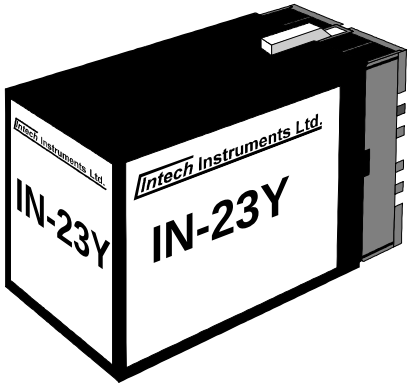
IN-23Y 3 Position Time Proportional Controller

3 Position Time Proportional Controller.

Features.

- **Isolated Input to Output 1.6kVDC.**
- **Compact DIN Rail Mount Enclosure.**
- **LED Indication of Relay Action.**
- **Adjustable Time Base.**
- **Adjustable Dead-Band.**
- **Reverse Polarity Protection.**



Description.

The IN-23Y has been primarily designed to control valves, where the control action will progressively close the valve. Normal 3 position on/off controllers will drive a valve either fully open or closed, which can make control extremely erratic. However the IN-23Y is a 3 position time proportional controller, that on time cycle basis turns the valve drive on and then off. The greater the deviation from the process set point the longer the valve drive is turned on and the shorter it is turned off.

The IN-23Y has been used in many situations with Shimaden process controllers, with accuracy and stability in the control process.

Specifications.

Input Signal	4~20mAdc.		
Input Resistance	100Ω.		
Output Control	3 Position Time Proportional.		
Dead Band	Adjustable from 1~20% Typical. (Anti-clockwise to Increase.)		
Time Base	Adjustable 2~60sec Typical. (Clockwise to Increase.)		
Power Supply	24±3Vdc.		
Current Draw	70mA Max.		
Isolation Voltage	1600Vac/dc Input to Output for 60sec.		
Operating Temperature	0~70C.		
Storage Temperature	-20~80C.		
Operating Ambient Humidity	90%RH Max. Non-condensing.		
Relay Specifications	Resistive:	240Vac.	5A
		24Vdc.	5A
	Inductive:	240Vac.	5A
		24Vdc.	5A
Dimensions	L=80mm, W=51mm, H=120mm.		
Mounting	35mm Symetrical Mounting Rail.		

Note 1. Specifications based on Standard Calibration Unit, unless otherwise specified.
Note 2. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification.
No liability will be accepted for errors, omissions or amendments to this specification.

Quality Assurance Programme.

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant long term reliability of the instrument.

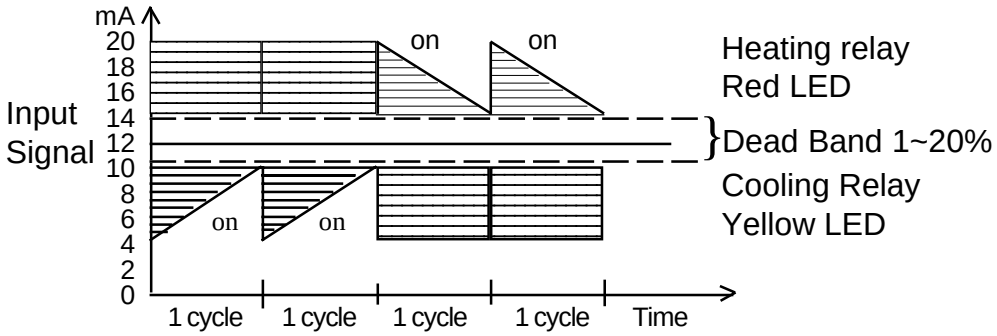
IN-23Y Control Action.

The IN-23Y is designed to operate with a 4~20mA signal, from a reverse acting controller (ie, increasing temperature decreases the mA output).

Increasing the input signal over 50% (12mA) the heating relay and red LED start to operate. The time on to time off increases more and more on a time proportional basis as the input signal is increased to 100% (20mA) at which time the relay is fully on.

Decreasing the input signal below 50% (12mA) the cooling relay and yellow LED start to operate. The time on to time off increases more and more on a time proportional basis as the input signal is decreased to 0% (4mA) at which time the relay is fully on.

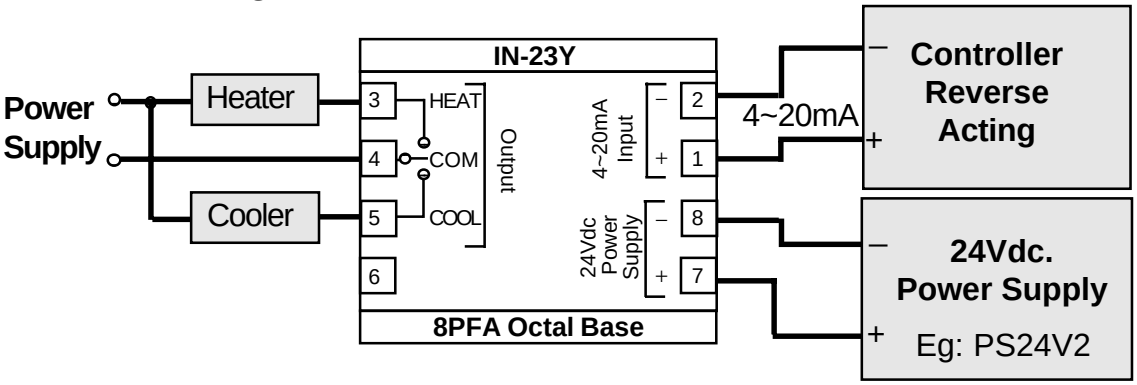
Graph of Input Signal Vs Time.



One cycle is adjustable from 2 to 60 seconds

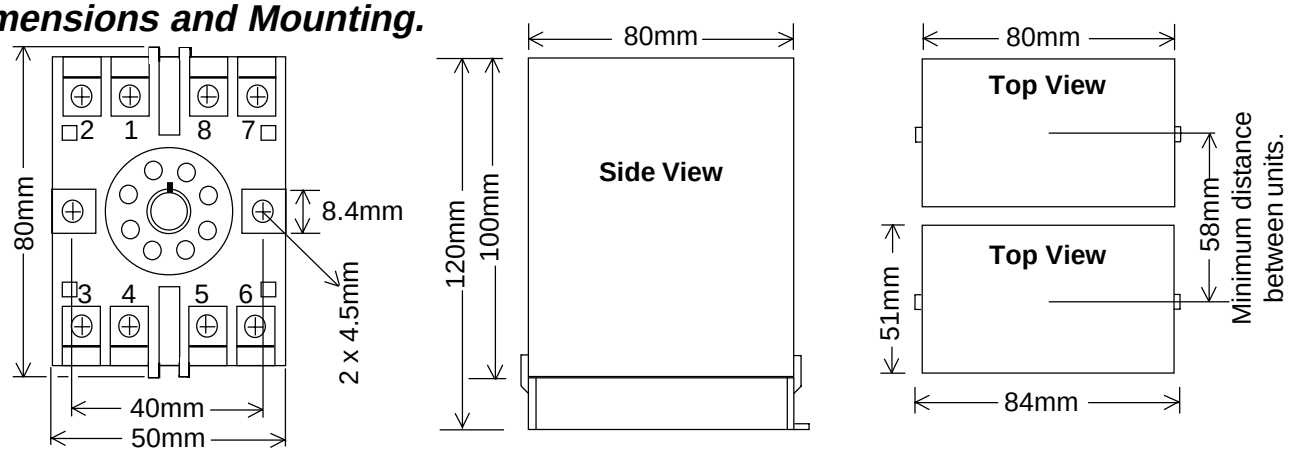
Connection Diagram.

Eg: SR63 Shimaden Controller



Note: If this IN-23Y is used with a direct acting controller (ie, increasing temperature increases mA output) then it is necessary to swap the COOL & HEAT wires on the output terminals.

Dimensions and Mounting.



8PFA Octal Termination Base

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