

Manufactured from an ignition resistant grade of ABS which meets the requirements of AS2420.

- | | |
|-----------|-------------------|
| Colour: | Grey. |
| Mounting: | DIN rail mounted. |

Installation

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

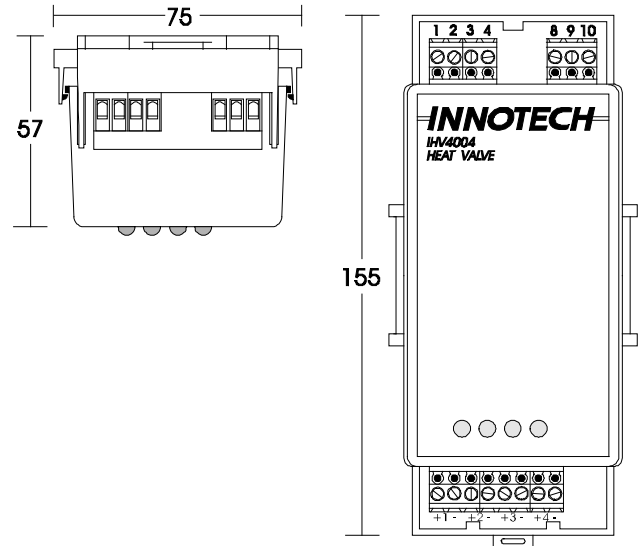
Wiring

1. Earth one side of the 24VAC at the transformer.
2. Connect the EARTHED side of 24VAC to terminal 9.
3. DO NOT connect 24VAC to terminals 1 through 4.

Din Rail Mounted Enclosure

The INNOTECH enclosure was 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.



Application

The INNOTECH range of heat valves is designed for use with zero voltage switching solid state relays to give stepless control of heater banks from a 0 to 10VDC control signal input.

Features

- Stepless heater control
- Eliminates contactor noise
- No EMI (electro-magnetic interference) problems when used with zero crossing switching solid state relays
- The INNOTECH enclosure saves space and reduces installation time

Characteristics

The heat output of the heater bank is proportional to the DC input control voltage.

The controlled span is from 0.5VDC, off, to 9.5VDC, fully on. This control span has been purposely reduced to ensure full control over the input range.

Solid State Relay Drive

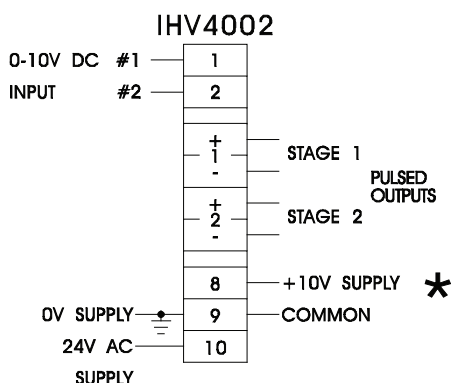
The output of the IHV is capable of driving up to 6 solid state relays which have a 3 to 32VDC input. The control inputs of the solid state relays are connected in series as shown in the connection diagrams on page 2. The maximum voltage applied to the solid state relay input is 30V DC.

Optional DC Supply

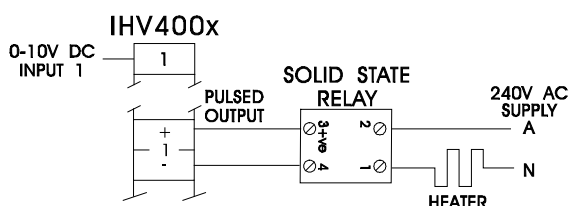
A regulated 10VDC supply is available to power an auxiliary control unit.

For a simple manual heat control system, a potentiometer of 10k ohms can be connected across the 10VDC supply and the wiper of the potentiometer connected to the control input of one channel.

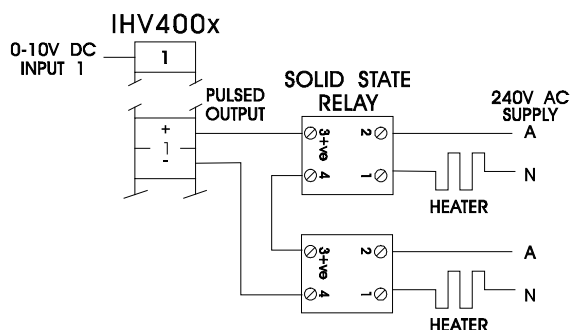
STANDARD CONNECTION



CONNECTION TO DRIVE A SINGLE SOLID STATE RELAY

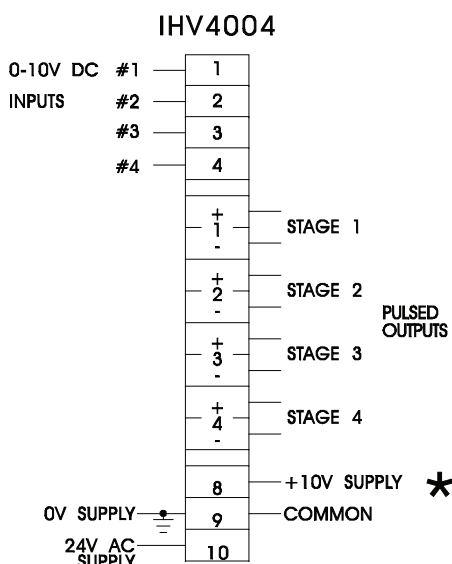


CONNECTION TO DRIVE MULTIPLE SOLID STATE RELAYS



A MAXIMUM OF SIX (6)
SOLID STATE RELAYS
CAN BE CONNECTED IN SERIES

STANDARD CONNECTION



* Optional +10V 10mA Supply

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