

# Digital Temperature Indicator

## User Manual

MF06-601-C2

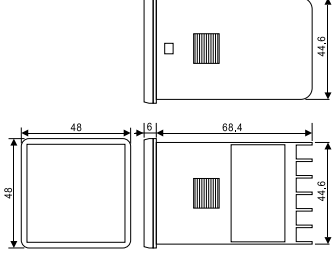
Thanks for choosing our products, please read this manual carefully before using and keep this manual in a safe place for future reference

### Quick Guide

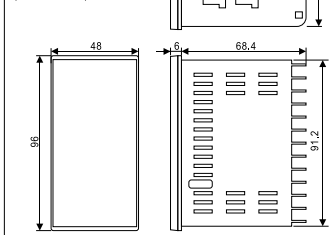
- This is digital indicator, 4 digits dual display. Bar graphic display for measuring range measuring accuracy is 0.2%, maximum resolution for TC and RTD is 0.1 and 0.001 for analog input
- Please make sure power cords connected properly and outputs configured based on field application. Maximum alarm for 48mm\*48mm indicator is 3 alarms, other size with maximum 4 alarms Please always refer to diagram stickers on the side in field application
- This indicator supports TC and RTD, be able to switch between them via front key. AN3, AN4, AN5, AN6 inputs needs to be specified before order, please make sure to select correct input code according to different input sensors, check 6.2 parameter INP1 for more details
- Various alarm modes for each alarm, each alarm has a separate alarm hysteresis, each alarm with output delay function.
- Process value re-transmission and RS-485 available on request

## 2. Mounting and Size

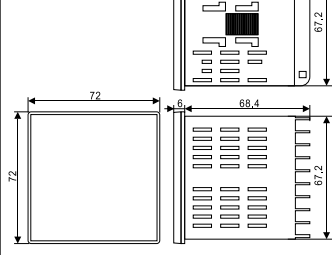
48mm\*48mm  
(Unit: mm)



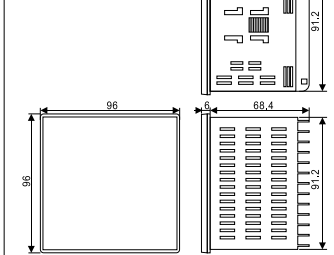
48mm\*96mm  
96mm\*48mm  
(Unit: mm)



72mm\*72mm  
(Unit: mm)

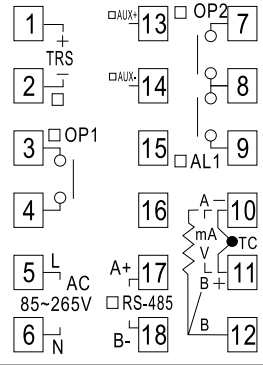


96mm\*96mm  
(Unit: mm)

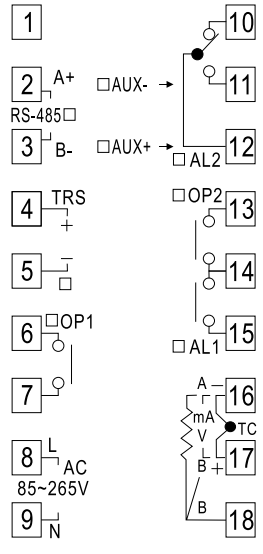


## 3. Wiring

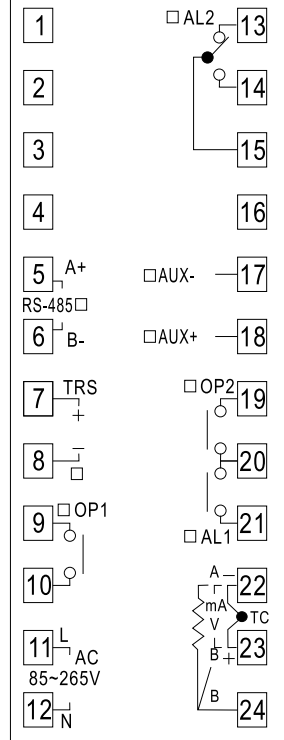
48mm\*48mm



72mm\*72mm



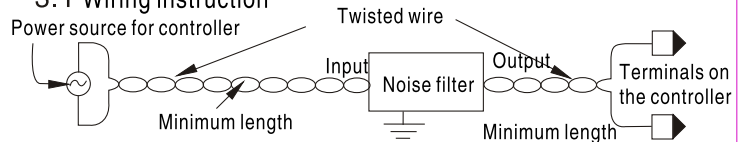
48mm\*96mm/96mm\*48mm/96mm\*96mm



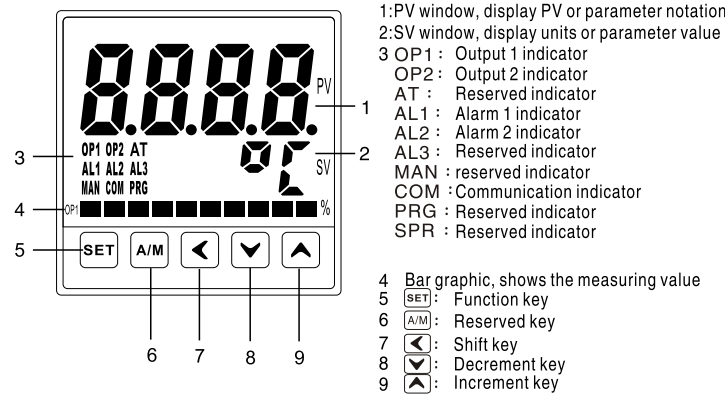
OP1/AL3 Relay output  
250VAC 5A(Resistive load)  
OP2/AL1 Relay output  
250VAC 3A(Resistive load)  
Re-transmission: 20mA, load less than 500 Ohm  
Re-transmission: 10VDC, resistive more than 1M ohm

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

### 3.1 Wiring instruction

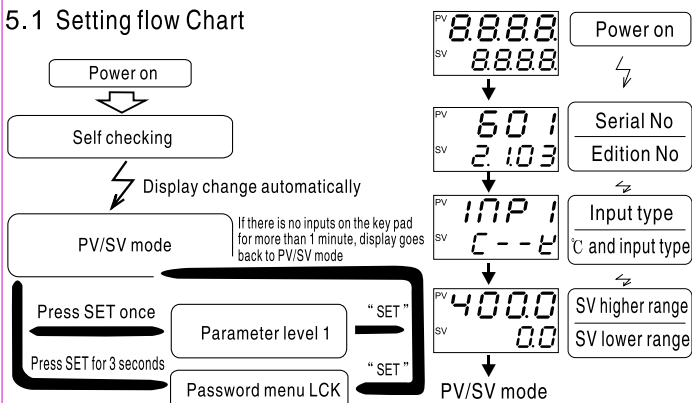


## 4. Panel Discription



## 5. Setting

### 5.1 Setting flow Chart



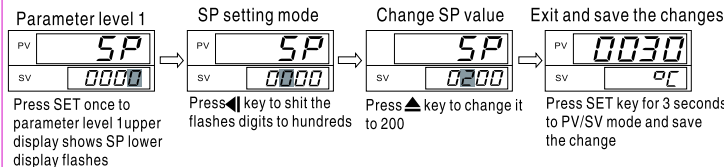
Notation	E	E	J	N	Wu3_Re25	S	T	R	B	AN4	AN3	AN2	AN1	PE
Sensor type	K	E	J	N	Wu3_Re25	S	T	R	B	2-10VDC *1-5VDC *4-20mA	0-10VDC *0-5VDC *0-20mA	0-50mV	0-20mV	Pt100
Range	1300 °C	600 °C	800 °C	1300 °C	2000 °C	1600 °C	400 °C	1700 °C	1800 °C					800 °C

Notation	r400	CU	r80	AN6	AN5
Sensor type	0-400 Ohm	Cu50	0-80 Ohm	Reserved	Reserved
Range	-1999~9999	150 °C	-1999~9999	-1999~9999	-1999~9999

\*AN3, AN4, AN5, AN6 need to specified before order

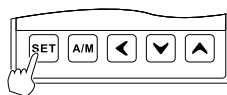
### 5.2 Change Alarm Value (eg change SP from 0 to 200)



## 6. Parameter Level

### 6.1 Parameter level 1

Configuration for parameters in level 1: Press SET key once to parameter level 1, refer to image at right

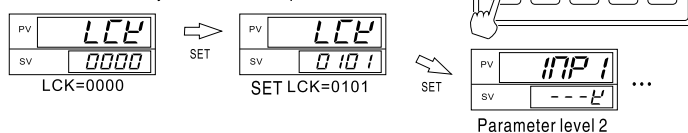


Below parameter will be displayed one by one when you press SET, Press SET for 3 seconds to exit and save the configuration 1# Factory default

Notation	Name	Range	1#	Description
SP	Alarm value	-1999 to 9999	0	Reference value for deviation alarm
SP1	Al1 value	-1999 to 9999	10	Al1 value, HYS of AL1=SPH1
SP2	Al2 value	-1999 to 9999	10	Al2 value, HYS of AL2=SPH2
AL1	Al3 value	-1999 to 9999	10	Al3 value, HYS of AL3=ALH1
AL2	Al4 value	-1999 to 9999	10	Al4 value, HYS of AL4=ALH2
ADR	Communication address		1	device address in communication

### 6.2 Parameter level 2

Press SET key for 3 seconds to password menu



Below parameter will be displayed one by one when you press SET, Press SET for 3 seconds to exit and save the configuration 1# Factory default

Notation	Name	Range	1#	Description								
INP 1	Input sensor selection											
	Notation	E	E	J	N	Wu3_Re25	S	T	R	B	AN4	AN3
	Sensor type	K	E	J	N	Wu3_Re25	S	T	R	B	2-10VDC *1-5VDC *4-20mA	0-10VDC *0-5VDC *0-20mA
	Range	1300 °C	600 °C	800 °C	1300 °C	2000 °C	1600 °C	400 °C	1700 °C	1800 °C		
	Notation	AN2	AN1	PE	r400	CU	r80	AN6	AN5			
Sensor type	0-50mV	0-20mV	Pt100	0-400 Ohm	Cu50	0-80	Reserved	Reserved				
Range	-1999~9999	-1999~9999	800 °C	-1999~9999	150 °C	-1999~9999	-1999~9999	-1999~9999	-1999~9999			
dp	Decimal points	0, 1, 2, 3	0	0: without decimals 1: 1 decimal 2: 2 decimals 3: 3 decimals								
LSPL	Lower limit for SV	-1999 to 9999	0	define the lower limit of SV or Zero point for re-transmission								
USPL	Higher limit for SV	-1999 to 9999	400	define the higher limit of SV or full scale for re-transmission								
UNIT	Display units	C, F, A	0	C: Celcius F: Fahrenheit A: No units								
P105	Input offset	-199to 199	0.0	Used to compensate the error caused by sensors								
P1Ft	Digital filter strength	0 to 30	25	Display stable when value gets bigger, Display changes fast based on temperature change								
ANL 1	lower limit display for analog input	-199~9999	0	E.g. for 4-20mA input, the display will be ANL1 when input is 4 mA								
ANH 1	higher limit display for analog input	-1999~9999	2000	E.g. for 4-20mA input, the display will be ANH1 when input is 20 mA								
SPd 1	Sp1 alarm mode	00 to 16	11	Used to define the alarm mode for Sp1								
SPH 1	Sp1 alarm HYS	0.0 to 100.0	0.4	Alarm hysteresis for alarm 1 High alarm: reverse HYS Low alarm: forward HYS								
SPL 1	Sp1 alarm delay	0 to 2000	0	=0 means on delay =1~1000 output delay 1-1000 sec =1001~2000 alarm off after 1-1000 sec								
SPd2	Sp2 alarm mode	00 to 16	10	Used to define the alarm mode for Sp2								
SPH2	Sp2 alarm HYS	0.0 to 100.0	0.4	Alarm hysteresis for alarm 2 High alarm: reverse HYS Low alarm: forward HYS								
SPL2	Sp1 alarm delay	0 to 2000	0	=0 means on delay =1~1000 output delay 1-1000 sec =1001~2000 alarm off after 1-1000 sec								
ALd 1	Al1 alarm mode	00 to 16	10	used to define alarm mode for Al1								
ALH 1	Al1 alarm HYS	0.0 to 100.0	0.4	Alarm hysteresis for Al1 High alarm: reverse HYS Low alarm: forward HYS								
ALT 1	Al1 alarm delay	0 to 2000	0	=0 means on delay =1~1000 output delay 1-1000 sec =1001~2000 alarm off after 1-1000 sec								
ALd2	Al2 alarm mode	00 to 16	10	used to define alarm mode for Al2								
ALH2	Al2 alarm HYS	0.0 to 100.0	0.4	Alarm hysteresis for Al2 High alarm: reverse HYS Low alarm: forward HYS								
ALT2	Al2 alarm delay	0 to 2000	0	=0 means on delay =1~1000 output delay 1-1000 sec =1001~2000 alarm off after 1-1000 sec								
ADR	Device address	0-127	1	To define the address in communication case								
BAUD	Baud rate		9.6	BAUD=: 2.4K, 4.8K, 9.6K, 19.2K								

\*\*Alarm mode description (ALd\_=00~16)

- |                              |                                               |
|------------------------------|-----------------------------------------------|
| 10: No alarm output          | 00: No alarm output                           |
| 11: Deviation high alarm     | 01: Deviation high alarm with hold action     |
| 12: Deviation low alarm      | 02: Deviation low alarm with hold action      |
| 13: Deviation high/low alarm | 03: Deviation high/low alarm with hold action |
| 14: Deviation band alarm     | 04: Deviation band alarm with hold action     |
| 15: Process high alarm       | 05: Process high alarm with hold action       |
| 16: Process low alarm        | 06: Process low alarm with hold action        |

NOTE: The alarm action will be suppressed right after power on even the condition is satisfied, and the alarm standby only works 1 time right after power on. the alarm will go off if the condition satisfied again after suppression at the first time

## 7. Sensors and Range

Input Type	Code	Input Type	Code
K	0 to 400 °C K A4	P100	0 to 400 °C D A4
	0 to 600 °C K A6		0 to 600 °C D A6
	0 to 1300 °C K B3		0 to 800 °C D A8
E	0 to 200 °C E A2		-100 to +200 °C D C2
	0 to 400 °C E A4		-200 to +800 °C D C8
	0 to 600 °C E A6		-100.0 to +200.0 °C D F2
J	0 to 400 °C J A4	Input Type	Code
	0 to 600 °C J A6		
	0 to 800 °C J A8		
T	0 to 200 °C T A2	0 to 20mV	V 01
	0 to 300 °C T A3	0 to 50mV	V 02
	0 to 400 °C T A4	0 to 5VDC	V 03
S	0 to 1600 °C S B6	-1999 to 9999	V 04
	0 to 1700 °C R B7	0 to 10VDC	V 08
	200 to 1800 °C B B8	1 to 5VDC	V 09
N	0 to 1300 °C N B3	-1999 to 9999	A 03
	600 to 2000 °C W B0	0 to 20mA	A 02
	Cu50 -50.0 to 150.0 °C C C2	0 to 400 Ω	X 01
		0 to 80 Ω	X 02