TS Advanced PID Digital Temperature Controller

Selectable between Thermocouple and Pt100. Current and voltage models available.

A robust range of instruments that cover a wide spectrum of requirements and specifications. From the budget friendly entry level single set point controller to sophisticated process controllers with Modbus, motorized valve control and retransmission, the TS series can do it all.

A new generation high speed microprocessor allows for quick sampling rates of up to 6 samples a second on analogue inputs and rapid processing to allow for instant response and accurate control. A sophisticated control algorithm combining PID and fuzzy logic elements enables consistent and accurate control.

- 48mm x 48mm (1/16 DIN)
- Selectable input (Thermocouple, Pt100). Current/Voltage models available
- Fully programmable via the front fascia
- Automatic/manual operation
- Dual programmable alarm
- PID & On/Off Control
- Auto-Tuning function
- Soft-start function for analog output

48mm x 48mm

TS100

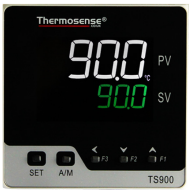
72mm x 72mm

TS700

48mm x 96mm

TS400

96mm x 96mm



TS900

Input	Selectable between Thermocouple, Pt100 (Current/Voltage models available)
Control	Factory set to PID control. Easily programmed to On/Off control
Alarms	Dual Programmable Alarm
Control Output	Relay Contact, Solid State Relay (SSR) or Current/Voltage
Power Supply	85-265 V AC 50-60Hz or 24 V AC/DC
Operating Temperature	0°C to +50°C
Operating Humidity	< 80%

1	model	fascia dimensions	cutout dimensions	standard	code
	TS100	48mm (W) x 48mm (H) x 68.4mm (D)	45mm (W) x 45mm (H)	1/16 DIN	TS100
	TS400	48mm (W) x 96mm (H) x 68.4mm (D)	44.6mm (W) x 91.2mm (H)	1/8 DIN	TS400
	TS700	72mm (W) x 72mm (H) x 68.4mm (D)	67.2mm (W) x 67.2mm (H)	3/16 DIN	TS700
	TS900	96mm (W) x 96mm (H) x 68.4mm (D)	91.2mm (W) x 91.2mm (H)	1/4 DIN	TS900

2	main control	code
	PID or On/Off control (programmable). Auto-tuning enables PID terms to be automatically calculated & configured.	U
	Heat / Cool PID control	X

3	user selectable input		code
	Type K	0°C to +1372°C	
	Type J	0°C to +1200°C	
	Type T	0°C to +350.0°C	
	Type N	0°C to +1300°C	
	Type E	0°C to +1000°C	
	Type R	0°C to +1769°C	

user selectable input		code
Type S	0°C to +1769°C	
Type B	0°C to +1820°C	
Pt100	-199.9°C to +649.0°C	
Voltage	0~10V [1]	A
Current	0~20mA, 4~20mA [1]	A

4	control output	code
	Relay Output, SPDT 5A @ 250 V AC, 6A @ 125 V AC	R
	Solid State Relay (SSR), 0-12 V DC Logic Output, 35mA max load	V
	Current Output - 0~20mA or 4~20mA	D
	Voltage Output - 0~10 V	E

5	alarm output	code
	Dual Alarm supplied as standard, factory set as deviation high and deviation low. 2 x SPDT relays, 5A @ 250 V AC Fully programmable via front fascia High/Low, Process or Band Alarms, with or without hold function.	1/2

6	power supply	code
	85-265 V AC 50-60Hz (Standard)	96
	24 V AC/DC	24

7	serial interface	code
	RS485, MODBUS / RTU Protocol	K

8	transmitter power supply	code
	24 V DC 4~20mA Loop Power Supply (35 mA), with short circuit protection	B

[1] Analog input models include an on-board power supply

order code (example)	TS100-URN296

Example order code explanation:
TS100=48mm x 48mm x 68.4mm model, U=standard control, R=Relay output, N=No secondary output, 2=2 alarm outputs, 96=standard 85-265 V AC power supply