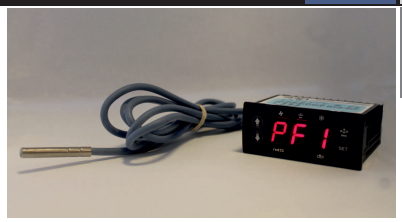
RED33

Temperature regulator

compact and user friendly
temperature regulator.
Ideal for refrigeration systems.
The thermostat with temperature
controlled defrost cycles and fan



FUNCTIONING

The RED33 controller is an electronic instrument, designed and manufactured to measure, display, and control temperatures between - 45 ... + 95 °C, and can control the defrost cycles and fan activity. It is particularly suitable for medium and low temperature refrigeration plants. The thermostat can directly control a compressor and a heating element, or a valve for defrosting and the evaporator fan, through three relays. The compressor is activated when the temperature rises and reaches the set point + differential value and is again deactivated when the temperature drops back to the set point value. The instrument can also control the defrost cycles and the fan ON/OFF in function of the temperature measured by the probe installed on the evaporator. All parameters related to defrosting and fan activity can be programmed by the end-user. It is also possible to select the defrost mode, i.e., either with heating elements or inverting the cycle. The cold-room and evaporator temperatures, that are visualized on the 3-digit red LED display, are detected by two semiconductor NTC probes, that can be installed up to 10 m / 30 ft from the thermostat without requiring instrument re-calibration.

MAIN FEATURES

SIMPLE PROGRAMMING: the instrument can be easily programmed through the front panel keypad with no need for tools or complicated procedures.
LIMITED NUMBER OF PARAMETERS: all instrument operating modes can be programmed through a limited number of parameters.
OPERATING MODE DURING PROBE FAILURE: one can select from three different modes to operate during a probe failure in order to avoid spoiling the preserved goods.
LOCKING THE ACCESS TO PROGRAMMING: it is possible to lock the access to the parameter configuration menu through a simple combination of keys in order to avoid tampering by non authorized personnel.
SELECTING THE UNIT OF MEASURE: the end-user may choose between two units of measure for temperature readings, i.e., either degrees Celsius or degrees Fahrenheit.
SET POINT RANGE LIMIT: it is possible to limit the range in which the set point can be fixed in order to avoid improper use by the end-user.
TROUBLESHOOTING: the RED33 thermostat can detect and signal the following defects: a not connected, interrupted or short-circuited probe; when the detected temperature exceeds the temperature limit of the probe; a loss of data, a data memory failure, or temperatures exceeding the Min. and/or Max.

TECHNICAL FEATURES

TECHNICAL FEATURES	DETAILs
DISPLAY:	2 ½ -digit, 7-segment, 14.2 mm high, red LED display, plus 2 horizontal red LED bars
PROBE INPUTS:	– 2 inputs for NTC type probes with measuring range - 50 ... + 100 ° C
COMPRESSOR OUTPUT:	SPST relay, AC 250 V, 8 A (resistive)
DEFROST OUTPUT:	SPST relay, AC 250 V, 8 A (resistive)
FAN OUTPUT:	SPST relay, AC 250 V, 5 A (resistive)
RESOLUTION:	1 unit
ACCURACY AT 25 °C:	± 0,7 % f.s.
SAMPLING TIME:	1 second
POWER SUPPLY:	AC 230 V ± 10 %, 50/60 Hz
	AC 115 V, ± 10 %, 50/60 Hz
	AC 12 V ± 10 %, 50/60 Hz
OPERATING CONDITIONS:	operating temperature: 0 ... + 50 °C; storage temperature: - 20 ... + 80 °C; Relative Humidity: 30 ... 85 % (non-condensing);
MECHANICAL FEATURES:	panel-mount, self-extinguishing ABS plastic container, screw connectors for wires up to 2,5 mm².