

Thermal management for electrical enclosures



THS2

THERMOSTATS User's manual

www.alfaelectric.com

WARNING

- Safety of THS2 is warranted only by proper use of these instructions which must be kept.
- Installation must be done by qualified personnel only after power supply disconnecting
- Before any operation, switch off the power supply.
- Install the THS2 only inside an electrical enclosure.
- Upstream of the electrical connection, an efficient disconnection system must be provided
- Protection against access to live parts must be warranty by installer.
- Don't install THS2 in ambient with excessive moisture and dirt
- Installation position of THS2 must be selected to ensure good ventilation. Take care that any internal components of enclosure don't obstruct air passage.
- Follow all technical data shown in this manual.

This manual contains the information necessary for the product to be installed correctly and also instructions for their maintenance and use; we therefore recommend that the utmost attention is paid to the following instructions.

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1 - DESCRIPTION

GENERAL DESCRIPTION

Thermostat for DIN 35 mm. rail mounting.
Typically used to control enclosure heaters and fan.

Features	THS2
Temperature setting range [°C]	0 - 60
Precision [K]	±3
Hysteresis [K]	3
NC 100-250VAC (inductive load cos phi 0.6) [A]	10 (2)
NO 100-250VAC (inductive load cos phi 0.6) [A]	5 (2)
Max. switching power in Vdc [W]	30
Sensor	bimetal
Contact type	Change over
Operating temperature [°C]	-40/+80
Protection degree	IP20

2 - INSTALLATION

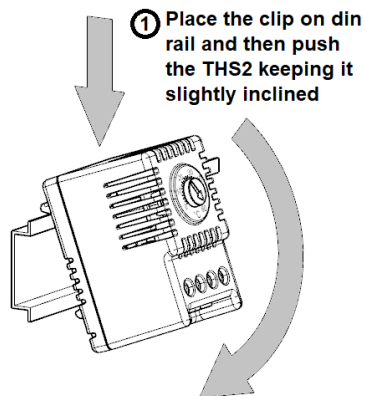
2.1 GENERAL DESCRIPTION

THS2 is fitted by clip for DIN rail 35mm mounting.

2.2 INSTALLATION

WARNING

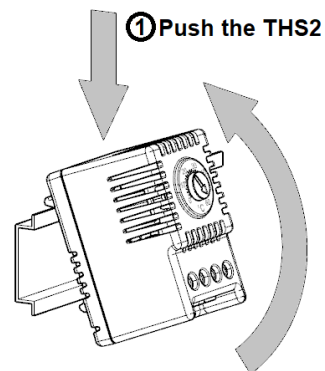
- Install vertically (cables below controller) inside of electrical enclosure where temperature control is requested.
- Do not mount THS2 near heat sources which could influence the proper temperature sensing.
- Do not operate in corrosive ambient air.
- Install THS2 only inside of an electrical enclosure.



- 1 Place the clip on din rail and then push the THS2 keeping it slightly inclined
- 2 Rotate the THS2 slightly upright to stand the clip on DIN rail

3 - REMOVAL

- Before any operation, switch off the power supply



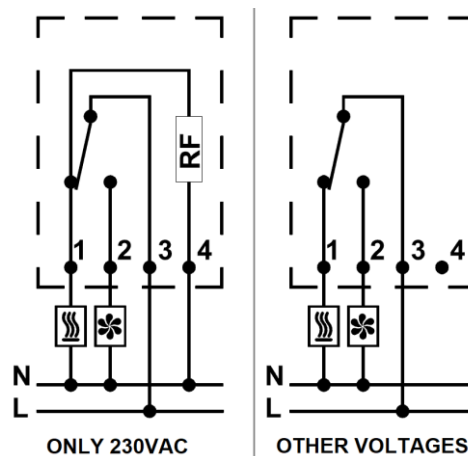
- 2 Rotate the THS2 slightly to remove the clip from DIN rail

4 - ELECTRICAL CONNECTION

THS2 connection must be done by trained electricians according to national electrical safety codes.

- Before any operation, disconnect cabinet
- Install THS2 only in closed electrical cabinet connected to ground circuit following connection drawing
- Feeding must be disconnected when opening cabinet door.

Wire the THS2 according to wiring diagram below:
(4-pole terminal for 2.5 mm² wire)



- 1-3 NC contact
- 2-3 NO contact
- 3-4 heating resistor (only 230VAC). If electrically supplied, it allows to reduce the hysteresis.

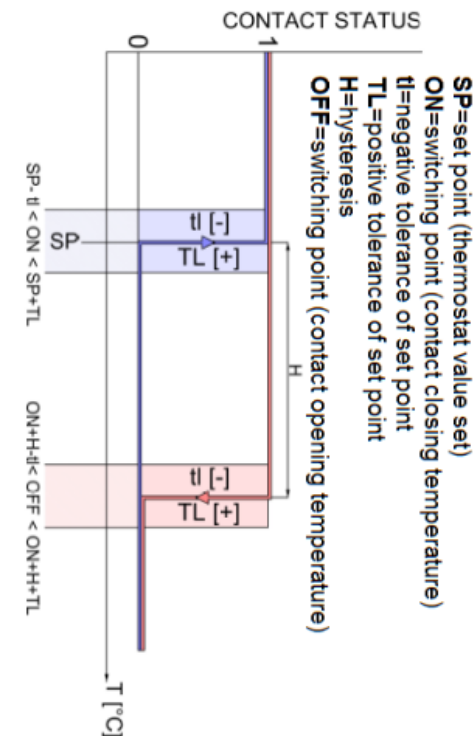
5 - FUNCTIONING

THS2 is a change over contact thermostat type designed to control heaters and fans inside of electrical enclosures.

The contact changes status according to graph below

0=fan mode (contact 2-3 closed)

1=heater mode (contact 1-3 closed)



6 - CLEANING, MAINTENANCE AND DISPOSAL

Cleaning and maintenance must be done only by specialized people after switching off power supply.

For cleaning use only a wiper and compressed air.

THS2 must be disposed of separately from ordinary household wastes