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Temperature Control

digital 1- and 2-stage thermostats and controllers

GR42-4

APPLICATION FIELD: the GR 42-4 is an electronic 2-stage thermostat with two independent outputs. Conceived for industrial applications. The measuring range varies between $-25 \times +270^{\circ}\text{C}$ ($-13 \times +518^{\circ}\text{F}$). On request also voltage or current input signals from transducers.

CARRIED OUT ACTION: the GR 42-4 operates as a cooling and/or heating regulator on two outputs each other independent. Two different set points and action type (direct or reverse) can be chosen. Alarm managing is also available.

SETTING: the set point temperature and the differential (hysteresis), are set by the user. Users are allowed to manage operating parameters (max./min. temperature alarms, $^{\circ}\text{C}/^{\circ}\text{F}$ choice, probe error correction, keyboard locking, etc.).

USER-FRIENDSHIP: the GR 42-4 was conceived on purpose to be installed on switchboards, panel boards and cooling units.

INPUT: the GR 42-4 is provided with 1 input for PTC or PTC300 standard probes. It can accept also different input types, i.e. $0 \times 1 \text{ V}$, $0 \times 10 \text{ V}$ voltage signals, $4 \times 20 \text{ mA}$ current signals. Furthermore, it can manage 1 digital input to check door state (open/close), for energy saving, etc. The digital input can be also opto-insulated.

OUTPUT: it is provided with 2 relays for 8 A

TECHNICAL SPECIFICATIONS

Housing: self-extinguish UL94V0 ABS plastics, white colour

Size: frontal $45 \times 71 \text{ mm}$; depth 58 mm (4 DIN modules)

Mounting: DIN rail for panel boards

Protection: IP 65 for the frontal panel

Connections: on screw terminal board for wires with cross section area $< 2,5 \text{ mm}^2$

Display: LED, 3 digits, 12.5 mm high

Data storing: on EEP-ROM not volatile memory

Operating temperature: $-5 \times +65^{\circ}\text{C}$ ($+23 \times +149^{\circ}\text{F}$)

Stocking temperature: $-30 \times +75^{\circ}\text{C}$ ($-22 \times +167^{\circ}\text{F}$)

Relative humidity: $20 \times 85 \%$ (not condensing)

Measure range: $-55 \times +150^{\circ}\text{C}$ ($-67 \times +302^{\circ}\text{F}$) for PTC probe; $-25 \times +270^{\circ}\text{C}$ ($-13 \times +518^{\circ}\text{F}$) for PTC-300 probe

Output: 2 on a SPDT 8(3) A 250 Vac relay

Analogue input: 1 for PTC thermostatic probe; $0 \times 1 \text{ V}$, $0 \times 10 \text{ V}$ voltage signals; $4 \times 20 \text{ mA}$ current signals

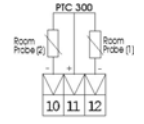
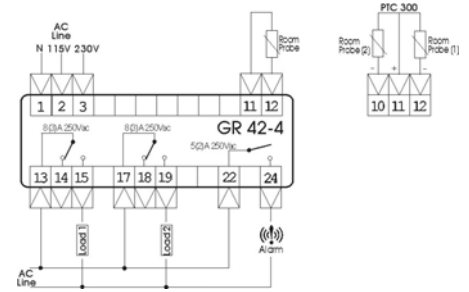
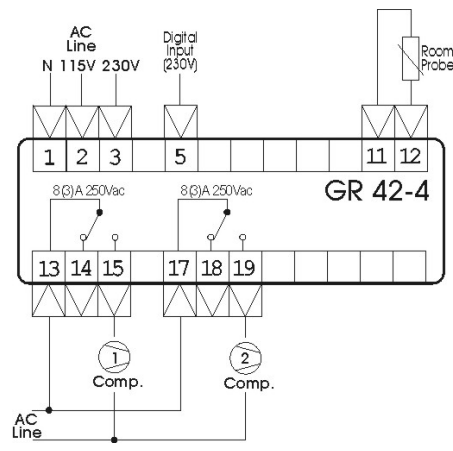
Resolution: 1°C (1°F) or 0.1°C (0.2°F)

Accuracy: better than $0.5\% \text{ f.s.} \pm 1 \text{ digit}$

Power supply: standard $12 \text{ Vac/dc} \pm 15\%$

load. The main one (compressor) can be for 16 A on request. The alarm condition can be managed through an internal buzzer, or through a 5 A relay, for external drive (also combined).

POWER SUPPLY: it can be connected directly to the supply mains with 230-115 Vac voltage through the internal transformer.



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