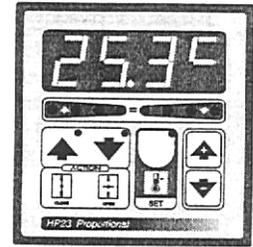


HP23 A

SL 4.0

Floating Proportional

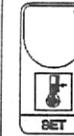
Handbook



MAIN SETTING (Run Mode).

These settings are only concerning the user

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.5E F

25.0 F

Example t.SET = 25.0°

Default settings

Set.1 (25 °C) Lamp OFF

Set.2 (26 °C) Lamp ON

Set.3 (27 °C) Lamp pulse 4sec off - 0.1sec on

IN2. = OPEN

IN2. = CLOSED

IN2. = 100Ω

VIEWING TEMPERATURE RECORDING



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



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

Values recorder are memory permanent stored: for memory clear keep pushed +
key for more than 3 seconds.

CLEA message will be composed on display before clearing operation.

PRESET PROGRAMS (Bootstrap).

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

To return to these settings at any time:

Power off the processor, press **SET** key and keep it pressed giving power on: *boot* message will be
displayed (release now **SET** key). **Set.1 = 25 °C, Set.2 = 26 °C, Set.3 = 27 °C**

The **COSt** values are shown in *COSt Programming*

COST PROGRAMMING (System constants)

-  These settings refer to the mode of 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 then repeatedly **SET** until interested variable's message is displayed (see table below) : variable value and related message will be displayed.
-  Press + or - to set a new value and then **SET** to confirm. The next system constant will then appear.
-  You can press **SET** for a least two second to escape and return to the *Run Mode* (see par. 1.1).

Mess.	Value	Meaning	Note
n.b	0.2°	° Neutral range	*1)
b.CLO	5.0°	° HEAT modulation range , if -ve value mode changes to on/off	*1)
b.OPE	5.0°	° COOL modulation range , if -ve value mode changes to on/off	*1)
t.on	2.0"	On time in seconds	*1)
t.oF	20.0'	Off time in minutes (on exit from neutral band when mode=2)	*1)
tEnP	=1	Temperature representation (=1 °C, =2 °F)	*2)
Ad.tE	0.0°	° Zone 1 input temperature sensor correction (+ or -)	*3)
SET.n	=1	Number of settings available (= 1, 2 or 3)	
t.on.U	=1	t.on Unit -> =1 : SS.D ; =2 : MM.D	
t.oF.U	=2	t.oF Unit -> =1 : SS.D ; =2 : MM.D	
Mode	=1	=1:fixed t.oF in b.CLO/b.OPE; =2: proportional. See operative diagram	

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

*2) :=1 : °C Temperature range.

=2 : °F Temperature range.

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

"HAND" MODE



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

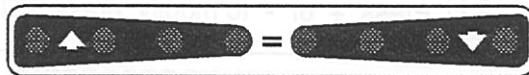
Power off the processor, press + key and keep it pressed giving power on: **HAnd** message will be displayed (release now + key).

Push + until is displayed number required to be handed (see table relays) and push **SET** for activating relay.

Pushing 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*.

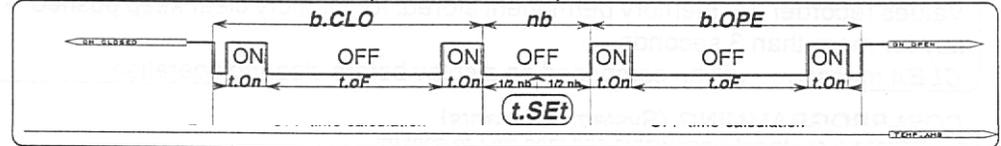
STATE INDICATION LAMPS



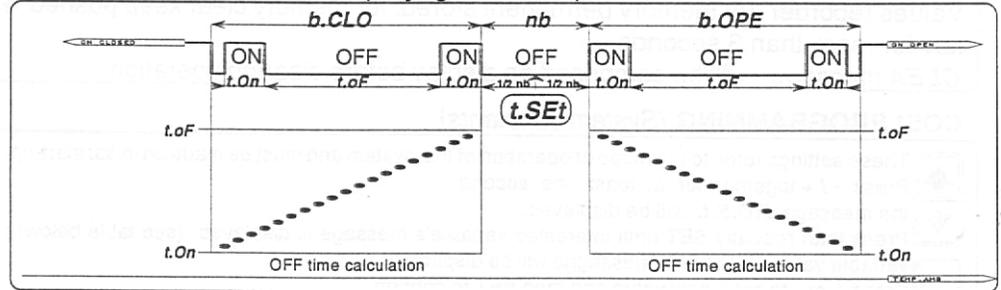
Swinging Ambient / Set temperature (t.SET) indicator

Lamp.	Meaning	N° Relay	Contatcts
CLOSE	Close (Heat) On	1	3-4
OPEN	Open (Cool) On	2	4-5

OPERATIVE DIAGRAM Mode = 1 (Fixed on/off times)



OPERATIVE DIAGRAM Mode = 2 (Varying on/off times)



INSTALLATION

How to connect the sensors

Connect the sensor provided as shown in the diagram. For remote connections use a standard 1.5-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.

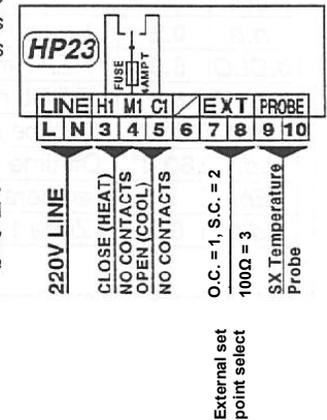
How to connect the line

Connect 220V line on terminals L-N.

How to connect the contacts

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

This system has been designed and built to reduce electrical disturbance as far as possible. However, for better protection apply RC-type filters - e.g. our model **HCF1** - in parallel to the inductive loads (contactor coils, etc.) controlled by the module relays.



As it is 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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