

### Application area, Wind power:

Wind power is the conversion of wind kinetic energy into electrical energy. As a clean and renewable energy source, wind energy is receiving more and more attention from all countries in the world.

### Charging pile:

The Chinese government actively promotes the application and development of new energy vehicles, and the replacement of power stations as an important supporting infrastructure necessary for the development of electric vehicles has very important social and economic benefits.

### • Automatic robot:

The cutting-edge technology of the industry is AI (Artificial Intelligence), an intelligent robot. Automation is the general trend of the future society, and it is more and more closely related to communication engineering and CS (computer science).

### Photovoltaic:

The main principle of photovoltaic power generation is the photoelectric effect of semiconductors. When a photon is irradiated onto a metal, its energy can be completely absorbed by some electron in the metal.

### High and new technology industry:

The high-tech industry mainly includes three major fields: information technology, biotechnology and new materials technology.

### Cabinet and electrical complete set:

As an important supporting infrastructure for the development of electric vehicles, charging and replacing power stations have very important social and economic benefits.LINKWELL ELECTRIC products are widely used in the charging pile industry, making the equipment more stable and efficient in operation.

### Infrastructure

Provide all-round service for customer's system integration solution.



LINKWELL ELECTRIC is a professional company engaged in low voltage electrical products for switchgear board and automation industry, such as panel ventilation fan filter, heater, thermostat, control transformer, terminal blocks, wiring duct and other panel accessories.

Through our decades' efforts and development LINKWELL now becomes a group company with several factories by entirely holding or partly holding, not only self-production but also few trading, in order to provide one- stop-solution of panel accessories for panel builder.

Our main markets are European countries, Americans, Middle East, South Asia and China, you can find us in more than 60 countries all over the world, well-known with good reputation in the market for the sake of our sustainable quality and competitive prices, kind and prompt services to clients, our main partners are those reputable companies like: ABB, SIEMENS, SCHNEIDER electrics, ROCKWELL automation, CHINT.



LINKWELL ELECTRIC policy is to offer a full support to Clients:

- pre-after sales assistance
- customized products
- fast delivery
- monitoring customers' satisfaction

Rather than a supplier, LINKWELL ELECTRIC aims to be a Client's industrial PARTNER our company always pays special attention to protecting the benefits of clients' so that both of us can gain the better benefits from the relations between us.

We warmly look forward to establishing, reinforcing and expanding long term fruitful relationship with the reliable clients all over the world.

Let's get busy and pull together to create a better future!



# Innovation Quality Global

### **COMPANY MISSION**

To win respect of "Made in China" from the world

### **COMPANY VALUE**

Realize the dream for empoloyees Create value for customers Take responsibilities for the society

### **COMPANY VISION**

To be a global and well-known brand, one stop solution supplier for electrical cabinet components





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.



Small and compact

Long electrical life

High switching performance

Convenient wiring and simple setup

Easy to install with 35mm DIN rail Small size

### JTO 011:

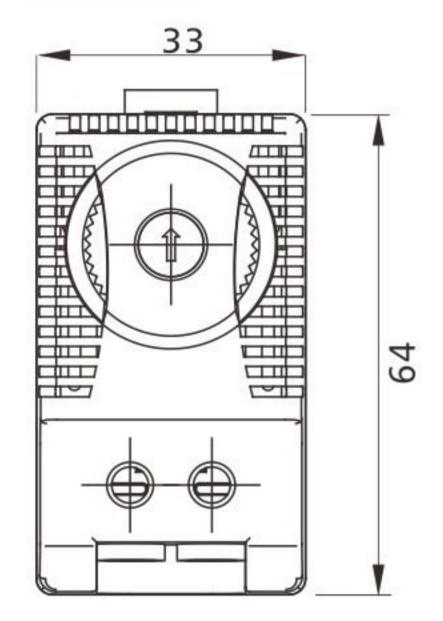
Thermostat (Normally Closed):Commonly used to connect heaters and disconnect the circuit when the temperature reaches the set value.

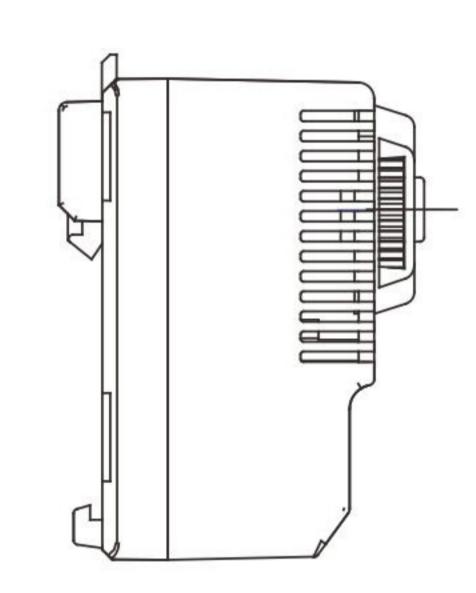
### JTS 011:

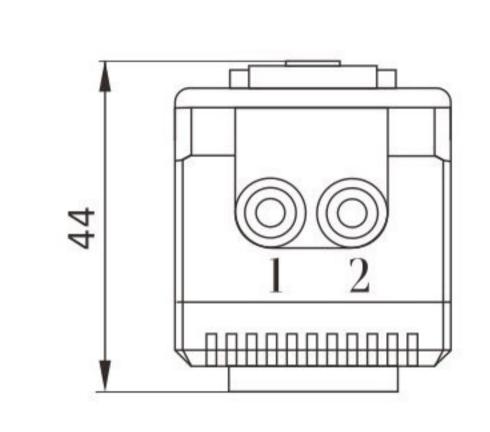
Thermostat (Normally Open):Commonly used to monitor filter fans, heat exchangers, or close circuit output signals when the temperature exceeds the set value.

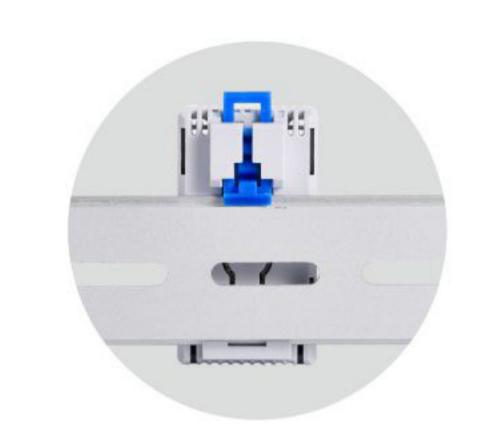


### Dimension



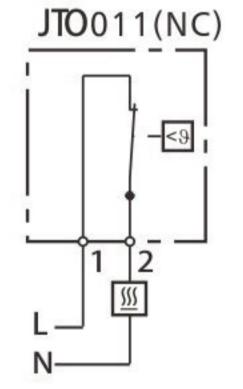


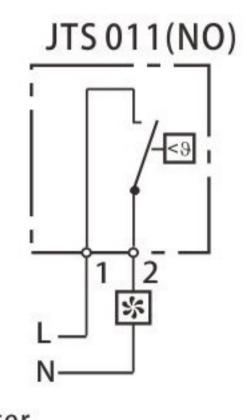


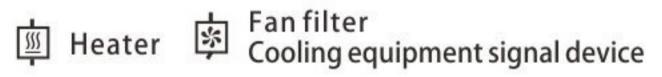


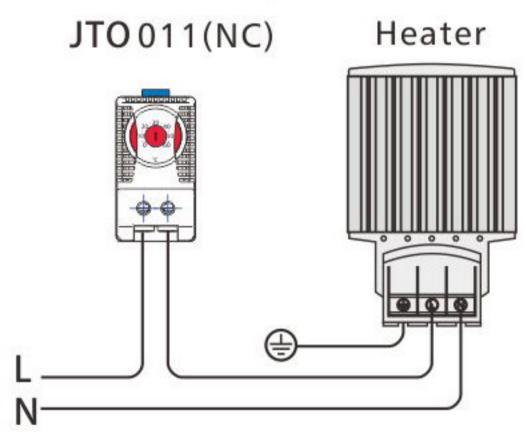


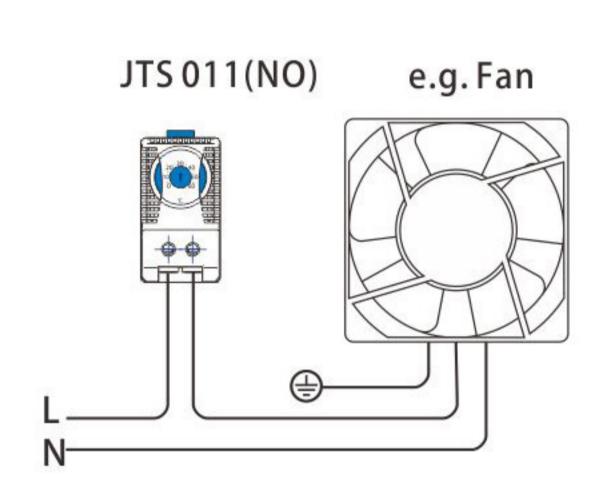
### wiring diagram

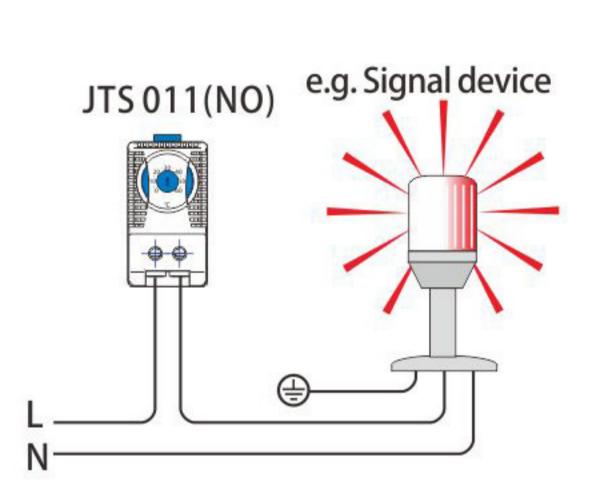












| Temperature range               | 0~60 °C   |  |
|---------------------------------|---|--|
| JTO 011 NC (Normally Closed)    | When the temperature reaches the set value, it acts to disconnect the circuit   |  |
| JTS 011 NO (Normally Open)      | When the temperature exceeds the set value, it acts to close the circuit  |  |
| witching temperature difference | 7k (± 4k tolerance)   |  |
| Sensing element                 | Bimetallic temperature sensing material   |  |
| Contactor type                  | Jump type contact   |  |
| Contactor resistance            | $<$ 10m $\Omega$ (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                            | 65x33x44mm  |  |
| Weight 40g                      |   |  |
| Fixed position                  | At will   |  |
| Adapt to temperature            | -20~+80 °C  |  |
| Protect                         | IP20  |  |

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



**KNC 011** 

KNO 011

Small and compact Jump type metal temperature sensing contact

SLong electrical life Convenient wiring and simple setup,

Easy to install with 35mm DIN rail Wide setting range

### 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.

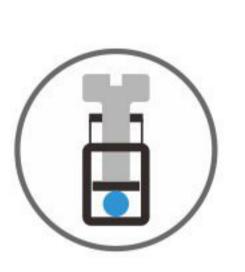
### Control fan filter-

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.

### **Outline Drawing**

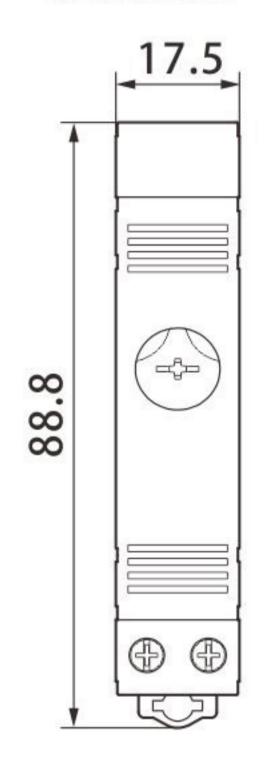
Alarm output contact, passive contact, AC 250 V 5 A NC normally open, closed when dehumidification function fails
Definition of dehumidification function failure: Temperature or humidity sensor failure; The dehumidifier operates continuously for 24 hours,

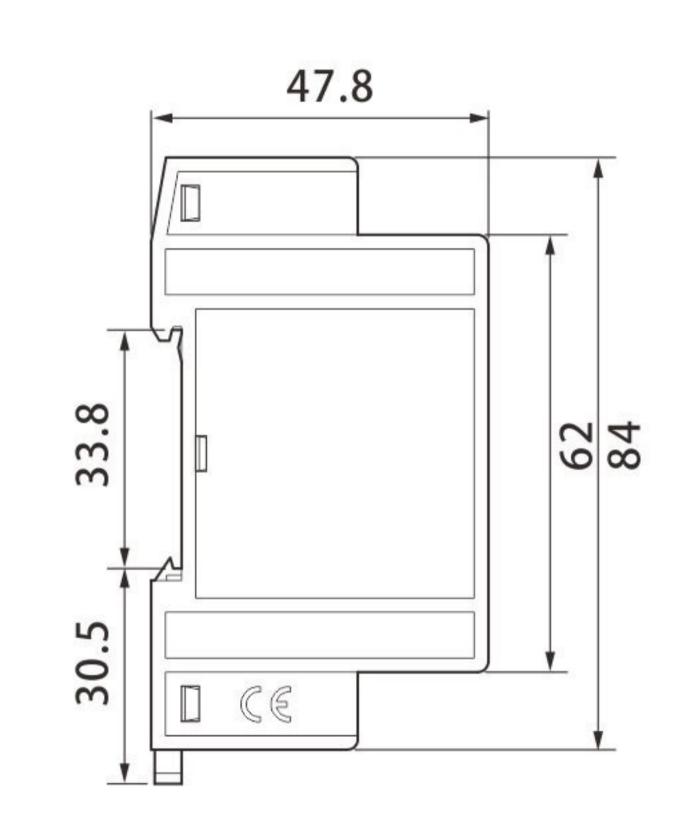
The relative humidity is still not less than 80%

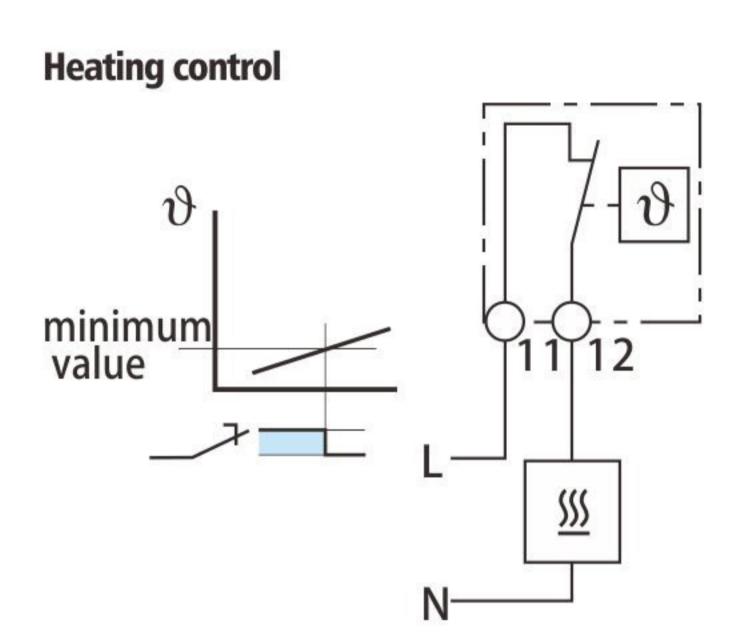


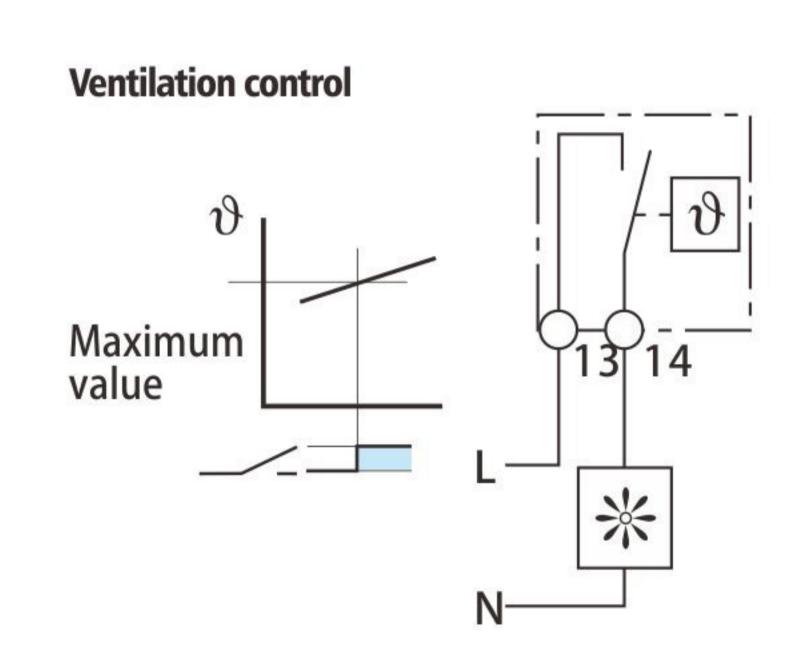












| Contact type                                  | Unit      | KNC 011 (NC | ) for heaters | KN0 011 (N | IO) for fans |
|---|-----------|-------------|---------------|------------|--------------|
| Rated current and peak value                  | А         | 10/20       |               | 10/20      |              |
| Rated voltage and maximum switching load      | V AC      | 250/        | 250           | 250/250    |              |
| Rated load AC1                                | VA        | 25          | 00            | 25         | 00           |
| Rated load AC 15 (230V AC)                    | VA        | 25          | 50            | 25         | 50           |
| Single phase motor rated power AC 3 (230V AC) | kW        | 0.1         | 25            | 0.1        | 25           |
| Current capacitance DC 1:30/110/220 V         | Α         | 1/0.3/      | 0.15          | 1/0.3      | 0.15         |
| Minimum switching load                        | mW (V/mA) | 500 (1      | 2/10)         | 500 (1     | 2/10)        |
| Standard contact materials                    |           | Ag          | Ni            | Ag         | Ni           |
| Temperature setting range (ventilation fan)   | °C        | -           | •             | -20+40     | +0+60        |
| Switching temperature difference              | K         | _           |               | 7±         | <u>-</u> 4   |
| Temperature setting range (heater)            | °C        | -20~+40     | +0~+60        | _          | •            |
| Switching temperature difference              | K         | 7±          | <u>-</u> 4    |            |              |
| Electrical Service Life AC1                   | cycles    | 100 · 103   |               | 103        |              |
| Environmental temperature range               | °C        | -45~+80     |               | -45~+80    |              |
| Protection level                              |           | IP2         | 20            | IP2        | 20           |

| Insulation                                       |     |            |                      |          |              |                      |          |
|--|-----|------------|----------------------|----------|--------------|----------------------|----------|
| Insulator strength in case of line disconnection | VAC | 500        |                      |          |              |                      |          |
| Screw torque                                     | Nm  | 0.5        |                      |          | 0.5          |                      |          |
| Maximum wire size                                |     | Steel wire | 1x2.5mm <sup>2</sup> | 1x12 AWG | Steel strand | 1x1.5mm <sup>2</sup> | 1x16 AWG |

Small and compact

Long electrical life

Convenient wiring and simple setup,

Small size

Small size

### KTO 011:

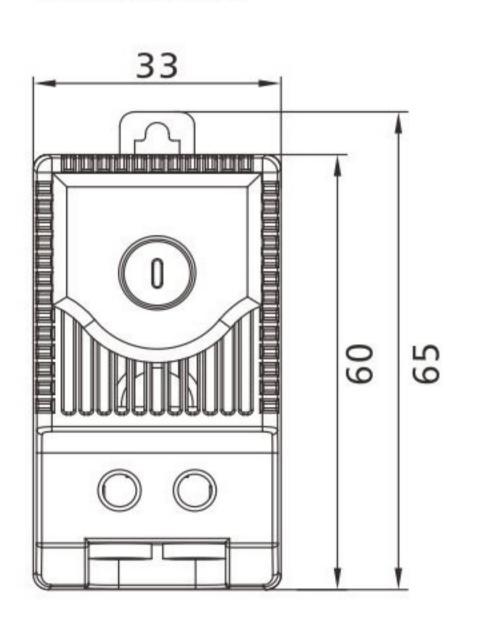
Thermostat (Normally Closed):Commonly used to connect heaters and disconnect the circuit when the temperature reaches the set value.

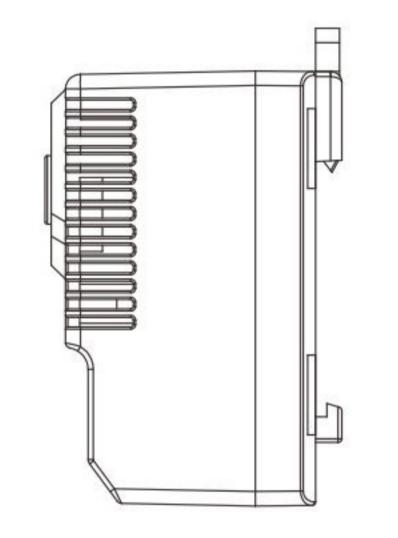
### KTS 011:

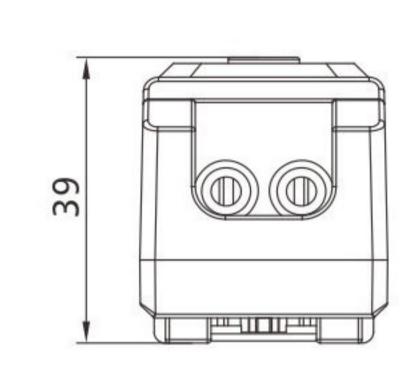
Thermostat (Normally Open):Commonly used to monitor filter fans, heat exchangers, or close circuit output signals when the temperature exceeds the set value.

# KTO 011 KTS 011

### **Dimension**



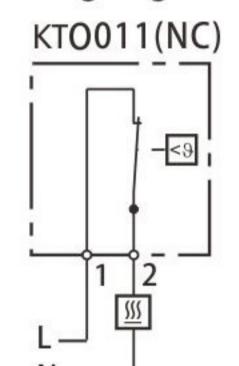


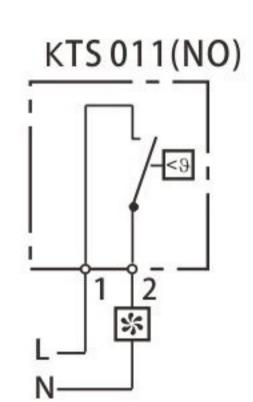


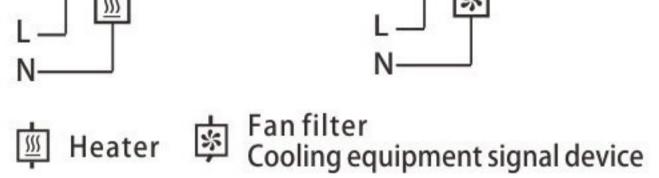


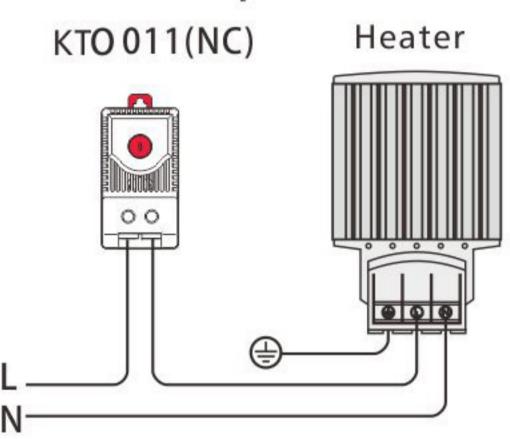


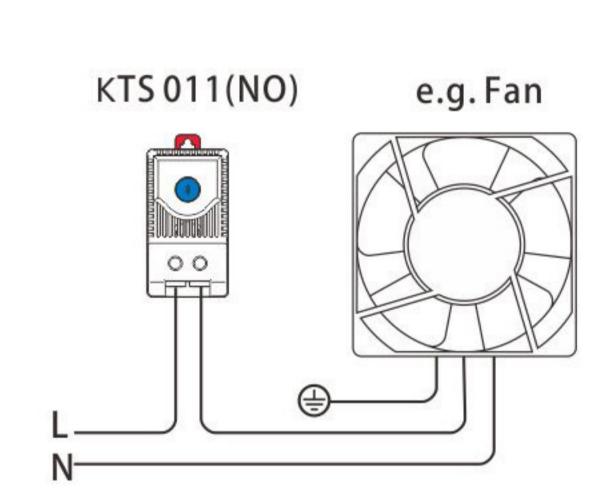
### wiring diagram

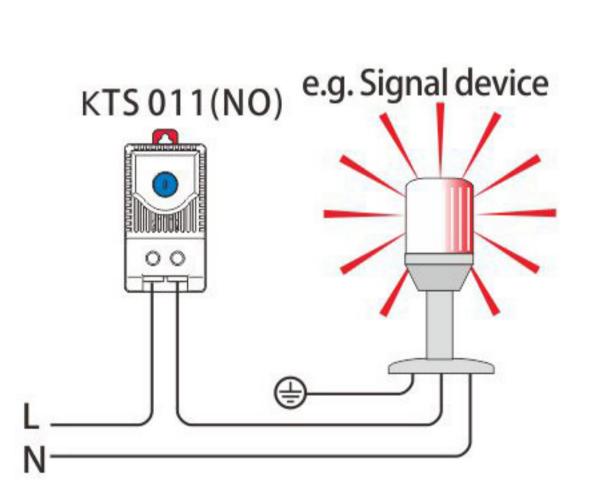












| Temperature range                | 0~60°C  |
|----------------------------------|---|
| KTO 011 NC (Normally Closed)     | When the temperature reaches the set value, it acts to disconnect the circuit |
| KTS 011 NO (Normally Open)       | When the temperature exceeds the set value, it acts to close the circuit      |
| Switching temperature difference | 7k (± 4k tolerance)   |
| Sensing element                  | Bimetallic temperature sensing material                                       |
| Contactor type                   | Jump type contact   |
| Contactor resistance             | $<$ 10m $\Omega$ (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 2.5mm², |
| Connection method                | 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                             | 65x33x39mm  |
| Weight                           | 40g   |
| Fixed position                   | At will   |
| Adapt to temperature             | -20∼+80 °C  |
| Protect                          | IP20  |

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



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

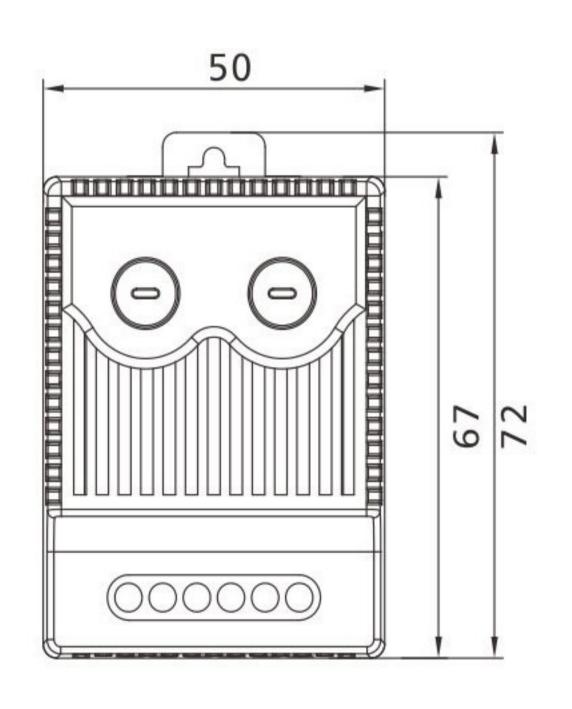
A temperature controller with two temperature settings

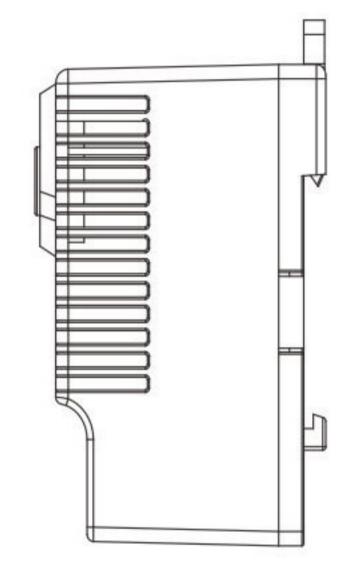
Bimetallic temperature sensing material

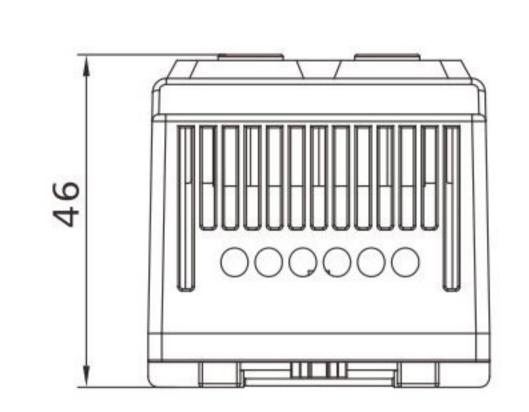
**Normally open contact**: commonly used to monitor filter fans, heat exchangers, or close circuit output signals when the temperature exceeds the set value.

**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.



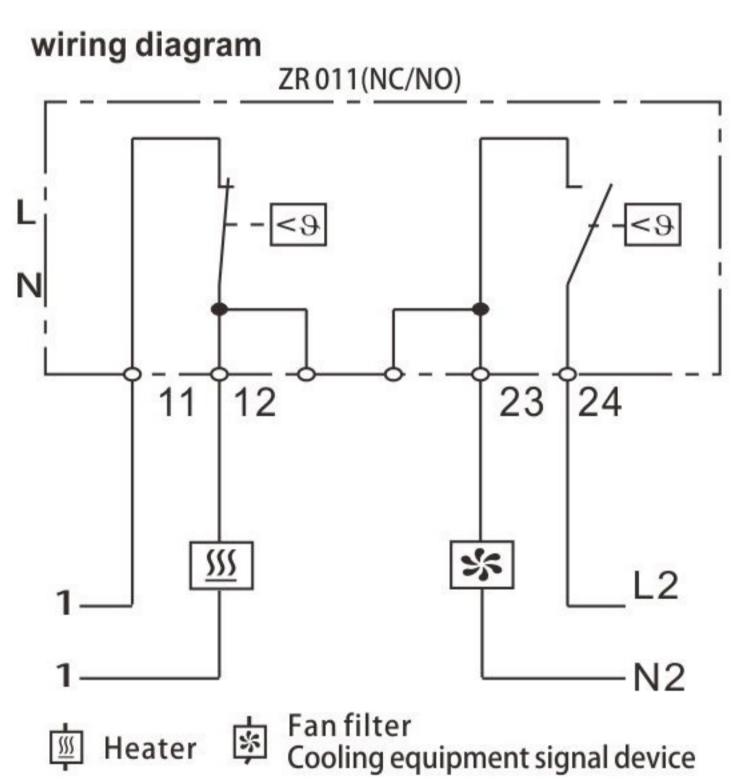












| Temperature range                | 0~60°C  |  |
|----------------------------------|---|--|
| Switching temperature difference | 7K (± 4K tolerance)   |  |
| Sensing element                  | Bimetallic temperature sensing material                                       |  |
| Contactor type                   | Jump type contact   |  |
| Contactor resistance             | $<$ 10m $\Omega$ (with connecting wire)                                       |  |
| Usage period                     | >100000 cycles  |  |
| Maximum switching load           | 250VAC, 10 (2) A, 120VAC, 15 (2) A, 30WDC at 24VDC to 72VDC                   |  |
| Commontion months of             | 2 Extreme sub-stage, the maximum clamping torque is 0.5Nm: steel wire 2.5mm², |  |
| Connection method                | steel strand wire (wire end with iron bag)1.5mm²                              |  |
| 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  |  |
| Protect                          | IP20  |  |

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



# IP20 **C€**

Small and compact

Easy to install with 35mm DIN rail

Convenient wiring, terminal wiring method

Wide voltage range

Dynamic heating, high temperature limitation

Long service life

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.

### performance

The bimetallic sensor serves as a thermosensitive device for thermal feedback.

Contact configuration: Single pole transfer contacts (transfer contacts) serve as instantaneous switching elements.

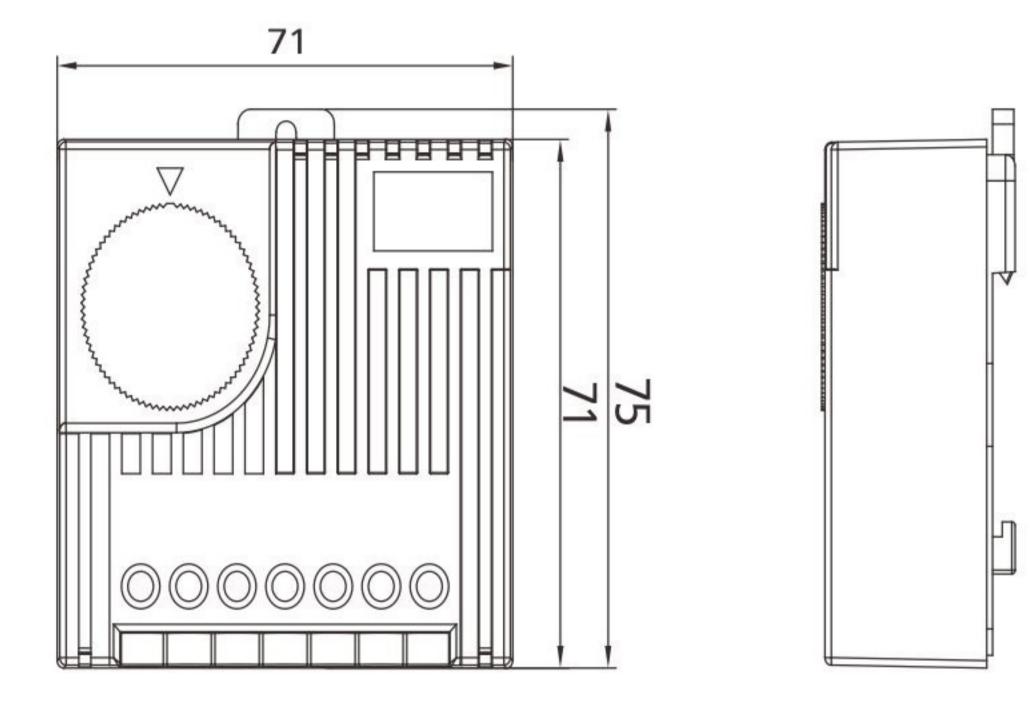
Wide voltage range, which means that only one model can be suitable for 24~230V.

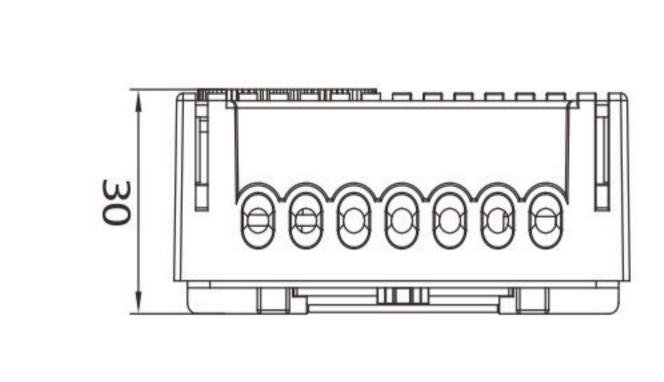
Time saving connection technology, which means that the connection terminal board can be connected externally with screws.

Flexible installation, can be installed on vertical or horizontal 35mm support rails according to EN50 022 and

The attached adapter is fastened to the profile of the NS/35-ES cabinet.

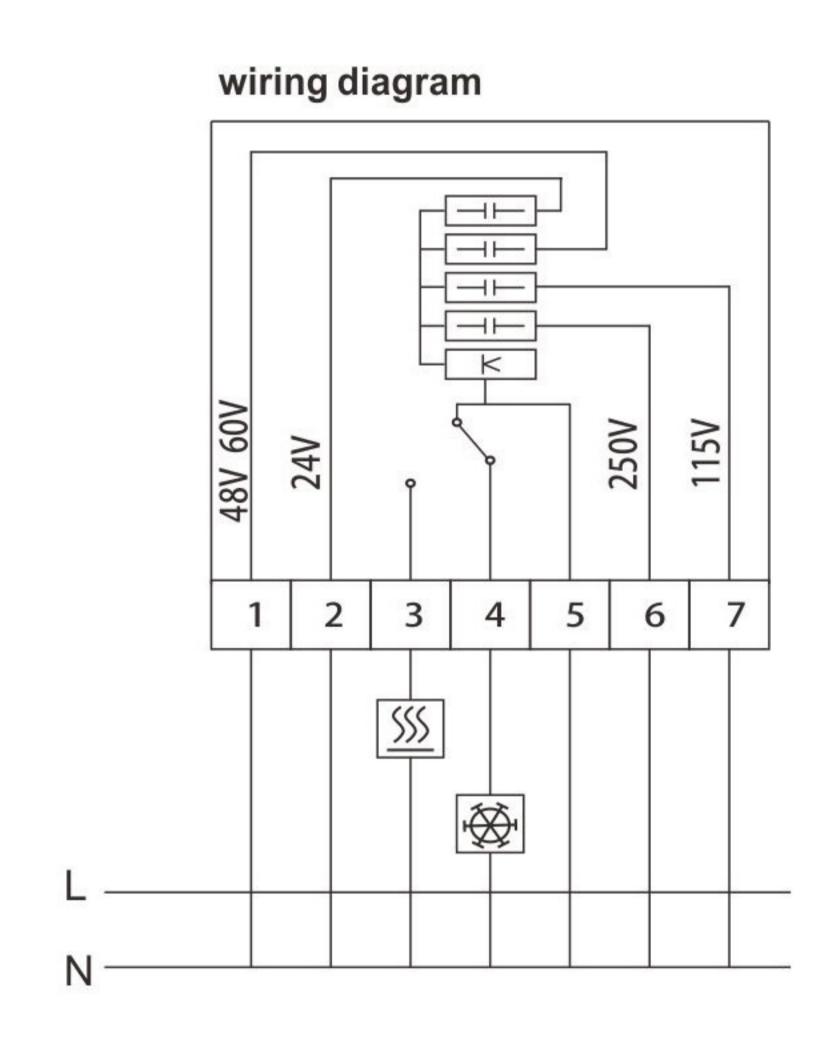
### **Dimension**











### terminal number

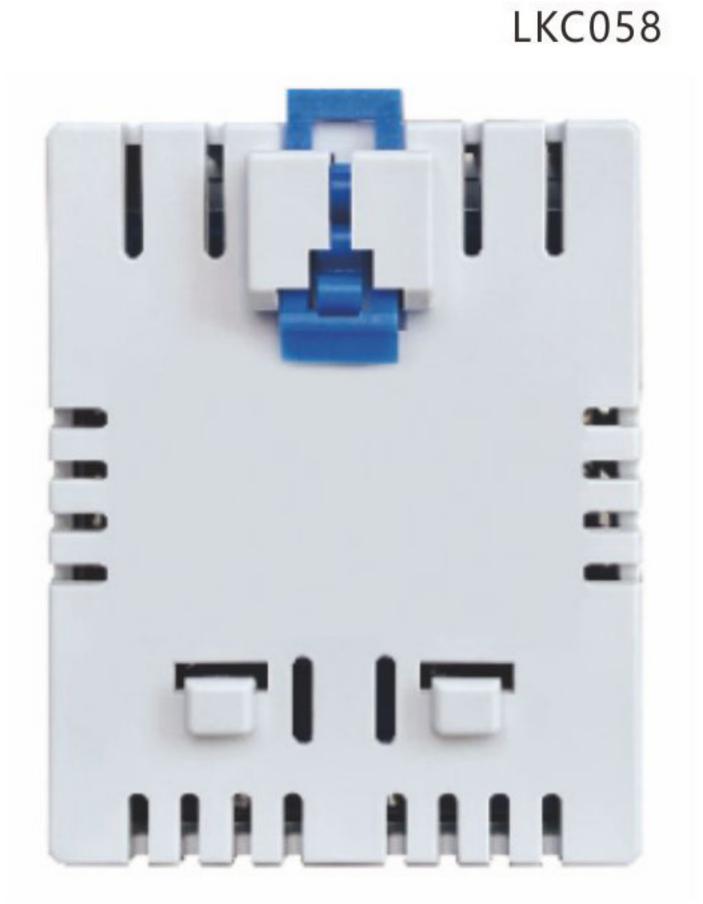
| 48V/60V N | 24V N | <u>SSS</u> | ı∰ı | (1)L | (L2*)250V N | 115V N |
|-----------|-------|------------|-----|------|-------------|--------|
| 1         | 2     | 3          | 4   | 5    | 6           | 7      |

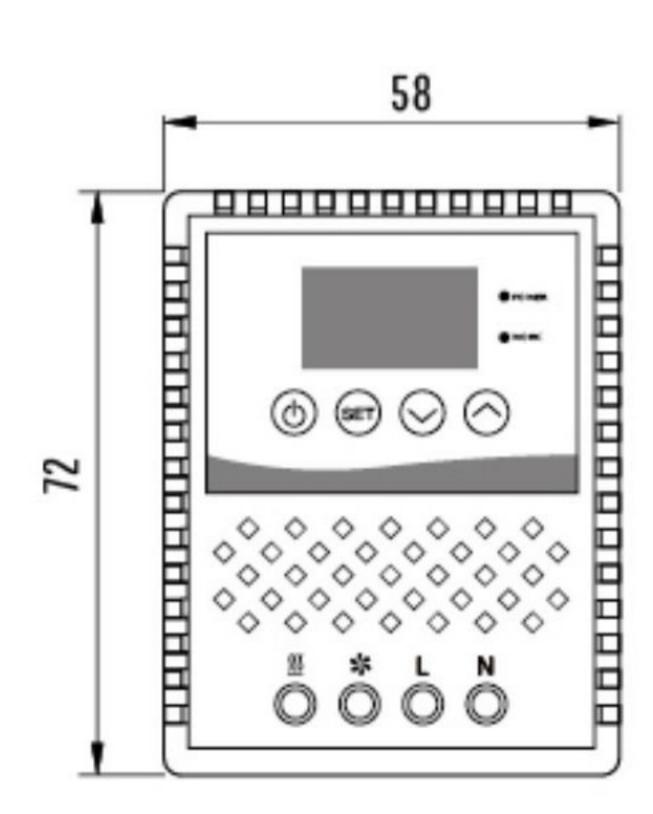
| Rated working voltage         | 230/115/60/48/24V (AC) 60/48/24V (DC)   |                           |  |
|-------------------------------|---|---------------------------|--|
| Temperature sensing element   | Bimetallic temperature sensing material |                           |  |
| size                          | 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) 1) A,              | Communication 5 (4) 1) A, |  |
| At COS Φ= At 0.6 hours        | DC=30W                                  | DC=30W                    |  |
| Temperature measurement range | +5~+60°C                                |                           |  |

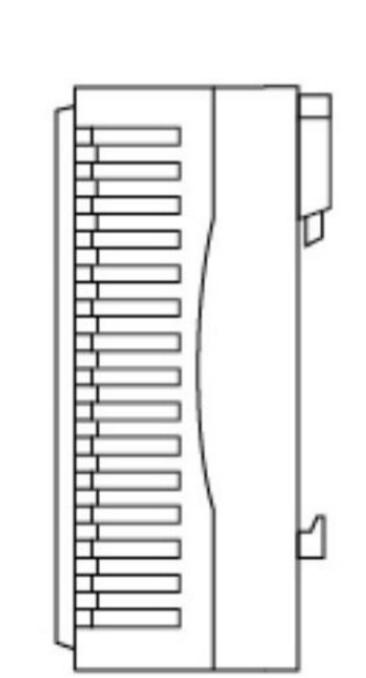




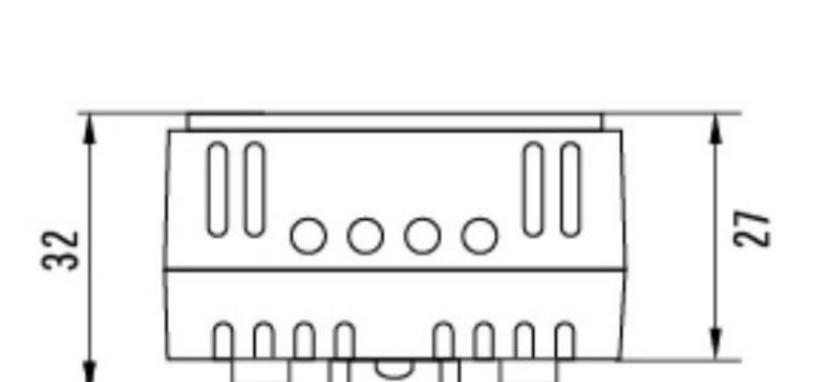












| Temperature Range                | 0-60 °C  |
|----------------------------------|--|
| Switching Temperature Difference | 7k (+4k tolerance)   |
| Sensing Element                  | Electronic components  |
| Contactor Type                   | Switching contactor (relay)  |
| Contactor Resistance             | <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: 2.5mm² steel wire, multi-stranded glued wire (wired) 1.5mm² |
| Shell                            | UL94V-0 plastic, light gray,   |
| Install                          | Installation of 35mm din rail  |
| Size                             | 72x58x32mm   |
| Weight                           | 65g  |
| Fixed Position At will           |  |
| Adapt To Temperature             | -20~+80c   |
| Protection Level                 | IP20   |
| Lcd Display                      | It can display the set temperature and the change of ambient temperature in the cabinet at all times             |

Compact and compact

SLong electrical life

Easy to install with 35mm DIN rail

Jump type metal temperature sensing contact

Convenient wiring and simple setup,

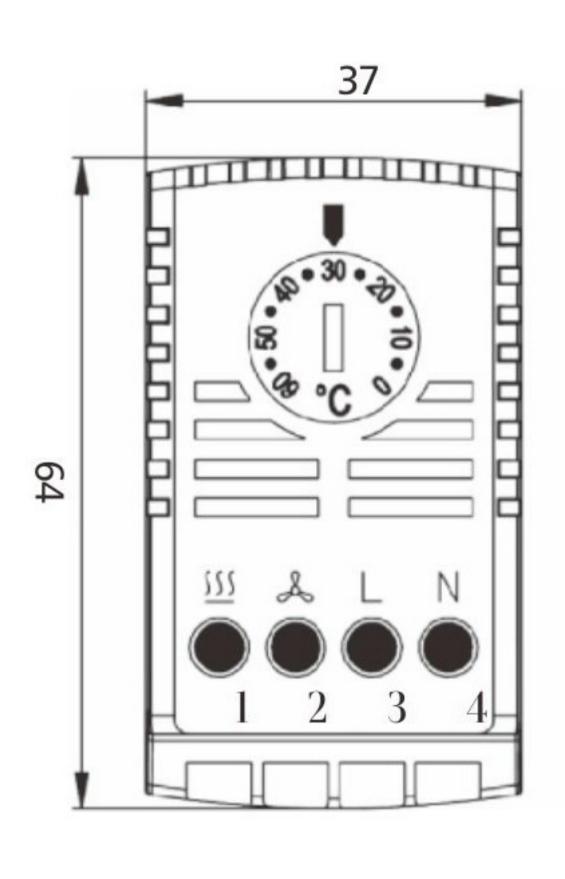
Wide setting range

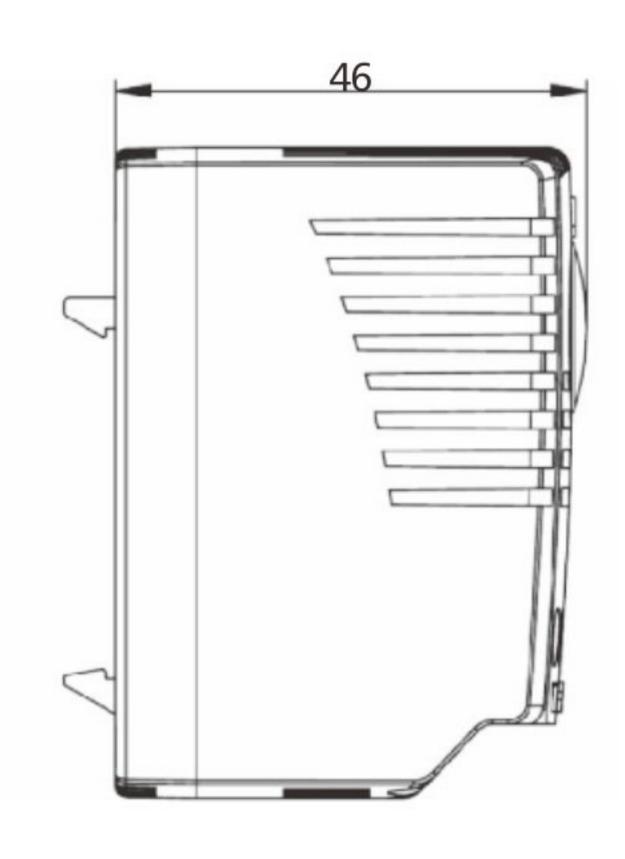
The KTC3150 temperature controller is used to control heaters, fan filters, heat exchangers, etc.

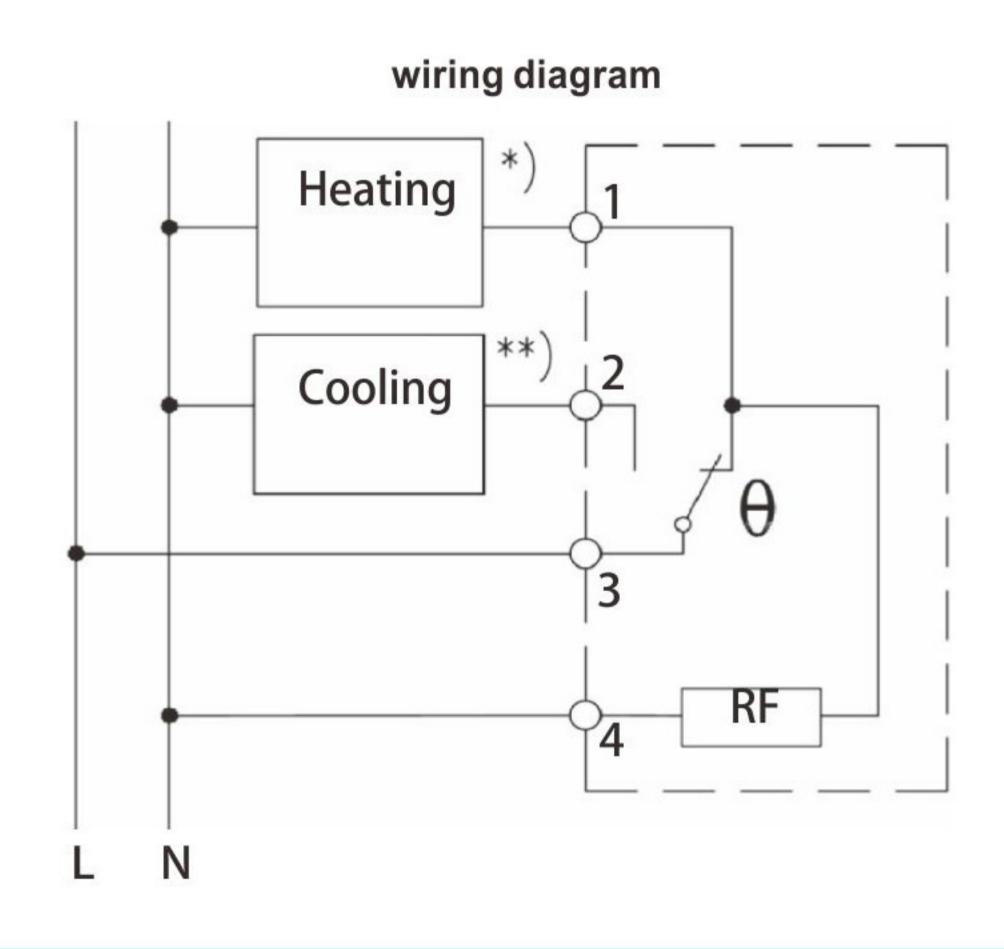












| Storage temperature       | -20~+80 °C                                    |  |
|---------------------------|---|--|
| voltage                   | 100-250V AC                                   |  |
| Heating (Normally Open)   | 10A (2) DC 30W                                |  |
| Cooling (Normally Closed) | 5A (2) DC 30W                                 |  |
| Connection method         | 4-pole terminal block, 2.5mm²                 |  |
| 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                                     |  |
| Protection level          | IP20  |  |



35% to 95% adjustable relative humidity
High switching performance

Easy to install with 35mm DIN rail Long service life

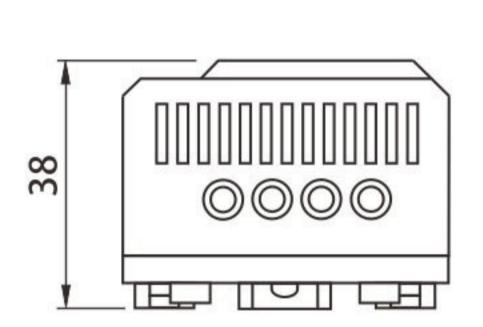
Three contact conversion

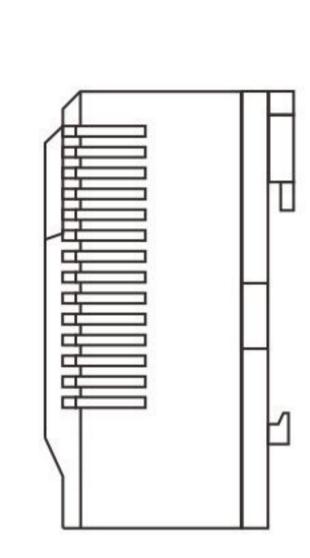
### Controlling

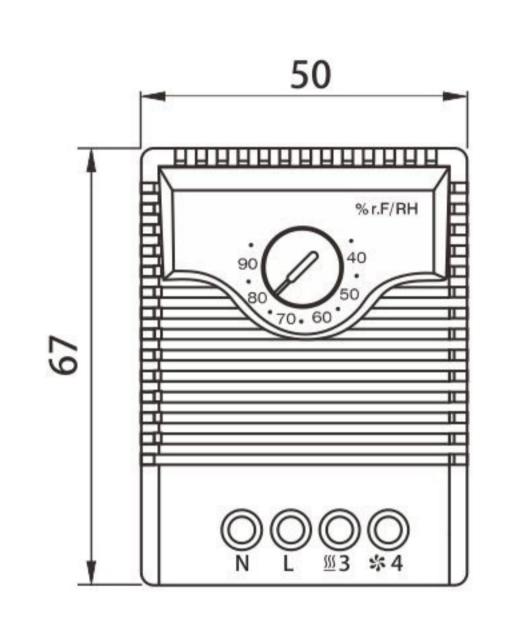
**Working principle:** By adjusting the range knob, the working range of the humidifier is determined, and the humidity sensor detects itWhen the actual humidity value in the air is less than the set value, the output power is supplied. When the actual value is greater than the set valueWhen setting 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.







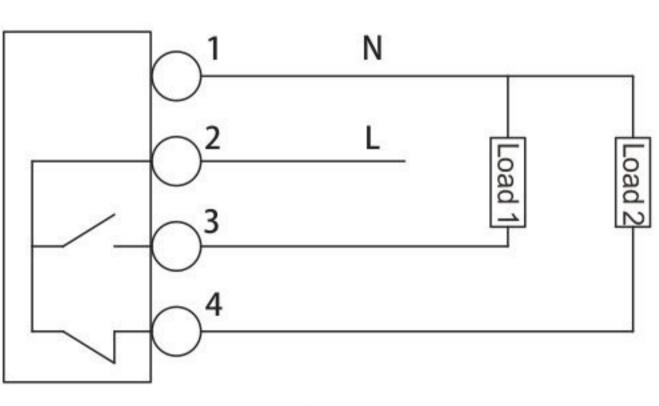




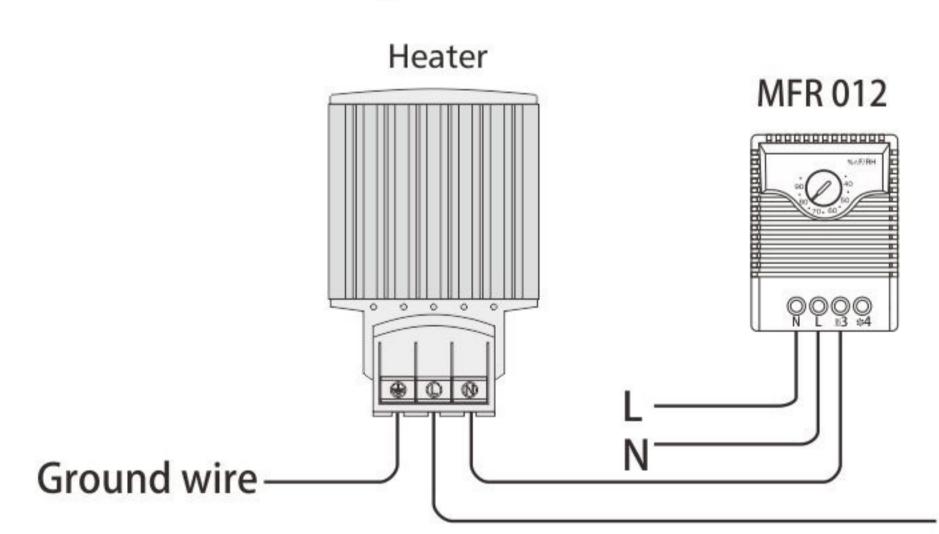


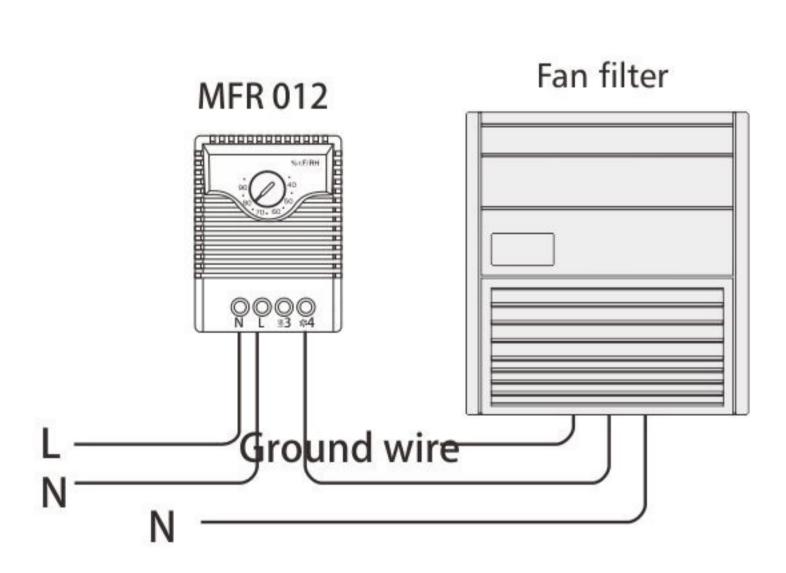


wiring diagram









| Switching error               | 4% relative humidity (± 3% tolerance)  |  |  |  |
|-------------------------------|--|--|--|--|
| Relative humidity range       | 35%~95%  |  |  |  |
| Allowable wind speed          | 15m/sec  |  |  |  |
| Contactor type                | Conversion contact   |  |  |  |
| Contactor resistance          | < 10m Ω  |  |  |  |
| Service life                  | > 50000 cycles   |  |  |  |
| Minimum switching capacity    | 20V AC/DC 100mA  |  |  |  |
| Maximum switching load        | 250V AC, 5 (1) A, DC 20W   |  |  |  |
| Connection method             | 3-pole wiring terminal, maximum clamping torque 0.5Nm: 2.5mm² for steel wire, 1.5mm² 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 |



# IP20 **C€**

Adjustable relative humidity

Transition contact

High conversion capacity

Easy access

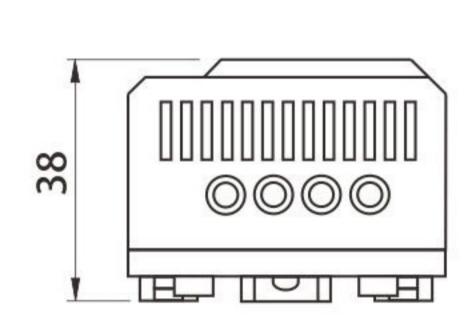
Rail clamp

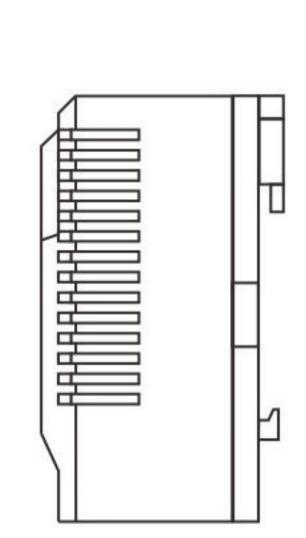
Long service life

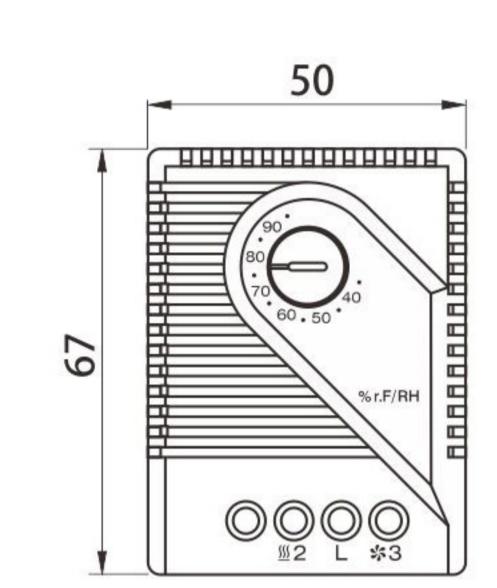
The humidistat MFR 012-2 is designed to control the heater in the switch box, which is wet when the humidity exceeds 65%Gas will be expelled, and this method can effectively prevent water droplets and rust.







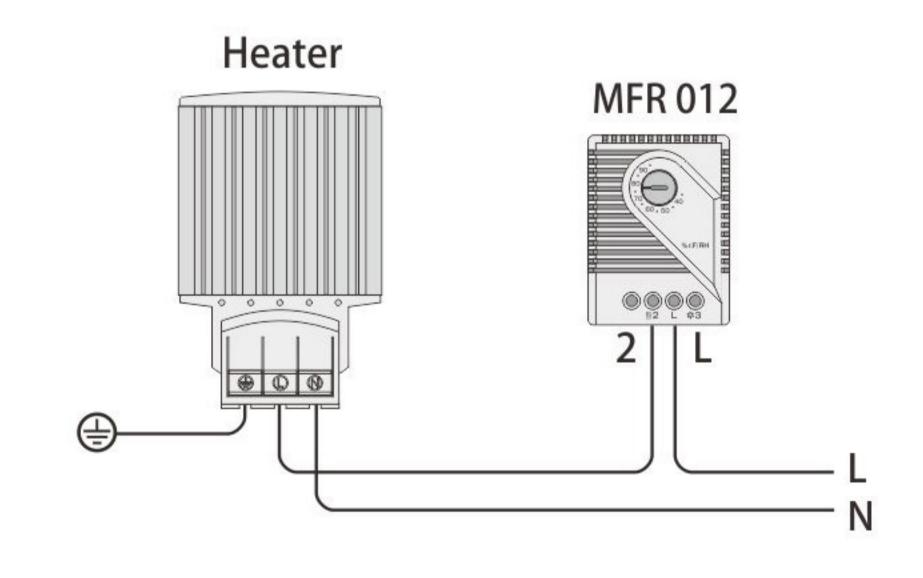


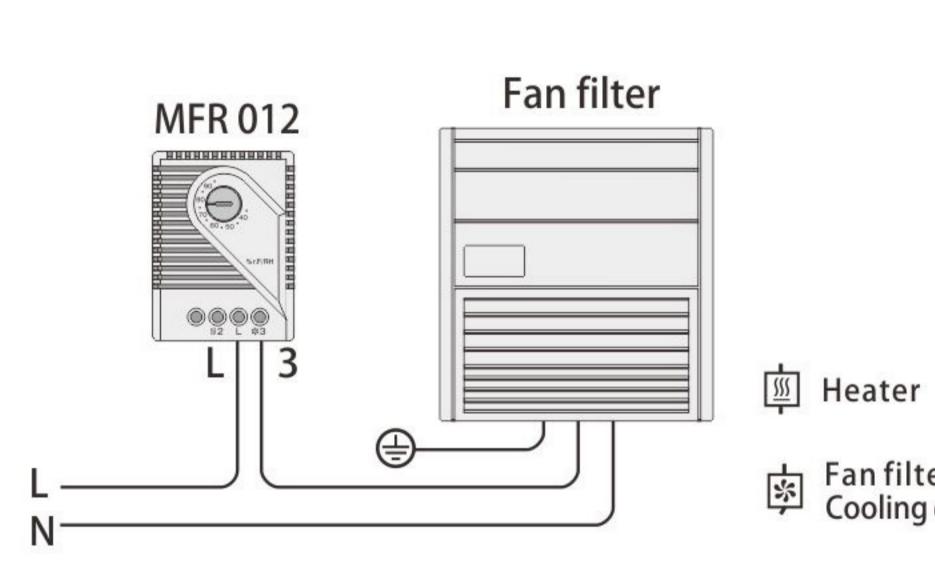


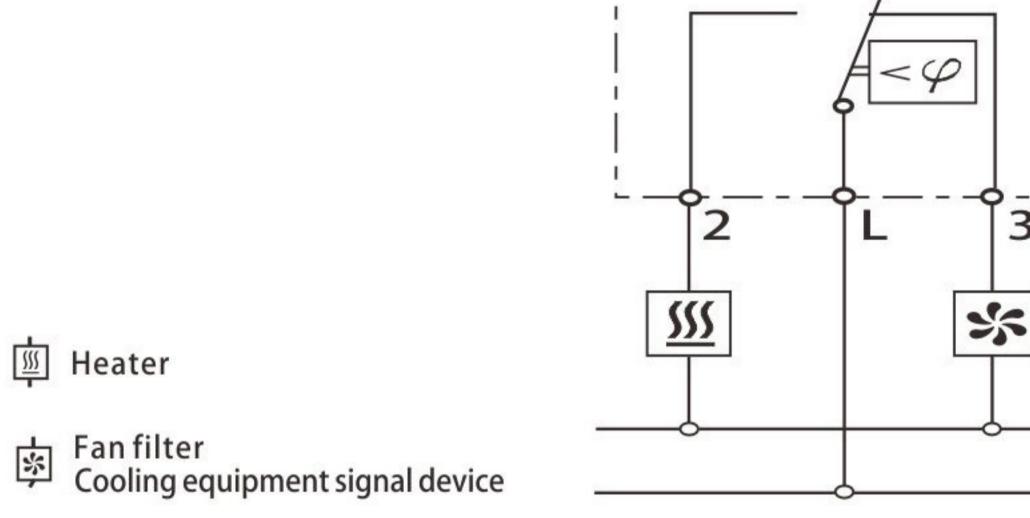




### Connection example







wiring diagram

| Switching error               | 4% relative humidity (± 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    | 20V AC/DC 100mA  |  |  |  |
| Maximum switching load        | 250V AC, 5 (1) A, DC 20W   |  |  |  |
| Connection method             | 3-pole wiring terminal, maximum clamping torque 0.5Nm: 2.5mm² for steel wire, 1.5mm² 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)   |  |  |  |

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

IP20



Protection level

N

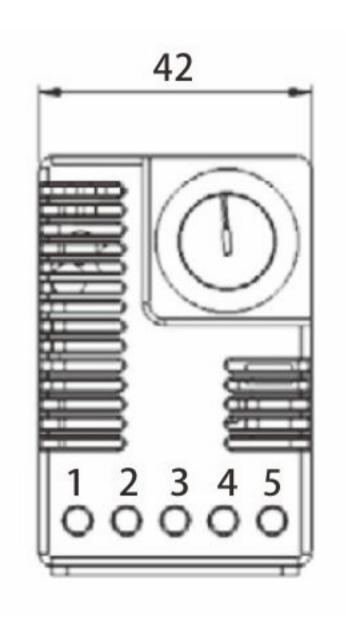
EFR 012

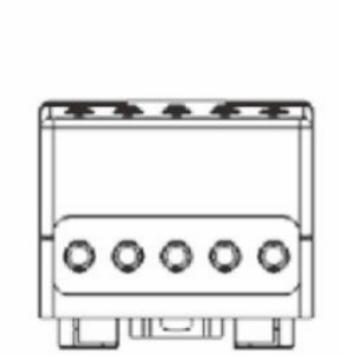
Adjustable and preset relative humidity
Optional working display (LED)
High switching performance

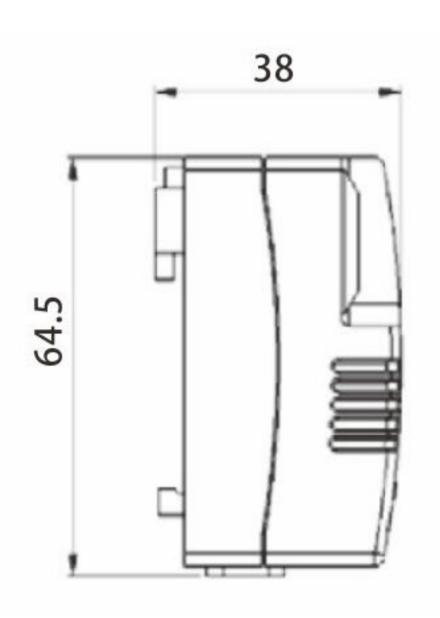
Easy to install with 35mm DIN rail
Temperature compensation
Long service life

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.

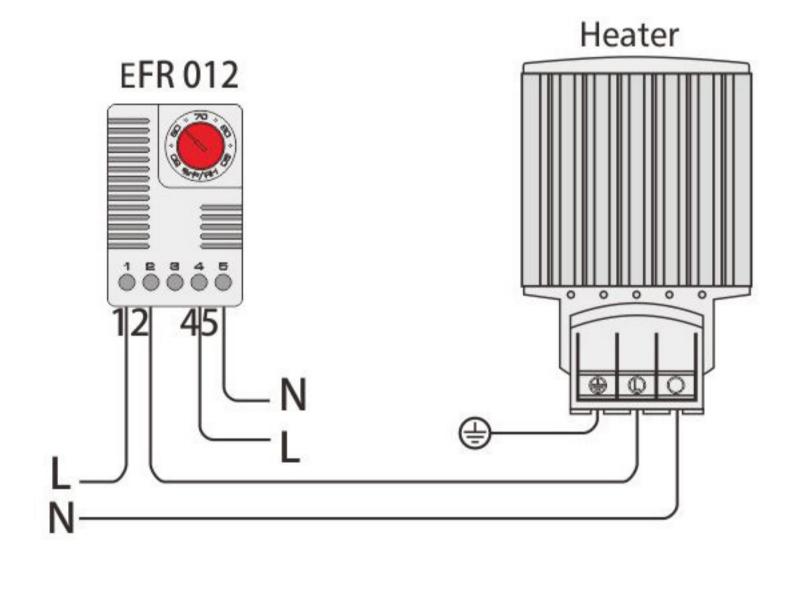
### **Dimension**

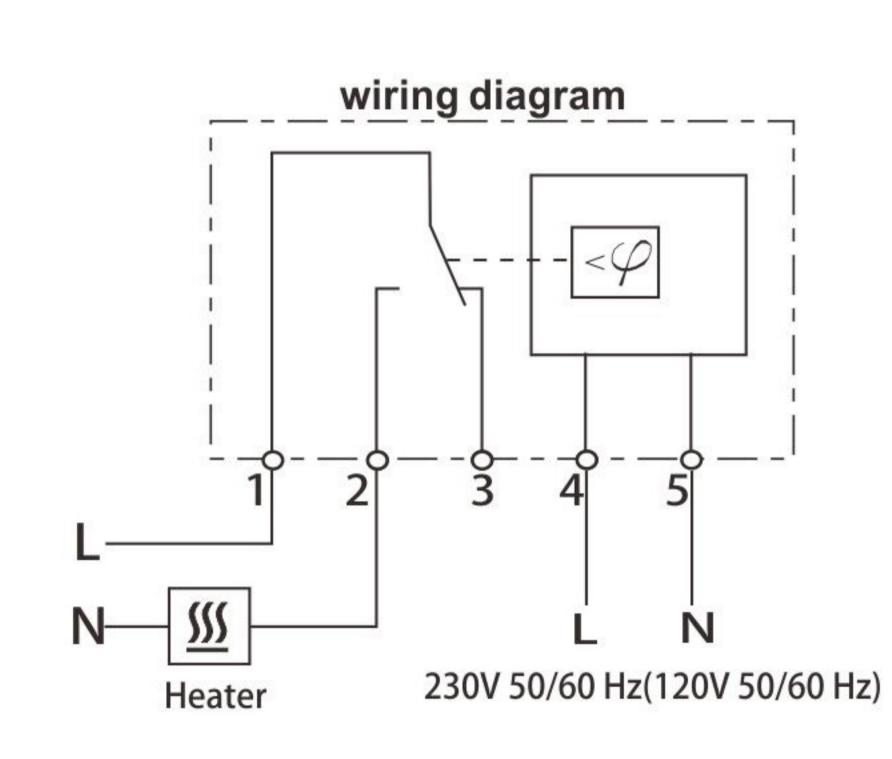












| Switch differences                        | 5% relative humidity ( $\pm$ 1% tolerance) at 25 °C/77 ° F (50% relative humidity)   |  |  |  |
|---|--|--|--|--|
| Reaction time                             | About 5 seconds  |  |  |  |
| Contact method                            | Switching contact (relay)  |  |  |  |
| Service life                              | >50000 cycles  |  |  |  |
| Maximum switching capacity (relay output) | t) 240VAC, 8 (1.6) A: 120V AC, 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  | Authentication |
|------------|------------------|----------------|----------------|
| 01245.0-00 | 230v ac, 50/60hz | 40 ~ 90% RH    | CE             |
| 01246.0-00 | 230v ac, 50/60hz | 65% RH pre-set | CE             |
| 01245.9-00 | 120v ac, 50/60hz | 40 ~ 90% RH    | CE             |
| 01246.9-00 | 120v ac, 50/60hz | 65% RH pre-set | CE             |



# IP20 **C€**

Wide setting range

Optical display (LED)

Transition contact

Low hysteresis

Easy to install with 35mm DIN rail

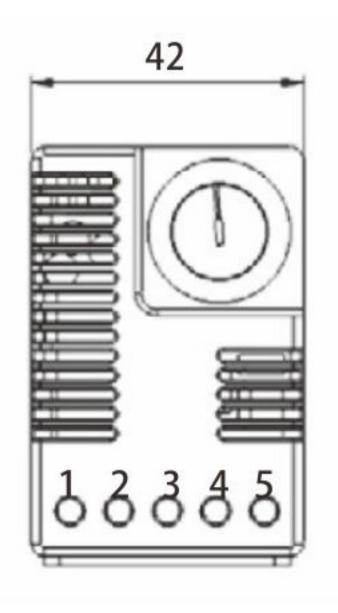
Transition contact

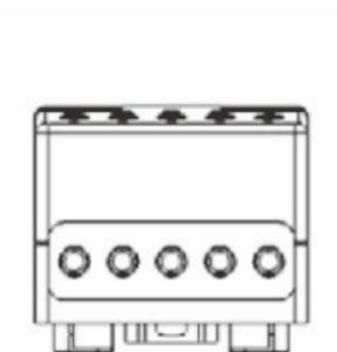
Long service life

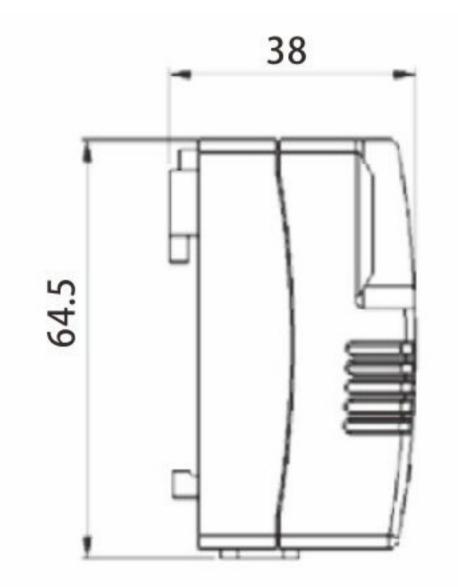
### Controlling

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

### **Dimension**

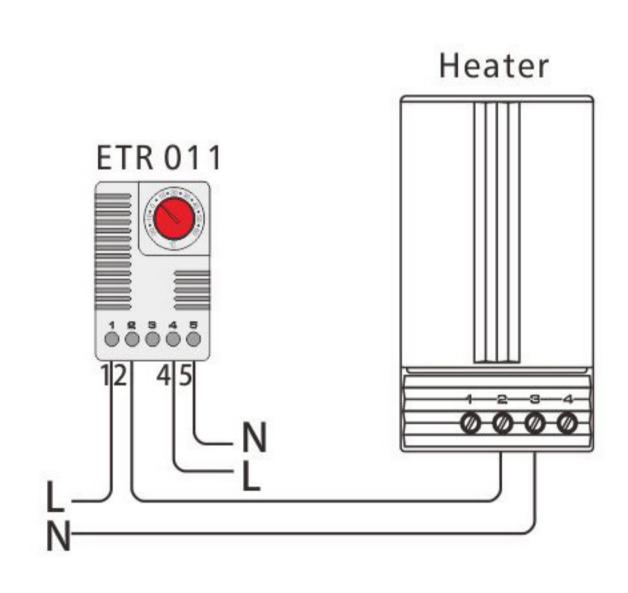


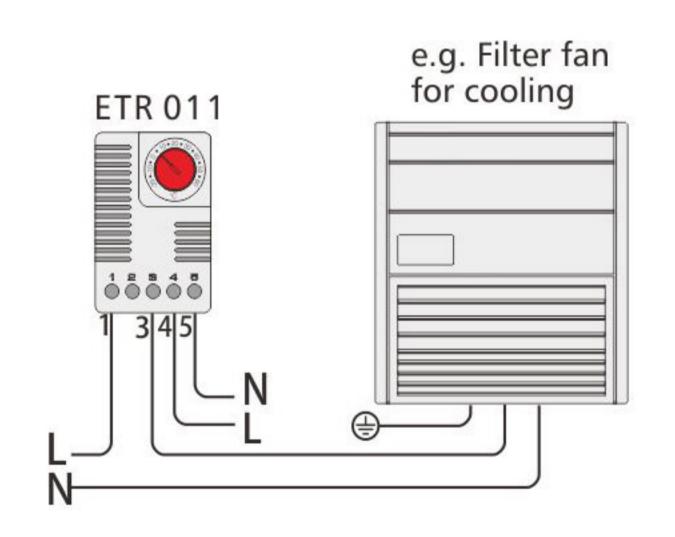


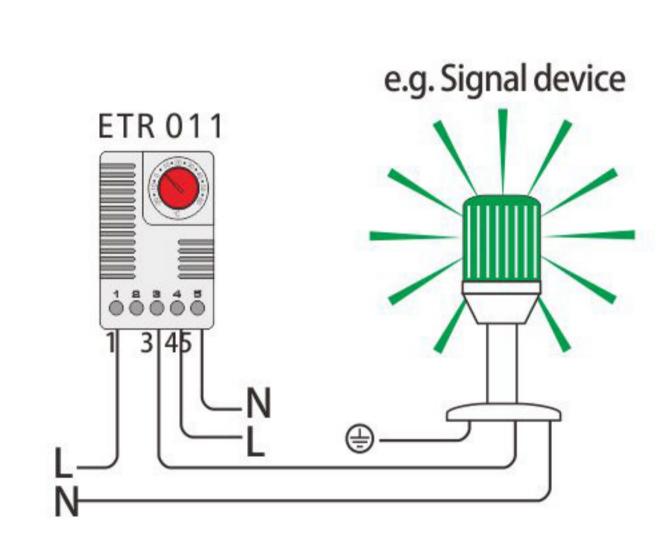


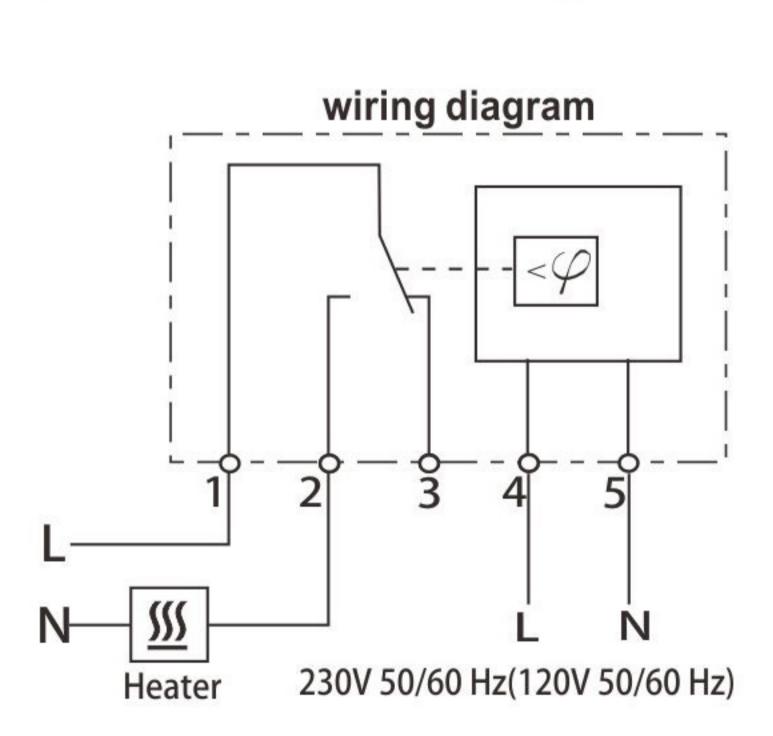












| Switch Differences                        | 4k (±1k tolerance) at 20°C/68 ° F   |  |  |  |
|---|---|--|--|--|
| Sensor element                            | NTC   |  |  |  |
| reaction time                             | 5 seconds   |  |  |  |
| Contact method                            | Conversion contact (relay)  |  |  |  |
| service life                              | >50000 cycles   |  |  |  |
| Maximum switching capacity (relay output) | 240V AC, 8 (1.6) A 120V AC, 8 (1.6) A ` 100WDC at 24V DC  |  |  |  |
| Maximum inrush current                    | 16A AC 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 |  |  |  |
| 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)   |  |  |  |
| Protection type                           | IP20  |  |  |  |

| Model      | Working voltage  | Setting Range | Authentication |
|------------|------------------|---------------|----------------|
| 01131.0-00 | 230V AC, 50/60Hz | -20~60 °C     | CE             |



KTSMF012

Integrated temperature and humidity control
With work indicator light
Miniaturization suitable for various applications

Stable and reliable long-term work
BEasy to install with 35mm DIN rail
ROHS compliant

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

### 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

### **Product performance:**

Temperature control: Reach the set temperature point automatic power off,  $\pm 1 \sim 3^{\circ}$ C

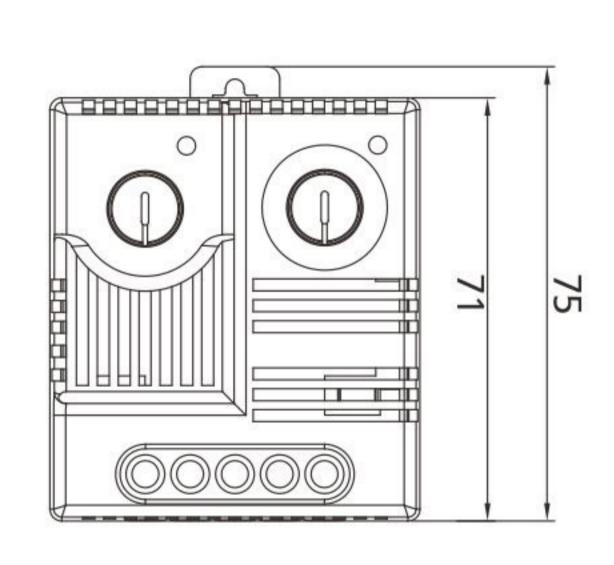
Humidity control: Reach the set humidity point automatic power off, 5%-10%RH return difference value Power supply: AC220V (other voltage optional)

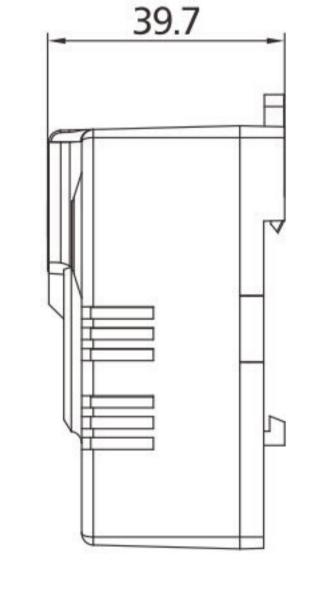
Power consumption: about MAX 46mA

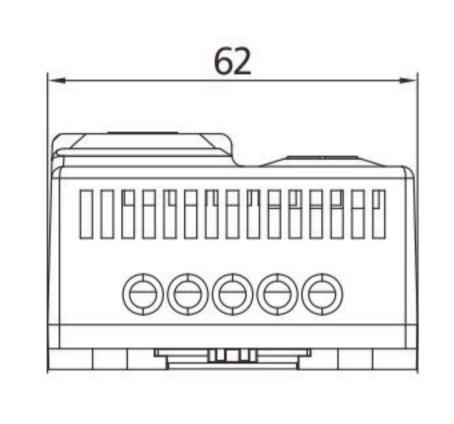
Working range: temperature -10 $\sim$  +50 $^{\circ}$ C; Humidity 40-90 $^{\circ}$ RH

Storage conditions: temperature -20∼+60°C; Humidity 20-95%RH

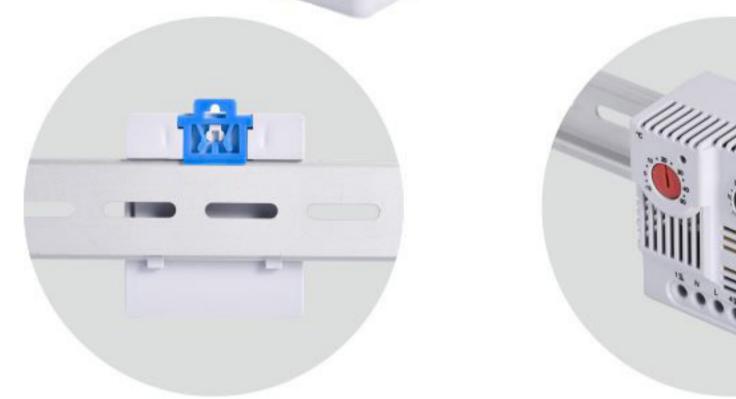
Temperature sensitive element: bimetal sensor Humidity sensor: polymer humidity resistor

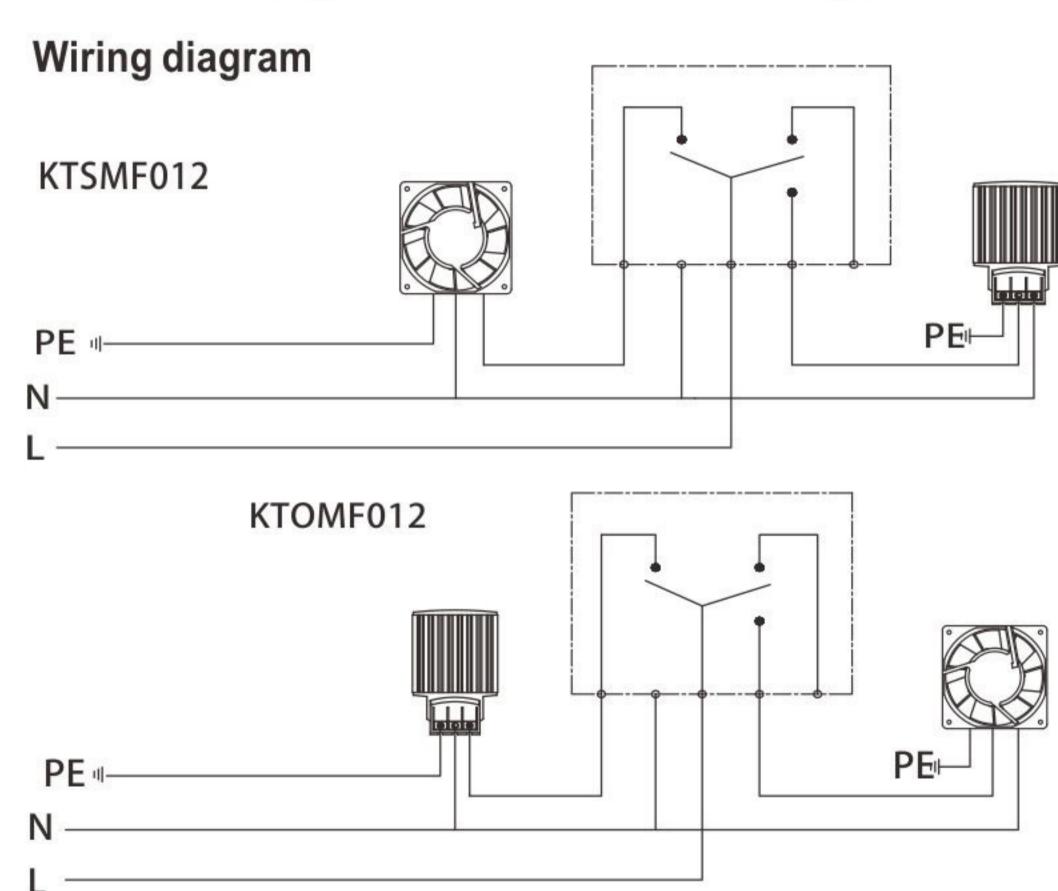












| Switching temperature error         | 7k (±4k)   |  |  |  |
|-------------------------------------|--|--|--|--|
| Switching humidity error            | 4% relative humidity, ±3% error  |  |  |  |
| Temperature control sensor          | Bimetallic temperature sensitive material  |  |  |  |
| Relative 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 100m A  |  |  |  |
| Maximum switching capacity          | 250VAC 5(1)A DC30W   |  |  |  |
| Electrical connection               | 5-pole terminal, maximum clamping button moment 0.5Nm, rigid wire 2.5mm², multi-stranded wire (end) 1.5mm² |  |  |  |
| 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   |  |  |  |

ETF012

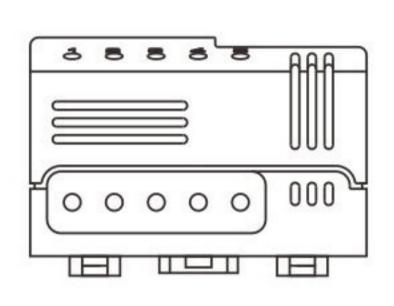
Emperature and humidity adjustable
Optical operating display (led)
High switching capacity

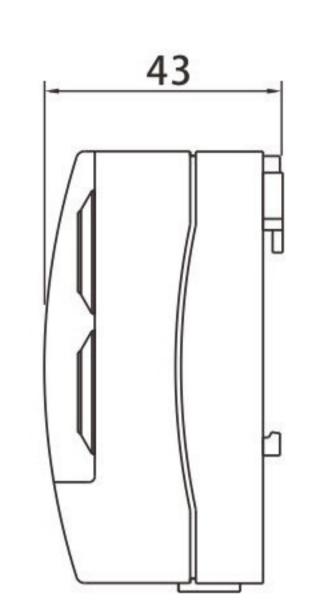
Easy to install with 35mm DIN rail
High switching capacity
Long service life

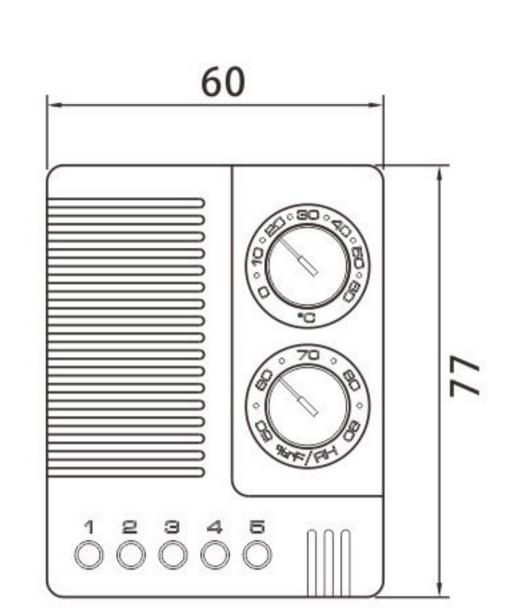
### **Product performance:**

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 workingThe screen will light up.

### **Dimension**

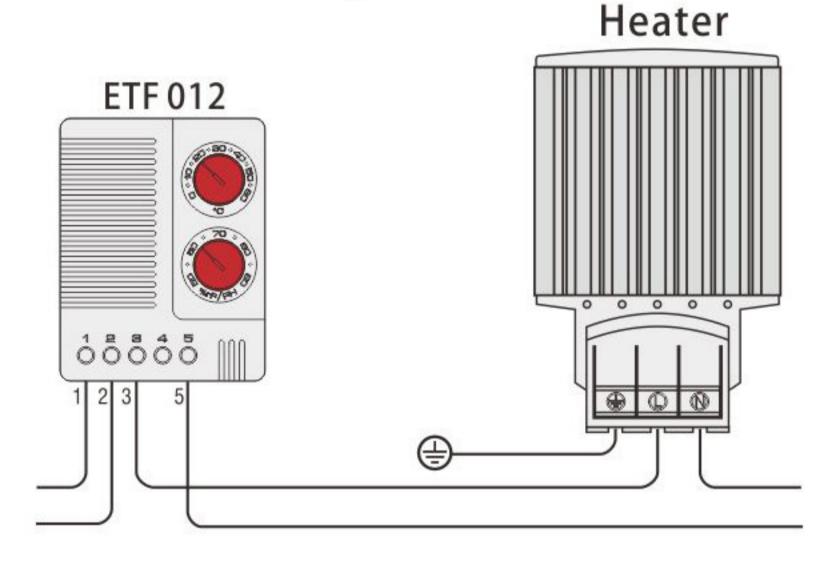


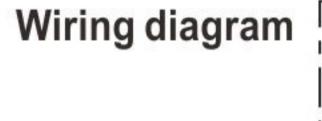


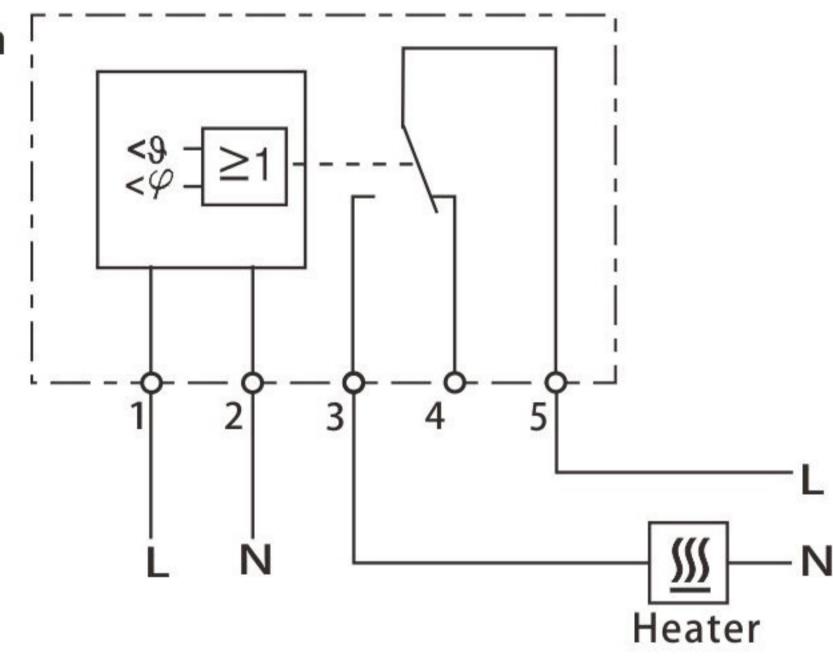












|   | ricatei  |  |  |
|---|--|--|--|
| Switching differences (temperature)       | 2K ( $\pm$ 1% tolerance) at 25°C/77°F (50% relative humidity)  |  |  |
| Switching differences (humidity)          | 4% relative humidity ( $\pm$ 1% tolerance) at 25°C/77°F (50% relative humidity)  |  |  |
| Reaction time (humidity)                  | About 5 seconds  |  |  |
| Contact method                            | Switching contact (relay)  |  |  |
| Contact impedance                         | $<$ 10m $\Omega$   |  |  |
| Service life                              | NC:>50000 cycles NO:>100000 cycles   |  |  |
| Maximum switching capacity (relay output) | NC: 240V AC, 6 (1) A NO: 240V AC, 8 (1.6) A, NC: 120V AC, 6 (1) A NO: 120V AC, 8 (1.6) A 24V DC, 4A  |  |  |
| Electromagnetic compatibility             | Acc.to EN 55014-1-2, EN 61000-3-2, EN 61000-3-3  |  |  |
| Optional indicator                        | LED  |  |  |
| Connection method                         | 5-pole terminal block, maximum clamping torque of 0.5Nm, rigid wire, 2.5mm <sup>2</sup> steel strand (with iron head at the wire end) 1.5mm <sup>2</sup> |  |  |
| 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 | Authentication |
|------------|------------------|---------------------|---------------|----------------|
| 01230.0-00 | 230V AC, 50/60Hz | 0~60 °C             | 50 ~ 90% RH   | CE             |
| 01230.9-01 | 120V AC, 50/60Hz | 0~60 °C             | 50 ~90% RH    | CE             |

