

PLUG-IN CONNECTOR

Guarantee conditions

This equipment has a 2 years guarantee, which means it only replaces the faulty part.

VERY IMPORTANT !:

We do not take any responsibility for deteriorated equipment, which are a result of bad handling.

The guarantee does not include:

- Equipment with deteriorated, worn or modified serial number.

- Equipment whose connection or use has not been carried out in accordance with the indications attached to equipment.

- Equipment modified without prior agreement from manufacturer.

- Equipment whose deterioration is due to bangs or emanations of liquids or gases.

The probe cable has to be kept as far away as possible from other electrical conductors.

The maximum lenght recommended under actual standard must be less than 3 M.

It is the installer's responsibility to fit electrical protection suitable for the installation (STANDARDIZED).

All installation of the electrical wirings that enters or that leaves must be made under tube and with maxim section of 2.5 mm².

Reserved the right of modify without prior notice.

Sonder Regulación, S.A.

Avda. La Llana, 93
08191 RUBÍ
(Barcelona) Spain

www.sonder.es



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ECS 57



OPERATION

- When the appliance is switched on, the display will show " - - - ", " 3 ! ! ", " - - - " and the temperature detected by the sensor. Press **▲**, or **▼**, and the setpoint temperature value appears blinking.
- To change the setpoint press **▲** **▼** while blinking, to increase or decrease the desired temperature. The temperature is memorized after 3 seg. of not playing the keys.

FACTORY SETTINGS

Nº	FUNCTION	VALUE
-	Temperature setpoint	4°C
diF	Temp. differential (hysteresis)	1,0°C
HSE	High setpoint	99°C
LSE	Low setpoint	- 40°C
doF	Minimum off time	2 min
C-H	Control type	rE
CAL	Sensor calibration reset	0°C
dit	Defrost timer	24H
dEt	Defrost stop time	0 min
tPP	Prog. Parameters time	5 sec
PAS	Param. access code	0 Deactivated

SCALE

-40 to 140°C
0,3 to 9°C
-40 to 140°C
-40 to 140°C
0 to 15 min
rE / cA
-9,0°C to 9,0°C
1 to 168H
0 to 99 min
3 to 40 Seg.
0 to 99

The factory settings are those considered to be the most common for normal use of installations. If they are right for your purposes, your thermostat is ready to control and regulate your installation.

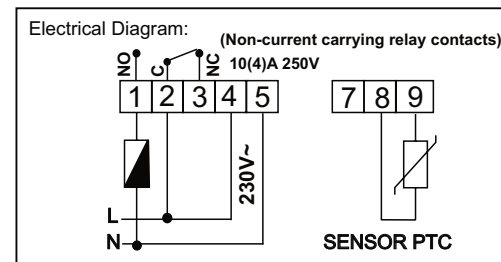
If you should need any other settings due to the requirements of your installation, please read this manual carefully.

- Manual DEFROST: Press **OK** for 10 seconds. The "dEt" duration cycles starts during wich "dEF" is shown on the display.
- Automatic DEFROST: performed every number of hours indicated in the "dit" parameter, lasting the time set in the "dEt" parameter.
- TO CANCEL ALL TYPES OF DEFROST, program the "dEt" to zero.

DESCRIPTION OF PARAMETERS

- The display shows the temperature detected by the sensor.
- **Differential (diF)**: Temperature values between energizing and releasing.
- **Low setpoint (LSE)** and **High setpoint (HSE)**: The temperature limits within which the setpoint can be adjusted and set.
- **Minimum off time (doF)**: Delay time applied when the compressor stops and which prevents the compressor restarting even if conditions for this are met. This delay is also applied after switching on the thermostat to protect the compressor in the event of a power outage.
- **Control type (C-H)**:
 "rE" type: The relay disconnects when the temperature falls to the setpoint and will connect when it rises to the setpoint plus differential.
 "cA" type: it disconnects when the setpoint is reached and will connect when the temperature falls to setpoint minus differential.

ELECTRICAL CONNECTION



- **Sensor calibration (CAL)**: This function enables you to change the displayed temperature.
- **Defrost timer (dit)**: Interval between the start of two successive defrosts expressed in hours.
- **Time-out defrost finish (dEt)**: After this time has elapsed (in minutes) defrost finishes. Zero indicates defrost disabled. "dEF" appears on the display during defrost.
- **Time of acces to programming of parameters (tPP)**: it is the time that should be pressing the key **PRG**. to enter in the programming of parameters, either to modify them or to visualize their values. (Time expressed in seconds)
- **Parameters access code**: Factory setting zero (disabled). Enter parameter programming by pressing and holding down **PRG** for 5 s. If the code is other than zero, enter parameters as follows:
 A.- "PAS" is briefly displayed and then the message "- 0 -"; Use the up or down arrows to select the previously programmed parameters access code.
 B.- Press **OK**: If the selected number is the correct one, "diF" appears. If the selected number is incorrect the thermostat will not allow access to programming and " - - - " appears.

PARAMETERS PROGRAMMING

- Press **PRG** during the time settled down in the parameter tPP (of factory 5 sec.) and "diF" will appear in the screen. Release the key.
- pressing **OK** their current value will appear blinking.
- While value is blinking, press **▲** or **▼** to change the desired value. Press **OK** to store it in memory. The designation of the parameter being programmed reappears.
- Press **▲** to scroll forward to the next parameter. Repeat point 3.
- Press **PRG** to exit the parameters " - - - " appears and then the current temperature detected by the sensor.
 After 1 minute without pressing any key, the thermostat leaves programming of parameters.

RELAYS DISPLAY

LOAD: A fixed light below the symbol indicates "connected" $\Rightarrow \bullet \Leftarrow$ (during the doF parameter time it flashes).

ERROR INDICATORS

- "ES" Probe Error: Probe is disconnected or its wires are cut.
- "888" Parameter table memorization error.
- "ALP" required temperature beyond limits (HSE and LSE limits).
 While the "ALP", "ES" and "888" alarms are activated a continuous emergency cycle occurs consisting of:
 rE mode: 10 min ON - 5 min OFF
 CA mode: 5 min ON - 5 min OFF
- "AL" the room temperature is beyond the limits marked by the HSE and LSE parameters. AL and the temperature detected by the probe flash on and off.

TECHNICAL SPECIFICATIONS

- Display:.....3 Digit (Red).
- Input :.....1 sensor PTC 2000 Ohm. IP67. Accuracy 1,5%.
- Resolution:.....0,1°C.
- Power supply:.....230 Vac +10%, -15%. 50/60Hz.
- Connections probe:.....without polarity.
- Breaking power (contacts):.....10(4)A 250V~.
- Working temperature:.....-5°C to 45°C.
- Storage temperature:.....de -20 to 50°C.
- Essay \rightarrow Temperature during test ball of pressure:
 accessible pieces of plastic.....75°C.
 pieces that supports the drivers of current.....100°C.
 \rightarrow Assigned impulse tension:.....2500V.