


Benefits:

- Integrated integration: AC input, AC output, offering convenience in use.
- With LED indicator, easier to recognize working state.
- Small size for a variety of applications.
- Stable long - time operating.
- ROHS compliant.

Features:

- Humidity control: If the relative humidity exceeds the value set on the humidity dial, the electric circuit is cut off. Return difference is 5 - 10% RH.
- Temperature control: If the ambient temperature rises above the value set on the temperature dial, the electric circuit is cut off. A tolerance of 1 - 3°C is allowed.
- Power: AC220V. Other voltage is alternative.
- Current: Max 46mA.
- Operating conditions: Temperature: - 10 to 50°C; Humidity: 40 - 90%RH.
- Storage conditions: Temperature: - 20 to 60°C; Humidity: 20 - 95%RH.
- Humidity sensor: Polymer humidity resistance.
- Temperature sensor: Bimetal sensor.

Elements:

- Set up the operation range by adjusting the knob. When the relative humidity drops below the value pre - set, the electric circuit is closed via terminal LED illuminates. When the relative humidity rises above the value pre - set, the electric circuit is cut off via terminal LED blacks out. In order to protect the loads not to work too frequently, the return difference is 5 - 10%RH, means the electric circuit is closed when the humidity drops 5 - 10% below more than the value pre - set.
- Set up the operation range by adjusting the knob. When the ambient temperature drops below the value pre - set, the electric circuit is closed via terminal LED illuminates. When the ambient temperature rises above the value pre - set, the electric circuit is opened via terminal LED blacks out.

Humidity switching difference	4%RH(±3% tolerance)
Temperature switching difference	7k(±4k tolerance)
Temperature sensor element	Bimetal sensor
Relative humidity range	35% - 95%RH
Temperature control contact mode	Step type contact point
Humidity control contact mode	Chang - over switch
Mean life	750,000 cycles
Min Switching capacity	20VAC/DC 100m A
Max Switching capacity	250VAC/DC 5(1)A DC30W
Connection	5 - pole terminal, clamping torque 0.5Nm Max for solid wire 2.5mm ² and stranded wire(with wire and ferrule) 1.5mm ²
Installation	35mm Din rail
Casing	UL94V - 0, light grey
Dimension	70x63x40mm
Weight	90g
Fitting position	Cabinet top
Operating temperature	0 - +60°C(+32 - +140°F)
Storage temperature	- 20 - +80°C(- 4 - +176°F)
Protection level	IP20

KTO 011/KTS 011 Thermostat

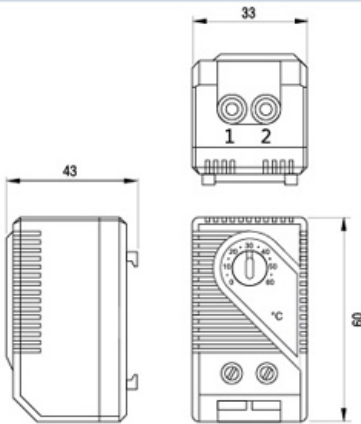


- Large setting range
- Small size
- Simple to mount
- High switching performance

KTO 011: Thermostat (normally closed); contact breaker for regulating heaters.

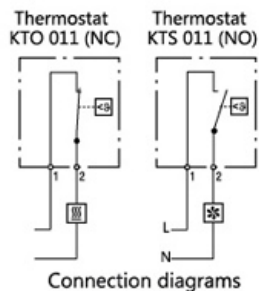
KTS 011: Thermostat (normally open); contact maker for regulating filter fans and heat exchangers or for switching signal device when temperature limit has been exceeded.

Installing method

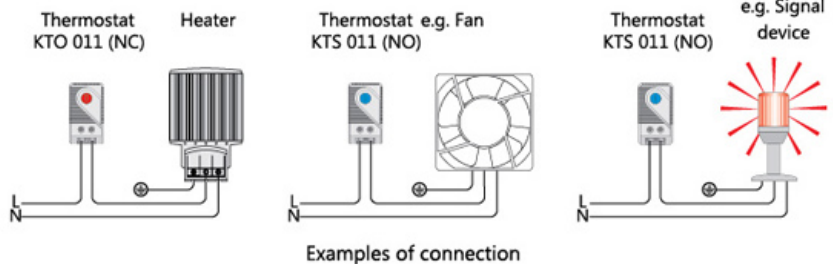


Temperature range	0-60°C
KTO 011 NC (Normally closed)	When the temperature reaches the set value, open circuit
KTS 011 NO (Normally open)	When the temperature exceeds the set value action, closed circuit
Switch temperature difference	7K(±4K tolerance)
Sensor element	thermostatic bimetal
Contact type	Snap-action
Contact resistance	<10m ohm (Incidental connection line)
Service life	>100,000 cycles
Max. Switching capacity	250VAC, 10(2)A
	120VAC, 15(2)A 30WDC at 24VDC to 72VDC
Connection	2-pole terminal, clamping torque 0.5Nm max.: rigid wire 2.5mm ² , stranded wire (with wire end ferrule) 1.5mm ²
Casing	plastic according to UL94 V-0, light grey
Installation	35mm DIN Installation guide
Dimensions	60×33×43mm
Weight	40g
fitting position	variable
Operating/Storage temperature	-20°C to +80°C
Protection type	IP20

Heater / Thermostat / Hygrostat



Heater
 Filter fan, Cooling equipment, Signal device



Examples of connection

Setting range 0 to +60°C	Art. No. Contact Breaker (NC) KTO 011	Art. No. Contact Maker (NO) KTS 011	Approvals CE
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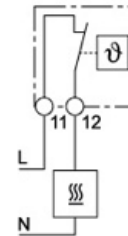
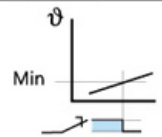
Panel thermostat

- Small, compact size (17.5mm wide)
- Long electrical life
- Snap action thermostatic Bimetal sensor
- 35mm rail (EN 60715) mount
- Wide temperature setting range

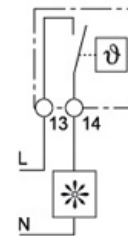
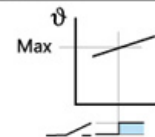
Heating control - Should the panel temperature fall below the (minimum) set temperature the contact will close to call for heat. The contact will open when this set temperature is exceeded.

Ventilation control - Should the panel temperature exceed the (maximum) set temperature then the contact will close to call for cooling. The contact will open when the temperature falls below this set temperature.

• Heating control



• Ventilation control



Contact specification			
Contact configuration		1 NC	1 NO
Rated current/Maximum peak current	A	10/20	10/20
Rated voltage/Maximum switching voltage	V AC	250/250	250/250
Rated load AC1	VA	2500	2500
Rated load AC 15 (230V AC)	VA	250	250
Single phase motor rating AC 3 (230V AC)	kW	0.125	0.125
Breaking capacity DC 1:30/110/220 V	A	1/0.3/0.15	1/0.3/0.15
Minimum switching load	mW (V/mA)	500 (12/10)	500 (12/10)
Standard contact material		AgNi	AgNi
Temperature setting range			
Setting range (ventilation)	°C	—	-20...+40 +0...+60
Switch temperature differential	K	—	7±4
Setting range (heating)	°C	-20...+40 +0...+60	—
Switch temperature differential	K	7±4	—
Technical data			
Electrical life at rated load AC1	cycles	100 · 10 ³	100 · 10 ³
Ambient temperature range	°C	-45...+80	-45...+80
Protection category		IP 20	IP 20

KNO 011/KNC 011 New Panel Thermostat

Ordering information

Example: KNC/KNO Series, thermostat for ventilation control, contact activates ventilation should the panel temperature exceed the set value (max+60°C),35mm rail (EN 60715) mount.

Technical data

Insulation			
Dielectric strength between open contacts	V AC	500	
Other data			
Screw torque	Nm	0.5	0.5
Max. wire size		solid cable	stranded cable
	mm ²	1×2.5	1×1.5
	AWG	1×12	1×16
Model No.		KNO 011	NO Type for heating
		KNC 011	NC Type for cooling

Outline drawings

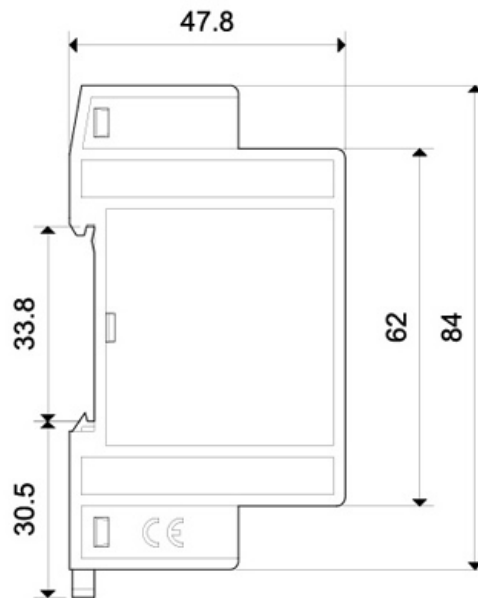
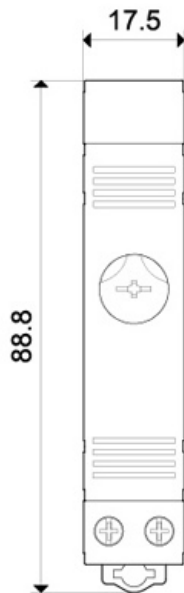
Screw terminal



Alarm output contact, Passive contact, AC250V 5A.

NO, close while function of dehumidifier is out of order.

Function out of order defined: Temperature sensor or humidity sensor fault; Duration of Dehumidifier work is over 24 hours, RH≥80%RH.





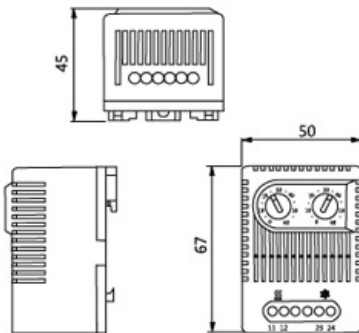
- NO and NC in one casing
- Separate adjustable temperatures
- High switching capacity
- Terminals easily accessible
- Clip Fixing

Two thermostats in one casing:

Thermostat(contact breaker, normally closed)for regulating heaters Thermostat(contact make, normally open) for regulating filter fans and heat exchangers or switching signal devices when temperature limit has been exceeded.

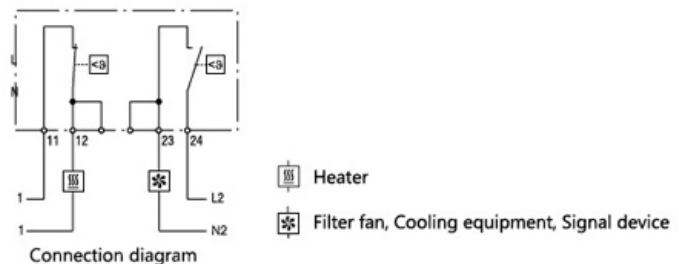
Heaters and cooling equipment can be switched independently from each other with a temperature offset a he usual change-over contacts.

Size chart



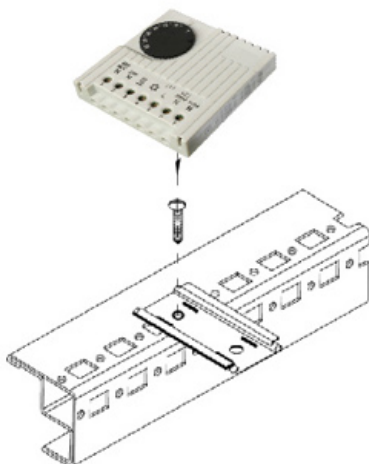
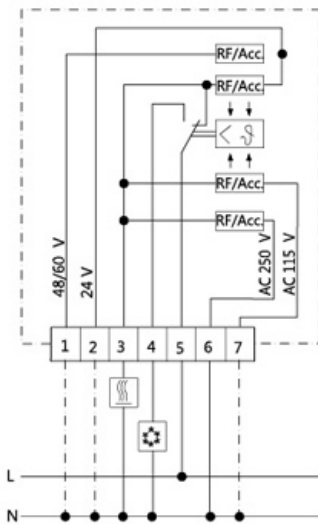
Temperature range	NO/NC:0-60°C
Switch temperature difference	7K(+4K tolerance)
Sensor element	thermostatic bimetal
Contact type	Snap-action
Contact resistance	< 10m ohm
Service life	>100,000 cycles
Max. Switching capacity	250VAC,10(2)A
	120VAC,15(2)A DC 30W
Connection	4-pole terminal, clamping torque 0.5Nm max.: rigid wire 2.5mm ² , stranded wire (with wire end ferrule) 1.5mm ²
Installation	35mm DIN Installation guide
Casing	UL94 V-0 Plastic, light gray
Dimensions	67×50×46mm
Weight	90g
fitting position	variable
Operating/Storage temperature	-20°C to +80°C
Protection type	IP20

Thermostat
ZR 011(NC/NO)



Art. No.	Setting Range		Setting Range	
ZR 011	Contact breaker (NC)	0 to +60°C	Contact maker (NO)	0 to +60°C

JWT6011 Enclosure Internal Thermostat



- Bi-metal controller as a temperature sensitive element with thermal feedback.
- Contact population: Single-pole change-over contact as a quick-break contact.
- Permissible contact load:
Cat. 5 - 3 (heating) AC 10 (4*) A, DC = 30 W Cat. 5 - 4 (cooling) AC 5 (4*) A, DC = 30 W * () = inductive load at cos phi = 0.6
Setting range: 0 °C to + 60 °C
- Weight: 105g appr Size: 71x71x33.5mm Switch discrepancy: 1K ± 0.8K
- Voltage scope is wide, any type could be used from 24V to 230 V
- Time-saving connection, terminal block could be installed screw from outside
- Easy installation, could be installed to 35mm din rail vertically or horizontally, according to EN50 022, it could be clipped to TS/35 cabinet profile with its accessory adapter.

Application Especially suitable for controlling fan-and-filter units, heaters and heat exchangers, this thermostat can also be used as a signal generator for monitoring the enclosure internal temperature.

Sensing element	Bimetallic
Shock configuration	Conversion of electric shock as a transient unipolar switching elements
Permissible contact load	Cat. 5 - 3 (heating) AC 10 (4*) A, DC = 30 W Cat. 5 - 4 (cooling) AC 5 (4*) A, DC = 30 W * () = inductive load at cos phi = 0.6
Temperature adjustment range	0°C to +60°C
Rated voltage	230/115/60/48/24V (AC) 60/48/24V (DC)
Weight	105g
Size	71X71X33.5mm
Switching difference	1K ± 0.8K

Rated voltage
230/115/60/48/24V(AC)
60/48/24V (DC)

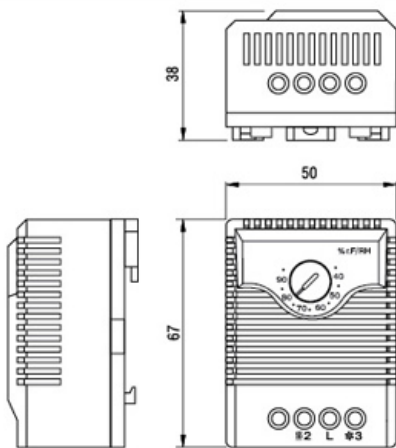
48V 60V N	24V N	⚡	⚡⚡⚡	(L1*) L	(L2*) 250V N	115V N
1	2	3	4	5	6	7



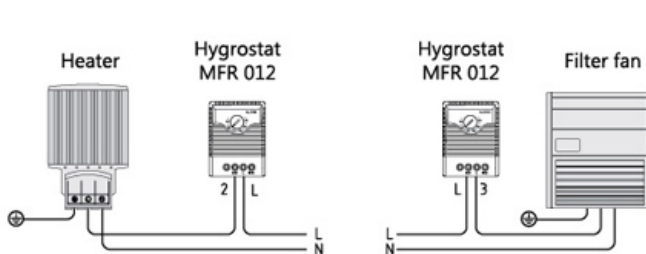
- Adjustable relative humidity
- Change-over contact
- High switching capacity
- Easily accessible terminals
- Clip fixing

The electromechanical hygrostat is designed to control enclosure heaters so that the dew point is raised when a critical relative humidity of 65% is exceeded. In this way condensation and corrosion in enclosures with electric/electronic components is effectively prevented.

Connection

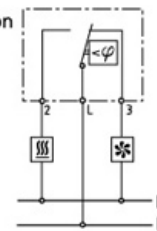


Switching error	4% RH (±3% tolerance)
Relative humidity range	35%-95%
Allow wind speed	15m/sec
Contact type	Changeover contact
Contact resistance	< 10m ohm
Service life	> 50,000 cycles
Mix. Switching capacity	20V AC/DC 100 mA
Max. Switching capacity	25 VAC, 5 A
Connection	3-pole terminal for 2.5mm ² , clamping torque 0.5Nm max.: rigid wire 2.5mm ² , stranded wire (with wire end ferrule) 1.5mm ²
Installation	35mm DIN Installation guide
Casing	UL94 V-0 Plastic, light gray
Dimensions	67x50x38mm
Weight	about 60g
Fitting position	variable
Operating/Storage temperature	0 ~ +60°C (+32 ~ +140°F) / -20 ~ +80°C (-4 ~ +176°F)
Protection type	IP20



Examples of connection

Connection diagram



- Enclosure heater
- Filter fan, Cooling equipment, Signal device

Art. No.	Setting range
MFR 012	35 to 95% RH