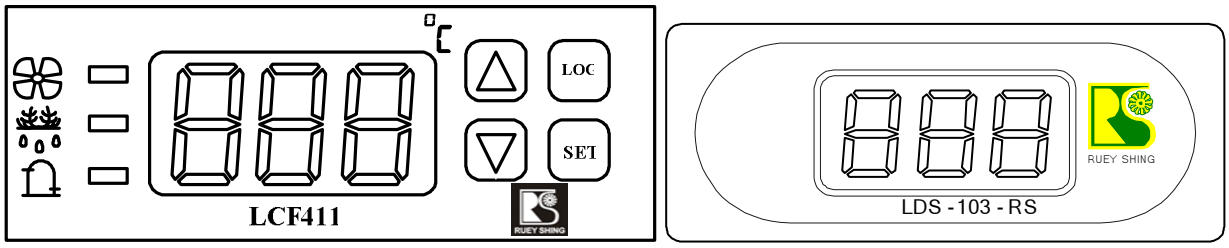
LCF-411-RS+LDS-103

Micro-Processor Temperature Control

Panel：



Technical data：

- **Power Supply：85V~265V/AC/50~60HZ**
- **Display**：Seven segment LED
- **Mounting**： SNAP-IN
- **Fit-in size**：70*28*64mm^3
  53*26.5mm^2
- **Temperature range**：centigrade -50℃~+80.0℃
  ：Fahrenheit 0.0^{0}F ~+100^{0}F
- **Working temperature**： -15°C ~ 70°C
- **Accuracy**：centigrade：±1℃；Fahrenheit：±1^{0}F
- **Resolution**：centigrade：0.1℃；Fahrenheit：0.1^{0}F
- **Maximum output rating**：(1)**Compressor** 30A/250V (Resistance load)

System parameter table：

No.	Symbol	Description	Range(centigrade)	Default	Range(Fahrenheit)	Default
1	**tS**	Compressor stop temperature	-50°C ~+80.0°C	+2.0°C	0.0℉～+100℉	+40.0℉
2	**td**	Differential temperature for compressor restart	+0.1°C ~+ 15.0°C	+4.0°C	+0.1℉～+15.0℉	+8.0℉
3	**Sd**	Compressor start-up delay time	0 ~15 Min.	2 Min.	0～15 Min.	2 Min.
4	**di**	Defrost interval	0 ~ 24 Hr.	4 Hr.	0~24 Hr.	4 Hr.
5	**dd**	Defrost duration	0 ~ 60 Min.	20 Min.	0~60 Min.	20 Min.
6	**CL**	Condenser cleaning interval	0 ~ 250 day	0 day	0~250 day	0 day
7	**tA**	Sensor calibration	-10°C ~+ 10.0°C	0.0°C	-9.0℉～+9.0℉	0.0℉

Lock parameter table：

No.	Symbol	Description	Range(centigrade)	Default	Range(Fahrenheit)	Default
1	**Lo**	Parameters protection	y:lock / n:unlock	y	y:lock / n:unlock	y
2	**tH**	The upper temperature limit	tS ~ +80.0°C	+50.0°C	tS～+100℉	+100℉
3	**tL**	The lower temperature limit	-50°C ~ tS	-50°C	0.0℉～tS	0.0℉
4	**AH**	High temperature alarm	tS~ +80.0°C	+50.0°C	tS~+100℉	+100℉
5	**Ht**	Alarm when the temperature is higher than AH setting continuously over this duration	0~180Min	90Min	0~180 Min	90 Min
6	**AL**	Low temperature alarm	-50°C ~ tS	-30°C	0.0℉~tS	+20.0℉
7	**Lt**	Alarm when the temperature is lower than AL setting continuously over this duration	0~180Min	60Min	0~180 Min	60 Min
8	**tC**	Defrost cycle is counted by hour or 15 min	ti : hour /CP :15 min	ti	ti : hour /CP :15 min	ti

※ **Note**：When parameter **LO** is set to "**y**" , the parameter "**tS**" will be the only parameter which can be shown on display. No other parameters can be modified until **LO** is set back to "**n**".

Self Test Function ERROR Eode:

Error code	Description
E1H	Sensor shorted or temperature higher than centigrade +80.0℃ Fahrenheit +100^{0}F
E1L	Sensor opened or temperature lower than centigrade -50℃ Fahrenheit 0.0^{0}F
AH	High temperature alarm
AL	Low temperature alarm

Operation System parameter setting:

1. Press【SET】key, the display flashes pattern『888』, then shows the symbol of the first system parameter『tS』, this means the controller entering the parameter modifying phase, can press【▲】or【▼】key to choose other parameters(『td』or『di』) that is going to be adjust, Two keys 【▲】or【▼】 is used as " scroll up and scroll down key". During each parameter item in display, Press "SET" key, the display shows value of each parameter, can push【▲】 or "▼"key to modify setting value. Press the "SET" key, then modify the next parameter. Each choosing o『tS』, 『td』, 『Sd』, 『di』, 『dd』, 『tA』 is available.

2. If there is no any key was pushed during thirty seconds，the controller jump into function of setting.

3. After power『ON』，the compressor is delaying for protecting(power on delay『sd』). If you want to bypass the delay time and start immediately，then you can push【▼】key display shows『Fon』. The controller then forces compressor to start up immediately.

4. When sensor shorted or broken， the display shows error code until system recover.

5. Press【Log】key， the displays flashes『dEf』 ， the controller go into defrost immediately.

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Lock system parameter setting:

1.Press【SET】key for three seconds，the display begins flashing pattern『888』. While flashing， press both【▲】and【▼】keys together until display shows『LO』(which means into parameters lock). Press【SET】again， the modified value would be showed. At this time， press【▲】or【▼】 to lock by choosing『y』or to unlock by choosing『n』.

2.After select system parameters to unlock push【SET】key， the display shows pattern『tH』，can press【▲】or【▼】key to move to the next parameter，.Press 【SET】key， the display flashes pattern set value，can press【▲】or【▼】key to increase or decrease the value by one unit，push the【SET】 key， the controller goes to modify the next parameter， finally; that the setting procedure is finished.

Other operations

1.Setting temperature unit：press【SET】key. While the display is flashing『888』, press【Log】key about 5 seconds. The current temperature unit will be shown on the display (°F or °C). When you see °F or °C on the display, use【▲】or【▼】keys to change the temperature unit and then press【SET】key to save the setting.

(Every time after you changed temperature unit, all other parameters have been reset to default setting as well. So you have to set all the parameters again.)

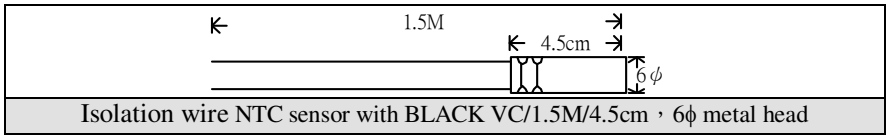
• Function keys：

Symbol	Name	Function description
△ ▽	Increase/decrease	To increase or decrease one unit value
SET	Set	Request for setting the parameter
LOG	Defrost	Manual defrost

• LED Indicators：

Symbol	Color	Description
	Green	Lamp flash, compressor time delay
		Lamp ON, compressor running
	Red	Lamp flash , system defrosting

SENSOR Specifications

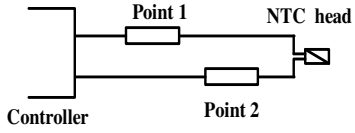


Isolation wire NTC sensor with BLACK VC/1.5M/4.5cm，6ϕ metal head

※Lengthen your NTC sensor probe， Please pay attention on below：

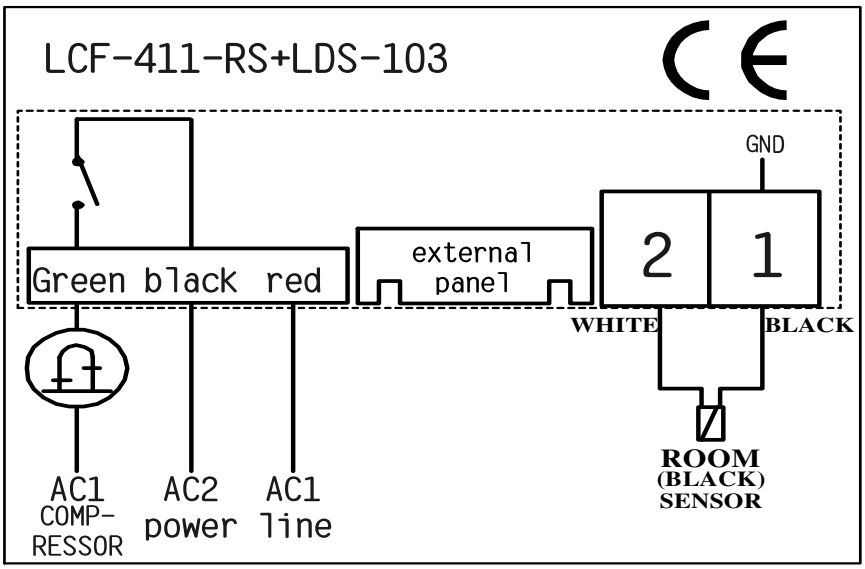
(1).Off the system power.

(2).To avoid short circuit， the connection points should be interleaved， as shown right.



※ Notes: (1) When NTC black sensor is in error status, system stop.

(2) When the room temperature is continuously higher than AH, (you can adjust between tS to 50°C) and the time is over than Ht minutes, the buzzer start to buzz, until the room temperature down lower than AH. The buzzer would start again when the same situation occurred, and this is a alarm to system condition.

Wiring diagram：

★Room Sensor 【black wire】need to connect to PIN 1 for ground purpose.