airinspace®

Wall-i Pilot

Intelligent electronic pressure control and management system

USER MANUAL

CE

EMC European Directive 2014/30/EU

TABLE OF CONTENTS

SECTION 1 - **GENERAL INFORMATION**

WARNING

This manual covers the **Wall-i Pilot** electronic system intended to manage the pressure setpoint of a room and the **airinspace®** air decontamination unit connected thereto.

If the room in question is the **BIOCAIR™**, it is strongly recommended to read the entire manual before putting the **BIOCAIR™** into operation for the first time**.**

PACKAGE CONTENTS

- 1 **Wall-i Pilot Unit - CP31000**
- 1 power supply terminal block
- 2 fixing sets (nylon plugs + screws).
- 1 **sensor box - CP31100**
- 2 RJ45 cable
- 1 metre of silicone hose
- Option: Particle Counter – CP31101

Note: The user manual is available on the USB key supplied with the administrative documents or by **airinspace®** personnel if they are in charge of putting the device into service.

1.1 SAFETY INSTRUCTIONS

- **READ THESE INSTRUCTIONS THOROUGHLY** and strictly follow the chronological order of installation, commissioning and maintenance steps.
- Use at room temperatures of +5°C to +35°C with relative humidity lower than 80% and dust levels lower than 0.05 mg/m3.
- Do not allow any liquid to penetrate the **Wall-i Pilot** and the **sensor box**
- Do not use the product outdoors.
- Do not use this product near high electromagnetic radiation sources, as they may interfere with its effective operation.
- The device can be used at an altitude of up to 2000m.
- The device must be connected to a 230Vcc safety voltage (SELV) power supply.
- Do not place the device near a heat source.

IMPORTANT*:* FAILURE TO COMPLY WITH USAGE RULES AND SAFETY INSTRUCTIONS MAY AFFECT THE OPERATION OF THE DEVICE.

IMPORTANT: BEFORE CARRYING OUT ANY WORK ON AN ELECTRICAL COMPONENT, SWITCH OFF THE EQUIPMENT BY DISCONNECTING THE 230VCC POWER CONNECTOR.

WORK ON ELECTRICAL CIRCUIT COMPONENTS IS STRICTLY RESERVED FOR airinspace® MAINTENANCE STAFF OR DULY TRAINED PERSONNEL.

1.2 REGULATORY STANDARD

The **Wall-i Pilot** is CE-marked under European regulations:

CE **European Electromagnetic Compatibility Directive *2014/30/EU***

1.3 NORMATIVE STANDARDS

EN 61326-1 (2013). Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements

EN 61000-3-2 (2006 + A1(2009) + A2(2009): Electromagnetic compatibility (EMC) - Part 3-2: limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

EN 61000-3-3 (2013): Electromagnetic compatibility (EMC) - Part 3-3: limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection

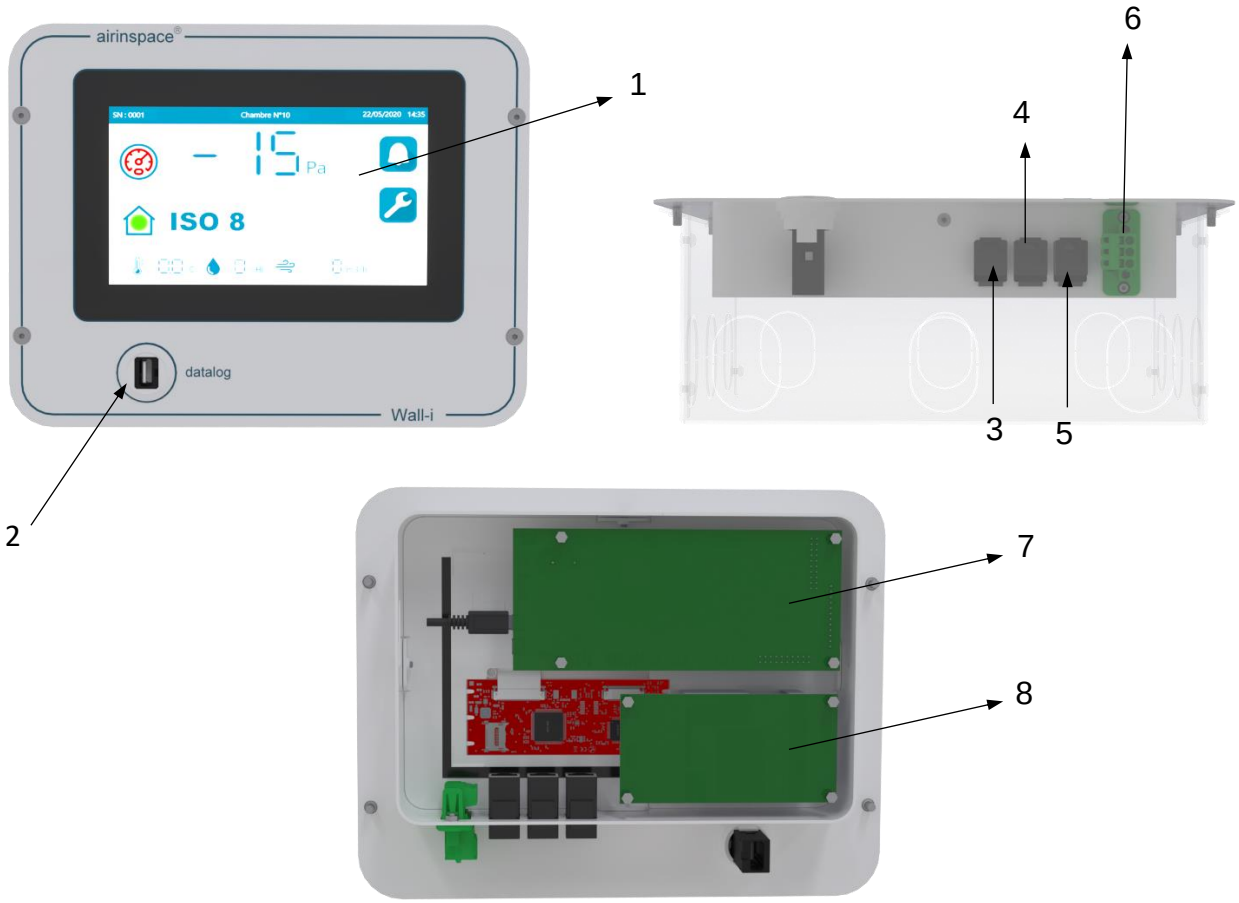
1.4 CLASSIFICATION

Degree of protection against water and solids	**IP 40**
Operating mode	**Continuous service** Operation under normal conditions of an unlimited duration without exceeding operating temperature limits.
Level of safety when used in the presence of flammable anaesthetics mixed with air, oxygen or nitrous oxide	**Device not suitable for use with flammable anaesthetics mixed with air or oxygen.** The ***Wall-i Pilot*** is not an AP or APG category device. It must always be kept more than 25 cm from the point where there is a mixture of flammable anaesthetic **with** air, oxygen or nitrous oxide.
Electromagnetic interference	The ***Wall-i Pilot*** **is suitable for operation in an environment consisting of devices which comply with regulations on electromagnetic interference.**

1.5 DESCRIPTION OF THE DEVICE

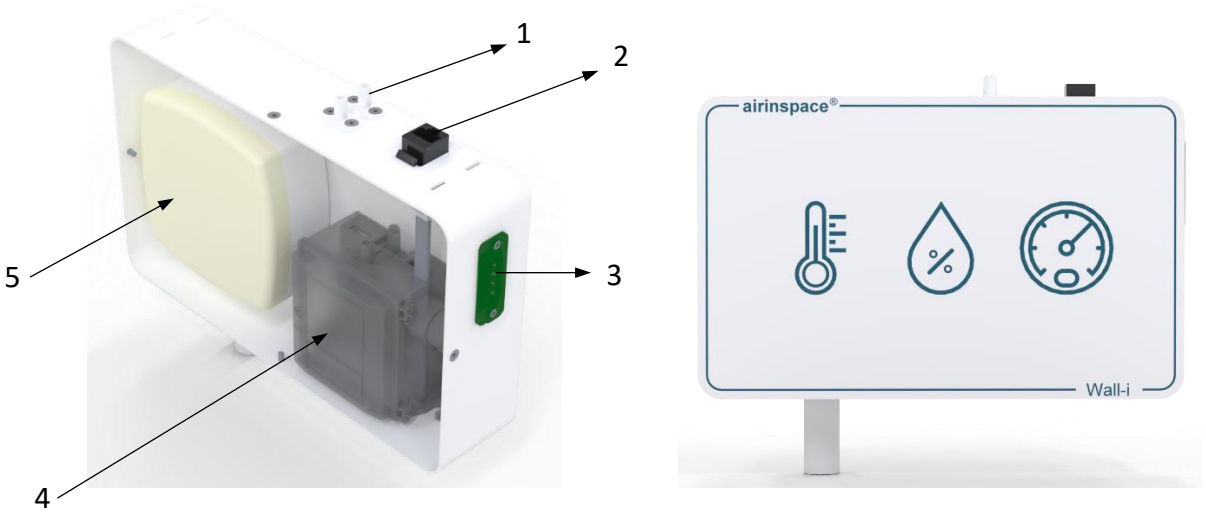
1.5.1 OVERVIEW

1.5.1.1 Wall-i PILOT



1	7-inch screen
2	USB Data logger connector
3	Air decontamination unit system RJ45 connector$_1$
4	Sensor box RJ45$_2$ connector
5	ModBUS RJ45$_3$ connector (HVAC)
6	100-240VCC power connector
7	Control card
8	24V card

1.5.1.2 Sensor Box



1	Internal pressure tap
2	**Wall-i Pilot** RJ45 connector
3	Particle counter connector (optional)
4	Pressure transducer
5	Temperature and relative humidity sensor

1.5.2 MARKINGS AND WARNINGS

Label	Description	Position
Product		On the left side of the box
Electrical characteristics	GTC	At the bottom of the box
Electrical characteristics	SENSOR BOX	At the bottom of the box
Electrical characteristics	AIR DECONTAMINATION UNIT	At the bottom of the box
Electrical characteristics		On the sensor box Negative pressure/Positive pressure

1.6 FUNCTIONAL DESCRIPTION OF THE DEVICE

1.6.1 INTENDED USE

The **Wall-i Pilot** is a ~ 230 Vcc powered electronic system used to measure differential pressure, temperature and relative humidity in a room. It is used with the **sensor box**. It also helps manage the flow of the air decontamination unit to regulate the differential pressure level according to the setpoint.

The **Wall-i Pilot** is mounted to the wall and can provide an indication as to the particulate contamination of the room where it is installed, with an indicative value (ISO9 to ISO5).

It is equipped with a 7-inch colour touchscreen allowing you to view variables and change setpoint settings.

1.6.2 PHYSICAL CHARACTERISTICS

Power supply	⎓ 100-240 Vcc ±10%	
Maximum electrical power	5 Watt	
Differential pressure (display)	+/-30 Pa max	
Temperature (unregulated)	0°C +35 °C	
Relative humidity (unregulated)	0 to 90%RH	
Dimensions of the box alone	H 198 x L 255 x 57.2 mm	
Dimensions of the flush-mounted box	H 178 x L 228 x 95 mm	
Dimensions of the display plate	H 198 x L 255 x 2.2 mm	
Sensor box dimensions	H 145 x L 233 x 53 mm	
Weight	1.13 kg	
ModBUS connection	ModBUS DB9 Series	
Connection of the mobile air decontamination unit	$RJ45_1$ connector	
Sensor box connection	$RJ45_2$ connector	
USB connector	USB to retrieve data from the Data Log	
Environmental operating range	Temperature	+5 °C to +35 °C
	Relative humidity **	< 80% non-condensing
Environmental storage range	Temperature	0°C to 40°C
	Relative humidity	< 80% non-condensing
	Dust level	< 0.05 mg/m³

Note: The information contained in this table is for information only. For any information on measurements and tolerance intervals, please contact **airinspace®** at the address provided at the end of this document.

1.7 PACKAGING – ACCEPTANCE

The **Wall-i Pilot** is supplied and installed with a **sensor box**.

Carefully examine the equipment delivered when installing the components.

In the event of any anomaly, please contact the manufacturer or distributor, providing the serial number and date of purchase

1.8 TRANSPORT

Before transporting, protect the unit from shocks and scratches, keep and use the original packaging.

SECTION 2 - **INSTALLATION**

2.1 ASSEMBLY

Assembly of the **Wall-i Pilot** connected to the **sensor box** and the air decontamination unit.

The **Wall-i Pilot** can be mounted flush with the wall (1) or directly to the wall (2).

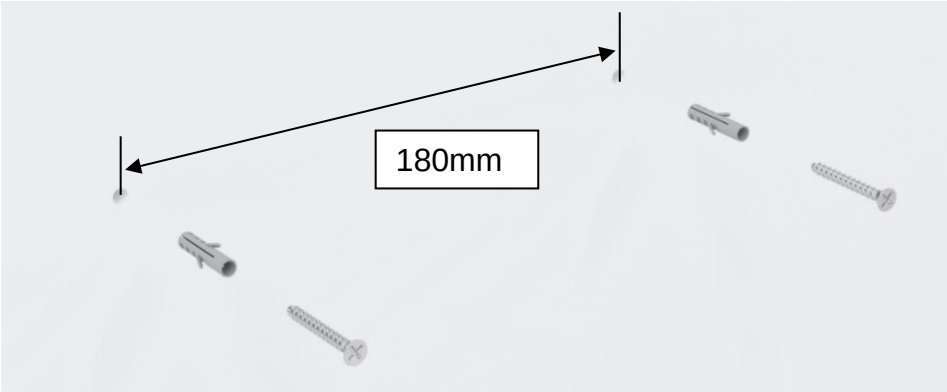
(1)

(2)

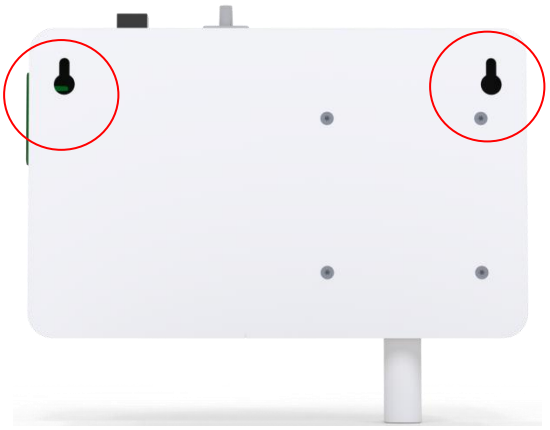
The **sensor box** is designed to be wall-mounted. Follow the same assembly steps for the **Wall-i Pilot** if you wish to mount it directly to the wall.

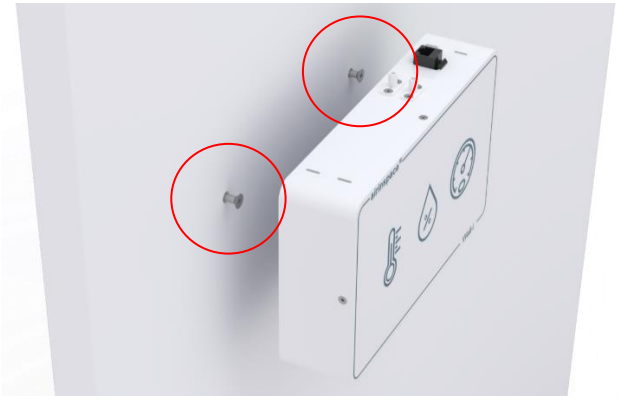
It is supplied with a fixing kit including 2 nylon plugs for concrete, plaster or plasterboard walls and 2 screws.

Using a drill and a 6mm diameter concrete drill bit, drill two holes with a centre distance of 180mm.

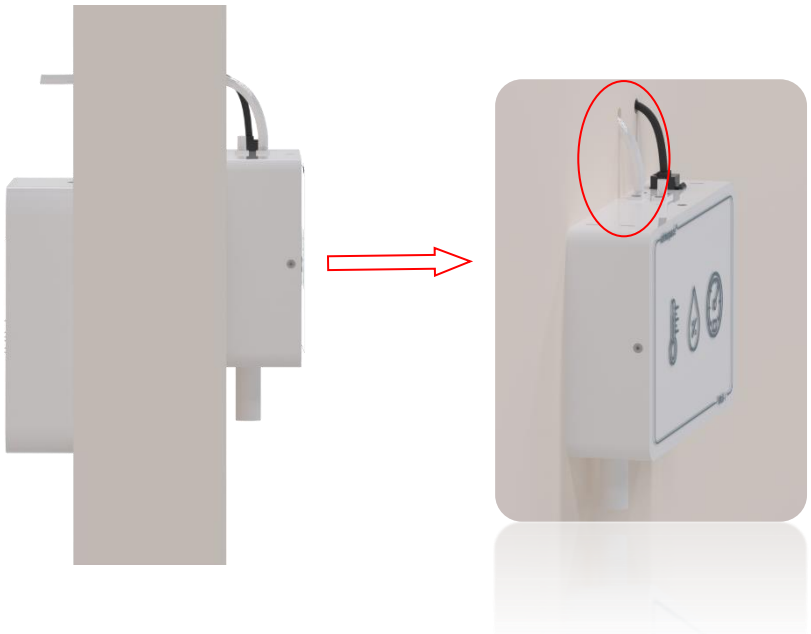


Using a hammer, insert the two plugs and then tighten the screws, leaving them a few millimetres overhanging.





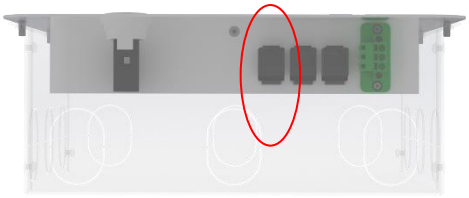
Example of **Wall-i Pilot** assembly flush with the sensor box:



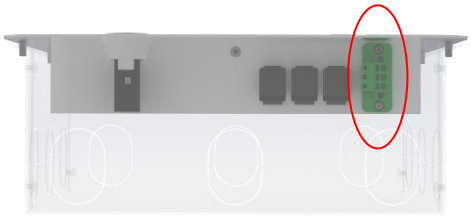
On the **sensor box**, position the flexible tube on the positive pressure tap **+**, the sensor will automatically detect positive pressure (prevents the spread of incoming contamination) or negative pressure (prevents the spread of outgoing contamination).

Example of assembly with the nozzle under positive pressure: **Wall-i Pilot, sensor box** and **airinspace®** air decontamination unit

Electrically connect the **airinspace®** air decontamination unit to the **Wall-i Pilot** using a straight RJ45 cable.
Position the straight RJ45 cable on the RJ45 connector**1**, marked as **Air decontamination unit.**



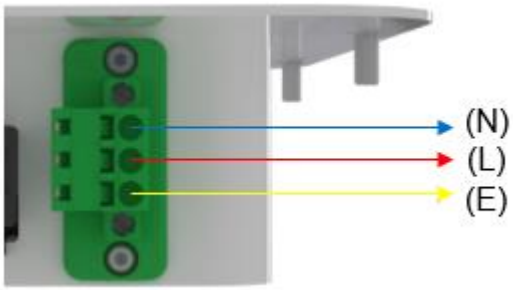
Power the **airinspace®** air decontamination unit with ~ 230 V; 50/60 Hz.



Power the **Wall-i Pilot** with 100-240Vcc using a live earth neutral power supply terminal block.

Connection colour code:

Earth (E)		Yellow/Green
Neutral (N)		Blue
Live (L)		Red Brown and others



Electrically connect the **sensor box** to the **Wall-i Pilot** using a straight RJ45 cable.
Position the straight RJ45 cable on the RJ45 connector$_2$, marked as **Sensor box.**

2.2 DISPOSAL

This product is covered by European Directive 2012/19/EU of 04 July 2012 on waste electrical and electronic equipment (WEEE) and falls within category 6 “Electrical and electronic tools (with the exception of large-scale stationary industrial tools)” as defined in Appendix I to this directive.

Disposal of this product and the recovery of the resultant waste must respect regulations arising from the application of the European directive by the different member states, as well as any local regulations that complement it.

2.3 USE OF USER INTERFACE

Wall-i Pilot is equipped with a simple, user-friendly interface. The user interface consists of a 7-inch colour touchscreen.

1		*Light signals* *Green: the pressure is consistent with the setpoint (+/-1 Pa).* *Orange: the pressure is different from the setpoint (+/-1Pa), the PLC regulates the ventilation setpoint to return to the pressure setpoint.* *Red: the pressure is outside the permitted pressure range defined by the High threshold and the Low threshold for more than 2 minutes.*
2		*Differential pressure display*
3		*Maintenance menu access button*
4		*ISO particulate class indication,* *If a particle counter is used (optional)*
5		*Alarm, warning log access button*
6		*Temperature display* *Relative humidity display* *Flow display*
7		*Date and time display*
8		*Alarm and warning icons display area*

2.4 START-UP/SHUTDOWN

2.4.1 START-UP

Check the electrical connection of the **Wall-i Pilot** to the 100-240Vcc power supply.

Check the electrical connection of the **sensor box** to the **Wall-i Pilot** via a straight RJ45 cable.

Check the electrical connection of the **airinspace®** air decontamination unit to the **Wall-i Pilot** via a straight RJ45 cable. (See Section 2 Installation Assembly)

Check the electrical connection of the **airinspace®** air decontamination unit to the ~ 230 V; 50/60 Hz power supply.

Set the On/Off switch of the **airinspace®** air decontamination unit to “I” (for more information, please refer to the user manual of the air decontamination unit).

The screen of the **Wall-i Pilot** turns on and the home screen appears.

When the **airinspace®** air decontamination unit is started, the **Wall-i Pilot** enters the initialisation phase. This step can last 20 to 30 seconds. It corresponds with the control and running of the air decontamination unit’s fan, in order to achieve the desired pressure setpoint. The default setpoint is +15Pa in positive version and -15Pa in negative version.

IMPORTANT: THE ELECTRICAL SUPPLY MUST COMPLY WITH THE NATIONAL LEGISLATION AND BE PERIODICALLY CHECKED.

2.4.2 UNIT SHUTDOWN (E.G. FOR A MAINTENANCE OPERATION)

Air decontamination unit shutdown:

Set the On/Off switch of the **airinspace®** air decontamination unit to "0”. Ventilation is cut off but the automatic door remains powered, as do the display and the illuminated screen. The red alarm appears.

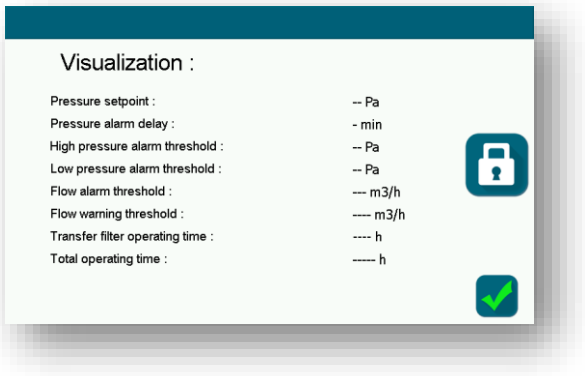
To shut down the **Wall-i Pilot**, trip the room’s residual current circuit breaker.

2.5 SETTINGS DISPLAY

The room's regulation settings are displayed from the maintenance screen by pressing the maintenance button

The maintenance screen displays:

- The pressure setpoint
- Alarm delay (factory setting 2 min, maximum value 10 min).
- Low pressure alarm threshold (factory setting 10Pa)
- High pressure alarm threshold (factory setting 20Pa)
- Flow alarm threshold (factory setting 300m^3/h)
- Flow warning threshold
- Transfer filter operating time
- Total number of hours in operation of the



Press the confirmation  button to return to the main screen.

Press the Password  button to access the maintenance menu.

2.6 CHANGING THE SETTINGS

The configuration menu can be accessed by pressing the maintenance button from the main screen, then the Password button .

Access to this menu is protected by a definable User password, by default **1234**.

Note: don't forget to confirm password entry by pressing ENTER.

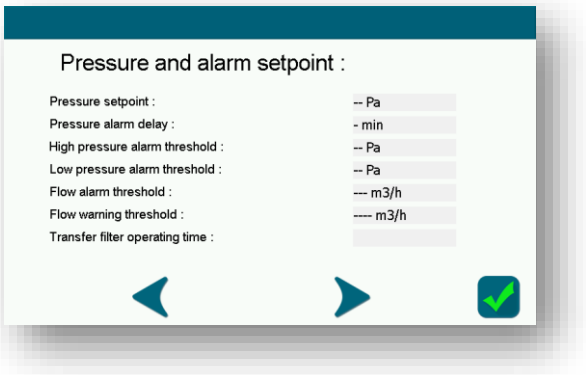
The modification screen appears, making it possible to change the following variables:

	*Language: Choice of language*
	*Settings: Access settings*
	*Records: View records*
	*ModBUS: Access the settings of the Modbus link*
	*Password: Access the definable user password*

2.6.1 PRESSURE AND FLOW ALARM THRESHOLDS

Pressure and alarm setpoints can be accessed by pressing the settings button  of the configuration menu.
This screen allows you to view and change the following variables:

- Pressure setpoint
- Pressure alarm delay (factory setting 2 min, maximum value 10 min).
- Low pressure alarm threshold (factory setting 10Pa)
- High pressure alarm threshold (factory setting 20Pa)
- Flow alarm threshold (factory setting 300m^3/h)
- Flow warning threshold
- Transfer filter operating time

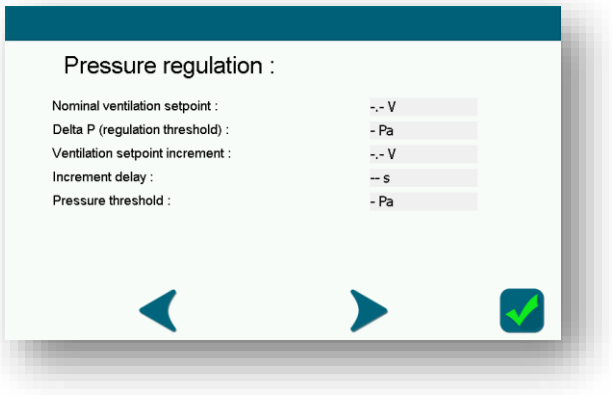


You can also browse the following pages by pressing the right  and left arrows  .

2.6.2 PRESSURE REGULATION SETTINGS

In settings , this page allows you to view and change the following pressure regulation variables:

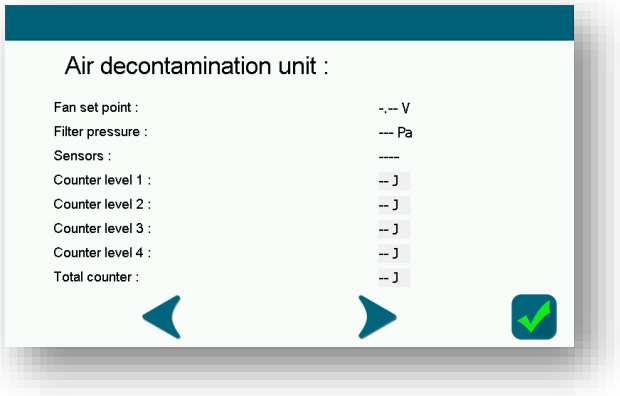
- Nominal ventilation setpoint: ventilation speed to guarantee pressure (read-only mode)
- Delta P: acceptable pressure range prior to regulation
- Ventilation setpoint increment
- Setpoint increment delay: measuring time interval prior to regulation
- Pressure threshold (threshold under which regulation is blocked)



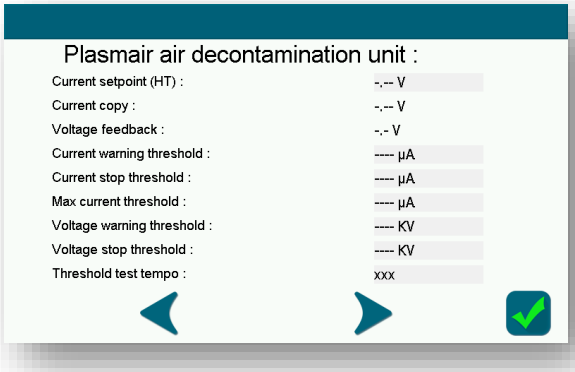
2.6.3 AIR DECONTAMINATION UNIT VARIABLES

In settings , this page allows you to view and change the following **airinspace®** air decontamination unit variables:

- Fan setpoint (display only)
- Air decontamination unit's filter pressure (display only)
- Sensors (door, filters, pre-filter)
- Counter level 1
- Counter level 2 (where appropriate)
- Counter level 3 (where appropriate)
- Counter level 4 (where appropriate)
- Total counter



For a **PLASMAIR®** air decontamination unit, additional variables are displayed on a specific page.



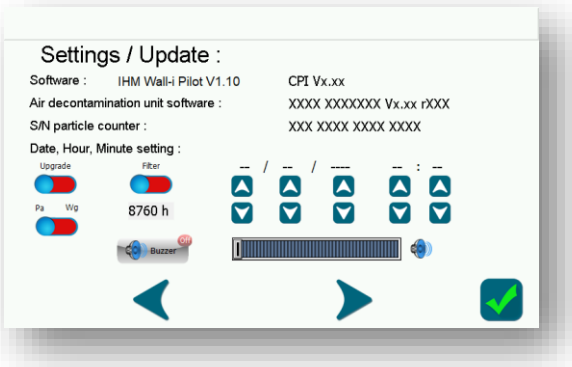
The settings are as follows:

- Current setpoint
- Current copy (display)
- Voltage feedback (display)
- Current warning threshold
- Current stop threshold
- Max current threshold
- Voltage warning threshold
- Voltage stop threshold
- Threshold test delay

2.6.4 SOFTWARE UPDATE, DATE, HOUR AND MINUTE

In settings , this page allows you to:

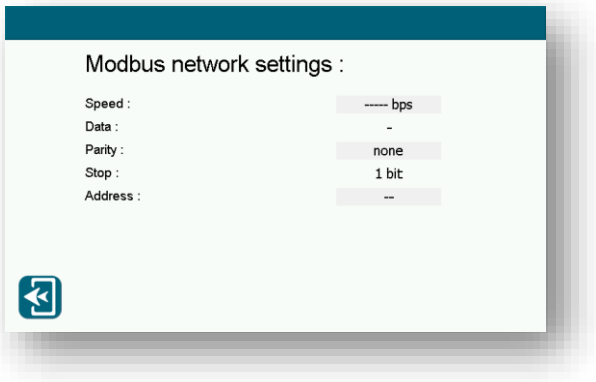
- View the software version of the **Wall-i Pilot** unit
- View the software version of the air decontamination unit
- Set the date and time
- Enable or disable the “Buzzer” audible signal
- Adjust the volume of the audible signal
- Load a new software in the electronic card by pressing the Upgrade button
- View the serial no. of the particle sensor (optional)



2.6.5 ADJUSTING THE MODBUS NETWORK LINK SETTINGS

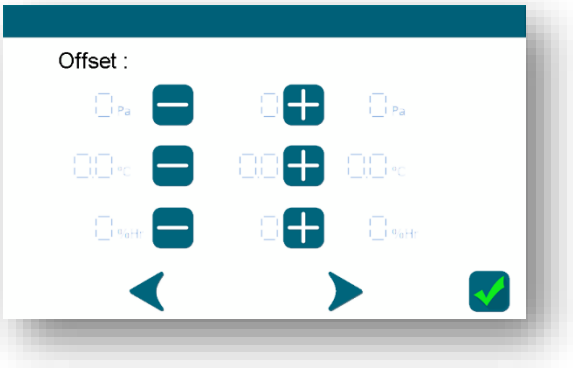
In Modbus , this page allows you to:

- Set the transmission speed
- View the number of data bits
- Set parity
- View the number of stop bits
- Set the unit address



2.6.6 ADJUSTING THE TEMPERATURE, HUMIDITY AND PRESSURE CORRECTION SETTINGS

In settings , this page allows you to apply a correction to the temperature, humidity and pressure values.

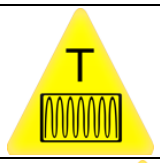
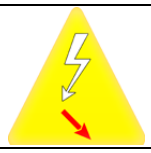


2.7 HANDLING WARNINGS AND ALARMS

2.7.1 DEFINITIONS

- **Warning:** a warning message is sent by the management card when a fault, temporary or otherwise, leads or may lead to a deterioration in the equipment's nominal operation conditions, without however diminishing its performance significantly. Therefore, the warning helps point out that a maintenance operation is required.
- **Alarms:** an alarm message is sent by the management card when a fault, temporary or otherwise, may jeopardise the safety of individuals, goods or processes. The plc remains switched on so that it can report its status.

2.7.2 LIST OF WARNINGS AND ALARMS AND HOW THE HANDLE THEM

Display unit	Fault code	Warning definition	Fault condition(s)
	No fault code	Differential pressure Warning	If the pressure measured is different from the pressure setpoint +/-1Pa
	M	'Airflow too high' warning	When the airflow is higher than the "Flow warning threshold" for more than 5 min
	T	Transfer filter alert	When the filter operating time exceeds the recommended shelf life
	No fault code	Air decontamination unit filtration module alert (the number indicates the filtration stage)	When the operating time exceeds the recommended shelf life
	C	Low current warning (only on the PLASMAIR® range)	When the current measured is lower than the "Current warning threshold"

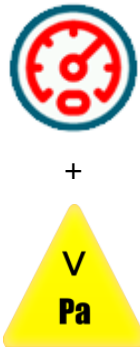
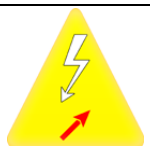
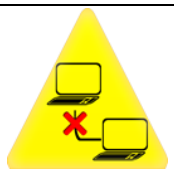
NOTE: THERE MAY BE SEVERAL ACTIVE WARNINGS AT THE SAME TIME.

➢ **Processing:**

Schedule a maintenance operation suited to the fault reported.
When the fault condition disappears, the warning automatically disappears.

NOTE: IF THE OPERATION REQUIRES REPLACING THE TRANSFER FILTER, RESET THE CORRESPONDING COUNTER (SEE CHAPTER 2.6.1).

2.7.3 LIST OF ALARMS AND HOW TO HANDLE THEM

Display unit	Fault code	Alert definition	Fault condition(s)
	V	Differential pressure Alarm	When the pressure measured is outside the pressure range defined by “Low pressure alarm threshold” and “High pressure alarm threshold” for a period exceeding “Pressure alarm delay”
	F	High current alarm (only on the PLASMAIR® range)	When the current measured is higher than the max current threshold
	X	‘Communication with the air decontamination unit’ alarm	No communication between the **Wall-i Pilot** controller and the air decontamination unit
	W	‘Airflow too low’ alert	When the airflow is lower than the “Flow alarm threshold” for more than 5 min

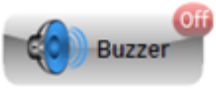
➢ **Processing:**

Check that the air decontamination unit is working properly
Check the network connection of the air decontamination unit
Make sure the transfer filters are in place and check their assembly (no leak)

The alarms are auto-reset, which means that there is no need to validate or acknowledge a fault to reset it.

*NOTE: **AIRINSPACE®** SHALL NOT BE HELD LIABLE FOR THE USE OF FILTERS DIFFERENT FROM THOSE SUPPLIED WITH THE EQUIPMENT, OR FOR THE USE OF AN AIR DECONTAMINATION UNIT SOURCED FROM ANOTHER SUPPLIER*

As all alarms and warnings trigger an audible signal, it can be temporarily disabled by pressing the Buzzer icon. To disable the "Buzzer” entirely, please refer to chapter 2.6.4



2.7.4 ALARM AND WARNING LOG DISPLAY

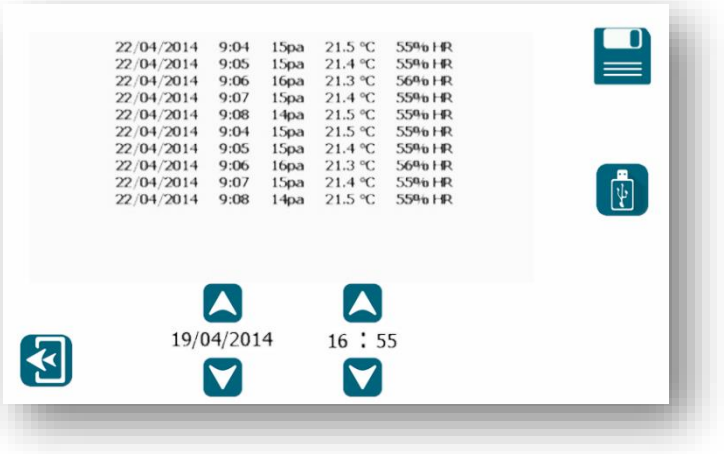
In alarm  , the alert log display is accessible by pressing the alarm and warning log button.

Press the  icon to save the alarm and warning log to a USB key.

Press the  button to return to the main screen.

2.8 FREQUENCY RECORDS DISPLAY

In settings , the frequency records of the **Wall-i Pilot** are displayed from the records screen by pressing the records button



Press the icon to save the records log to a USB key.

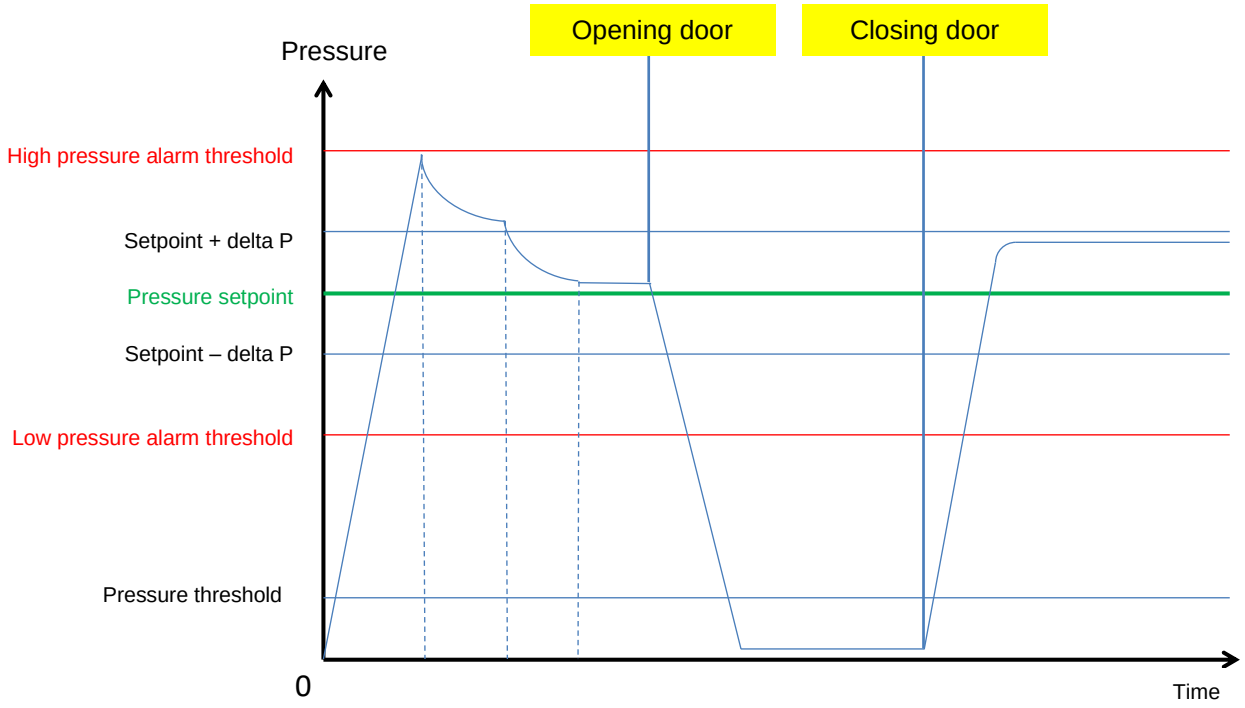
Press the button to return to the main menu.

SECTION 3 - **REGULATION OPERATION**

3.1 FUNCTIONAL DESCRIPTION

The operator defines a configurable pressure setpoint. The default value is +15 Pa.

The **Wall-i Pilot** controller constantly manages the fan of the air decontamination machine to reach and then maintain a pressure measurement close to the pressure setpoint.



When starting up, pressure is zero. The **Wall-i Pilot** controller runs the air decontamination machine at a configurable nominal ventilation speed.

Note: The **Wall-i Pilot** controller automatically calculates the nominal ventilation setpoint to be applied based on the pressure setpoint programmed by the user. This value is automatically saved and updated by the system. No configuration is required.

If the measured pressure value becomes greater than the pressure setpoint, the controller reduces the nominal ventilation setpoint by the “ventilation setpoint increment” that can be configured from 0.1v to 1v.

To prevent surges or ventilation speed instability, the **Wall-i Pilot** controller will send a new ventilation setpoint after a configurable “Incrementation delay”. If, after this period, the pressure measured is still greater than the pressure setpoint, the controller reduces the nominal ventilation setpoint again, by the ventilation setpoint increment.

If the door is opened, there will be a sudden drop in the pressure measured (0Pa). When the pressure becomes lower than the configurable “pressure threshold” setting, regulation stops. This system helps avoids a surge of the air decontamination unit.
When the door closes, the system finds itself in the same conditions as at the beginning.

3.2 SETTING AN ALARM TO A PRESSURE VALUE

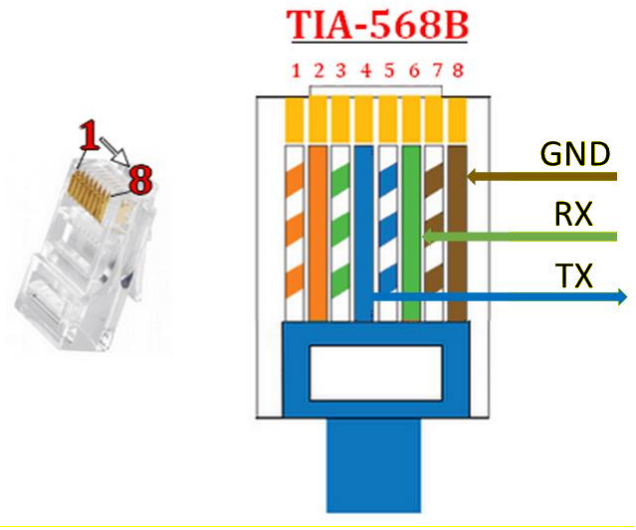
An alarm on a pressure value can be configured by the user.
This alarm is configurable via three settings:

- Low pressure alarm threshold
- High pressure alarm threshold
- Pressure alarm delay

If the pressure measured is outside the range defined by “Low pressure alarm threshold” and “High pressure alarm threshold” for a period exceeding “Pressure alarm delay”, the “pressure alarm” and  (red) icons are displayed and an audible signal is heard until the operator presses the alarm button  .

SECTION 4 - **MODBUS**

The **Wall-i Pilot** controller can be connected to a supervision unit via a serial ModBUS link (RJ45 connector)



The following exchange table lists the register addresses used:

Paramètres Modbus	
liaison série:	19200 bauds, 8 data bit, parity Even, 1 stop bit
Endianness:	big-endian (octet de poids fort en premier)
Codage:	RTU
Mode:	esclave
L'adresse slave Modbus du device:	10 (en décimal)
Fonctions Modbus supportées:	03 et 06

Définition des registres Modbus de paramètres								
Les registres suivants fonctionnent par pairs car tous les paramètres sont des valeurs sur 32 bits. L'ordre utilisé est big-endian.								
Register address	Adr début	Adr fin	Nb reg	Name	R/W	type	LSB value	Comment
40100 à 40101	99	100	2	Consigne courant HT	R/W	unsigned 32 bits	LSB= 10/25(	
40102 à 40103	101	102	2	Gestion pression	R/W	unsigned 32 bits		
40104 à 40105	103	104	2	Consigne ventilateur Régime 1	R/W	unsigned 32 bits	LSB= 10/25(	
40106 à 40107	105	106	2	Consigne ventilateur Régime 2	R/W	unsigned 32 bits	LSB= 10/25(	
40108 à 40109	107	108	2	Consigne ventilateur Régime 3	R/W	unsigned 32 bits	LSB= 10/25(	
40110 à 40111	109	110	2	Consigne pression Régime 1	R/W	unsigned 32 bits		
40112 à 40113	111	112	2	Consigne pression Régime 2	R/W	unsigned 32 bits		
40114 à 40115	113	114	2	Consigne pression Régime 3	R/W	unsigned 32 bits		
40116 à 40117	115	116	2	Seuil de warning courant	R/W	unsigned 32 bits	LSB= 660/1(	
40118 à 40119	117	118	2	Seuil d'alarme courant	R/W	unsigned 32 bits	LSB= 660/1(	
40120 à 40121	119	120	2	Courant maximum	R/W	unsigned 32 bits	LSB= 660/1(	
40122 à 40123	121	122	2	Seuil de warning tension	R/W	unsigned 32 bits	LSB= 660/1(	
40124 à 40125	123	124	2	Seuil d'alarme tension	R/W	unsigned 32 bits	LSB= 660/1(	
40126 à 40127	125	126	2	Valeur de la tempo (s)	R/W	unsigned 32 bits	1 seconde	
40128 à 40129	127	128	2	Compteur étage 1	R/W	unsigned 32 bits	30 minutes	
40130 à 40131	129	130	2	Compteur étage 2	R/W	unsigned 32 bits	30 minutes	
40132 à 40133	131	132	2	Compteur étage 3	R/W	unsigned 32 bits	30 minutes	
40134 à 40135	133	134	2	Compteur étage 4	R/W	unsigned 32 bits	30 minutes	
40136 à 40137	135	136	2	Compteur de fin de vie étage 1	R/W	unsigned 32 bits	30 minutes	
40138 à 40139	137	138	2	Compteur de fin de vie étage 2	R/W	unsigned 32 bits	30 minutes	
40140 à 40141	139	140	2	Compteur de fin de vie étage 3	R/W	unsigned 32 bits	30 minutes	
40142 à 40143	141	142	2	Compteur de fin de vie étage 4	R/W	unsigned 32 bits	30 minutes	
40144 à 40145	143	144	2	Prise en compte manostat (L)	R/W	unsigned 32 bits	N/A	
40146 à 40147	145	146	2	Prise en compte switch porte (P)	R/W	unsigned 32 bits	N/A	
40148 à 40149	147	148	2	Prise en compte microswitch prefiltre (S)	R/W	unsigned 32 bits	N/A	
40150 à 40151	149	150	2	Prise en compte microswitch réacteur (U)	R/W	unsigned 32 bits	N/A	
40152 à 40153	151	152	2	Mémorisation allure	R/W	unsigned 32 bits	N/A	
40154 à 40155	153	154	2	Coefficient pression	R/W	unsigned 32 bits	N/A	
40156 à 40157	155	156	2	Temps total	R/W	unsigned 32 bits	30 minutes	
40158 à 40159	157	158	2	(inutilisé)	R/W	unsigned 32 bits	N/A	
40160 à 40161	159	160	2	Nombre de marche / arrêt	R/W	unsigned 32 bits	1 arrêt / ma	
40162 à 40163	161	162	2	Calibration mesure I	R/W	float 32 bits	N/A	
40164 à 40165	163	164	2	Calibration mesure V	R/W	float 32 bits	N/A	
40166 à 40167	165	166	2	Calibration mesure pression	R/W	float 32 bits	N/A	
40168 à 40169	167	168	2	Coefficient débit	R/W	float 32 bits	N/A	
40170 à 40199	169	198	30	Réservés				

Définition des registres de contrôle et status								
Register address	Adr début	Adr fin	Nb reg	Name	R/W	Usage	Possible	Comment
40001	0	0	1	Arrêt / Marche	R/W	Ecrire 0 pour faire une demande d'arrêt. Ecrire 1 pour faire une mise en marche. La lecture donne l'état actuel.	0|1	
40002	1	1	1	Désactiver Ventilateur	N/A	N/A	N/A	
40003	2	2	1	Régime ventilateur (= mémorisation	R/W	valeur 1 à 7 pour sélectionner le régime voulu	N/A	Le nombre de valeurs possible est fonction de l'unité de traitement d'air connecté
40004	3	3	1	Différentiel de pression	R/-	Valeur en Pascals	N/A	
40005	4	4	1	Consigne	R/-	en V, LSB de 0,01V	0 à 10V	
40006	5	5	1	Utiliser HT	R/W	0: filtrage passif (générateur HT non utilisé) 1: filtrage actif (générateur HT activé sur mise en marche, valeur par défaut)	0|1	Toute valeur non nulle écrite sera considérée comme un '1'. Cette valeur est remise à 1 par défaut au démarrage.
40007	6	6	1	Enable HT	R/-	0: générateur HT désactivé 1: générateur HT activé	0|1	Etat courant du générateur HT.
40008	7	7	1	Consigne HT	R/-	en V, LSB de 0,01V (10V = 2000µA)	0 à 10V	
40009	8	8	1	Recopie courant HT	R/-	en V, LSB de 0,01V (10V = 2000µA)	0 à 10V	
40010	9	9	1	Recopie tension HT	R/-	en V, LSB de 0,01V (1V = 1kV)	0 à 10V	
40011	10	10	1	Avertissement	R/-	0: pas d'avertissement en cours 1: avertissement en cours	0|1	Si un avertissement est présent, consulter le registre 40014 pour connaitre le détail. Les messages court et long (registres 40015 et 40016
40012	11	11	1	Avertissement HT	R/-	0: pas d'avertissement HT en cours 1: avertissement HT en cours	0|1	Si un avertissement est présent, consulter le registre 40014 pour connaitre le détail. Les messages court et long (registres 40015 et 40016 à 40031)
40013	12	12	1	Alerte	R/-	0: pas d'alerte en cours 1: alerte en cours	0|1	Si une alerte est présente, consulter le registre 40014 pour connaitre le détail. Les messages court et long (registres 40015 et 40016 à 40031)
40014	13	13	1	Défauts	R/-	Ce champ de bit signale les défauts d	Spécial	Les correspondances avec chaque bit sont indiquées dans l'onglet "Défaut". Plusieurs bits peuvent être combinés si plusieurs
40015	14	14	1	Message court	R/-	Lettre correspondant au dernier défaut de plus haute priorité	N/A	Le code lettre est décrit dans l'onglet "Défaut", colonne "type / afficheur".
40016 à 40031	15	30	16	Message long	R/-	Message ASCII décrivant le dernier défaut de plus haute priorité	N/A	
40032	31	31	1	Consigne Pression	R/W	Valeur en Pascals	-30 à +30	Valeur de type entier
40034	32	32	1	Pression mesuré	R/-	Valeur en Pascals	-30 à +30	Valeur de type entier
40034	33	33	1	Température	R/-	Valeur en °C	0 à 600	Valeur de type entier
40035	34	34	1	Humidité	R/-	Valeur en %	0 à 100	Valeur de type entier
40036	35	35	1	Débit	R/-	Valeur en m3/h	0 à 9999	Valeur de type entier
40037 à 40047	36	48	13	Réservés	N/A	N/A	N/A	
40048 à 40082	49	98	50	Firmware version	R/-	Chaine ASCII décrivant la version firm	ASCII	

SECTION 5 - **SERVICING- MAINTENANCE**

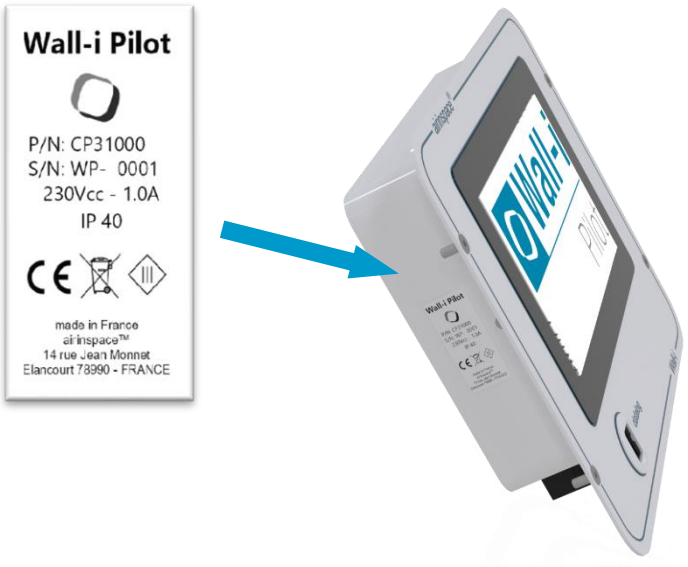
5.1 MAINTENANCE

MAINTENANCE AND REPAIR OF THE EQUIPMENT DURING ITS LIFETIME IS THE RESPONSIBILITY OF THE MANUFACTURER OR AN AUTHORISED SERVICE CENTRE.

Maintenance and verification operations cover the differential pressure sensor for which an annual calibration inspection is recommended, and the temperature/humidity sensor**.**

5.2 MODEL IDENTIFICATION

When contacting **airinspace®** or a dealer, please provide the product's serial number and date of purchase. The serial number features on the product label.



5.3 WARRANTY

Contact your local **airinspace®** dealer.

Note: any problems arising from an unauthorised repair attempt, modification, fall, use at incorrect voltage or operations that do not comply with the instructions in the User Manual, are not covered by the warranty.

CONTACT airinspace®

airinspaceS.E.

14 rue Jean Monnet
78990 Elancourt
France

+33 1 30 07 01 01

+33 1 30 07 01 02

contact@airinspace.com
www.airinspace.com