

Technicians Manual

INSTALLATION & ADJUSTMENT

OPERATION & CONTROL

Extract air filter, article No: Q4871
Supply air filter, article No: Q4872



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Safety and Security

Please read this manual carefully. Pay special attention to the safety text marked with the exclamation mark above.

Receipt of Delivery

Check that the number of packages matches the consignment note and that there is no transport damage. The ventilation unit must be stored indoors.

If possible, the unit should be kept lying down to minimize the risk of personal injury in case of overturning. Pay special attention to this if children are nearby.

Installation

Work performed by the layman can impair the performance of the ventilation unit and result in injury to person or property. Incorrectly adjusted units will not achieve the desired benefits such as adequate air quality and maximized energy savings.

The unit is heavy. Edges and corners that you do not usually come in contact with can be sharp. Use gloves when moving the unit.

Keep an eye on children. An unassembled unit can easily tip over under abnormal loads.

Mounting

The ventilation unit is mounted upright in the utility room, laundry room or the like. The unit is designed to stand in frost-free space, which is extra important when using condensate drains.

Ensure that there is a stable and level surface on the installation site. It is an advantage if the unit can be placed at least 10 mm away from the wall. This is to minimize the risk of muffler noise. We recommend that the walls of surrounding rooms also be soundproofed. These precautions should be maintained despite the fact that Temovex units are generally very quiet. The unit is equipped with adjustable rubber feet and well balanced fans, to avoid vibration.

The unit should be installed in such a way that it is easy to access for maintenance and inspection. Make sure the door at the front can be fully opened. The unit must be placed so that it cannot be flushed with water during operation. As an option, the unit can be provided with protection that allows the installation to withstand IP class X5.

Condensate Drain

The unit is equipped with a condensation drain at the bottom of the unit. This should be connected to a drain or routed to a floor well. Make sure that the condensation line is placed far enough down in the floor well, otherwise it can draw cold air from it. The condensation line does not need to be fitted with a water trap. The condensate drain has to be connected when the unit is installed. If the unit is equipped with condensation boiler (KAVK) no external connection is needed.

The Duct System

Ducts and duct details should be made of an age-resistant material that is also easy to clean inside. For shorter adaptations between, for example a roof hood and the duct system, a flexible duct called "Drasuten" can advantageously be used. Tumble dryers and drying cabinets must not be connected directly to the duct system.

If a room sensor is used, it should be placed approx. 1,8 m above the floor in the living room, preferably on an interior wall.

Insulation

Outdoor air and extract air ducts in heated spaces must be insulated against condensation along their entire length, using an insulation sleeve minimum PE30. The diffusion barriers are sealed with ventilation tape.

Supply and exhaust air ducts in warm rooms do not need to be insulated against condensation, however, heat insulation may be appropriate. Decided on a case by case basis.

If the supply and exhaust air ducts are placed in cold or unheated spaces, they shall be heat insulated. If insulation mat is used, a total thickness of at least 120 mm should be achieved. The insulation should be shared in two layers with overlapping joints.

If placement in loose wool, the cover layer over the ducts should be at least 150 mm.

Open Fireplace

Most modern fireplaces and the like have a separate outdoor air connection which provides the combustion chamber with combustion air. If this is not available/possible, a separate outdoor air diffuser needs to be fitted. The stove consumes between 150-300 m³/h.

To make it easier to start the stove (ignition, the fireplace door is open), the Temovex unit can be equipped with the option "stove function".

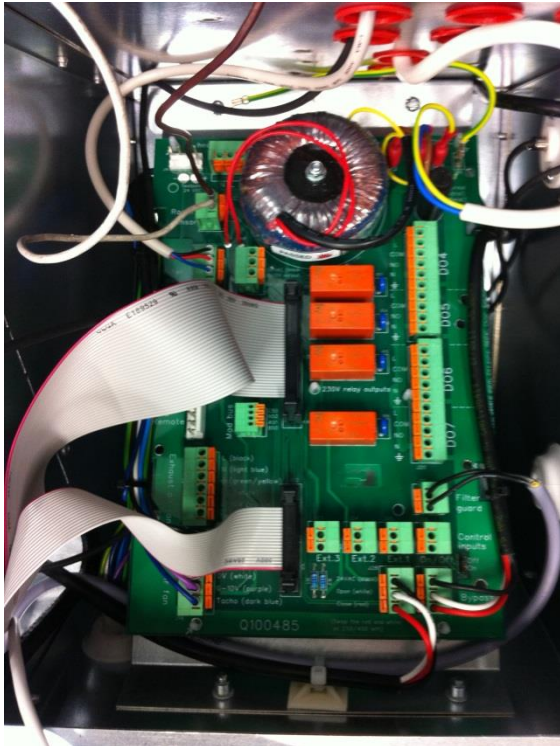
Power connection

The AHU is provided with a grounded plug. Connection at the top of the unit.

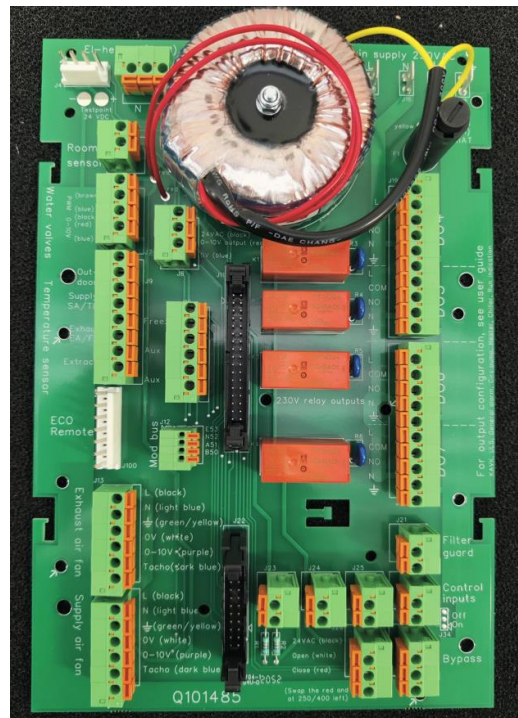
Access to connection terminals

All connections are made on the circuit board located behind the control panel. Unscrew the cover on which the control panel is located to access the circuit board.

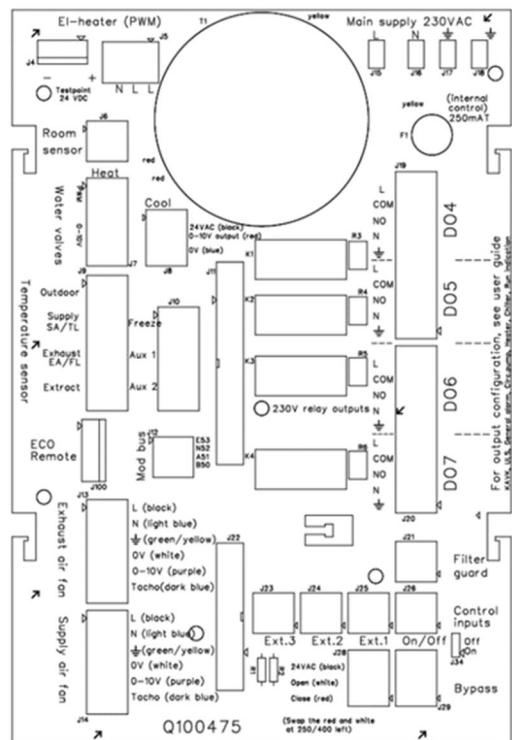
All connection terminals are numbered, and a description of resp. terminal is found on page 7. In most cases, the electrical signal and cable color are also indicated on the circuit board.



Circuit board for connection of external functions.

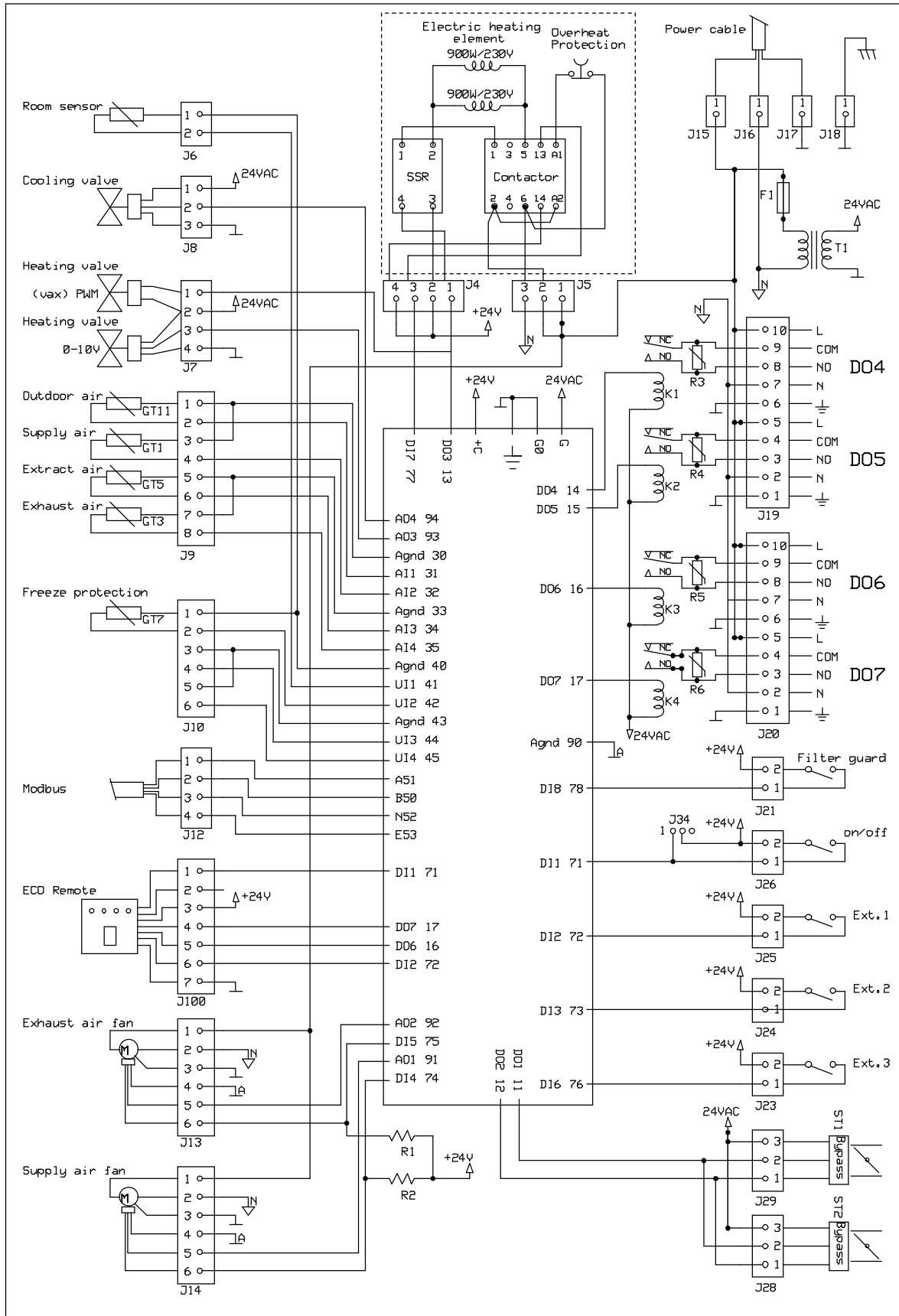


Circuit board



The printed circuit board screen print.

Circuit Diagram



Description of terminal blocks**General**

Joining of circuits is made on the bottom circuit board. To access the circuit board, remove the DUC (see previous page).

Texts on the circuit board show where to connect what. All terminals have a Jxx No. and a small triangle on pin 1.

When in the following text for example J26/1,2 is stated, it means that the function should be connected to terminal J26, pin 1 and 2.

Where appropriate, the signal is marked on the board.

Room sensor (Terminal J6/1,2)

If room sensor is to be used, keep in mind that room control must be selected in the configuration of the system.

External cooling (Terminal J8/1,2,3)

The system also has ability to handle an external water-cooling battery, e.g. natural cooling from boreholes.

The cooling battery is controlled via an external valve (0 - 10 V).

Reheater water (Terminal J7)

Two alternative is possible, so called wax-actuator (controlled by PWM-signal) or motor-actuator (0-10V signal).

(The cable may already be connected upon delivery)

Temperature sensors (Terminal J9)

Temperature sensors (PT1000) for **outdoor air**, **supply air**, **extract air** and **exhaust air** are already connected at delivery.

Freeze protection (Terminal J10/1,2)

In order to prevent freezing of the water battery in the case of water heating, a freeze protection sensor (temperature sensor) is placed on the return line from the water battery.

Modbus (Terminal J12)

Terminal for possible modbus communication.

ECO Remote (Terminal J100)

Terminal for connecting a remote control (optional) with among other things alarm indication and a switch for ECO mode.

NOTE! When using ECO Remote, DO6 must be configured for Normal flow, DO7 for Sum alarms and DI2 to ECO.

Fans (Terminal J13 and J14)

Connection terminals for the fans. These are already connected at delivery.

By-pass (Terminal J28)

Connection terminal for the by-pass damper. The cable is already connected at delivery.

Optional terminal for by-pass (Terminal J29)

Extra connection terminal for by-pass damper (some AHU models).

Ext.1, Ext.2 and Ext.3 (Terminals J23 to J25/1,2)

There is, as an option, the possibility to connect three external switches which at closing change the fan speeds according to the choices made during configuration. Appropriate flows are preset but can be changed by a qualified installer via the control panel.

For available choices see section "Operation & Control".

Start/stop (Terminal J26/1,2)

An external switch for "Start/stop" can be connected. The switch does not make the unit powerless. It just makes the AHU stop running. If this function is used, the jumper J34 should be moved to mode OFF.

Optional terminal for filter guard (Terminal J21)

For some of the larger AHU models only.

Relay outputs (Terminals J19, J20)

The system has 4 identical relay outputs which can be configured to various functions. The configuration in the circuit diagram above is just one example, others is possible. To see which options are available, please turn to chapter "Operation & control".

A condensation boiler (KAVK), if any, is already connected at delivery.

Mains voltage (Terminals J15, J16, J17)

230VAC, 50Hz

Chassis (Terminal J18)

Ground connection of chassis.

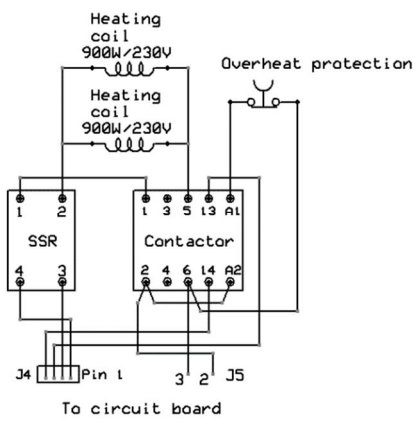
Electric heater, power supply (Terminal J5/2,3)

Pin 2 phase, pin 3 neutral (blue).

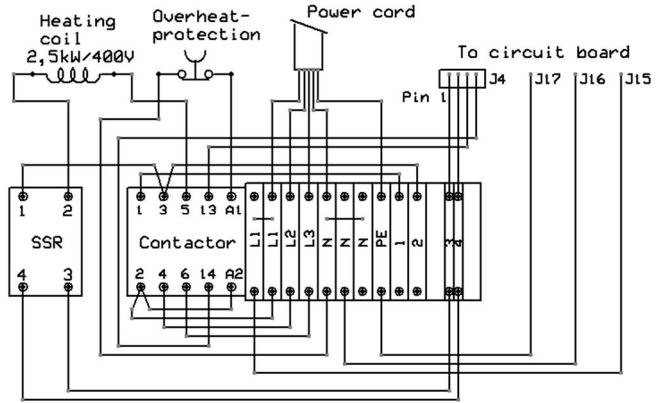
Electric heater, control signals (Terminal J4)

Connection electric heating

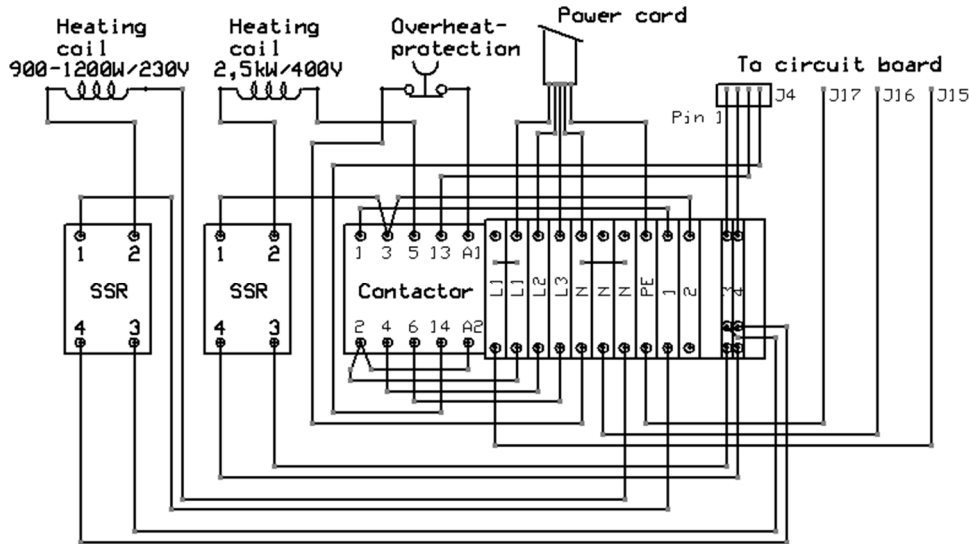
Circuit diagram supplement electric heating.



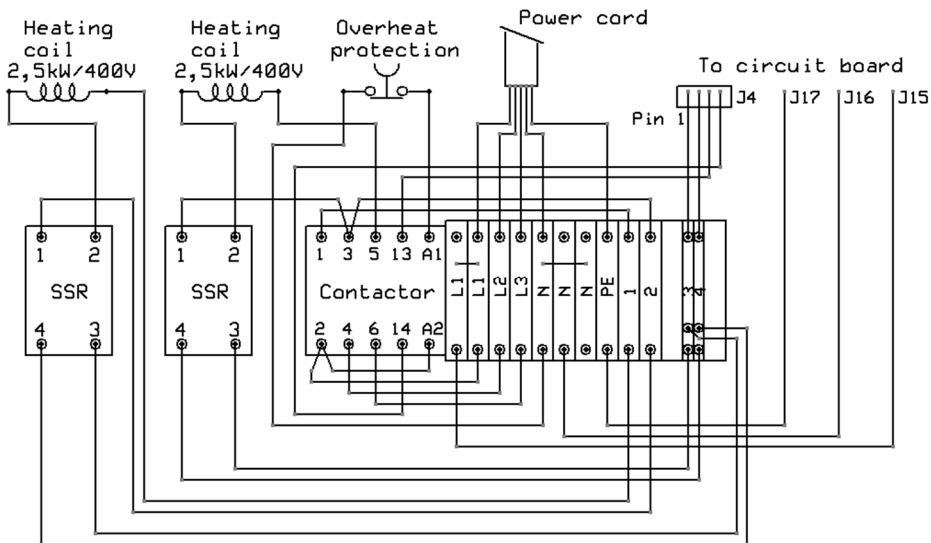
RT700 1-phase 900-1800W



RT700/1000 3-phase 2,5kW

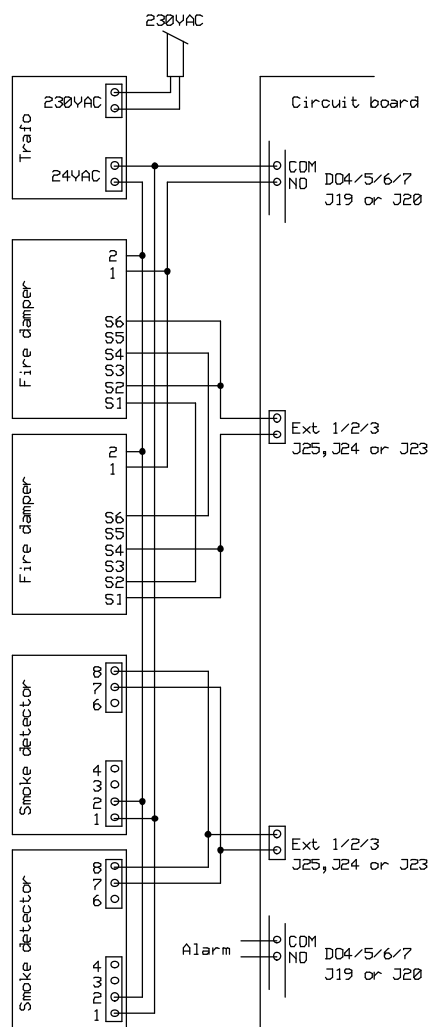


RT700/1000 3-phase 3,4 - 3,7kW

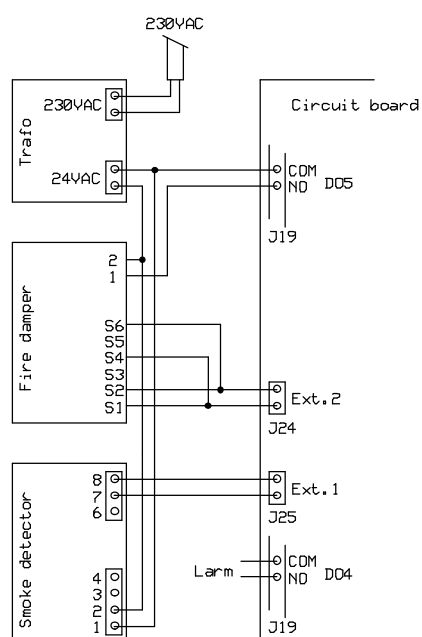


RT700/1000-unit 3-phase 5kW

Connection of fire damper and smoke detector



General connection with several units



Example with 1 unit of each

Power supply

The damper motor and the smoke detector are powered with 24VAC by an external transformer.

Damper motor

The damper motor is controlled via any of the relay outputs (DO4, 5, 6 or 7) on the circuit card. Which output you choose does not matter as long as the equivalent configuration of the control panel is made. See pages 40-41.

The damper motor has built-in limit switches and should be connected to any of the circuit card's digital inputs (Ext. 1, 2 or 3). See this page's diagram. Which output you choose does not matter as long as the equivalent configuration of the control panel is made. See pages 40-41.

The top diagram shows how more than one fire damper is connected. Maximum is 5 dampers.

Smoke detector

The smoke detector's output is connected to any of the circuit board's digital inputs (Ext. 1, 2 or 3). See this page's diagram. Which output you choose does not matter as long as the equivalent configuration of the control panel is made. See pages 40-41.

The top diagram shows how more than one smoke detector is connected. Maximum is 5 detectors.

Example

The bottom diagram shows the connection of one fire damper and one smoke detector.

In this example, we have chosen DO5 for the control of the fire damper and external input 2 for the damper's limit switches.

External input 1 has been used for the smoke detector.

DO4 has been chosen for the alarm output.

How to configure, see pages 40-41.

Function

Fire alarm

If the smoke detector is activated by smoke or fire, there is a signal at the alarm output, at the same time as the fire dampers change position.

Fire damper

Fire dampers are normally configured to open in case of fire, but may be configured to close instead.

Exercising the fire damper

Exercise of the fire dampers can be configured. The interval between exercises is adjustable. To enable this function, the fire dampers are fitted with limit switches. When an exercise is carried out, the system checks that the dampers reach their limits and that the limit switches are working. If not, a signal at the alarm output is activated.

The controller may be configured to stop the fans in connection with the exercise.

Connection of stairwell unit

What is meant by stairwell units?

REC's stairwell unit is an FTX unit located in the stairwell that serves up to 8 apartments. In multi-dwelling buildings (both new construction and ROT) with 2-4 floors, we can get FTX in a simple and cost-effective way without major intervention in the property. Examples of placement can be cleaning scrubber or storage (see type example below).

Example of standard installation:

The ventilation unit is a REC Temovex 700/1000S-EC-RS (counterflow exchanger) complete with control, constant supply air control and fire function. The unit has the optional EVBV (water reheater).

Outdoor air via grille in outer wall. The extract air normally passes through the unit / heat exchanger. The duct system from the apartments, both supply and extract air, is connected to the unit via collection ducts. When fire smoke is indicated in the extract air stems, a damper opens, and the air goes via a by-pass duct outside the unit. The fire gas fan on the roof, alternatively in the evacuation duct, evacuates fire smoke and prevents the spread between fire cells. On the supply air duct, backflow protection is installed to prevent fire gases from being pushed back into the apartments.

Read more about principal execution A and B below.

Principle implementation A

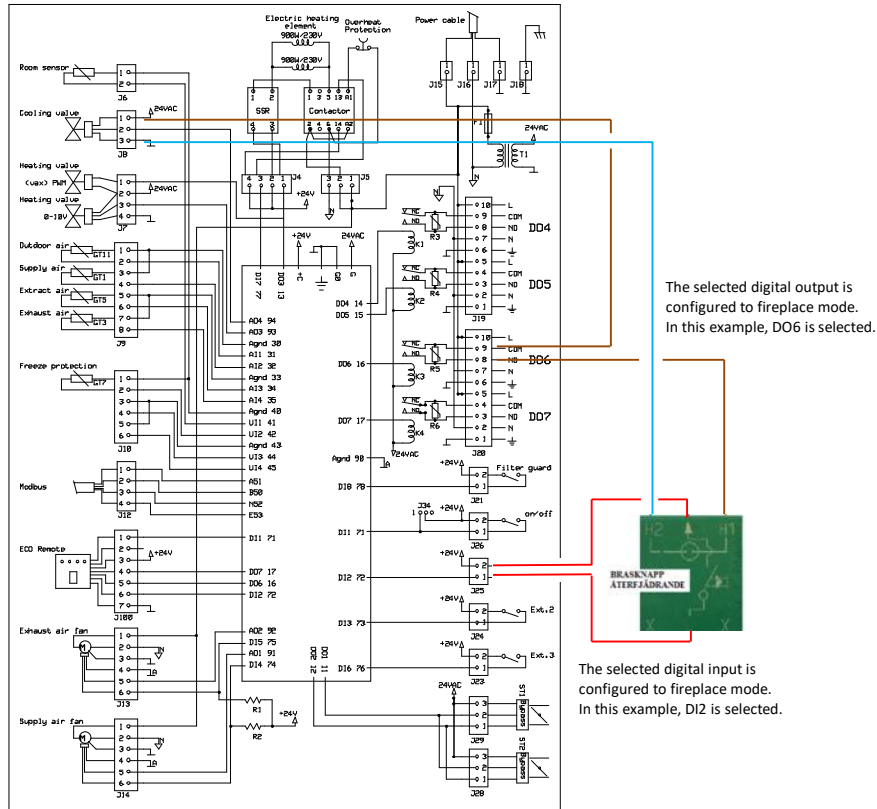
RT700/1000S-EC-RS-BFLF-BRAND

The unit's extract air fan has been removed and replaced by a fire gas fan (FF1) on the roof. When the fire indicator is triggered, the unit's fans stop, the bypass damper SP1 opens and the flue gas ceiling fan FF1 (300 ° C for 1 hour) forces out the smoke. Exercise of SP1 and control (0-10V) of the fire gas fan takes place from the unit.

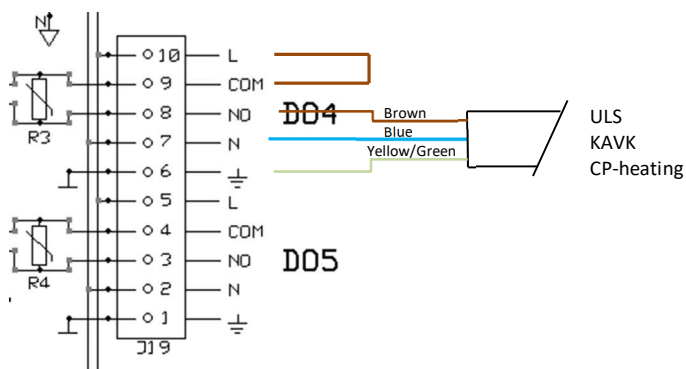
Addition to version A - purchased separately.

Connection Options

Connection of Fireplace Button (24V)



Connection of ULS, KAVK, CP-heating etc. (230V)



Connection according to above, on any output DO4-DO7 and selected output configure to selected function.

Connection Modbus

Connect Modbus on Terminal J12 pin 3 and 4.

Connection Remote Panel

Connection Remote panel

For initial information see the User Manual!
 Start at Authorization and log in as Technician with code 2222.

2. Menu table configuration

Not relevant for RT 700/1000 (should not be selected)

Parameter	Standard setting	Changed setting of this unit
2.1. Control function		
2.1.1. Control function	SA control	<input type="checkbox"/> ODT comp. SA control, <input type="checkbox"/> Casc. room control, <input type="checkbox"/> Casc. EA control
2.1.1.1. When cascade control max/min SA setpoint		
Max	52,0	

	Night cool	55 %	_____ %
	Max	100 %	_____ %
	Fire	100 %	_____ %
2.3.2.2.1. Delay EA fan			
	Start	0 sec	_____ (0

		Start temp.		
		Dead band valve	0,5 %	_____ % (0

2.16.1. Analog inputs		
UI1	Not active	<input type="checkbox"/> Room sensor, <input type="checkbox"/> Frost protection sensor, <input type="checkbox"/> TG-R4, <input type="checkbox"/> Duct heater sensor, <input type="checkbox"/> Option temp 1, <input type="checkbox"/> Option temp 2, <input type="checkbox"/> Option temp 3, <input type="checkbox"/> Option temp 4, <input type="checkbox"/> Temp after Exch., <input type="checkbox"/> SAF Pressure, <input type="checkbox"/> EAF Pressure, <input type="checkbox"/> Exch. Pressure, <input type="checkbox"/> CO2, <input type="checkbox"/> Humidity
UI2	Not active	<input type="checkbox"/> Room sensor, <input type="checkbox"/> Frost protection sensor, <input type="checkbox"/> TG-R4, <input type="checkbox"/> Duct heater sensor, <input type="checkbox"/> Option temp 1, <input type="checkbox"/> Option temp 2, <input type="checkbox"/> Option temp 3, <input type="checkbox"/> Option temp 4, <input type="checkbox"/> Temp after Exch., <input type="checkbox"/> SAF Pressure, <input type="checkbox"/> EAF Pressure, <input type="checkbox"/> Exch. Pressure, <input type="checkbox"/> CO2, <input type="checkbox"/> Humidity
UI3	Not active	<input type="checkbox"/> Room sensor, <input type="checkbox"/> Frost protection sensor, <input type="checkbox"/> TG-R4, <input type="checkbox"/> Duct heater sensor, <input type="checkbox"/> Option temp 1, <input type="checkbox"/> Option temp 2, <input type="checkbox"/> Option temp 3, <input type="checkbox"/> Option temp 4, <input type="checkbox"/> Temp after Exch., <input type="checkbox"/> SAF Pressure, <input type="checkbox"/> EAF Pressure, <input type="checkbox"/> Exch. Pressure, <input type="checkbox"/> CO2, <input type="checkbox"/> Humidity
UI4	Not active	<input type="checkbox"/> Room sensor, <input type="checkbox"/> Frost protection sensor, <input type="checkbox"/> TG-R4, <input type="checkbox"/> Duct heater sensor, <input type="checkbox"/> Option temp 1, <input type="checkbox"/> Option temp 2, <input type="checkbox"/> Option temp 3, <input type="checkbox"/> Option temp 4, <input type="checkbox"/> Temp after Exch., <input type="checkbox"/> SAF Pressure, <input type="checkbox"/> EAF Pressure, <input type="checkbox"/> Exch. Pressure, <input type="checkbox"/> CO2, <input type="checkbox"/> Humidity
2.16.1.4. CO2 (is displayed if CO2 is selected on any analog input)		
	0.0 V -> 0 ppm	_____ V -> _____ ppm
	10.0 V -> 1200 ppm	_____ V -> _____ ppm
2.16.1.5. Humidity (is displayed if Humidity is selected on any analog input)		
	0.0 V -> 0.0 %RH	_____ V -> _____ %RH
	10.0 V -> 100.0 %RH	_____ V -> _____ %RH
2.16.2. Digital inputs (*the function must be activated from the factory to be selected)		
D11	AHU On/Off	<input type="checkbox"/> Not active, <input type="checkbox"/> Min flow, <input type="checkbox"/> Boost flow, <input type="checkbox"/> Max flow, <input type="checkbox"/> Kitchen mode*, <input type="checkbox"/> ECO*, <input type="checkbox"/> Stove mode*, <input type="checkbox"/> Fire input*, <input type="checkbox"/> Fire damper*, <input type="checkbox"/> Normal, <input type="checkbox"/> Filter guard fire, <input type="checkbox"/> Smoke detector error*, <input type="checkbox"/> T (connected to timer)
D12	Not active	<input type="checkbox"/> Min flow, <input type="checkbox"/> Boost flow, <input type="checkbox"/> Max flow, <input type="checkbox"/> Kitchen mode*, <input type="checkbox"/> ECO*, <input type="checkbox"/> Stove mode*, <input type="checkbox"/> Fire input*, <input type="checkbox"/> Fire damper*, <input type="checkbox"/> AHU. On/Off, <input type="checkbox"/> Normal, <input type="checkbox"/> Filter guard fire, <input type="checkbox"/> Smoke detector error*, <input type="checkbox"/> T (connected to timer)
D13	Not active	<input type="checkbox"/> Min flow, <input type="checkbox"/> Boost flow, <input type="checkbox"/> Max flow, <input type="checkbox"/> Kitchen mode*, <input type="checkbox"/> ECO*, <input type="checkbox"/> Stove mode*, <input type="checkbox"/> Fire input*, <input type="checkbox"/> Fire damper*, <input type="checkbox"/> AHU. On/Off, <input type="checkbox"/> Normal, <input type="checkbox"/> Filter guard fire, <input type="checkbox"/> Smoke detector error*, <input type="checkbox"/> T (connected to timer)
D16	Not active	<input type="checkbox"/> Min flow, <input type="checkbox"/> Boost flow, <input type="checkbox"/> Max flow, <input type="checkbox"/> Kitchen mode*, <input type="checkbox"/> ECO*, <input type="checkbox"/> Stove mode*, <input type="checkbox"/> Fire input*, <input type="checkbox"/> Fire damper*, <input type="checkbox"/> AHU. On/Off, <input type="checkbox"/> Normal, <input type="checkbox"/> Filter guard fire, <input type="checkbox"/> Smoke detector error*, <input type="checkbox"/> T (connected to timer)
D17 (is only displayed if a heat source other than electricity is selected)	Not active	<input type="checkbox"/> Min flow, <input type="checkbox"/> Boost flow, <input type="checkbox"/> Max flow, <input type="checkbox"/> Kitchen mode*, <input type="checkbox"/> ECO*, <input type="checkbox"/> Stove mode*, <input type="checkbox"/> Fire input*, <input type="checkbox"/> Fire damper*, <input type="checkbox"/> AHU. On/Off, <input type="checkbox"/> Normal, <input type="checkbox"/> Filter guard fire, <input type="checkbox"/> Smoke detector error*, <input type="checkbox"/> T (connected to timer)
D14	TF omr.	<input type="checkbox"/> SA fan EC
D15	TF omr.	<input type="checkbox"/> EA fan EC, <input type="checkbox"/> Not active
Alarm delay SA	30 sec	_____ sec
Alarm delay EA	30 sec	_____ sec
2.16.2.1. Timer		
Time	0 hour, <input checked="" type="checkbox"/> 0 min	_____ h (0

			<input type="checkbox"/> Section hatch, <input type="checkbox"/> Sum alarm A, <input type="checkbox"/> Sum alarm B, <input type="checkbox"/> Sum alarm C, <input type="checkbox"/> Smoke detector
	DO4	Not active	<input type="checkbox"/> KAVK, <input type="checkbox"/> ULS, <input type="checkbox"/> Sum alarms, <input type="checkbox"/> CP heater, <input type="checkbox"/> CP chiller, <input type="checkbox"/> Normal flow, <input type="checkbox"/> Fire damper, <input type="checkbox"/> PWM preheat, <input type="checkbox"/> Stove, <input type="checkbox"/> Section hatch, <input type="checkbox"/> Sum alarm A, <input type="checkbox"/> Sum alarm B, <input type="checkbox"/> Sum alarm C, <input type="checkbox"/> Smoke detector
	DO5	Not active	<input type="checkbox"/> KAVK, <input type="checkbox"/> ULS, <input type="checkbox"/> Sum alarms, <input type="checkbox"/> CP heater, <input type="checkbox"/> CP chiller, <input type="checkbox"/> Normal flow, <input type="checkbox"/> Fire damper, <input type="checkbox"/> PWM preheat, <input type="checkbox"/> Stove, <input type="checkbox"/> Section hatch, <input type="checkbox"/> Sum alarm A, <input type="checkbox"/> Sum alarm B, <input type="checkbox"/> Sum alarm C, <input type="checkbox"/> Smoke detector
	DO6	Not active	<input type="checkbox"/> KAVK, <input type="checkbox"/> ULS, <input type="checkbox"/> Sum alarms, <input type="checkbox"/> CP heater, <input type="checkbox"/> CP chiller, <input type="checkbox"/> Normal flow, <input type="checkbox"/> Fire damper, <input type="checkbox"/> PWM preheat, <input type="checkbox"/> Stove, <input type="checkbox"/> Section hatch, <input type="checkbox"/> Sum alarm A, <input type="checkbox"/> Sum alarm B, <input type="checkbox"/> Sum alarm C, <input type="checkbox"/> Smoke detector
	DO7	Sum alarm	<input type="checkbox"/> Not active <input type="checkbox"/> KAVK, <input type="checkbox"/> ULS, <input type="checkbox"/> CP heater, <input type="checkbox"/> CP chiller, <input type="checkbox"/> Normal flow, <input type="checkbox"/> Fire damper, <input type="checkbox"/> PWM preheat, <input type="checkbox"/> Stove, <input type="checkbox"/> Section hatch, <input type="checkbox"/> Sum alarm A, <input type="checkbox"/> Sum alarm B, <input type="checkbox"/> Sum alarm C, <input type="checkbox"/> Smoke detector
2.16.3.1. Invert DO			
	DO3	No	<input type="checkbox"/> Yes
	DO4	No	<input type="checkbox"/> Yes
	DO5	No	<input type="checkbox"/> Yes
	DO6	No	<input type="checkbox"/> Yes
	DO7	No	<input type="checkbox"/> Yes
2.16.4. Analog outputs			
	AO3 Heating	0.0 V – 10.0 V	_____ V – _____ V
	AO4 Cooling	0.0 V – 10.0 V	_____ V – _____ V
2.17. Modbus			
	Modbus communication	Active	<input type="checkbox"/> Not active
	Modbus TCP	On	<input type="checkbox"/> Off
	Modbus Address	1	_____
	Baud rate	9600 bps	<input type="checkbox"/> 4800 bps, <input type="checkbox"/> 14k4 bps, <input type="checkbox"/> 19k2 bps, <input type="checkbox"/> 28k8 bps, <input type="checkbox"/> 38k4 bps, <input type="checkbox"/> 57k6 bps, <input type="checkbox"/> 76k8 bps, <input type="checkbox"/> 115k2 bps
	Format	801	<input type="checkbox"/> 8N2, <input type="checkbox"/> 8E2, <input type="checkbox"/> 8O2, <input checked="" type="checkbox"/> 8N1, <input type="checkbox"/> 8E1
2.18. TCP/IP			
	DHCP	Yes	<input type="checkbox"/> No
	Current IP ->		
	IP	192.168.001.234	_____
	Current subnet mask	255.255.255.000	_____
	Current gateway	192.168.001.001	_____
	Current DNS	192.168.001.001	_____
2.19. EXOline address			
	Address		
	PLA	254	_____
	ELA	30	_____
2.20. External display			
	Activate external display	No	<input type="checkbox"/> Yes
	Port	2	_____
2.20.1. Setpoint adjustment			
	Max	3,0	

<input checked="" type="checkbox"/> Activate EA fan		Yes	<input type="checkbox"/> No
2.23. Filter timer			
Activate Filter timer		Yes	<input type="checkbox"/> No
Number of days since start		(Current value)	_____
2.24. Cloudigo			
Activate Cloudigo		No	<input type="checkbox"/> Yes
2.25. Save settings			
Save current settings		No	<input type="checkbox"/> Yes
2.26. User menu			
Temperature		On	<input type="checkbox"/> Off
Mode		On	<input type="checkbox"/> Off
Timer		On	<input type="checkbox"/> Off
In/outputs		On	<input type="checkbox"/> Off
Hand/Auto		On	<input type="checkbox"/> Off
Alarm history		On	<input type="checkbox"/> Off
Load settings		On	<input type="checkbox"/> Off
2.27. Zones			
Activate 2 Zones		No	<input type="checkbox"/> Yes
2.27.1. Configure external display			
Configure Livingroom (Connect ONE external display)			
Configure		No	<input type="checkbox"/> Yes
Configure Bedroom (Connect ONE external display)			
Configure		No	<input type="checkbox"/> Yes
2.28. Change Alarm Class			
Alarm			
Sensor error OD temp		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error SA temp		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error EXT temp		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error EA temp		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error Room temp		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error FRP temp		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Freeze protection alarm		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Supply fan failure		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Extract fan failure		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Preheat damper manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Electric heater overheated		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Filter guard DI8		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Chiller manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Heater manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
By-pass manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
ULS manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
KAVK manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
P1-heating manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
P1-cooling manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
SA fan manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
EA fan manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
SA controller manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Internal battery failure		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Filter alarm		Inactive	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> C
Fire damper alarm		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Fire alarm		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error TG-R4		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Warning low supply temp		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Preheat electric manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Supply air temp low		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Duct heater manual		C	<input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> Inactive
Sensor error duct heater		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive
Sensor error temp. after exch.		A	<input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> Inactive

2.1. Control function

2.1.1. Control functions

Selectable features:

- SA control: The temperature is regulated by the SA sensor only.
- ODT comp. SA control: The temperature is regulated as a function of the SA sensor and OD sensor.
- Casc. Room control: The temperature is regulated as a function of the room sensor and SA sensor.
- Casc. EA control: The temperature is regulated as a function of the EA sensor and SA sensor.

2.1.1.1. When cascade control max/min SA setpoint

This function is only active when cascade room control and cascade exhaust air control is used. The rooms desired set point is set on the room sensor if room control and on the EA sensor if EA control. The system calculates a new supply air (SA) set point based on the control error. In the extreme case (if large control error) this could be very high (or low), which could generate too cold or hot supply air, which could feel uncomfortable. It is possible to limit the SA set point both up and down.

2.1.2. Set point adjust

The menu "Set point adjust" is used together with room sensor with set point adjust included, like Remote panel

2.2.1.2. CO2-control

Menu for setting the CO2 setpoint

2.2.1.2.1. PI-settings CO2

Setting of control parameters.

2.2.1.3. Humidity-control

Menu for setting the humidity setpoint

2.2.1.3.1. PI-settings RH

Setting of control parameters.

2.3. Fan setup

2.3.1. Fan control

Selectable features:

- Fixed Speed: The fan is running with a fixed %-value of the maximum speed.

2.3.2. Fan speeds

Menu group for fan speeds. When adjusting, you can balance the correct flows by changing the setting for resp. fan.

2.3.2.1. Supply air fan

In this menu, you set the setpoints for the speeds of the supply air fan, corresponding to the various operating modes.

Fan speed night cooling

The value for night cooling is, on delivery, the same as normal mode. If the value for normal mode is changed, the value for night cooling will be changed too, unless the value for night cooling is actively set to something else. To get them synchronized again, set the night cooling value at the same value as normal mode.

2.3.2.1.1. Delay SA fan

Menu for setting the supply air fan start and stop delay.

2.3.2.2. Extract air fan

Menu like 2.3.2.1. but for the exhaust fan.

2.3.2.2.1. Delay EA fan

Menu like 2.3.2.1.1. but for the exhaust fan.

2.4. Temperature control

In this menu group, you can adjust the control parameters for the different temperature controllers. All controllers are of the PI type with adjustable P-band and I-time.

Setting the controllers

In most cases, it works with the default setting, but if you see a need for it, you can adjust it. Warning! At the same time, an incorrect setting can cause the system to function very badly. It is the same supply air regulator in all three cases above. A change follows if you change the control function.

What is P and I?

P-band is the temperature change needed to move the actuator from closed to fully open. A small P-band (= large gain) causes an unstable system. A small temperature change on the sensor generates maximum heat and provides large overshoots. A large P-band (low gain) on the other hand provides smaller overshoots but will take longer before the correct value is reached.

Including an integrator (I-value) in the control loop will provide smaller overshoots. The gain decreases the closer the set point comes.

2.4.1. SA control

The supply air regulator is indirect acting, i.e., the output signal increases with decreasing temperature. With the correct P and I parameter, the temperature at the supply air sensor will be kept constant at the set setpoint.

2.4.2. Room control

The room regulator works together with the supply air regulator in so-called cascade regulation. A deviation in room temperature compared to the set point generates a shift of the operating point of the supply air regulator so that the deviation is eliminated.

2.4.3. EA control

The exhaust air regulator works together with the supply air regulator in so-called cascade regulation. A deviation in exhaust air temperature compared to the set point generates a shift of the operating point of the supply air controller so that the deviation is eliminated.

2.4.4. SA Control Livingroom

See section 2.4.1.

2.4.5. Room control Livingroom

See section 2.4.2.

2.4.6. Preheat control

Preheater control parameters.

2.5. PID output

2.5.1. PID output (Heating, Bypass, Cooling)

Here the output from the SA controller is displayed, divided between the three outputs cooling, bypass and heating. The output from the SA controller 0-100% is divided between the outputs as follow.

Controller output (PID-output)	Cooling	By-pass	Heating
0			

2.5.2. PID output preheat

Menu showing pre-heat output.

2.5.3. PID output duct heater

The line "Heating" shows the equipment of the duct heater. When this has reached 100% and the living room still has not reached its setpoint, the bedroom's setpoint is shifted (increased) little by little, causing the unit's built-in heater to increase so that the living room's setpoint is reached. How many degrees the displacement is now can be seen on the last line.

2.6. ECO/ECO2

ECO-mode

- ECO can be used together with all control functions.
- ECO saves energy when nobody is at home. The fans go down to minimum flow.
- ECO means that the fans, when they go on min. flow, increase speed up to normal flow, to carry more heat or cool if min. flow cannot hold the set point.
- ECO-boosting together with cooling works even without cooler. The AHU takes cold air through the bypass only and will cool as far as possible.
- ECO-mode can be activated in different ways, either by a manual switch connected to a digital input or automatically according to a time schedule. ECO can also be activated manually in the mode menu.

ECO2-mode

- ECO2 is used only together with EA and room -control.

- ECO2 means that the fans increase the speed more than with ECO alone. They increase all the way to boost-flow, to carry more heat or cool if actual flow cannot hold the set point.
- ECO2-boosting together with cooling, works even without cooler. The AHU takes cold air through the bypass only and will cool the room as far as possible.
- ECO2 works just as well in ECO mode (when nobody home), as it does when you are at home and the unit is running at normal flow.
- ECO2-boosting together with cooling can be turned off, if you want boosting together with heating only.

ECO-adjusting

- ECO-adjusting is only active with EA- and room-control.
- ECO-adjusting needs ECO to be activated.
- ECO-adjusting indicates a temperature range where heat and cool is inactive. E.g., with ECO-adjust 2 °C and a set temp of 20 °C, the heat and cool will be inactive between 18 °C and 22 °C.

Safe mode

- To make it possible to heat/cool with air, it is necessary that enough heat/cool is available through the heater/cooler.
- Safe mode is an extra protection function that blocks the boosting, in the event of lack of heating / cooling media. The aim is to bring as little unwanted cooling / heating to the apartment as possible during a possible unit failure, but still have some ventilation. The fans regulate down towards minimum flow, pending the return of heating / cooling media. It is a continuous regulation, which means that if there is not enough heat/cool, the fans speed up only as much as the heat/cool allows to give a positive heat/cool supplement.
- In the absence of heating media, the unit gives the alarm "Warning low supply air temp". See further at the point alarm delay below.
- Safe mode is only active in exhaust and room control and if ECO and / or ECO2 are installed at the factory. The setting menus for this are displayed only if ECO and / or ECO2 are installed.

2.6.1. Activate ECO2 cooling.

If you wish to use ECO2 cooling, change No to Yes.

2.6.2. Temp. diff.

In this menu, you set how fast the fans shall increase to boost flow. There is a dead band, before the fans start to increase at all. I.e., this is how much the actual temperature may differ from the set point before the fans start to increase the flow. The same dead band applies to both heat and cold.

The value for heat and resp. cooling means how many degrees further, in addition to the deadband, which the actual value is allowed to deviate before the fans must have reached forced flow. The fans advance proportionally to the temperature deviation within the range specified.

2.6.3. Temp. diff for increase to boost.

Here you specify how much warmer (or colder) the supply air must be to allow boosting. Example: with a setting for heat 1 degree, the fans will start to regulate towards minimum flow when the supply air temperature is one degree above the exhaust air, and then reach min flow when supply air and exhaust air temperature are equal.

The table below specifies how the fans regulate in different conditions.

ECO Factory setting	ECO2 Factory setting	ECO-mode	Heating requirement	Cooling requirement
-	-	-	Normal	Normal
Yes	-	-	Normal	Normal
Yes	-	Yes	Min → Normal	Min → Normal
-	Yes	-	Normal → Boost	Normal → Boost if ECO2 cooling is activated
Yes	Yes	-	Normal → Boost	Normal → Boost if ECO2 cooling is activated
Yes	Yes	Yes	Min → Boost	Min → Normal and → Boost if ECO2 cooling is activated

2.6.4. Alarm delay.

In the absence of heating media, the unit gives the alarm "Warning low supply air temp" when the fan speed has been at min-flow as standard for at least 5 min. The time can be set in this menu. The alarm is acknowledged and returns automatically as soon as the heat returns. No alarm is given in the absence of cooling.

Screen view at boosting and ECO.

At fan speed between min and normal: ECO.
At fan speed normal: Normal.
At fan speed between normal and boost: ECO2.

Example of fan curve at ECO, ECO2 and ECO+ECO2 (The value below is used in the example).

NOTE! ECO is only permitted when nobody is at home.

With no ECO-functions activated the fans work at normal flow all the time.

The following values have been used in the example below.

ECO adjust: 2,0°C

Dead band: 0,5°C

Temp diff. heating: 1,0°C

Temp diff. cooling: 2,0°C

ECO2 cooling activated

2.7. Heater

2.7.1. Type of heater.

In this menu, you select the type of reheater that is installed in the unit.

2.7.1.1. Electric.

The only setting for electric heating is the period time.

Example: With a heat distribution of 50% and a period time of 60s, this means that the heat is switched on for 30 s and then switched off for 30 s, etc.

Electric heating controls both digital output DO3 (PWM) and analog output AO3 (0-10V).

2.7.1.2. Water (PWM)

Water (PWM) is intended for so-called wax actuators of the ON/OFF type which are controlled proportionally with a PWM signal.

Freeze protection control.

Water heating entails a risk that the water may freeze if the hot water supply fails. Therefore, the AHU is equipped with a freeze protection sensor and a freeze protection controller.

The water temperature is measured close to the water heater with a freeze protection sensor (PT1000) clamped on the return pipe and then isolated.

There is a freeze protection control 0-100% according to a linear scale, between start value and alarm temperature plus 1 degree. The heat level will be whichever is the higher of the normal temperature controllers

At set alarm temperature a freeze protection alarm is generated and both fans will be stopped, outdoor air damper (ULS) and bypass will close. The heat valve will still be open and the circulation pump for heat continues to run. The alarm can be acknowledged whatever freeze protection temperature, and the alarm output will then return. To get the AHU running again, the freeze protection temperature needs to be

Here, the total run time is stated from open to closed or vice versa. The system can then easily set the desired degree of opening. The menu also shows the calculated current opening in percent.

2.9.2. Bypass limit for opening.

The default setting is that the bypass damper cannot open if minus degrees when it comes to the temperature control. If you want to change this, set at what outdoor temperature, bypass will be allowed to open if necessary. There is also an adjustable hysteresis, to prevent the bypass from open and close all times, if the temperature is around 0 degrees (default setting).

However, there are circumstances that do not take this limit into account, for example:

- Bypass opens by the function "hand/auto".
- Freeze protection is active.
- Stop defrosting in progress.

2.9.3. Activate ramptime.

During defrosting, the bypass opens so that the cold outside air passes the exchanger for a while so that the warm exhaust air can defrost the exchanger. At the same time, the heating battery increases to compensate. Bypass normally opens faster than the heat has time to increase. Therefore, there is an adjustable ramp time for the bypass, so it opens a little slower when defrosting. The function can also be deactivated or always active.

2.10. Cooling recovery

If cooling is required, the heat exchanger can use the cool air that is already in the house to cool warm incoming air. If cooling recovery is activated and extract air temperature is a set number of degrees lower than the outdoor temperature, cool indoor air will be recovered.

How it works

The bypass is affected by the relationship between outdoor air and extract air. See how the bypass damper is regulating in the table below.

Requirement	Cool	Cool	Heat	Heat
OD air	>EA+2	<EA+2	>EA+2	<EA+2
Bypass	Regulates towards closed to cold exchange the cooler inside air.	Regulates towards open to cool with the colder outside air.	Regulates towards open to heat with the warmer outside air.	Regulates towards closed to heat exchange the warmer inside air.

2.11. Night cooling

Night cooling means that at night during the warmer season, cold outdoor air is taken directly into the house to cool down the house and buffer for the warm day ahead.

Night cooling is recommended if warming with air, like EA or room control. But it is also possible to use together with supply air control, as the AHU switches to EA control when night cooling (including after time) is active. This works on conditions that the normal heating equipment has been turned off.

Activating night cooling.

For night cooling to work, it must be activated.

Extended running time.

The heat is off during the part of the extended running time that is within the night cooling activating time. The remaining time the heat is controlled with the room temperature set in the menu "conditions night cooling" as set point. (This to save the newly acquired cool air). If the extended running time would encroach on next day's activating time, night cooling will have priority. If the conditions for night cooling no longer are fulfilled within the activating time, the extended running time will start at this point. If the conditions should be fulfilled again before the activating time ends, night cooling will start again, and the extended running time resets itself.

The last row in the menu shows if the activating time is active or not. It is also possible to reset an ongoing extended running time. (If the extended running time is set to 0 hour the time will be 1 min, which makes it easy to test the functions).

Boost cooling.

During the time night cooling is active, boost cooling is disabled. (See chapter ECO including safe mode). Default 22:00 to 06:00. Even if night cooling has ended because the conditions no longer are fulfilled, boost cooling is disabled during the time stated.

In the standard case the fans will run at the same speed (normal speed) all night long (22:00-06:00). In the morning boosting is allowed but still with a low set point (18 degrees) until the extended running time (4 h) has ended, which will be at 10:00h.

2.11.1. Conditions night cooling.

In this setup menu you configure the temperature conditions for night cooling to be active.

temperature happens to be the set value. If stop temperature is set lower than start temperature, the start temp will have priority as both start and stop temp.

2.15. Brandfunktion

This function is used to adjust the fans in the event of a fire so that they evacuate fire gases and to adjust the fire damper to the appropriate positions. This menu is only displayed if Brand is activated at the factory.

Fire input

The fire input can be configured to normally open or closed.

This means that if you have configured normally open and get a closure (alarm), the unit is put in fire mode and the alarm output is activated.

You can choose if you want the fire dampers to be exercised (tested). If you want them to be exercised, you also have the choice of whether the unit should stop or not during the exercise.

Fire damper function

The fire damper function can be configured open, closed or not active.

2.15.1. Exercise fire damper

To ensure that the fire dampers really work in the event of a fire, the dampers can be exercised (tested) at regular intervals. The exercise interval is adjustable. To make this function possible, the fire dampers are equipped with limit switches. During fire damper exercise, it will be checked that the dampers reach their end positions and that the end position switches work. If not, an alarm is activated.

The running time for the dampers can be set. This is the maximum time that is allowed to take for the damper to go from one end position to the other.

The number of days between the exercises can also be set. In addition, what time of day the exercise should take place. If you set it to 0, the exercise takes place at midnight.

Fire indication

There is also a special function to possibly reduce the number of false alarms if you have problems with that. The function sorts out alarms that are due to temporary smoke for some reason.

If it should be a real fire alarm, it is required that the smoke detector indicates smoke and that the extract air filter is clogged (by soot) to a certain limit (the pressure drop increased across the filter). This must then also take place within a certain adjustable time.

Example:

If you set the time to 15 minutes, the following applies:

When smoke is detected, a B-alarm (Fire indication) is activated, a timer starts, and the fans go to normal flow.

When the timer has expired (15min), the alarm is automatically acknowledged, and the smoke detector is reset by temporary interrupt the power to the detector.

If more smoke is detected when the timer is running (15min) nothing changes, (the smoke detector is already activated). The alarm is acknowledged when the timer has expired. The fans run in normal flow for another 15 minutes (same time as the first timer). All this time, in other words 30 minutes from the first smoke, the filter guard is monitored. If the filter becomes clogged within this time, the fire function is activated, fans and dampers go into fire mode.

If new smoke is detected after acknowledgment of the alarm (say after 16 minutes after the first smoke) the timer is restarted (the fans are then already running at normal flow).

To activate the function, configure one of the digital inputs to

2.16. I/O configuration

2.16.1. Analog inputs

Possibility to select function for respective. input UI1, UI2, UI3 and UI4.

ATTENTION!

Room sensor (automatically selected on UI1 during room control).

Freeze protection sensor (automatically selected on UI2 for water heating).

TG-R4 (automatically selected on UI3 at remote panel TG-R4).

Duct heating sensor (automatically selected on UI4 in case of zone heating).

2.16.2. Digital inputs

Possibility to select function for respective input DI1, DI2, DI3, DI6 and DI7.

Priority order for functions and inputs.

No.1 has the highest priority.

1. Aggr. on/off regardless of whether it is configured to any input or to the time channel.
2. Fire alarm and Fire damper regardless of which inputs they are configured.
1. Any of other functions connected to DI6
2. Any of other functions connected to DI3
3. Any of other functions connected to DI2
4. Any of other functions connected to DI1
7. Timer (all functions except Aggr. On/off. See prio 1).

Configuring fan type

On DI4 and 5 it is possible to select different types of feedback signal from the fan. These are normally configured from the factory and should not be changed.

It is also possible to disconnect the feedback signal from the exhaust fan to avoid alarms if an external exhaust fan is used without a feedback signal.

There is an adjustable alarm delay for the fan alarms.

2.16.2.1. Timer

A timer could be connected to any of the inputs if a T is activated at any of the rows. There is only one timer. All functions except Not active, Fire damper, Fire alarm and Stove mode can have timer connected.

Connection of timer to desired function

When you have gone through the rows and selected functions for the inputs, the cursor will make one more loop and there is a possibility is to put a T against any of the rows. Use arrow up and down to connect the timer to a specific row. A

Start of stove timer.

A momentary switch (which is included when ordering the stove function) is connected to the selected input according to above. When you press the switch, the stove function starts, and the timer starts to count down. To cancel the function, push the switch again. Both startup time and cooldown time resets then.

Visual indication.

On the switch that comes with the function, there is also an indicator lamp that is connected to any digital output. The relay toggles during the startup time 5s on and 5s off. During the cooldown period the relay is constant on. The display shows "Stove mode" during the startup time and during the cooldown period it toggles between "Normal" and "Stove cooldown".

Using stove together with EA-control or room control.

To reduce the risk of blowing cold air from the ventilation system in connection with the stove heating, the system ensures that during both the startup time and the cooldown time, the supply air temperature is at least equal to the set point.

2.16.3. Digital outputs

If needed, select function for output DO3, DO4, DO5, DO6 and DO7.

ATTENTION!

PWM preheater is automatically selected on DO4 in case of electric preheater.

PWM duct heater automatically selected on DO5 in case of zoned heating.

2.16.3.1. Invert DO

In some cases, it may be preferred that the alarm relay turns on immediately when the unit gets power, and instead switch off if there is an alarm.

This will generate an alarm if there is an interruption in the power supply.

In this menu one or more outputs can be inverted.

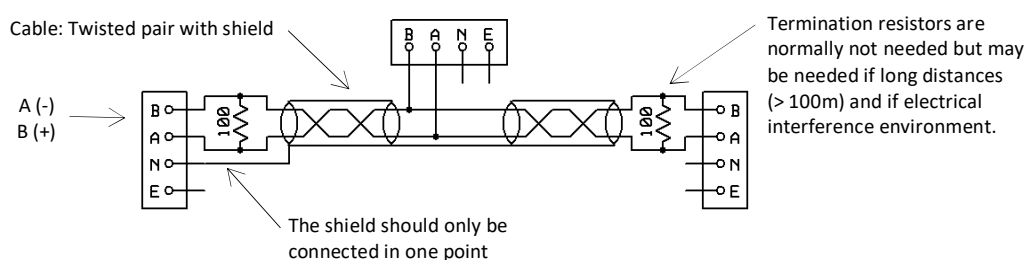
2.16.4. Analog outputs

If the valves do not have a 0-10V input (default), then there are free choices 0.0-10.0V or vice versa 10.0-0.0 in steps of 0.1V.

2.17. Modbus

Connection

Modbus via RS485.



As an alternative, Modbus is also available via the TCP / IP port!

Parameter settings

Modbus is activated by default on port 1, but if a remote panel is to be used, modbus must be deactivated.

Modbus via TCP is normally on but should be deactivated if you use a "public network" in cases where you connect the controller to the internet. This is to prevent outsiders from being able to read from the controller.

Complete Modbus list can be obtained from REC on request.

2.18. TCP/IP

Internet setting menu.

2.19. EXOline address

EXO line address setting menu.

2.20. Remote panel

There is only 1 port, and it is configured to Modbus by default. Thus, you cannot have both Modbus and a remote panel.

If a remote panel is ordered at the same time as the AHU, the configuration is done for remote panel at the factory. When ordering a remote panel as supplement later, the Modbus must be deactivated. Contact REC for help with this.

2.20.1. Set point adjust.

Here you can set the limits for how much setpoint adjust. you want to allow via the remote panel.

2.21. Set point adjust. TG-R4

TG-R4 activation menu.

When the TG-R4 is activated, the current setting is displayed on the bottom line.

2.22. Activate EA-fan

Not relevant for Blue (should not be changed).

2.23. Filter timer

The filter timer should not be deactivated!

If you would like to change the time to next filter change, is it possible to adjust the number of days since the timer started.

2.24. Cloudigo

Cloudigo is a system that allows to view and change parameters via the Internet. The system requires a subscription. Contact your supplier for more information!

2.25. Save settings

Here you save all current settings. Earlier saved settings will be lost. All settings are saved except date and time.

2.26. User menu

Use this menu to select which items that should be visible for the user. All items that are visible as default are selectable, except

2.27. Zones

The unit's standard heater heats the bedrooms, as well as pre-heats the living room. The temperature in the living room is raised slightly more than the bedroom temperature via a duct heater, which is also controlled by the AHU. The temperature in the living room is controlled via a remote panel with display. The temperature in the bedrooms can be controlled either via remote panel with display or via room sensor with setpoint adjustment (TG-R4). The set value in the living room is the highest priority. The temperature in the bedroom can be set to the same value as the living room or lower. If room sensors with setpoint adjustment (TG-R4) are used and the adjustment wheel is set in center position, the temperature in the bedroom will be equal with the setpoint for the bedroom. From there, the temperature can be raised or lowered as required within the set adjustment limits. The setpoint setting for the bedrooms that are higher than for the living room are ignored in the program and the value of the living room also applies to the bedrooms.

The AHU's normal supply air regulator will control the temperature in the bedrooms according to their setpoint, using the built-in heater and the by-pass damper. Another regulator, by means of an external duct heater, regulates the living room temperature against its setpoint. If the setpoint in the living room cannot be reached even though the duct heater is at 100%, then the temperature in the bedroom is adjusted so that the set point in the living room is reached (with the duct heater still at 100%).

If the living room setpoint cannot be maintained despite full heat on both the built-in heater and the duct heater, will ECO2 (if activated) boost the fans as usual.

Activate 2 zones.

For zone control to work, it must be activated.

2.27.1. Configure external display.

Since two remote panels will be connected on the same port, these must be configured as bedroom display and living room display. Plug in one remote panel at a time to configure. When the configuration is complete, "Idle" changes to "Config ok".

When both are configured, you connect both in parallel to the port.

Temperature menus.

When zones are activated, other temperature menus are displayed, see section

Notes:

Notes:

Notes:

Medlem i



Svensk Ventilation
Bransch i samverkan

Rec Indovent reserves the right to alter specifications and design without prior notice.



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