

# REGULATING *Thermostat, Hygrostat*



**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.

- Compact size
- Long electrical service life
- Easy installation on 35mm DIN rail
- High switching performance
- Easy wiring and simple setup



JTO 011

JTS 011

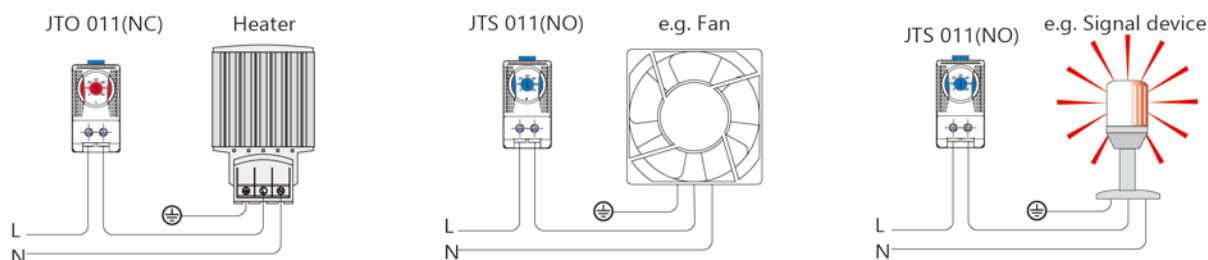
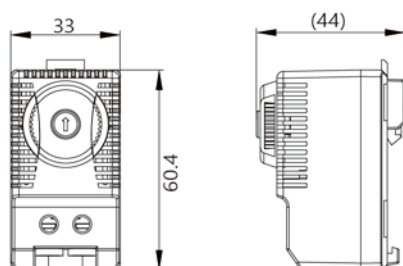
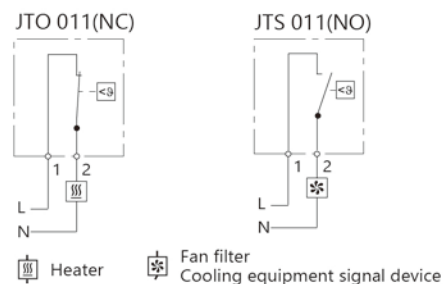
IP20

CE

-20 +80  
°C

**SPECIFICATION**

| Model                      | JTO 011                                 | JTS 011 |
|----------------------------|-----------------------------------------|---------|
| Contact                    | NC                                      | NO      |
| Temperature                | 0°C~60°C                                |         |
| Set temperature difference | ±5k                                     |         |
| Sensing element            | Bimetallic temperature sensing material |         |
| Service life               | >100000 cycles                          |         |
| Maximum switching load     | 250VAC,10(2)A,120VAC15(2)A,DC,30W       |         |
| Connection method          | Screw Terminal                          |         |
| Shell                      | UL94 V-0                                |         |
| Install                    | Installation of 35mm DIN rail           |         |
| Size                       | 64x33x44mm                              |         |
| Weight                     | 40g                                     |         |


**Connection Example**

**DIMENSION (mm)**

**WIRING DIAGRAM**


### KTO 011:

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

### KTS 011:

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

- Compact size
- Long electrical service life
- Easy installation on 35mm DIN rail
- High switching performance
- Easy wiring and simple setup



KTO 011

KTS 011

IP20

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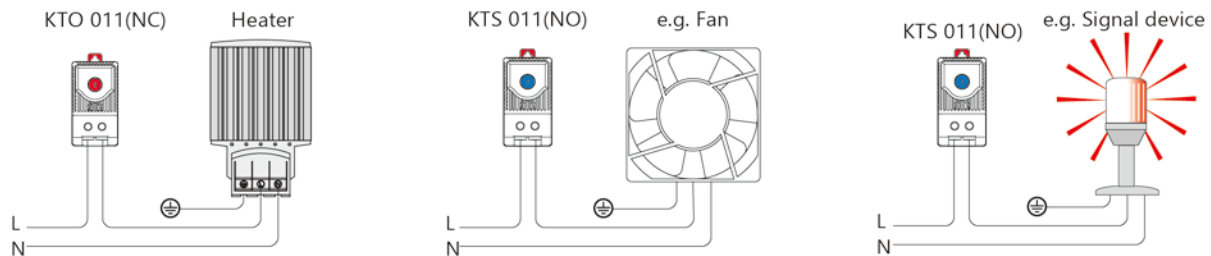
-20 +80  
°C

### SPECIFICATION

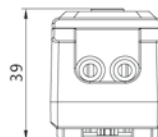
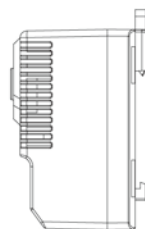
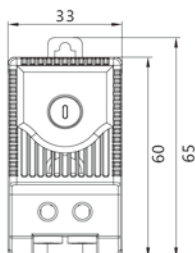
| Model                      | KTO 011                                 | KTS 011 |
|----------------------------|-----------------------------------------|---------|
| Contact                    | NC                                      | NO      |
| Temperature                | 0°C~60°C                                |         |
| Set temperature difference | ±5k                                     |         |
| Sensing element            | Bimetallic temperature sensing material |         |
| Service life               | >100000 cycles                          |         |
| Maximum switching load     | 250VAC, 10(2)A, 120VAC 15(2)A, DC, 30W  |         |
| Connection method          | Screw Terminal                          |         |
| Shell                      | UL94 V-0                                |         |
| Install                    | Installation of 35mm DIN rail           |         |
| Size                       | 64x33x44mm                              |         |
| Weight                     | 40g                                     |         |



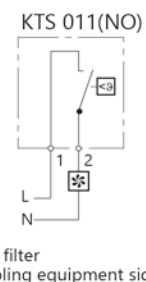
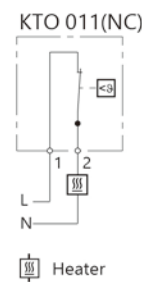
### Connection Example



### DIMENSION (mm)



### WIRING DIAGRAM



Heater

Fan filter  
Cooling equipment signal device

## A Temperature Controller with Dual Temperature Settings

**Normally Open (NO) Contact:** Typically used to monitor filter fans or heat exchangers, and closes the circuit when the temperature exceeds the set value.

**Normally Closed (NC) Contact:** Typically used to connect heaters and opens the circuit when the temperature reaches the set value.

This design allows independent switching of heating and cooling equipment, preventing temperature deviations common with traditional switching methods.

- Wide temperature setting range
- Easy installation on 35mm DIN rail
- Integrated NO and NC contacts
- High switching performance
- Bimetallic temperature sensing element
- Independent temperature settings



IP20

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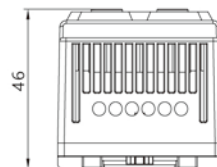
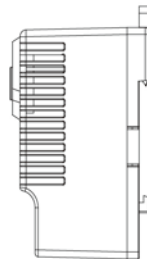
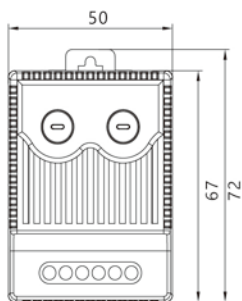
-20 ~ +80  
°C

## SPECIFICATION

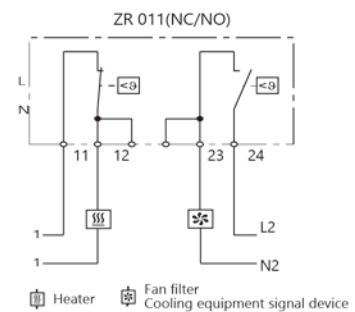
| Model                      | ZR 011                                  |
|----------------------------|-----------------------------------------|
| Contact                    | NC+NO                                   |
| Temperature                | 0°C~60°C                                |
| Set temperature difference | ±5k                                     |
| Sensing element            | Bimetallic temperature sensing material |
| Service life               | >100000 cycles                          |
| Maximum switching load     | 250VAC,10(2)A,120VAC15(2)A,DC,30W       |
| Connection method          | Screw Terminal                          |
| Shell                      | UL94 V-0                                |
| Install                    | Installation of 35mm DIN rail           |
| Size                       | 67x50x46mm                              |
| Weight                     | 88g                                     |



## DIMENSION (mm)



## WIRING DIAGRAM



## Features:

- Four selectable operating modes with configurable ambient temperature and humidity thresholds
- Utilizes a capacitive humidity sensor for low power consumption and stable performance
- Passive relay output for driving cooling fans, TEC, heating wires, and other devices
- LED indicator displays the operational status of the relay
- Wide-range AC power supply: 85~240V
- Ultra-compact design with only 18mm width for easy 35mm DIN rail installation
- Designed for temperature and humidity control in power distribution cabinets



## SPECIFICATION

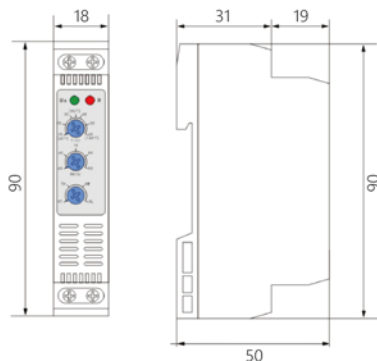
| Model               | KNE 110                                            |
|---------------------|----------------------------------------------------|
| Dimensions          | 90x18x50mm                                         |
| Voltage             | AC 100-240V 50/60Hz                                |
| Power               | 1W                                                 |
| Weight              | 65g                                                |
| Power terminal      | A1-A2                                              |
| Temperature range   | 10°C~60°C                                          |
| Humidity range      | 50%~90%RH                                          |
| Working temperature | -20°C~+80°C                                        |
| Installation mode   | 35mm DIN rail                                      |
| Connection          | 1*2.5mm <sup>2</sup> / 2*1.5mm <sup>2</sup> 0.4N·m |

IP20

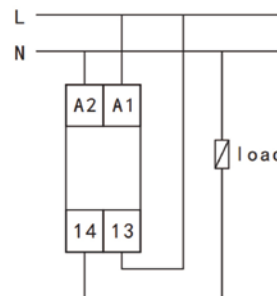
CE

-20 +80  
°C

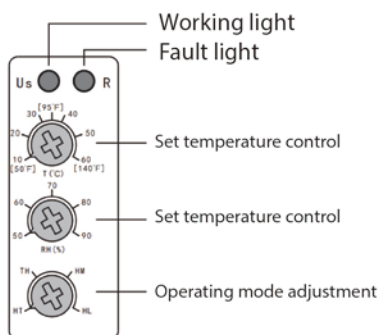
## DIMENSION (mm)



## WIRING DIAGRAM



## PANEL DIAGRAM



## Control Heater:

When the internal cabinet temperature falls below the minimum set value, the circuit closes to begin heating. The circuit opens when the temperature exceeds the set value.

## Control Fan Filter:

When the internal cabinet temperature rises above the maximum set value, the circuit closes to activate cooling. The circuit opens when the temperature drops below the set value.

- Compact size
- Long electrical service life
- Easy installation on 35mm DIN rail
- Snap-action metal temperature sensing contact
- Convenient wiring and simple setup
- Wide temperature setting range

## Technical Specifications

Alarm Output Contact: Passive contact, rated for AC 250V 5A

Alarm Logic (NC - Normally Closed): Contact closes upon dehumidification function failure

## Dehumidification function failure is defined as:

Temperature or humidity sensor malfunction, OR

The relative humidity remains  $\geq 80\%$  after the dehumidifier has operated continuously for 24 hours



KNC 011

KNO 011



IP20

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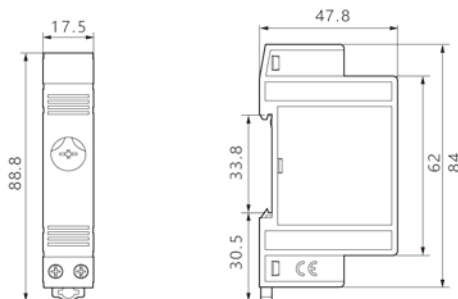
-30 +70 °C

## SPECIFICATION

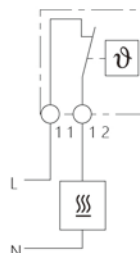
| Model                      | KNC011                                  | KNO 011 |
|----------------------------|-----------------------------------------|---------|
| Contact                    | NC                                      | NO      |
| Temperature                | 0°C~60°C                                |         |
| Set temperature difference | $\pm 5k$                                |         |
| Sensing element            | Bimetallic temperature sensing material |         |
| Service life               | >100000 cycles                          |         |
| Maximum switching load     | 250VAC,10(2)A,120VAC15(2)A,DC,30W       |         |
| Connection method          | Screw Terminal                          |         |
| Shell                      | UL94 V-0                                |         |
| Install                    | Installation of 35mm DIN rail           |         |
| Size                       | 84x17.5x47.8mm                          |         |
| Weight                     | 40 g                                    |         |



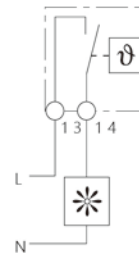
## DIMENSION (mm)



## HEATING CONTROL



## VENTILATION CONTROL



### Panel Thermo-Hygrostat

- Compact size
- Electronic control system
- LED status indicator for contact operation
- Mounts on standard 35 mm DIN rail (EN 60715)



IP20

CE

-20 +80  
°C

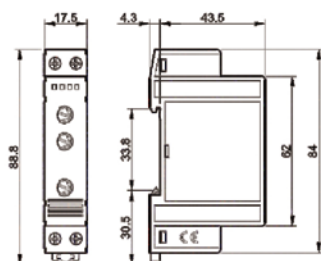
### SPECIFICATION

| Model                                   | KNMF012        |
|-----------------------------------------|----------------|
| Contact                                 | NO             |
| Rated current/Maximum peak current      | 10/15A         |
| Rated voltage/Maximum switching voltage | 250/400V AC    |
| Service life                            | >100000 cycles |
| Size                                    | 89x17.5x48mm   |
| Temperature specifications              |                |
| Setting range (ventilation)             | -20°C~ 80°C    |
| Switch differential                     | 4 ± 2K         |
| Setting accuracy full range             | -1...+3K       |
| Humidity specifications                 |                |
| Setting range (humidity)                | 50...90%       |
| Hysteresis                              | 4 ± 2%         |
| Setting accuracy                        | 5%             |

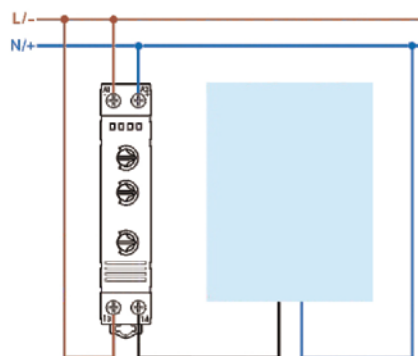
### DIMENSION (mm)

### WIRING DIAGRAM

Screw terminal



P7T.51



This temperature regulator is ideal for controlling filter fans, heaters, and heat exchangers. It can also serve as a signal generator for monitoring the internal temperature of control cabinets.

- Compact size
- Convenient wiring via terminal blocks
- Dynamic heating with high-temperature limitation
- Easy installation on 35mm DIN rail
- Wide operating voltage range
- Long service life

## Performance & Specifications

Sensing Element: Thermistor

Contact: Single-pole changeover, quick-break

Wiring: Front-access terminal blocks

Mounting: Vertical/horizontal 35mm DIN rail mount (EN 60715); optional clip adapter for TS/35 cabinet rails



IP20

CE

-20 +60  
°C

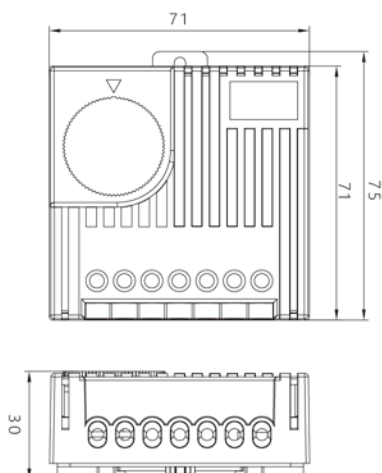
## SPECIFICATION

|                               |                           |                          |
|-------------------------------|---------------------------|--------------------------|
| Temperature measurement range | -20°C~60°C                |                          |
| Rated working voltage         | AC115/230V DC24V          |                          |
| Temperature sensing element   | Thermistor                |                          |
| Size                          | 71x71x33.5mm              |                          |
| Weight                        | About 105g                |                          |
| Switch difference             | Approximately 2K±1K       |                          |
| Permissible contact load      | KI.6-3 (heating)          | KI.6-4 (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                   |

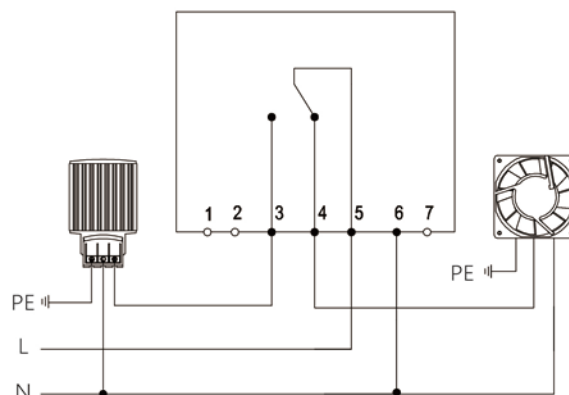
## TERMINAL NUMBER

|                                                                                     |                                                                                     |       |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------------|
|  |  | (1) L | (L2*)250V N |
| 3                                                                                   | 4                                                                                   | 5     | 6           |

## DIMENSION (mm)



## WIRING DIAGRAM



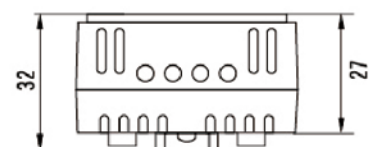
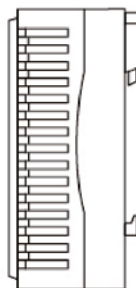
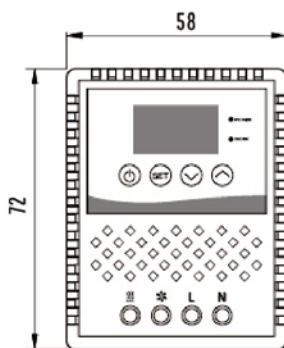


### SPECIFICATION

|                                  |                               |
|----------------------------------|-------------------------------|
| Model                            | THR011                        |
| Contact                          | NC+NO                         |
| Voltage                          | 230VAC                        |
| Temperature                      | -20°C~80°C                    |
| Switching temperature difference | 7k (± 4k tolerance)           |
| Sensing element                  | Electronic components         |
| Service life                     | >100000 cycles                |
| Maximum switching load           | 250VAC, 5A                    |
| Connection method                | Screw Terminal                |
| Shell                            | UL94 V-0                      |
| Install                          | Installation of 35mm DIN rail |
| Size                             | 72X58X32mm                    |
| Weight                           | 65g                           |



### DIMENSION (mm)



## Operation & Control:

The operating range of the humidifier is set via the range knob. The humidity sensor continuously monitors the environment. When the actual humidity falls below the set value, output power is supplied to the load. When the actual humidity rises above the set value, the output power is cut off.

To prevent the load from frequently cycling on and off at the set point, this product incorporates a hysteresis of 5% ~ 10%. This means the device will only reactivate after the humidity has dropped 5~10% below the set point.

**Load Selection:** The product can be configured to drive loads of different sizes and types based on customer requirements.

- 35% ~ 95% adjustable relative humidity range
- Long service life
- Easy installation on a 35mm DIN rail
- Single-pole, double-throw (SPDT) contact
- High switching performance



## 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 | 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: 2.5mm <sup>2</sup> for steel wire<br>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                                                                                                                                                |
| Protection level           | IP20                                                                                                                                               |

IP20

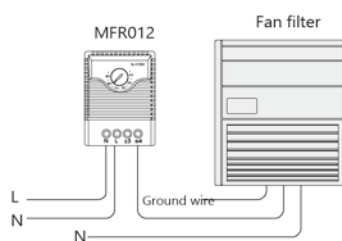
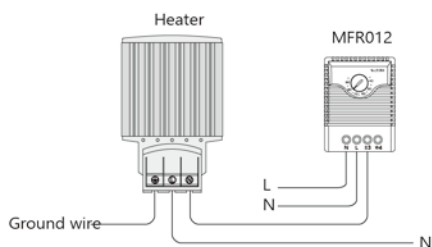
CE

-20 +80  
°C

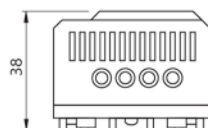
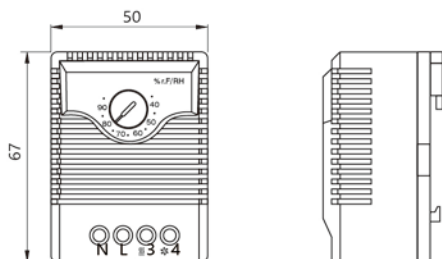


| Model  | Set Range |
|--------|-----------|
| MFR012 | 35~95% RH |

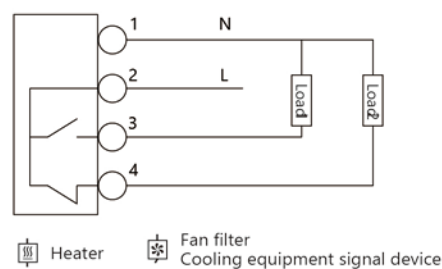
## CONNECTION EXAMPLE



## DIMENSION (mm)



## WIRING DIAGRAM



The MFR012-2 humidistat is designed to control a heater within a switch box. When humidity exceeds the set level, the heater activates to expel moist air. This method effectively prevents condensation and rust.

- Adjustable Humidity Control
- Changeover contact (SPDT)
- High switching capacity
- Easy access for setup and wiring
- DIN rail mounting clamp
- Long electrical 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          | $< 10\text{m}\Omega$                            |
| Service life                  | $> 50000$ cycles                                |
| Minimum switching capacity    | 20V AC/DC 100mA                                 |
| Maximum switching load        | 250V AC, 5 (1) A, DC 20W                        |
| Connection method             | Screw terminal                                  |
| Shell                         | UL94 V-0 plastic, light gray                    |
| Install                       | Installation of 35mm DIN rail                   |
| Size                          | 67x50x38mm                                      |
| Weight                        | 60g                                             |
| Operating/storage temperature | 0°C~60°C (32°F~140°F) / -20°C~80°C (-4°F~176°F) |
| Protection level              | IP20                                            |

IP20

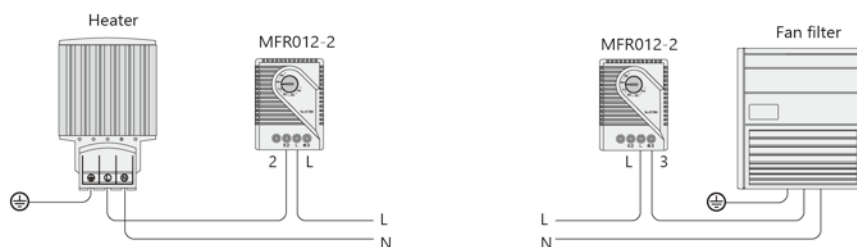
CE

-20 ~ +80  
°C

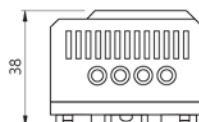
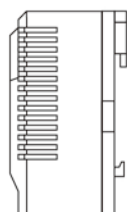
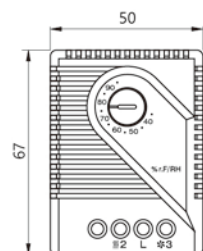


| Model    | Set Range |
|----------|-----------|
| MFR012-2 | 35~95% RH |

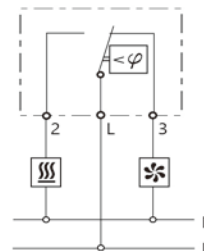
### CONNECTION EXAMPLE



### DIMENSION (mm)



### WIRING DIAGRAM



Heater

Fan filter

Cooling equipment signal device

This electronic humidity controller monitors the relative humidity inside an electrical enclosure. It activates a heater once the humidity reaches the set point to prevent condensation. An LED indicator on the adjustment knob illuminates when the heater is operating.

- Adjustable and pre-set relative humidity
- Optional LED operational indicator
- High switching performance
- Easy installation on 35mm DIN rail
- Built-in temperature compensation
- Long service life



## SPECIFICATION

| 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) | 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                         | Screw terminal                                                                     |
| Install                                   | 35mm DIN rail clamp (EN50022)                                                      |
| Shell                                     | UL94 V-0 light gray plastic                                                        |
| Weight                                    | About 70g                                                                          |
| Fixed position                            | Vertical installation                                                              |
| Applicable temperature                    | 0°C ~ 60°C (32°F ~ 140 °F) / -20°C ~ 80°C (-4°F ~ 158°F)                           |
| 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   |

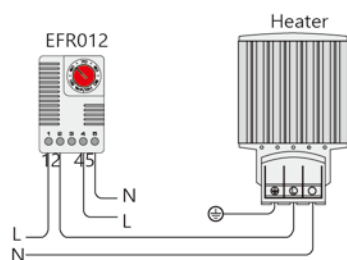
IP20

CE

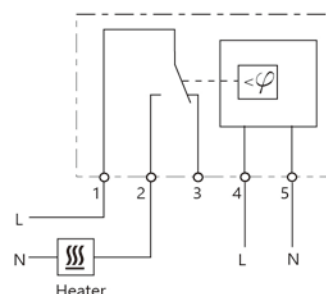
-20 ~ 80 °C



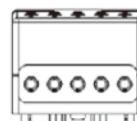
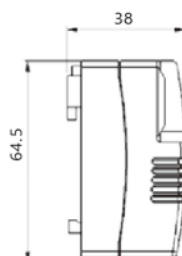
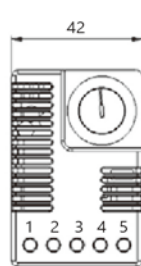
## CONNECTION EXAMPLE



## WIRING DIAGRAM



## DIMENSION (mm)



This controller is used to manage heating and cooling equipment, filter fans, or signal devices. During operation, the LED indicator will illuminate (e.g., heater on).

- Adjustable and pre-set relative humidity
- Optional LED operational indicator
- High switching performance
- 35mm DIN rail mounting
- Built-in 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) | 240V AC, 8 (1.6) A 120V AC, 8 (1.6) A 100W DC at 24V DC                            |
| Maximum inrush current                    | 16A AC in 10 seconds                                                               |
| Optical indicator                         | LED                                                                                |
| Connection method                         | Screw terminal                                                                     |
| Install                                   | 35mm DIN rail clamp, compliant with EU EN60715 standard                            |
| Shell                                     | Light gray plastic, symbol UL94 V-0 standard                                       |
| Size                                      | 64.5x42x38mm                                                                       |
| Weight                                    | About 70g                                                                          |
| Installation position                     | Vertical                                                                           |
| Operating/Storage Temperature             | -20°C~80°C (-40°F~185°F)                                                           |
| Operating/Storage Humidity                | Maximum humidity 90% (non condensing)                                              |

IP20

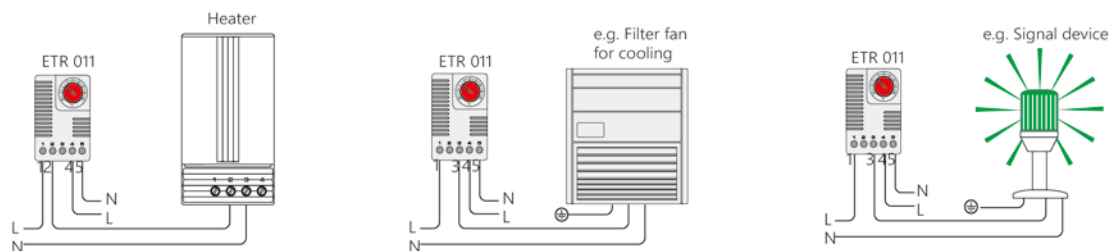
CE

-20 +80  
°C

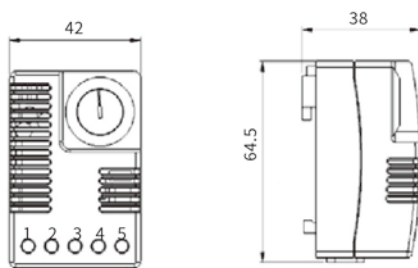


| Model      | Working voltage  | Setting Range |
|------------|------------------|---------------|
| 01131.0-00 | 230V AC, 50/60Hz | -20°C~60°C    |

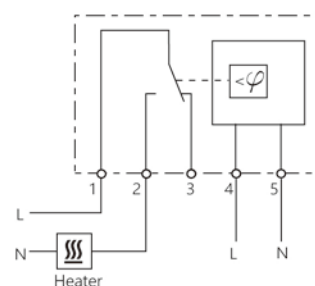
### CONNECTION EXAMPLE



### DIMENSION (mm)



### WIRING DIAGRAM



**KTOMF012** Humidity & Temperature Controller (for Heating)

**KTSMF012** Humidity & Temperature Controller (for Refrigeration)

### Overview

An integrated controller for precise management of both temperature and humidity. Designed for long-term, stable operation in a wide range of applications.

### Features

- Integrated temperature and humidity control in a single unit
- Stable and reliable long-term operation
- Visual work indicator light
- Easy installation on 35mm DIN rail
- Compact size for versatile applications
- Compliant with RoHS standards

### Performance & Specifications

- Temperature Control: Automatically cuts power upon reaching the set point. Hysteresis:  $\pm 1 \sim 3^{\circ}\text{C}$
- Humidity Control: Automatically cuts power upon reaching the set point. Hysteresis: 5~10% RH
- Power Supply: AC 220V (other voltages available upon request)
- Power Consumption: Approx. 46 mA (Max.)
- Operating Range: Temperature:  $-10$  to  $50^{\circ}\text{C}$ ; Humidity: 40~90% RH
- Storage Conditions: Temperature:  $-20$  to  $60^{\circ}\text{C}$ ; Humidity: 20~95% RH
- Sensing Element: Bimetal thermostat



KTSMF012

KTOMF012

IP20

CE

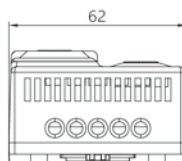
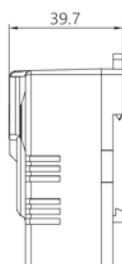
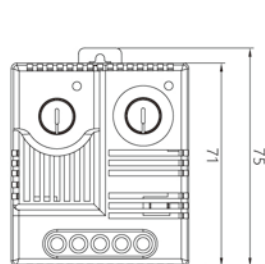
RoHS  
COMPLIANT

$-20 \sim +80$   
 $^{\circ}\text{C}$

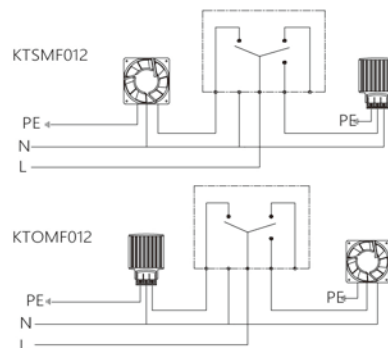
### SPECIFICATION

|                                     |                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------|
| Switching temperature error         | 7k( $\pm 4$ k)                                                                                  |
| Switching humidity error            | 4% relative humidity, $\pm 3\%$ 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          | 110VAC/DC 100m A                                                                                |
| Maximum switching capacity          | 240VAC 5(1)A DC30W                                                                              |
| Electrical connection               | Screw terminal                                                                                  |
| Install                             | 35mm DN guide rail installation                                                                 |
| Shell                               | Flame retardant UL94 V-0 plastic, light gray RAL7035                                            |
| Dimension                           | 70 x 63 x 40mm                                                                                  |
| Weight                              | 90g                                                                                             |
| Fixed position                      | Above cabinet                                                                                   |
| Operating temperature               | $0^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ( $32^{\circ}\text{F} \sim 140^{\circ}\text{F}$ )   |
| Storage temperature                 | $-20^{\circ}\text{C} \sim 80^{\circ}\text{C}$ ( $-4^{\circ}\text{F} \sim 176^{\circ}\text{F}$ ) |
| Class of protection                 | IP20                                                                                            |

### DIMENSION (mm)



### WIRING DIAGRAM



**Performance:**

This electronic humidity controller monitors the temperature and relative humidity inside electrical enclosures. It activates a heater (or fan) at the set point to prevent condensation. An LED indicator on the knob illuminates when the connected device is operating.

- Adjustable temperature and humidity settings
- Easy installation on 35mm DIN rail
- Visual operating status indicator (LED)
- High switching capacity
- Long service life

**SPECIFICATION**

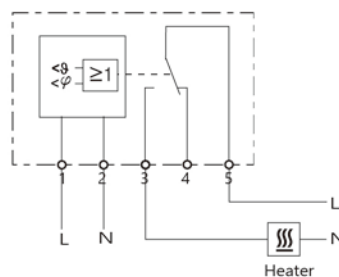
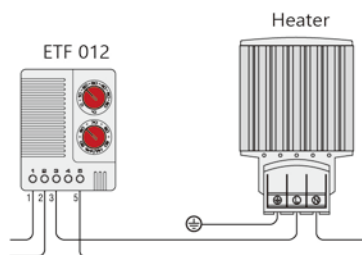
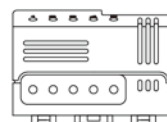
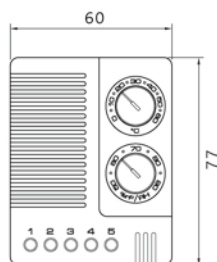
| Switching differences (temperature)       | 2K(±1% tolerance) at 25°C/ 77°F (50% relative humidity)                                             |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Switching 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: 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                                                     |
| Optical indicator                         | LED                                                                                                 |
| Connection method                         | 5-pole terminal                                                                                     |
| Install                                   | 35mm DIN rail clamp (EN50022)                                                                       |
| Shell                                     | UL94 V-0 light gray plastic                                                                         |
| Size                                      | 77x60x43mm                                                                                          |
| Weight                                    | About 0.20kg                                                                                        |
| Applicable temperature                    | 0°C~60°C(+32~140°F)/-20°C~80°C(-4°F~176°F)                                                          |
| Protection level                          | IP20                                                                                                |

IP20

CE



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

**CONNECTION EXAMPLE****WIRING DIAGRAM****DIMENSION (mm)**



External sensor



## Overview

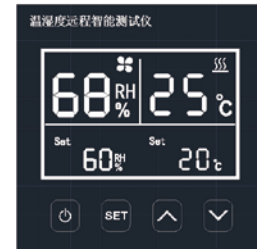
This product utilizes an MCU (Microcontroller Unit) control system to perform real-time temperature and humidity monitoring and control, ensuring that environmental conditions remain within the appropriate range.

It features an intelligent communication function, transmitting measured temperature and humidity data via an RS-485 interface to a host computer. This allows users to remotely monitor the environmental conditions of the control cabinet in real-time.

## Function Description

Temperature and humidity values are displayed on a high-definition LCD screen. The display layout is as follows (refer to Figure A):

- Measured Humidity: Displayed as a 2-digit value (e.g., 60%RH).
- Humidity Setpoint: In setting mode, the set value blinks at 500ms intervals (e.g., 40%RH).
- Measured Temperature: Displayed as a 2-digit value (e.g., 25°C).
- Temperature Setpoint: In setting mode, the set value blinks at 500ms intervals (e.g., 25°C).
- Dehumidification Mode Indicator (Figure B): A dynamic fan icon shows when the dehumidification function is active.
- Heating Mode Indicator (Figure C): A heating signal icon shows when the heating function is active.



( Figure A )



( Figure B )



( Figure C )



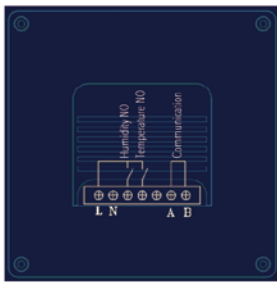
( Figure D )

## SPECIFICATION

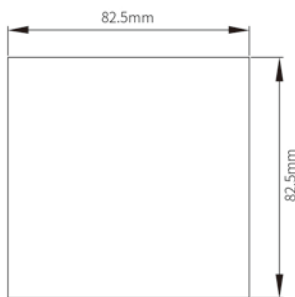
| Supply voltage                   | AC220V ± 10%, other voltages can be customized                                            |
|----------------------------------|-------------------------------------------------------------------------------------------|
| Humidity measurement range       | 20-90% RH (without condensation)                                                          |
| Humidity measurement accuracy    | ± 5% RH (tested at 25°C)                                                                  |
| Temperature measurement range    | 5°C~60°C                                                                                  |
| Temperature measurement accuracy | ± 1°C (tested at 25°C)                                                                    |
| Humidity setting range           | 10-80% RH                                                                                 |
| Product Work Environment         | Temperature 5°C~60°C, humidity 10~95% RH (no condensation)                                |
| Product storage environment      | Temperature -10°C~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 )



( Opening size )

### 1. 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 since move 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 since move to exit the setting state.
- "Minus" key: in the setting state, press the key, according to each press, set value minus one, wet the minimum set value of degree is 10%, and the minimum set value of temperature is 5
- No key pressed, 10 seconds later since move 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. 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.