



TM2-24/D is an electronic thermostat designed for controlling heating and cooling applications

- * Two stage in sequence or binary (3 stage)
- * For heating or cooling applications
- * Internal or external adjustable setpoint
- * Adjustable hysteresis and step difference
- * Night set-back
- * Compact form for easy mounting on a DIN-rail

Function

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

Control modes

The following functions can be set by means of switches 1 to 3:

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

Setpoint

The setpoint is set by means of the setpoint knob on the front or by means of the external setting device.

TM2-24/D has a standard scale of 0...30°C. Other scales adapted for other sensor ranges are available.

When an external setting device, e.g. TG-R430 or TBI-30, is used the built-in setpoint setting should be disconnected by setting switch no 4 to the A position.

Sensors

The TM2-24/D is intended for a sensor temperature range 0...30°C. but other temperature ranges are available. See leaflet 6-100 in the main catalogue for choice of sensors.

Hysteresis

The difference in temperature between a relay's ON-point and OFF-point. Adjustable and the same for both relays.

Step differential

The difference in temperature between the relays OFF-points. Adjustable and the same for all steps.

Indicators

TM2-24/D has LEDs to indicate supply voltage on and relay output activation.

Night Set-back

Night set-back can be initiated by means of an external time switch. On potential free closure night set-back of 3 K from setpoint value is obtained.

If adjustable night set-back is required the night set-back module NS/D should be used. See separate leaflet. This module allows night set-back to be set between 0 and 10 K.

Technical data

General

Supply voltage	24 V AC +/- 15 % 50-60 Hz
Power consumption	Max. 2 VA
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max. 90% RH
Form of protection	IP20



This product conforms with the requirements of European EMC standards CENELEC EN 50081-1 and EN 50082-1, European LVD standards IEC 669-1 and IEC 669-2-1 and carries the CE mark.

Inputs

Sensors	One input for main sensor. Only for Regin NTC-sensors. See leaflet 6-100 for choice of sensor.
Setpoint	When using an external setpoint the setpoint device should be connected in series with the sensor to the sensor input.
Night set-back	Fixed 3K on potential-free closing from an external switch. If adjustable night set-back is required the NS/D should be used.

Outputs

Relays	Two closing relays, 230 V AC 10 A. When a relay is activated the corresponding LED comes on.
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Settings

TEMPSetpoint	0...30°C. The choice of sensor determines the thermostat's setpoint range
DIFF Hysteresis	0,5...5 K
SDStep differential	0...5 K

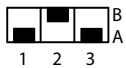
Switches



R1 activated on decreasing temperature (heating application)

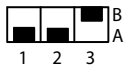
R2 activated on increasing temperature (cooling application)

This is the factory setting.



Two steps in sequence on increasing temperature (cooling application)

First R1, then R1 + R2



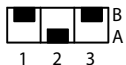
Two steps in sequence on decreasing temperature (heating application)

First R1, then R1 + R2



Three steps binary on increasing temperature (cooling application)

First R1, then R2 and then R1 + R2

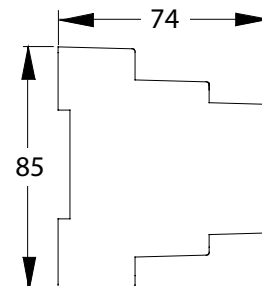
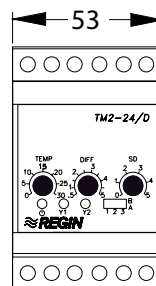
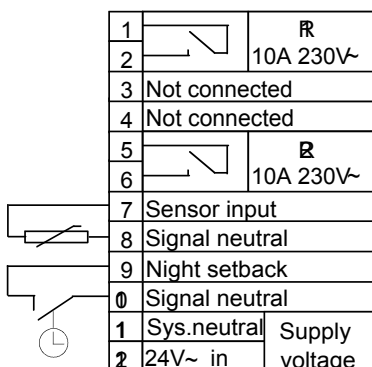


Three steps binary on decreasing temperature (heating application)

First R1, then R2 and then R1 + R2

Switch 4 is for choosing internal or external setpoint potentiometer. Position A = External setpoint. Position B = Internal setpoint. Factory setting position B = Internal setpoint.

Wiring and dimensions



Measurements in mm

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