Electronic thermostat with adjustable differential

RTA37

Description

The RTA37 thermostat, in its various versions, is suitable for application in heating, air conditioning and refrigeration systems.

The RTA37 can be configured with the following temperature ranges:
+5...+35°C
-10...+20°C
-35...+5°C
+35...+65°C

The choice of temperature range must be made at startup by acting on the dip switches.
Then place the label, with the chosen temperature scale, on the front of the housing.

Technical specifications

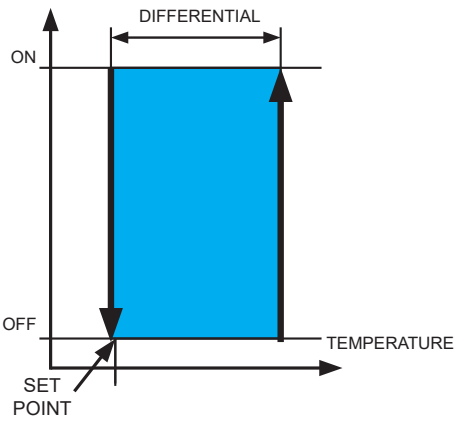
Power supply	230 VAC, 50/60 Hz
Relay output with switch contact	max 3 A, 230 VAC
Adjusting action	ON-OFF
Adjustable differential	1-8 K
Control output	ON-OFF
Temperature probe connection	NTC10K
Screw clamps for cables with maximum cross-sectional area	2,5 mm^2
Working temperature °C	0...50°C
Working range RH	<80% RH
Storage temperature	-20...+70°C
Protection type	IP40
Rail mounting	DIN
Standards	CE conformity, RoHS

Functioning

The RTA37 thermostat provides temperature control with ON-OFF action with a differential set by dip switches.

Cooling action

The RTA37 thermostat is equipped with a relay with a switching contact.
The relay is energized when the temperature detected by the NTC probe exceeds the temperature value set on the knob plus the value of the differential.
The contact between terminals C-NO is closed.
When the temperature drops to the set value (set point), the relay de-energizes, opens the contact between the C-NO terminals, and closes the contact between the C-NC terminals.



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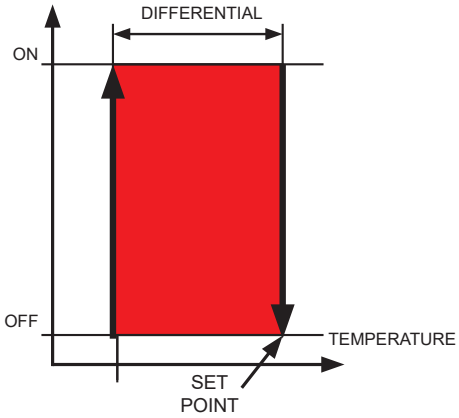
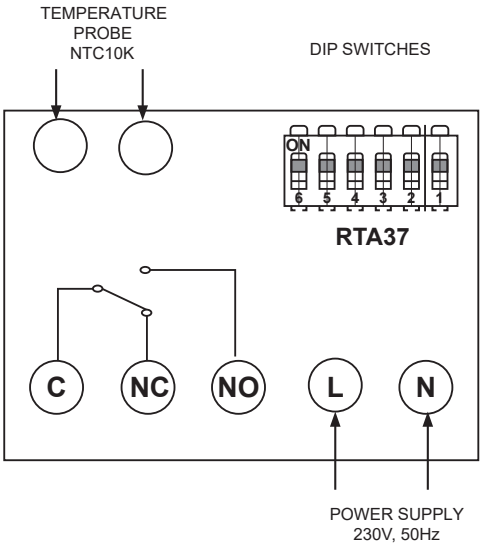
Heating action

For operation with heating action, dip switch 6 must be set to OFF.
The relay is energized when the temperature detected by the NTC probe falls below the temperature value set on the knob minus the value of the differential.
The contact between terminals C-NO is closed.
When the temperature drops to the set value (set point), the relay de-energizes, opens the contact between the C-NO terminals and closes the contact between the C-NC terminals.

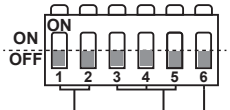


Electrical wirings

The above connections refer to cooling operation. For heating operation, dip switch 6 must be set to OFF.
In the factory configuration, the dip switches are set to OFF.



Setting DIP switches



RANGE | DIFFERENTIAL | ACTION

	S1	S2
+5...+35°C	ON	ON
-35...+5°C	ON	OFF
+35...+65°C	OFF	ON
-10...+20°C	OFF	OFF

DIFFERENTIAL °C	S3	S4	S5
1	ON	ON	ON
2	OFF	ON	ON
3	ON	OFF	ON
4	OFF	OFF	ON
5	ON	ON	OFF
6	OFF	ON	OFF
7	ON	OFF	OFF
8	OFF	OFF	OFF

	S6
HEATING	OFF
COOLING	ON

Dimensions (mm)