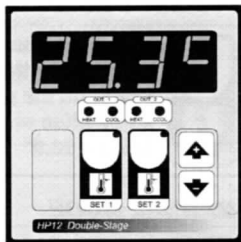


HP12

SL 4.0

Double-level thermostat

Handbook



MAIN SETTINGS (Run Mode)



SET 1 TEMPERATURE SETTING.

Press **SET 1** (key lamp flashes):

This message will be displayed in alternance with the °Set 1 temperature value.

Press + or - to modify. Press **SET 1** to confirm.

SET.1

20.05

Example SET.1 = 20.0°



SET 2 TEMPERATURE SETTING.

Press **SET 2** (key lamp flashes):

This message will be displayed in alternance with the °Set 2 temperature value.

Press + or - to modify. Press **SET 2** to confirm.

SET.2

25.05

Example SET.2 = 25.0°

VIEWING TEMPERATURE RECORDING



After pressing + will be displayed followed by °Maximum Temperature Recording.

After pressing - will be displayed followed by °Minimum Temperature Recording.

Recorder values are stored in a permanent memory. To clean memory keep pushed + keys for more than 3 seconds. Before cleaning the **CLEA** message will be displayed.

COS.t PROGRAMMING (System constants)



These settings refer to the operation mode of the system and must be made on initial startup. Press - / + at the same time for at least one second: the message **C.O.S.t.** will be displayed.

Press than repeatedly **SET 2** until the message regarding the chosen variable is displayed (see table below): variable's value and message will be displayed.



Press + or - to set a new value and then press **SET 2** to confirm.

The next system constant will then appear.

You can press **SET 2** for at least 2 seconds to exit and return to the *Run Mode*.

Mess.	Value	Meaning	Note
diF.1	0.2°	°C SET 1 differential	*1
diF.2	0.2°	°C SET 2 differential	*1
tEnP	=1	Temperature representation (=1 °C, =2 °F)	*2
Ad.tE	0°	°C Input temperature sensor correction (+ or -)	*3
rY.OC	=1	Relays status if sensor Open Circuit (O.C)	*4
rY.SC	=0	Relays status if sensor Short Circuit (S.C)	*4

*1) For more details see *Operating Diagrams*.

*2) tEnP =1 : °C Temperature range.

tEnP =2 : °F Temperature range.

*3) Sensor reading can be adjusted by pressing the + or - keys

*4) =0 Relays De-Energised, =1 Relays Energised.

PRESET PROGRAMS



At delivery this processor is programmed with the following (variable) settings.

To return to these settings at any time.

Power off the processor, press **SET 2** key and keep it pressed giving power on: release **SET 2** key when on the screen **boot** message appears.

Set.1 = 20.0° Set.2 = 25.0° The **COST** values are shown in **COST** paragraphs.

MANUAL MODE



In some start-up conditions may be useful to work in "hand" mode.

Power off the processor, press **+** key and keep it pressed giving power on:

HAnd message will be displayed (release now **+** key).

Press **+** until is displayed number required to be handed (see table relays "**N° Relay**") and press **SET 2** for activating relay.

Pressing again **+** for increase relay number previous relay is deactivated.

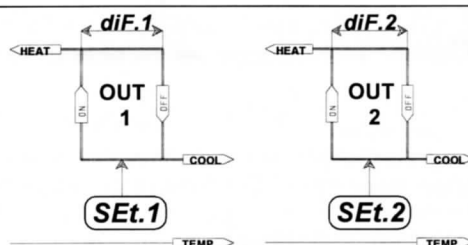
You can press **SET 2** key for a least two seconds to escape and return to the *Run Mode*.

STATE INDICATION LAMPS

The lights situated at the bottom of the display show the state of the relay.

Lamp.	State	N° Relay	Contacts
HEAT (1)	HEAT 1 Output On	1	3-4
COOL (1)	COOL 1 Output On	1	4-5
HEAT (2)	HEAT 2 Output On	2	6-7
COOL (2)	COOL 2 Output On	2	7-8

OPERATING DIAGRAM



INSTALLATION

How to connect the line

Connect 230V line on terminals **L-N**.

Protect supply with adequate fuse.

How to connect the contacts

Connect terminals on the terminal block

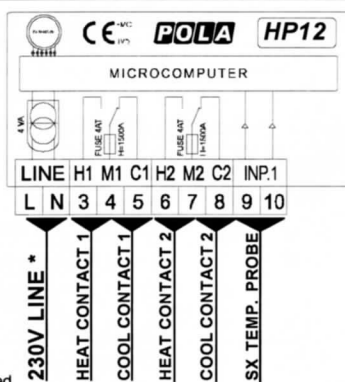
(contacts up to 4AMP.AC1) to the loads as shown in the diagram.

How to connect the sensors

Connect the provided sensor as shown in the diagram.

For remote connections use a standard 0.5-square millimetre two-pole wire for each sensor, taking great care over the connections, by insulating and sealing the joins carefully. **-O.C.-** is displayed when the temperature sensor wiring is open, **-S.C.-** is displayed when the temperature sensor wiring is short circuit (exiting condition of relays in this case is that setted in **Cost, rY.OC - rY-SC**).

* Other power voltage if you required



As it company policy to continually improve the products the Manufacturers reserve the right to make any modifications thereto without prior notice. They cannot be held liable for any damage due to malfunction.

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07.01.13