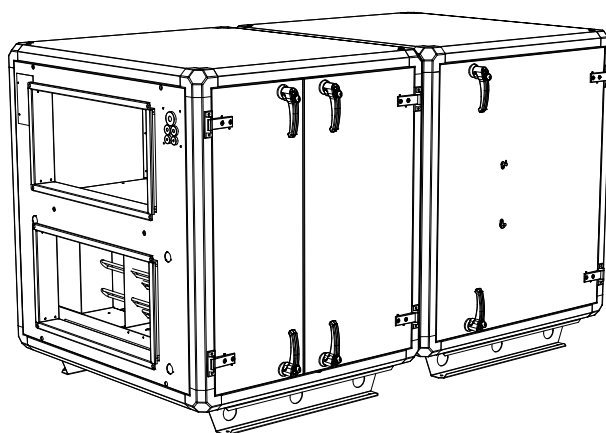# Topvex SR07, SR09, SR11 E
Compact Air Handling Unit

GB **Operation- and maintenance instructions**

Left version   **Right version**

Fig. 1
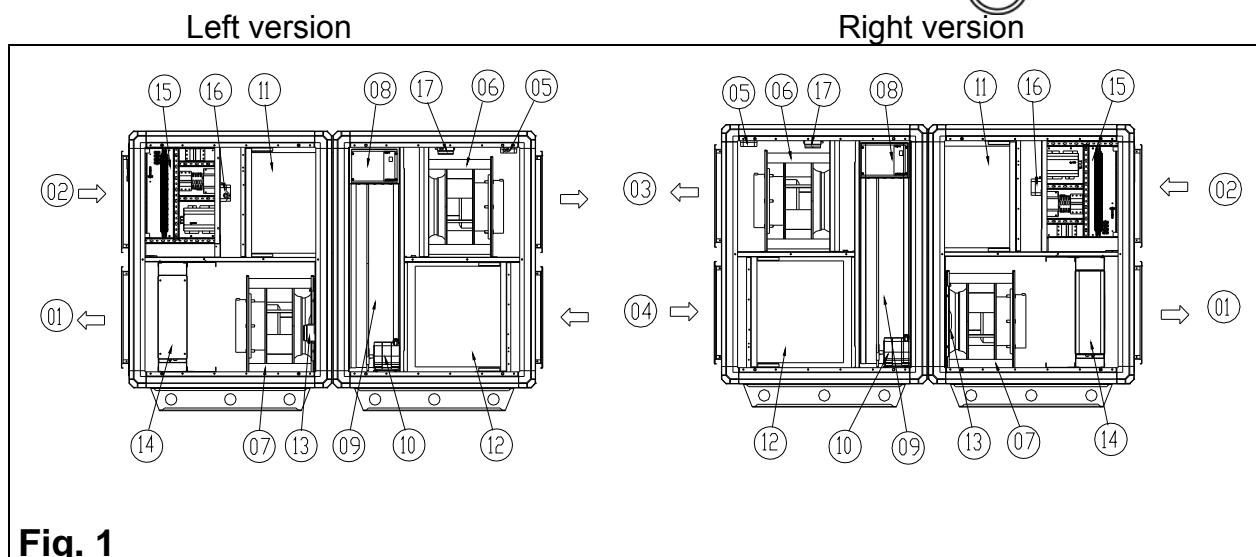
Description

1.	Supply air	**10.**	Rotor motor
2.	Extract air	**11.**	Filter, Extract air
3.	Exhaust air	**12.**	Filter, supply air
4.	Outside air	**13.**	Pressure transmitter supply air fan
5.	Pressure sensor supply air filter	**14.**	Electrical Heater/Water coil
6.	Fan, extract air	**15.**	Electrical Connection box (see fig.2)
7.	Fan supply air	**16.**	Pressure sensor extract air filter
8.	Control Heat exchanger	**17.**	Pressure transmitter extract fan
9.	Heat exchanger, Rotor		

Connection box

Description

20.	Fuse heater
21.	Fuse fans
22.	24 V Transformer
23.	Control unit Corrigo
24.	Contactor
25.	ADO – tool
26.	Overheating protection EL- heating battery, Manual reset.
27.	Overheating protection EL- heating battery, Automatic reset.
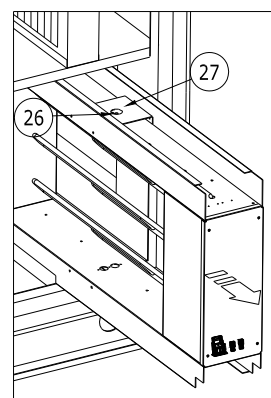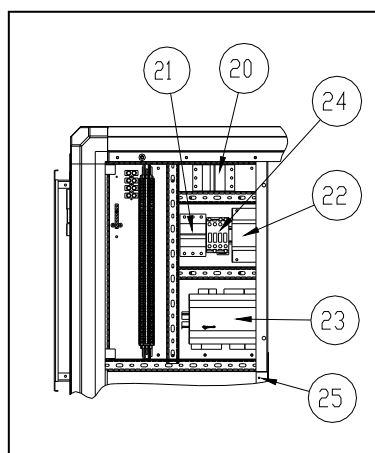
Fig. 2
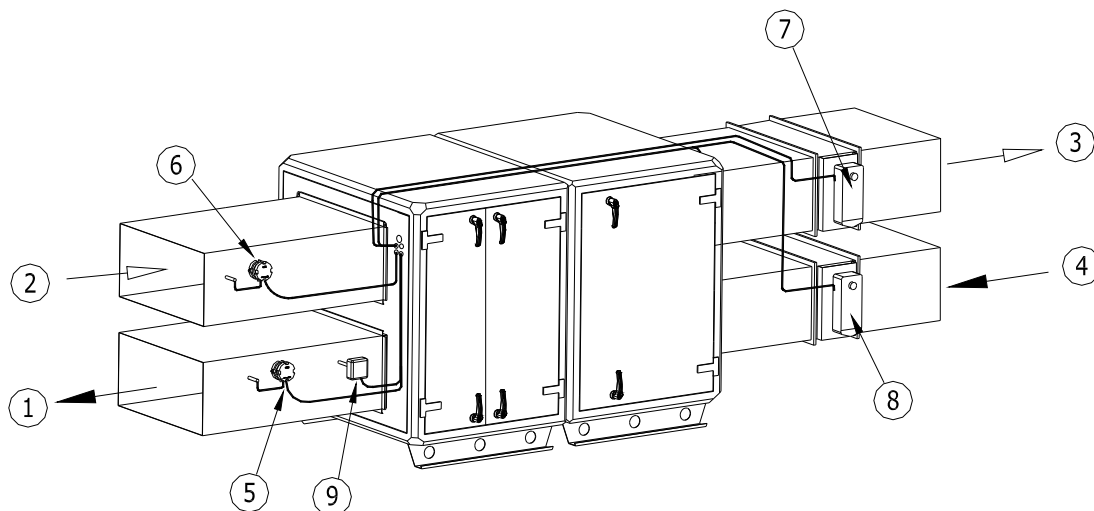
Fig. 3

Description

1.	Supply air	**6.**	VAV pressure transmitter extract air (accessories)
2.	Extract air	**7.**	Damper and motor exhaust air (accessories)
3.	Exhaust air	**8.**	Damper and motor outside air (accessories)
4.	Outside air	**9.**	Sensor supply air
5.	VAV pressure transmitter supply air (accessories)		
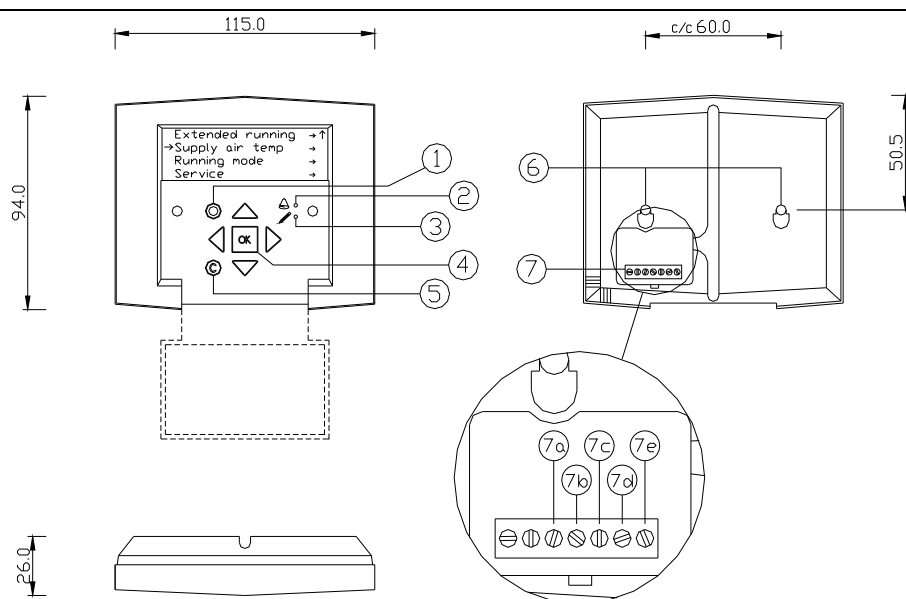
Fig. 4

Description

1.	Alarm button	**7.**	Connection block
2.	Alarm LED	**7a.**	Yellow cable
3.	Write enable LED	**7b.**	Orange cable
4.	OK button	**7c.**	Red cable
5.	Clearing button	**7d.**	Brown cable
6.	Mounting holes	**7e.**	Black cable

Introduction

Installation, operation and maintenance manual concerns air handling unit type Topvex SR, manufactured by Systemair AB. It consists of basic information and recommendations concerning the design, installation, start-up and operation, to ensure a proper fail-free operation of the unit.

   The key to proper and safe operating of the unit is to read this manual thoroughly, use the unit according to given guidelines and follow all safety requirements.

Table of contents

Operation

General

This manual describes the most common function/settings. For more information about other function/settings please see the attached Corrigo E – Manual. The Corrigo E – Manual can also be retrieved from www.regin.se in different languages.

Topvex units with Electrical heater have 3 minutes of re-cooling after having been turned off.
N.B. If the fire alarm is activated when the heater is on, the fan stops immediately without re-cooling, this can cause the overheating protection to trip. See **fig.2** where to reset the manual overheating protection.

Maximum allowed supply air temperature is 35°C.

Set the menu language

Press the OK button while switching on the mains supply.
Press the OK button. Choose language with the UP/DOWN-buttons. Confirm the choice with the OK button. Press the LEFT button to go back in the menus.
The language can also be changed in *Configuration/System/Choose Language* **(page 16)**.

Control panel

Access rights

There are 3 different log on levels, *System* level which has the highest authority, *Operator* level and the basic "no-log on" level.
System level gives full read/write access to all settings and parameters in all menus.
Operator levels give read-only access in the configuration menu and read/write access in the settings and parameters.
Basic level permits read-only access to all settings and parameters.

Password

As default Topvex SR comes with the following password for different levels:
System 1111   Operator 3333   Basic 5555

How to operate

See **fig 4**.
The menus in the Corrigo E are organized in a horizontal tree structure. The UP/DOWN-buttons are used to move between menus at the present menu level. The RIGHT/LEFT buttons are used to move between menu levels. When changing parameters the UP/DOWN buttons are used to increase or decrease the value of the parameter and the RIGHT/LEFT buttons to move between digits within the parameter.

The OK button is used to confirm the choice of a parameter setting.

The C button is used to abort an initiated parameter change and restore the original value.

The ALARM button is used to access the alarm list.

Changing parameters

In some menus there are parameters that can be set. This will be indicated by the LED ✐   flashing. To change a parameter, first press the OK button, the LED ✐   changes to a steady light. A cursor will appear at the first settable value. If you wish to change the value, do so by pressing the UP/DOWN buttons. In numbers containing several digits you can move between the digits using the LEFT/RIGHT-buttons.
When the desired value is displayed, press OK. Settings outside the intervals are not registered. Preset values count. If there are further settable values displayed the cursor will automatically move to the next one. To pass a value without changing it, press RIGHT.
To abort a change and return to the initial setting, press and hold the C-button until the cursor disappears.

Navigating the menus

The start display (the display normally shown) is at the root of the menu tree.

Pressing DOWN ▼ will move you through the menu choices, in this the lowest level. UP ▲ will move you back through the choices.

To enter a higher menu level, use UP or DOWN to place the display marker opposite the menu you wish to access and press RIGHT ►.
If you have sufficient log on privileges the display will change to the menu you have chosen.

At each level there may be several new menus through which you may move using the UP/DOWN buttons.
   Sometimes there are further sub menus linked to a menu or menu item. This is indicated by an arrow symbol at the right-hand edge of the display. To choose one, use RIGHT ► again. To back down to a lower menu level, use LEFT ◄.

Alarms

Alarm button (**pos.1** in **fig. 4**) opens the alarm queue. By pressing this button all active and non-acknowledged alarms will be displayed in the menu window. The LED for alarms (**pos.2** in **fig. 4**) is blinking if there are non-acknowledged alarms and shine steadily if the alarms are still active but have been acknowledged. If there are multiple alarms use UP/DOWN buttons to move between them. An alarm can be acknowledged or blocked by using OK and UP/DOWN buttons. To abort and go back to the start menu select Cancel and press the LEFT button.

For alarm settings see the Commissioning protocol (**page 26**).

Extra stop function

For some alarm types such as electric heating high temperature limit and water heating frost protection it would be dangerous to not stop the unit on alarm. Therefore, for such alarm types, the program will always reset the stop function to Active even if the operator should choose Inactive.
It is unfortunately not possible to remove the display text concerning the stop function for these alarm types. This since the available program space demands that all alarms are treated in the same way in the display.
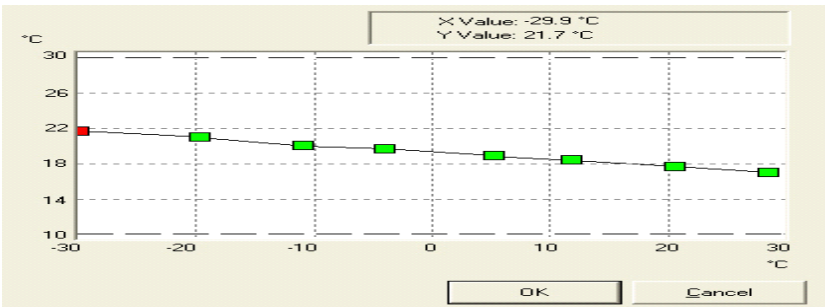
Starting up the unit.
- Control that all external equipment are connected
- Make sure that fuses (**pos.21 fig 2**) in the unit are switched on
- Switch on the supply voltage
- Set present time and date, set the control temperature and program the week schedule. Do the necessary settings for extra functions if any.

Table of contents - control unit manual

Control unit, manual

Rotovex SR 11HW flow 05:10:21 16:03 System:Normal run Sp: 0.0Act: 0.0°C	- Start Screen Headline. Can be set to 5 different layouts. (see page 11. *Configuration/System/Choose Start Screen*).

Actual / Setpoint			
Outdoortemp: 0.0°C Supply air temp Act. : 0.0°C Setp --> Setp: 0.0°C	**Show** actual Outdoor temperature and Supply air temperature. **Show** Setpoint of the Supply air temperature. When using Cascade function the Setpoint is a calculated value depending on the Exhaust/Room temperature.		
	Supply air temp Setp.: 0.0°C	*Only used when the unit is configured for Supply air control.* **Set** the Supply air temperature. Maximum allowed supply air temperature is 35°C	

	Outdoor comp. Setp.
	  -29.9°C = 21.7°C
	  -19.6°C = 21.0°C
	  -10.8°C = 20.0°C
	Outdoor comp. Setp.
	  -4.0 °C = 19.7°C
	   5.3 °C = 18.9°C
	  11.9 °C = 18.4°C
	Outdoor comp. Setp.
	  20.6 °C = 17.7°C
	  28.6 °C = 17.0°C
		Only used when the unit is configured for Outdoor compensated Supply air control.
		Set the Supply air temperature at 8 different outdoor temperatures.	

Exhaust air temp Actual : 0.0 °C Setp. : 0.0 °C	**Show** actual Exhaust air temperature. *Only used when the unit is configured for Exhaust air control.* **Set** the Exhaust air temperature.		
Room temp. 1 Actual : 0.0 °C Setp. : 0.0 °C	*Only used when the unit is configured for Room control or Room-/Supply air control.* **Show** actual Room temperature. **Set** the Room temperature.		
Flow control SAF Actual : 0.0 m³/h Setp. : 0.0 m³/h	*or*	Pressure control SAF Actual : 0.0 Pa Setp. : 0.0 Pa	Used when the unit is configured for constant flow or constant pressure control. **Show** Actual SAF flow or pressure **Show** Setpoint of SAF flow or pressure.
	Flow control SAF Setp 1/1 : 0000.0 m³/h	**Set** the desired flow for full speed and half speed If VAV control is chosen, set the desired pressure for full speed and half speed.	

	Outdoor comp. setp.	Set the outdoor compensation for the flow/pressure regarding to the outdoor temp
	-20 °C = 0.0 m³/h	Set maximum compensation.
	10 °C = 0.0 m³/h	Set when comp. should start.
	Act. Comp: 0.0 m³/h	Show actual compensation.

Flow control EAF		Pressure control EAF	Used when the unit is configured for constant flow or constant pressure control.
Actual : 0.0 m³/h	*or*	Actual : 0.0 Pa	Show Actual EAF flow or pressure
Setp. : 0.0 m³/h		Setp. : 0.0 Pa	Show Setpoint of EAF flow or pressure.

	Flow control EAF	Set the desired flow for full speed and half speed
	Setp 1/1 : 0000.0 m³/h	If VAV control is chosen, set the desired pressure for full speed and half speed.
	Setp 1/2 : 0000.0 m³/h	

	Outdoor comp. setp.	Set the outdoor compensation for the flow/pressure regarding to the outdoor temp
	-20 °C = 0.0 m³/h	Set maximum compensation.
	10 °C = 0.0 m³/h	Set when comp. should start.
	Act. Comp: 0.0 m³/h	Show actual compensation.

Input / Output	
Analogue inputs	Show the configuration of the Inputs and Outputs.
Digital inputs	Show the actual values of the Analog Inputs and Outputs.
Universal inputs	Show the status of the Digital Inputs and Outputs.
Analogue outputs	
Digital outputs	

Time Settings		
Time / Date	Time: 16:03	Set the Time: h : m
	Date: 05:10:21	Set the Date: year : month : day
	Weekday: Wednesday	Set the Weekday.
Timer Normal Speed	Normal Speed	Set the time when the unit should run on Normal fan speed. It is possible to set two **Per**iods for each weekday.
	Monday	Choose weekday with arrow up and down buttons.
	Per 1: 00:00- 00:00	N.B. For continuous running set 00:00-24:00.
	Per 2: 00:00- 00:00	Normal fan speed have higher priority then Reduced fan speed.
	Normal Speed	Set the time when the unit should run on Normal fan speed during Holidays. It is possible to set two **Per**iods
	Holiday	for each Holiday.
	Per 1: 00:00- 00:00	N.B. For continuous running set 00:00-24:00.
	Per 2: 00:00- 00:00	(see *Time Settings/Holidays* to set the date of Holidays).

Timer Reduced Speed	Reduced Speed Monday Per 1: 00:00- 00:00 Per 2: 00:00- 00:00	**Set** the time when the unit should run on Reduced fan speed. It is possible to set two **Per**iods for each weekday. Choose weekday with arrow up and down buttons. N.B. For continuous running set 00:00-24:00 and Normal fan speed time to 00:00- 00:00.
	Reduced Speed Holiday Per 1: 00:00- 00:00 Per 2: 00:00- 00:00	**Set** the time when the unit should run on Normal fan speed during Holiday. It is possible to set two **Per**iods for each Holiday. N.B. For continuous running set 00:00-24:00 and Normal fan speed time to 00:00- 00:00. (see *Time Settings/Holidays* to set the date of Holidays).
Holidays	Holidays (mm:dd) 1: 01:01 - 01:01 2: 01:01 - 01:01 etc	**Set** the date of Holidays. It is possible to set 24 Holiday periods.

Settings	
Alarm settings	Alarm limits	**Set** the Alarm limits for e.g. Temperature limits and deviation, Air Flow deviation.

Manual/Auto	All other settings than Auto will trigger the Manual mode Alarm. The Alarm will be reset when set to Auto.
Running mode Auto	**Set** the Running mode to Auto, On or Off.
Supply temp contr. Auto Manual set: 0.0	**Set** the Supply temperature control to Auto, On or Off. **Set** the output signal to 0-100% (when control mode set to On). The outputs Y2 *Exchanger, Y1 Heater and Y3 Cooler (accessories)* will follow the signal, if they are in Auto mode.
SAF: Auto EAF: Auto	**Set** the Supply/Exhaust air fan to Auto, Manual full speed, Manual half speed or Off.
SAF: Auto Manual set: 0.0 EAF: Auto Manual set: 0.0	**Set** the Supply/Exhaust air fan to Auto, Manual, Manual full speed, Manual half speed or Off. Set the output signal to 0-100% (when the output signal is set to Manual).
Heating Auto Manual set: 0.0	**Set** the output signal to the Heater (Y1) to Auto, Manual or Off. **Set** the output signal to 0-100% (when the output signal is set to Manual).

Exchanger Auto Manual set: 0.0	**Set** the output signal to Auto, Manual or Off. **Set** the output signal to 0-100% (when the output signal is set to Manual).
Cooling Auto Manual set: 0.0	**Set** the output signal to the Cooling to Auto, Manual or Off. **Set** the output signal to 0-100% (when the output signal is set to Manual).
P1-Heating Auto	**Set** the output signal to the P1-Heating pump to Auto, On or Off. **Set** the output signal to the P1-Exchanger motor to Auto, On or Off.
P1-Cooling Auto	**Set** the output signal to the P1-Cooling pump to Auto, On or Off.
Fresh air damper Auto	**Set** the output signal to the Fresh air damper to Auto, Open or Close.
Recirculation damper Auto	**Set** the output signal to the Recirculation damper to Auto, Open or Close.
Extract air damper Auto	**Set** the output signal to the Extract air damper to Auto, Open or Close.

Configuration		
Inputs/Outputs	Analogue inputs	**Set** the Configuration of the Analogue inputs. **Set** the compensation if there is a deviation between actual and measured value, normaly not needed. **Show** actual input "Raw" value, 0-10V DC or °C.
	Digital inputs	**Set** the Configuration of the Digital inputs. **Show** the status to On or Off.

		Universal inputs	**Set** the Configuration of the Analogue inputs. **Set** the compensation if there is a deviation between actual and measured value, normaly not needed. **Show** actual input "Raw" value, 0-10V DC or °C.
			Set the Configuration of the Digital inputs. **Show** the status to On or Off.
		Analogue outputs	**Set** the Configuration of the Analogue outputs. **Show** actual output value in 0-10V DC.
		Digital outputs	**Set** the Configuration of the Digital outputs. **Set** the Digital output to Auto, Manual -On or Manual -Off. **Show** the status to On or Off.
	Control function	Control function Mode: Extract air control	**Set** the temperature Control function to: - **Extract** air control with cascade function (see below *If cascade control max/min supply setp.* to set the max and min supply temperature). - Room control with cascade function (see below If cascade control max/min supply setp.to set the max and min supply temperature). - Outdoor temperature compensated supply air control. - Supply air control. - Outdoor temperature dependent switching between supply air temperature control and **extract** air control with cascade function (see *Other parameters/Outdoor temp for control mode change* for setting of the switching temperature and see below *If cascade control max/min supply setp.* to set the max and min supply temperature). - Outdoor temperature dependent switching between supply air temperature control and Room control with cascade function (see Other parameters/Outdoor temp for control mode change for setting of the switching temperature and see below If cascade control max/min supply setp. to set the max and min supply temperature).
		If cascade control max/min supply setp. Max: 0.0 °C Min: 0.0 °C	*Only used when Cascade function is Set.* **Set** the Maximum and Minimum allowed supply air temperature.
	Object Types	Cooling Not used	**Set** if the Water cooling (0-10V DC) should be activaded.
	Pump control	P1-Heating	**Set** the Pump stop to Yes or No. **Set** the pump stop delay in minutes. **Set** the outdoor temperature limit, pump stop when limit is exceeded.
		P1-Cooling	**Set** the pump stop delay in minutes.

Free cooling	Free cool active: No	**Set** if the Free cooling function should be active or not.
	Outd.temp activation 0 °C	**Set** the lowest outdoor temperature (day temp.) limit when the Free cooling function should be activated.

	Outd.temp night
	    High: 0.0 °C
	    Low: 0.0 °C
	Room temp min 0.0 °C
		Set between which night temperatures the Free cooling should be activated, High and Low.
		Set the lowest Room temperature when the Free cooling should stop.
		Function: This function is used during the summer to cool the building during the night by using cool outdoor air, and thereby reducing the need for cooling during the day.

CO2/VOC Control	CO2/VOC active Never Type: Fan Min.time: 0 min	**Set** when the CO2/VOC function should be active: Never, Always, If time channel off or If time channel on. **Set** the minimum running time for the CO2/VOC function.
	Activation level 1/2-speed: 000 ppm 1/1-speed: 000 ppm diff: 000 ppm	**Set** the ppm level when the fans should start (1/2-speed) and the ppm level for normal fan speed (1/1-speed). **Set** a lowest value (ppm) below the value for the reduced fan speed (1/2-speed) when the fans should stop.
Fire Function	Fire alarm input Normally open Damper exercise No	**Set** the Fire alarm input (Digital input) to Normally open or Normally closed. **Set** if the unit should exercise the fire dampers. **Function:** If set to Yes choose to stop the unit during exercise or to exrecise while the unit is running.
Cooling recovery	Cooling recovery No Cooling limit: 0.0 °C	**Set** if the Cooling recovery function should be active or not. **Set** the temp. difference for starting the Cooling recovery function. **Function**: If the extract air temperature is a settable amount lower than the outdoor temperature, cooling recovery can be activated.

External setpoint	External setpoint	Set if the External setpoint function should be active or not.
	Not active	Set the working range (minimum and maximum) for the external setpoint device (PT1000).
	Min setp.: 0.0 °C	
	Max setp.: 0.0 °C	
Actuator type	Actuator type	Set the signal type that works with the actuator Y1, Y2, and Y3. 0-10V, 10-0V, 10-2V or 2-10V.
	Y1 Heating:0-10V	
	Y2 Exchan.:0-10V	
	Y3 Cooling:0-10V	
	Actuator type	Set the signal type that works with the actuator Y6
	Y6 Humidity: 0-10V	
Alarm configuration	Alarm no(1-48): 1	Set the alarm configuration.
	XX	Set the Priority on each Alarm to: Not active, C-alarm, B-alarm or A-alarm.
	-->	Set if the unit should stop at alarm.
		Set other settings e.g. Delays, temperature limits, pressure deviations..
Other parameters	Outd. temp for	Set the Outdoor temperature for blocking Normal and changing to Reduced fan speed.
	Blocking of	Function: Outdoor temperatures below the set temperature will force the unit to go from Normal to
	1/1-speed: -20 °C	Reduced fan speed.
	Extended running	Set how many minutes the unit should run in Extended running when using a Push button. If the
	60 min	time is set to 0 minutes the unit will run in Extended running as long as the digital input is closed.
	Time in ext. Running	
	0 min	
	Outdoor temp for	Set the Outdoor temperature for changing the control mode.
	control mode change	Function: If the unit is configured for combined Supply air/Room or Exhaust control this menu
	0 °C	permits the setting of the outdoor temperature at which the change is activated.

System	Choose Language English	**Set** the menu Language. Note: A short cut to the menu language is by pressing the OK button at the same time as the main voltage is switched on.	
	Choose Start Screen Type 1	**Set** the start screen. Choose between 5 different settings:	
		Rotovex SR 11 HW flow 05:11:27 08:48 System: Running Sp:22.0°C Act:21.8°C	**Type 1** - Second line shows date and time. - Third line shows the present running status. - Fourth line shows the present temperature setpoint and actual values.
		05:11:27 08:48 System: Running Sp:22.0°C Act:21.8°C Y1:0% Y2:93% Y3:0%	**Type 2** - First line shows date and time. - Second line shows the present running status. - Third line shows the present temperature setpoint and actual values.
		05:11:27 08:48 System: Running Sp:22.0°C Act:21.8°C SF:NaNPa EF:NaNPa	**Type 3** - First line shows date and time. - Second line shows the present running status. - Third line shows the present temperature setpoint and actual values.
		Rotovex SR 11 HW flow 05:11:27 08:48 System: Running	**Type 4** - Second line shows date and time. - Third line shows the present running status.
		Rotovex SR 11 HW flow 05:11:27 08:48	**Type 5** - Second line shows date and time.
	Automatic summer/ winter time change over Yes	**Set** if the internal year-base clock should changeover automatic between Summer and Winter time.	
	Address: PLA: 000 ELA: 000	**Show** this units Address for remote communication. This function is only used for units connected to an Exonetwork. Do not change the values or you may encounter problems when running CORRIGO E Tool.	
	Address for remote communication (PLA:ELA) : 00:00	**Set** the Address to the external unit. For remote communication with other units thru Exonetwork.	
	Communication code for modbus 0 Modbus: Not Active	**Set** if the Modbus should be activated or not. A code is needed to activate Modbus.	

Access Rights		
Log on	Log on Enter password **** Actual level:None	In this menu it is possible to log on to any level by entering the appropriate 4-digit code. The log on menu will also be displayed if trying to gain access to a menu or try to do an operation requiring higher authority. Press the OK-button and a cursor marker will appear at the first digit position. Repeatedly press the up-arrow until the correct digit is displayed. Press the right-arrow to move to the next position. Repeat the procedure until all four digits are displayed. Then press OK to confirm. After a short while the text on the line: Actual level will change to display the new log on level. Press left-arrow to leave the menu.
Log off	Log off? No Actual level:None	Use this menu to log off from the present level to the basic "no-log on" level. Logoff is also initiated automatically 5 minutes after the last time a button is pressed.
Change password	Change password for level:None New password: ****	As default Corrigo comes with the following passwords for the different levels: System 1111 Operator 3333 Basic 5555. You can only change the password for log on levels lower or equal to the presently active level, i.e. if you are logged in as System you can change all passwords, but as Operator you can only change the Operator and Basic passwords. There is no point in changing the Basic password since access to that level is granted automatically to all users.

Warning

In order to avoid electrical shock, fire or other damage that might occur in connection with faulty use and operation of the unit, it is important to consider the following:

- The system must be installed according to the mounting instructions
- Insulate mains supply before service or cleaning of the heat recovery unit
- Tumble dryer must not be connected directly to the ventilation system
- Make sure the filter is mounted in its place before running the system
- Maintenance must be performed according to the instructions.

Maintenance

Maintenance of the Topvex should normally be carried out 3 – 4 times a year. Apart from general cleaning the following should be observed:

1. Changing Supply/Extract air filter, indicates as "Filter guard" in the control panel (fig. 4).
The bag filter cannot be cleaned and must be changed as necessary. New filters can be ordered from Systemair. Pressure guards monitor Supply and Extract air filters.
Initial pressure drop is approx. for F7 filters = 80Pa and for F5 filters = 45Pa.
Final pressure drop is approx. 240 Pa

2. Checking the heat exchanger (Once a year), (fig.1).
After long times use dust may build up in the exchanger and block the airflow. It is vital to clean the exchanger regularly to maintain high efficiency. The heat exchanger can not be taken out of the unit. Clean the surface of the exchanger using a vacuum cleaner with a brush fitting. Take great care not to damage the surface. If necessary, compressed air may be used to remove dirt. If the transmission belt is worn or slack it should be replaced.

3. Checking the fans (once a year), (fig.1).
Even if the required maintenance, such as changing of filters is carried out, dust and grease may slowly build up inside the fan (pos.6 and 7 in fig. 1). This will reduce the efficiency.
The fans may be cleaned with a cloth or a soft brush. Do not use water. White spirit can be used to remove obstinate settlements. Allow drying properly before remounting.

4. Cleaning extract louvers and inlet diffusers (when necessary)
The system supplies fresh air to the building and extracts the used indoor air via the duct system and diffusers/louvers. Diffusers and louvers are mounted in ceilings/walls in bedroom, living room, wet rooms, WC etc. Remove diffusers and louvers and wash in hot soapy water as required. (Diffusers/louvers must be put back with their original settings and positions in order not to unbalance the system).

5. Checking the fresh air intake
Leaves and pollution could plug up the air intake grille and reduce the capacity. Check the air intake grille at least twice a year, and clean if necessary.

6. Checking the duct system (when necessary)
Dust and grease settlements may build up in the duct system even if filters are changed regularly. This will reduce the efficiency of the installation. The duct runs should therefore be cleaned/changed when necessary. Steel ducts can be cleaned by pulling a brush soaked in hot soapy water, through the duct via diffuser/louver openings or special inspection hatches in the duct system (if fitted).

NOTE! In addition roof cowl must be checked once a year and cleaned as necessary.

Troubleshooting

Should problems occur, please check or correct the following before contacting your service representative.
Always check if there are any alarms active in the control panel.

1. Fan(s) do not start
- Check if there are any alarm messages
- Check the settings in the control panel (times, week schedule, auto, manual operating etc.)
- Check that the fuses are not defect

2. Reduced airflow
A.) Check the settings of fan speed
B.) Check that the Outdoor/Exhaust air damper, if used, opens
C.) Change of filters required?
D.) Cleaning of diffusers/louvers required?
E.) Cleaning of fans required?
F.) Is roof unit/air intake clogged?
G.) Duct system. Check visible duct runs for damage and/or build-up of dust/pollution
H.) Check diffuser/louver openings.

3. Cold supply air
A.) Check control temperature on the control panel
B.) Check if overheating thermostat is alert. If necessary, reset by pressing the red button, marked RESET, on top of the connection box (pos.26 in fig.2)
C.) Check if the extract filter must be changed
D.) Check that the heat exchanger is rotating
E.) Check if the fan thermo contact has tripped, shows as *Fan alarm* in the control panel. If necessary, reset it (see page 3).

4. Noise/vibrations
A.) Clean fan impellers
B.) Pull the fans out and check that the 2 screws holding the fans are tightened.

Service

Before calling your service representative, make a note of the specification and production number from the data plate.

Commissioning record

Company

_____

Responsible

_____

Customer	Date	Installation
Object/Unit	Item no.	Installation address
Model/size	Series no.	

Present time and date set.☐   Week schedule set.☐

External connections such as sensors, dampers, external alarms etc. done.☐

Function	Preset value	Set value
Temperature (°C). Control function Temp.	Supply ☐ Exhaust ☒ Room ☐	Supply ☐ Exhaust ☐ Room ☐
Set point	18,0 °C	_____ °C
Outdoor compensating (supply air controlling)		
Outdoor/supply temp.		
Point 1,2 and 3	-30,0 / 22,0 -20,0 / 21,0 -11,0 / 20,5	____ / ____ ____ / ____ ____ / ____
Point 4,5 and 6	-4,0 / 20,0 5,0 / 19,5 12,5 / 19,0	____ / ____ ____ / ____ ____ / ____
Point 7 and 8	21,0 / 18,5 30,0 / 18,0	____ / ____ ____ / ____
Min. supply set point	12,0 °C	_____ °C
Max. supply set point	30,0 °C	_____ °C
Switching point, between supply and cascade regulating	13,0 °C	_____ °C
Air flow Fan regulation	Airflow (m³/h) ☒ Pressure (Pa) ☐ CO2 (ppm) ☐	Airflow (m³/h) ☐ Pressure (Pa) ☐ CO2 (ppm) ☐
Set point Normal	Supply fan __*__. Extract fan __**__.	Supply fan _____ Extract fan _____
Set point Reduced	Supply fan __***__. Extract fan __****__.	Supply fan _____ Extract fan _____
Outdoor compensation	Lower point -20.°C 0 .m³/h, Pa	Lower point _____°C _____m³/h, Pa
	Upper point 10.°C 0 .m³/h, Pa	Upper point _____°C _____m³/h, Pa
Only reduced fan speed when outdoor is below.	-20 °C	_____ °C

Topvex SR 07   * 2500 m³/h or 250Pa   ** 2500 m³/h or 250Pa   *** 1500 m³/h or 100Pa   **** 1500 m³/h or 100Pa
Topvex SR 09   * 3200 m³/h or 250Pa   ** 3200 m³/h or 250Pa   *** 1900 m³/h or 100Pa   **** 1900 m³/h or 100Pa
Topvex SR 11   * 4000 m³/h or 250Pa   ** 4000 m³/h or 250Pa   *** 2400 m³/h or 100Pa   **** 2400 m³/h or 100Pa

Function	Preset value		Set value
Cooling			
Control function cooling	Not active ⊠	0-10V ⊠ On/off ☐	Not active ☐ 0-10V ☐ On/off ☐
On/off function	1step ☐ 2step ☐ 3step ☐	binary step ⊠	1step ☐ 2step ☐ 3step ☐ binary step ☐
Number of binary steps	1 ☐ 2 ⊠ 3 ☐		1 ☐ 2 ☐ 3 ☐
Lowering of min. control temp. supply air, DX cooling	5,0 . °C		____ °C
Humidity			
Control function humidification.	Disable ⊠ Humidification ☐ De-humidification ☐ Humidification / De-humidification ☐		Disable ☐ Humidification ☐ De-humidification ☐ Humidification / De-humidification ☐
Sensors (0-10V DC for 0-100% RH)	Room sensor ☐ Room and Duct sensor (max limiting) ☐		Room sensor ☐ Room and Duct sensor (max limiting) ☐
Set point	50. % RH		____ % RH
Max. limit (duct sensor)	80. % RH		____ % RH

Week scheduler settings

Preset week schedule is:
Period 1. 07:00-16:00 Monday-Sunday, normal fan-speed.
Period 2. 00:00-00:00 Monday-Sunday. 00:00-00:00 inactivates the period.

Weekday	Period	Normal	Reduced
Mon.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __
Thu.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __
Wed.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __
Thurs.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __
Fri.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __
Sat.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __
Sun.	1	__ : __ - __ : __	__ : __ - __ : __
	2	__ : __ - __ : __	__ : __ - __ : __

Holidays (month.day)	**Holidays** (month.day)	**Holidays** (month.day)	**Holidays** (month.day)
1. __ . __ - __ . __	7. __ . __ - __ . __	13. __ . __ - __ . __	19. __ . __ - __ . __
2. __ . __ - __ . __	8. __ . __ - __ . __	14. __ . __ - __ . __	20. __ . __ - __ . __
3. __ . __ - __ . __	9. __ . __ - __ . __	15. __ . __ - __ . __	21. __ . __ - __ . __
4. __ . __ - __ . __	10. __ . __ - __ . __	16. __ . __ - __ . __	22. __ . __ - __ . __
5. __ . __ - __ . __	11. __ . __ - __ . __	17. __ . __ - __ . __	23. __ . __ - __ . __
6. __ . __ - __ . __	12. __ . __ - __ . __	18. __ . __ - __ . __	24. __ . __ - __ . __

Function	Preset value	Set value
Frost Protection		
Mode (EL unit Off):	On ☒	On ☐ Off ☐
Frost limit temperature:	See Alarm settings/ Low frost guard temp	See Alarm settings/ Low frost guard temp
Set point when stopped: (return water)	7. °C	____ °C
P-band when running:	5.	____
Pressure Input Supply/Exhaust Air Fan		
Supply Air Fan Pressure at 0V	0. (Pa)	____ (Pa)
Supply Air Fan Pressure at 10V	CAV 1600 Pa VAV 500 Pa	____ (Pa)
Exhaust Air Fan Pressure at 0V	0. (Pa)	____ (Pa)
Exhaust Air Fan Pressure at 10V	CAV 1600 Pa VAV 500 Pa	____ (Pa)
Night cooling		
Mode:	Off ☒	On ☐ Off ☐
Run when day outdoor temp is higher than:	22. °C	____ °C
Stop when night outdoor temp is higher than:	15. °C	____ °C
Stop when night outdoor temp is lower than:	5. °C	____ °C
Stop when room temp is lower than:	18. °C	____ °C
Cool Recycling		
Mode:	Off ☒	On ☐ Off ☐
Start Limit:	2. °C	°C
Control On Demand		
Min time for control on demand:	60. min	____ min
Support control:	Off ☒	On ☐ Off ☐
Run Exhaust Air Fan when support control active	On ☒	On ☐ Off ☐
CO2 control	Off ☒ On when active time channel ☐ On when in-active time channel ☐ On ☐	Off ☐ On when active time channel ☐ On when in-active time channel ☐ On ☐
CO2 control Type	Damper ☐ Fan ☒	Damper ☐ Fan ☐

Function	Preset value		Set value	
Fire Function				
Fire damper function:	Off	☒	Off	☐
	Damper normally closed	☐	Damper normally closed	☐
	Damper normally opened	☐	Damper normally opened	☐
Extraction when fire alarm:	Off ☒		On ☐ Off ☐	
Fire input:	Normally opened	☒	Normally opened	☐
	Normally closed	☐	Normally closed	☐
Fire damper exercise:	No exercise	☒	No exercise	☐
	Exercise with ventilation running	☐	Exercise with ventilation running	☐
	Exercise with ventilation stopped	☐	Exercise with ventilation stopped	☐
Fire damper run time:	90. s		___ s	
Fire damper interval:	1. days		___ days	
Fire damper exercise hour	0. h		___ h	
Mixing damper Min Limitation				
Mode:	Off ☒		On ☐ Off ☐	
Limit:	5. %		___ %	
External Set point Knob				
External set point knob:	Off ☒		On ☐ Off ☐	
Min set point of knob:	12. °C		___ °C	
Max set point of knob:	30. °C		___ °C	
Heat Pump (HW unit)				
Pump stop mode (EL unit Off):	On ☒		On ☐ Off ☐	
Pump stop delay:	5. min		___ min	
Stop pump at temp:	10. °C		___ °C	
Pump stop hysteretic:	1. °C		___ °C	
Pump exercise hour:	15.		___	
Cool Pump				
Pump stop delay	5. min		___ min	
General				
Heat Pump Indication	Motor Protection	☐	Motor Protection	☐
	Run Indication	☒	Run Indication	☐
Cool Pump Indication	Motor Protection	☐	Motor Protection	☐
	Run Indication	☒	Run Indication	☐
Outdoor Temperature Related Settings				
Full heat when outdoor temp is below	3. °C		___ °C	

Function	Preset value	Set value
Miscellaneous		
Extended operation	60. min	min
Min. set point reduction, Supply air. At DX-Cooling:	5. °C	°C

Alarm configuration

Alarm settings	Preset value	Set value	Alarm settings	Preset value	Set value
1. Supply Air Fan is out of operation Class Delay Stop ventilation unit if alarm active	 B 300 s No		**26. Sensor error** Class Delay Stop ventilation unit if alarm active	 B 5 s No	
2. Exhaust Air Fan is out of operation Class Delay Stop ventilation unit if alarm active	 B 300 s No		**28. Rotation guard exchanger** Class Delay Stop ventilation unit if alarm active	 B 60 s No	
3. P1-Heater is out of operation (Applies to HW units) Class Delay Stop ventilation unit if alarm active	 B 5 s No		**29. Fire damper is out of operation** Class Delay Stop ventilation unit if alarm active	 B 90 s No	
4. P1-Cooler is out of operation Class Delay Stop ventilation unit if alarm active	 B 5 s No		**30. Supply Air Fan Pressure control error** Class Delay Stop ventilation unit if alarm active Max diff between set point and actual pressure	 B 4 min No 50 Pa	
6. Filter guard Class Delay Stop ventilation unit if alarm active	 B 300 s No		**31. Exhaust Air Fan Pressure control error** Class Delay Stop ventilation unit if alarm active Max diff between set point and actual pressure	 B 4 min No 50 Pa	
8. External frost guard Class Delay Stop ventilation unit if alarm active	 Off 0 s Yes		**32. Supply Air Fan external operation** Class Delay Stop ventilation unit if alarm active	 Off 120 s No	
10. Fire alarm Class Delay Stop ventilation unit if alarm active	 A 0 s Yes		**33. Exhaust Air Fan external operation** Class Delay Stop ventilation unit if alarm active	 Off 120 s No	
11. External switch Class Delay Stop ventilation unit if alarm active	 C 0 s Yes		**34. Ventilation stopped** Class Delay Stop ventilation unit if alarm active	 C 0 s No	
12. External alarm Class Delay Stop ventilation unit if alarm active	 B 0 s No		**35. Manual supply air control** Class Delay Stop ventilation unit if alarm active	 C 0 s No	
13. Supply Air control error Class Delay Stop ventilation unit if alarm active Max diff between set point and supply	 B 4 min No 5 °C		**36. Manual Supply Air Fan mode** Class Delay Stop ventilation unit if alarm active	 C 0 s No	
14. High supply air temp Class Delay Stop ventilation unit if alarm active High supply air temp	 B 300 s No 35 °C		**37. Manual Supply Air Fan freq control** Class Delay Stop ventilation unit if alarm active	 C 0 s No	
15. Low supply air temp Class Delay Stop ventilation unit if alarm active Low supply temp	 A 300 s Yes 10 °C		**38. Manual Exhaust Air Fan mode** Class Delay Stop ventilation unit if alarm active	 C 0 s No	

Alarm settings	Preset value	Set value	Alarm settings	Preset value	Set value
18. High room temp			**39. Manual Exhaust Air Fan freq control**		
Class	B		Class	C	
Delay	30 min		Delay	0 s	
Stop ventilation unit if alarm active	No		Stop ventilation unit if alarm active	No	
High room temp	30 °C				
19. Low room temp			**40. Manual heater control**		
Class	B		Class	C	
Delay	30 min		Delay	0 s	
Stop ventilation unit if alarm active	No		Stop ventilation unit if alarm active	No	
Low room temp	10 °C				
20. High exhaust air temp			**41. Manual cooler control**		
Class	B		Class	C	
Delay	30 min		Delay	0 s	
Stop ventilation unit if alarm active	No		Stop ventilation unit if alarm active	No	
High exhaust temp	30 °C				
21. Low exhaust air temp			**42. Manual exchanger control**		
Class	B		Class	C	
Delay	30 min		Delay	0 s	
Stop ventilation unit if alarm active	No		Stop ventilation unit if alarm active	No	
Low exhaust temp	10 °C				
22. Electric heating is overheated			**43. Manual P1-Heater**		
(Set to Off on HW units) Class	A		(Applies to HW units) Class	C	
Delay	0 s		Delay	0 s	
Stop ventilation unit if alarm active	Yes		Stop ventilation unit if alarm active	No	
23. Frost risk			**44. Manual P1-Cooler**		
(Set to Off on EL units) Class	B		Class	C	
Delay	60 s		Delay	0 s	
Stop ventilation unit if alarm active	No		Stop ventilation unit if alarm active	No	
24. Low frost guard temp			**46. Manual fire damper**		
(Applies to HW units) Class	A		Class	B	
Delay	0 s		Delay	0 s	
Stop ventilation unit if alarm active	Yes		Stop ventilation unit if alarm active	No	
Frost limit	7 °C				
25. Low efficiency			**47. Internal battery error**		
Class	Off		Class	A	
Delay	30 min		Delay	0 s	
Stop ventilation unit if alarm active	No		Stop ventilation unit if alarm active	No	
Low efficiency	50 %				

In/Output Configurations

Possible choices of Analogue input signal	Preset Configuration	Set Configuration
Outdoor temperature sensor	UAI 1	
Supply air temperature sensor	AI 4	
Exhaust air temperature sensor	AI 3	
Extract temperature sensor		
Room temperature sensor 1		
Room temperature sensor 2		
CO2/VOC sensor 0…10V DC		
Extra sensor / Set point potentiometer		
Pressure transmitter, supply air 0…10V DC	AI 1	
Pressure transmitter, exhaust air 0…10V DC	AI 2	
De-icing sensor, heat exchanger		
Frost protection sensor, Hot water heater.	UAI 4 (HW units)	
Room Humidity sensor		
Duct Humidity sensor		

Possible choices of Analogue output signal	Preset Configuration	Set Configuration
Y1 Actuator Heating	AO 1	
Y2 Actuator Exchanger	AO 2	
Y3 Actuator Cooling	AO 3	
Frequency converter, supply air fan	AO 4	
Frequency converter, exhaust air fan	AO 5	
Actuator Humidity control		
Split of any one of temp outputs Y1,Y2 or Y3		

Possible choices of Digital input signal	Preset Configuration	Set Configuration
Filter guard, supply air and exhaust air	DI 1	
Run-indication/alarm circulation pump, heating	DI 2 (HW units)	
Run-indication/alarm circulation pump, cooling	DI 3	
Run-indication/alarm circulation pump, exchanger		
Fire alarm	DI 5	
Fire damper end-switch monitoring		
Extended Operation, Normal	DI 7	
Extended Operation, Reduced		
External stop	DI 6	
External alarm	DI 8	
Flow-switch		
Rotation sentinel, exchanger	DI 4	
Run-indication/alarm supply air fan		
Run-indication/alarm exhaust air fan		
De-icing, exchanger		
Frost protection thermostat		
Overheated electric heater	UDI 4 (EL units)	

Possible choices of Digital output signal	Preset Configuration	Set Configuration
Start/stop supply air fan (SAF) 1/1-speed		
Start/stop exhaust air fan (EAF) 1/1-speed		
Start/stop supply air fan (SAF) 1/2-speed		
Start/stop exhaust air fan (EAF) 1/2-speed		
Start/stop circulation pump, heating	DO 3 (HW units)	
Fire dampers		
Sum alarm A- and B-alarm	DO 7	
Sum alarm A-alarm		
Sum alarm B-alarm		
Start/stop circulation pump,cooling	DO 6	
Start/stop circulation pump, liquid exchanger		
Activation-signal SAF frequency converter		
Activation-signal EAF frequency converter		
Activation heating	DO 3 (EL units)	
Activation cooling		
Activation heat exchanger		

Possible choices of Digital output signal	Preset Configuration	Set Configuration
Extract air close-off damper	DO 2	
Fresh air close-off damper	DO 1	
Re-circulation damper		
Heating 3-pos. actuator, increase		
Heating 3-pos. actuator, decrease		
Exchanger 3-pos. actuator, increase		
Exchanger 3-pos. actuator, decrease		
Cooling 3-pos. actuator, increase		
Cooling 3-pos. actuator, decrease		
Step controller heating, step 1		
Step controller heating, step 2		
Step controller heating, step 3		
Step controller heating, step 4		
Step controller cooling, step 1	DO 4	
Step controller cooling, step 2	DO 5	
Step controller cooling, step 3		
Extra Timer channel 1		
Extra Timer channel 2		
Extra Timer channel 3		
Extra Timer channel 4		
Extra Timer channel 5		
Humidity		

Notes

NB. Systemair AB reserves the right to make changes and improvements to the contents of this manual without prior notice