

# TEMPERATURE CONTROLLERS

“TOP CLASS PERFORMANCE”

“ALL IN ONE THERMOSTAT”

“SMALL IN DIMENSIONS”

## APPLICATION

- Used to display and regulate *TEMPERATURES* and suitable for controlling heating or cooling units or systems.
- Modular design for easy panel mounting.

## FEATURES

- Easy to use following the simple instructions in each unit.
- Suitable to limit the *SET POINT* temperature, setting minimum and maximum values.
- Adjustable *DIFFERENTIAL* (hysteresis) from **0,1°C** to **20°C**.
- Adjustable *TIME DELAY* between relay commutations: from **0** to **255 min**.
- Adjustable *DEFROST TIME* duration (cold operation): from **0** to **255 min**.
- Adjustable *DEFROST FREQUENCY* from **0** to **120 hours**.
- In case of probe failure the unit displays a *MALFUNCTION CODE* and the *DEFROST RELAY* continues to operate for **255 min**.

## SPECIFICATIONS

- “CE” Marking
- Relay output: **13 A, 230 V, cos φ = 1**.
- Temperature range: **-50°C to +99°C** (-58°F to +210°F).
- Controller accuracy: **± 1°C** (± 1,8°F).
- Probe tolerance at 25°C: **± 0,4°C** (± 32,7°F).
- Standard **PROBE-01/V2** included: **1,5 m** length (5').
- Maximum probe temperature: **150°C** (300°F).
- Ambient temperature range: **+5°C to +50°C** (+41°F to +122°F).
- Storage temperature: **-30°C to +70°C** (-22°F to +158°F).
- Maximum input power: 3 V A.
- Resolution: 0,1°C (0,1°F).
- Dimensions: **75 mm x 33 mm** (2,96" x 1,30")
- Panel cut-out dimensions: **70,5 mm x 28,5 mm** (2,76" x 1,13").

## 1. CONTROLLERS FOR PANEL MOUNTING

<b>TPM-1/V2</b>	<b>THERMOMETER:</b> 230 V AC ± 10% (8 mA)
<b>TPM-2/V3</b>	<b>THERMOMETER:</b> 12 V DC / 24 V DC ± 20% (88 mA)
<b>TSPM-2/V2</b>	<b>THERMOSTAT:</b> 230 V AC ± 10% (9 mA) with 1 relay
<b>TSPM-1/V3</b>	<b>THERMOSTAT:</b> 12 V DC / 24 V DC ± 20% (182 mA) with 1 relay
<b>TSPM-3</b>	<b>THERMOSTAT 3 DIGIT:</b> 230 V AC ± 10% (18 mA). Decimal read out with 3 relays Relay 1: Control (compressor) 16 A, 250 V, cos φ = 1 Relay 2: Defrost 8 A, 250 V, cos φ = 1, SPDT switch Relay 3: Fan 6 A, 250 V, cos φ = 1, SPST Equipped with digital input and connector for parameter transfer and data communication.

## 2. CONTROLLERS FOR WALL MOUNTING

IDEM AS “CONTROLLERS FOR PANEL MOUNTING” EXCEPT FOR:

- Dimensions: **168 mm x 93 mm x 41 mm** (6,7" x 3,6" x 1,5").
- Relay output: **16 A, 230 V, cos φ = 1**.

<b>TSWM-2/V2</b>	<b>THERMOSTAT:</b> 230 V AC ± 10% (17 mA)
<b>TWM-1/V2</b>	<b>THERMOMETER:</b> 230 V AC ± 10% (15 mA)

## PROBES FOR ABOVE PANEL AND WALL MOUNTING CONTROLLERS

<b>PROBE-01/V2</b>	Probe NTC, Length: 1,5 m (5,0') included with above
<b>PROBE-03/V2</b>	Probe NTC, Length: 3,0 m (10')
<b>PROBE-06/V2</b>	Probe NTC, Length: 6,0 m (20')

