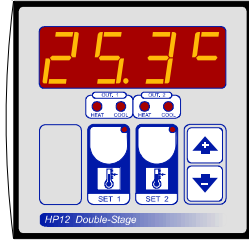


## HP12

SL 4.0  
Double-level thermostat



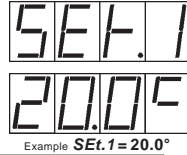
### Handbook

#### MAIN SETTINGS (Run Mode)



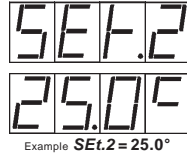
#### SET 1 TEMPERATURE SETTING.

Press **SET 1** (key lamp flashes):  
This message will be displayed instead of the °Set 1 temperature value.  
Press + or - to modify. Press **SET 1** to confirm.



#### SET 2 TEMPERATURE SETTING.

Press **SET 2** (key lamp flashes):  
This message will be displayed instead of the °Set 2 temperature value.  
Press + or - to modify. Press **SET 2** to confirm.



#### VIEWING TEMPERATURE RECORDING



Press & hold + will be displayed followed by °Maximum Temperature Recording.



Press & hold - will be displayed followed by °Minimum Temperature Recording.

Values recorded are permanently stored in the memory. To clear min. and max. memory push + key for more than 3 seconds. **CLEA** message will be displayed before clearing operation.

#### COST PROGRAMMING (System constants)



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



Press **SET 2** repeatedly until desired variables message is displayed (see table below): variable value and related message will be displayed.



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

The next system constant will then appear.

You can press **SET 2** for a least two seconds to escape 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

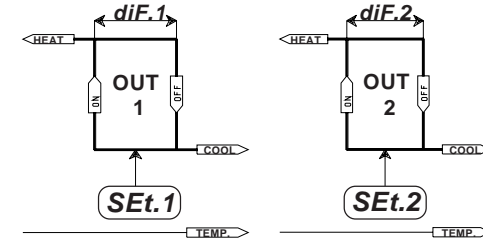
\*4) =0 Relays De-Energised, =1 Relays Energised.

#### STATE INDICATION LAMPS

The lights situated at the bottom of the display show the state of the various relays as set out below.

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.

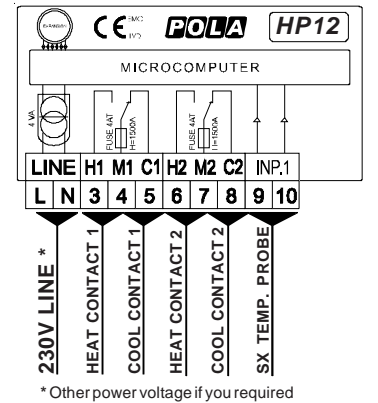
##### How to connect the sensors

Connect the sensors provided 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.

HP models are over voltage self protected (PTC on transformer's primary winding).

If protection is intervened, it is necessary to power down the module for at least 1 minute.



\* Other power voltage if you required

#### Troubleshooting

-O.C.- is displayed when the temperature sensor wiring is open circuit,

-S.C.- is displayed when the temperature sensor wiring is short circuit (existing condition of relays in this case is that set in **Cost**, rY.OC - rY.SC).

Unit 6, Old Wharf Ind. Estate, Dymock Rd, Ledbury HR8 2JQ

Tel. 01531 631161 e.mail: climatec@climatec.co.uk