



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

Technical Specifications

Ordering Information

FT100(48mm*48mm)(Width*Height)

FT400(48mm*96mm)(Width*Height)

FT500(96mm*48mm)(Width*Height)

FT700(72mm*72mm)(Width*Height)

FT900(96mm*96mm)(Width*Height)

1 2 * 3 4 5

1:Input selection

601 TC/RTD input
602 Analog input 0-10VDC/4-20mA

This model support TC/RTD inputs or analog inputs. can not support both TC/RTD and analog at the same time, therefore you have to make a choice when order this mode, either go with code 601 for TC/RTD input or code 602 for analog input

2:Number of outputs

N No outputs
1 1 output
2 2 outputs
3 3 outputs
4 4 outputs

3:Power Source

96 85~265Vac 50/60HZ
24 24VDC/AC

4: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

5:Communication

N Without Communication
K With Modbus RTU RS-485 communication

6: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: FT100-602-2-96-N-K-N (FT100-601, size 48mm*48mm, analog input, 2 outputs, 85~265Vac, with RS-485 function)

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: 500Ωmax.)
Voltage	0 to 10Vdc(Load resistance: 10KΩMin)

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

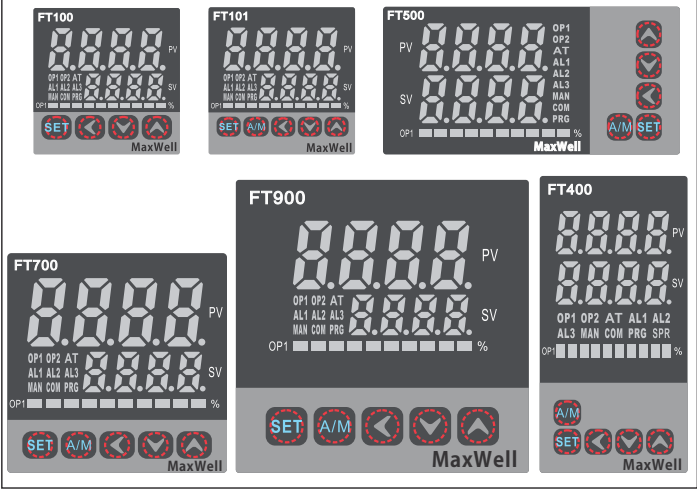
Optional features

Sensor Power	24VDC isolated, 24VDC Grounded 12VDC isolated, 12VDC Grounded 9VDC isolated, 9VDC Grounded 5VDC isolated, 5VDC Grounded
PV Re-transmission	
mV	0-5Vdc, 0-10Vdc
mA	4-20mA
Serial communicaiton	
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)

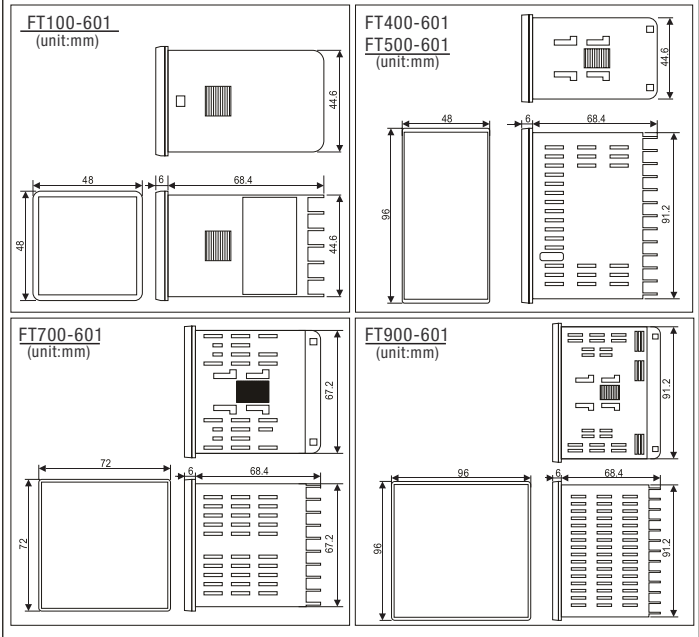
Compliance

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

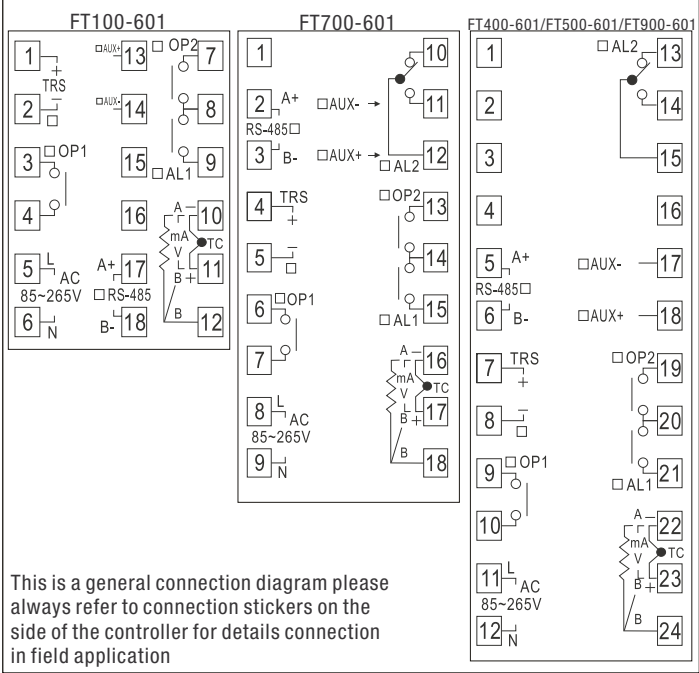
Panel Layout



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