STATUS INDICATION LAMPS

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

Table of relay Outputs with *tYPE= 1-2-3-4-13* (Variable speed control)

Lamp.	Output relay						N° Relay
	HEAT	0	1	2	3	4	
HEAT	1	0	0	0	0	0	5
VENT 1	0	0	1	0	0	0	1
VENT 2	0	0	0	1	0	0	2
VENT 3	0	0	0	0	1	0	3
VENT 4	0	0	0	0	0	1	4

Table of relay Outputs with *tYPE = 14* (On-Off regulation type)

Lamp.	Output relays with *tYPE = 14* (see COSt)						N° Relay
	HEAT	0	1	2	3	4	
HEAT	1	0	0	0	0	0	5
VENT 1	0	0	1	0	0	0	1
VENT 2	0	0	1	1	0	0	2
VENT 3	0	0	1	1	1	0	3
VENT 4	0	0	1	1	1	1	4

INSTALLATION

How to connect the line
Connect 230V line on terminals **L-N**.
Protect supply with adequate fuse.

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 contacts
Output contacts are N.O. (Normally Opened free of voltage) on wich is apliable a 4AMP AC1 maximum load.
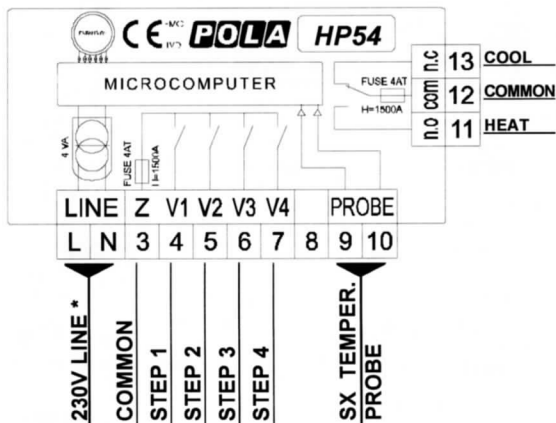3-4= Step 1 contact
3-5= Step 2 contact
3-6= Step 3 contact
3-7= Step 4 contact
11-12= Heat contact
12-13= Cool contact
Alarm and Cooling are available only with **HPAL** optional slot.

CE POLA HP54
MICROCOMPUTER
FUSE 4AT H=1500A

13	COOL
12	COMMON
11	HEAT

LINE	Z	V1	V2	V3	V4	PROBE
L N	3	4	5	6	7	8 9 10

230V LINE * — COMMON — STEP 1 — STEP 2 — STEP 3 — STEP 4 — SX TEMPER. PROBE

* Other power voltage if you required

POLA® CE
19.03.09

HP54
SL 3.1
4 step ventilation + thermoreg.
Handbook

25.3°C
HEAT VENT ALARM

MAIN SETTINGS (Run Mode)
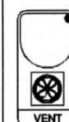
HEAT TEMPERATURE SETTING.
Press **HEAT**:
This message will be displayed instead of the °*Set Heat temperature value.*
Press **+** or **-** to modify, press **HEAT** to exit.

`HEAt`

VENTILATION TEMPERATURE SETTING.
Press **VENT**:
This message will be displayed instead of the °*Set Ventilation temperature value (start first step).*
Press **+** or **-** to modify, press **VENT** to confirm.

`uEnt`

At this point: this message will be displayed instead of the *Minimum Ventilation Step* (*).
Press **+** or **-** to modify, press **VENT** to confirm.

`SP.__`

At this point: this message will be displayed instead of the *Maximum Ventilation Step.*
Press **+** or **-** to modify, press **VENT** to confirm.

`SP.__`

(*) If the minimum speed is set to *0*, this message appears instead of the *Set Shutter Running Time* (seconds).
Press **+** or **-** to modify, press **VENT** to confirm.

`t.on`

At this point: this message will be displayed instead of the *Shutter Dwell Time* (seconds.).
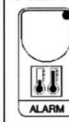Press **+** or **-** to modify, press **VENT** to confirm.

`t.oF`

At this point: this message will be displayed instead of the *Shut Speed Number.*
Press **+** or **-** to modify, press **VENT** to exit.

`SP.__`

ALARM PARAMETER SETTING.
Press **ALARM**:
This message will be displayed instead of the °*Set Minimum Alarm temperature value.*
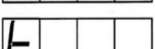Press **+** or **-** to modify, press **ALARM** to confirm.

`AL.__`

At this point: this message will be displayed instead of the °*Set Maximum Alarm temperature value.*
Press **+** or **-** to modify, press **ALARM** to exit.

`AL.__`

VIEWING TEMPERATURE RECORDING

Press + : ⌶.___ will be displayed followed by
°*Maximum Temperature Recording.*

Press - : ⌶.___ will be displayed followed by
°*Minimum Temperature Recording.*

Values recorder are memory permanent stored: for memory clear keep pushed + keys for more than 3 seconds: **CLEA** message will be composed on display before clearing operation.

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 than repeatly **ALARM** 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 **ALARM** to confirm. The next system constant will then appear.
You can press **ALARM** for a least two second to escape and return to the *Run Mode* .

Mess.	Value	Meaning	Note
d.HEA	0.2°	° HEAT differential	*1)
rEL.1	0.0°	° V1 start setting referring to VENT set.	*1)
rEL.2	1.0°	° V2 start setting referring to V1 start.	*1)
rEL.3	1.0°	° V3 start setting referring to V2 start.	*1)
rEL.4	1.0°	° V4 start setting referring to V3 start.	*1)
d.FAn	0.2°	° Ventilation differential	*1)
r.COL	6.0°	° Cool setting shift reffering to vEnt	*1)
d.COL	0.2°	° COOL differential	*1)
tEnP	=1	Temperature representation (=1 °C, =2 °F)	*2)
Ad.tE	0.0°	° Input sensor temperature correction (+ or -)	*3)
tYPE	1	Start ventilation actioning mode	*4)

*1) For more details see *Operative Diagrams*
*2) *tEnP* =1 ; °C Temperature range.
  tEnP =2 ; °F Temperature range.
*3) You can correct the readings on the sensor (+ or -).
*4) Different mode of ventilator initial start-up optionally settable (step from 0 to 1 speed).
  tYPE= 1 : 0 to 1 step become in normal mode.
  tYPE= 2 : 0 to 1 step become with a momentary 10 seconds at speed 2.
  tYPE= 3 : 0 to 1 step become with a momentary 5 seconds at speed 3.
  tYPE= 4 : 0 to 1 step become with a momentary 5 seconds at speed 4.
  tYPE=13 : Heating mode ventilation.
  tYPE=14 : Progressive ventilation contacts (On-Off regulation type).
  Options 2, 3 , 4 permits to make an easy opening of shutter models ventilators.
  Option 13 permits Heater mode ventilation (low temperature = higt speed; in other options high temperature= high speed).
  Option 14 permits On-Off regulation mode (in other condition regulation is for variable speed control).

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 **ALARM** key and keep it pressed giving power on: release **ALARM** key when on the screen appear *boot* message.
HEAt = 20.0° vEnt = 25.0° SP._ _=0 SP.- - = 4 t.on=10" t.OF= 60" SP.-- = 0
AL._ _ = 10.0° AL.- - = 40.0° COST value are shown in COST paragraph.

"HAND MODE"

In some start-up conditions may be useful to work in "hand" mode.
Power off theprocessor, 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 "N° Relay") and push **ALARM** for activing relay.
Pushing again + for increase relay number previous relay is disactivated. You can press **ALARM** for a least two seconds to escape and return to the *Run Mode.*
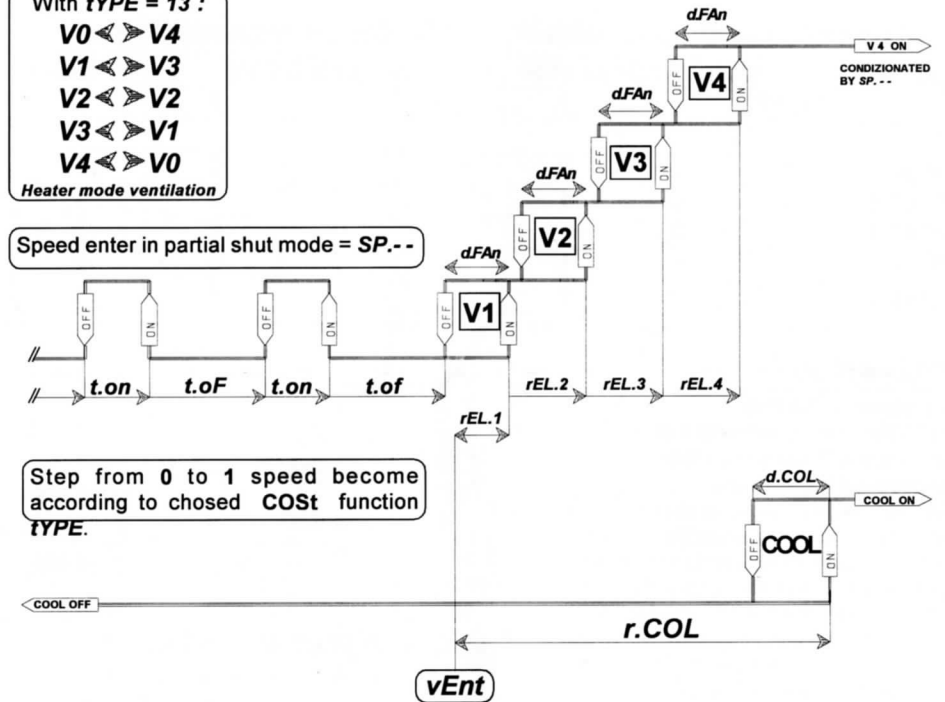
OPERATIVE DIAGRAMS

With *tYPE* = 13 :
V0 ≪ ≫ V4
V1 ≪ ≫ V3
V2 ≪ ≫ V2
V3 ≪ ≫ V1
V4 ≪ ≫ V0
Heater mode ventilation

Speed enter in partial shut mode = SP.- -

Step from 0 to 1 speed become according to chosed COSt function *tYPE.*