

ENCLOSURE THERMOSTAT

(With DIN rail mounting)

KSTO-011 / KSTS-011



- ◆ Compact Design
- ◆ Wide Adjustment Range
- ◆ Colour Coded Temperature knobs
- ◆ Din Rail Mountable

Thermostat (NC): Thermostat opens on temperature rise – for regulating heaters or for switching signal devices. Comes with **red** temperature knob.

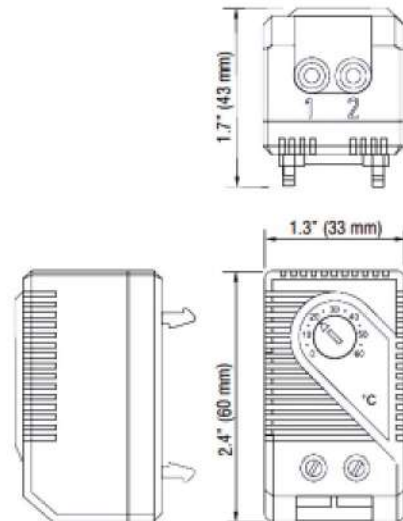
Thermostat (NO): Thermostat closes on temperature rise – for regulating filter fans and heat exchangers or for switching signal devices. Comes with **blue** temperature knob.



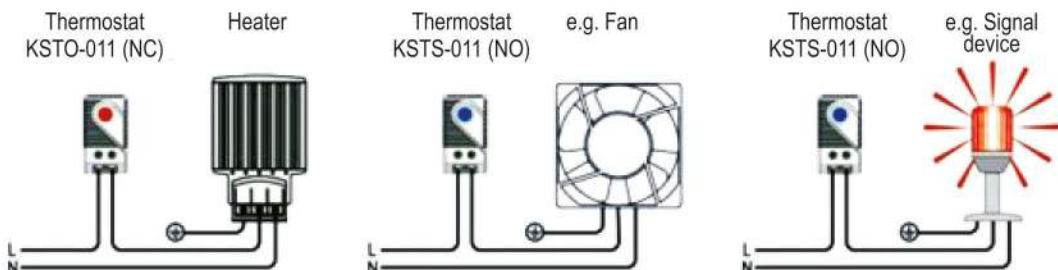
Technical Data KSTO-011 / KSTS-011

Type	Contact type	Temp. range
KSTO-011	normally closed	0-60°C & 0-80°C
KSTS-011	normally open	0-60°C & 0-80°C
Switching difference	7 C ± 4 K	
Sensor element	thermostatic bimetal	
Service life	100,000 cycles	
Max. switching capacity	15 A resistive / 2 A inductive @ AC 120 V 10 A resistive / 2 A inductive @ AC 250 V DC 30 W (DC 24-72 V)	
Minimum load	20mA (All voltages)	
Connection	2-pole terminal, clamping torque 0.5 Nm max. solid wire - AWG 14 max. (2.5 mm ²) stranded wire1 - AWG 16 max. (1.5 mm ²)	
Housing	Plastic	
Mounting	for 35 mm DIN rail, EN 60715	
Operating /Storage temperature	-45 to +80 °C	
Operating /Storage humidity	max. 95 %RH (non-condensing)	
Dimensions	60 x 33 x 43 mm	
Weight approx.	40 g	
Protection type	IP20	

DIEMENSIONS (Approx) in mm



Wiring Examples



Specifications are subject to change without notice. Suitability of this product for its intended use and any associated risks must be determined by the end customer/buyer in its final application.

Dual THERMOSTAT ZSR-011



- ◆ Two thermostats in one unit
- one Normally Closed (NC)
& one Normally Open (NO)
- ◆ Each with wide adjustable
temperature range
- ◆ Actual size DIN rail mountable

The **ZSR-011** houses two separate thermostats, allowing the independent control of heating and cooling or other equipment. Both thermostats offer wide adjustment ranges and are color coded for easy function recognition.

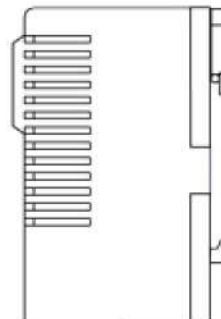
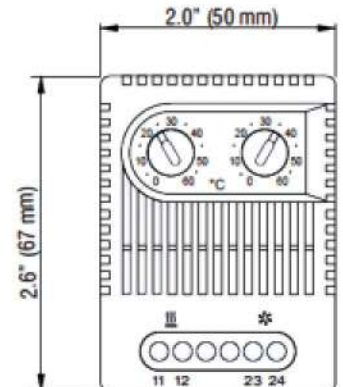
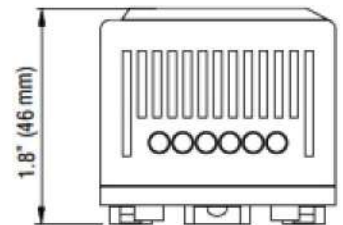


Technical Data: ZSR-011

Sensor element:	Thermostatic bi-metal
Maximum tolerance:	± 4K
Switching difference (hysteresis):	7 C ± 4k
Switching capacity (max. load):	NC: 10A resistive/2A inductive @ 250 VAC NO: 5A resistive/2A inductive @ 250 VAC DC 30 W
Minimum load:	20 mA (all voltages)
Connections:	2 4-pole terminal for AWG 14 max. (2.5 mm)
Mounting:	Clip for 35mm DIN rail (EN 50022)
Dimensions (H x W x D):	67 x 50 x 46 mm
Housing:	Plastic,
Weight:	90 g
Protection type:	IP 20
Operating/storage temperature:	-20 to 80°C/ -45 to 70°C

Type	Contact type	Temp. range
ZSR-011	One Normally closed One Normally open	0-60°C 0-60°C

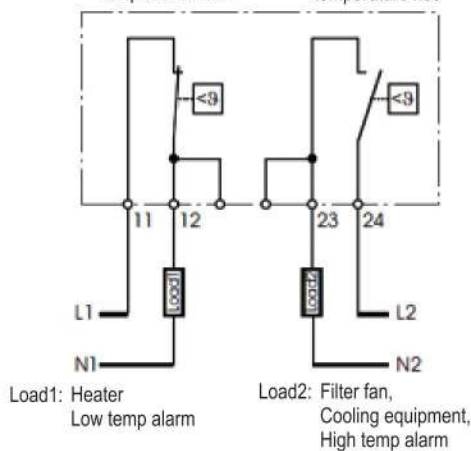
DIEMENSIONS (Approx) in mm



Contacts:

NC (normally closed)
- contact will open at
temperature rise

NO (normally open)
- contact will close at
temperature rise



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Mechanical HYGROSTAT MSFR-012



- ◆ Adjustable relative humidity range
- ◆ High switching capacity
- ◆ DIN rail mountable

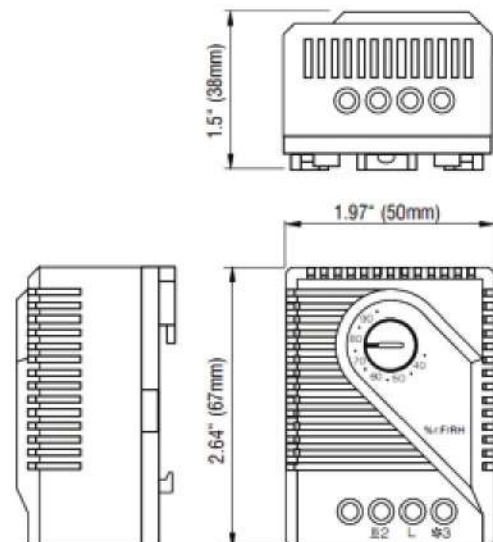
The **MSFR-012** is designed to control the relative air humidity inside of enclosures. When connected to an enclosure heater, (de-humidifier), it will turn the heater on at the set humidity level in order to raise the dew point. This helps prevent damage and malfunction of electronic components caused by condensation and corrosion*. The **MSFR-012** can also be used to control cooling fans, warning lights or other devices.



Technical Data MSFR 012

Adjustment range:	35 - 95% relative humidity
Switching difference (hysteresis):	Approx. 4% RH @ 50% relative humidity
Permissible air velocity:	15 m/sec
Maximum switching voltage:	250 VAC
<i>Attention: 250 V should only be switched in a non-condensing environment!</i>	
Contact type:	Change-over contact
Contact resistance:	<10 m ohms
Service life:	100,000 cycles
Minimum switching capacity:	100mA @ AC/DC 20 V
Maximum switching capacity:	5A @ AC 230 V (resistive load) 1.0A @ AC 230 V (inductive load at cos j = 0.8) DC 20W
Connection:	3-pole terminal, 3 x AWG 14 max. (2.5 mm ²)
Housing:	Clip for 35 mm DIN rail (EN 50022)
Dimensions (H x W x D):	67 x 50 x 38 mm
Mounting:	Plastic
Weight:	60 g
Operating temperature:	0 to 60°C
Storage temperature:	-20 to 80 °C
Protection type:	IP 20
Application examples:	Electrical & Electronic enclosures Telecommunication systems Display panels Ticket dispensers Automatic teller machines (ATM's) Access & Parking control systems

DIEMENSIONS (Approx) in mm



*The critical relative humidity for most components is 65%. Above 65% RH, condensation can cause malfunction of electronic equipment. Long-term, this can lead to corrosion and permanent damage of electronic components and systems.

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