

Quick configuration guide

Access software version 4.0-1-04/5

EN

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1 About this document

This document describes how to setup functions in your Access controller and contains quick configuration guides for the most common functions. All available functionality is described in detail in the "Access 4x configuration manual" available on the online catalogue or Systemair Configurator for products using the Access control platform.




2 How to set up a function

To set up a function in the access controller you need to be logged in as Service to access the configuration menu. After login you follow a 4-step procedure to successfully setup the function. Please note that not all functions require all four steps. The general procedure for setting up a function is described below. Function specific configuration guides are found later in the document.





2.1 Login

Log in with service mode using password 0612.

Overview:

	Service
	0612
	Login

Step by step:

1.  Open the log in window
2.  Select service from drop down list
3.  Type in password 0612
4.  Press Login.

2.2 Activation

Configuration > Functions > Function activation

Activate a function in a list of available functions (e.g. heater).

2.3 Configuration

Configuration > Functions

Select the function's configuration (e.g. if heater is water, electric etc.).

2.4 Allocation

Configuration > I/O allocation settings

Select the I/O (in-/output) placement of the connected signals and sensors. Configure I/O settings (sensor measuring range, polarity, edit name of sensor/signal etc.).



Caution

Do not use the same in- or output for several functions.

2.5 Operation settings

Data & Settings





Setup how the function will work (e.g. setpoints, limits etc.)

3 Save commissioning settings


When the installation is complete and all functions are tested it is recommended to save a local backup of the current configuration in the control unit.

Select **Yes** on **Save settings local** in the **Configuration > System settings > Save and restore settings** menu.

Overview:

	Configuration > System settings > Save and restore settings	04 Apr 13:54	 
	Save commissioning settings		Yes

Step by step:

1.  Select **Configuration** from the navigation icons
2. Select **System settings**
3. Select **Save and restore settings**
4. Select **Yes** on **Save commissioning settings**.

4 Quick configuration guides





4.1 Editable naming

The access control unit interface allow for editable naming of the air handling unit, I/O's (in-/outputs), heating/cooling sequences and alarms. Edit name in the control unit is done in the **Configuration** submenus by editing the menu row **Name**. Edited names persist if a new language is selected but the menu row **Original name** will always be translated and can be used for reference.


4.1.1 Air handling unit naming

The air handling unit's name is shown in the top-right of the "Home" screen. Edit the name by changing the menu row **Unit name** found in the **Configuration > System settings > Communications devices** menu.

Overview:

	Configuration > System settings > Communication devices	04 Apr 13:54	 
	Unit name	Systemair controller	

Step by step:

-  Select **Configuration** from the navigation icons
- Select **System settings**
- Select **Communication devices**
- Edit the name of the air handling unit by selecting **Unit name**.







Note:





Default Unit name is either **Systemair controller** or the unit model name. e.g. Topvex TR03 HW CAV.

4.1.2 I/O naming


Change the name of an I/O (in-/outputs), for example a temperature sensor, by selecting the desired I/O function in the **Configuration > I/O allocation settings** sub menus and changing the menu row **Name**.

Overview:

	Configuration > I/O allocation settings > Analog inputs	04 Apr 13:54	 
	Analog inputs	Device	Position
	Supply air temperature	Controller	AI1

	Configuration >... > Analog inputs > Supply air temperature	04 Apr 13:54	 
	Name	Supply air temperature	
	Original name	Supply air temperature	




Step by step:


-  Select **Configuration** from the navigation icons
- Select **I/O allocation settings**




3. Select the submenu related to the I/O to rename (e.g Analog inputs if temperature sensor)
4. Select the I/O function of which to rename (e.g Supply air temperature)
5. Edit the name of the I/O (in-/outputs) by selecting Name.


4.1.3 Sequence naming

Change the name of a heating/cooling sequence by selecting the desired sequence in the Configuration > Functions > Function activation > Heating/Cooling sequence setup menu and changing the menu row Name.


 Configuration > ... > ... > Heating/Cooling sequence setup
 04 Apr 13:54



	Position	Heating	Cooling	Start Heating	Start Cooling	Name
	SEQ-H	Off	3	0 %	0 %	Cooling 2 >

 Configuration > ... > Heating/Cooling sequence setup > Cooling 2
 04 Apr 13:54



	Name
	Cooling 2
	Original name Cooling 2

Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Heating/Cooling sequence setup
5. Select the sequence to rename (e.g Cooling 2)
6. Edit the name of the sequence by selecting Name.




4.1.4 Alarm naming


How to edit alarm names is described in chapter 4.2.

4.2 Alarm configuration

Configure any alarm available in the controller in the Configuration > Alarms menu.


Overview:

 Configuration > ... > Extra alarm 1
 04 Apr 13:54





Action: **No action**
 Level: **Disabled**
 Delay: **0 s**
 No: **68**
 Name: **Extra alarm 1**

Step by step:

1.  Select Configuration from the navigation icons

2. Select Alarms
3. Select the desired alarm after scrolling through the list of all alarms and identifying the alarm via either name or alarm number
4. Select the action the unit will take when the alarm is active (e.g Normal stop) as Action
5. Select the desired Alarm class or disable the alarm (e.g Class B) as Level
6. Adjust the time before the alarm activates as Delay
7. Adjust the name of the alarm as Name.





4.3 Fan control type (Pressure)

4.3.1 Activation


Activate pressure control.

Select Fan control type as Pressure in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	 
	Fan control type	Pressure	

Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Pressure as Fan control type.

4.3.2 Allocation

Setup differential pressure sensors.





Select I/O (in-/output) placement for where the differential pressure sensors are connected. Set the sensors' signal and corresponding measuring range in the Configuration > I/O allocation settings > Analog inputs menu.







Caution


Do not use the same in- or output for several functions.

Overview:

	Configuration > I/O allocation settings > Analog inputs	04 Apr 13:54	 
	Analog inputs	Device	Position
	Pressure supply air	Controller	UI2
	Pressure extract air	Controller	UI1

	Configuration > ... > Analog inputs > Pressure supply air	04 Apr 13:54	 
	Min volt input (Vmin)		0.0 V
	Max volt input (Vmax)		10.0 V
	Sensor value at Vmin		0.0
	Sensor value at Vmax		500.0





Step by step:

-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Analog inputs
- Select the input connected to the sensor (e.g. UI2) as position for Pressure supply air
- Select the input connected to the sensor (e.g. UI1) as position for Pressure extract air
- Select Pressure supply air
- Set Sensor at Vmin the same as the start point of the sensor's selected measuring range
- Set Sensor at Vmax the same as the end point of the sensor's selected measuring range
- Set Min volt input (Vmin) and Max volt input (Vmax) to values corresponding to the sensor's signal type (e.g. 0...10V, 2...10V etc.)
- Go back to Analog inputs (use the navigation path Configuration > I/O allocation settings > Analog inputs)
- Select Pressure extract air and repeat steps 7 through 9.


4.3.3 Operation settings

Adjust the fan pressure set points in the Data & Settings > Fan Control > Fan setpoints menu.

Overview:

	Data & Settings > Fan control > Fan setpoints	04 Apr 13:54	 
	Setpoint low speed supply air fan		100 Pa
	Setpoint low speed extract air fan		100 Pa
	Setpoint normal speed supply air fan		200 Pa
	Setpoint normal speed extract air fan		200 Pa
	Setpoint high speed supply air fan		200 Pa
	Setpoint high speed extract air fan		200 Pa

Step by step:

-  Select Data & Settings from the navigation icons
- Select Fan control
- Select Fan setpoints
- Select and adjust setpoints for the available fan speed levels.

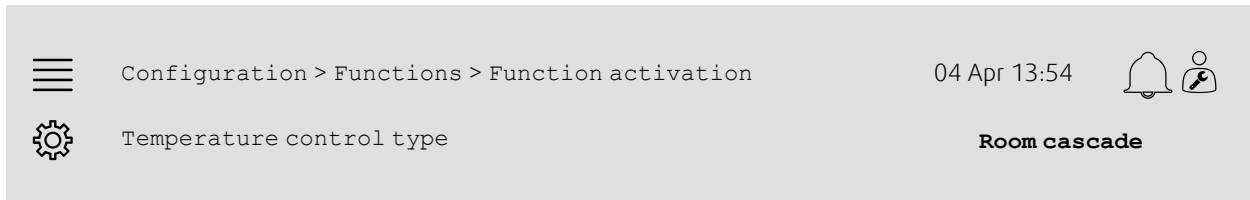
4.4 Temperature control type (Room)

4.4.1 Activation


Activate room temperature control.

Select Cascade room temp control as temperature control type in the Configuration > Functions > Function activation menu.

Overview:



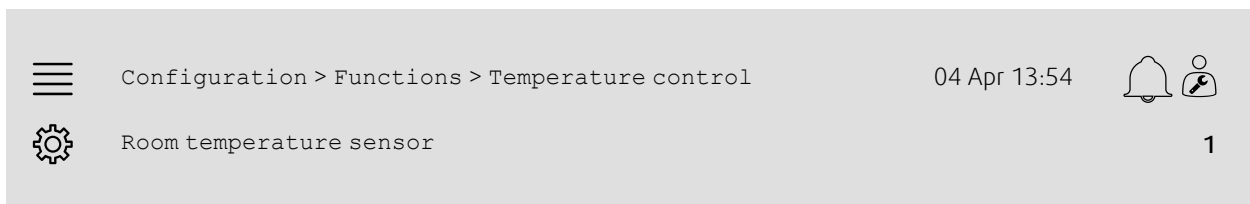
Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Room cascade as Temperature control type.


4.4.2 Configuration

Configure the number of connected room temperature sensors in the Configuration > Functions > Temperature control menu.

Overview:







Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Temperature control
4. Select number of connected Room temperature sensors


4.4.3 Allocation

Select I/O (in-/output) placement for where the room temperature sensors are connected to the controller in the Configuration > I/O allocation settings > Analog inputs menu.

Overview:

	Configuration > I/O allocation settings > Analog inputs	04 Apr 13:54	 
	Analog inputs	Device	Position
	Room temperature 1	Controller	Select I/O
	Room temperature 2	Controller	Select I/O
	Room temperature 3	Controller	Select I/O
	Room temperature 4	Controller	Select I/O

Step by step:





-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Analog inputs
- Select the input connected to the sensor (e.g. UI1) as position for Room temperature 1/2/3/4
- Repeat step 4 for any remaining room temperature sensors.





4.4.4 Operation settings

Adjust the room temperature setpoint in the Data & Settings > Temperature control > Room controller menu.


Adjust limits for the supply air controller in the Data & Settings > Temperature control > Supply air controller menu.

Overview:

	Data & Settings > Temperature Control > Room controller	04 Apr 13:54	 
	Setpoint room		22.0 °C

	Data & Settings > Temp Control > Supply air controller	04 Apr 13:54	 
	Min limit supply air		14.0 °C
	Max limit supply air		30.0 °C

Step by step:





1.  Select Data & Settings from the navigation icons
2. Select Temperature control
3. Select Room controller
4. Adjust Setpoint room to the desired temperature setpoint
5. Go back to Temperature control (use the navigation path Data & Settings > Temperature control)
6. Select Supply air controller
7. Set Min limit supply air to the lowest permitted supply air temperature
8. Set Max limit supply air to the highest permitted supply air temperature.

4.5 Extended operation


4.5.1 Activation

Select Yes ON Extended operation in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	 
	Extended operation		Yes





Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Yes ON Extended operation.


4.5.2 Configuration

Select which of the configured fan speeds to enable extended operation for in the Configuration > Functions > Extended operation menu.

Overview:

	Configuration > Functions > Extended operation	04 Apr 13:54	 
	Extended operation low speed		No
	Extended operation normal speed		Yes
	Extended operation high speed		Yes





Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Extended operation
4. Select yes for desired extended operation fan speeds


4.5.3 Allocation

Select I/O (in-/output) placement for the extended operation speeds in the Configuration > I/O allocation settings > Digital inputs menu

Overview:

	Configuration > I/O allocation settings > Digital inputs	04 Apr 13:54	 
	Digital inputs	Device	Position
	Extended operation low speed	Controller	Select I/O
	Extended operation normal speed	Controller	DI4
	Extended operation high speed	Controller	Select I/O





Step by step:

-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Digital inputs
- Select the input of the extended operation (e.g. DI4) as position for Extended operation low speed, Extended operation normal speed, Extended operation high speed
- Repeat step 4 for any remaining extended operation speeds.


4.5.4 Operation settings

Adjust extended operation time to the desired stop delay in the Time settings menu.

Overview:

	Time settings	04 Apr 13:54	 
	Extended operation stop delay		0 min

Step by step:





-  Select Time settings from the navigation icons
- Set the desired stop delay as Extended operation stop delay

4.6 Fan compensation


4.6.1 Activation

Select Yes for Fan Compensation in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	 
	Fan compensation curves		Yes





Step by step:





-  Select Configuration from the navigation icons
- Select Functions
- Select Function activation
- Set Yes ON Fan compensation curves

4.6.2 Configuration


Select and configure a fan compensation curve in the Configuration > Functions > Fan compensation curves menu.

Overview:

	Configuration > Functions > Fan compensation curves	04 Apr 13:54	 
	Fan compensation curve 1		>
	Fan compensation curve 2		>
	Fan compensation curve 3		>

	Configuration > ... > Fan compensation curve 1	04 Apr 13:54	 
	Fan level		All levels
	Mode		Inactive
	Fan		Supply air fan + Exhaust air fan
	Sensor		Select I/O





Step by step:





-  Select Configuration from the navigation icons
- Select Functions
- Select Fan compensation curve 1/2/3
- Select which fan level(s) the compensation curve should apply to as Fan level
- Select when the compensation curve is active as Mode
- Select which fan the compensation curve applies to as Fan
- Select which of the available sensors to use for compensation.

4.6.3 Operation settings


Set up fan setpoint compensation values and sensor input values for the curve points in the Data & Settings > Fan control > Fan compensation curves menu.

Overview:

	Data & Settings > Fan control > Fan compensation curves	04 Apr 13:54	 
	Fan compensation curve 1		>
	Fan compensation curve 2		>
	Fan compensation curve 3		>

	Data & Settings > ... > Fan compensation curves > Fan compensation curve 2	04 Apr 13:54	 
	Compensation curve	Sensor value	Compensation
	Lowest sensor value	15.0 °C	0.0 Pa
	Middle sensor value	20.0 °C	0.0 Pa
	Highest sensor value	25.0 °C	0.0 Pa

Step by step:

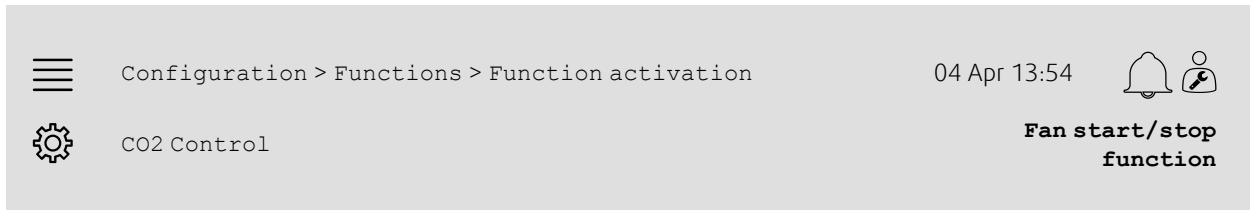
-  Select Data & Settings from the navigation icons
- Select Fan control
- Select Fan compensation curves
- Select Fan compensation curve 1/2/3
- Set up Lowest sensor value
 - Set the lowest sensor value for compensation as Sensor value
 - Set the desired fan setpoint compensation at that sensor value as Compensation
- Set up Middle sensor value
 - Set a middle sensor value for compensation as Sensor value
 - Set the desired fan setpoint compensation at that sensor value as Compensation
- Set up Highest sensor value
 - Set the highest sensor value for compensation as Sensor value
 - Set the desired fan setpoint compensation at that sensor value as Compensation

4.7 CO2 control (Fan start/stop)


4.7.1 Activation

Activate the Fan start/stop function for CO2 control from the list of available functions in the Configuration > Functions > Function activation menu.

Overview:



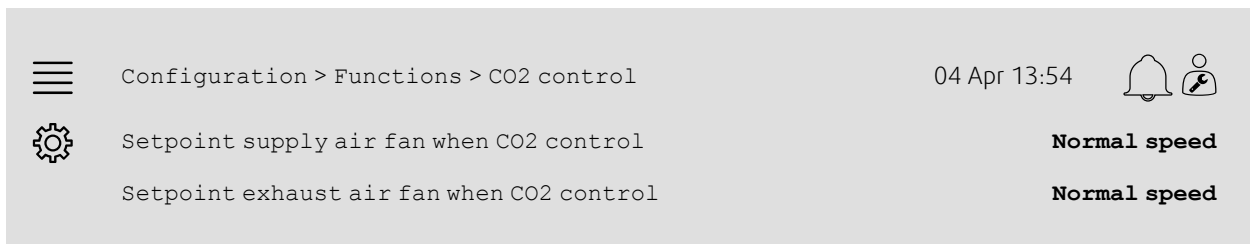
Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Press CO2 Control
5. Select Fan start/stop function from drop down list.


4.7.2 Configuration

Select which fan speeds the unit should start/run on when CO2 control Fan start/Stop function is active in the Configuration > Functions > CO2 Control menu.

Overview:







Step by step:





1.  Select Configuration from the navigation icons
2. Select Functions
3. Select CO2 control
4. Set the desired supply air fan speed for Fan start/stop function as Setpoint supply air fan when CO2 control
5. Set the desired extract air fan speed for Fan start/stop function as Setpoint extract air when CO2 control.

4.7.3 Allocation


Select I/O (in-output) placement for where the CO2 sensor is connected to the controller in the Configuration > I/O allocation settings > Analog inputs menu.

Overview:

	Configuration > I/O allocation settings > Analog inputs	04 Apr 13:54	 
	Analog inputs	Device	Position
	CO2 room/extract air	Controller	UI3

	Configuration > ... > Analog inputs > CO2 room/extract air	04 Apr 13:54	 
	Min volt input (Vmin)		0.0 V
	Man volt input (Vmax)		10.0 V
	Sensor value at Vmin		0.0
	Sensor value at Vmax		2000.0





Step by step:

-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Analog inputs
- Select the input connected to the sensor (e.g. UI3) as position for CO2 room/extract air
- Select CO2 room/extract air
- Set Sensor value at Vmin the same as the start point of the sensor's selected measuring range
- Set Sensor value at Vmax the same as the end point of the sensor's selected measuring range
- Set Min volt input (Vmin) and Max volt input (Vmax) to values corresponding to the sensor's signal type (e.g. 0...10 V, 2...10 V etc.)

4.7.4 Operating settings

Adjust CO2 limits for the Fan start/stop function and adjust the minimum run time for CO2 control in the Data & Settings > Demand control > CO2 menu.

Overview:


	Data & Settings > Demand control > CO2	04 Apr 13:54	 
	Start limit fan start/stop		800 ppm
	Stop hysteresis fan start/stop		160 ppm
	Min time for CO2 control		20 min

Step by step:



Note:

Setpoint CO2 not active for this configuration. Setpoint CO2 is only used by CO2 function Mixing damper.





1.  Select Data & Settings from the navigation icons
2. Select Demand control
3. Select CO2
4. Set Start limit fan start/stop to the desired CO2 level to start the fan start/stop function
5. Set Stop hysteresis fan start/stop to the desired amount that the CO2 level needs to decrease to end the fan start/stop function.

4.8 Fire/Smoke function (Fire)


4.8.1 Activation

Activate the Fire function by selecting the Fire option for Fire/Smoke in the list of available functions in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	 
	Fire/Smoke		Fire





Step by step:





1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Fire as Fire/Smoke

4.8.2 Configuration


Configure the operation of the air handling unit, outdoor/exhaust air dampers, the fan setpoints and fire damper function when Fire alarm in the Configuration > Functions > Fire/Smoke > Fire function submenus.

Overview:

	Configuration > ... > Fire/Smoke > Fire function	04 Apr 13:54	 
	Operation mode when fire alarm	Continuous run	
	Supply air fan setpoint type when fire alarm	Manual output	
	Manual output	75%	
	Extract air fan setpoint type when fire alarm	Manual output	
	Manual output	75%	
	Outdoor air damper function when fire alarm	Normal function (follow the fan)	
	Exhaust air damper function when fire alarm	Normal function (follow the fan)	

	Configuration > ... > Fire function > Fire damper	04 Apr 13:54	 
	Mode	Not active	
	Test	No test	




Step by step:





-  Select Configuration from the navigation icons
- Select Functions
- Select Fire/Smoke
- Select Fire function
- Select desired air handling unit's operation when fire alarm as Mode
- Select desired fan setpoint type as Supply air fan setpoint type when fire alarm
- Select desired fan setpoint type as Extract air fan setpoint type when fire alarm
- If either Manual setpoint or Manual output was selected set the desired value in the corresponding menu row now visible
- Select the operation of the outdoor/exhaust air damper when fire alarm as Outdoor/Exhaust air damper when fire alarm
- Select Fire damper
- Select the normal position of the fire dampers or if fire damper function should not be used as Mode
- Select if and how the fire dampers shall be tested as Test.

4.8.3 Allocation


Select I/O (in-/output) placement of where fire alarm activation input, fire damper output and position feedback input are connected to the controller in the Configuration > I/O allocation settings submenus Digital inputs and Digital outputs.

Overview:

	Configuration > I/O allocation settings > Digital inputs	04 Apr 13:54	 
	Digital inputs	Device	Position
	Fire alarm	Controller	DI5
	Feedback fire damper	Controller	DI6

	Configuration > I/O allocation settings > Digital outputs	04 Apr 13:54	 
	Digital outputs	Device	Position
	Fire damper	Controller	DO5

Step by step:

-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Digital inputs
- Select the input connected to the fire alarm contact/sensor (e.g. DI5) as position for Fire alarm



Note:

Step 5-8: Only applicable if fire dampers are configured.

- Select the input connected to the fire damper position switches (e.g. DI6) as position for Feedback fire damper
- Go back to I/O allocation settings (use the navigation path Configuration > I/O allocation settings)
- Select Digital outputs
- Select the output connected to the fire damper (e.g. DO5) as position for Fire damper.

4.8.4 Operation settings

Set up the Fire damper test settings in the Data & Settings > Fire/Smoke menu.



Note:

Only applicable if fire damper test is configured.

Overview:

	Data & Settings > Fire/Smoke	04 Apr 13:54	
	Run time fire damper		90 s
	Test interval fire damper		7 days
	Test hour fire damper		15

Step by step:

1. Select Data & Settings from the navigation icons
2. Select Fire/Smoke
3. Set max allowed fire damper run time as Run time fire damper
4. Set day interval between fire damper tests as Test interval fire damper
5. Select hour (1-24) for start of fire damper test as Test hour fire damper, e.g 15 means the fire damper test will initiate at 3 pm (15:00) on test day.

4.9 Free cooling

4.9.1 Activation

Select Yes as Free Cooling from the list of available functions in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	
	Free cooling		Yes





Step by step:

1. Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Yes as Free cooling


4.9.2 Operation settings

Set up all operation parameters for the free cooling function in the Data & Settings > Demand control > Free cooling menu.

Overview:

	Data & Settings > Demand control > Free cooling	04 Apr 13:54	 
	Running when day outdoor temperature >	22 °C	
	Stop when night outdoor temperature >	18 °C	
	Stop when night outdoor temperature <	10 °C	
	Stop when room temperature <	18 °C	
	Free cooling start hour	0	
	Free cooling stop hour	7	
	Time to block heat output after free cooling	60 min	
	Fan-kick temperature check	180 s	
	Fan-kick interval time	60 min	

Step by step:

1.  Select Data & Settings from the navigation icons
2. Select Demand control
3. Select Free cooling
4. Set day outdoor temperature min. limit to allow start of free cooling as Running when day outdoor temperature >
5. Set outdoor temperature interval during night where free cooling is allowed as Stop when night outdoor temperature >/<
6. Set Room/Extract air temperature min. limit to stop free cooling
7. Set a time interval for when free cooling is allowed to run (0-24) as Free cooling start/stop hour, e.g. 0-7 means free cooling will run between 12 am (12:00) and 7 am (07:00) if allowed by the temperature limits)
8. Set the desired time to block heating output from the controller after free cooling
9. Set the desired fan run time for checking the outdoor temperature with an intake temperature sensor
10. Set the time delay between outdoor temperature checks with an intake temperature sensor.

4.10 External cooler (DX)

4.10.1 Activation

Select and activate an unused cooling sequence (C, H or J) in the Configuration > Functions > Function activation > Heating/Cooling sequence setup menu.

Overview:

☰	Configuration > ... > ... > Heating/Cooling sequence setup					04 Apr 13:54	🔔	👤
⚙️	Position	Heating	Cooling	Start Heating	Start Cooling	Name		
	SEQ-C	Off	2	0 %	0 %	Cooling		>
	SEQ-H	Off	3	0 %	0 %	Cooling 2		>
	SEQ-J	Off	Off	0 %	0 %	External heating/cooling capacity		>



Note:

Off = Sequence not activated. Sequence with lower number activates before sequence with higher number. In software version 4.0-1-05 the term "Off" is replaced with "No".





Step by step:

1. Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Heating/Cooling sequence setup
5. Assign the activation order for the cooling sequence by selecting number (1-10) in column **Cooling** for SEQ-C, -H or -J


4.10.2 Configuration

Configure what type of cooler is connected in the Configuration > Functions > Function activation > Heating/Cooling sequence setup > Cooling menu.

Overview:

	Configuration > ... > Heating/Cooling sequence setup > Cooling	04 Apr 13:54	 
	Type of sequence		Cooling
	Type of cooler		DX
	Type of feedback		Alarm
	Digital start output		Yes





Step by step:





-  Select Configuration from the navigation icons
- Select Functions
- Select Heating/Cooling sequence setup
- Select Cooling (SEQ-C)
- Set Type of sequence to Cooling
- Select the type of cooler (e.g. DX)
- Select the type of feedback from the cooler as Type of feedback (e.g. Alarm or Run indication)
- Select Yes as Digital start output if the external cooler requires a digital start signal





4.10.3 Allocation


Select I/O (in-output) placement of where the cooler control signal output, digital start output and feedback input are connected to the controller in the Configuration > I/O allocation settings submenus Digital inputs, Analog outputs and Digital outputs.

Overview:


	Configuration > I/O allocation settings > Digital inputs	04 Apr 13:54	 
	Digital inputs	Device	Position
	Feedback cooling (SEQ-C)	Controller	UI4

	Configuration > I/O allocation settings > Analog outputs	04 Apr 13:54	 
	Analog outputs	Device	Position
	Cooling (SEQ-C)	Controller	AO4

	Configuration > ... > Analog outputs > Cooling (SEQ-C)	04 Apr 13:54	 
	Range output		0-10 V

	Configuration > I/O allocation settings > Digital outputs	04 Apr 13:54		
	Digital outputs	Device	Position	
	Cooling start (SEQ-C)	Controller	DO4	





Step by step:





-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Digital inputs
- Select the input connected to the cooler's feedback contact (e.g. UI4) as position for Feedback cooling (SEQ-C)
- Go back to I/O allocation settings (use the navigation path Configuration > I/O allocation settings)
- Select Analog outputs
- Select the analog output connected to the cooler control signal (e.g. AO4) as position for Cooling (SEQ-C)
- Select Cooling (SEQ-C)
- Adjust Range output to fit with the signal range of the external cooler (e.g. 2-10 V)
- Go back to I/O allocation settings (use the navigation path Configuration > I/O allocation settings)
- Select Digital outputs
- Select the digital output connected to the cooler (e.g. DO4) as position for Cooling start (SEQ-C).

4.10.4 Operation settings


Adjust the start/stop point for the digital output: Cooling start (SEQ-C) in the Data & Settings > Temperature control > Cooling menu.

Overview:

	Data & Settings > Temperature control > Cooling	04 Apr 13:54	 
	Digital start output start point		10 %
	Digital start output stop point		1 %

	Data & Settings > Temperature control > Supply air controller	04 Apr 13:54	 
	Min limit supply air		14 °C
	Max limit supply air		30 °C
	Reduction of min limit supply air if active DX-cooling		5 °C

Step by step:





-  Select Data & Settings from the navigation icons
- Select Temperature control
- Select Cooling
- Set the desired output % to activate the digital output as Digital start output start point
- Set the desired output % to deactivate the digital output as Digital start output stop point
- Go back to Temperature control (use the navigation path Data & Settings > Temperature control)
- Select Supply air controller
- Adjust the min. allowed supply air temperature when DX-Cooling is active as Reduction of min limit supply air if active DX-cooling.

4.11 External heater (Water)


4.11.1 Activation

Select and activate an unused heating sequence (A, G or J) in the Configuration > Functions > Function activation > Heating/Cooling sequence setup menu.

Overview:

	Configuration > ... > ... > Heating/Cooling sequence setup					04 Apr 13:54		
	Position	Heating	Cooling	Start Heating	Start Cooling	Name		
	SEQ-A	2	Off	0 %	0 %	Heating		>
	SEQ-G	3	Off	0 %	0 %	Heating 2		>
	SEQ-J	Off	Off	0 %	0 %	External heating/cooling capacity		>

Step by step:

-  Select Configuration from the navigation icons
- Select Functions
- Select Function activation
- Select Heating/Cooling sequence setup
- Assign the activation order for the heating sequence by selecting number (1-10) in column Heating for SEQ-A, -G or -J







Note:

Off = Sequence not activated. Sequence with lower number activates before sequence with higher number. In software version 4.0-1-05 the term "Off" is replaced with "No".


4.11.2 Configuration

Configure what type of heater that is connected (e.g. water) and additional functions such as freeze protection and pump control in the Configuration > Functions > Function activation > Heating/Cooling sequence setup > Heating menu.

Overview:

	Configuration > ... > Heating/Cooling sequence setup > Heating	04 Apr 13:54	 
	Type of sequence	Heating	
	Type of heater	Water	
	Type of freeze protection	Temperature sensor	
	Freeze protection sensor	Freeze protection temperature 1	
	Pump control	Yes	
	Pump running mode	Auto	
	Type of feedback	Alarm	


Step by step:




-  Select Configuration from the navigation icons
- Select Functions
- Select Function activation
- Select Heating/Cooling sequence setup
- Select Heating (SEQ-A)
- Select Water as Type of heater
- Select Temperature sensor as Type of freeze protection
- Select an unused sensor (e.g. 1) as Freeze protection temperature sensor
- Select Yes as Pump control
- Select the desired type of pump control (e.g. Auto) as Pump running mode
- Select the desired type of pump feedback (e.g. Alarm) as Type of feedback.



4.11.3 Allocation


Select I/O (in-output) placement of where the heater control signal output, pump start output and pump feedback input are connected to the controller in the Configuration > I/O allocation settings submenus Digital inputs, Analog outputs and Digital outputs.

Overview:


	Configuration > I/O allocation settings > Digital inputs	04 Apr 13:54	 
	Digital inputs	Device	Position
	Feedback heating (SEQ-A)	Controller	UI4

	Configuration > I/O allocation settings > Analog outputs	04 Apr 13:54	 
	Analog outputs	Device	Position
	Heating (SEQ-A)	Controller	AO4

	Configuration > ... > Analog outputs > Heating (SEQ-A)	04 Apr 13:54	 
	Range output		0-10 V

	Configuration > I/O allocation settings > Digital outputs	04 Apr 13:54	 
	Digital outputs	Device	Position
	Heating pump (SEQ-A)	Controller	DO1





Step by step:





-  Select Configuration from the navigation icons
- Select I/O allocation settings
- Select Digital inputs
- Select the input connected to the circulation pump's feedback contact (e.g. UI4) as position for Feedback heating (SEQ-A)
- Go back to I/O allocation settings (use the navigation path Configuration > I/O allocation settings)
- Select Analog outputs
- Select the analog output connected to the valve actuator control signal (e.g. AO4) as position for Heating (SEQ-A)
- Select Heating (SEQ-A)
- Adjust Range output to fit with the signal range of the valve actuator (e.g. 0-10 V)
- Go back to I/O allocation settings (use the navigation path Configuration > I/O allocation settings)
- Select Digital outputs
- Select the digital output connected to the circulation pump (e.g. DO1) as position for Heating pump (SEQ-A).

4.11.4 Operation settings


Adjust the settings for pump control and freeze protection in the Data & Settings > Temperature control > Heating menu

Overview:

	Data & Settings > Temperature control > Heating	04 Apr 13:54	 
	Pump stop delay		5 min
	Pump-kick hour		15 h
	Pump running when outdoor temperature <		10 °C
	Hysteresis to allow pump stop		1 °C
	Freeze protection 1		>

	Data & Settings > ... > Heating > Freeze protection 1	04 Apr 13:54	 
	Alarm limit running mode		7 °C
	P-band running mode		5 °C
	Setpoint stand-by mode		20 °C

Step by step:





-  Select Data & Settings from the navigation icons
- Select Temperature control
- Select Heating
- Set the desired time for Pump stop delay
- Set the desired hour to test the pump as Pump-kick hour (e.g. 15 means the pump will be tested at 3 pm (15:00) each day)
- Adjust the outdoor temperature to start the pump as Pump running when outdoor temperature <
- Adjust the increase in the outdoor temperature to stop the pump as Hysteresis to allow pump stop
- Select Freeze protection 1
- Adjust the freeze protection alarm limit as Alarm limitation running mode
- Adjust the temperature range of where freeze protection starts overriding the actuator as P-band running mode (e.g. if Alarm limit running mode = 7 °C and P-band running mode = 5 °C the freeze protection will start overriding the actuator when the freeze protection temperature reaches 12 °C)
- Adjust the freeze protection function's setpoint for when the unit is stopped as Setpoint standby mode.

4.12 Change over


4.12.1 Configuration

Select one heating sequence and one cooling sequence out of the configured sequences to use with the changeover function in the Configuration > Functions > Function activation > Heating/Cooling sequence setup > Changeover settings MENU.

Overview:

	Configuration > ... > Heating/Cooling sequence setup > Changeover settings	04 Apr 13:54	 
	Changeover 1		
	Changeover sequence for heating		Heating
	Changeover sequence for cooling		Cooling





Step by step:





-  Select Configuration from the navigation icons
- Select Functions
- Select Function activation
- Select Heating/Cooling sequence setup
- Select Changeover settings
- Select which sequence to control the changeover function when heating as Changeover sequence for heating
- Select which sequence to control the changeover function when cooling as Changeover sequence for cooling.





4.12.2 Allocation

Select I/O (in-output) placement of where the changeover output and feedback input are connected to the controller in the Configuration > I/O allocation settings submenus Digital inputs, Analog outputs and Digital outputs.


Overview:

	Configuration > I/O allocation settings > Digital inputs	04 Apr 13:54	 
	Digital inputs	Device	Position
	Cooling/ (Heating) changeover 1	Controller	DI4

	Configuration > I/O allocation settings > Analog outputs	04 Apr 13:54	 
	Analog outputs	Device	Position
	Changeover 1	Controller	AO4

	Configuration > ... > Analog outputs > Changeover 1	04 Apr 13:54	 
	Range output		0-10 V

Step by step:





1.  Select Configuration from the navigation icons
2. Select I/O allocation settings
3. Select Digital inputs
4. Select the input connected to the heating/cooling feedback (e.g. DI4) as position for Cooling/ (Heating) changeover 1
5. Go back to I/O allocation settings (use the navigation path Configuration > I/O allocation settings)
6. Select Analog outputs
7. Select the analog output connected to the control signal (e.g. AO4) as position for Changeover 1
8. Select Changeover 1
9. Adjust Range output to the desired voltage range (e.g. 0–10 V).

4.13 External stop


4.13.1 Activation

Set External stop to Yes in the list of available functions in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	 
	External stop		Yes





Step by step:

1.  Select Configuration from the navigation icons
2. Select Functions
3. Select Function activation
4. Select Yes as External stop.


4.13.2 Allocation

Select the I/O (in-output) placement of where the external stop switch is connected to the controller in the Configuration > I/O allocation settings > Digital inputs menu.

Overview:

	Configuration > I/O allocation settings > Digital inputs	04 Apr 13:54	 
	Digital inputs	Device	Position
	External stop	Controller	DI6

Step by step:





1.  Select Configuration from the navigation icons
2. Select I/O allocation settings
3. Select Digital inputs
4. Select the input connected to the external stop switch (e.g. DI6) as position for External stop.

4.14 Support control


4.14.1 Activation

Set Support control to Yes in the from the list of available function in the Configuration > Functions > Function activation menu.

Overview:

	Configuration > Functions > Function activation	04 Apr 13:54	 
	Support control		Yes





Step by step:

-  Select Configuration from the navigation icons
- Select Functions
- Select Function activation
- Select Yes as Support control


4.14.2 Operating settings

Adjust the start/stop limits for support heating/cooling and the min run time for the support control function in the Data & Settings > Demand control > Support control menu.

Overview:

	Data & Settings > Demand control > Support Control	04 Apr 13:54	 
	Min time for support control		20 min
	Start heating room temperature		15 °C
	Stop heating room temperature		21 °C
	Start cooling room temperature		30 °C
	Stop cooling room temperature		28 °C

Step by step:

-  Select Data & Settings from the navigation icons
- Select Demand control
- Select Support control
- Adjust the minimum run time in support control as Min time for support control
- Adjust the start and stop temperatures for support heating as Start heating room temperature, Stop heating room temperature
- Adjust the start and stop temperatures for support cooling as Start cooling room temperature, Stop cooling room temperature



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