PID Temperature Controller

TCF

Sensing

Digital Panel Meters

Temperature Controllers

Timers & Counters

Level Controllers

Convertors & Amplifiers

Weighing

Automation

Components

SALIENT FEATURES

- ◆ Auto-tuning
- ◆ 100-240 VAC
- ◆ PV, SV display
- ◆ Relay & SSR Output
- ◆ TC/ RTD Input (Fixed)

Model Number Legend

TCF - ☐ - ☐☐
 1   **2**   **3 4**

1. Series

TCF

2. Input Type

P: RTD Pt100
TC: J/K

3. Output Type

RS: Relay & SSR Output

4. Power Supply

230AC: 230V AC

#. Accessories included

Panel Mounting Kit : 1 Set

Example:

TCF-P-RS230V AC

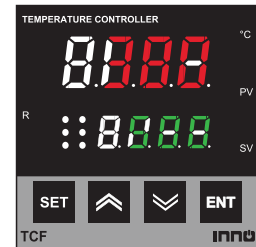TCF Series - Input Type, Relay & SSR Output Type, 230V AC Power Supply

NOTE: Contact us for models not shown in catalogue.

Product Highlights

♦ **Dual Display**

The TC series temperature controller has seperate displays for Process and Set Values. The PV display is in Red LED & SV display is in Green LED
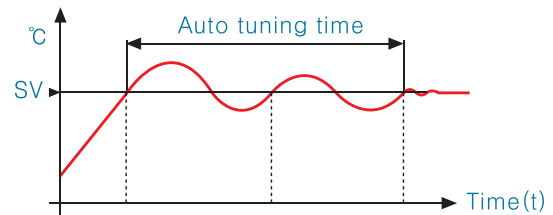
♦ **SSR/ Relay Outputs**

Selection of either Voltage driver for SSR output or 5A Relay output.

♦ **Auto- tuning PID Controller**

Manual and Auto- tuning PID control options are available. To enable Auto-tuning function press the Up arrow key after setting SV for 6 seconds. The AT indication LED glows to show AT progress. Once the light goes off, auto-tuning is complete.
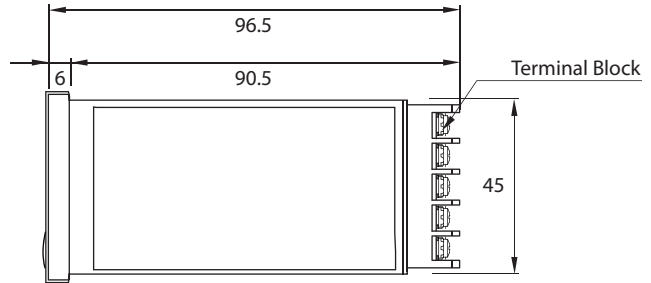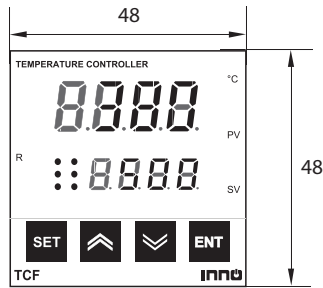
Ratings and Specifications

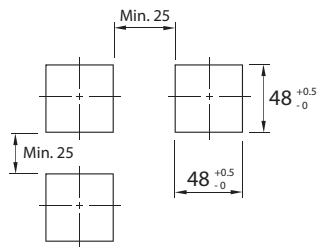| Input Type			Thermocouple	RTD
Models			TCF-TC-RS230VAC	TCF-P-RS230AC
Power Supply			100 ~ 240 VAC	
Power Consumption			50mA at 220 VAC	
Sensor Input			Thermocouple: K, J	RTD: Pt100
Control Output	Type		Relay + SSR Output	Relay + SSR Output
	Specification	Relay	1 C/O Contact, 230V AC, 5A (Resistive Load)	
		SSR	12V DC	
Control Method			ON/ OFF control or PID control with auto-tuning	
PV Display			4 digit, 7 Segment RED LED; Height: 9mm	
SV Display			4 digit, 7 Segment GREEN LED; Height: 7mm	
Resolution			Thermocouple: 1° C; RTD: 0.1° C	
Sampling Time			min. 0.5ms	
Dielectric Strength			At power terminals 2000 VAC, 50Hz, 1 min	
Ambient Temperature			Operation: 0° ~ 50°C; Storage: -10° ~ 60°C (non- freezing; non- condensing)	
Ambient Humidity			Operation: 45 ~ 85% RH; Storage: 25 ~ 85% RH (non- condensing)	
Protection Class			IP20, Front panel IP65	
Weight			Approx. 120 grams	
Material			Front Panel: PU Clading Housing: ABS or Equiv.	

Note: The IP65 protection rating is valid only if the meter is fixed on the panel with the requisite rubber gasket
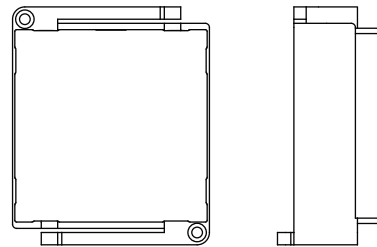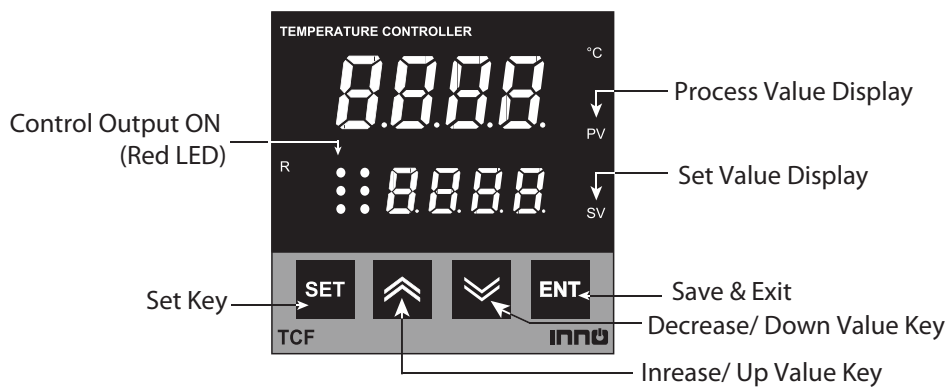
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Dimension Drawing

```
TEMPERATURE CONTROLLER
                        °C
[8.8.8.8.]
                        PV
R
:: [8.8.8.8.]
                        SV

SET   ⋀   ⋁   ENT
TCF              inno
```

48

48

96.5

90.5

6

45

Terminal Block

ⓘ Panel Cut-out

Min. 25

Min. 25

48 $^{+0.5}_{-0}$

48 $^{+0.5}_{-0}$

ⓘ Panel Adapter

All dimensions are in mm

Component Names and Function

```
TEMPERATURE CONTROLLER
                           °C
[8.8.8.8.]
                           PV
R
:: [8.8.8.8.]
                           SV

SET   ⋀   ⋁   ENT
TCF              inno
```

Control Output ON
(Red LED)

Process Value Display

Set Value Display

Set Key

Save & Exit

Decrease/ Down Value Key

Inrease/ Up Value Key

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♦ TCF-TC-RS230AC

SOURCE
100 ~ 240 VAC

| 1 | 2 | 3 | 4 | 5 |

+ | 11 | SSR | 12 | -

| 6 | 7 | 8 | 9 | 10 |

- TC +

RELAY

♦ TCF-P-RS230AC

SOURCE
100 ~ 240 VAC/ DC

| 1 | 2 | 3 | 4 | 5 |

+ | 11 | SSR | 12 | -

| 6 | 7 | 8 | 9 | 10 |

RTD/ Pt

RELAY

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