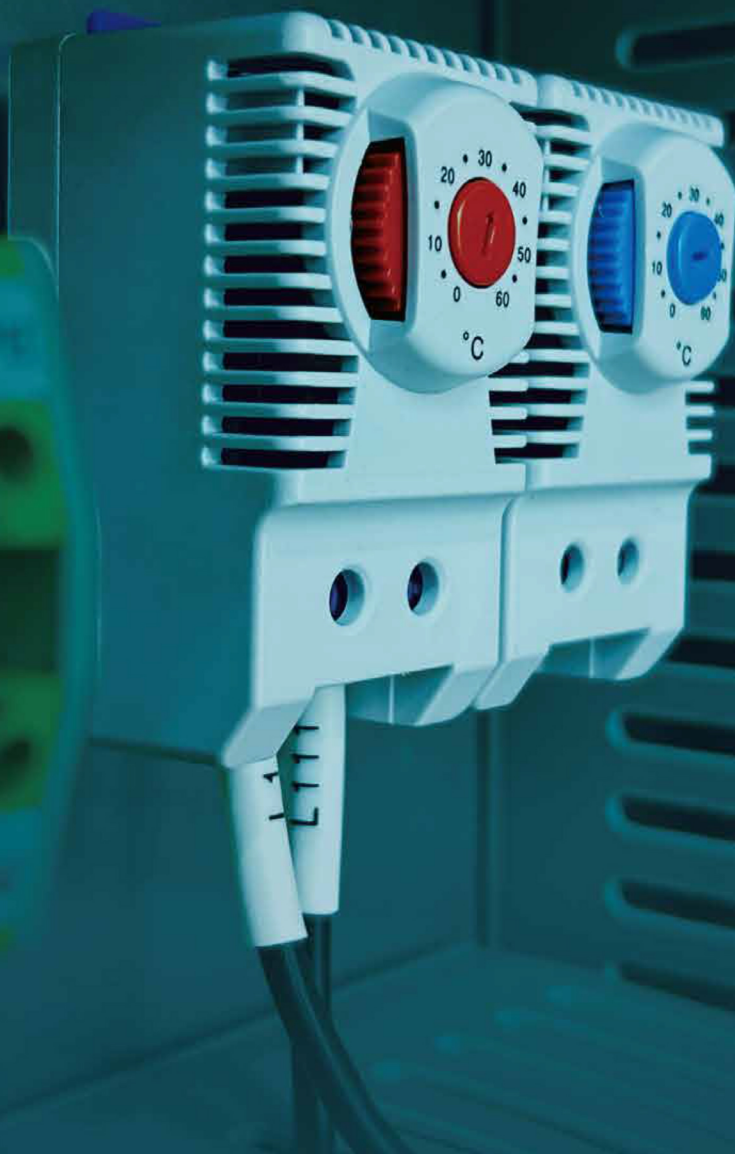


# REGULATOR SERIES

Suitable for electrical cabinets that are moisture-proof or where the temperature cannot fall below the specified minimum value. For example, controlling filter fans, heaters, and heat exchangers. It can also be used as a signal generator to monitor the internal temperature of the control cabinet.



### JTO 011:

Thermostat (Normally Closed): Commonly used to connect heaters and disconnect the circuit when the temperature reaches the set value.

### JTS 011:

Thermostat (Normally Open): Commonly used to monitor filter fans, heat exchangers, or close circuit output signals when the temperature exceeds the set value.

- Small and compact
- Long electrical life
- Easy to install with 35mm DIN rail
- High switching performance
- Convenient wiring and simple setup
- Small size



JTO 011

JTS 011

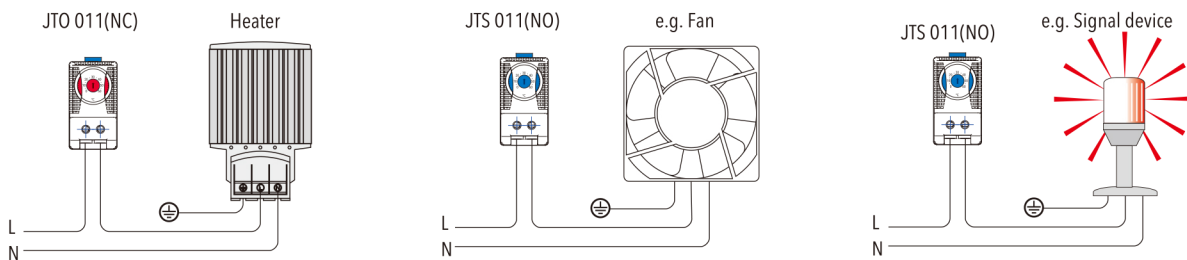
## SPECIFICATION

<b>Temperature range</b>	<b>0~60°C</b>	
JTO 011 NC (Normally Closed)	When the temperature reaches the set value, it acts to disconnect the circuit	
JTS 011 NO (Normally Open)	When the temperature exceeds the set value, it acts to close the circuit	
Switching temperature difference	7k (± 4k tolerance)	
Sensing element	Bimetallic temperature sensing material	
Contactor type	Jump type contact	
Contactor resistance	<10mΩ (with connecting wire)	
Usage period	>100000 cycles	
Maximum switching load	250vac, 10 (2) a, 120vac, 15 (2) a, 30wdc at 24vdc to 72vdc	
Connection method	2 extreme sub-stage, the maximum clamping torque is 0.5nm: steel wire 2.5mm <sup>2</sup> , Steel strand wire (wire end with iron bag) 1.5mm <sup>2</sup>	
Shell	UI94 v-0 plastic, light gray	
Install	Installation of 35mm din rail	
Size	65x33x44mm	
Weight	40g	
Fixed position	At will	
Adapt to temperature	-20~+80°C	

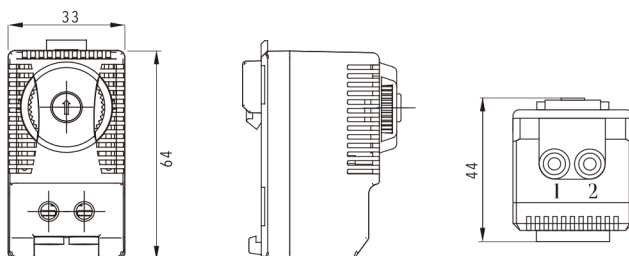


Setting Range	Art.No.contact breaker(NC)	Art.No.contact breaker(NO)
0~60°C	JTO 011	JTS 011

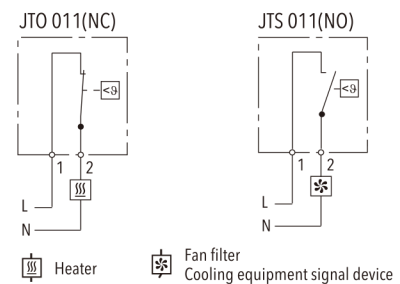
## Connection Example



## DIMENSION (mm)



## WIRING DIAGRAM





### Control heater-

When the temperature inside the cabinet is lower than the minimum set value, close the circuit to increase temperature; When the temperature exceeds the set value, Disconnect the line.

### Control fan filter-

When the temperature inside the cabinet exceeds the maximum set value, close the circuit to cool down; When the temperature is below the set value, Disconnect the line.

- Small and compact
- Long electrical life
- Easy to install with 35mm DIN rail
- Jump type metal temperature sensing contact
- Convenient wiring and simple setup,
- Wide setting range

### Outline Drawing

Alarm output contact, passive contact, AC 250V 5A

NC normally open, closed when dehumidification function fails

Definition of dehumidification function failure: Temperature or humidity sensor failure;

The dehumidifier operates continuously for 24 hours,

The relative humidity is still not less than 80%

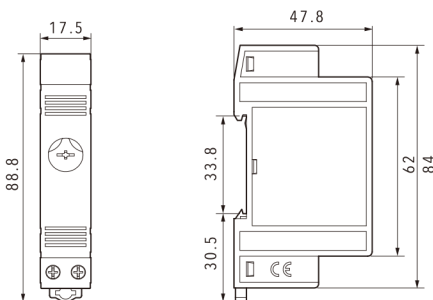


## SPECIFICATION

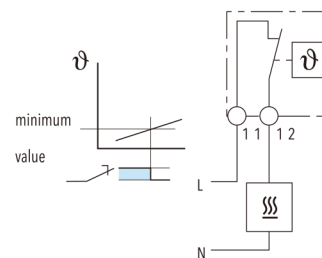
Temperature range	0~60°C	
KNO 011 NC (Normally Closed)	When the temperature reaches the set value, it acts to disconnect the circuit	
KNC 011 NO (Normally Open)	When the temperature exceeds the set value, it acts to close the circuit	
Rated current and peak value	10/20A	
Rated voltage and maximum switching load	250/250 VAC	
Rated load AC1	2500 VA	
Rated load AC 15 (230VAC)	250 VA	
Single phase motor rated power AC 3 (230VAC)	0.125 A	
Current capacitance DC 1:30/110/220 V	1/0.3/0.15 mW (V/mA)	
Minimum switching load	500 (12/10)	
Standard contact materials	AgNi	
Temperature setting range (ventilation fan)	-20....+40 °C	+0....+60 °C (NO)
Temperature setting range (heater)	-20....+40 °C	+0....+60 °C (NC)
Switching temperature difference	7±4K	
Electrical Service Life AC1	100 · 103	
Environmental temperature range	-45~+80°C	

Setting Range	Art.No.contact breaker(NC)	Art.No.contact breaker(NO)
0~60°C	KNO 011	KNC 011

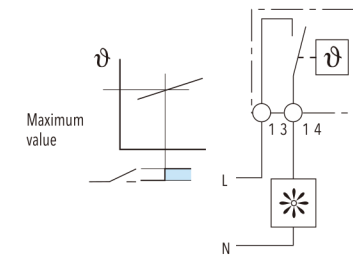
## DIMENSION (mm)



## HEATING CONTROL



## VENTILATION CONTROL



### KTO 011:

Thermostat (Normally Closed): Commonly used to connect heaters and disconnect the circuit when the temperature reaches the set value.

### KTS 011:

Thermostat (Normally Open): Commonly used to monitor filter fans, heat exchangers, or close circuit output signals when the temperature exceeds the set value.

- Small and compact
- Long electrical life
- Easy to install with 35mm DIN rail
- High switching performance
- Convenient wiring and simple setup,
- Small size



KTO 011

KTS 011

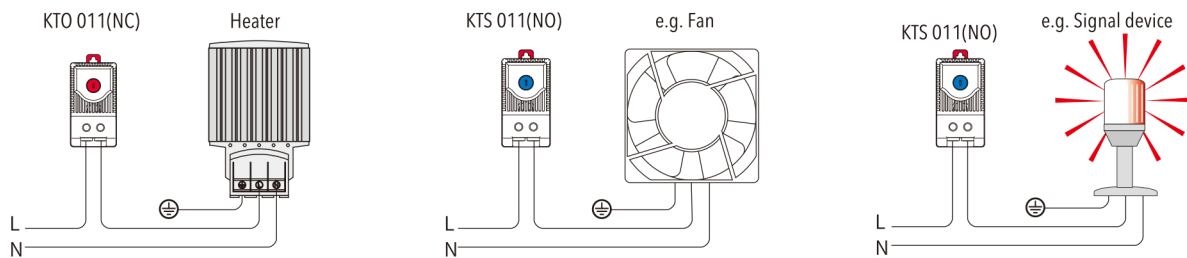
## SPECIFICATION

Temperature range	0~60°C
KTO 011 NC (Normally Closed)	When the temperature reaches the set value, it acts to disconnect the circuit
KTS 011 NO (Normally Open)	When the temperature exceeds the set value, it acts to close the circuit
Switching temperature difference	7k (± 4k tolerance)
Sensing element	Bimetallic temperature sensing material
Contactor type	Jump type contact
Contactor resistance	<10mΩ (with connecting wire)
Usage period	>100000 cycles
Maximum switching load	250vac, 10 (2) a, 120vac, 15 (2) a, 30wdc at 24vdc to 72vdc
Connection method	2 extreme sub-stage, the maximum clamping torque is 0.5nm: steel wire 2.5mm <sup>2</sup> , Steel strand wire (wire end with iron bag) 1.5mm <sup>2</sup>
Shell	UL94V-0 plastic, light gray
Install	Installation of 35mm din rail
Size	65x33x39mm
Weight	40g
Fixed position	At will
Adapt to temperature	-20~+80°C

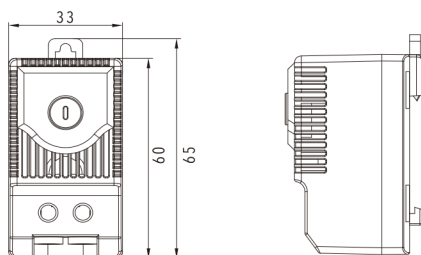


Setting Range	Art.No.contact breaker(NC)	Art.No.contact breaker(NO)
0~60°C	KTO 011	KTS 011

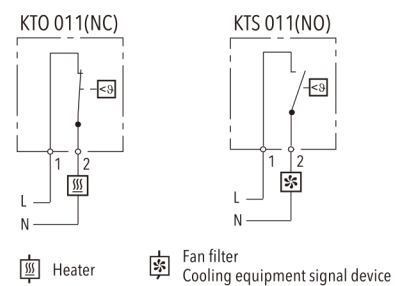
## Connection Example



## DIMENSION (mm)



## WIRING DIAGRAM



### A temperature controller with two temperature settings

• **Normally open contact:** commonly used to monitor filter fans, heat exchangers, or close circuit output signals when the temperature exceeds the set value.

• **Normally closed contact:** commonly used to connect heaters and disconnect the circuit when the temperature reaches the set value.

The heater and refrigeration equipment can be independently switched to avoid temperature deviation caused by traditional switching.

- Wide setting range
- NO and NC integrated together
- Bimetallic temperature sensing material
- Easy to install with 35mm DIN rail
- High switching performance
- Independent temperature setting



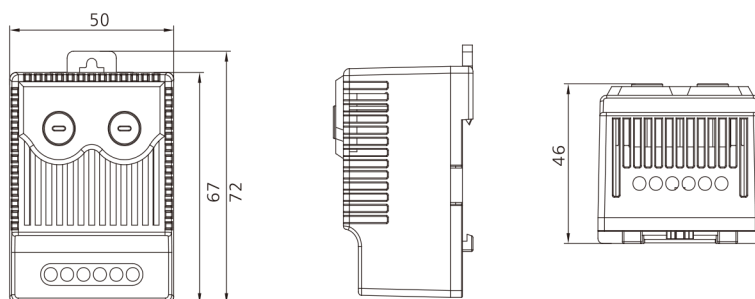
### SPECIFICATION

Temperature range	0~60°C	
Switching temperature difference	7K(± 4K tolerance)	
Sensing element	Bimetallic temperature sensing material	
Contactor type	Jump type contact	
Contactor resistance	<10m Ω (with connecting wire)	
Usage period	>100000 cycles	
Maximum switching load	250VAC, 10 (2)A, 120VAC, 15 (2)A, 30WDC at 24VDC to 72VDC	
Connection method	2 Extreme sub-stage, the maximum clamping torque is 0.5Nm: steel wire 2.5mm <sup>2</sup> , steel strand wire (wire end with iron bag)1.5mm <sup>2</sup>	
Shell	UL94 V-0 plastic, light gray	
Install	Installation of 35mm DIN rail	
Size	67x50x46mm	
Weight	40g	
Fixed position	at will	
Adapt to temperature	-20~+80°C	

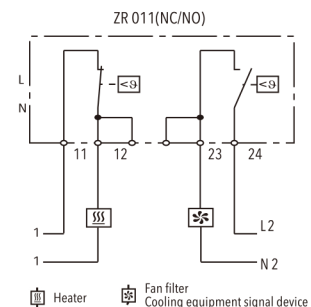


Setting Range	Art.No.contact breaker(NC)	Art.No.contact breaker(NO)
0~60°C	ZR 011	ZR 011

### DIMENSION (mm)



### WIRING DIAGRAM





Especially suitable for controlling filter fans, heaters, and heat exchangers,  
As a signal generator, this temperature regulator is also suitable for monitoring the internal temperature of the control cabinet.

- Small and compact
- Convenient wiring, terminal wiring method
- Dynamic heating, high temperature limitation
- Easy to install with 35mm DIN rail
- Wide voltage range
- Long service life

### Performance

Bi-metal controller as a temperature sensitive element with thermal feedback  
Contact population: Single-pole change-over contact as a quick-break contact  
Voltage scope is wide, any type could be used from 24- 230 V  
Time-saving connection terminal block could be installed screw from outside  
Easy installation, could be installed to 35mm din rail vertically or horizontally according to EN50 022it could be clipped to TS/35 cabinet profile with its accessory adapter.



### SPECIFICATION

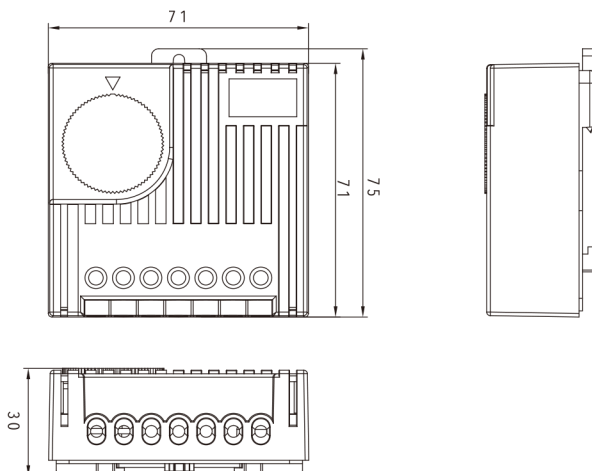
Temperature measurement range	5~60℃	
Rated working voltage	230/115/60/48/24V (AC) 60/48/24V (DC)	
Temperature sensing element	Bimetallic temperature sensing material	
Size	71x71x33.5mm	
Weight	About 105g	
Switch difference	Approximately 1K ± 0.8K	
Permissible contact load	KI.5-3 (heating)	KI.5-4 (cooling)
(1)=inductive load	Communication 10 (4) 1A,	Communication 5 (4) 1A,
At cos φ= at 0.6 hours	DC=30W	DC=30W



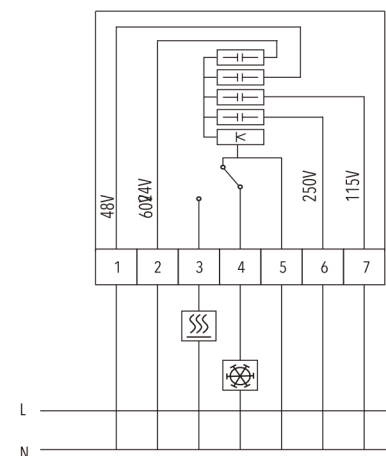
### TERMINAL NUMBER

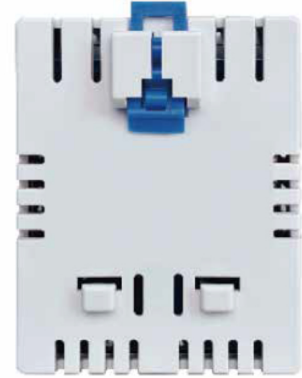
48V/60VN	24VN			(1)L	(L2*)250VN	115VN
1	2	3	4	5	6	7

### DIMENSION (mm)



### WIRING DIAGRAM





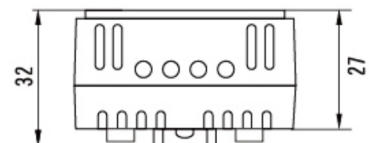
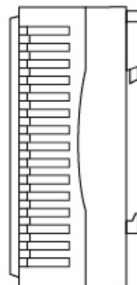
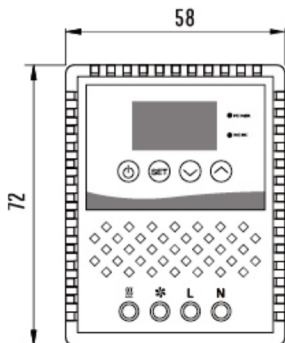
IP20 CE -20 +80

**SPECIFICATION**

Temperature range	0~60°C
Switching Temperature Difference	7k (+4k tolerance)
Sensing Element	Electronic components
Contactor Type	Switching contactor (relay)
Contactor Resistance	<10m (with connecting wire)
Service Life	>100000 cycles
Maximum Switching Load	250v ac10 (2) a120v ac, 15 (2) a30w
Connection Method	4-pole terminal post, maximum clamping torque 0.5Nm: 2.5mm <sup>2</sup> steel wire, multi-stranded glued wire (wired) 1.5mm <sup>2</sup>
Shell	UL94V-0 plastic, light gray,
Install	Installation of 35mm din rail
Size	72x58x32mm
Weight	65g
Fixed Position	At will
Adapt To Temperature	-20~+80°C
Protection Level	IP20
Lcd Display	It can display the set temperature and the change of ambient temperature in the cabinet at all times



**DIMENSION (mm)**



The KTC3150 temperature controller is used to control heaters, fan filters, heat exchangers, etc.

- Compact and compact
- Long electrical life
- Easy to install with 35mm DIN rail
- Jump type metal temperature sensing contact
- Convenient wiring and simple setup,
- Wide setting range

### Performance

Bi-metal controller as a temperature sensitive element with thermal feedback  
 Contact population: Single-pole change-over contact as a quick-break contact  
 Voltage scope is wide, any type could be used from 24- 230 V  
 Time-saving connection terminal block could be installed screw from outside  
 Easy installation, could be installed to 35mm din rail vertically or horizontally according to EN50 022 it could be clipped to TS/35 cabinet profile with its accessory adapter.

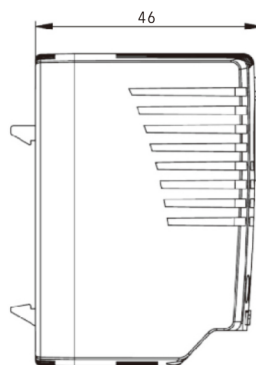
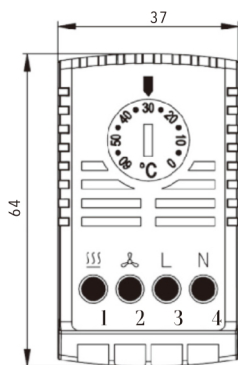


### SPECIFICATION

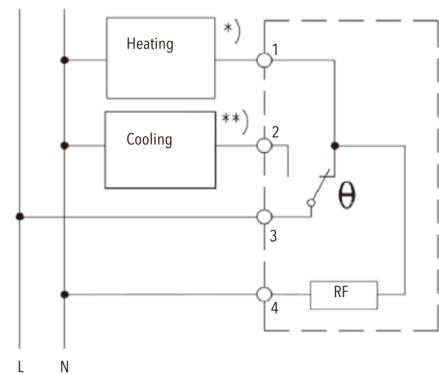
Storage temperature	-20~80 °C
voltage	100-250V AC
Heating (Normally Open)	10A(2) DC 30W
Cooling (Normally Closed)	5A(2) DC 30W
Connection method	4-pole terminal block, 2.5mm <sup>2</sup>
Sensing element	Bimetallic temperature sensing material
Service life	>100000 cycles
Temperature control range	0~+60°C
Shell	Light gray plastic, symbol UL 94 V-0 standard
Size	37x64x46mm
Weight	About 60g



### DIMENSION (mm)



### WIRING DIAGRAM





- Slim and compact mechanical temperature regulator
- Two-way control transfer contact
- Built-in conversion temperature difference compensation element, can be selected according to the control needs;

- High capacity
- Wide range
- Long-life
- 35mm din rail mounting

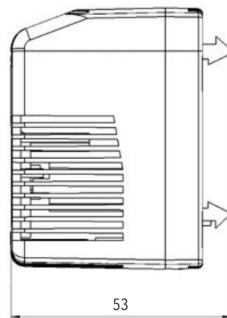
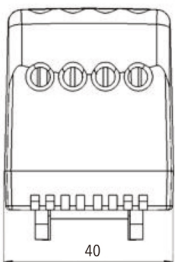
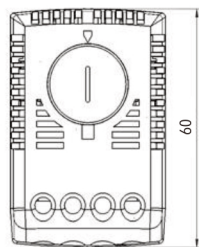


## SPECIFICATION

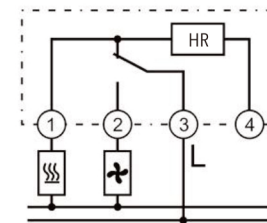
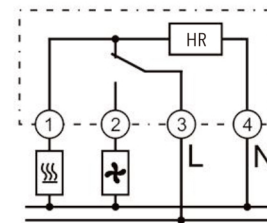
Model	MTC-40-1K	MTC-60-1K	MTC-80-1K
Temperature setting range	-20°C~+40°C	0~+60°C	+20°C~+80°C
Conversion temperature difference	1K/3K		
Temperature sensor	Hot bimetal sheet		
Contact form	Bidirectional control transient SPDT one open one close transfer contact		
Contact resistance	<50mΩ		
Electrical life	> 100,000 times		
Load capacity	10(2)A 250VAC, 15(2)A 120VAC, 30W DC24V~72V		
terminal	Suitable for hard single-strand wire 2.5mm <sup>2</sup> , multi-strand flexible wire 1.5mm <sup>2</sup> (using the bundle end)		
Installation mode	35mm DIN guide EN60715		
Shell material	Engineering plastic ABS gray, in line with UL94-V0 flame retardant rating		
Overall dimension	40xW53xH60mm		
Installation position	At will		
Ambient temperature	45°C~+80°C(no condensation, no icing)		
Ambient humidity	<90%RH(no condensation, no icing)		
Class of protection	IP20		
Weight	About 40g		



## DIMENSION (mm)



## WIRING DIAGRAM



Heater    
 Fan filter  
 Cooling equipment signal device

### Controlling

Working principle: By adjusting the range knob, the working range of the humidifier is determined, and the humidity sensor detects it. When the actual humidity value in the air is less than the set value, the output power is supplied. When the actual value is greater than the set value, the output power is not supplied. When setting the value; Output power outage. To prevent the load from frequently turning on at the set point, this product increases by 5% to 10% Afterwards, work again.

Load selection: The product can choose different sizes and types of loads according to customer requirements.

- 35% to 95% adjustable relative humidity
- Easy to install with 35mm DIN rail
- High switching performance
- Long service life
- Three contact conversion

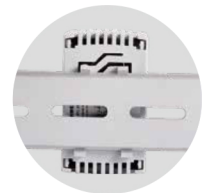


### SPECIFICATION

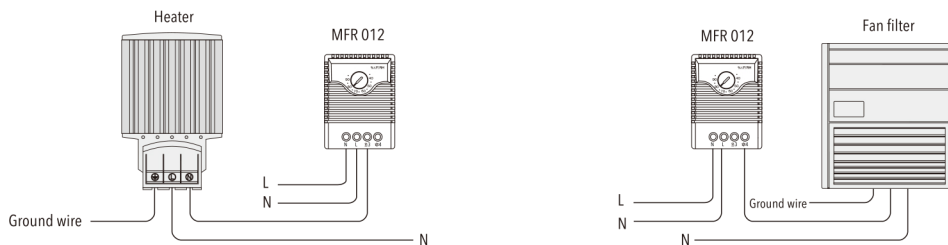
Switching error	4% relative humidity (± 3% tolerance)
Relative humidity range	35%~95%
Allowable wind speed	15m/sec
Contactor type	Conversion contact
Contactor resistance	< 10mΩ
Service life	> 50000 cycles
Minimum switching capacity	20VAC/DC 100mA
Maximum switching load	250VAC, 5 (1)A, DC 20W
Connection method	3-pole wiring terminal, maximum clamping torque 0.5Nm: 2.5mm <sup>2</sup> for steel wire, 1.5mm <sup>2</sup> for multi-stranded glued wire (end)
Shell	UL94 V-0 plastic, light gray,
Install	Installation of 35mm DIN rail
Size	67x50x38mm
Weight	60g
Fixed position	At will
Operating/storage temperature	0~+60°C (+32~+140 ° F)/-20~+80°C (-4~+176 ° F)
Protection level	IP20

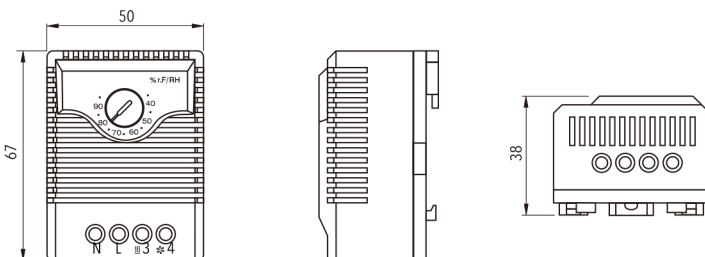
Model	Set Range
MFR 012	35~95% RH



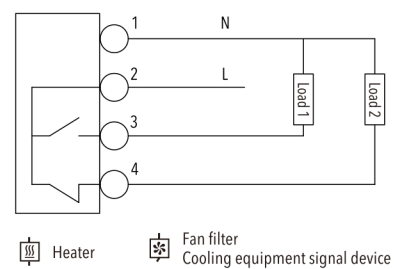
### CONNECTION EXAMPLE



### DIMENSION (mm)



### WIRING DIAGRAM



The humidistat MFR 012-2 is designed to control the heater in the switch box, which is wet when the humidity exceeds 65%. Gas will be expelled, and this method can effectively prevent water droplets and rust.

- Adjustable relative humidity
- Easy access
- Transition contact
- Rail clamp
- High conversion capacity
- Long service life



## SPECIFICATION

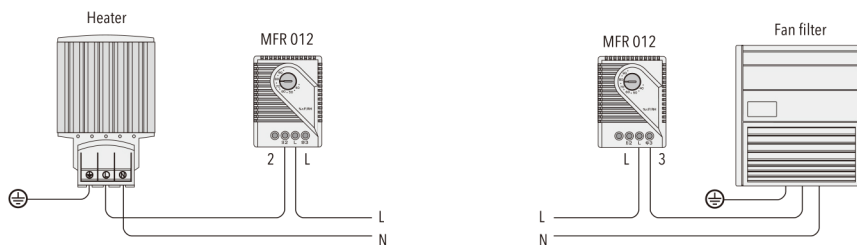
Switching error	4% relative humidity ( $\pm 3\%$ tolerance)
Relative humidity range	35%~95%
Allowable wind speed	15m/sec
Contactor type	Conversion contact
Contactor resistance	$< 10m\Omega$
Service life	$> 50000$ cycles
Minimum switching capacity	20VAC/DC 100mA
Maximum switching load	250VAC, 5 (1)A, DC 20W
Connection method	3-pole wiring terminal, maximum clamping torque 0.5Nm: 2.5mm <sup>2</sup> for steel wire, 1.5mm <sup>2</sup> for multi-stranded glued wire (end)
Shell	UL94 V-0 plastic, light gray,
Install	Installation of 35mm DIN rail
Size	67x50x38mm
Weight	60g
Fixed position	At will
Operating/storage temperature	0~+60°C (+32~+140 °F)/-20~+80°C (-4~+176 °F)
Protection level	IP20

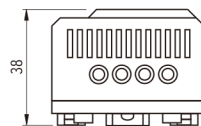
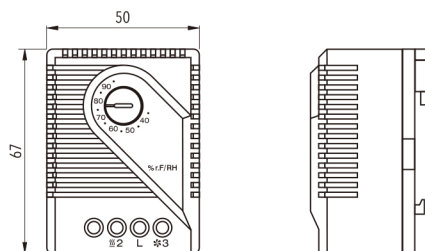
Model	Set Range
MFR 012-2	35~95% RH



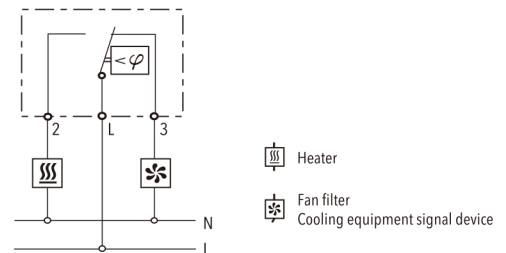
## CONNECTION EXAMPLE



## DIMENSION (mm)



## WIRING DIAGRAM



- Heater
- Fan filter
- Cooling equipment signal device



The electronic humidity controller can sense the relative humidity inside the electrical box and turn on the heater at the set point to prevent the formation of water droplets inside the box. The LED screen at the adjustment knob will light up when the heater is working.

- Adjustable and preset relative humidity
- Easy to install with 35mm DIN rail
- Optional working display (LED)
- Temperature compensation
- High switching performance
- Long service life



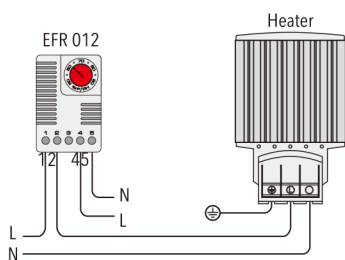
### SPECIFICATION

Switch differences	5% relative humidity (± 1% tolerance) at 25 °C / 77 ° F (50% relative humidity)
Reaction time	About 5 seconds
Contact method	Switching contact (relay)
Service life	>50000 cycles
Maximum switching capacity (relay output)	240VAC, 8 (1.6)A: 120VAC, 8 (1.6)A: 24V DC, 4A
Electromagnetic compatibility	Complies with EU standards EN 55014-1-2, EN 61000-3-2, EN 61000-3-3
Optical indicator	LED
Connection method	5-pole terminal block, maximum clamping torque of 0.5Nm for steel wire, 2.5mm <sup>2</sup> stranded wire (wire clamp) 1.5mm <sup>2</sup>
Install	35mm DIN rail clamp (EN50022)
Shell	UL94 V-0 light gray plastic
Weight	About 70g
Fixed position	Vertical installation
Applicable temperature	0~+60°C (+32~+140 ° F)/-20~+70°C (-4~+158 ° F)
Storage humidity	90% relative humidity (non condensing)
Protection level	IP20

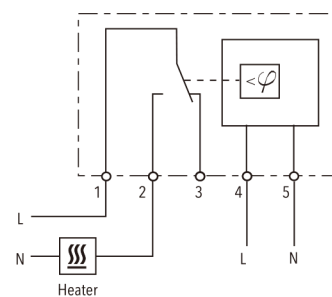


Model	Working voltage	Setting Range
01245.0-00	230v ac, 50/60hz	40 ~ 90% RH
01246.9-00	120v ac, 50/60hz	40 ~ 90% RH

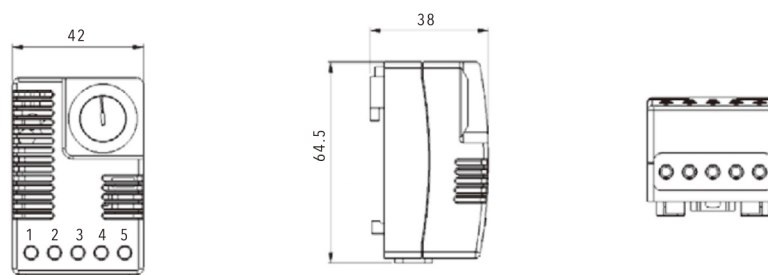
### CONNECTION EXAMPLE



### WIRING DIAGRAM



### DIMENSION (mm)



Used to control heating and cooling equipment, filter fans, or signal devices. During operation, the LED screen will On (e.g. heater working).

- Adjustable and preset relative humidity
- Optional working display (LED)
- High switching performance
- Easy to install with 35mm DIN rail
- Temperature compensation
- Long service life



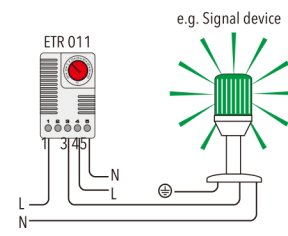
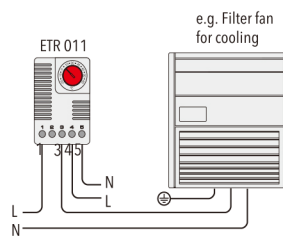
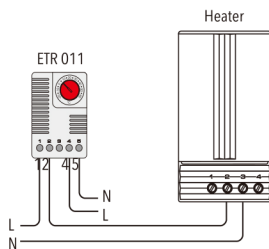
## SPECIFICATION

Switch differences	5% relative humidity ( $\pm 1\%$ tolerance) at 25 °C / 77 °F (50% relative humidity)
Sensor element	NTC
Reaction time	5 seconds
Contact method	Conversion contact (relay)
Service life	>50000 cycles
Maximum switching capacity (relay output)	240VAC, 8 (1.6)A 120VAC, 8 (1.6)A 100WDC at 24VDC
Maximum inrush current	16AAC in 10 seconds
Optical indicator	LED
Connection method	5-pole terminal block with maximum clamping torque of 0.5Nm for steel wire, 2.5mm <sup>2</sup> stranded wire (wire clamp) 1.5mm <sup>2</sup>
Install	35mm DIN rail clamp, compliant with EU EN60715 standard
Shell	Light gray plastic, symbol UL 94 V-0 standard
Size	64.5x42x38mm
Weight	About 70g
Installation position	Vertical
Operating/Storage Temperature	-40 ~ +85°C (-40 ~ +185°F)
Operating/Storage Humidity	Maximum humidity 90% (non condensing)

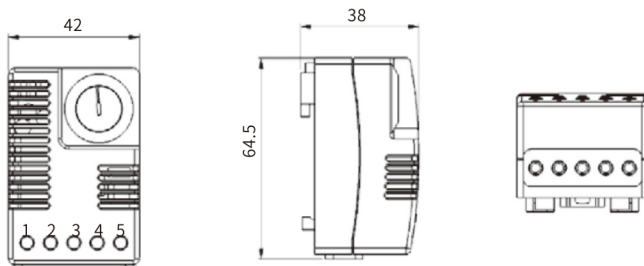


Model	Working voltage	Setting Range
O1131.0-00	230VAC, 50/60Hz	-20 ~ 60°C

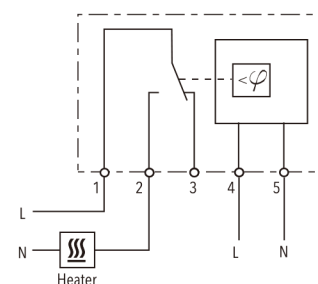
## CONNECTION EXAMPLE



## DIMENSION (mm)



## WIRING DIAGRAM



**KTOMF012** humidity controller+temperature controller (heating)  
**KTSMF012** humidity controller+temperature controller (refrigeration)

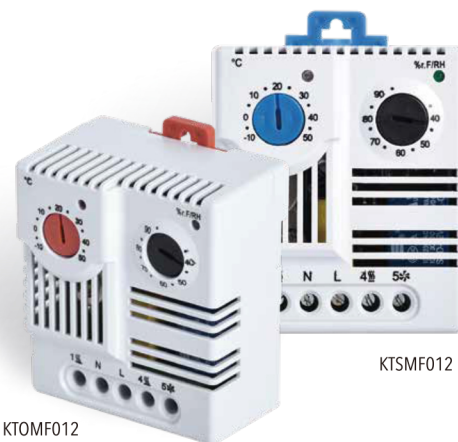
- Integrated temperature and humidity control
- With work indicator light
- Miniaturization suitable for various applications
- Stable and reliable long-term work
- Easy to install with 35mm DIN rail
- ROHS compliant

### Advantage

- Integrated temperature and humidity control, with AC input and output for easy use
- Equipped with a work indicator light for easy identification of whether it is working properly
- Miniaturization suitable for various applications
- Stable and reliable long-term work
- Complies with ROHS standards

### Performance:

- Temperature control: Reach the set temperature point automatic power off,  $\pm 1\sim 3^{\circ}\text{C}$
- Humidity control: Reach the set humidity point automatic power off, 5%-10%RH return difference value.
- Power supply: AC220V (other voltage optional)
- Power consumption: about MAX 46mA
- Working range: temperature  $-10\sim +50^{\circ}\text{C}$ ; Humidity 40-90%RH
- Storage conditions: temperature  $-20\sim +60^{\circ}\text{C}$ ; Humidity 20-95%RH
- Temperature sensitive element: bimetal sensor
- Temperature sensitive element: bimetal sensor

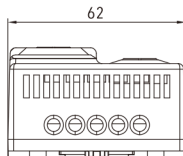
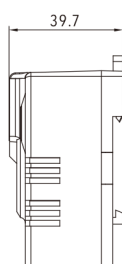
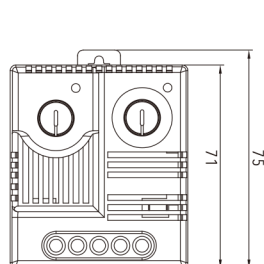


### SPECIFICATION

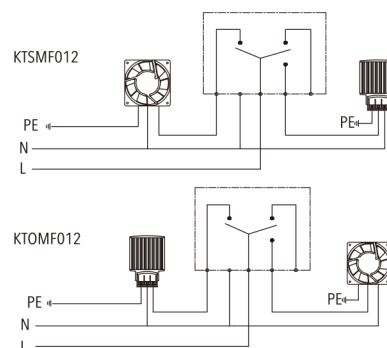
Switching temperature error	7k(±4k)
Switching humidity error	4% relative humidity, ±3% error
Temperature control sensor	Bimetallic temperature sensitive material
Relative humidity range	35% - 95%.
Temperature controlled contact form	Jump contact point
Humidity contact form	Transfer contact
Service life	750,000 cycles
Minimum switching capacity	20VAC/DC 100mA
Maximum switching capacity	250VAC 5(1)A DC30W
Electrical connection	5-pole terminal, maximum clamping button moment 0.5Nm, rigid wire 2.5mm <sup>2</sup> , multi-stranded wire (end) 1.5mm <sup>2</sup>
Install	35mm DN guide rail installation
Shell	Flame retardant UL94V-0 plastic, light gray RAL7035
Dimension	70 x 63 x 40mm
Weight	90g
Fixed position	Above cabinet
Operating temperature	0~+60°C(+32~+140F)
Storage temperature	-20~+80°C(-4~+176F)
Class of protection	IP20



### DIMENSION (mm)



### WIRING DIAGRAM





### Performance:

The electronic humidity controller can sense the temperature and relative humidity inside the electrical box and turn on the heater at the set point (or replace with a fan) to prevent the generation of water droplets inside the box, and adjust the LED at the knob when the connecting device is working. The screen will light up.

- Temperature and humidity adjustable
- Easy to install with 35mm DIN rail
- Optical operating display (LED)
- High switching capacity
- High switching capacity
- Long service life



### SPECIFICATION

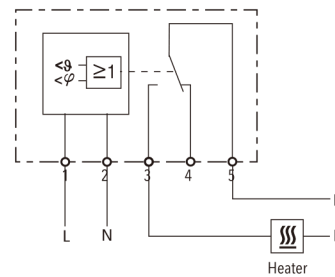
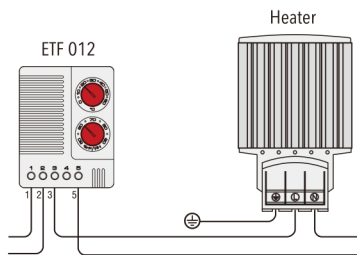
Switching differences (temperature)	2K (±1% tolerance) at 25 °C / 77 °F (50% relative humidity)
Switching differences (humidity)	4% relative humidity (±1% tolerance) at 25 °C / 77 °F (50% relative humidity)
Reaction time (humidity)	About 5 seconds
Contact method	Switching contact (relay)
Contact impedance	< 10m Ω
Service life	NC: > 50000 cycles NO: > 100000 cycles
Maximum switching capacity (relay output)	NC: 240VAC, 6(1)A NO: 240VAC, 8(1.6)A, NC: 120VAC, 6(1)A NO: 120VAC, 8(1.6)A 24VDC, 4A
Electromagnetic compatibility	Acc. to EN 55014-1-2, EN 61000-3-2, EN 61000-3-3
Optional indicator	LED
Connection method	
Install	35mm DIN rail clamp (EN50022)
Shell	UL94 V-0 light gray plastic
Size	77x60x43mm
Weight	About 0.20kg
Fixed position	Unlimited
Applicable temperature	0 ~ +60 °C (+32 ~ +140 °F) / -20 ~ +80 °C (-4 ~ +176 °F)
Protection level	IP20



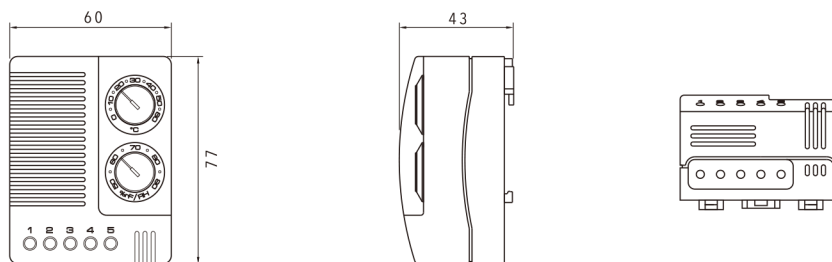
Model	Working voltage	Setting temperature	Setting Range
01230.0-00	230VAC, 50/60Hz	0 ~ 60 °C	50 ~ 90% RH
01230.9-01	120VAC, 50/60Hz	0 ~ 60 °C	50 ~ 90% RH

### CONNECTION EXAMPLE

### WIRING DIAGRAM



### DIMENSION (mm)





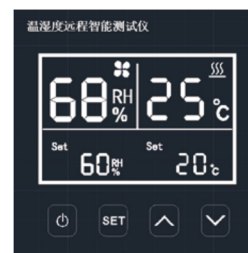
### Overview

The product adopts MCU control system, respectively real-time temperature and humidity detection, and achieve real-time control, in order to ensure that the temperature and humidity in the environment are in an appropriate range. Intelligent communication function, the temperature and humidity measurement value through the microprocessor 485 signal directly transmitted to the background computer, the user can observe the environment of the remote control cabinet in real time.

### 1. Function description

The temperature and humidity values are displayed on a high definition LCD screen. Displaying diagram as below, i.e. (Figure A):

- Displaying humidity measurement by 2 digits, i.e.: 60%RH
- Displaying humidity set value: In the set state, 500ms/time, humidity set value is blinking, i.e.: 40%RH
- Displaying temperature measurement value by 2 digits, i.e.: 25°C
- Displaying temperature set value: In set state, 500ms/time, temperature set value is blinking: i.e.: 25°C
- Dehumidifying mode indication, i.e. (Figure B): When the equipment is in dehumidifying mode, it display the status by the dynamic fan
- Heating mode indication, i.e. (Figure C): when the equipment is in heating mode, it display the status by heating signal



( Figure A )



( Figure B )



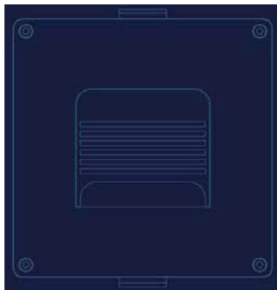
( Figure C )



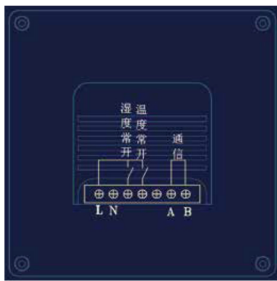
( Figure D )

### SPECIFICATION

Supply voltage	AC220V ± 10%, other voltages can be customized
Humidity measurement range	20-90% RH (without condensation)
Humidity measurement accuracy	± 5% RH (tested at 25°C)
Temperature measurement range	-20~80°C
Temperature measurement accuracy	± 1°C (tested at 25°C)
Humidity setting range	20-80% RH
Product Work Environment	Temperature -20~60°C, humidity 10~95% RH (no condensation)
Product storage environment	Temperature -10~40°C, humidity 10~90% RH (no condensation)
Humidification load size	Pure resistance load AC250V/10A, DC30V/5A
Power down memory	In the event of a power outage, the product's set parameters are automatically memorized.



( Figure 1 )



( Figure 2 )



( Figure 3 )

**1.2 Keys, as shown in Figure D**

- "POWER" key: Press this key to switch the machine cycle.
- "SET" key: under the boot state, press the key, the product is in the humidity or temperature parameter setting State, when the humidity (or temperature) display digital tube flashes. No key pressed, 10 seconds later sinceMove out of setting state, display the current humidity measurement value.
- "Plus" key: in the setting state, press the key, according to each press, set value plus one, wetThe maximum set value of degree is 80%, and the maximum set value of temperature is 60
- No key pressed, 10 seconds later sinceMove to exit the setting state.
- "Minus" key: in the setting state, press the key, according to each press, set value minus one, wetThe minimum set value of degree is 10%, and the minimum set value of temperature is 5
- No key pressed, 10 seconds later sinceMove to exit the setting state.

**2. Control the output**

2.1 Humidity control output when the humidity measurement value is greater than the humidity set value, the output relay is closed and the dehumidification work begins when, the running indicator - fan rotation; when The humidity measurement value is less than (set value -5), stop dehumidify, and the running indicator is off. Humidity return difference is 5%rh to prevent load from opening frequently at zero cut-off point. Affect the service life. During the initial power-on, the output delay is 3 seconds, that is, after 3 seconds, the output is wet after the Degree condition, the control dehumidification relay starts to operate and the display starts to run.

2.2 Temperature control output when the temperature measurement value is less than the humidity set value, the output relay closes and starts heating (dehumidification).work, at this time, the running indicator -- heating wire display; when the temperature measurement is greater than (set value+2), stop heating, and the running Indicator is off. The temperature return difference is 2 to prevent the load at zero boundary points open frequently, Affecting the service life. During the initial power-on, the output delay is 3 seconds, that is, 3 seconds later, When the humidity condition is satisfied, the control heating relay starts to operate and the display starts to run.

2.3 Power failure memory to ensure that user parameter settings remain unchanged after power failure, memory protection power is added yes. 2.4 communication part this product adopts 485 communication mode, temperature, humidity and running status parameters are uploaded to the remote calculation on board.

**3. Overall dimensions and wiring drawings, as shown in Figure 1.**

KTH082 remote intelligent monitor for temperature and humidity [www.cnlinkwell.com](http://www.cnlinkwell.com)

3.1 The installation mode of this product is embedded, and the opening size is 82.5\*82.5(unit: mm).

3.2 Schematic diagram of wiring terminals on the back of controller, as shown in Figure 2

- (1) AC220V/50Hz: Connect terminals L and N;
- (2) Load terminal: normally open point heater, normally closed point fan;
- (3) 485 communication terminal: Connect A and B.

**4. USB converter connection, as shown in Figure 3.**

4.1 USB on the left: Connect it directly to the USB port of the computer. Install the USB driver before the connection A program;

4.2 RS485 on the right: Directly connect to controller A and B.

Temperature and humidity remote monitoring and display system

Cabinet No	Measurement temperature	Measurement humidity	Running state
1#	25°C	60% RH	Running
2#	25°C	60% RH	Stop
3#	25°C	60% RH	Running
4#	25°C	60% RH	Stop
5#	25°C	60% RH	Stop