117078EN-02
2023-03

FlexitGO

EN

USER MANUAL (FUNCTIONS)

NORDIC

Contents

1. Menu tree

This is a visualization of the menu tree. The different colours show different access.

- Standard shows what an end user can access.
- Installer shows the extra features you can access if you are logged on as installer.
- Accessories shows features that are visable if you have that particular accessory installed / configured.

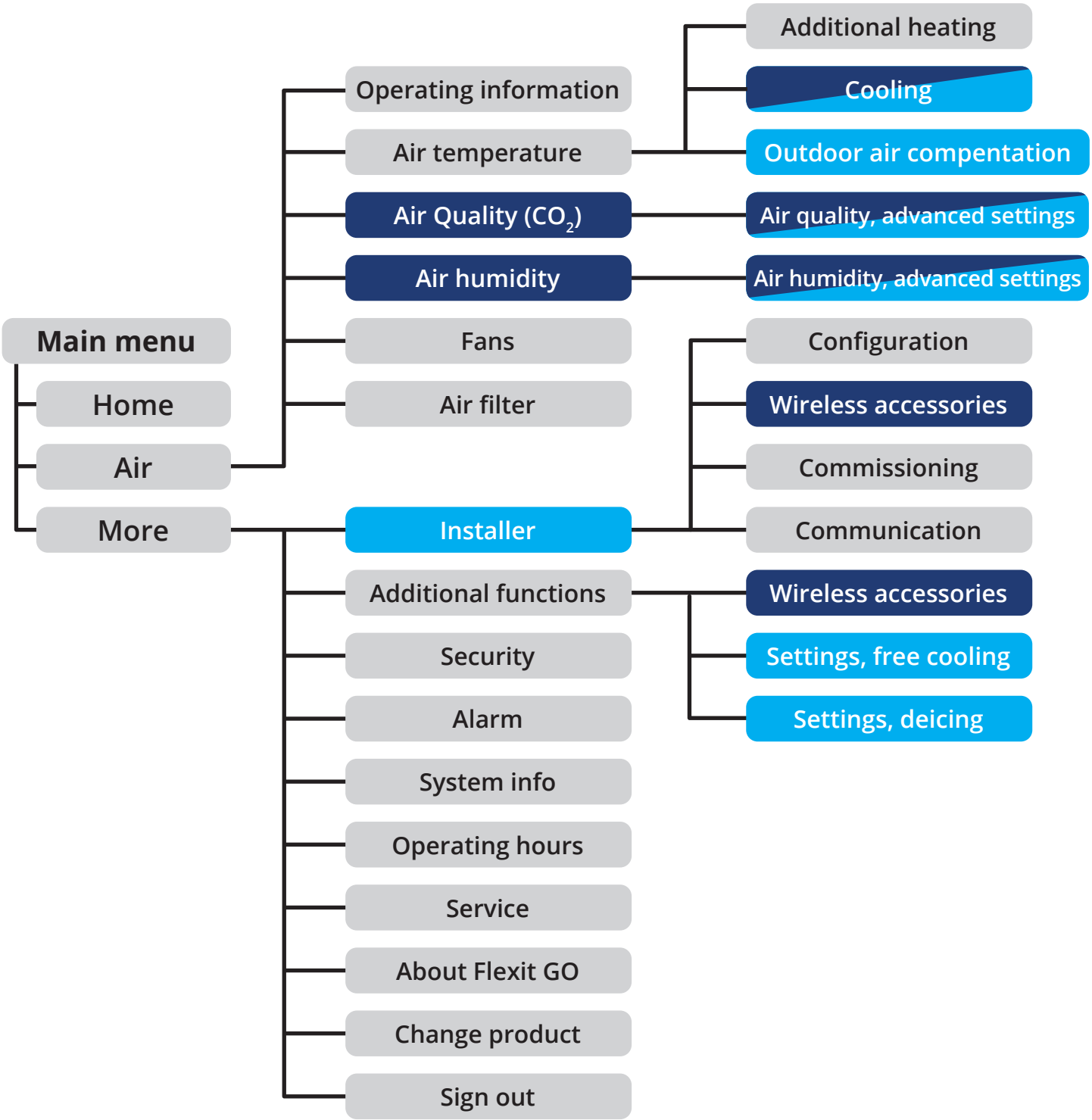
The names correspond to different sections in this documentation.

Colour explanation:

Standard

Installer

Accessories



2. How to read this manual

DANGER! When a text box is this colour, it means that a life-threatening or serious personal injury may be the consequence of not following the instructions.

NOTICE! When a text box is this colour, it means that a poor utilisation ratio or product operating issues may be the consequence of not following the instructions.

CAUTION! When a text box is this colour, it means that material damage may be the consequence of not following the instructions.

INFO! When a text box is this colour, it means that it contains important information.

The parameters described in this document are accessed via the Flexit GO app. They are available on different pages that you navigate to through the main menu and submenus. The menu structure is shown in the Menu tree chapter. In the top of each table (See Example table below) the path on how to navigate to that page is listed.

Depending on the configuration of your ventilation unit, some of the parameters are not used, which means that they or that page do not appear in the Flexit GO app.

In this document both end-user and Installer access is shown. You can see which user has access to which parameters. The table have columns (B and I) that defines access. For end-user access the column has title B, and for Installer access the column has title I. In these two columns you see the type of access according to:

--	This means you have no access and will not even see the parameter.
R	This means you have read access.
RW	This means you have both read and write access.

Example table:

Path:
The path to this page. Ex. *Air/Air temperature*

Page title:
This is the Title of the page. Ex. **Air temperature**

Submenu:
This is a submenu that takes you to a new page. In the table, these are always indicated with the symbol ">" in the column before. If an end-user doesn't have access to any of the parameters in a submenu, they won't even see the submenu.

Section help text:
This is a text that helps explain the parameters under.

Parameter:
This is the actual parameter. In the table, these are always indicated with a number in the column before. If the parameter is referred to in any text, it is done so in the following manner: **{number|name}**
ex. **{951| Parameter 1}**, this way they are easier to find.

Path

	Page title	B	I	Default	Range	Unit
>	Submenu					
	Section help text					
951	Parameter 1	RW	RW	10	10 - 30	°C
952	Parameter 2	R	RW	28	10 - 30	°C
	Section help text 2					
833		R	R		Mode 1; Mode 2; Mode ...	
	Section help text 3					
833	Parameter 4	--	RW	15	10 - 30	°C
788	Parameter 5	--	R	18	10 - 30	°C

Example table

This is an example of how information in example table is presented in the Flexit GO app depending on access level.

Page title	
Submenu	>
Section help text 1	
Parameter 1	10°C >
Parameter 2	28°C
Section help text 2	
	Mode 1
(End user)	

Page title	
Submenu	>
Section help text 1	
Parameter 1	10°C >
Parameter 2	28°C
Section help text 2	
	Mode 1
Section help text 3	
Parameter 4	15°C >
Parameter 5	18°C
(Installer)	

3. Home

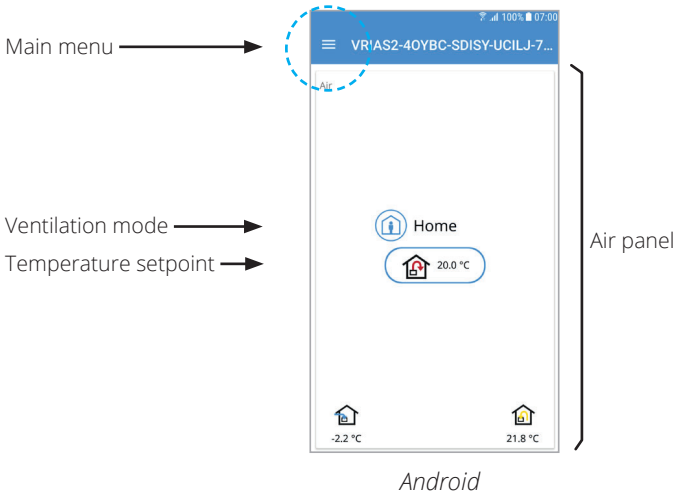
Air Panel

The air panel shows information on current ventilation mode, temperature setpoint, outside air temperature, air quality CO_2 (accessory), air humidity (accessory) and extract air temperature. From the air panel you can change ventilation mode and temperature setpoint.

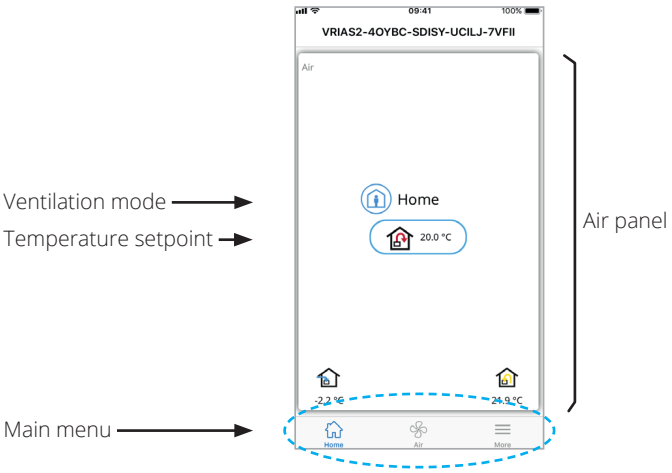
Five individual ventilation modes are available: Away, Home, High, Fireplace and Cooker hood. In each of the ventilation modes the required fan speed can be individually set for both supply and exhaust fans.

Separate temperature setpoints can be defined for HOME and AWAY ventilation modes. Ventilation modes High, Fireplace and Cooker hood use the same temperature setpoint as HOME mode.

You can also add accessories for air quality (CO_2) and air humidity. They have their own separate limits that can be set for ventilation modes, Home and Away. These functions can only control the fans during Home or Away mode. The colure of the icon will show if the value is under the limit or above.



Android



iOS

The following table lists the icons used on the home page:

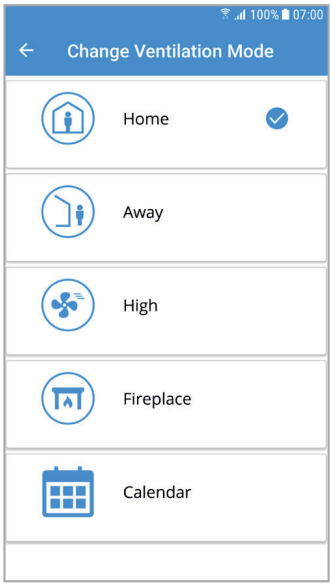
Icon	Description
	Outside air
	Suppy air
	Extract air
CO_2	The air quality value is under the limit and the fans are running on the setpoint for the current mode
CO_2	The air quality value is over the limit and the fans are regulating to increase the air flow to reduce the value below the limit
	The air humidity value is under the limit and the fans are running on the setpoint for the current mode
	The humidity sensor in the exhaust air has initiated the dehumidification process and the ventilation mode has been increased to HIGH, to reduce the humidity.
	The air humidity value is over the limit and the fans are regulating to increase the air flow to reduce the value below the limit
	Indicates that a temporary mode is running. Remaining time is also shown

Icon	Description
	Indicates that the calendar is activated
	Calendar temporary overridden
	Active alarm (A banner with error code is also shown)
	Alarm not active, waiting for acknowledge
	Alarm acknowledged, but still active
	Alarm not active, waiting for reset
	Active maintenance (A banner with error code is also shown)
	Maintenance not active, but not acknowledged
	Maintenance acknowledged, but still active

3.1. CHANGE VENTILATION MODE

From this page you can change the ventilation mode. Ventilation modes can either be constant or temporary. Constant means they will be active until you change the mode. Temporary means that they will be active for the set duration after which the previous mode will take place.

When you click on a specific mode, it will expand to show the start button and for some modes the possibility to delay the start or set a duration.



Home: This is a constant mode and is Intended for normal use when the building is occupied.

Away: This is a constant mode and is intended for use when the building is unoccupied for longer periods. You can also set a delayed start, which can be useful if you just got out of the shower before you leave the house.

High: This can be both a constant mode and a temporary mode with a set duration. It is intended for use when a higher ventilation demand is temporarily required.

Fireplace: This is only available as a temporary mode with a set duration. It is intended for temporary use together with a fireplace. It creates an overpressure in the building to facilitate smoke to go up the chimney, which prevents smoke to enter the building.

Cooker hood: This mode can only be activated using a wireless or cabled accessory, which is mounted in your cooker hood. It activates when you use your cooker hood.

3.2. CALENDAR

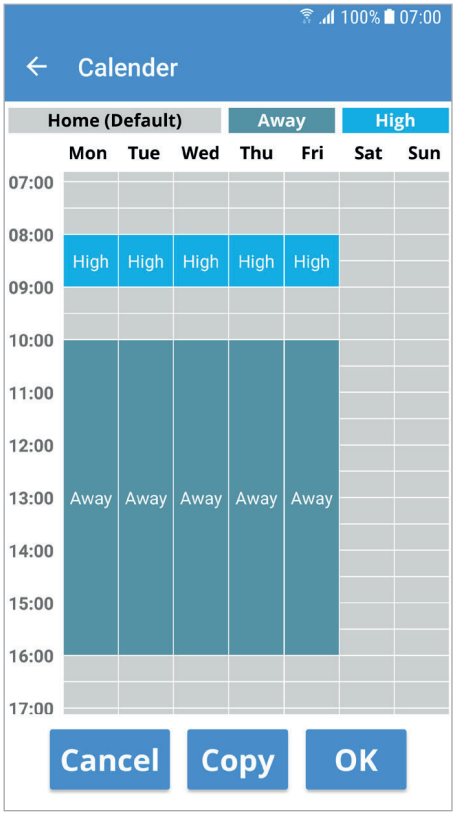
The calendar is only available when logged in on the cloud account. Therefore, to use this function you need to register your Flexit Nordic for cloud access.

From this page you can activate the calendar function and define the calendar events. If the calendar is activated, a notification icon will show up in the top left corner of the air panel.

The default ventilation mode is the Home mode, this means that you can define the start and stop time for either Away or High mode. All other time the ventilation mode will be the Home mode.

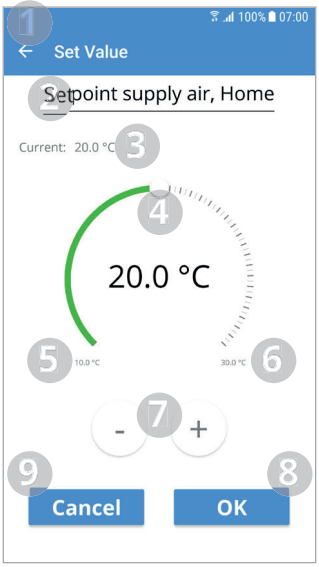
You can add up to eight events per day in the calendar. To add an event, just click at the desired start time on the day you want to add the event. A yellow plus sign (+) will appear and if you click it again, a new page appears where you can select between ventilation mode Away or High, and change the start and stop time, by 30min intervals.
If you click on an already defined event, you can edit or delete it.

There is also a copy function. This is useful if you have defined one day, and then want to copy the same settings to other days. Just press the copy button, then choose a day to copy and select to which days you want it copied to and press ok.



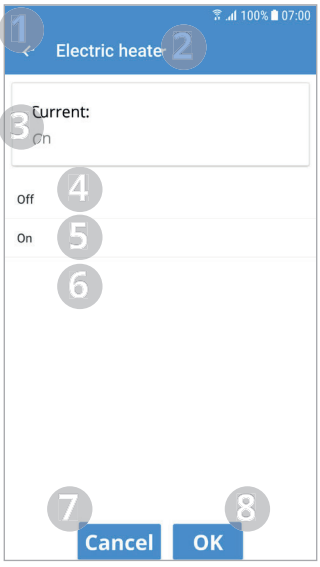
3.3. SET VALUE

From the set value page, you can set a new value for a parameter. For all parameters that are not selections and are writable you will get the set value page if you click it.



1. Navigate back.
2. The name of the parameter.
3. Current value (before change).
4. Value selector, slide or click along the scale to change the value.
5. Min allowed value.
6. Max allowed value.
7. Increase or decrease the value by the smallest resolution.
8. Write the new value.
9. Cancel, go to previous page.

For writable parameters that are selections you will get the below page if you click it.



1. Navigate back.
2. The name of the parameter.
3. Current selection (before change).
4. Choice 1. Click to select.
5. Choice 2. Click to select.
6. More choices if available.
7. Cancel, navigate back.
8. Write the selected choice.

3.4. AUTOMATIC FUNCTIONS

In the product, there are several automatic functions that can override the ventilation mode that is set. There are two categories of functions that can do this:

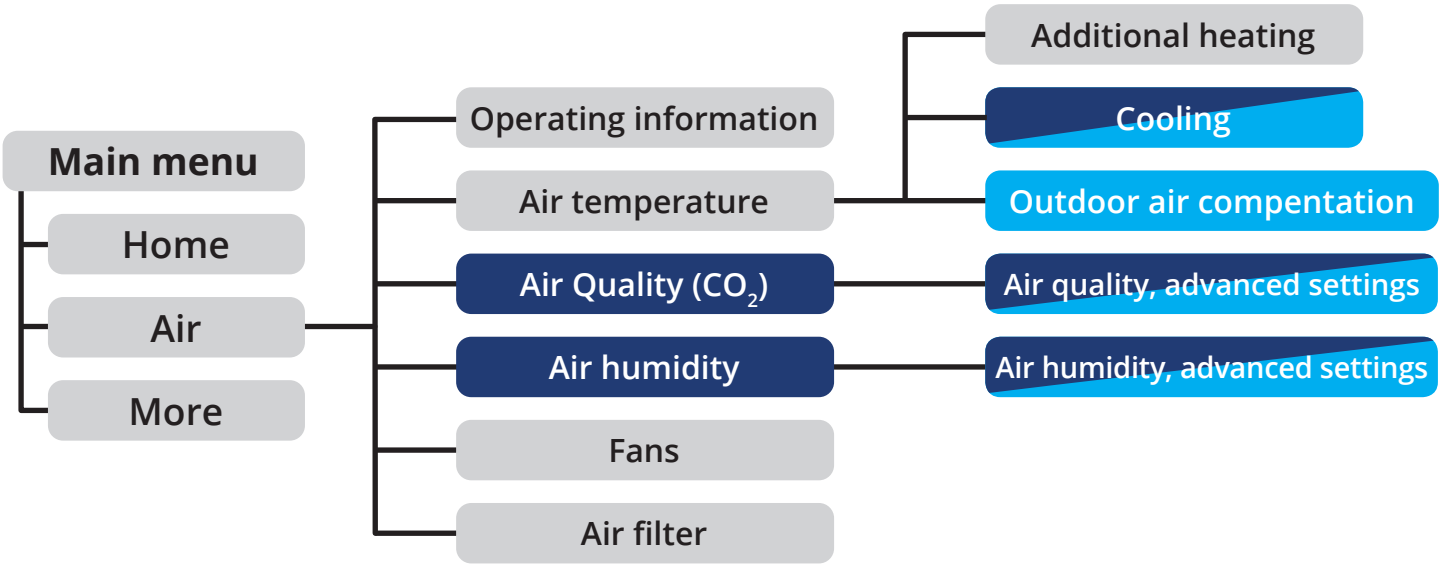
Security features

For more information see chapter ADDITIONAL INFORMATION and sub section Deicing.

Functions for demand control

For more information see chapters AIR QUALITY REGULATION and HUMIDITY REGULATION.

4. Air



Air/

	Air	B	I	Range	Unit
Grafic	**Air Panel**				
>	Operating information				
>	Air temperature				
* >	Air Quality (CO_2)				
* >	Air Humidity				
>	Fans				
>	Air Filter				

*Accessories and/or configuration needed

4.1. OPERATING INFORMATION

On this page you can view the ventilation units operating information. The information shown here depends on the configuration and if you have installed accessories.

Air/Operating information

		Operating information	B	I	Range	Unit
		Ventilation mode				
	29		R	R	Away; Home; High; Fireplace; Cooker hood	
		Sensors				
	13	Outside air	R	R		°C
	3	Supply air	R	R		°C
	14	Extract air	R	R		°C
	15	Exhaust air	R	R		°C
*	264	Air quality (CO_2)	R	R		ppm
*	265	Humidity	R	R		%RH
		Supply fan				
	19	Control signal	R	R	0 - 100	%
*	266	Duct pressure	R	R	30 - 250	Pa
	20	Speed	R	R	0 – Max	rpm
		Extract fan				
	22	Control signal	R	R	0 - 100	%
*	267	Duct pressure	R	R	30 - 250	Pa
	23	Speed	R	R	0 – Max	rpm
		Heat recovery unit				
	17	Mode	R	R	Heating; Cooling	
	42	Speed	R	R	0 - 100	%
		Additional heating				
	169	Setpoint		R		°C
	18	Electric battery	R	R		%
*	96	Water battery	R	R		%
*	43	Return temperature		R		°C
*		**Cooling**				
*	159	Setpoint		R		°C
*	160	Water battery	R	R		%
*	168	DX status	R	R	Off; On	
		Demand controlled function				
	213		R	R	«Empty = No demand controlled function»; Free Cooling; Deicing; Emergency shut down; Somke control supply; Smoke control extract; Smoke purge	
		Digital inputs				
	256	DI1	R	R	«Empty = Not active»; Stop; Away; Home; High; Fireplace; Cooker hood	
	257	DI2	R	R	«Empty = Not active»; Stop; Away; Home; High; Fireplace; Cooker hood	
	258	X8	R	R	«Empty = Not active»; Away; Home	

*Accessories and/or configuration needed

4.2. AIR TEMPERATURE

From this page you can change the temperature setpoint for ventilation modes Home and Away. You can also access other pages as shown in the table below depending on user level and configuration.

The product supports two different ventilation air temperature controlling strategies:
- Supply air control (Default)
- Extract air cascade control (Only for special use, needs to be configured)

Supply air control

The product aims to keep the supply air at the setpoint **{259|Home}** or **{260|Away}**. It uses heat recovery unit and the available and configured heating or cooling components to achive that.

Air/Air temperature

		Air temperature	B	I	Default	Range	Unit
	>	Additional heating					
*	>	Cooling					
	>	Outdoor air compensation					
		Temperature setpoints supply air					
	259	Home	RW	RW	20	10 - 30	°C
	260	Away	RW	RW	18	10 - 30	°C

*Accessories and/or configuration needed

Extract air cascade control

This temperature control mode tries to keep the extract air temperature at the setpoint **{261|Home}** or **{262|Away}** by changing the supply air temperature between the min **{201|Min}** – max **{200|Max}** setting, using a cascade regulator. This temperature control mode can be used when your ventilation system is your primary heating source or during summer time if a cooling component is used.

Air/Air temperature

		Air temperature	B	I	Default	Range	Unit
	>	Additional heating					
*	>	Cooling					
	>	Outdoor air compensation					
*		**Temperature setpoints extract air**					
*	261	Home	RW	RW	20	10 - 30	°C
*	262	Away	RW	RW	18	10 - 30	°C
*		**Temperature limitation supply air**					
*	201	Min	--	RW	16	10 - 30	°C
*	200	Max	--	RW	28	10 - 30	°C

*Accessories and/or configuration needed

Components

Heat recovery

The heat recovery unit is always the first step used in the temperature control. The purpose of the heat recovery is to take heat/cool energy from the extract air and transfer it back to the supply air. The heat recovery unit is an active element which uses a PI regulated stepper signal for speed control.

Additional heating

From this page you can turn on or off **{171|Electric heater}** the electric heater (Default).
If a water battery is configured, only setpoints shown in the table below is shown.

When heating is required the first step is the heat recovery unit which recovers heat from the extract air. If the supply air temperature can't be reached only using the heat recovery unit the additional heating component will be used.

Air/Air temperature/Additional heating

		Additional heating	B	I	Default	Range	Unit
	171	Electric heater	RW	RW	On	Off; On	
*		**Settings Water battery**					
*	184	Frost protection	--	R	10	0 - 30	°C
*	185	Frost risk	--	R	5	0 - 30	°C
*	186	Standby protection	--	R	25	0 - 30	°C

*Accessories and/or configuration needed

Cooling (Accessory)

This page is only visable for an installer and only if a cooling component is configured and installed.

When cooling is required the heat recovery unit can be used if the extract air is colder than the outside air. If the supply air temperature can't be reached only using the heat recovery unit the additional cooling component may be used.

Air/Air temperature/Cooling

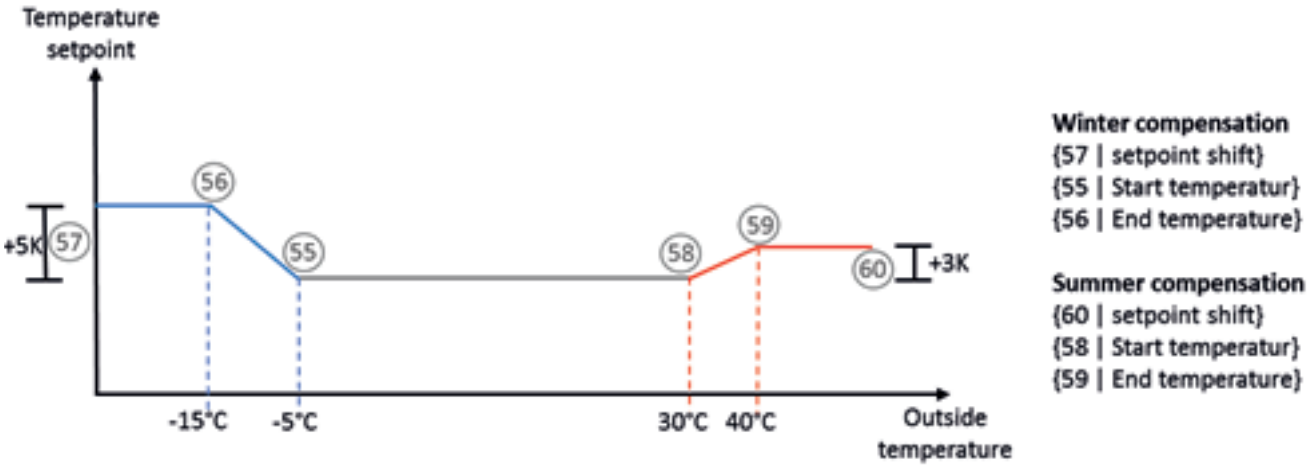
		Cooling	B	I	Default	Range	Unit
*		**Outdoor temperature release for cooling**					
*	158	Cooling release	--	RW	20	0 - 40	°C
		Limitations for DX on/off time					
*	166	Min DX off time	--	RW	300	0 - 3600	s
*	167	Min DX on time	--	RW	300	0 - 3600	s

*Accessories and/or configuration needed

Outdoor temperature compensation

From this page an installer can change the settings to activate this functionality.

During hot summer periods or cold winter times, the temperature setpoint may be weather compensated to increase comfort or cost-optimize the operation. Compensation can be set individually for summer and winter, with dedicated settings to adjust the temperature setpoint.



Winter compensation
{57 | setpoint shift}
{55 | Start temperatur}
{56 | End temperature}

Summer compensation
{60 | setpoint shift}
{58 | Start temperatur}
{59 | End temperature}

Outdoor temperature compensation is active when setpoint shift (57 or 60) is defined (≠0) and the outside temperature is below/above set start limits (55 or 58). It has an influence on the temperature setpoint for both supply air and extract air cascade control.

Air/Air temperature/Outdoor air compensation

	Outdoor air compensation	B	I	Default	Range	Unit
	Winter compensation					
57	Setpoint shift	--	RW	0	-10 - 10	K
55	Start temperature	--	RW	-5	-50 - 0	°C
56	End temperature	--	RW	-25	-50 - 0	°C
	Summer compensation					
60	Setpoint shift	--	RW	0	-10 - 10	K
58	Start temperature	--	RW	30	0 - 50	°C
59	End temperature	--	RW	40	0 - 50	°C

4.3. AIR QUALITY (CO_2) REGULATION (ACCESSORIES)

From this page you can see the air quality limits for ventilation modes Home and Away. As an installer you can also change the limits and certain settings explained below.

By using a CO_2 sensor as an input from a room, this function controls the fan speeds to keep the ppm-level under the set limit. Individual limits can be set for ventilation modes: **Away {44|Away}** and Home **{45|Home}**.
If the CO_2 level exceeds the set limit, the air quality controller increases the fan speed to bring in more fresh air. The calculation is performed by a PI-controller. Fan speed is controlled dynamically to a higher value until it reaches the HIGH ventilation mode speed for both fans, if necessary. Minimum speed is defined by the active ventilation mode.

During active air quality control, the speed of both fans will be increased and decreased linearly and simultaneously with symmetrical control signal which keeps the set difference in every situation and the air quality below the limit. When the ppm value drops below the limit, air quality controlling reduces the fan speed until the defined level for the active ventilation mode.

It is possible to use more than one Air quality (CO_2) sensor simultaneously from different rooms. In that case, the highest value is used. Air quality (CO_2) sensors are available as cabled (0-10V) or as wireless.

This function will temporarily override the selected fan speed settings. When the increased demand returns to normal level, the unit will return to the selected ventilation mode.

Air/Air Quality (CO_2)

	Air Quality (CO_2)	B	I	Default	Range	Unit
>	Air quality, advanced settings					
	Limit					
45	Home	R	RW	700	500 - 1500	ppm
44	Away	R	RW	700	500 - 1500	ppm
	Sensors					
214	0-10V sensor	R	R			ppm
215	Wireless sensor	R	R			ppm

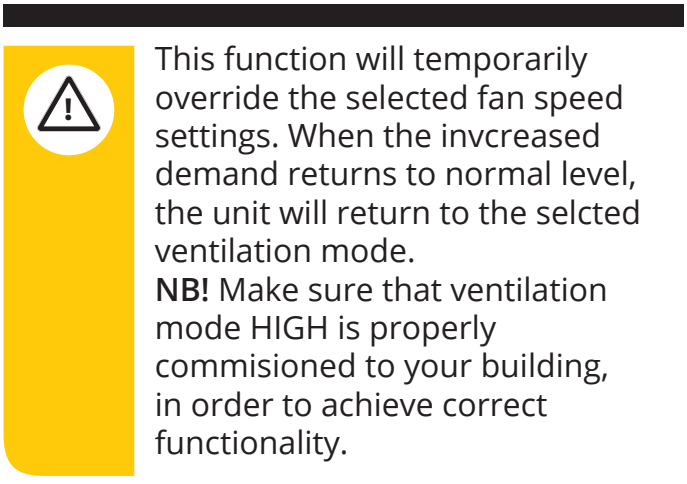
Air/Air Quality (CO_2)/Air quality, advanced settings

	Air quality, advanced settings	B	I	Default	Range	Unit
	X3: Settings, 0-10V sensor					
97	Min input signal	--	RW	0	0 - 10	V
99	Max input signal	--	RW	10	0 - 10	V
101	Min input CO_2	--	RW	0	0 - 3000	ppm
103	Max input CO_2	--	RW	2000	0 - 3000	ppm

4.4. AIR HUMIDITY REGULATION

The purpose of the function is to dehumidify the building through increased ventilation. When the moisture level is back to normal, the product returns to the selected ventilation mode.
Depending on the type of humidity sensor used (extract air or accessory), the functionality partially differs. The two different methods are described In section 4.4.1 and 4.4.2.

4.4.1. HUMIDITY REGULATION WITH THE EXTRACT AIR HUMIDITY SENSOR



This function will temporarily override the selected fan speed settings. When the invcreased demand returns to normal level, the unit will return to the selcted ventilation mode.
NB! Make sure that ventilation mode HIGH is properly commisioned to your building, in order to achieve correct functionality.

The product includes an extract air humidity sensor, which measures the humidity level in the extract air duct and represents an average for the entire building. The sensor is used to control the dehumidification function inside the product.

The dehumidification function continuously monitors changes in humidity levels and activates when the humidity level exceeds a predetermined **{552|Switch-on point.** Once activated, the function sets the ventilation mode to HIGH, and runs until a **{553|Switch-off point** with decreasing humidity level is detected. After reaching the switch-off point, a time delay **{554|Switch-off delay** is activated, to ensure that the dehumidification function is running until the

humidity increase has decreased. The unit then returns to the selected ventilation mode.

If the function cannot reduce the humidity level within a certain time after activation, **{555|Maximum runtime**, the function ends, and the unit returns to the selected ventilation mode.

Note that the function only operates when the HOME and AWAY ventilation modes are selected.

If the dehumidification function is triggered too frequently or not often enough, you can adjust the sensitivity of the **{552|Switch-on point**.

- A higher value slows down the function.
- A lower value speeds up the function.

The function can be enabled or disabled by changing the **{557|Enable humidity control** setting.

Extract air sensor

	Air humidity	B	I	Default	Range	Unit
>	Air humidity, advanced settings					
	Extract air sensor, sensitivity settings					
557	Enable humidity control	RW	RW	1	1:Disable 2:Enable	
552	Switch-on point	RW	RW	1	0,6 - 10	
553	Switch-off point	RW	RW	-0,3	-10 - -0,3	
550	Calculated value	R	R			
	Extract air sensor, time settings					
554	Switch-off delay	RW	RW	30	0 - 120	Minutes
555	Maximum runtime	RW	RW	120	60 - 600	Minutes
	Room sensors, limits					
*50	Home	R	RW	70	30 – 100	%RH
*49	Away	R	RW	80	30 – 100	%RH
	Sensors					
560	Extract air sensor	R	R			%RH
*217	Wireless sensor 1	R	R			%RH
*218	Wireless sensor 2	R	R			%RH
*219	Wireless sensor 3	R	R			%RH

	Air Humidity, advanced settings	B	I	Default	Range	Unit
	Duty cycle at high outdoor humidity for room sensor control					
*53	On time	--	RW	1800	0 - 10000	s
*54	Off time	--	RW	1800	0 - 10000	s

***** Only visible if room sensors (accessories) are installed

4.4.2. HUMIDITY REGULATION (ACCESSORIES)

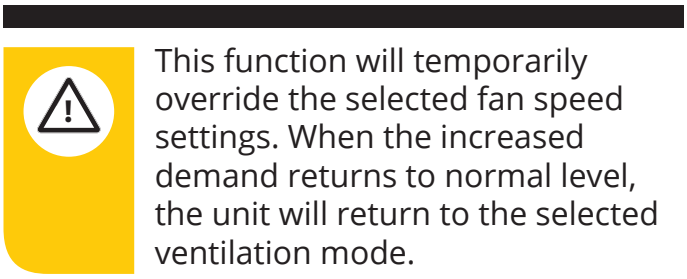
From this page you can change the humidity limits for ventilation modes Home and Away. As an installer you can also change certain settings explained below.

By using a humidity sensor as an input from a room, this function controls the fan speeds to keep the humidity level under the set limit. Individual limits can be set for ventilation modes: Away **{49|Away}** and Home **{50|Home}**.

If the relative humidity exceeds the set limit, the humidity controller increases the fan speed to bring in more fresh air. The calculation is performed by a PI-controller. Fan speed is controlled dynamically to a higher value until it reaches the HIGH ventilation mode speed for both fans, if necessary. Minimum speed is defined by the active ventilation mode.

Since increased ventilation alone cannot lower the humidity level in every situation, the controller calculates internally the dew point from the air humidity with a fix room temperature value of 22°C, to define if outside air temperature is sufficient for lowering the humidity level in the room. In case the outside air temperature is low enough to assure dehumidification, the PI-control works continuously. Otherwise, the PI works periodically with configurable on time **{53|On time}** and off time **{54|Off time}** for the function.
The function is deactivated when the relative humidity drops below the current limit.

It is possible to use more than one humidity sensor simultaneously from different rooms. In that case, the highest value is used.



This function will temporarily override the selected fan speed settings. When the increased demand returns to normal level, the unit will return to the selected ventilation mode.

Humidity sensors – Accessories (only visible if existing)

	Air Humidity	B	I	Default	Range	Unit
>	Air humidity, advanced settings					
	Limit					
50	Home	R	RW	70	30 – 100	%RH
49	Away	R	RW	80	30 – 100	%RH
	Sensors					
216	0-10V sensor	R	R			%RH
217	Wireless sensor 1	R	R			%RH
218	Wireless sensor 2	R	R			%RH
219	Wireless sensor 3	R	R			%RH

Air/Air Humidity/Air humidity, advanced settings
(only visible if existing)

	Air humidity, advanced settings	B	I	Default	Range	Unit
	Settings, 0-10V sensor					
*105	Min input signal	--	RW	0	0 - 10	V
106	Max input signal	--	RW	10	0 - 10	V
107	Min input R.H	--	RW	0	0 - 100	%RH
108	Max input R.H	--	RW	100	0 - 100	%RH
	Duty cycle at high outdoor humidity for room sensor control					
53	On time	--	RW	1800	0 - 10000	s
54	Off time	--	RW	1800	0 - 10000	s

4.5. FANS

From this page you can change the fan setpoints for the different ventilation modes.

There are two ways the product can control the fans. Fan speed control, which is the default and duct pressure control which needs accessories and a special installation / configuration.

Strategy	Unit	Comment
Fan speed control	%	Default
Duct pressure control	Pa	Needs accessories and special installation / configuration.

Fan speed control

The supply fan and extract fan have individual setpoints for each ventilation mode, percent value is used. These setpoints define the fan speed used in the various ventilation modes.

Air/Fans

	Fans	B	I	Default	Range	Unit
	Fan setpoints, Away					
32	Supply air	RW	RW	50	30 – Home	%
33	Extract air	RW	RW	50	30 – Home	%
	Fan setpoints, Home					
30	Supply air	RW	RW	75	Away – High	%
31	Extract air	RW	RW	75	Away – High	%
	Fan setpoints, High					
34	Supply air	RW	RW	100	Home - 100	%
35	Extract air	RW	RW	100	Home - 100	%
	Fan setpoints, Cooker hood					
38	Supply air	RW	RW	90	30 – 100	%
39	Extract air	RW	RW	50	30 – 100	%
	Fan setpoints, Fireplace					
36	Supply air	RW	RW	90	30 – 100	%
37	Extract air	RW	RW	50	30 – 100	%

Duct pressure control

The supply fan and extract fan have individual setpoints for each ventilation mode, pascal value is used. By using pressure sensors (Accessory) the product controls the fan speed to keep the duct pressure at a constant level. Duct pressure is commonly used together with VAV control.

If pressure sensor becomes faulty and control can no longer be guaranteed, fan control of the duct with faulty sensor is automatically switched to fan speed control. Setpoints used for the fan speed control are then calculated by using the maximum unit pressure value as 100% and setting the actual pressure setpoint proportionally according to the maximum value. Example: When maximum unit pressure is 100 Pa and AWAY pressure is set to 35 Pa then fan speed of 35 % (3,5 V) is used in case of a fault.

Air/Fans

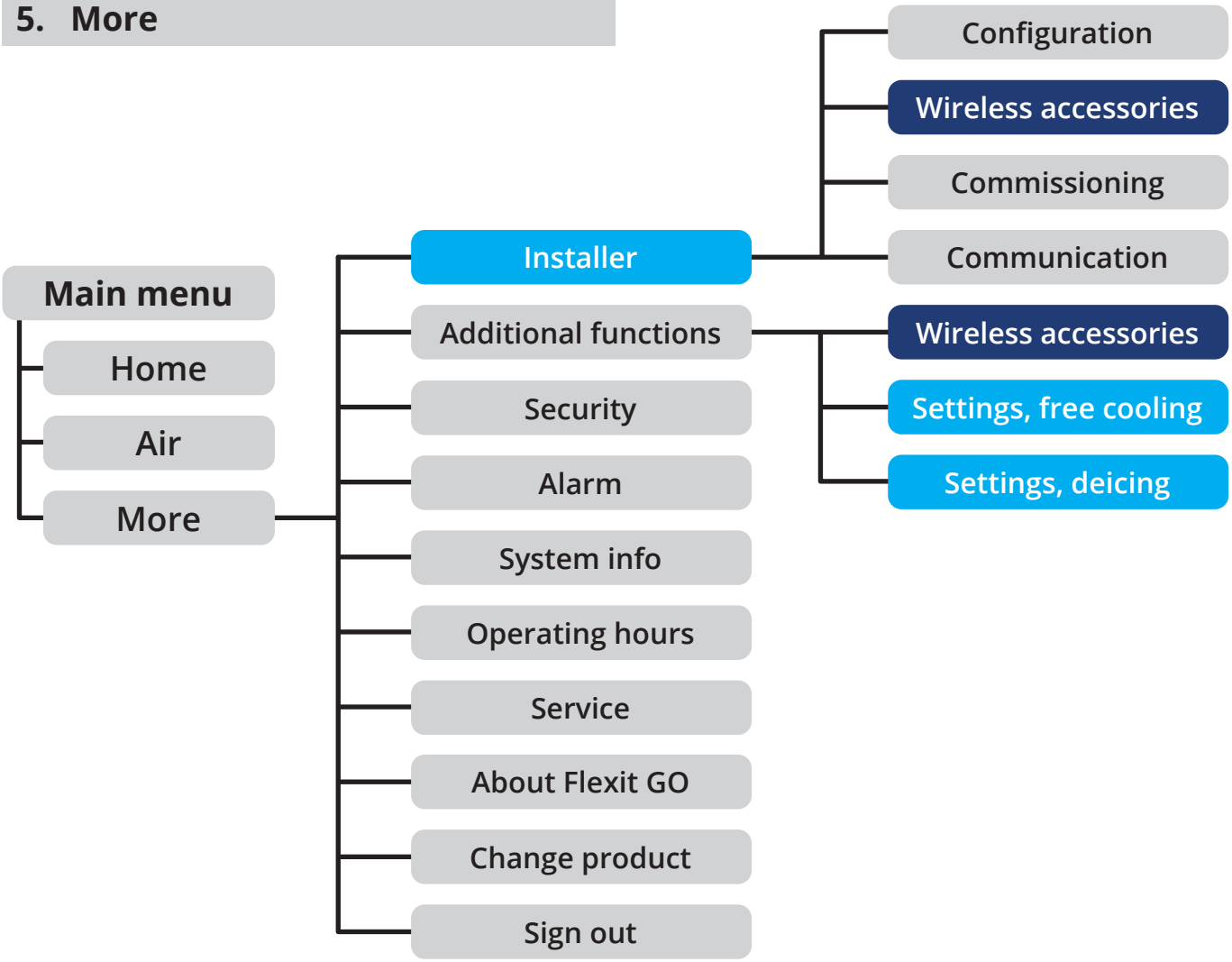
		Fans	B	I	Default	Range	Unit
		Fan setpoints, Away					
*	32	Supply air	RW	RW	90	30 - Home	Pa
*	33	Extract air	RW	RW	90	30 - Home	Pa
		Fan setpoints, Home					
*	30	Supply air	RW	RW	90	Away - High	Pa
*	31	Extract air	RW	RW	90	Away - High	Pa
		Fan setpoints, High					
*	34	Supply air	RW	RW	90	Home - 250	Pa
*	35	Extract air	RW	RW	90	Home - 250	Pa
		Fan setpoints, Cooker hood					
*	38	Supply air	RW	RW	150	30 - 250	Pa
*	39	Extract air	RW	RW	70	30 - 250	Pa
		Fan setpoints, Fireplace					
*	36	Supply air	RW	RW	150	30 - 250	Pa
*	37	Extract air	RW	RW	70	30 - 250	Pa

*Accessories and/or configuration needed

4.6. AIR FILTER

The air filters are default set to be changed every six months (The period can be changed, see chapter Additional functions). This will be shown as maintenance message 1020, or you can see how long time there is until a filter change is needed in the Air filter page. When it's time, you can reset the counter from the maintenance message or from the Air filter page.

5. More



		More	B	I	Range	Unit
	>	Installer				
	>	Additional functions				
*	>	Security				
	>	Alarm				
	>	System info				
	>	Operating hours				
	>	Service				
	>	About Flexit GO				
**	>	Change product				
	>	Sign out				

*Accessories and/or configuration needed
**Only over cloud account

5.1. INSTALLER

This page is only accessible when connected as installer using local network.

- **Configuration** is only necessary if accessories are to be installed and/or certain functionality or I/O needs to be added or changed.
- ***Wireless accessories** is only shown if the CI 75 Wireless adapter was connected and added in the configuration. From that page you can add wireless accessories (see chapter Wireless accessories).
- **Commissioning** starts a guide that steps the installer through the steps necessary for the specific installation, such as fan and temperature setpoints.
- **Communikation.** Settings for BACnet/IP and Modbus communication.

Configuration

When you enter this page, you will be prompted with a pop-up message informing you that to enter the configuration mode the application in the controller needs to be stopped and you can cancel or proceed. Stopping the application takes up to 2 minutes.
The configuration is divided into 2 sections, functionality and hardware I/O.

Functionality

Under functionality you can configure the following functions. The default function is marked as **this**.

Function	Choice	Comment
Temperature control ventilation	**Supply air control** Extract air cascade control	
Fan control	Duct pressure **Fan speed**	Duct pressure is commonly used together with VAV control
Dehumidify control	**Off** On	Activate this function if you install humidity sensors.
Heating coil	None **Electrical** Water	
Cooling coil	**None** Water DX	For Water or DX, you also need to select the cooling pump on Q1, Q2 or Q3 and for Water, the valve output on X7 under hardware I/O. **You cannot use Water cooling if you have Water heating.*
Fire damper	**No** Yes	For Fire damper you also need to configure output on Q1, Q2 or Q3 and the feedback on DI1, DI2 or X8.

Hardware I/O

In the Configure hardware I/O page is it possible to change functions of some in and outputs on the control system. The bold and underlined choice is the default choice on a Nordic

I/O	Choice	Comment
DI1 Selection (Input)	None Cooker hood Fireplace *Fire damper feedback **High** Stop Home Away Emergency off CO detector Smoke detector - extract Smoke detector - supply Smoke detector - off Smoke detector - max	Here you can choose the function of digital input DI1. The available choices are the different ventilation modes and the different Emergency inputs see chapter security. *If you have configured fire damper the feedback is available as a choice as well.
DI2 Selection (Input)	None **Cooker hood** Fireplace *Fire damper feedback High Stop Home Away Emergency off CO detector Smoke detector - extract Smoke detector - supply Smoke detector - off Smoke detector - max	Here you can choose the function of digital input DI2. The available choices are the different ventilation modes and the different Emergency inputs see chapter security. *If you have configured fire damper the feedback is available as a choice as well.
X8 Selection (Input)	None Home Away Emergency off CO detector Smoke detector - extract Smoke detector - supply Smoke detector - off Smoke detector - max *Fire damper feedback **Cooker hood** Fireplace High Stop	Here you can choose the function of digital input X8. The available choices are the different ventilation modes and the different Emergency inputs see chapter security. *If you have configured fire damper the feedback is available as a choice as well. This I/O can only be configured as "Cooker hood" on Nordic KS3 model.
Q1 Selection (Output)	None **Outside air damper** *Fire damper Common alarm and maintenance indication Alarm indication Maintenance indication Operation indication Bypass damper *Cooling pump	Here you can choose the function of digital output Q1. *Fire damper and cooling are not visible until they are configured as a function. This I/O is not avalable on Nordic KS3 model.

I/O	Choice	Comment
Q2 Selection (Output)	None Outside air damper *Fire damper **Common alarm and maintenance indication** Alarm indication Maintenance indication Operation indication Bypass damper *Cooling pump	Here you can choose the function of digital output Q2. *Fire damper and cooling are not visible until they are configured as a function. This I/O is not avalable on Nordic KS3 model.
Q3 Selection (Output)	**None** Outside air damper *Fire damper Common alarm and maintenance indication Alarm indication Maintenance indication Operation indication Bypass damper *Cooling pump	Here you can choose the function of digital output Q3. *Fire damper and cooling are not visible until they are configured as a function. This I/O is not avalable on Nordic KS3 model.
Y1 Selection (Output)	None **Electrical heater** Pump water heater	This digital output Y1 is read only and is automatically set to correct choice depending your choice of heating coil. This I/O is not avalable on Nordic KS3 model.
X4 Selection (Input)	None **Thermostat overheating** Return water temperature	This input X4 is read only and is automatically set to correct choice depending your choice of heating coil. This I/O is not configurable on Nordic KS3 model.
X7 Selection (Output)	**None** 0-10V Water heater valve *0-10V Water cooling valve	Choose Water cooling valve on analog output X7 if you have configured water cooling under functionality. This I/O is not avalable on Nordic KS3 model.
Wireless accessories	**None** Connected	Make sure that the adapter CI-75 is connected before you choose Connected.

5.2. ADDITIONAL FUNCTIONS

From this page you can see if the functions Free cooling and Deicing are enabled or not and which interval time the filter change has. As an installer you can access and change the settings for those functions and change the filter change interval **{459|Interval}.**
You can also access the wireless accessories page to add wireless devices if the CI 75 Wireless adapter is connected and configured.

More/Additional functions

		Additional functions	B	I	Default	Range	Unit
*	>	**Wireless accessories**					
	206	Free cooling enabled	R	RW	Off	Off; On	
	>	**Settings, free cooling**					
	118	Deicing enable	R	RW	Off	Off; On	s
	>	**Settings, deicing**					
		Filter change, interval setting					
	459	Interval	R	RW	4380	0 - 8760	h

*Accessories and/or configuration needed

Wireless accessories (Accessory)

This page is only shown if the CI 75 wireless adapter has been connected and configured.

When the CI 75 Wireless adapter is connected and configured, you can add the following wireless devices:

Device	Max qty
CI78 - Control panel	3
CI77 - RH sensor	3
CI76 - CO_2 sensor	1
CI79 - Pressure switch	1

This page exists both here and under the Installer page. From this page you can add wireless accessories. Chose the device you want to add **{149|Chosen device}** and then wait for the **Pairing process status** to show **Start pairing procedure**, then activate the commissioning command on the wireless device and wait for the **Pairing process status** to show **Closed** and the chosen device to shift it's connected status under **Connected devices** from No to Yes. The procedure is the same for all wireless devices except for activating the commissioning command on the device itself.

More/Additional functions/Wireless accessories

	Wireless accessories	B	I	Default	Range	Unit
	Add wireless device					
149	Chosen device	RW	RW		All devices	
	Pairing process status					
233		R	R	Closed	Closed; Start pairing process	
	Connected devices					
224	CI78 - Control panel 1	R	R	No	No; Yes	
225	CI78 - Control panel 2	R	R	No	No; Yes	
226	CI78 - Control panel 3	R	R	No	No; Yes	
227	CI77 - RH sensor 1	R	R	No	No; Yes	
228	CI77 - RH sensor 2	R	R	No	No; Yes	
229	CI77 - RH sensor 3	R	R	No	No; Yes	
230	CI76 - CO_2 sensor	R	R	No	No; Yes	
231	CI79 - Pressure switch	R	R	No	No; Yes	
	Remove wireless device					
232	Chosen device	RW	RW		All devices	

Free cooling

The purpose of the Free cooling function is to ensure that overheated living area can be cost efficiently cooled down by using the lower outside temperatures just by increasing the air circulation. As an end user you can see if this function is activated or not, to change that and access the settings you need installer access.
Activation of the function occurs when the outside air temperature is more than **{210|DT B3-B4 enable start}** lower than the extract air temperature, and the extract air temperature is above **{205|Extract temp setpoint}**, and the outside air temperature is above **{208|Outside temp limit}**. During activation, the ventilation mode is set to HIGH and kept there until the extract air temperature is below **{205|Extract temp setpoint}** or the outside air temperature is less than **{211|DT B3-B4 disable}** lower than the extract air temperature, and more time than **{212|Min on time}** has elapsed.

More/Additional functions/Settings, free cooling

	Free cooling	B	I	Default	Range	Unit
205	Extract temp setpoint	--	RW	22	10 - 30	°C
208	Outside temp limit	--	RW	18	10 - 30	°C
212	Min on time	--	RW	600	0 - 10000	s
	Advanced settings					
210	DT B3-B4 enable start	--	RW	4	0 - 10	K
211	DT B3-B4 disable	--	RW	1	0 - 10	K

Deicing

Nordic CL/KS series - The function is enabled
Nordic S series - The function is not enabled

The purpose of the function is to periodically get rid of ice from the heat recovery unit. Depending on prevailing conditions ice may start to accumulate on the unit or in some situation ice may already exist when the function is activated.
When the defrost function of the heat recovery unit is active, it will change the ventilation mode while running, which has a higher priority than the selected ventilation mode.
After defrosting is complete, the product returns to the selected operating mode.

The defost function will override Fireplace and Cooker hood ventilation modes. This can cause a suppression in the building, resulting in a poor functionality of the Fireplace and Cooker hood ventilation modes.

As an installer you can change the speed of the heat recovery **{122|Recovery speed}**, the speed of the supply fan **{123|Supply fan}** and the speed of the extract fan **{124|Extract fan}** for the active period of the function, if it isn't working satisfactory.

More/Additional functions/Settings, Deicing

	Deicing	B	I	Default	Range	Unit
	Exhaust air temperature for activation of					
119	Rotor reduction	--	R	0	(-)30 – 10	°C
120	Fan reduction	--	R	0	(-)30 – 10	°C
	Settings for active deicing					
121	Active time	--	R	420	0 – 3600	s
122	Recovery speed	--	RW	100	0 – 100	%
123	Supply fan	--	RW	15	0 – 100	%
*				30	0 – 250	Pa
124	Extract fan	--	RW	75	0 – 100	%
*				150	0 – 250	Pa
	Settings for off time ramp start					
126	Max off time	--	R	6900	60 – 18000	s
125	Off time ramp start	--	R	0	(-)50 – 0	°C
	Settings for off time ramp end					
128	Min off time	--	R	1800	60 – 18000	s
127	Off time ramp end	--	R	-9	(-)50 – 0	°C

*Accessories and/or configuration needed

5.3. SECURITY

Fire damper

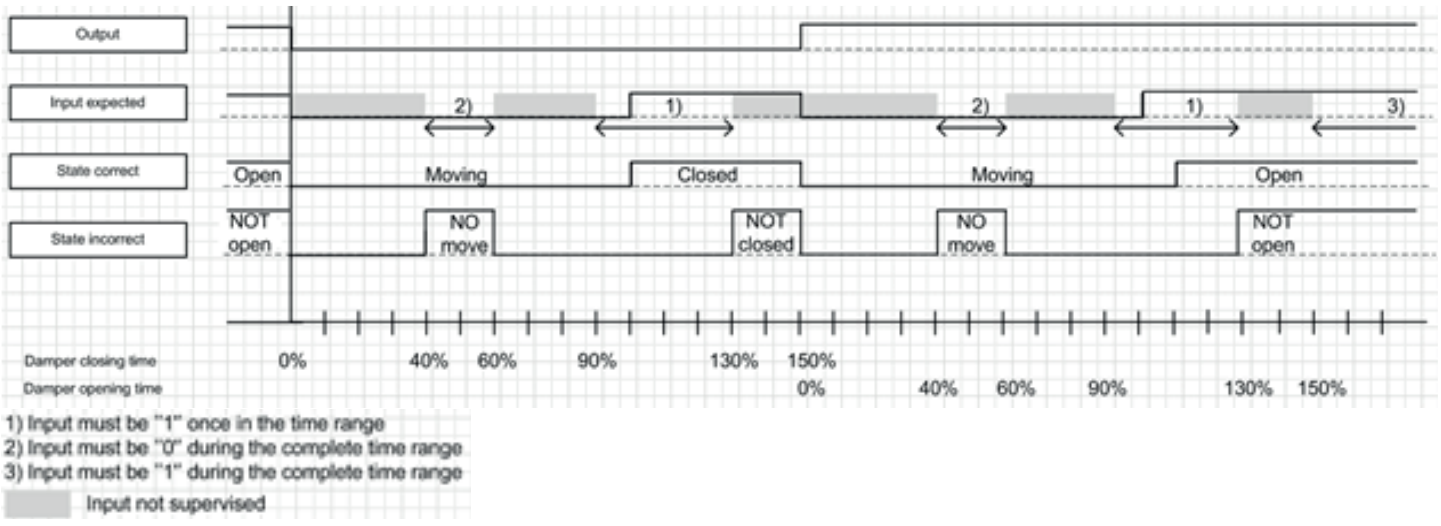
This page is only available for installers and if you have installed and configured a Fire damper. The fire dampers, which will close automatically when fire alarm from duct temperatures (If supply air temp or extract air temp is above 72°C) or smoke / fire alarm "Smoke detector - off" is active. In normal operational situation when power is on, the dampers are always open. When power drops off, dampers close automatically. After fire dampers have been closed due to alarm situation, normal operation cannot be resumed before error is manually acknowledged and reset.

Local fire safety regulations may require that fire dampers are being **periodically tested** to secure correct operation. Testing period is automatically made after interval is set. During active fire damper operation test the ventilation is first shut down, then dampers are driven close and back open again before ventilation may be resumed. Fire dampers have inbuilt auxiliary (limit switch) switches on both open and closed positions which signalizes that movement was successful. Limit switch works as a fire damper feedback.

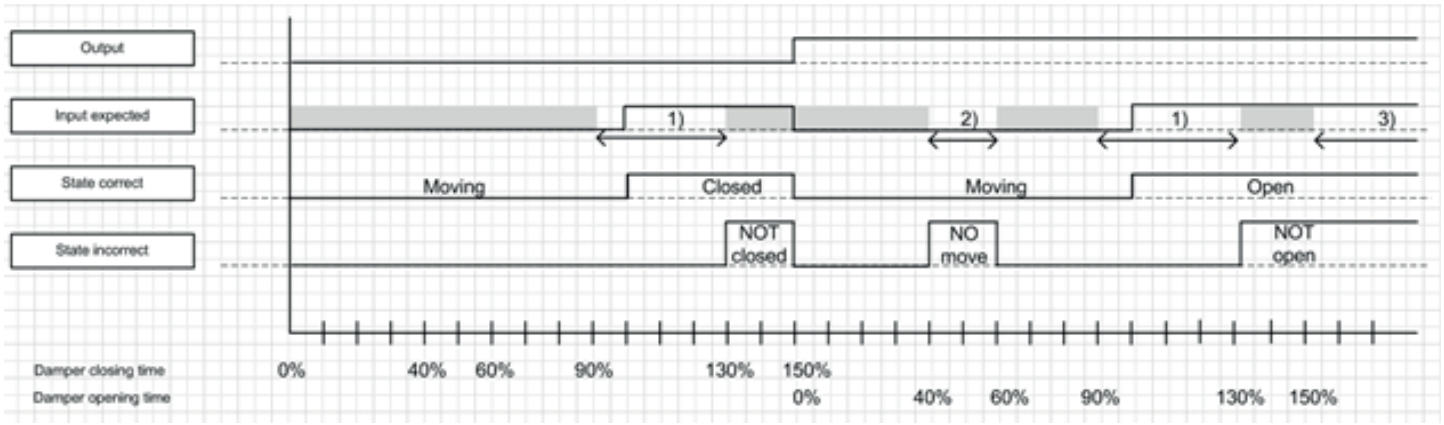
The feedback signal is "active" at both closed and opened damper position and is "inactive" if the damper is in the middle postion. If one of these signals is missing, A-alarm is generated, and unit is stopped. However, fire damper doesn't close in this particular case.

At start up and during test a **full test cycle** is executed

0. Start
1. Closing (Feedback = 0)
2. Closed (Feedback = 1)
3. Opening (Feedback = 0)
4. Open (Feedback = 1)



After power up and after Acknowledge/Reset the actual damper position is not known.
Due to that only a **partial test** cycle is performed



1) Input must be "1" once in the time range
2) Input must be "0" during the complete time range
3) Input must be "1" during the complete time range
Input not supervised

Incase fire dampers are equipped with own thermostat, during fire situation dampers close autonomously and feedback signal will become inactive and generate an A-alarm for fire situation with emergency shut-down.

CO/smoke /fire alarm detection

Ventilation unit can be equipped with various kinds of hazard indicators such as smoke, carbon monoxide detectors or human interaction (push button). Within first phase of fire situation, it can be assumed that ventilation may be used to help the prevailing situation, thus functionality is different from temperature driven fire alarm coming from temperature measurement or fire damper indication.

Depending on the requirements, the ventilation unit can be set to react on an active signal in 6 different ways:

- "CO detector" signal on X8: Both fans would be switched to 100% speed in case of active alarm
- "Emergency off" signal on X8: Both fans would be switched to 0 % speed in case of active alarm
- "Smoke detector - supply" signal on X8: Supply fan would be switched to 100% speed and exhaust fan to 0 % speed
- "Smoke detector - extract" signal on X8: Supply fan would be switched to 0% speed and exhaust fan to 100% speed
- "Smoke detector - off" signal on X8: Both fans would be switched to 0 % speed in case of active alarm
- "Smoke detector - max" signal on X8: Both fans would be switched to 100% speed in case of active alarm

If any of these is configured, the status of the input is shown under **X8 input status**.

As long as the supply fan is running, the temperature control with a water heating coil tries to maintain the temperature setpoint. Frost protection is active any time whereas an electrical heating coil is permanently switched off.

Since ventilation operation is a reaction to A-alarm situation, the defined function will only be stopped after A-alarm is reset and acknowledged.

More/Security

		Security	B	I	Default	Range	Unit
		Fire damper settings & status					
*	92	Damper opening time	--	RW	45	0 - 600	s
*	93	Damper closing time	--	RW	15	0 - 600	s
*	94	Fire damper status		R			
		X8 input status					
*	236	Emergency off	--	R		Off; On	
*	279	CO detector	--	R		Off; On	
*	280	Smoke detector - extract		R		Off; On	
*	281	Smoke detector - supply	--	R		Off; On	
*	282	Smoke detector - off	--	R		Off; On	
*	283	Smoke detector - max	--	R		Off; On	

*Accessories and/or configuration needed

5.4. ALARM

There are two types of alarms, alarm (A) and maintenance (B).

- A-Alarms are important and urgent situations which stops and locks the ventilation unit immediately. The alarm must be acknowledged. If the reason for the A-Alarm(s) is resolved, the alarm can be reset, and the ventilation unit tries to restart.

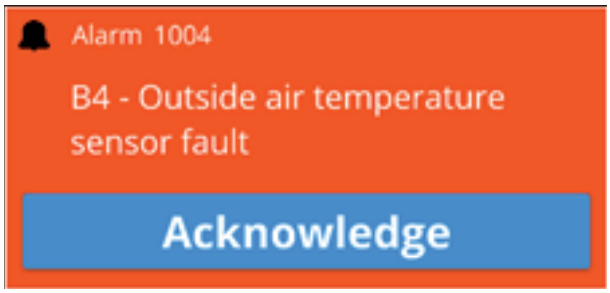
- B-Maintenance leave the ventilation unit running, but components or functions of the unit (for example the heat recovery) are switched off and locked. If the reason for these alarms are resolved, they can be acknowledged, and the affected part or function is available again.

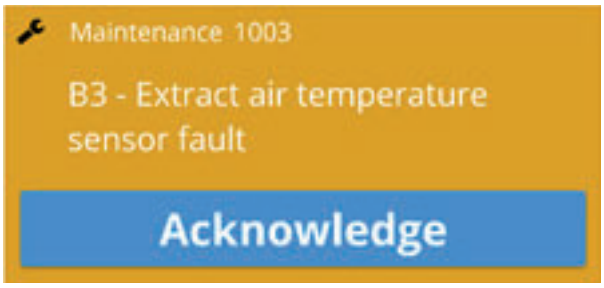
On the Air panel, an active alarm indication is shown at the top as a banner. Red banner for A-alarm and orange banner for B-alarm. Pressing the banner will navigate you to the alarm page.

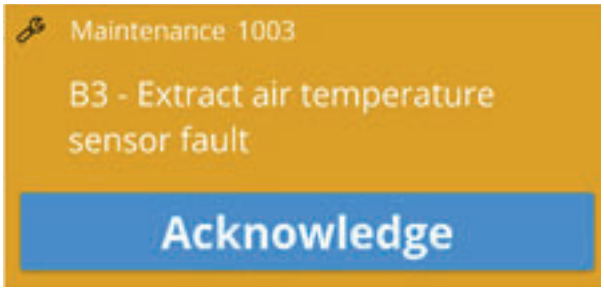
There are different icons depending in which state the alarm is in.
These are also shown in the top of the air panel.

Alarm icon	Maintenance icon	State	Situation
		Alarm, unacknowledged	Problem detected by controller and alarm activated (e.g. new alarm)
		Alarm, acknowledged	Problem still existing, but the alarm has been acknowledged
	Not a state for maintenance	Normal, acknowledged	Problem disappeared/was fixed, alarm is acknowledged, but not reset
		Normal, unacknowledged	Problem disappeared/was fixed, but alarm is not acknowledged

If you navigate to the alarm page (More/Alarm) you will also see if an alarm is active and at which state it is. From here you can acknowledge Alarms (A) and maintenance messages (B) and reset alarms (A).







Error codes

Error code	Error source
1000...1999	Hardware related errors
2000...2999	Application related errors
3000...3999	Communication errors

Code #	Type	Name/Text
1001	A	B1 - Supply air temperature sensor fault
1002	B	B6 - Exhaust air temperature sensor fault
1003	B	B3 - Extract air temperature sensor fault
1004	A/B	B4 - Outside air temperature sensor fault
1005	A	B5 - Frost protection temp. Heating coil sensor fault
1006	B	H1 - 0-10 V Humidity sensor fault
1007	A/B	M3 - Rotary heat exchanger motor stuck
1008	A/B	M3 - Rotary heat exchanger belt broken
1009	A	M9 - Fire damper fault
1010	A	TM1 - Supply air fan fault
1011	A	TM2 - Exhaust air fan fault
1012	B	CI 70 - Room temperature sensor on CI 70 fault
1020	B	Time to replace air filter
1032	B	Supply air pressure sensor fault
1033	B	Extract air pressure sensor fault
1039		M3 - Rotary heat exchanger, motor shorted
1040	B	Low battery wireless device

Code #	Type	Name/Text
2001	A	X8 - Emergency off
2002	A	X8 - Smoke detector
2003	A	X8 - CO detector
2004	A	Fire alarm - B1 or B3 over max temperature
2005	B	Supply air temperature outside range
2007	A	B5 - Heating coil frost alarm
2010	A	F10 - electric heater supply air over temperature detection
2024	B	EB1 - Electric Heating, unable to control
2025	B	M3 - Rotary heat exchanger, unable to control

Code #	Type	Name/Text
3003	B	ECUL communication fault, expantion board
3004	A/B	QBM - communication fault, pressure sensor
3006	B	CI 75 - Communication fault, wireless adapter
3007	B	Communication fault, wireless device

5.5. SYSTEM INFO

This page shows system information such as activation key, application version, firmware version and more.

More/System info

		System info	B	I	Default	Range	Unit
	237	Flexit serial number	R	R			
	238	Activation key	R	R			
	239	Firmware	R	R			
	240	Application software	R	R			
	241	Model name	R	R			
Nc	457	Cloud service	R	R			
	254	SOC serial number	R	R			
	248	Model information	R	R			
	253	MAC address	R	R			
	249	IP default gateway	R	R			
	250	IP subnet mask	R	R			
Nc	251	UDP Port	R	R			
	252	IP address	R	R			

Nc = Not visable if connected over cloud

5.6. OPERATING HOURS

Various time counters are running automatically on the background depending on which operating mode is active.

If 240 minutes are reached 4 hours are added to counter.

More/Operating hours

		Operating hours	B	I	Default	Range	Unit
	313	Total	R	R			h
		Ventilation					
	314	Stop	R	R			h
	315	Away	R	R			h
	316	Home	R	R			h
	317	High	R	R			h
	318	Fireplace	R	R			h
	319	Cooker hood	R	R			h
	320	Heat exchanger	R	R			h
	321	Electrical battery	R	R			h
*	322	Water battery	R	R			h

*Accessories and/or configuration needed

5.7. ABOUT FLEXIT GO

This page shows information such as app version and used open source libraries and also has a link to the terms and conditions for the Flexit GO platform.

5.8. CHANGE PRODUCT

If you have access to more than one Flexit Nordic or EcoNordic product on your cloud account this page lets you change access between your products. You can only access products that are online.

5.9. SIGN OUT

This page gets you to the start page and also lets you sign out from your cloud account if you are logged on through that.

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www.flexit.com