General Features:

- **3 wires valve motor drive PID controller(VMD)**
- One relay for valve reverse running, one relay for valve forward running
- Work with valve with feedback signal or without feedback signal
- TC/RTD,analog input
- Auto/manual control bumpless transfer on panel
- 0.2% F.S accuracy
- PID control mode or ON/OFF Control mode selectable
- RS-485 modbus RTU communication optional
- **Perfect for application such as gas klin control**
- **Bar graphic display shows the valve position if the valve has feedback signal, otherwise the bar graphic dispaly will indicate output percentage**
- $^{o}C/^{o}F$ display selectable
- Optional features
    - RS485 Modbus RTU Communication
    - PV Re-transmission
    - 24VDC auxiliary power

Ordering Information

MTC-48-V (48mm*48mm)(width*height)
MTC-49-V (48mm*96mm)(width*height)
MTC-94-V (96mm*48mm)(width*height) 1-2-3-4-5-6-7-8
MTC-72-V (72mm*72mm)(width*height)
MTC-96-V (96mm*96mm)(width*height)

1:OUTPUT 1(Valve opening control)

M	Relay output for valve opening control
N	No output

2:OUTPUT 2(Valve closing control)

M	Relay output for valve closing control
N	No output

3:Number of Alarms

N	No alarm
1	1 alarm
2	2 alarms
3	3 alarms

4:Power Source

96	85~265Vac 50/60HZ

5 :Position feedback for valve position

N	No position feedback	A	4-20mA	B	0-20mA
T	special inputs	C	0-10mA	D	0-5Vdc
E	0-10Vdc	F	1-5Vdc	G	2-10Vdc
R	potentiometer feedback(resistance feedback)				

6:PV re-transmission

N	No re-transmission function
A	4-20mA re-transmission
B	0-20mA re-transmission
E	0-10Vdc re-transmission

7:RS-485 Communication

N	No communication feature
K	RS-485 modbus RTU communication

8:AUX power source

| N	No aux power	B	24Vdc grounded
A	24Vdc isolated		

Technical Specifications

Eg: MTC-96-V-M-M-1-96-R-NNN
MTC-96-V series valve temperature controller, 2 relay outputs
for valve opening and closing, 1 alarm outputs for temperature
with potentiometer position feedback. source 85~265Vac

### Further elaborate on valve temperature control

MTC-V valve temperature controller controls the current position of a valve or damper by accepting in a signal from a position indicator, the controls can be programmed for ON/OFF, PID control mode, for greater design flexibility, MTC-V controller accepts TC, RTD and analog signals, An auto/manual key is located on the front panel in order to toggle between manual operation and automatic operation, The RS-485 serieal communications works with Modbus RTU protocol During normal operation, the controller will display the present value(PV), set point value(SV), two relays ,one control the opening of the valve and the other one control the closing of the valve, by doing so, the temperature can be controlled at the set point.
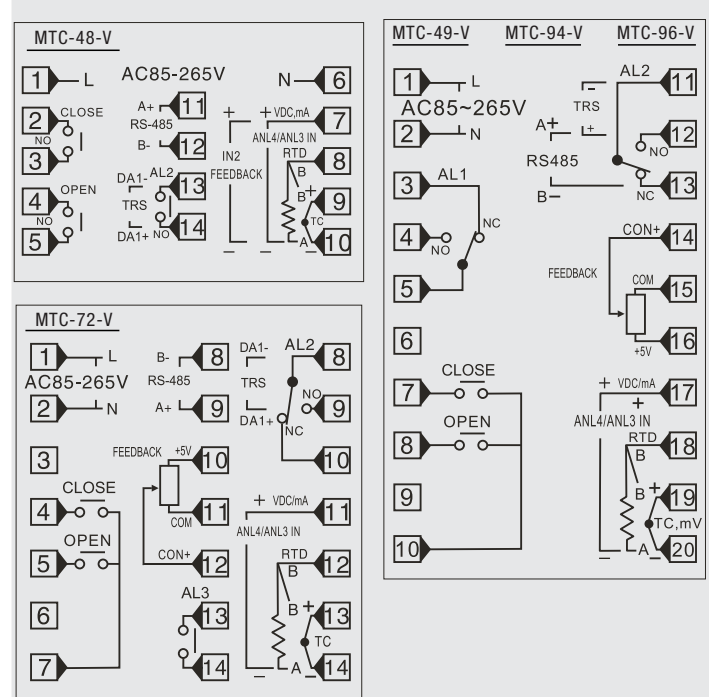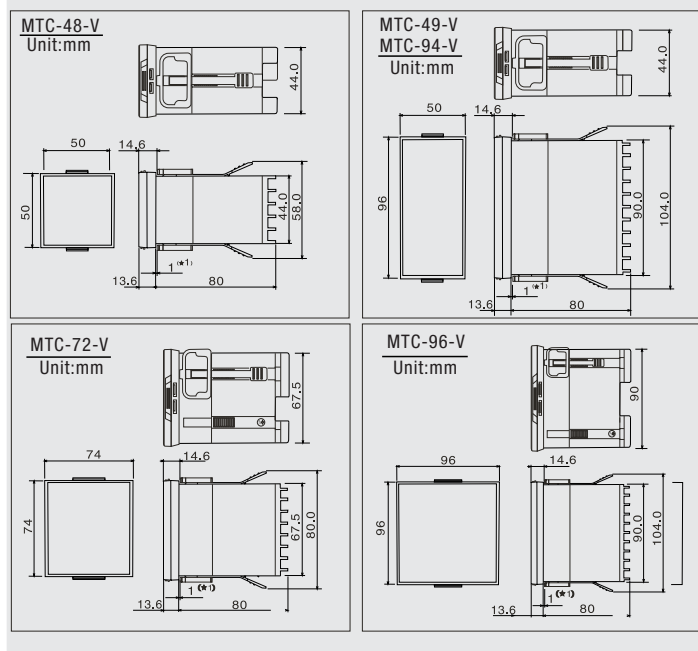
● 3 wires motor valve PID control

Fuzzy	Autotuning
Transmission	Motor valve
Modbus Communication	LED BAR
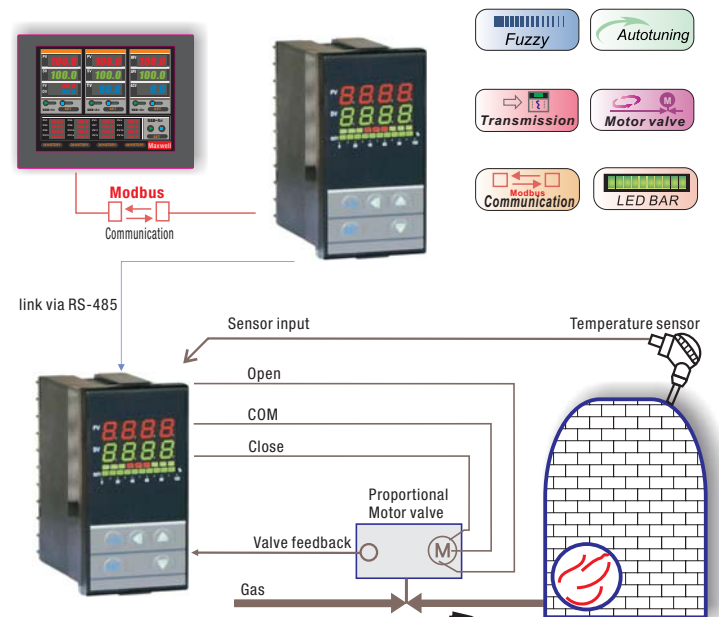
Wiring example for MTC-49-V,MTC-94-V and MTC-96-V

Technical Specifications
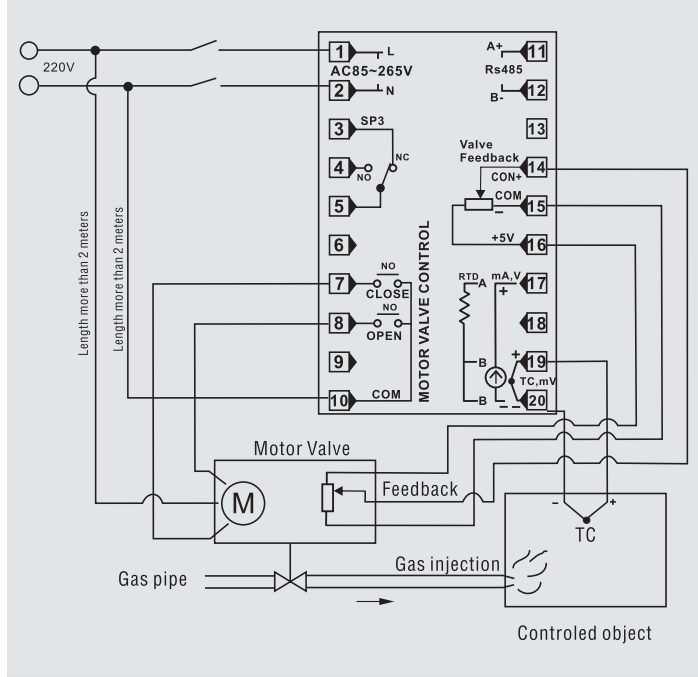
Terminal arrangement

Ratings:
Alarm relay: 250Vac, 3A(Resistive load)
Control relay: 250Vac, 5A(Resistive load)
SSR Drive output: voltage pulse 12VDC(load shall be 600 ohm or more)
Current output: 4-20mA DC(load shall be less than 500 ohm or less
Triac single phase zero-crossing: 100A or less

Size and mounting

Input sensor and range

Input type		Code		Input type		Code	
K	0.0 to 200.0 ℃	K	D2	Pt100	0.0 to 100.0 ℃	D	D1
	0.0 to 400.0 ℃	K	D4		0.0 to 200.0 ℃	D	D2
	0 to 400 ℃	K	A4		-50.0 to 200.0 ℃	D	G2
	0 to 600 ℃	K	A6		-100.0 to +200.0 ℃	D	F2
	0 to 1300 ℃	K	B3		-199.9 to +200.0 ℃	D	F3
E	0.0 to 200.0 ℃	E	D2		0 to 100 ℃	D	A1
	0.0 to 300.0 ℃	E	D3		0 to 200 ℃	D	A2
	0 to 200 ℃	E	A2		0 to 400 ℃	D	A4
	0 to 400 ℃	E	A4		0 to 800 ℃	D	A8
	0 to 800 ℃	E	A8		-100 to 200 ℃	D	C2
J	0.0 to 300.0 ℃	J	D3		-200 to 400 ℃	D	C4
	0.0 to 400.0 ℃	J	D4		-200 to 600 ℃	D	C6
	0 to 300 ℃	J	A3		-200 to 800 ℃	D	C8
	0 to 400 ℃	J	A4	Input type		Code	
	0 to 1000 ℃	J	A0	AN1	0 to 50mV	V	02
T	0 to 300 ℃	T	D4	AN2	10 to 50mV	-1999 to 9999	V	10
	0 to 400 ℃	T	A4	AN3	0 to 5VDC	-199.9 to 999.9	V	03
S **	0 to 1600 ℃	S	B6	AN3	0 to 10VDC	V	04
R	0 to 1769 ℃	R	B8	AN4	1 to 5VDC	-19.99 to 99.99	V	08
B	200 to 1800 ℃	B	B8	AN4	2 to 10VDC	V	09
N	0 to 1300 ℃	N	B3	AN4	4 to 20mA	-1.999 to 9.999	A	03
Wu3_Re25	600 to 2200 ℃	W	B0	AN3	0 to 20mA	A	02
				AN3	0 to 10mA	A	01

The accuracy is not guaranteed for type S thermocouple in the range of 0-100
Remark 1: user can switch input between thermocouple and RTDs via software
Remark 2: analong input except 0-50mA, 10-50mV needs to be specified when order