

Isolated Phase Cut / Vibrator Control Model 2247-802

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Model 2247-802 features an optically isolated input driven by either a voltage or current source. 0-10V or 4-20mA.

The output voltage is controlled by phase chopping (phase cut) and will control a 230/240V load of up to 3A.

Zero and Span (Min and Max) adjustments are provided for fine tuning.

In addition to Vibratory Feeders this controller can be used to control other devices. Typical applications would be Fan Speed Control, Lamp Loads etc .

The unit is housed within a Phoenix Contact enclosure designed for mounting on DIN rail.



Technical Data

Mechanical Specifications:

DIN Rail Mounting

Height: 90mm

Width: 80mm

Rail Width: 75mm with heatsink

Weight: 400g

Input Control Signal (Optically Isolated)

Set by internal jumpers to one of the following

- 0-10V *
- 0-5V
- 1-5V
- 0-20mA
- 4-20mA

Voltage / Current Ratings:

Power Supply: Input voltage 230-240VAC 50Hz

Output Control Phase (CP) Rated at 3A

Fuse: 230VAC 3A Slow blow

Environmental Specifications:

Operating temperature range: 0°C to +40°C

Wiring Diagram

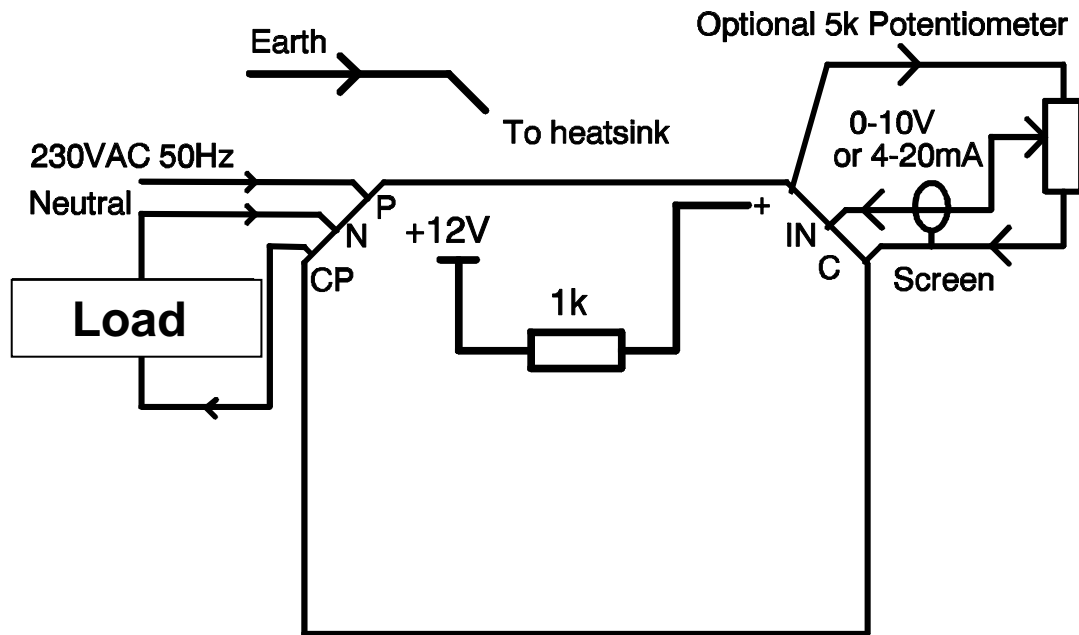


Figure 1 - Wiring Diagram

The external voltage or current signal is applied between terminals (IN) and (C).

The (+) terminal) is supplied as a quick method of testing the unit, without the need for an external signal. All that is required is a 5k potentiometer to be connected as in the above figure.

When connecting a device to the phase cut controller, be sure that this device(s) does not draw more than 3A from the mains.

The preferred mounting orientation for the isolated phase cut controller is vertical. This allows maximum efficiency of heat dissipation from the heat sink. A screw terminal is provided to allow the heat sink to be grounded.

Isolated Phase Cut Control PCB Layout

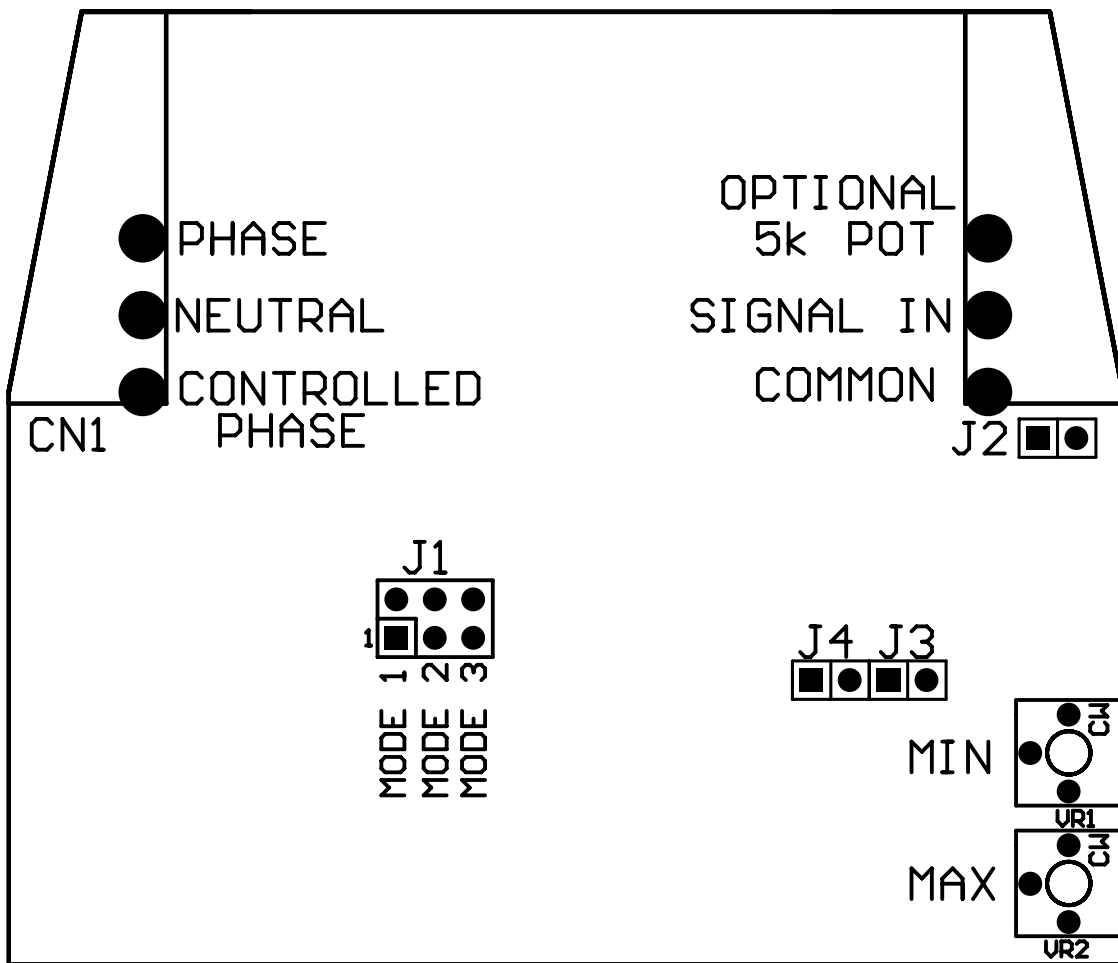


Figure 2 - PCB layout

Jumper Settings:

INPUT RANGE	J2	J3	J4
0-10V *	OFF	OFF	ON
0-5V	OFF	ON	ON
1-5V	OFF	ON	OFF
0-20mA	ON	ON	ON
4-20mA	ON	ON	OFF

TRIGGERING	J1	
MODE 1	1-2	Positive Half Wave
MODE 2	3-4	Negative Half Wave
MODE 3 *	5-6	Full Wave

* = Default Setting

Table 1 - Jumper Settings Tables



Figure 3 - 0-10V jumper settings (Default)



Figure 4 - 4-20mA jumper settings

TRIGGERING MODE:

For fan speed control or Lamp load use mode 3.
For vibrator control use mode 1 or mode 2.

If more than one unit is installed in a plant controlling vibrators then alternate the mode setting between mode 1 and mode 2.

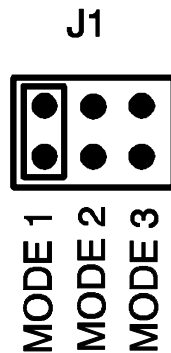


Figure 5 - J1 set to mode 1

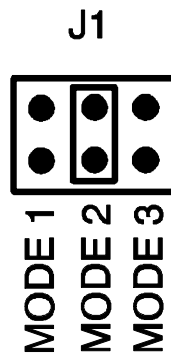


Figure 6 - J1 set to mode 2

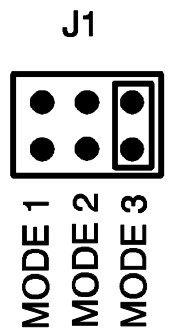


Figure 7 - J1 set to mode 3 (Default)