



**Features:**

- Dual display, 4 digits, 7 segments LED display
- TC / RTD input, analog universal input
- PID, PID Autotune, ON-OFF, time proportional
- Auto/manual control bumpless transfer
- 0.2%F.S measuring accuracy
- Bar graphic display indication
- °C/°F display selectable
- Alarm standby function
- Soft-start function for analog output
- Optional features
  - Remote setpoint
  - Motorized valve control
  - RS485 Modbus RTU Communication
  - Master/Slave communication
  - PV/SV Re-transmission
  - AUX power
  - Preheating function
  - Multi group of setting point

**Technical Specifications**

**Ordering Information**

FT100 without Auto/manual switch key  
FT101 with auto/maual switch key

<b>FT100</b> (48mm*48mm)(Width*Height)	1	2	3	*	4	5	6	7
<b>FT101</b> (48mm*48mm)(Width*Height)								
<b>FT400</b> (48mm*96mm)(Width*Height)								
<b>FT500</b> (96mm*48mm)(Width*Height)								
<b>FT700</b> (72mm*72mm)(Width*Height)								
<b>FT900</b> (96mm*96mm)(Width*Height)								

**1: Main output**

<b>R</b>	Relay output
<b>V</b>	SSR Drive/Voltage pulse output
<b>D</b>	4-20mA output
<b>T</b>	Single phase TRIAC zero-crossing trigger
<b>H</b>	Single phase SCR zero-crossing trigger
<b>K</b>	Three phase TRIAC zero-crossing trigger
<b>L</b>	Three phase SCR zero-crossing trigger
<b>C</b>	Three phase SCR phase angled trigger

**2: Number of Alarms**

<b>1</b>	1 alarm
<b>2</b>	2 alarms
<b>3</b>	3 alarms

**3: Power Source**

<b>96</b>	85~265Vac 50/60HZ
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**4: Process Value or Setting value Re-transmission output**

<b>N</b>	Without Re-transmission
<b>P42</b>	PV Re-transmitted as 4-20mA
<b>P010</b>	PV Re-transmitted as 0-10Vdc
<b>S42</b>	SV Re-transmitted as 4-20mA
<b>P010</b>	SV Re-transmitted as 0-10Vdc

**5: Communication**

<b>N</b>	Without Communicaiton
<b>K</b>	With Modbus RTU RS-485 communication

**6: Remote SV or Position Feedback**

<b>N</b>	Without Remote SV or Position Feedback
<b>A</b>	Remote SV(4-20mA)
<b>B</b>	Remote SV(0-20mA)
<b>C</b>	Remote SV(0-10mA)
<b>D</b>	Remote SV(0-5Vdc)
<b>E</b>	Remote SV(0-10Vdc)
<b>F</b>	Remote SV(1-5Vdc)
<b>G</b>	Remote SV(2-10Vdc)
<b>R</b>	3 wire potentiometer position feedback

**7: Auxiliary Power Supply**

<b>N</b>	Without auxiliary power
<b>24</b>	24VDC Auxiliary Power Supply

Example: FT100-R-1-96-NNNN( FT100, size 48mm\*48mm, Relay output, 1 alarm ,85~265Vac source, no additional features)

**Display**

Digits	4 digits 7 segments LED, Dual display
LED Indicators	OP1, OP2, AT, AL1, AL2, AL3, MAN, COM, PRG

**Input Specifications**

Inputs	Thermocouple(K, J, R, S, B, T, E, N, Wu3_Re25) RTD(PT100) DC Analog Inputs(2-10Vdc, 1-5Vdc, 4-20mA) (0-10Vdc, 0-5Vdc, 0-20mA) (0-50mV, 0-20mV)
Sampling time	500ms
Input Filter(FTC)	0 to 66( 1-30 normal, 31-60 enhanced)
Resolution	1/0.1° for TC/RTD only Decimal point position selectable: 1/0.1/0.01/0.001 for analog input
Temperature Unit	°C/°F Selectable
Indication Accracy	For TC inputs: 0.2% of F.S. ± 1° For R & S type TC inputs: 0.5% of F.S. ± 2° (20 min of warm up time for TC inputs) For RTD inputs: 0.2% of F.S. ± 1° For Analog input: ± 0.5%. ± 1 digit (F.S.=Full Scale)

**Output Specifications**

Main Control Output	1 main output, heating or cooling selectable
Contact Rating(SPST)	5A @ 250Vac Resistive Load(Main Output) 3A @ 250Vac Resistive Load(Alarm output)
Current	0/4 to 20mA DC(loop impedance: 500Ω max.)
SSR Drive	12V DC(20mA)
<b>Retransmission</b>	
Current	4 to 20mA DC(loop impedance: 500Ω max.)
Voltage	0 to 10Vdc(Load resistance: 10KΩ Min)

**Supply Voltage**

Supply Voltage	85~265Vac 50/60HZ
Power Consumption	6VA max @230Vac

**Environmental Specifications**

Temperature	Operating: 0 to 50°C(32 to 122°F) Storage: -20 to 75°C(-4 to 167°F)
Humidity(non-condensing)	95%RH
Weight	0.17kg
Protection	Dust proof for front plate

