



TIC-17RGT

DIGITAL THERMOSTAT

Ver.09



TIC17RV09-03T-11848

1. DESCRIPTION

TIC17RGT is an easy installation and application digital thermostat. It can be used at heating or refrigeration systems. All its functions are seted up in its only key. Product complies with UL Inc. (United States and Canada).

2. APPLICATION

- Boilers
- Ovens
- Heaters
- Freezers
- Counters
- Refrigerated balconies

3. TECHNICAL SPECIFICATIONS

- Power supply: 115 or 230 Vac (50/60 Hz)
12 or 24Vac/dc
- Control temperature: -50 to 105 °C (*)
- Resolution: 0.1°C (between -10 and 100 °C) and 1 °C outside this range
- Load current: 16(8)A / 250Vac 1HP
- Dimensions: 71 x 28 x 71mm
- Operation temperature: 0 to 50 °C
- Operation humidity: 10 to 90% RH (without condensation)

(*) This instrument can measure and control up to 200°C temperatures, since used with silicone cable sensor (ex.: SB59).

4. CONFIGURATIONS

4.1 - Control temperature adjust (SETPOINT):

- Press **SET** for 2 seconds and **SP** will appear.
- Wait 2 seconds and the adjusted control temperature will appear.
- Use **SET** to change the value.
- Wait 4 seconds to record and return to the normal operation.

4.2 - Parameters table

Configuration parameters:

Fun	Description	Min	Max	Unit	Default
OP	Operation mode	0-refrig.	1-heat.	-	0
dF	Differential (hysteresis)	0.1	20.0	°C	2.0
dL	Minimum delay to turn on the output	0	999	sec.	0
OF	Offset (local calibration)	-5.0	5.0	°C	0.0
Lo	Minimum set allowed to the final user	-50	105(*)	°C	-50
Hi	Maximum set allowed to the final user	-50	105(*)	°C	105

(*) This parameter allows adjustments up to 200°C but to work on these conditions it has to be used with silicone cable sensor (ex.: SB59).

4.2.1 - Parameters description

- OP** This function allows to configure the operation mode of the instrument (heating or refrigerating).
- dF** It is the difference of temperature (hysteresis) between turn on and turn off the "RELAY" control output.
- dL** It is the minimum time that the controller output will keep turned off. This delay starts when the output is turned off.
- OF** It allows compensate eventual shunt in the temperature reading.
- Lo** Allowed range to the final user to adjust setpoint (minimum locking).
- Hi** Allowed range to the final user to adjust setpoint (maximum locking).

4.3 - Parameters alteration

The parameters are protected by an access code (except setpoint), which must be inserted to do the alterations.

To enter with the access code:

- Press **SET** for 10 seconds until **Err** appears.
- Wait 2 seconds and appears **000**.
- Use the key **SET** to insert the code 023 (twenty-three). This operation must be done in 4 seconds, otherwise the indication of ambient temperature returns automatically.

After inserting the access code:

- Press **SET** until access the chosen parameter.
- Wait 2 seconds and the configured value will appear.
- Use the key **SET** to change the value.
- Wait 4 seconds to record the new value and to the instrument returns normal operation (temperature indication).

Note: After inserting the access code, do not leave the key **SET** idle (without be pressed) for more than 15 seconds between parameters alteration.

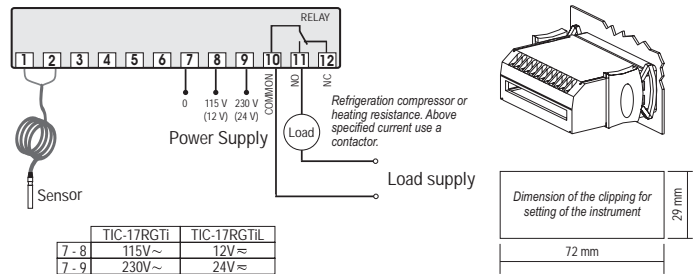
In this case **Err** will appear and the access to the adjust is automatically locked and the access code must be inserted again to do the alterations.

5. SIGNALLING

RELAY - Turned on NO contact

Err - Detached sensor or temperature out of the specified range

6. WIRING DIAGRAM



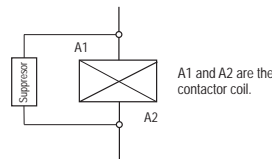
Note: Sensor cable lenght can be increased by the user until 200 meters, using 2 x 24 AWG cable. For immersion in water use thermometric well.

IMPORTANT

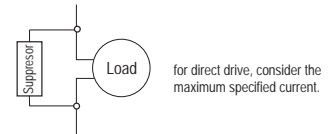
According to NBR5410 and IEC60364 standards:

- 1: Install protectors against overloads on power supply;
 - 2: Sensor cables and computer signs can be together, however not in the same electric ducts where there are power supply and load drive;
 - 3: Install suppressors (RC filters) in parallel to loads to increase the relays endurance.
- For more information contact our application eng. department through e-mail support@fullgauge.com or dial +55 51 3475 3308.

Wiring diagram of suppressor in contactors



Wiring diagram of suppressor linking in loads direct drive



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.

