9. Use the controller

9.1 Start-up

9.1.1 Warnings

CAUTION! Check again that the equipment and wiring are correct as required in this manual. Make sure that the fan absorption does not exceed the maximum stated on the identification label. Keep people or things out of the work area.

9.1.2 Start-up procedure

Follow this procedure for correct controller start-up:

Step	Task	Reference in the manual
1	Complete all electrical power connections at mains voltage.	"Electrical installation" on page 25
2	Complete the input connections (i.e., transducers) and remote controls. ***NOTICE**: follow the indicated steps for correct Modbus connection operations.*	"Analog input connections IN and IN2 in Slave mode" on page 28 "Analog input connections IN1 and IN2 in Master mode" on page 29 "Analog outputs OUT1 and OUT2" on page 32 "RS485 Modbus RTU network connection" on page 35
3	Turn on power.	
4	Select the configuration suitable for the transducers used and the application	"Select a configuration" on page 60
5	If necessary, enable reserved parameter editing on DIP switch SW1 and other functions	"DIP switch SW1" on page 13
6	Set the setpoint 1 or 2 and the night limit	"Editing parameters" on page 63
7	If necessary, set proportional bandwidth and setpoints for any external units and related parameters.	
8	If necessary, edit the configuration parameters	
9	In communication with supervisor, set the communication parameters	
10	Disable reserved parameter editing on DIP switch SW1.	"DIP switch SW1" on page 13

When the controller is turned on (or the **RESET** key pressed), the following messages are displayed:

9.1.3 Information displayed when powered on

When the controller is powered on (or after pressing the **Reset** key), before the home page (see "Home page" on page 57) appears, for a few seconds a page appears that has the following information:

- manufacturer's name
- firmware version
- controller description

Example

```
    SELPRO Rel. 2.0
       Soft-Ster
3PH Discrete Control
    MODBUS inside
```

9.2 Navigation structure

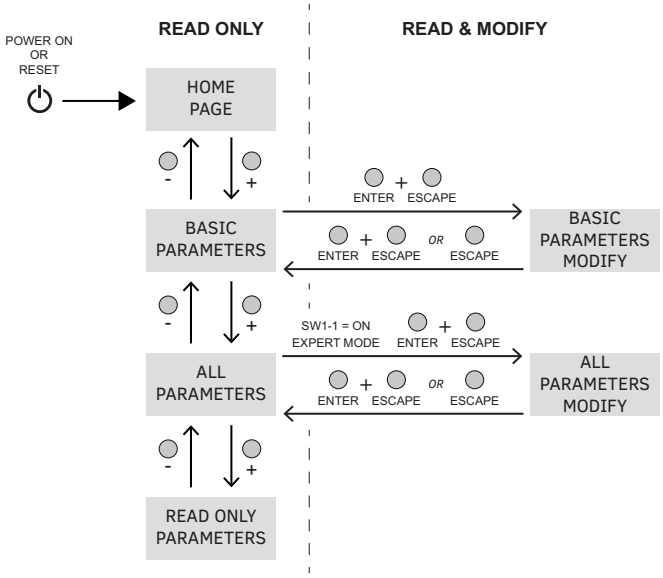
9.2.1 Getting started

When turned on, the home page is displayed (see "Home page" on page 57). From the home page, press the **+** and **-** keys to display the current values of all the parameters/measurements collected on pages (see "Parameter list" on page 57).

To edit the parameters, simultaneously press the **ENTER** + **ESCAPE** keys. Based on the position of switch 1 of DIP switch SW1, all parameters are visible (see "Parameters" on page 57) or only the base ones are (see "Basic parameters" on page 63).

9.2.2 Navigation map

When turned on, the HOME page is displayed. Press the ESCAPE key from any page to return to the HOME page.



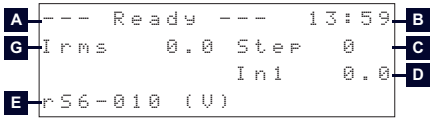
9.3 Home page

9.3.1 Getting started

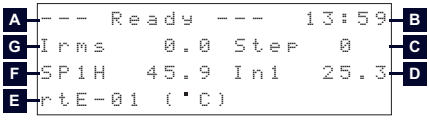
The information displayed on the home page depends on the fan control mode set: Slave or Master.

9.3.2 What it looks like

Example of Slave mode



Example of Master mode



Part	Description
A	System status or alarm/warning message. **System status** ■ **Ready**: control command value = 0 ■ **Run**: control command value > 0 ■ **Stop**: control disabled (contact **S2** = closed) ■ **Floating SP**: control command value > 0 and menu **4: SETUP** > parameter **C6** = **Floating SP** ■ **Safe Slave**: control command value > 0 and menu **4: SETUP** > parameter **C6** = **Slave safety** (with control in Slave mode). **Alarm and warning messages** See "Troubleshooting" on page 81.
B	Internal clock time
C	Voltage step engaged
D	Value of the prevalent input (**IN1** or **IN2**). The unit of measure depends on the set configuration. ***Note**: it is **Slave IN3** if the control mode is set as Slave by IN3 (menu **4: SETUP** > parameter **C6** = **Slave safety**) and the input value at **IN3** is between 2 and 23.5 mA.*
E	Current configuration
F	Only for Master configurations. Value of the selected setpoint (**SP1** or **SP2**) ***Note**: it is **SP3** if the setpoint is set using **IN3** (menu **4: SETUP** > parameter **C6** = **SP from IN3**) and the input value at **IN3** is > 1 V.*
G	Output current

9.4 Parameters

9.4.1 Parameter list

The operative parameters are collected in pages, in groups of four per page (two for the parameters "**C**"), shown below in display order.

Parameter / page	Description	Unit of measure
Home page **HOME**	See "Home page" on page 57	-
SetPoint Bk1 (*)	Setpoint set1	°C/ mA/ bar/ V dc

Parameter / page	Description	Unit of measure
SetPoint Bk 2 (*)	Setpoint set 2	°C/ mA/ bar/ V dc
Max Night Limit	Maximum step for night limit	-
Spray Speed	Set step with spray on	-
Max Limit Bk1	Maximum step limit, set 1	-
Min Limit Bk1	Minimum step limit, set 1	-
Step Width Bk1 (*)	Differential (step amplitude), set 1	°C/ mA/ bar/ V dc
Step Shift Bk1 (*)	Variance between steps, set 1	°C/ mA/ bar/ V dc
Step7 Width Bk1 (*)	Step 7 differential (step amplitude), set 1	°C/ mA/ bar/ V dc
Step7 Shift Bk1 (*)	Step 7 variance, set 1	°C/ mA/ bar/ V dc
Step8 Width Bk 1 (*)	Step 8 differential (step amplitude), set 1	°C/ mA/ bar/ V dc
Step8 Shift Bk1 (*)	Step 8 variance, set 1	°C/ mA/ bar/ V dc
Step Delay Bk1	Delay between two successive step changes, set 1	s
SoftSwicht Bk1	Step activation split time, set 1	s
Spray SetP Bk1	Setpoint (RH %) for voltage output to external unit (spray unit) OUT. , set 1	°C/ mA/ bar/ V dc
SprayBand Bk1	Proportional band (RH %) for voltage output to external unit (spray unit) OUT, set 1	°C/ mA/ bar/ V dc
Max Limit Bk2	Maximum step limit, set 2	-
Min Limit Bk2	Minimum step limit, set 2	-
Step Width Bk2 (*)	Differential (step amplitude), set 2	°C/ mA/ bar/ V dc
Step Shift Bk2 (*)	Variance between steps, set 2	°C/ mA/ bar/ V dc
Step7 Width Bk2 (*)	Step 7 differential (step amplitude), set 2	°C/ mA/ bar/ V dc
Step7 Shift Bk2 (*)	Step 7 variance, set 2	°C/ mA/ bar/ V dc
Step8 Width Bk 2 (*)	Step 8 differential (step amplitude), set 2	°C/ mA/ bar/ V dc
Step8 Shift Bk2 (*)	Step 8 variance, set 2	°C/ mA/ bar/ V dc
Step Delay Bk2	Delay between two successive step changes, set 2	s
SoftSwicht Bk2	Step activation split time, set 2	s
Spray SetP Bk2	Setpoint (RH %) for voltage output to external unit (spray unit) OUT, set 2	°C/ mA/ bar/ V dc
SprayBand Bk2	Proportional band (RH %) for voltage output to external unit (spray unit) OUT, set 2	°C/ mA/ bar/ V dc
C0	Operating modes and number of inputs used	-
C1	Input to use. The other input is still visible from the display or from Modbus port (input selection)	-
C2	IN1 and IN2 type input	-

Parameter / page	Description	Unit of measure
C3	Display value conversion	-
C4	Setpoint position	-
C5	Step switching mode	-
C6	Input IN3 function	-
C7	Relay RL1 management	-
C8	OUT_1 analog output settings	-
C9	OUT_2 analog output settings	-
Modbus page	Modbus communication parameters with PC-Host	-
Internal clock page (RTC)	Date and time	-
Heat exchanger washing page (Washing) (*)	Parameters for timed washing of the heat exchanger	-
Fan anti-locking page (Anti Lock Fan) (*)	Fan anti-locking parameters	-
Night limit page (RTC Night Limit) (*)	Parameters for night control	-
Bank Switch page (*)	Parameters for set switching parameters 1 and 2 set with the temperature probe	
Floating Set Point page	Parameters for adjusting the setpoints as a function of the external temperature	
DSV 3ph size	Three-phase stepper device, rated current value	A
Logic Temper	Electronic board real time temperature	°C
Power Temper	Power board real-time temperature	°C
Power RMS V.	Power supply RMS voltage	V
Out 1 Value	OUT1 analog output value	V dc
Out 1 Mode	OUT1 output operating mode	-
Out 2 Value	OUT2 analog output value	V dc
Out 2 Mode	OUT2 output operating mode	-
IN 1	Input value 1	mA/ V dc/ bar/ °C
IN 2	Input value 2	mA/ V dc/ bar/ °C
IN 3	Input value 3	mA/ V dc/ bar/ °C

***Note** (*): parameters only visible if the controller configuration calls for it or when the function is active.*

9.4.2 Editing parameters

To...	Then...
edit a basic parameter, Modbus communication and the internal clock	see "Edit a basic, Modbus and internal clock parameter" on page 71
edit any parameter	see "Edit any parameter" on page 73