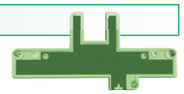
Available screens for the Filter Sensor · NSYCCAFSDUST · Sensor for the dirt of filters



1/12 Degree of dirtiness
0% clean filter
100% Filter completely clogged by dirt

DIRTINESS 23.1% #3@2 1/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

2/12 Air temperature
Measure the temperature that passes through the filter.
Scale from -40°C to + 70°C / -40°F to 158°F

TEMPERATURE 18.9°C #3@4 2/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

3/12 Filter renewal
Days since the last filter renewal

FILT. LIFETIME 211days #3@6 3/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

4/12 Filter changes
Total number of times the filter has been changed.

FILTER RENEW 29times #3@8 4/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

5/12 Active alarm
Alarms in the filter sensor.
AL1: Temp out AL2: Filter alarm

ALARMS NONE #3@10 5/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

6/12 Output configuration LEDs
Set when the warning LEDs are activated:
Filter status: Green -> 0% to 60% filter dirtiness
Yellow -> 60% to 80% filter dirtiness
Red -> 80% to 100% filter dirtiness
Alarms: Flashing red -> Alarm in the system
Demo: Activates the color % of the LEDs randomly to display the entire available color range.
Brightness: Brightness intensity of the LEDs

GRID LEDS 23.4% #3@12 6/12

Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
LEDs are activated: **FILTER + AL** (for filter status and alarms)
ALARM (only for alarms)
FILTER (only for filter status)
OFF (disables warning by LEDS)
DEMO (color of the LEDS random, not indicative)
Brightness: **BRIGHT** (25%, 50%, 75% or 100%)

7/12 Filter change
Remaining life until we have to change the filter. Indicate the point to change the filter. It will activate an alarm when it reaches the target.

REM. LIFE 125days #3@28 7/12

Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Lifetime: **80%** (value defined for alarm, adjustable)
Warning point: marked with the LED in **RED**

8/12 High Temperature Alarm
Reports an alarm if the temperature sensor reads higher than the defined setting, factory setting 60°C. The current temperature reading is displayed on the screen

AL. HIGH TEMP 24.6°C #3@33 8/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
Alarm temperature: **60.0°C** (scale from 10°C to 70 °C)

9/12 Low Temperature Alarm
Reports an alarm if the temperature sensor reads lower than the defined setting, factory -5°C. The current temperature reading is displayed on the screen

AL. LOW TEMP 24.6°C #3@41 9/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
Alarm temperature: **-5.0°C** (scale from -40°C to 30°C)

10/12 Maximum Registered Temperature
The highest temperature reading recorded by that sensor.

FUNC MAX 29.8°C #3@49 10/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

11/12 Minimum Registered Temperature
The lowest temperature reading recorded by that sensor.

FUNC MIN 7.2°C #3@54 11/12

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

12/12 PING function
Activate a visual indication by inverting colors of the screen (white background and black letters) to be able to identify it. On the screen the countdown of the time defined for PING. Option to restart the device with the factory parameters.

PING OFF #3@62 12/12

Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Time: **OFF** (off), **30sec** (seconds), **1 min, 5 min, 15min** (minutes)
Version: **v1.1** (software version, press **OK**, to see device description (**SLV FILTER v1.1**)
RESET: **RESET DEV** (Returns the device to the factory settings)

Alarm screen

1/1 Active alarms in the network
This screen is listed as one more device, at the end of the devices in the network. If an alarm is activated, this screen is fixed and if the on-screen option 6/12 is activated (FILTER + AL or ALARM) a flashing red light will be shown on the filter sensor.

ALARMS NONE ALL ALARMS 1/1 — Screen without alarms

#2 #4 #8 #12 #20 ALL ALARMS 1/1 — with active alarms

#2 #4 #8 #12 #20 #3 ALL ALARMS 1/2

#5 #15 ALL ALARMS 2/2 — the number of screens increases according to need

Filter alarm (dirty filter alarm) - It is activated when it detects that the filth of the filter exceeds the value defined in the **Filter changes** screen, adjustable by the user.

Temp out (Overheating alarm) - Activated when the temperature reading exceeds the value defined in the **High Temperature Alarm** screen, adjustable by the user.

RPM slow (Slow speed fan alarm) - Activated when the fan speed is below the level defined in the **Configuration alarms and status of the Fan**, adjustable by the user.

Fan blocked (Blocked blades alarm)- It is activated when it detects current consumption in the fan, but it does not detect that the fan turns (there are no readings of r.p.m. but but if energy consumption).

Lack current - It is activated when the fan sensor detects that the fan turns but does not consume current (there are r.p.m readings but it does not receive energy consumption readings, 0mA).

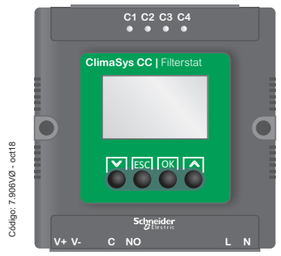
Lifetime over - activated when the device it protects is older than its life expectancy and can be replaced by a new one. Violet LED flashing on the sensor.

AT deviation (Deviation of Δt) - It is marked when the deviation Δt is greater than the value defined in the **Configuration ΔT Delta temperature and alarm between two temperature readings**, adjustable by the user

Broken ref (broken device link) - Occurs when a device in the network is disconnected and is part of a calculation, for example: we disconnect (from the bus cable) a device that is using Filterstat in the temperature readings for temperature delta .

en Filterstat · NSYCCOFSTXXXXXV · Control monitor for status of enclosures

Schneider Electric



Código: 7.906/V3 - oct18

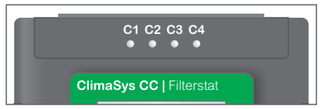
Controls and monitors the status of ventilation systems in cabinets to prevent breakdowns or failures. Equipped with ports to connect up to 4 devices (sensors for filters or fans, hubs or even another filterstat controller). Through these ports the controller receives the data and feeds the connected devices.

It also has a relay output (5A) that can link to the state of the alarms and an analog output (0-10) that is linked to the dirtiness of the filter (it will always read the filter with the major dirtiness detected).

Connection

V+ V- = 0-10V analog output
C NO = Relay SPST 5A
L N = Power according to model
C1, C2, C3, C4 = Connection devices(sensor, hub, filterstat ...)

LEDs



Equipped with 8 LEDs, 2 per channel (1 green & 1 orange)
- Green flashing, receiving data
- Orange flashing, sending data
- Fixed orange, problems with the channel

Characteristics

Power
NSYCCOFST30V: **19 ... 30Vdc**
NSYCCOFST90250V: **90 ... 250Vac 50/60 Hz**

Relay breaking power **: 5A SPST**
(Potential-free relay contact)

Analog output: **0 ... 10V**

Measurements: **80x80x41 mm**

Operating temperature: **-40 ... + 70°C**

Storage Temperature: **-45 ... + 75°C**

Moisture R. Operation: **20 ... 85%**

Memory of settings without power

Keyboard

- Advance data screen
Increase value

- Go back data screen
Decreases value

- Enter the menu to configure the Filterstat

OK - Enter to modify adjustment
Confirm value, OK

ESC - Inside menu, exit without saving data
In normal operation, it shows the list of connected devices

Filterstat menu

From the control screen you can configure the devices one by one, read the information registered by each of them and reset them. With the option **HIDE** you can filter the data you want to see on the screen and leave only the necessary information, defining from the menu of each screen of each device whether or not it is shown in **NORMAL** operation. In the **CONFIG** operation, you can view them all even if they have the **HIDE ON** option, and consult or configure them. In the menu you can configure the data screens.

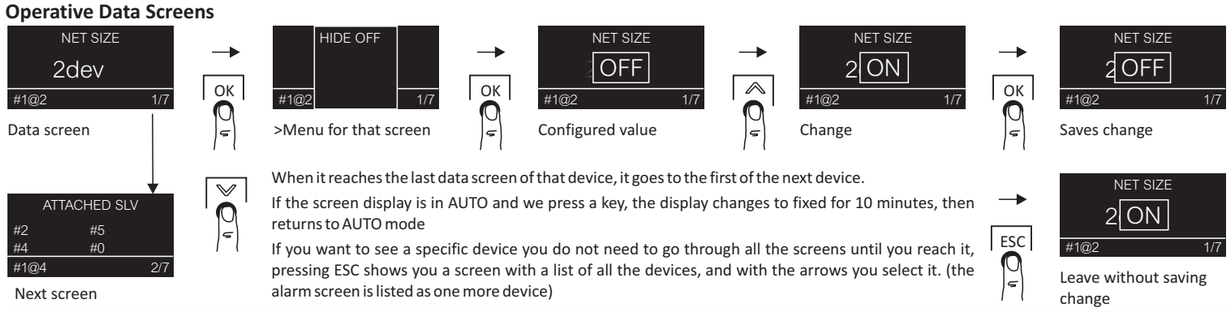
Press ⌄ ⌃ at once, and menu appears:

- Allows to define the temperature units.
- The way to teach the data screens, pass automatically every 4 seconds or manually.
- Show all screens or only those enabled.
-Activated, you need to enter the code to access the menu

CELSIUS
AUTO VIS
CUST SCR
PASSWRD
#1@2 /7

Menu
Temperature: **CELSIUS** (Centigrade Degrees) **FAHREN.** (Farenheit degrees)
Screen display: **AUTO VIS** (passes screen every 4 seconds)
MAN VIS (passes screen by pressing arrows)
Data screens: **CUST SCR** (shows only those enabled)
ALL SCR (shows all)
Password: **PASSWRD** (from factory 0000, deactivated)

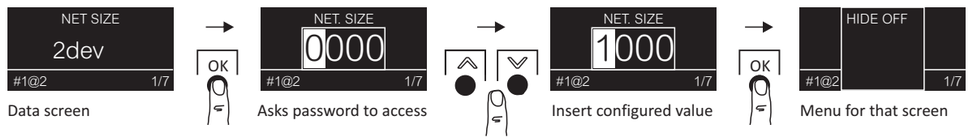
Operative Data Screens



Data screen
>Menu for that screen
Configured value
Change
Saves change
Next screen
Leave without saving change

When it reaches the last data screen of that device, it goes to the first of the next device.
If the screen display is in AUTO and we press a key, the display changes to fixed for 10 minutes, then returns to AUTO mode
If you want to see a specific device you do not need to go through all the screens until you reach it, pressing ESC shows you a screen with a list of all the devices, and with the arrows you select it. (the alarm screen is listed as one more device)

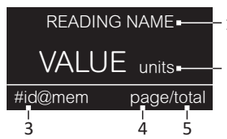
Acces with the password activated



Data screen
Asks password to access
Insert configured value
Menu for that screen

Once the correct password is entered, it gives access to the menu. Do not ask for the password again until 15 minutes have passed without touching the keys.

Screen



1 - Definition of the parameter
2 - Value of the reading and its units
3 - Identification of the origin of this data:
device to which this data belongs
@ memory location where the data is recorded
4 - Display number shown
5 - Total screens to be displayed of that device depends on the **NORMAL** or **CONFIG** mode

Quick access menu to devices

From any screen you can access the menu by pressing ESC , it will list all the devices in the network and by means of the arrows choose which one you want to go to directly.

Next device
first screen

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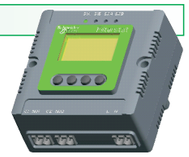
Printed on 2019/07/03

Screens available for the Filterstat



1/7 Network devices

Number of devices that the control sees connected to its network. (the same is not counted).

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

2/7 Devices connected to the control

Identification of the devices that are directly connected to the control ports. When show # 0, it means that there is no device connected to that port.

Menu
Show: **HIDE ON** (not seen in normal operation) HIDE OFF (always seen)
Assignment of channels according to example

#2	#4	#5	#0
C1	C2	C3	C4

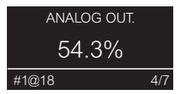
3/7 Relay Output

Relay output (5A) that is linked to the alarms, when an alarm is activated in the network, the relay turns on.

Menu
Show: **HIDE ON** (not shown in normal operation) **HIDE OFF** (always shown)
Operation: **REG** (when an alarm is detected it is activated until it disappears)
ON (steady on) OFF (fixed off)

4/7 Analog Output

0-10V output, linked to the filter dirtiness sensor. Shows on the screen and gives the value for the dirtiest filter of the entire network or can define a fixed value.
Example: shows 54,3% and leaves 5,43V.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

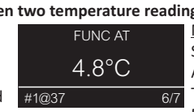
5/7 Active alarm

Shows if the control has an active alarm. Temperature differential alarm exceeded or communication broken with any of the devices involved in the calculation of ΔT. See next point.
AL1: Broken ref AL2: AT deviation

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

6/7 Configuration ΔT Delta temperature and alarm between two temperature readings

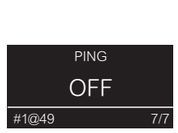
Calculates the temperature differential (or Delta-T) of two sensors, to measure the efficiency of the cooling system. Set to 0.0°C, disables the Alarm.
You must define the temperature probe of the inlet and outlet. Activate alarm if it reaches the set point.



Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Alarm differential: **0.0°C** (disables the alarm)
Temperature reading 1: **# id @ mem**
Reading temperature 2: **# id @ mem**

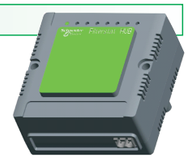
7/7 PING function

Activate a visual indication by inverting colors of the screen (white background and black letters) to be able to identify it. On the screen the countdown of the time defined for PING. Option to restart the device with the factory parameters.



Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Time: **OFF** (off), **30sec** (seconds), **1 min, 5 min, 15min** (minutes)
Version: **v1.1** (software version, press **OK**, to see device description (**HUB H.OLED v1.1**)
RESET: **RESET DEV** (Returns the device to the factory settings)

Screens available for the HUB · NSYCCOFSEM8U2 · Filterstat HUB extension module



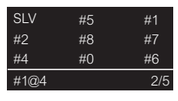
1/5 Network devices

Number of devices that the control sees connected to its network. (the same is not counted).

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

2/5 Devices connected to the control

Identification of the devices that are directly connected to the control ports. When show # 0, it means that there is no device connected to that port.



Menu
Show: **HIDE ON** (not seen in normal operation) HIDE OFF (always seen)
Assignment of channels according to example

#2	#4	#5	#8	#0	#1	#7	#6
C1	C2	C3	C4	C5	C6	C7	C8

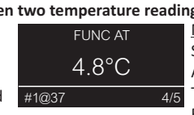
3/5 Active alarm

Shows if the control has an active alarm. Temperature differential alarm exceeded or communication broken with any of the devices involved in the calculation of ΔT. See next point.
AL1: Broken ref AL2: AT deviation

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

4/5 Configuration ΔT Delta temperature and alarm between two temperature readings

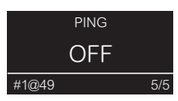
Calculates the temperature differential (or Delta-T) of two sensors, to measure the efficiency of the cooling system. Set to 0.0 ° C, disables the Alarm.
You must define the temperature probe of the inlet and outlet. Activate alarm if it reaches the set point.



Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Alarm differential: **0.0°C** (disables the alarm)
Temperature reading 1: **# id @ mem**
Reading temperature 2: **# id @ mem**

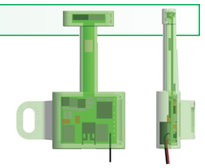
5/5 PING function

Activate a visual indication by inverting colors of the screen (white background and black letters) to be able to identify it. On the screen the countdown of the time defined for PING. Option to restart the device with the factory parameters.



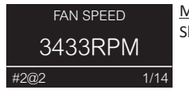
Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Time: **OFF** (off), **30sec** (seconds), **1 min, 5 min, 15min** (minutes)
Version: **v1.1** (software version, press **OK**, to see device description (**HUB HUB8 v1.1**)
RESET: **RESET DEV** (Returns the device to the factory settings)

Screens available for the Fan Sensor · NSYCCARPM · Fan status sensor



1/14 Fan speed

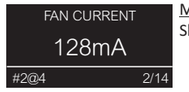
Speed at which the fan blades rotate in revolutions per minute.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

2/14 Current consumption

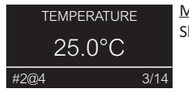
Current consumption of the fan when the power is AC. If the power supply is DC, it must deactivate the toroidal reading to not activate alarm (screen 6/14).



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

3/14 Air temperature

It measures the temperature of the air that passes through the fan. Scale from -40°to + 70°C.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

4/14 Operating hours

Hour meter that the fan was working. It can be erased and reset.

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

5/14 Alarms

Alarms active in the sensor, see **Alarm screen**
AL1: Temp out AL5: Lack current
AL2: Fan blocked AL6: Lifetime over
AL4: RPM slow

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)

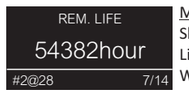
6/14 Configuration alarms and status of the Fan

Show if you have alarms and configure them. When the sensor continuously reads below a fixed value of R.P.M. and when he reads R.P.M. but it does not detect electrical or inverse consumption. Disable "Lack of current alarm" on fans powered with DC.

Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
Power alarm: **AL. CUR ON** (alarm when reading RPM and 0mA)
AL. CUR OFF (alarm disabled)
Speed alarm: **1000 RPM** (value defined for the alarm)
0 RPM (alarm deactivated)

7/14 Fan life

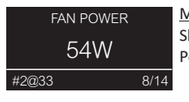
Remaining useful life of the fan taking into account the historical use and the working temperatures thereof. It will signal an alarm when it reaches the target.



Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Lifetime: **100000hour** (value defined for alarm, adjustable)
Warning point: marked with the LED in **PURPLE**

8/14 Current Consumption Fan

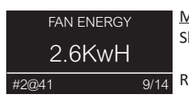
Calculate the fan consumption, specifying the type of power, the voltage and the phi coefficient (specific to each fan).



Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Power type: **SINGLE** (two-phase line)
THREE L-L (three-phase connected Line to Line)
THREE L-N (three-phase connected Line to Neuter)
OFF (disables consumption calculation)
Supply voltage: **230VAC** (two-phase line)
Phi coefficient: **0.700phi** (0.2 to 1 scale)

9/14 Total Consumption Fan

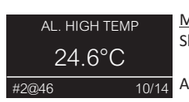
Total fan consumption, can be erased and set to zero.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

10/14 High Temperature Alarm

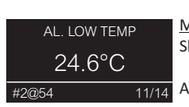
Reports an alarm if the temperature sensor reads higher than the defined setting, factory setting 60°C. The current temperature reading is displayed on the screen.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
Alarm temperature: **60.0°C** (scale from 10°C to 70°C)

11/14 Low Temperature Alarm

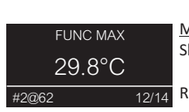
Reports an alarm if the temperature sensor reads lower than the defined setting, factory -5°C.
The current temperature reading is displayed on the screen.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
Alarm temperature: **-5.0°C** (scale from -40°C to 30°C)

12/14 Maximum Registered Temperature

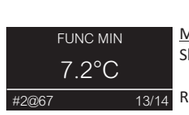
The highest temperature reading recorded by that sensor.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

13/14 Minimum Registered Temperature

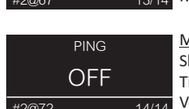
The lowest temperature reading recorded by that sensor.



Menu
Show: **HIDE ON** (not shown in normal operation)
HIDE OFF (always shown)
RESET: **RESET** (delete the data)

14/14 PING function

Activate a visual indication by inverting colors of the screen (white background and black letters) to be able to identify it. On the screen the countdown of the time defined for PING. Option to restart the device with the factory parameters.



Menu
Show: **HIDE ON** (not seen in normal operation) **HIDE OFF** (always seen)
Time: **OFF** (off), **30sec** (seconds), **1 min, 5 min, 15min** (minutes)
Version: **v1.1** (software version, press **OK**, to see device description (**SLV FAN v1.1**)
RESET: **RESET DEV** (Returns the device to the factory settings)

Released for Manufacturing
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