

Features:

- Dual display, 4 digits, 7 segments LED display
- TC / RTD input, analog universal input
- 0.1 resolution for TC/RTD input, 0.001 resolution for analog input
- Alarm output delay and alarm reset delay
- 0.2% F.S measuring accuracy
- Bar graphic display indication
- °C/°F display selectable
- Alarm standby function
- Maximum 4 alarms available, FT100-601 maximum 3 alarms
- Optional features
 - Process value re-transmission
 - Auxiliary power supply
 - RS485 Modbus RTU Communication

Ordering Information

FT100-601	(48mm*48mm)(Width*Height)				
FT400-601	(48mm*96mm)(Width*Height)				
FT500 601	(96mm*48mm)(Width*Height)	1	2	3	4
FT700-601	(72mm*72mm)(Width*Height)				
FT900-601	(96mm*96mm)(Width*Height)				

1: Number of alarms

0	No alarm
1	1 alarm
2	2 alarms
3	3 alarms
4	4 alarms

FT100-601 has maximum 3 alarms

2: Power Source

96	85~265Vac 50/60HZ
----	-------------------

3: Process Value

N	Without Re-transmission
P42	PV Re-transmitted as 4-20mA
P010	PV Re-transmitted as 0-10Vdc
P050	SV Re-transmitted as 0-5Vdc

4: Communication

N	Without Communication
K	With Modbus RTU RS-485 communication

5: Auxiliary Power Source

N	Without Auxiliary Power source
A	24VDC isolated
B	24VDC grounded
C	12VDC isolated
D	12VDC grounded
E	9VDC isolated
F	9VDC grounded
G	5VDC isolated
H	5VDC grounded

Example: FT100-601-1-96-N-K-N (FT100-601, size 48mm*48mm, 1 alarm, 85~265Vac source, No re-transmission RS-485 communication, No Aux Power)

Technical Specifications

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), Cu50, 0-400 ohm, 0-80 ohm. DC Analog Inputs (2-10Vdc, 1-5Vdc, 4-20mA) (0-10Vdc, 0-5Vdc, 0-20mA) (0-50mV, 0-20mV)
Sampling time	300ms
Input Filter (FTC)	0 to 30 (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 Accuracy	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

Contact Rating (SPST)	5A @ 250Vac Resistive Load (OP1) 3A @ 250Vac Resistive Load (OP2/AL1)
Contact Rating (SPDT)	5A @ 250Vac Resistive Load (AL2)
Retransmission	
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 (FT100-601) 0.24kg (FT400-601, FT500 601) 0.25kg (FT700-601) 0.35kg (FT900-601)
Protection	Dust proof for front plate

Functional Specifications

Output SP	Reference value for deviation alarm
Output SP1	Alarm 1 value
Output SP2	Alarm 2 value
Output AL1	Alarm 3 value
Output AL2	Alarm 4 value
HYS SPH1	Alarm 1 hysteresis value
HYS SPH2	Alarm 2 hysteresis value
HYS ALH1	Alarm 3 hysteresis value
HYS ALH2	Alarm 4 hysteresis value
Hysteresis Width for alarm	0.0 to 100.0
Alarm delay SPT1	Alarm 1 output delay time
Alarm delay SPT2	Alarm 2 output delay time
Alarm delay ALT1	Alarm 3 output delay time
Alarm delay ALT2	Alarm 4 output delay time
Input offset	-199 to 199
Alarm mode	Deviation/absolute high/low, band alarm
SP lower limit	-1999 to 9999
SP higher limit	-1999 to 9999

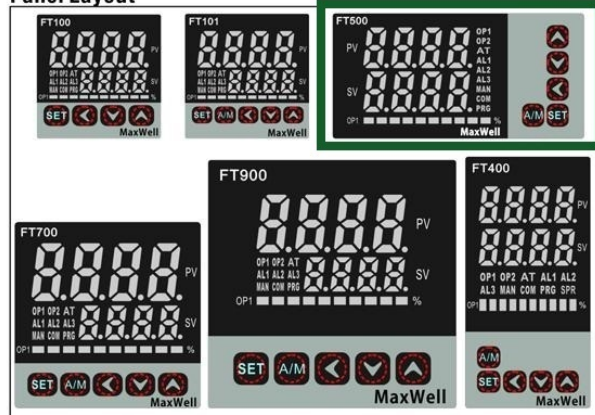
Optional features

Sensor Power	24VDC isolated, 24VDC Grounded 12VDC isolated, 12VDC Grounded 9VDC isolated, 9VDC Grounded 5VDC isolated, 5VDC Grounded
PV Re-transmission	0-5Vdc, 0-10Vdc
mV	4-20mA
Serial communication	
Interface standard	RS-485
Communication address	0 to 127, maximum 36 units per line
Transmission mode	Half duplex
Transmission protocol	Modbus RTU
Transmission format	Support 03 read command, 06 and 10 write command 1 start bit+8 digital bit+N+1 stop bit(8.N.1) 1 start bit+ 8 digital bit+N+2 stop bit(8.N.2)
Transmission speed	2400,4800,9600,19200(9600 default)

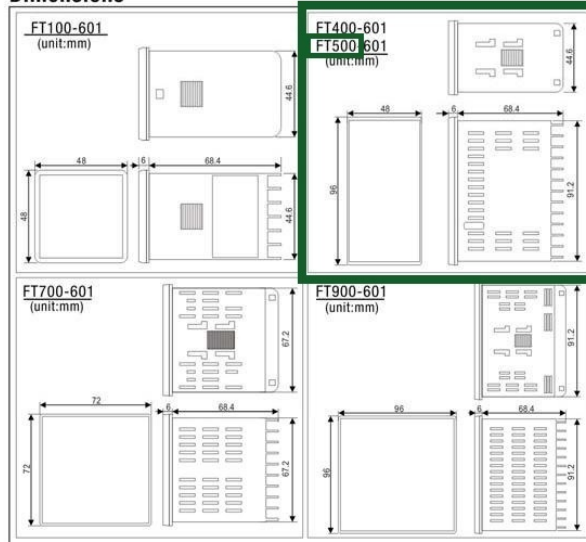
Compliance

IEC/EN 61326(EMI/EMC)
IEC/EN 61010 Revision 3 2010 Edition(Safety)

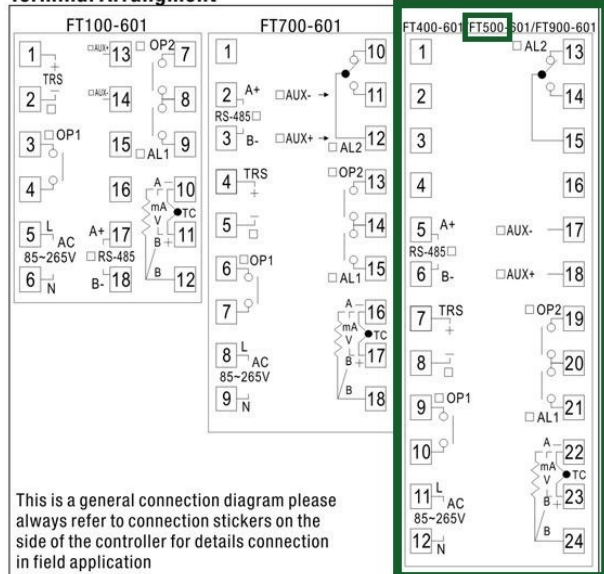
Panel Layout



Dimensions



Terminal Arrangement



This is a general connection diagram please always refer to connection stickers on the side of the controller for details connection in field application

- 1: PV window, display PV or parameter notation
- 2: SV window, display units or parameter value
- 3 OP1 : Output 1 indicator
OP2 : Output 2 indicator
AT : Reserved indicator
AL1 : Alarm 1 indicator
AL2 : Alarm 2 indicator
AL3 : Reserved indicator
MAN : Reserved indicator
COM : Communication indicator
PRG : Reserved indicator
SPR : Reserved indicator
- 4 Bar graphic, shows the measuring value
- 5 [SET] : Function key
- 6 [A/M] : Reserved key
- 7 [] : Shift key
- 8 [] : Decrement key
- 9 [] : Increment key