TM2-24/D

Electronic thermostat, 2-stage

TM2-24/D is an electronic thermostat for control and monitoring of climate and air handling facilities.

- ✓ 2-stage in sequence or binary (3-stage)
- ✓ Settable control of either heating or cooling
- ✓ Internal or external setpoint
- ✓ Settable switching differential and step differential
- ✓ Night setback
- ✓ Compact design for DIN-rail mounting with all settings accessible on the front

TM2-24/D is an electronic thermostat for use with Regin's temperature sensors. The thermostat has closing relay contacts and can be set to either heating or cooling. TM2-24/D has a standard casing for DIN-rail mounting with all settings accessible on the front.

Control modes

The following functions can be set by using switches 1 to 3. TM2-24/D can be set for the following control modes:

- One stage cooling and one stage heating
- Two stages cooling
- Two stages heating
- Three stage cooling binary
- Three stage heating binary

Setpoint

The setpoint is set using the setpoint knob on the front or by means of an external setpoint device. TM2-24/D has a scale of 0...30°C as a standard. Scales adapted for other sensor ranges are also available.
When using an external setpoint device, such as TG-TG-R430 or TBI-30, the built-in setpoint device should be disconnected by placing switch 4 in the A position.

Sensor

As a default, TM2-24/D is intended for sensors with a temperature range of 0...30°C. However, other temperature ranges can also be selected.

Switching difference

The difference between the switch-on point and the switch-off point. Adjustable and the same for all stages.

Step differential

The difference in temperature between the switch-off points of the stages. Adjustable and the same for all stages.

Indication

TM2-24/D has LED:s to indicate active supply voltage and active relay outputs.

Night setback

Night setback functionality can be obtained by using an external timer. When the timer gives a signal, a night setback of 5 K will take place from the given setpoint.

HEAD OFFICE SWEDEN
Phone: +46 31 720 02 00
Web: www.regincontrols.com
E-mail: info@regin.se

Technical data

Supply voltage	24 V AC ±15 %, 50...60 Hz
Power consumption	2 VA
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max 90 % RH (non-condensing)
Protection class	IP20
Weight	250 g

Inputs

Sensor	Intended for Regins NTC sensors (see separate product sheets for details)
Setpoint	When using external setpoint, the setpoint device is connected to the sensor input in series with the sensor
Night setback	For potential-free closing contact from external timeswitch. On closed contact, a night setback of 5 K will take place.

Output

Relay contacts	Closing contact 230 V, 10 A. Indication LED is lit upon active relay.

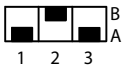
Settings

TEMP	Setpoint, 0...30°C
DIFF	Switching difference, 0.5...5 K
SD	Step differential, 0...5 K

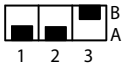
Operating switches

R1 activated on decreasing temperature (heating application). R2 activated on increasing temperature (cooling application).

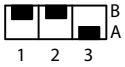
This is the factory setting.



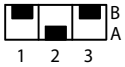
Two steps in sequence on increasing temperature (cooling application). First R1, then R1 + R2.



Two steps in sequence on decreasing temperature (heating application). First R1, then R1 + R2.



Three steps binary on increasing temperature (cooling application). First R1, then R2 and finally R1 + R2.



Three steps binary on decreasing temperature (heating application). First R1, then R2 and finally R1 + R2.

Operating switch 4 selects external/ internal setpoint. Position A = External setpoint potentiometer. Position B = Integrated setpoint. Switch 4 is factory set to mode B.

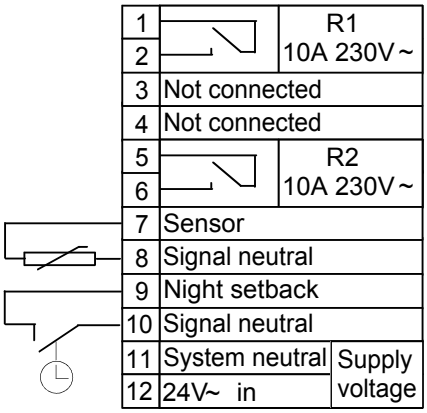
CE

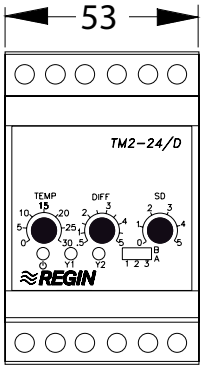
Low Voltage Directive (LVD) standards: This product conforms to the requirements of the European Low Voltage Directive (LVD) 2014/35/EU through product standard EN 60730-1.

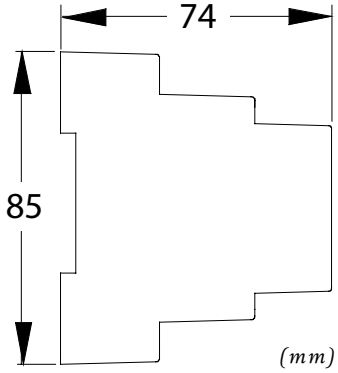
EMC emissions & immunity standards: This product conforms to therequirements of the EMC Directive 2014/30/EU through product standards EN 61000-6-1 and EN 61000-6-3.

RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

Wiring and dimensions







Product documentation

Document	Type
Instruction TM2-24/D	Instruction for installation and quick start of TM2-24/D

The product documentation can be downloaded from www.regincontrols.com.