



จอเบิกสินค้าถ้วยรูปใหม่

Description

- The TIM-94N-4CH Series is designed to measure and display standard analog signals, temperature, humidity, pressure, and values. It supports 4 input channels, and each channel is an input isolated from the others.
- Display the result from 4 channels in auto and manual mode.
- Received Universal Input for each channel.
 - Thermocouple - RTD (PT100) - PTC 1k Ω
 - Current Analog : 0-20mA, 4-20mA
 - Voltage Analog : 0-75mV, 0-150mV, 0-1VDC, 0-5VDC, 0-10VDC, $\pm 0-75$ mVDC, $\pm 0-150$ mVDC, $\pm 0-1$ VDC, $\pm 0-5$ VDC, $\pm 0-10$ VDC.
- Input from Thermocouple, RTD (PT100), PTC 1k Ω can select measuring unit in $^{\circ}$ C and $^{\circ}$ F.
- Absolute input function: the measured value will always be positive even if the input terminals (+/-) are connected in reverse.
- Function operator edit PV Value Display to calculate PV value of each channel (SUM, DIFF, AVG).
- Function Alarm Relay Output can check in case of Thermocouple
 - RTD (PT100) - PTC 1k Ω broke or malfunction or no signal.
- Can communication with computer via RS-485 Modbus RTU.
- 4 Alarm Relay Outputs provides 4 function selectable for each for each input channel.
- Lock function protect setting from screen.
- 7-Segment display size 0.56 inches 4 digits and size 0.39 inches 1 digits shows channel operation of input.

Operation

4 Channels Digital Indicator : TIM-94N-4CH Series is measure and display the standard analog signal, temperature, humidity, pressure, and process etc.

This device can receive universal input for 4 channels together and isolated from other by display result in Auto mode: it will circulate to show result of each channel automatically and Manual: the device will show result by pressing keypad as requested channels.

Can use with Thermocouple type K, J, R, T, N, S, E.

Input Thermocouple-RTD (PT100) -PTC 1k Ω can set decimal point 1 position.

Input Current Analog, Voltage Analog can set decimal point position maximum 3 positions.

Example: When connecting the device with a 2-wire pressure transmitter, a 250 Ω resistor must be connected in parallel with the input. For example, when using a pressure transmitter with a range of 0-100 bar, set the parameters as follows: Inp = 23, InH = 5.00, InL = 1.00, SLH = 100, and SLL = 0. For more details, refer to the [manual](#).

Specification

Power Supply		90-250 VAC 50/60Hz
		24VAC/VDC $\pm 15\%$
Power Consumption		3VA
Display (Show Channel Input)		7 Segment, 4 Digit, Size 0.56 Inch
		7 Segment, 1 Digit, Size 0.39 Inch (Show Channel Input)
		4 LED (Show alarm output)
Input	Channel Input	Isolate 4 Channel Input
	Thermocouple	K, J, R, T, N, S, E
	RTD	PT100, PTC (1 k Ω)
	Voltage	0-75mV, 0-150mV, 0-1VDC, 0-5VDC, 0-10VDC, $\pm 0-75$ mVDC, $\pm 0-150$ mVDC, $\pm 0-1$ VDC, $\pm 0-5$ VDC, $\pm 0-10$ VDC
	Current	0-20mA, 4-20mA
	Range	Please see detail in Table1
	Accuracy	± 0.25 % of Full Scale at Room Temperature (25 $^{\circ}$ C)
	Sampling Time	500 mSec
Communi- cation	Protocol	MODBUS RTU
	Baud Rate	4800, 9600, 19200, 38400, 57600 bps
	Parity	None
	Stop Bits	1
	Data Bits	8
	Support Device Node	255
Output	Relay Alarm	4 Alarm 3A/250VAC
Ambient Operation	Temperature	-10 $^{\circ}$ C to 60 $^{\circ}$ C
	Humidity	85 % RH Non-Condensing
Ambient Storage	Temperature	-20 $^{\circ}$ C to 80 $^{\circ}$ C
	Humidity	85 % RH Non-Condensing
Protection Degree	Front Protection Rating	IP52
	Case Protection Rating	IP30
Installation		Panel Mounting
Material		ABS-V0
Size (mm.)		48 x 96 x 70
Weight (kg.)		240

Operation(Continue)

Input Thermocouple, RTD (PT100), PTC 1k Ω can select the measuring unit of temperature to be °C and °F.

In case of the input higher or lower than setting range of Input will show the signal will show macron or underscore.

4 Function Alarm Relay Output for selection.

Absolute High Low Band Alarm such as Temperature lower than Setpoint Low and higher than Setpoint High command relay output to operate.

Absolute High Alarm such as if the temperature higher more than Setpoint High it will command Relay Output to operate.

Absolute Low Alarm such as if the temperature lower than Setpoint Low command Relay Output to operate.

Absolute High Low Range Alarm such as if the temperature higher then Setpoint Low and lower Setpoint High command the Relay Output operate and 1 special function that can check in case of thermocouple -RTD (PT100) -PTC 1k Ω broke/mafunction or no signal.

Function Operation Edit PV Value Display for calculate PV value of each channel by pairing between CH1 with CH2, CH2 with CH3, CH3 with CH4, CH4 with CH1. The device calculate value 3 patterns are SUM, DIFF, AVG.

Example

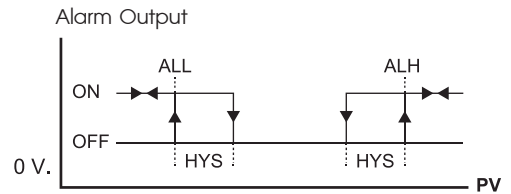
SUM value such as CH1 = 25.50 and CH2 = 35.00 then the device will show value 60.50

DIFF value such as CH1 = 25.50 and CH2 = 35.00 then the device will show value --9.50

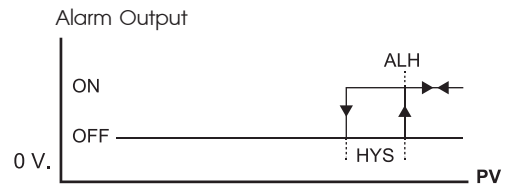
AVG value such as CH1 = 25.50 and CH2 = 35.00 then the device will show 30.25

ALARM FUNCTION

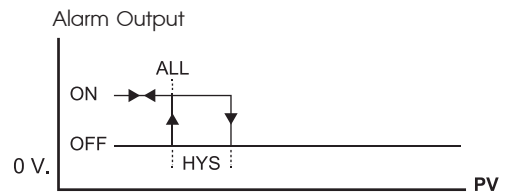
1. Absolute value High Low Band Alarm



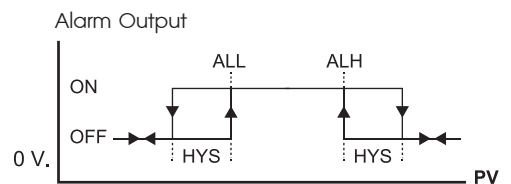
2. Absolute value High Alarm



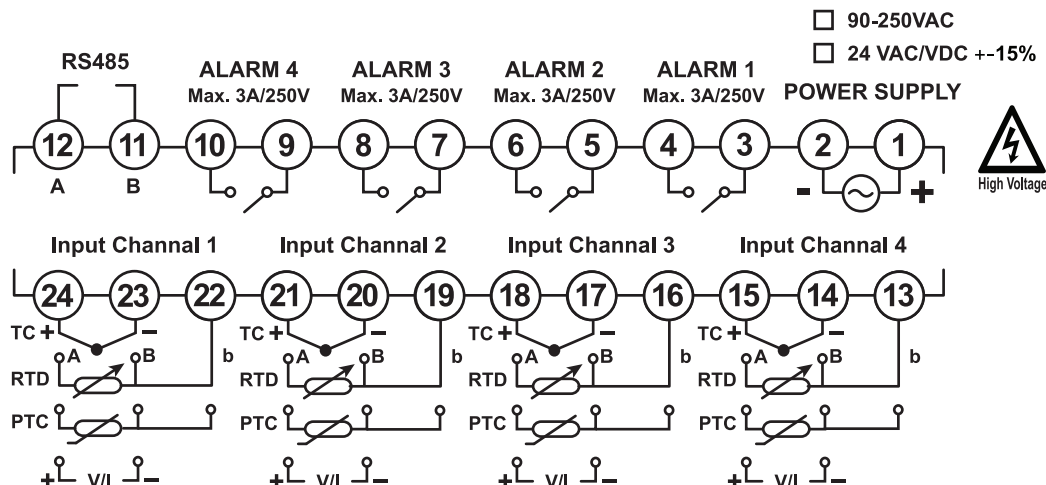
3. Absolute value Low Alarm



4. Absolute value High Low Range Alarm



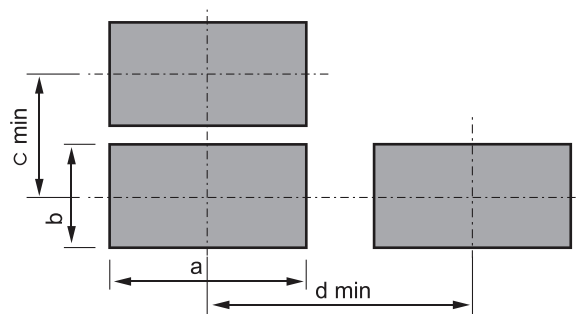
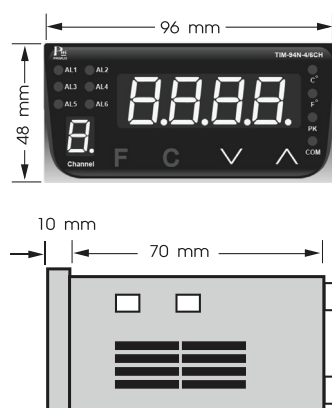
Wiring Diagram



WARNING

More than one power source.
Relay outputs maybe at mains potential.
Disconnect power from all source before install or servicing.

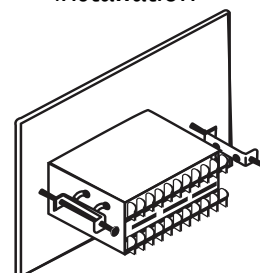
Dimension



Model	a	b	c	d
TIM-94N-4CH	92	45	60	120

Unit : ±0.6 mm.

Installation



Ordering Code

TIM-94N-4CH-A- -

Communication

Power Supply

Communication	
None	None
M	RS-485

Power Supply	
220	90-250VAC
24	24VAC/VDC ±15%