## INSTALLATION

How to connect the sensors
Connect the provided sensor as shown in the diagram. **For remote connections use a standard 0.5-square millimeter two-pole wire (one for each sensor)**, taking great are 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).

CE EMC IVD   **POLA**   **HP35**

MICROCOMPUTER

4 VA | FUSE 4AT H=15(0)A | FUSE 4AT I=15(0)A | | |

LINE	H1	M1	C1	H2	M2	C2	INP.1	INP.2
L N	3	4	5	6	7	8	9 10	11 12

230V LINE * | HUM.1 OUTPUT | DEHUM.1 OUTPUT | HUM.2 OUTPUT | DEHUM.2 OUTPUT | DRY SENSOR SX PROBE | WET SENSOR SXPS PROBE
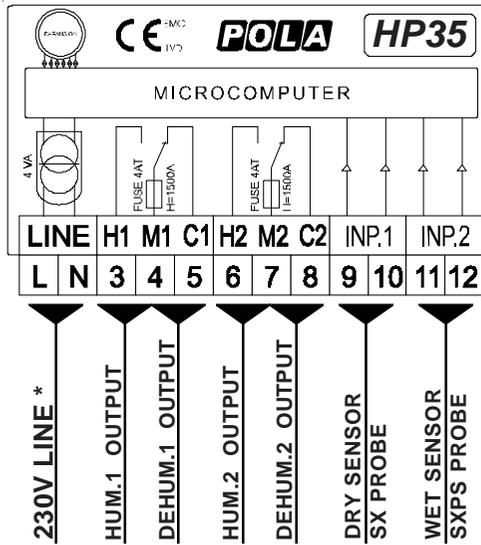
* Other power voltage if you required.

WT1 Option.
Psichrometric kit with predisposition to fixing ambient probe (**SX** air) and wet probe (**SXPS** water). Water tank with trasparent side to check the water level and plug for water inlet.

In the case of our **WT1** option (water tank) will not used, deep only the terminal side of the wetting cover of **SXPS** probe.
Put **SX** probe (dry bulb) in the closeness.
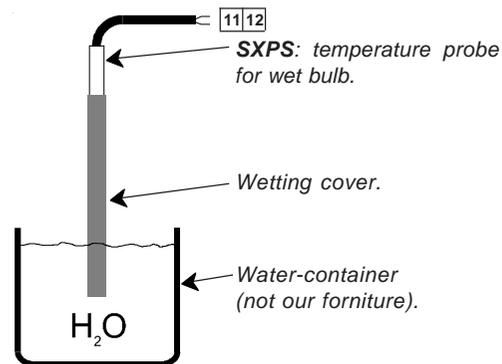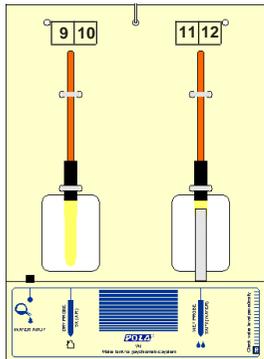
9 10   11 12

POLA

11 12

SXPS: temperature probe for wet bulb.

Wetting cover.

Water-container (not our forniture).

H_2O

Check periodically the sock installed on the sensor has not been clogged by calcium carbonate scale. If so, remove it then clean or replace it.

POLA® CE   21.12.12

HP35
SL 3.0
Psychrometer hygrostat controller

Handbook

HP35 Psychrometer Hygrostat
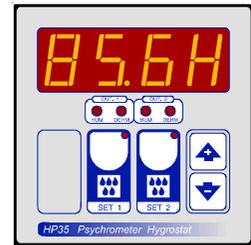
MAIN SETTINGS *(Run Mode)*

SET 1 HUMIDITY SETTING.
Press **SET 1** (key lamp flashes)**:**
This message will be displayed instead of the *% RH Set 1 Humidity value*.
Press + or - to modify. Press **SET 1** to confirm.
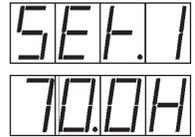
SEt.1
70.0H
Example *SEt.1 = 70.0H*

SET 2 HUMIDITY SETTING.
Press **SET 2** (key lamp flashes)**:**
This message will be displayed instead of the *% RH SET 2 humidity value*.
Press + or - to modify. Press **SET 2** to confirm.
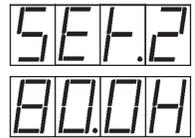
SEt.2
80.0H
Example *SEt.2 = 80.0H*

VIEWING HUMIDITY RECORDING

Press **+** : *H.‾‾‾* will be displayed followed by *°Maximum Humidity Recording*.

Press **-** : *H.___* will be displayed followed by *°Minimum Humidity 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.

PSYCHROMETER TEMPERATURE VIEWING

DRY BULB TEMPERATURE VIEWING:
Press **SET 1** for at least one seconds:
This message will be displayed instead of the *°C dry bulb temperature* .

t.dry

WET BULB TEMPERATURE VIEWING:
Press **SET 2** for at least one seconds:
This message will be displayed instead of the *°C wet bulb temperature* .

t.uEt

COSt PROGRAMMING (System constants)
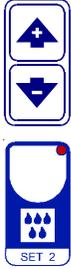
These settings refer to the operation mode of the system and must be made on initial startup. Press - / + at the same time for at least one second: the message **C.O.S.t** will be displayed.

Press than repeatedly **SET 2** 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 2** to confirm.

The next system constant will then appear.

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

Mess.	Value	Meaning	Note
diF.1	1.0%	%Rh SET 1 differential	*1)
diF.2	1.0%	%Rh SET 2 differential	*1)
tEnP	=1	Temperature representation (=1 °C, =2 °F)	
Ad.t1	0.0 °	° dry input temperature sensor correction (+ or -)	*2)
Ad.t2	0.0 °	° wet input temperature sensor correction (+ or -)	*3)

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

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

*3) You can correct the readings on the wet bulb probe sensor (**+** or **-**).

To calibrate the %RH reading (when using the psycrometric kit):
1. Remove the wet sock from the wet temperature probe.
2. Allow the wet temperature probe to dry for 10 mins.
3. Adjust the above setting to make the wet bulb temperature match that of the dry bulb.

Check periodically the sock installed on the sensor has not been clogged by calcium carbonate scale. If you, remove it and clean or replace it.

STATE INDICATION LAMPS

The light situated at the bottom of the display shows the state of the controller:

Lamp.	State	N ° Relay	Contacts
HUM (1)	HUM 1 Output On	1	3-4
DEHM (1)	DEHUM 1 Output On	1	4-5
HUM (2)	HUM 2 Output On	2	6-7
DEHM (2)	DEHUM 2 Output On	2	7-8

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 2** key and keep it pressed giving power on: *boot* message will be displayed (release now **SET 2** key).

SEt.1=70.0H   SEt.2=80.0H.

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

"MANUAL" MODE

In some start-up conditions may be useful to work in "manual" 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 *State indication lamps*) and push **SET 2** for activing relay.

Pushing again **+** for increase relay number previous relay is disactivated.

You can press **SET 2** key for a least two seconds to escape and return to the *Run Mode*.

OPERATIVE DIAGRAM