MT-511R*i*

DIGITAL THERMOSTAT

Ver. 13

MT511V13-05T-10385

1. DESCRIPTION

MT-511R*i* is a controller and indicator of temperature. It can be configured to control refrigeration and heating.
Product complies with CE (European Union) and UL Inc. (United States and Canada).

2. APPLICATION

- Refrigerating
- Chambers
- Balconies
- Greenhouses
- Ovens
- Friers
- Footwear machines

3. TECHNICAL SPECIFICATIONS

- Power supply: MT-511Ri → 115 / 230 Vac ±10%(50/60Hz)
  MT-511RiL → 12 / 24 Vac/dc
- Control temperature: -50 to 105ºC / -58 to 221°F
- Load current: NO→16(8)A/250Vac 1HP
  NC → 8A/250Vac
- Dimensions: 71 x 28 x 71mm
- Operation temperature: 0 to 50 ºC / 32 to 122°F
- Operation humidity: 10 to 90% RH (without condensation)

CLASSIFICATION ACCORDING TO IEC60730-2-9 STANDARD:
- Temperature limit of the installation surface: 50°C / 122°F
- Type of construction: Built-in electronic controller
- Automatic action: Type 1
- Control of pollution: Level 2
- Impulse voltage: 1,5kV
- Temperature for the test of sphere pressure: 75°C and 125°C / 167°F and 257°F
- Insulation: Class II

4. CONFIGURATIONS

4.1 - Control temperature adjust (SETPOINT)

- Press SET for 1 second unit [t] appears.
The temperature control to be adjusted will appear.
- Use the keys ▼ and ▲ to modify the value and when ready, press SET again to record.

5. PARAMETERS ALTERATION

5.1 - Temperature differential (hysteresis) and operation mode

- Press simultaneously the keys ▼ and ▲ for 5 seconds until appear [d IF], after that release the keys.
The differential that must be adjusted will appear. Use the keys ▼ and ▲ to change the value and then press SET to pass ahead.

- Now set the operation mode:
[CoL] Refrigeration
[Hot] Heating
- Use the keys ▼ and ▲ to select mode. After press SET to record this parameter.

5.2 - Indication locking

This function only serves to correct eventual shunting lines in the reading proceeding from the sensor exchange.
For this, press at the same time ▲ and ▼ for 10 seconds until [OFF] appears.
The offset value will be displayed, use the keys ▲ and ▼ to modify the value (between -5.0 and +5.0 ºC or between -9 and +9°F) and then, press SET to pass ahead.

5.3 - Allowed range to the final user

It serves to prevent that not qualified people adjust high or low control temperatures.
a) Inferior allowed range (minimum blockade):
When indicating [Lo], determine the blockade of minimum regulation and confirm with SET.
b) Superior allowed range (maximum blockade):
When indicating [Hi], determine the blockade of maximum regulation and confirm with SET, after it will indicate [dEL], requesting adjusment of the minimum time delay to drive the thermostat output (from 0 to 999 seconds).
Determine the delay time and press SET to record.

6. TEMPERATURE SCALE SELECTION (°C/°F)

To define the temperature scale that controller will operate press ▼ and ▲ together for 30 seconds until the display shows [Uni], release both keys after that. Use ▼ or ▲ to select [°C] or [°F] confim by using the SET key.
After select the unit [FAC] will appear and the instrument returns to the normal function (temperature indication). Every time that the scale is changed, the parameters must be configurated again, because they assume the standard values.

7. FUNCTIONS WITH FACILITATED ACCESS

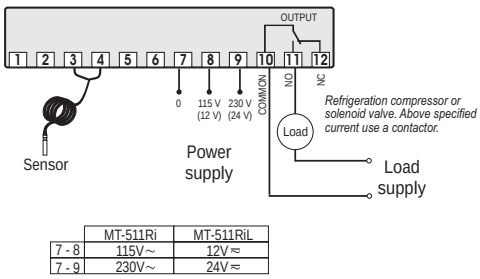
7.1 - Registers of minimum and maximum temperatures

Press ▲. The registered minimum temperature appears and after soon the registered maximum temperature.
Note: To reset the registers, keep ▲ pressed during the visualization of the minimum and maximum temperatures until [rSt] appears.

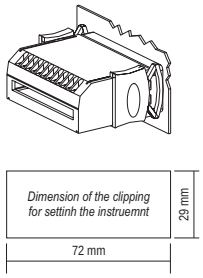
8. SIGNALLING

The LED located on the instrument panel (OUTPUT) indicates that the control
Output is turned on, NO (Normally open) is closed and drives the load.
[Err] - Detached sensor or temperature out of the specified range.

9. WIRING DIAGRAM



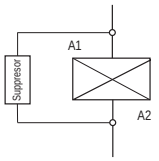
	MT-511Ri	MT-511RiL
7 - 8	115V~	12V ≂
7 - 9	230V~	24V ≂



Note: The sensor cable length can be increased by the user unitl 200 meters, using PP 2 x 24 AWG cable. For immersion in water use thermometric well.

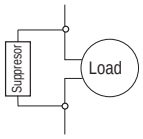
IMPORTANT
As chapters of IEC 60364 norm:
1: Install protectors against overloads on power supply.
2: Sensor cables and computer signs can be together, however not in the same conduction; where there power supply and load drive.
3: Install suppresors (RC filters) in parallel to loads to increase the relays function.
For more information contact our Application Eng. Department through e-mail support@fullgauge.com or dial +55 51 3475.3308.

Wiring diagram of suppresor in contactors



A1 and A2 are the contactor coil.

Wiring diagram of suppresor linking in loads direct drive



For direct activation the maximum specified current should be taken into consideration.

PROTECTIVE VINYL:

This adhesive vinyl (included inside the packing) protects the instruments against water drippings, as in commercial refrigerators, for example.
Do the application after finishing the electrical connections.

Remove the protective paper and apply the vinyl on the entire superior part of the device, folding the flaps as indicated by the arrows.