

HP32

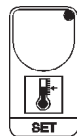
SL 3.0
Proportional feedback

Handbook



MAIN SETTINGS (Run Mode)

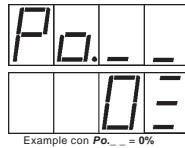
SETTING



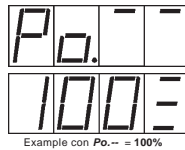
Press **SET**:
This message will be displayed instead of the °Set temperature value.
Press + or - to modify, press **SET** to confirm.



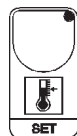
At this point: this message will be displayed instead of the Position minimum opening % value.
Press + or - to modify, press **SET** to confirm.



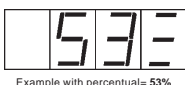
At this point: this message will be displayed instead of the Position maximum opening % value.
Press + or - to modify, press **SET** to confirm.



POSITION VIEWING



Press **SET** for at least one second (and not for more 5 seconds, because an *Init* procedure is then issued):
this message will be displayed showing the current % position.



VIEWING TEMPERATURE RECORDING



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

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

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

FLAP POTENTIOMETER INITIALIZATION PROCEDURE (Init)



Connect the potentiometer of any value (max 10Kohm, recommended 1 Kohm) must be applied to the flap motor.
Having done this, proceed as follows to record the potentiometer values.
Press **SET** key for at least 5 seconds: when **Init** message is displayed for more than one second. Release **SET** key. **HP32** closes the flap (light **CLOSE** flashes) and the potentiometer resistance value is displayed.
When the flap has completely closed, press **SET** to record the value: at this point **HP32** opens the flap (light **OPEN** flashes) and the potentiometer resistance value is displayed.
When the flap has completely opened, press **SET** to record the value.
HP32 then returns automatically to the *Run mode*.

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** repeatedly until the desired 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 seconds to escape and return to the *Run Mode*.

Mess.	Value	Meaning	Note
ProP	4.0°	°C Proportional range	*1
Pct.1	0	% Position flap to SET	*2
Pcn.1	5	% Neutral range	*3
Po.CL	0	Potentiometer resistance in flap closed position	*4
Po.OP	9999	Potentiometer resistance in flap open position	*4
tEnP	=1	Temperature representation	*5
Ad.tE	0.0°	°C sensor temperature correction (+ or -)	*6

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

*2) Flap position when zone temperature equals **SET** temperature (**SET** key in *Run Mode*) (0 is fully closed).

*3) If hunting occurs when searching for the position during flap operation (due to mechanical gearmotor hysteresis), increase the **Pcn.1** setting value until it is eliminated.

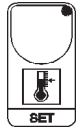
*4) Values can be entered in hand mode or are automatically set by *Init* procedure.

*5) **tEnP=0**: °C Temperature range.

tEnP=1: °F Temperature range.

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

PRESET PROGRAMS (Bootstrap)



This processor is pre-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 (now release **SET** key).

t.SET=25.0° Po. _ _ = 0 Po.- -=100.

The COSt values are shown in *COSt Programming*

"HAND" MODE



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

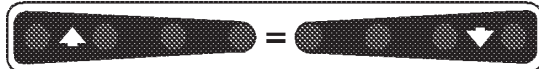
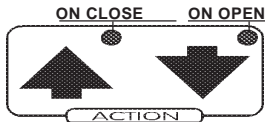
Power off the processor, press **+** key and keep it pressed giving power on: **Hand** message will be displayed (release now **+** key).

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

Pushing **+** again to increase the relay number, previous relay is deactivated.

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

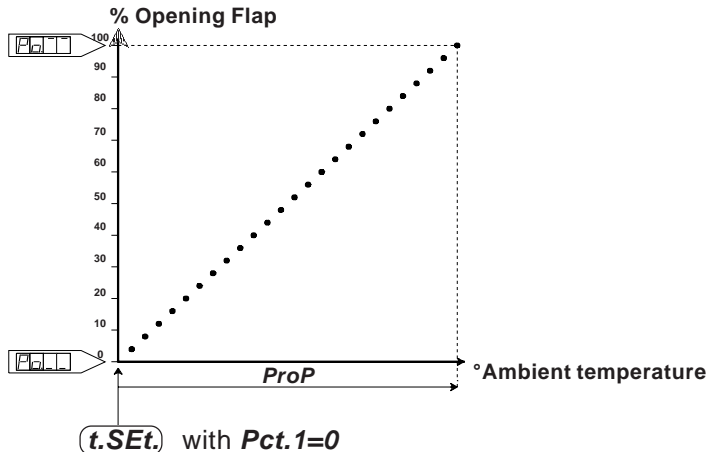
STATUS INDICATION LAMPS



Swinging Ambient / Set temperature (t.SET) indicator

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

OPERATIVE DIAGRAM



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.

How to connect the response potentiometer

Connect the potentiometer of any value (max 10Kohm, recommended 1 Kohm) and connect the terminals **7-8**.

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.

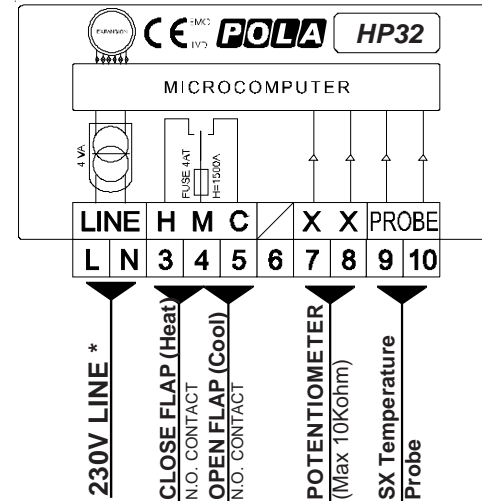
How to connect the line

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

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.

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