

Thermal management for electrical enclosures



THV-THR THRR-THR

THERMOSTATS User's manual

www.alfaelectric.com

WARNING

- Safety of thermostats are warranted only by proper use of these instruction 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 thermostats 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 thermostats in ambient with excessive moisture and dirt
- Installation position of thermostats 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. Though this manual has been issued with the greatest care, ALFA ELECTRIC will not take any responsibility deriving from its use. The same applies to each person or Company involved in the issuing of this manual. This document is the exclusive property of ALFA ELECTRIC which forbids any reproduction and divulgation, even in part, of the document, unless expressly authorized. ALFA ELECTRIC reserves the right to make any formal or functional changes at any moment and without any notice.

1 - DESCRIPTION

GENERAL DESCRIPTION

THV-THR are compact thermostats for DIN 35 mm. rail mounting. Based on bimetallic junction, provide high capacity NO or NC contact. Six versions available.

THVx	NO Contact	Typically used for controlling ventilation devices
THRx	NC Contact	Typically used for controlling heaters

THRR-THR are compact double thermostat for DIN 35 mm. rail mounting. Based on bimetallic junction, provide high capacity and separated NO and NC contacts in different combinations. Three versions available.

THRV13	NC	NO
THRV22	NC	NO
THVV22	NO	NO

FACTORY WIRING CONNECTION

CONSTRUCTION OF CONTROL: Incorporated control

TYPE OF CONTROL: Type 1 action

CONTROL POLLUTION DEGREE: pollution degree 2

RATED IMPULSE VOLTAGE: 2500V

2 - INSTALLATION

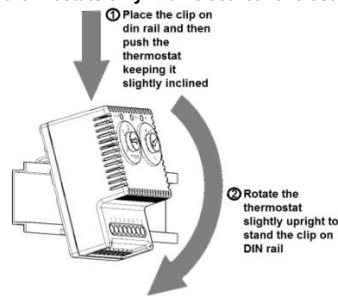
2.1 GENERAL DESCRIPTION

Thermostats are fitted by clip for DIN rail 35mm mounting.

2.2 INSTALLATION

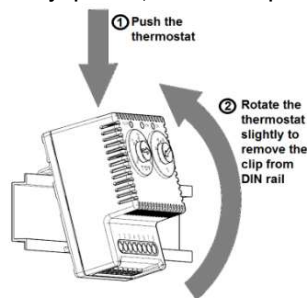
WARNING

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



3 - REMOVAL

- Before any operation, switch off the power supply

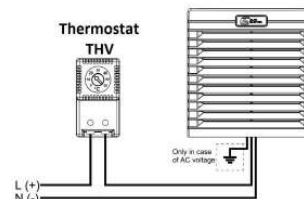


4 - ELECTRICAL CONNECTION

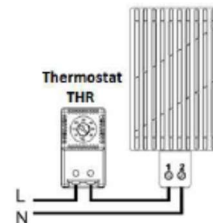
Thermostats connections must be done by trained electricians according national electrical safety codes.

- Before any operation, disconnect cabinet
- NO contact is particularly designed to drive ALFAELECTRIC fans, filter fan units and roof fans unit.
- NC contact is particularly designed to drive ALFAELECTRIC heaters.
- Connect thermostats according to wiring diagram below
- **Connect thermostats according to technical data show on label pasted on controller side**

Connection with fan

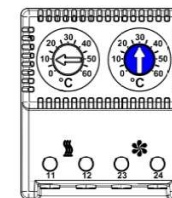
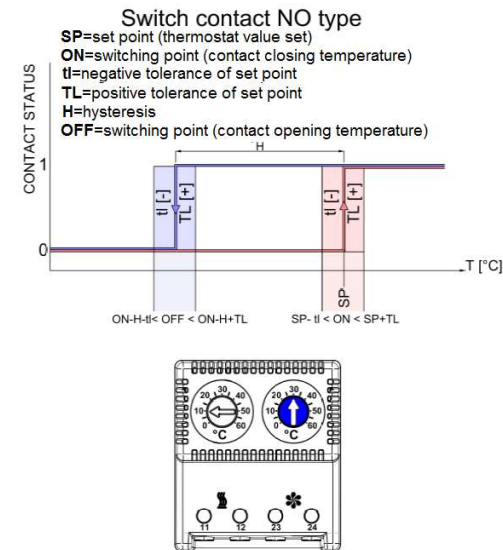
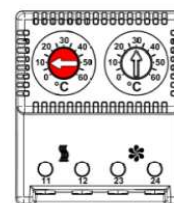
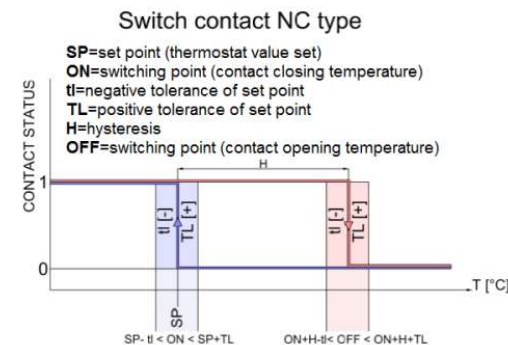


Connection with heater



5 - FUNCTIONING

Contact status according to graphics below :



6 - TECHNICAL DATA

Features	Unit	THR1	THR2	THR3	THV1	THV2	THV3
Contact function	-	NC			NO		
Temperature setting range	°C	-10/+50	0/+60	+20/+80	-10/+50	0/+60	+20/+80
Precision	°C	±4					
Hysteresis	°C	7					
250Vac resistive load (ind. load)	A	10 (1.6)					
125Vac resistive load (ind. load)	A	15 (2.5)					
Electrical connection	-	terminals 2.5 mm ²					
Operating temperature	°C	-25/+80					
Conformity/certification	-	CE-UL File n. E348803					

Features	Unit	THRV13	THRV22	THVV22
Contact function	-	NC	NO	NO
Temperature setting range	°C	-10/+50	+20/+80	0/+60
Precision	°C	±4		
Hysteresis	°C	7		
250Vac resistive load (ind. load)	A	10 (1.6)		
125Vac resistive load (ind. load)	A	15 (2.5)		
Electrical connection	-	terminals 2.5 mm ²		
Operating temperature	°C (°F)	-25/+80 (-13/+176)		
Conformity/certification	-	CE-UL File n. E348803		

7 - 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. Thermostats must be disposed of separately from ordinary household wastes