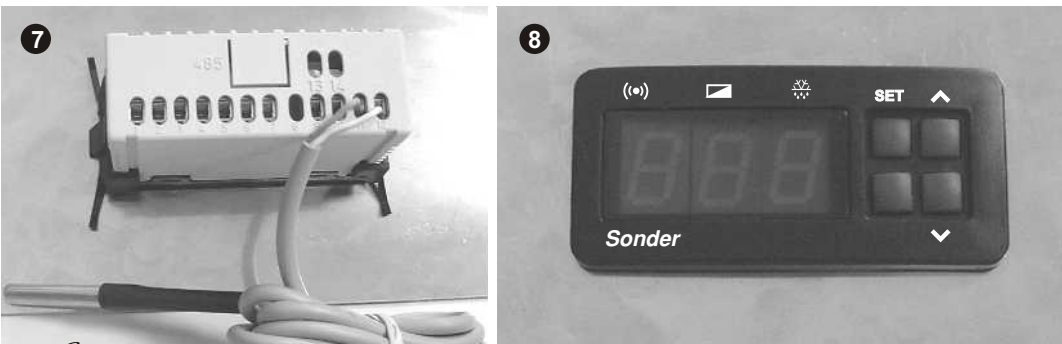
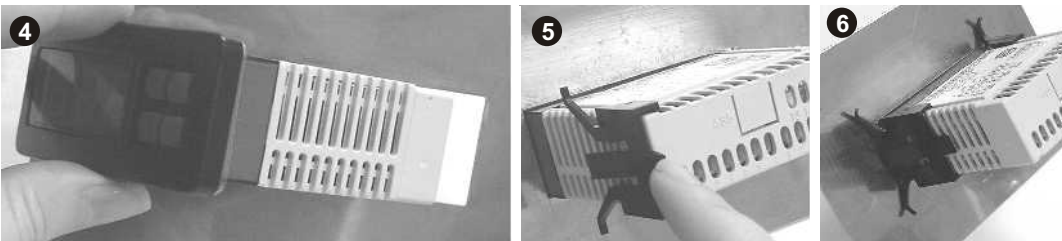
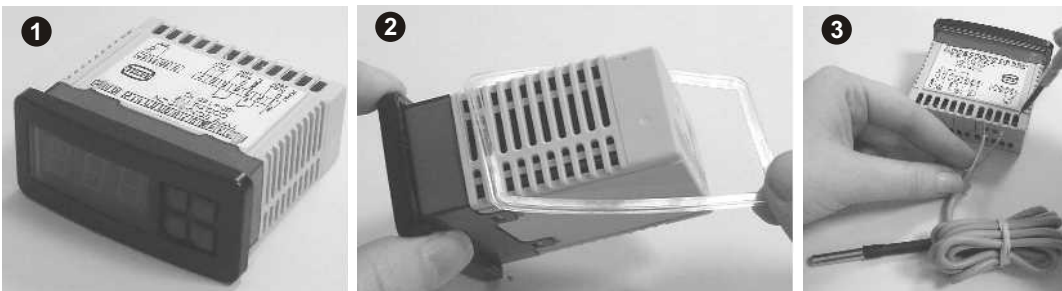


EA51-3, EC55-211V, EC55-311R

Digital Thermostats and Thermometers

INSTALLATION AND USE INSTRUCTIONS



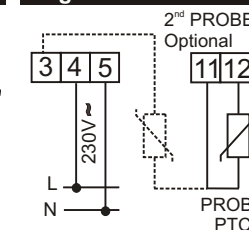
EA51-3 Digital Thermometer

OPERATION

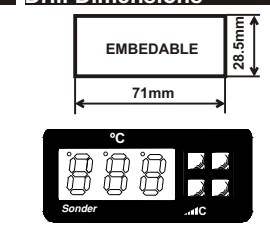
1.- When connecting the thermometer, the display shows the temperature detected by the probe. In the case of having two probes both temperatures will be shown in a current way.

2.- To gauge the probe, press **▲** by 10 s and the display shows **CE**. To adjust press the key **▲**. In the case of having two probes to come in the following way: press the key **▲** by 10s and the display shows **CE** whith the key **▲** adjust from -9 to 9 wait 4 sand the display shows **2 0** that it allows to gauge the second probe, with the key **▲** adjust from -9 to 9 and after 4 s without press the key the changes are memorized.

Diagram Electric



Drill Dimensions



EC55-211V, EC55-311R Digital Thermostat

OPERATION

1.- When connecting the thermostat, the display will show the temperature detected by the probe. Press SET, to view the temperature setpoint.

2.- To change the setpoint, hold down SET, and use the **▲** **▼** keys to increase or decrease the desired temperature. Release SET to store it in memory.

FACTORY SETTINGS

No.	FUNCTION	VALUE	SCALE
EC55-211V / EC55-311R			
-	.....Temperatura de consigna.....	-15	-50 to 99°C / -50 to 130°C
0	.....Tem. diferencial (Hysteresis)...	3	1 to 9°C
1	.....Minimum preset limitation.....	-40	-50 to 98°C / -50 to 129°C
2	.....Maximum preset limitation.....	99	-49 to 99°C / -49 to 130°C
3	.....Relay connection delay.....	1	0 to 99 min.
4	.....Probe gauge adjustment.....	0	-9 to +9°C
5	.....Control type.....	rE	rE/cA
6	.....Defrosting timer.....	8	1 to 24 h
7	.....Duration of defrost stoppages...	0	0 to 99 min.

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

- AUTOMATIC defrosting: By stopping the times indicated in parameter N°6, and during the period of parameter N°7.
- MANUAL defrosting: Press **▼** for around 10 seconds. The cycle with the duration as fixed in parameter 7 starts at display appears "dF".
- TO AVOID ANY KIND OF DEFROSTING, program the N° 7 to cero.

DESCRIPTION OF PARAMETERS

- 0 **Differential**: The compressor stops when it reaches the setpoint and restarts at a temperature equal to the setpoint plus the differential.
- 1 **Low setpoint** and 2 **High setpoint**: The temperature limits within which the setpoint can be adjusted and set.

- 3 **Compressor on delay**: Delay time applied when the temperature reaches the setpoint + differential.

- 4 **Sensor calibration**: This function enables you to change the displayed temperature.

- 5 **Control type**: "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.

- 6 **Defrost timer**: Interval between the start of two successive defrosts expressed in hours.

- 7 **Time-out defrost finish**: After this time has elapsed (in minutes) defrost finishes. Zero indicates defrost disabled.

PARAMETERS PROGRAMMING

1. Press **▲** and **▼** at the same time for 5 seconds and "0" will appear on the display. Release the keys.
2. Press SET and its current value will be displayed.
3. Holding down SET, press **▲** or **▼** to change the desired value. Release SET to store it in memory. The designation of the parameter being programmed reappears.
4. Press **▲** to scroll forward to the next parameter. Repeat point 3.
5. Press **▲** to exit the parameters "- -" appears and then the current temperature detected by the sensor.

ERROR INDICATORS

"ERS" Sensor error: Sensor are disconnected, its wiring cut off or temperature out of limits.

"888" Memorization error in the parameters table.

RELAYS FUNCTION in case of anomaly depending on control type:

No. 5: rE COOLING: Connect main relay (compressor).

No. 5: cA HEATING: Disconnect main relay (heater).

Guarantee conditions

This appliance has a one-year guarantee limited to replacement of defective parts.

We will not accept any responsibility for damage caused to the appliance by poor handling.

The guarantee does not include:

- Appliances with a damaged, effaced or altered series number.
- Appliances which have not been connected or used following the instructions that accompany it.
- Appliances which have been altered without the prior consent of the manufacturer.
- Appliances damaged by blows or liquid spills or gaseous emissions.

USER

First name: _____
Surname(s): _____
Address: _____
Town: _____
Postcode: _____
Tel. no.: _____
Purchase date: _____

INSTALLER

First name: _____
Surname(s): _____
Address: _____
Town: _____
Postcode: _____
Tel. no.: _____
Purchase date: _____

Installer or store stamp:

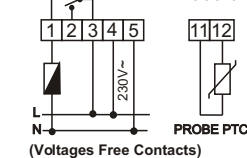
Return this slip to:

SONDER REGULACIÓN S.A.
Avda. La Llana 93.
P.I. "La Llana" 230.
08191 RUBÍ (Barcelona) SPAIN
FAX 93 588 49 94

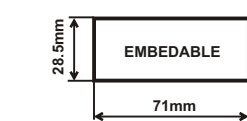


ASSEMBLY

Diagram Electric: EC55-211V
EC55-311R



Drill Dimension:



RELAYS DISPLAY

(*) A fixed light spot under the symbol, indicates that we are in programming of parameters. (EC55-311R Only).

☑ A fixed light spot under the symbol indicates "RELAY ON" and flashes during the delay timing of parameter 3.

☼ A fixed light spot under the symbol will indicate "defrosting" and during this the display indicate "dF".

VERY IMPORTANT !:

The wire of the probe must be far of other power electrical wires. The maximum length recomended under actual standard must be less than 3 meters. It is the installer's responsibility to fit electrical protection suitable for the installation (STANDARDIZED). Reserved the right of modify without prior notice.



Sonder Regulación, S.A.; Avda\ La Llana 93. Aptdo.: 230; 08191 RUBÍ (Barcelona) Spain
e-mail: info@sonder-regulacion.com; web:www.sonder-regulacion.com

TECHNICAL CHARACTERISTICS

Display EA51-3/EC55-311R.....3 digit (RED).
Display EC55-211V.....3 digit (GREEN).
Input:.....1 Sonda PTC 2000 Ohm. IP67.
Resolution:.....1°C.
Power supply:.....230 Vac +10%, -15%, 50/60Hz.
Optional:.....12, 24 V ac/dc and 110 Vac.
Probe wiring:.....without polarity.
Relay.....10(4)A 250V ac.
Max. Connected wire section:.....1,5mm².
External box protection grade:.....IP55.
Working Temperature:.....-5°C to 45°C.
Storage Temperature:.....de -20 to 60°C.



Cod: 3146 ING.V1-1/104