

## INSTALLATION

### How to connect the sensors

Connect the sensor provided as shown in the diagram.

**For remote connections use a standard 0.5-square millimeter two-pole wire,** 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.

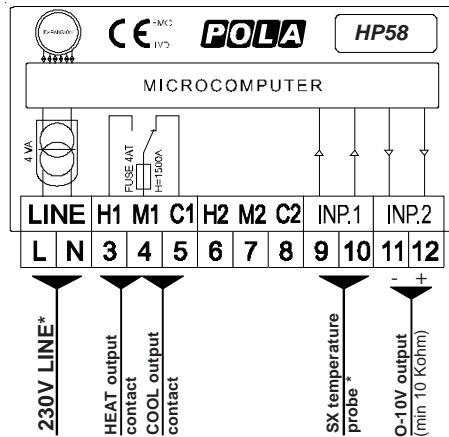
### How to connect the line

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

Protect supply with adequate fuse.

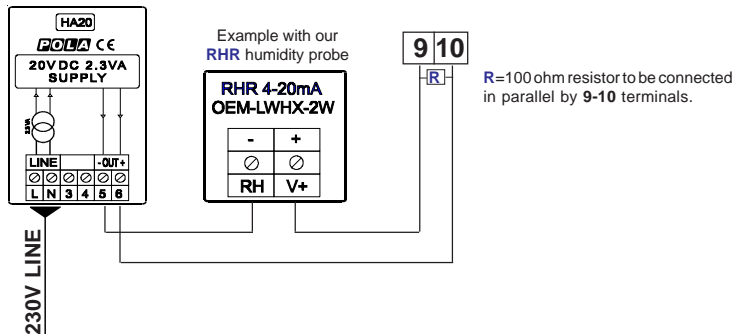
### How to connect the contacts

Connect terminals on the terminal block (contacts up to 4AMP.AC1).



\* Other power voltage if you required.

\* 4-20mA humidity probe connection (with setting  $tEnP=3$  in  $COST$ ).



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.

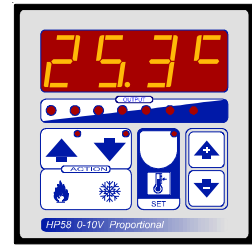


# HP58

SL 4.0

0-10V Proportional

Handbook



## MAIN SETTING (Run Mode)

### TEMPERATURE SETTING



Press **SET** (key lamp flashes): this message will be displayed instead of the ° Set temperature value.

Press **+** or **-** to modify, press **SET** to escape.

F.5E7

25.04

Example with  $t.SET = 25.0^\circ$

## VIEWING TEMPERATURE RECORDING

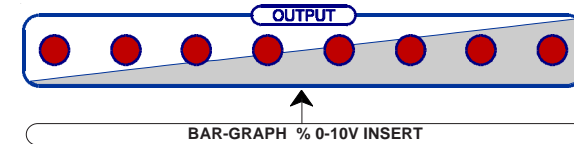


Press **+** F. \_ \_ \_ : will be displayed followed by °Maximum Temperature Recording.

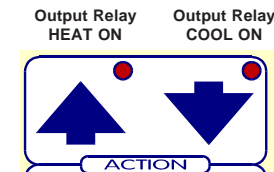
Press **-** F. \_ \_ \_ : will be displayed followed by °Minimum Temperature Recording.

Values are permanently stored in the memory: for deleting all values in the memory keep pushed **+** key for more than 3 seconds: **CLEA** message will appear on display before clearing operation.

## STATE INDICATIONS LAMPS



Press **TEMP** key for at least 2 seconds to display % insert (**PERC** message will be displayed instead of the infra-red lamps power % inserction).



The lamps near set key indicates relay command status.

## COS<sub>t</sub> 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 **SET** repeatedly until the message regarding the chosen variable is displayed (see table below) : value of variable and message will be displayed.

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

The next system constant will then appear.

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



| Mess. | Value | Meaning   | Note |
|-------|-------|---|------|
| rEL.P | 0.0 ° | ° 0-10V setting shift referring to t.SET              | *1)  |
| ProP  | 2.0 ° | ° Proportional band (0-10V output)                    | *1)  |
| P.--- | 0%    | % Output volt minimum                                 | *1)  |
| P.--- | 100%  | % Output volt maximum                                 | *1)  |
| rELA  | 0.0 ° | ° Relay setting shift referring to t.SET              | *2)  |
| diFF  | 0.2 ° | ° Differential (relay output)                         | *2)  |
| CYCL  | 0"    | Thermoregulation cycle time in seconds (relay output) | *2)  |
| tEnP  | =1    | Temperature representation (1= °C, 2= °F, 3= 4-20mA)  | *3)  |
| Ad.tE | 0.0 ° | ° Input temperature sensor correction (+ or -)        | *4)  |

\*1) For more details see *0-10V Proportional output Operative Diagrams*.

\*2) For more details see *Relay output Operative Diagrams*.

\*3) =1 : °C Temperature range.  
 =2 : °F Temperature range.  
 =3 : 4-20mA (0.0%...100.0%). See *Installation*.

\*4) You can correct the readings on the various sensor (+ or -).

## PRESET PROGRAMS (Bootstrap)



This processor is already programmed with the following (variable) settings. To return to these settings at any time you may:

Power off the processor, press **SET** key and keep it pressed giving power on: **boot** message will be displayed (release now **SET** key).

t.SET = 25.0 The COS<sub>t</sub> values are shown in *COS<sub>t</sub> Programming*.

## 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).

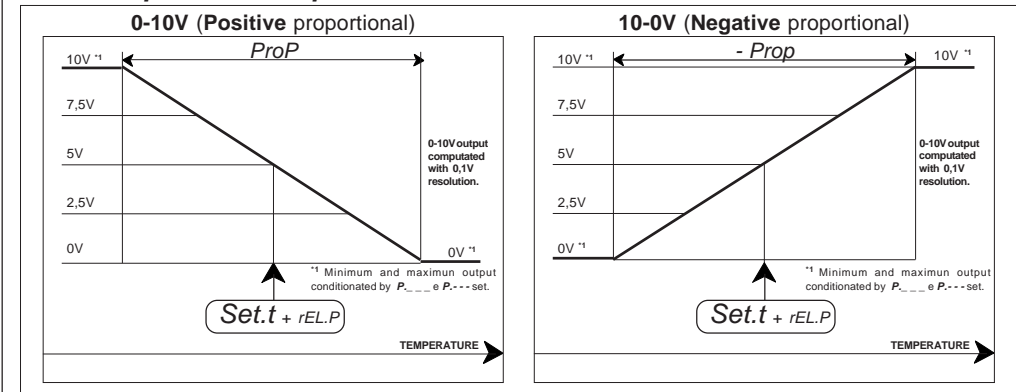
Press + until is displayed number required to be handed (see relays table in *State indication lamps*) and push **SET** for activating relay.

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

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

## OPERATIVE DIAGRAMS

### 0-10V Proportional Output



### Relay output

