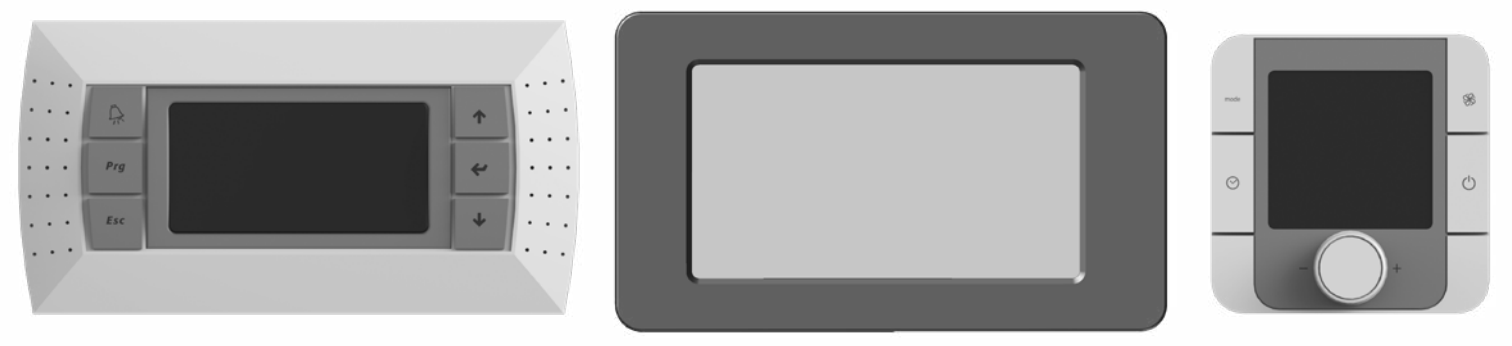


AUTOMATIC CONTROL SYSTEM FOR BLAUAIR

S37 (KVENT Medium)

EN *USER'S MANUAL*

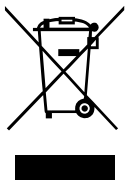
BLAUBERG

CONTENTS

This user's manual is a main operating document intended for technical, maintenance, and operating staff.
The manual contains information about purpose, technical details, operating principle, design, and installation of the S37 unit and all its modifications.
Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

SAFETY REQUIREMENTS

All operations described in this manual must be performed by qualified personnel only, properly trained and qualified to install, make electrical connections and maintain ventilation units.
Do not attempt to install the product, connect it to the mains, or perform maintenance yourself. This is unsafe and impossible without special knowledge.
Disconnect the power supply prior to any operations with the unit.
All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.
Disconnect the unit from the power supply prior to any connection, servicing, maintenance, and repair operations.
While mounting the unit, avoid compression of the casing!
Misuse of the unit and any unauthorised modifications are not allowed.
Do not expose the unit to adverse atmospheric agents (rain, sun, etc.).
Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.
Do not sit on the unit and do not put objects on it.
The information in this user's manual was correct at the time of the document's preparation. The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.
Never touch the unit with wet or damp hands.
Never touch the unit when barefoot.
BEFORE INSTALLING ADDITIONAL EXTERNAL DEVICES, READ THE APPROPRIATE USER MANUALS.



THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.

PURPOSE

The automatic control system is designed to control a range of different ventilation system configurations.
Control of different basic system elements, such as supply and exhaust fans, heat exchanger, air heater, cooler, air dampers is implemented.

The automatic control system does not provide for control of the electric air preheater, filters (no more than two per unit, one for supply air and one for exhaust air), reversible water heat exchanger, or rotary heat exchanger with frequency converter.

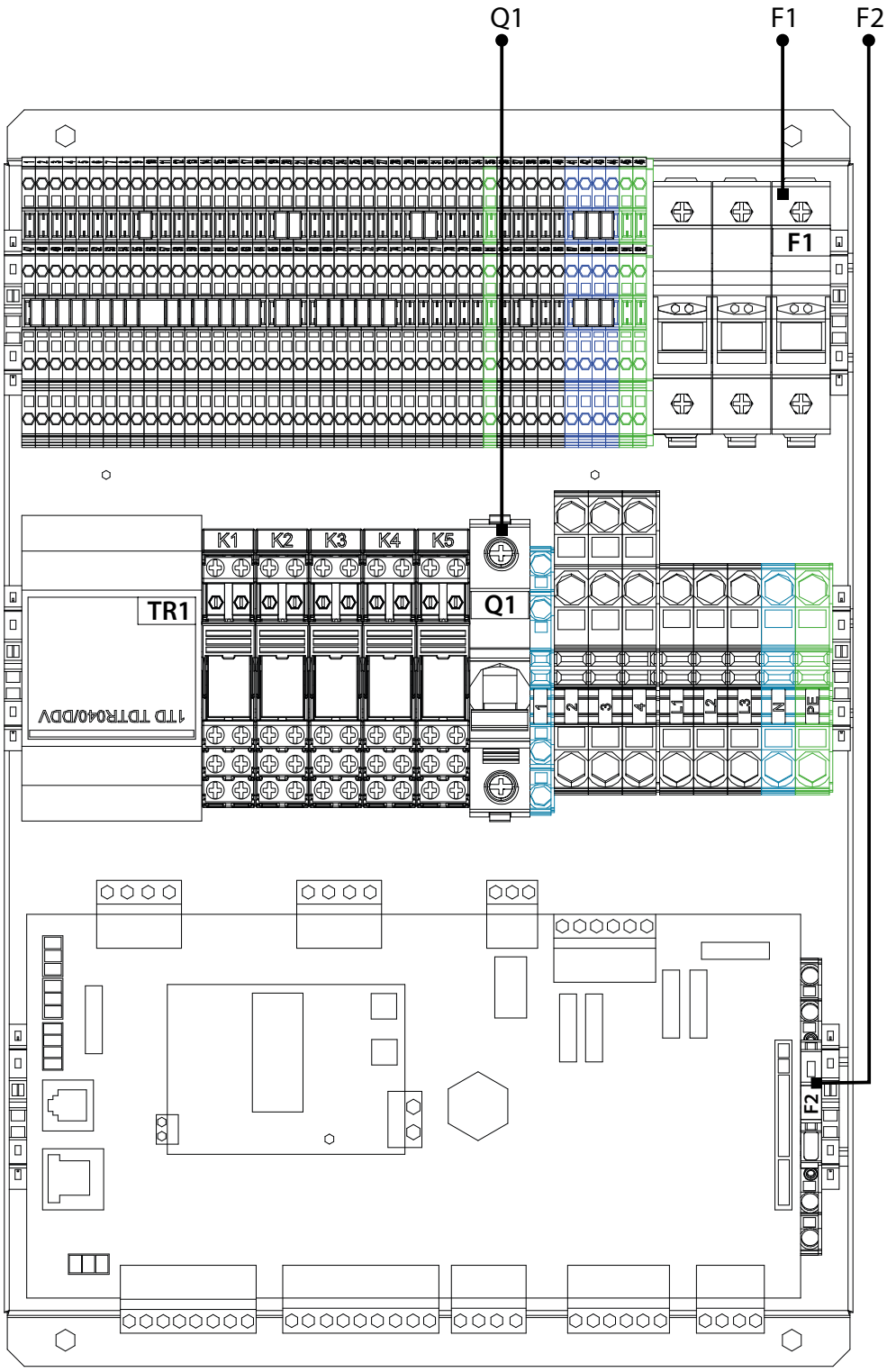
The automated unit includes a configurable controller with pre-installed software.
The controller can be configured for a custom layout of the ventilation system.
The panels are rated for continuous operation.

The functionality of the automatic control system is described in detail in the controller's user manual

Contact the unit supplier to receive the controller's user manual.

S37 (KVENT MEDIUM) CONTROL UNIT

Control unit
(general layout)



Designation	Function	Value
F1	Supply and exhaust fans' power supply protection	*
F2	Controller, sensors' and actuators' 24 VAC power supply protection	3.15A
Q1	Power supply protection of the 230 VAC digital outputs and actuators	16A

*The value is determined by the total current of the supply and extract fans delivered with the unit

Fan motor	Electr. parameters	Circ. Breaker
BL-B250E-EC01	230 VAC, 532 W, 2.4 A	6A
R3G250-PR04-H1	230 VAC, 500 W, 2.3 A	
BL-B310E-EC05	230 VAC, 700 W, 3.1 A	8A
R3G310-RS01-I1	230 VAC, 730 W, 3.2 A	
R3G355RJ7501	400 VAC, 1100 W, 1.7 A	6A
BY-B355E-EC-05	400 VAC, 1100 W, 1.7 A	
R3G500RL9601	400 VAC, 1320 W, 2.1 A	
R3G500-RA28-02	400 VAC, 3600 W, 3.9 A	10A

Replacement table of fuses and their analogs for 24 VAC controller, sensors and actuators power supply

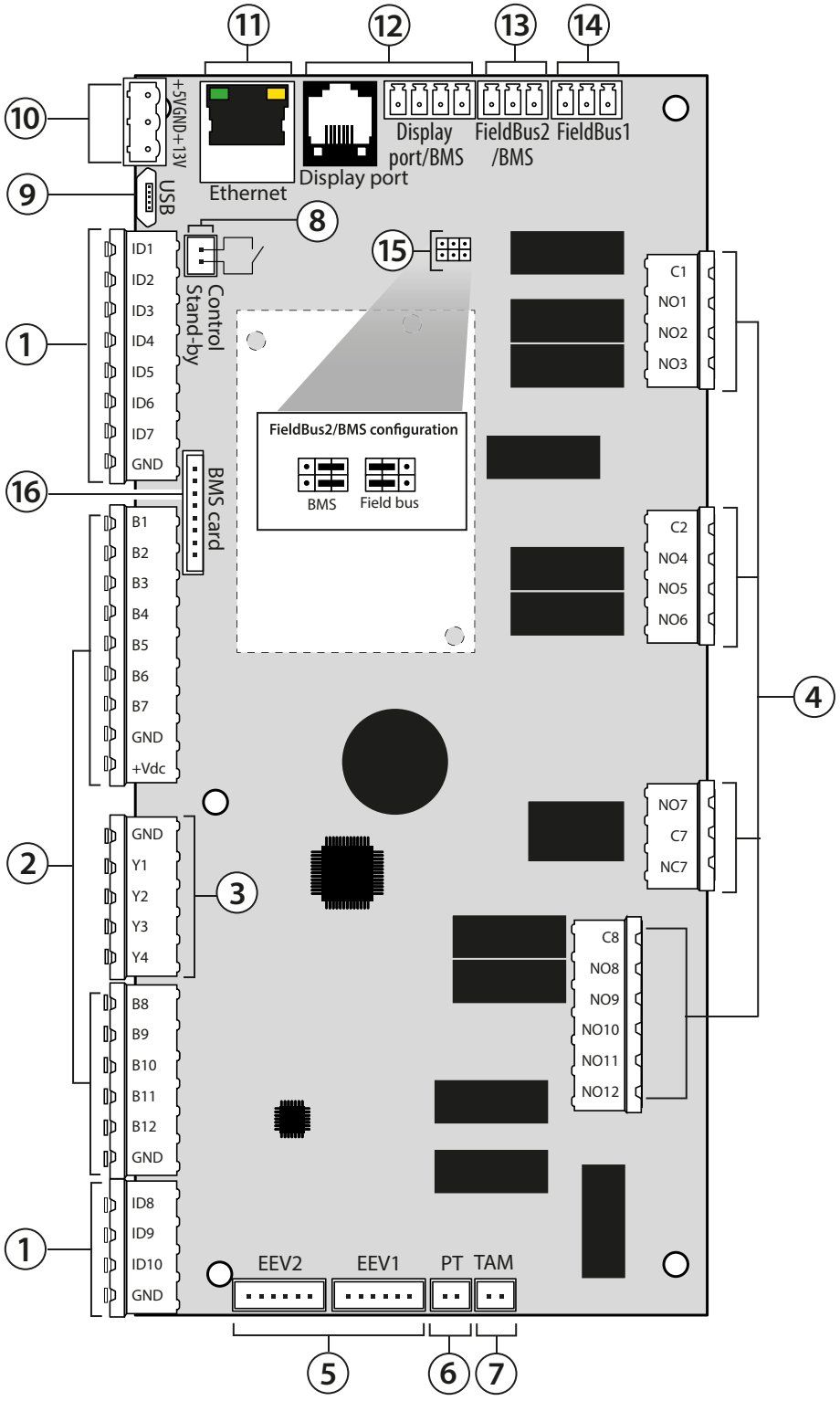
Rated current [A]	3,15		
Manufacturing factory	LITTELFUSE	EATON/BUSSMANN	ESKA
Equipment code	02183.15MXP	BK1-S506-3-15-	522.522
Breaking current	35A		
Circuit breaker size	5×20mm		
Circ. breaker characteristic	Slow		

Replacement table of fuses and their analogs for fan motor protection

Rated current [A]	6	
Manufacturing factory	ETI	DF ELECTRIC
Equipment code	2651004	420506
Breaking current	20 kA	20 kA
Circuit breaker size	8x32 mm	8x31 mm
Circ. breaker characteristic	gG	

Rated current [A]	8	
Manufacturing factory	ETI	DF ELECTRIC
Equipment code	2651005	420508
Breaking current	20 kA	20 kA
Circuit breaker size	8x32 mm	8x31 mm
Circ. breaker characteristic	gG	

Rated current [A]	10	
Manufacturing factory	ETI	DF ELECTRIC
Equipment code	2651006	420510
Breaking current	20 kA	20 kA
Circuit breaker size	8x32 mm	8x31 mm
Circ. breaker characteristic	gG	



Item	Description	Item	Description
1	Digital inputs	9	Micro USB to update applications, import and export settings and error log
2	Analog inputs	10	Power supply for external sensors
3	Analog outputs	11	Ethernet port
4	Digital outputs	12	Display port. It is also used for pGDx connection
5	Expansion valve control	13	BMS/Fieldbus2 port
6	Voltage input	14	BMS/Fieldbus1 port. It is also used for th-Tune connection
7	Current input	15	Jumpers for the BMS/Fieldbus2 port configuration
8	Standby mode control input	16	BMS card (not included in the delivery set; ordered separately) connector

WIRING

DISCONNECT THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
THE UNIT MUST BE CONNECTED TO POWER MAINS BY A QUALIFIED ELECTRICIAN.

ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED AND WILL VOID THE WARRANTY.

DO NOT LAY THE CABLE IN CLOSE PROXIMITY AND PARALLEL TO THE CONTROL PANEL CABLE!!
DO NOT COIL THE CONTROL CABLE IN LOOPS WHILE LAYING IT.

IT IS RECOMMENDED TO CHECK THE TIGHTNESS OF SCREW CLAMPS ON ELECTRICAL CONTACT CONNECTIONS EVERY SIX MONTHS AND TIGHTEN THEM IF NECESSARY

The unit is rated for connection to power mains according to the wiring diagram.

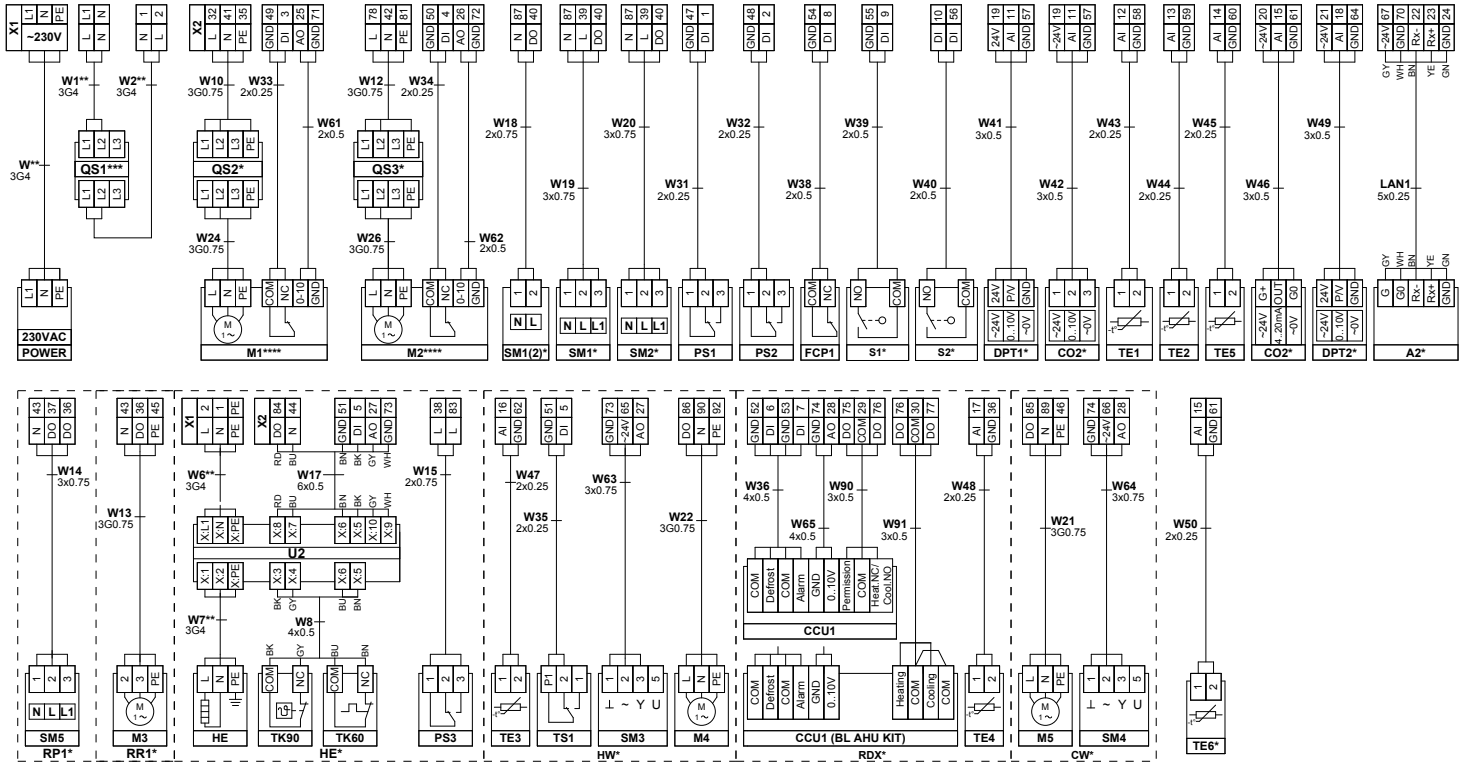
The connection must be made using durable, insulated and heat-resistant conductors (cables, wires). Conductor selection must be based on the maximum load current, maximum conductor temperature depending on the wire type, insulation, length and installation method.

To protect the power supply of the control unit, it is necessary to equip it with an automatic circuit breaker with a rated breaking current greater than or equal to the total current of all the loads in the unit's circuit.

The circuit breaker and the disconnecter are not included in the delivery set.

The cables must only be wired through the cable glands on the product.

External wiring diagram.
Unit equipped with single-phase fans and an electric heating elements section up to 5.1 kW (may not be included)



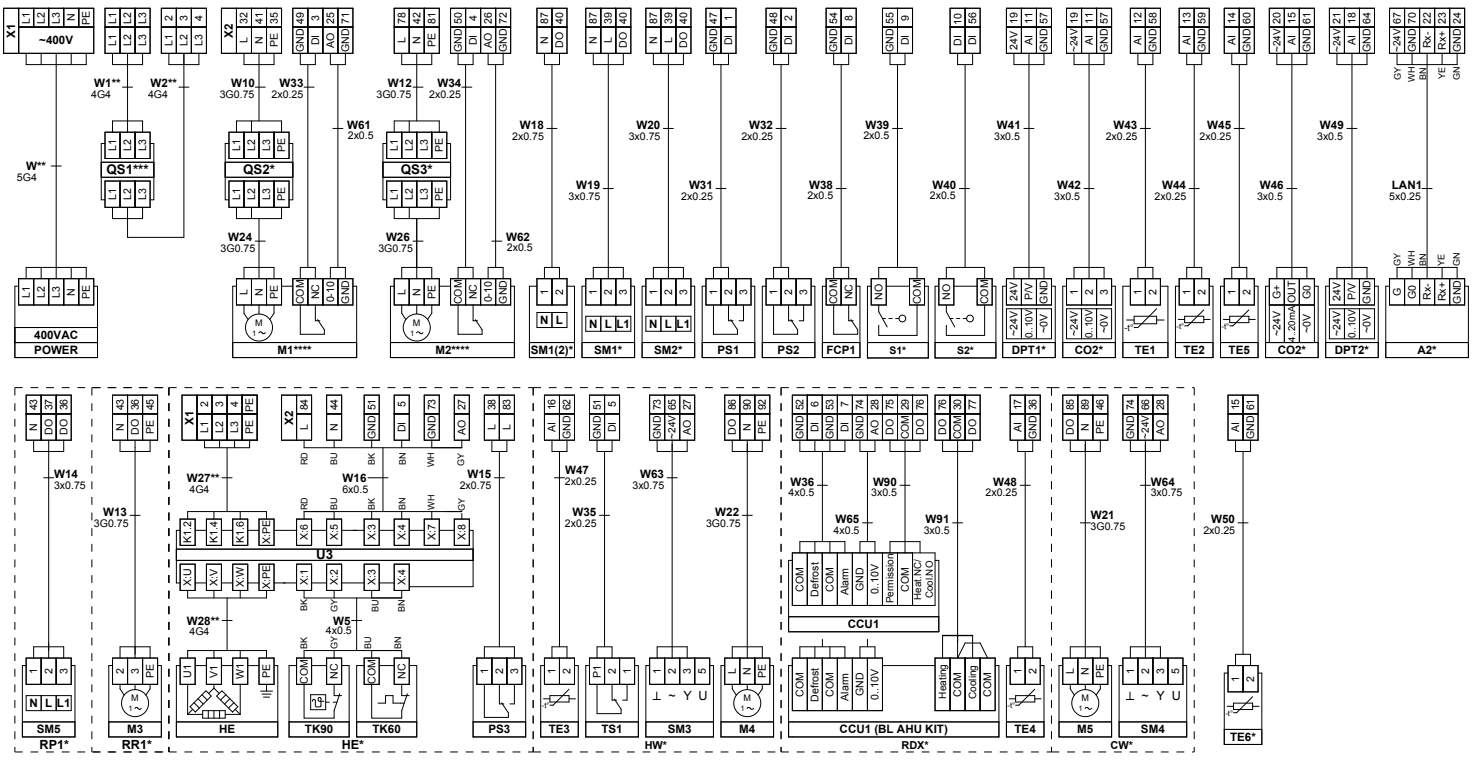
* Devices to be connected based on the order

** Provided that a 5.1 kW electric heating section is connected

*** If there is no three-pole load-break switch, a jumper of the corresponding cross-section must be installed instead

**** If the fan motor has a tacho output, a DTV500-OEM differential pressure relay is to be used to receive the "Alarm" signal

External wiring diagram.
Unit equipped with single-phase fans and an electric heating elements section up to 12 kW



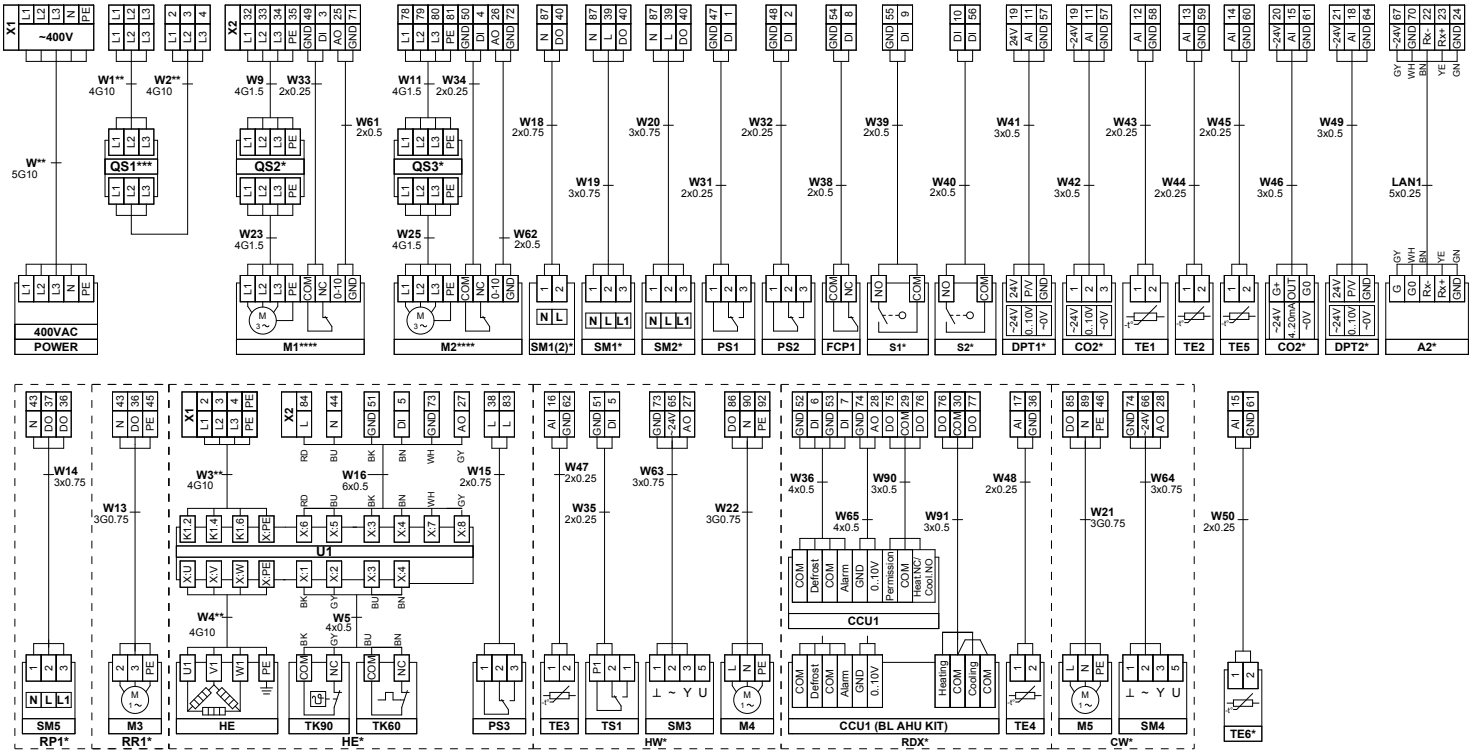
* Devices to be connected based on the order

** Provided that a 12 kW electric heating section is connected

*** If there is no three-pole load-break switch, a jumper of the corresponding cross-section must be installed instead

**** If the fan motor has a tacho output, a DTV500-OEM differential pressure relay is to be used to receive the "Alarm" signal

External wiring diagram.
Unit equipped with three-phase fans and an electric heating elements section up to 30 kW (may not be included)



* Devices to be connected based on the order

** Provided that a 30 kW electric heating section is connected

*** If there is no three-pole load-break switch, a jumper of the corresponding cross-section must be installed instead

**** If the fan motor has a tacho output, a DTV500-OEM differential pressure relay is to be used to receive the "Alarm" signal

External wiring diagram designation key

General equipment	
Designation	**Name**
A2	Control panel
CO2	Inline CO_2 sensor
DPT1, DPT2	CAV / VAV sensor
FCP1	Fire alarm (customer's equipment)
M1	Supply air fan
M2	Extract air fan
QS1	Three-pole load-break
S1, S2	Door limit switch
PS1	Supply air filter differential pressure switch
PS2	Extract air filter differential pressure switch
SM1	Supply air damper actuator
SM2	Exhaust air damper actuator
SM1(2)	Air damper actuator (common)
TE1	Intake air temperature
TE2	Extract air temperature
TE5	Supply air temperature in the duct
TE6	Exhaust air temperature

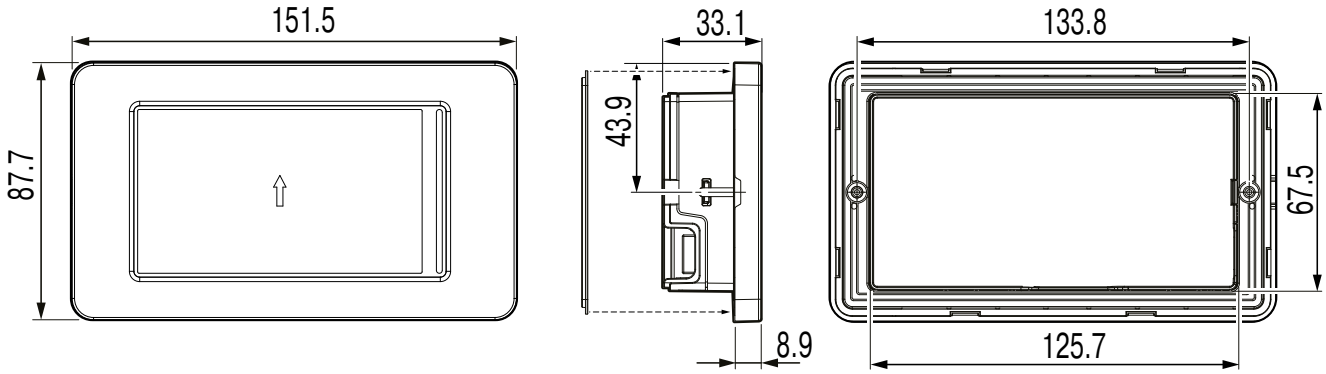
Additional equipment based on the order	
Designation	**Name**
Plate heat exchanger (RP1)	
SM5	Air damper actuator on the heat exchanger
Rotary heat exchanger (RR1)	
M3	Rotor motor
Electric heating (HE)	
PS3	Differential pressure switch on the supply air fan (protection)
TK60	Self-resetting thermal switch 60°C.
TK90	Button-driven thermal switch 60°C
U1(2)(3)	Heating power control board based on the section of electric heating elements installed in the unit
Water heating section (HW)	
TE3	Heating temperature of the back water flow
TS1	Water heater frost protection
SM3	Three-way heating valve actuator
M4	Heating circulation pump
RDX (reverse) heat exchanger section	
CCU1	Compressor and condenser unit
TE4	Temperature upstream the compresser and condenser unit
Water cooling section (CW)	
M5	Cooling circulation pump
SM4	Three-way cooling valve actuator

TECHNICAL DATA

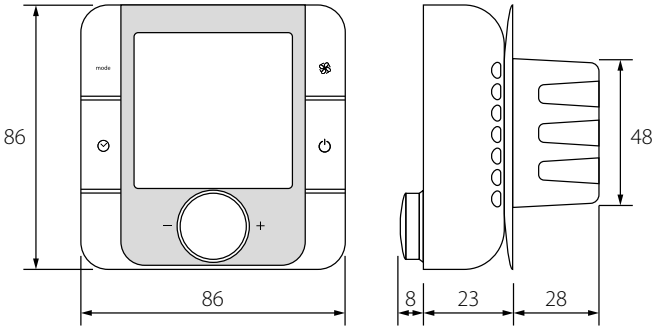
Technical parameters			
Parameter	**pGDx Touch 4.3" (S29/S49)**	**th-Tune (S30/S38)**	**pGNE (S32/S39)**
Storage temperature [°C]	-30...+70	-20...+70	-20...+70
Storage humidity [%]	10…85 @ 40 (no condensation)	10…90 (no condensation)	10…90 (no condensation)
Operation temperature [°C]	0...+50	-10...+60	-20...+60
Operation humidity [%]	10…85 @ 40 (no condensation)	10…90 (no condensation)	10…90 (no condensation)
Cable*	6-wire phone cable up to 10 m long; Power consumption, no more than 3 W.	AWG 20 or AWG 22 up to 500 m long	Phone cable up to 50 m long; AWG 22 twisted pair up to 500 m long
Ingress protection rating	IP20	IP20	IP40

* Included in the delivery set.

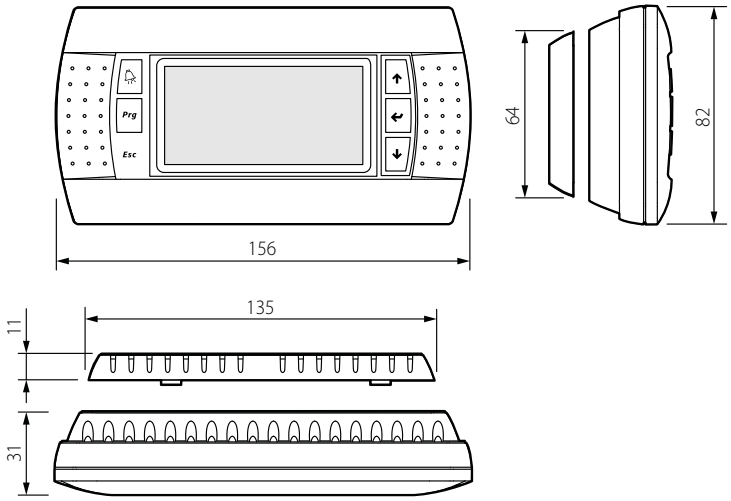
Overall dimensions of the pGDx controller



Overall dimensions of the thTune controller



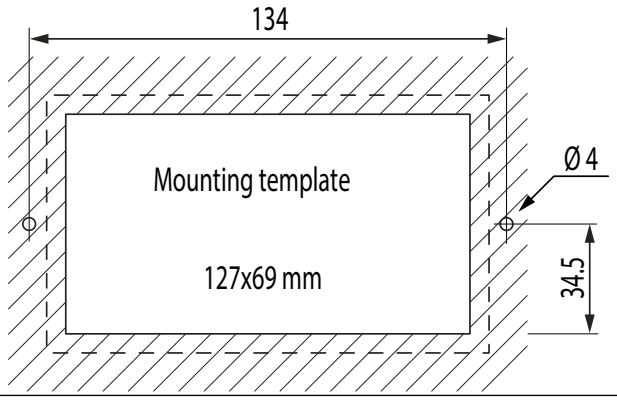
Overall dimensions of the pGNE controller



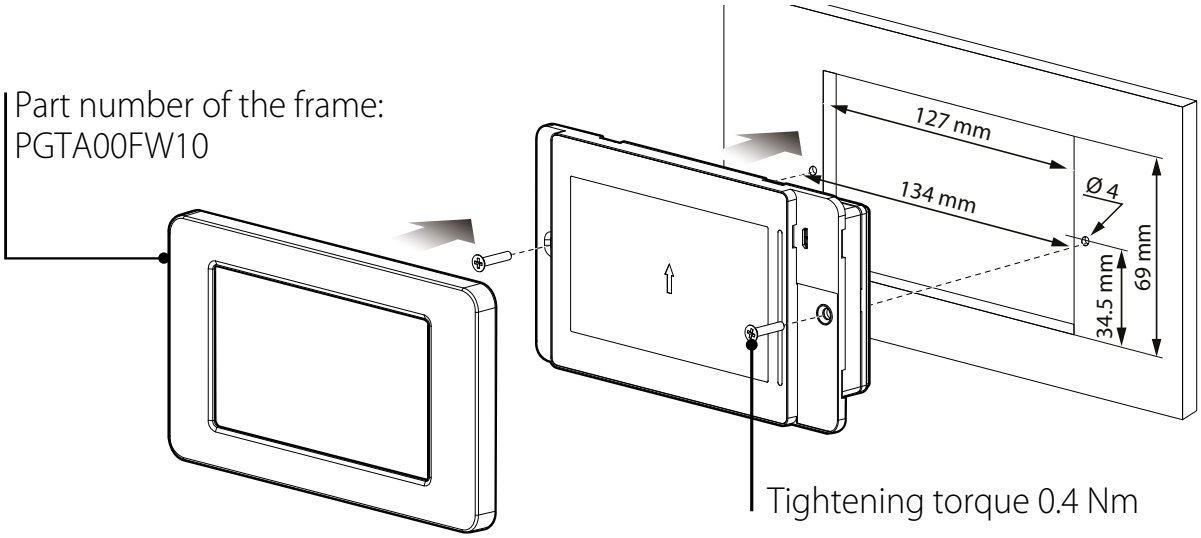
INSTALLATION AND SET-UP

INSTALLATION OF THE PGDX CONTROL PANEL

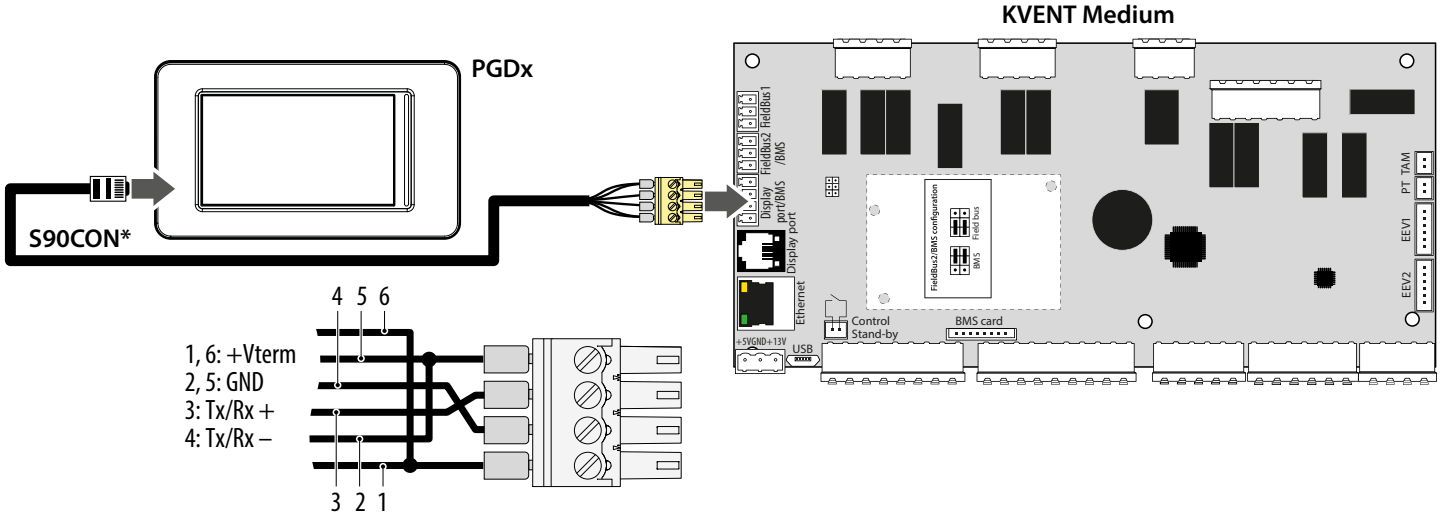
To mount the control panel in a wall partition, prepare the cutout and openings as shown in the picture below.



Use screws to secure the control panel in the partition and install the frame.
The frame should click into place when closed.



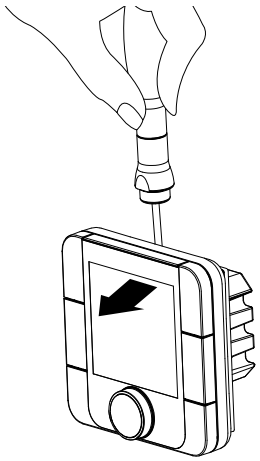
Connection to the controller



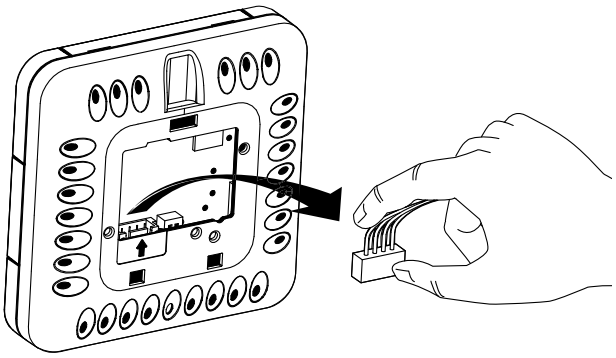
Installation of the th-Tune control panel

Use a mounting box of at least 65 mm in diameter and at least 31 mm deep to install the back side of the panel.

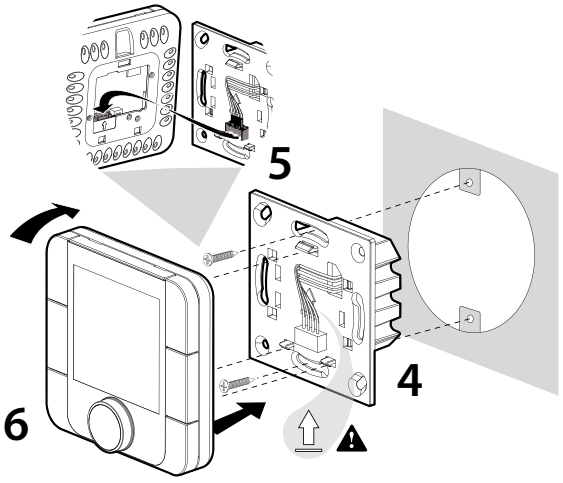
1. Use a screwdriver to separate the front and back sides of the control panel.

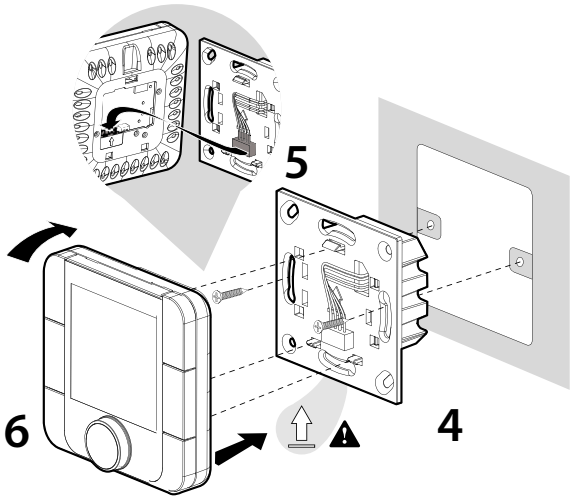


2. Disconnect the 4-pin connector from the front side of the control panel.

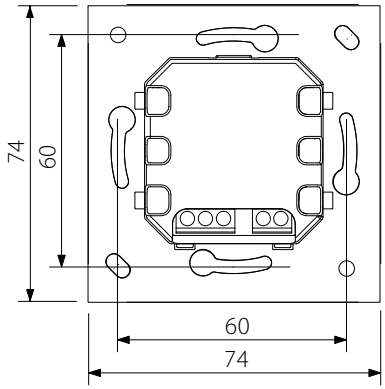


3. Complete the wiring as shown in the external wiring diagram.
4. Secure the back side of the control panel in the mounting box using the supplied screws.
5. Connect the 4-pin connector again.
6. Route all the cables inside the control panel starting bottom-to-top and install the control panel. The panel should click into place when closed.





Overall dimensions of the control panel [mm]

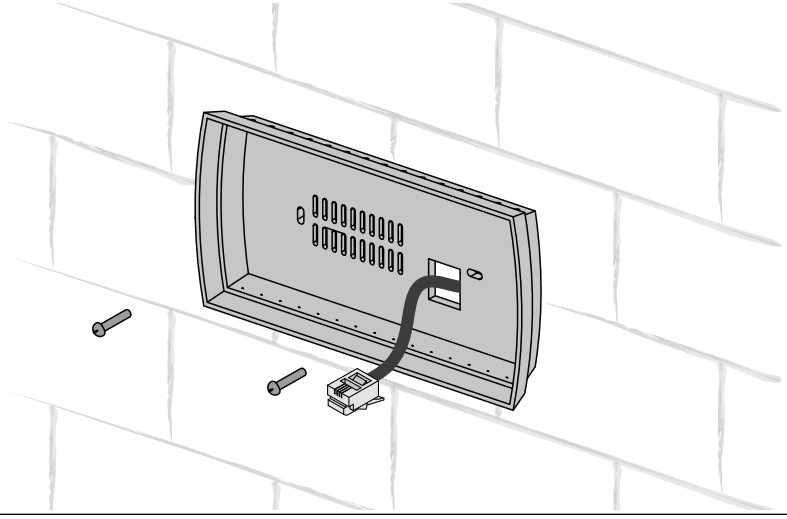


The scheme drawing of the back part of the control panel is shown on the left.

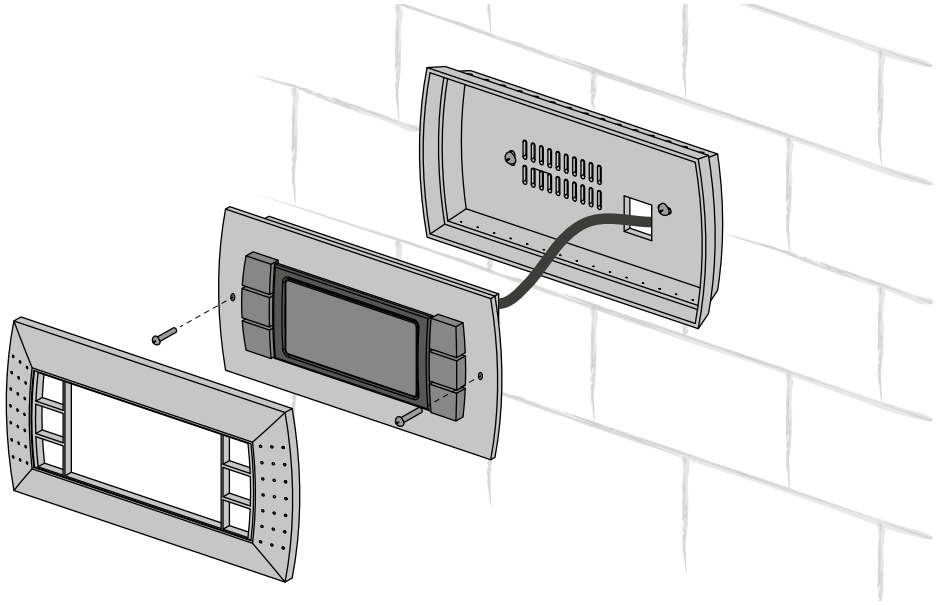
INSTALLATION OF THE PGNE CONTROL PANEL

Connect the pGNEcontrol panel to the controller using the 6P6C phone connector (PLUG-6P6C-P-C2). The maximum telephone cable length is 50 m.

Route the telephone cable to the installation site to install the control panel on the wall.
1. Secure the back side of the casing in the standard box using dome-headed screws from the delivery set.



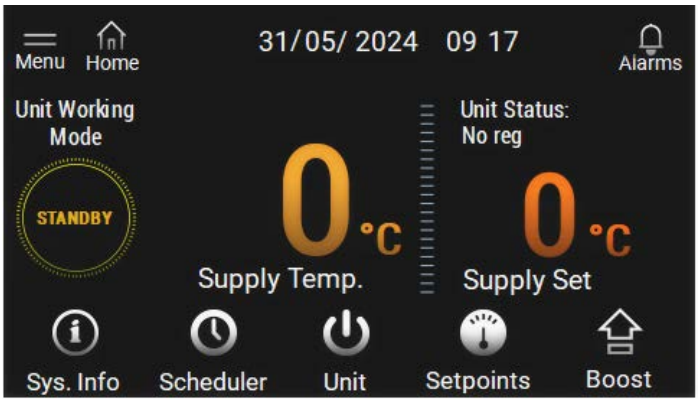
2. Connect the telephone cable to the front part of the control panel. Attach the front side of the control panel to the back side of the casing and secure it using the supplied flat-headed screws as shown in the figure below. Insert the front frame and move it until it clicks into place.



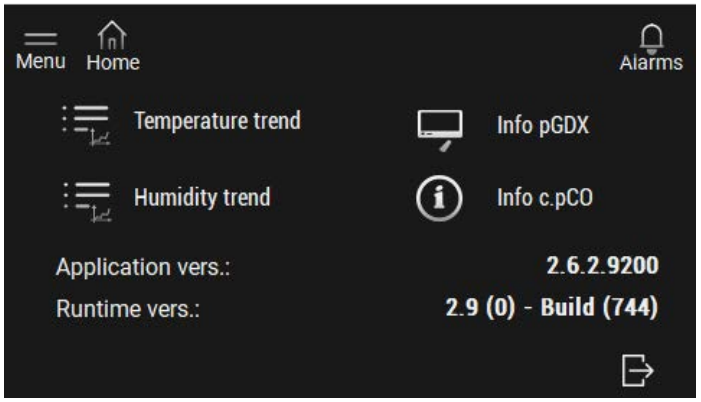
CONTROL

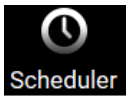
pGDx CONTROL PANEL

The starting screen of the ventilation system control system

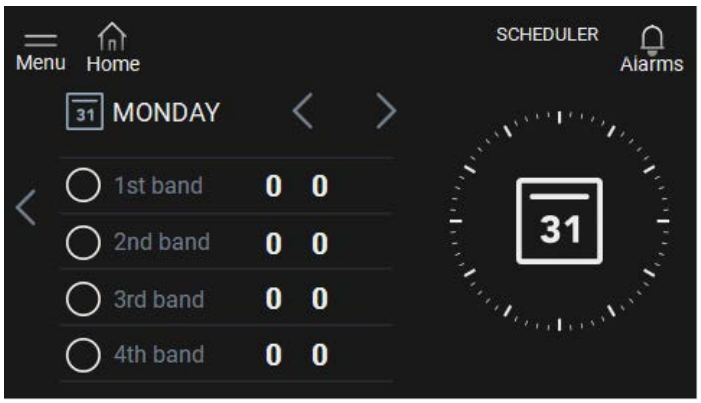


The transition to the information menu about the ventilation system and temperature graphs.

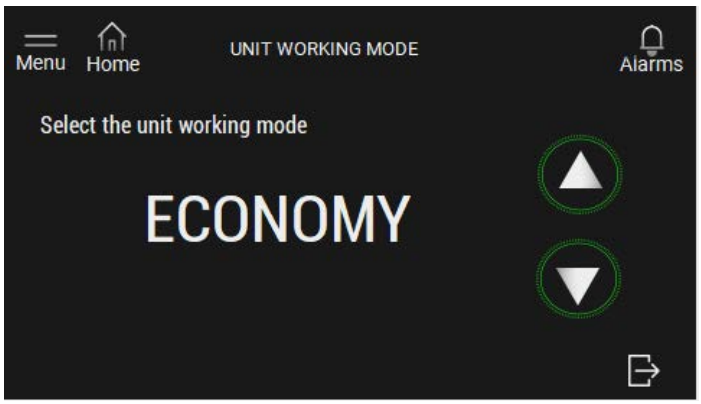


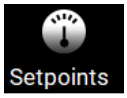


Transition to operation schedule setting menu

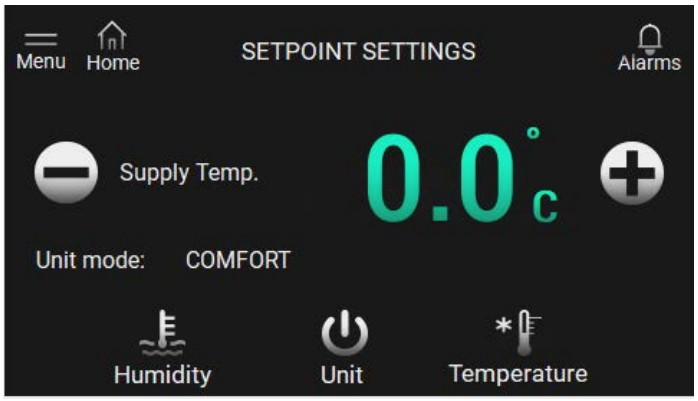


Transition to the ventilation system's operation mode selection menu
The following modes are available: Off / Standby / Economy / PreComfort / Comfort

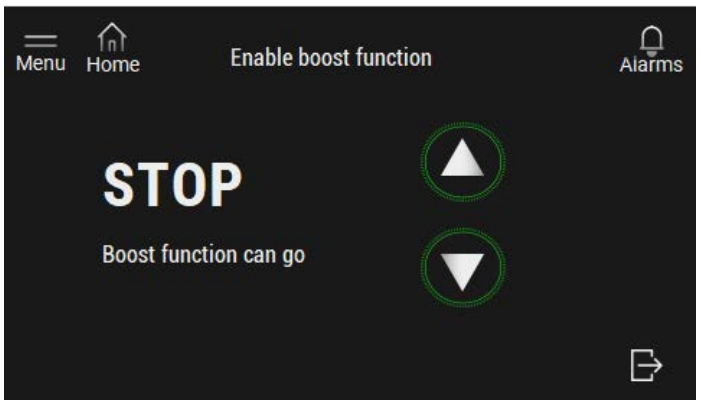




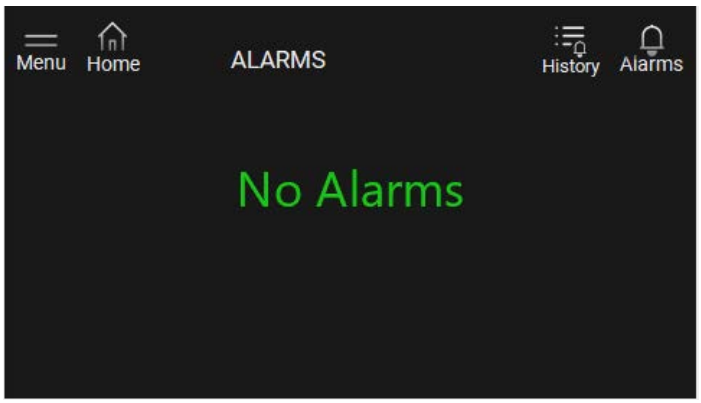
Transition to temperature/humidity setpoint settings



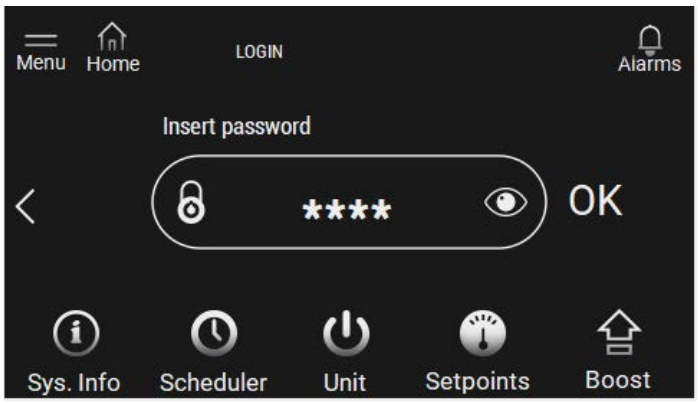
Transition to enabling the Boost function



Transition to current alarms' menu



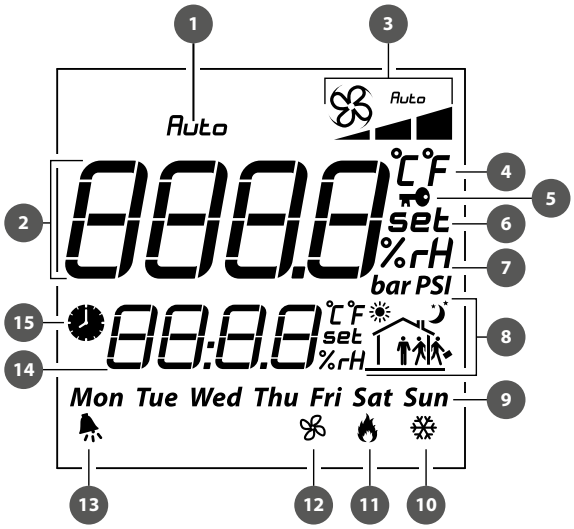
Transition to information and emulator menu of the pGNE controller.
By default the password is 0000.



Displays the current status of the ventilation system.

Th-Tune control panel

BUTTON	FUNCTIONS
mode (MODE)	Standby/auto mode. Disables the Boost functions.
(FAN)	Unit change: ECO, PRECOMFORT, COMFORT, STOP.
(CLOCK)	To turn the schedule mode on/off: hit the button. To access the schedule menu, press and hold the button for 2 seconds. Use the rotating handle to select options.
MODE+CLOCK	To turn on the Boost function, press and hold the button for 3 seconds.
(ON-OFF)	On/off switch. Closes the settings. **Caution!** The on/off switch turns the panel's display on or off and does not influence the unit itself.
(ENCODER)	Set the desired value by turning the handle. Hit the button once to input the set value of the indoor temperature. Hit the button twice to input the supply air temperature. Hit it three times for the outdoor temperature.



DISPLAY SYMBOLS

1.	System on/off indicator
2.	Main field (current indoor temperature, field to input temperature values, schedule input settings etc.)
3.	Unit operation modes: **ECO** **PECOMFORT** **COMFORT** **AUTO**
4.	Temperature measurement units
5.	Schedule blocking function (the icon will appear when attempting to enable the schedule mode on a non-configured unit)
6.	The value being set
7.	Humidity measurement units
8.	Current timeframe
9.	Day of the week
10.	Cooling mode
11.	Heating mode
12.	Ventilation mode
13.	"Alarm" signal. The alarm code appears in row 14.
14.	Time
15.	The schedule mode is on

The description of unit operation modes

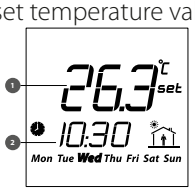
STOP – the fans are off, the protective functions are operating (the field 3 shows no indication).
ECO – the fan speed is low, reduced power consumption and temperature.
PRECOMFORT – medium fan speed, temperature and power consumption.
COMFORT – maximum fan speed, increased temperature and power consumption.
AUTO – unit operation according to the weekly schedule.

To reset the alarm, press and hold both the FAN and ON-OFF buttons simultaneously for 3 seconds.

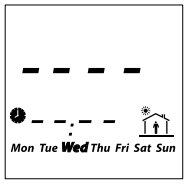
Setting up the schedule mode

Th-Tune allows to set up the unit schedule and preset the temperature. To enter the menu, disable the schedule operation mode of the unit and hold the CLOCK button for 2 seconds. The data is stored in the th-Tune, so when switching from the temporary timeframe (hh:mm) to a different one, the starting time is preset to the incremented hour and minute values (hh:mm+1).
Th-Tune checks for the timeframes to match. After entering the schedule menu, the following items drop down:
Clock – setting up the current time.
Sel days – allows to set up the working schedule and temperature of the unit.
Hit the ENCODER button to move to settings. Then, groups of days or a day can be selected to set up the mode of operation by rotating the ENCODER:
7 days (mon, tue, wed, thu, fri, sat, sun). Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday will have common time settings.
5 days (mon, tue, wed, thu, fri). Monday, Tuesday, Wednesday, Thursday, and Friday will have common time settings.
2 days (sat, sun). Saturday and Sunday will have common time settings.
Day by day. Day-by-day time settings can be set up individually.
Up to 6 timeframes can be selected for each interval. To designate the timeframes, the following icons are used:

Rotate the ENCODER button to switch between timeframe settings.
Each selected timeframe includes such parameters as the set temperature value (1) and activation time (2).

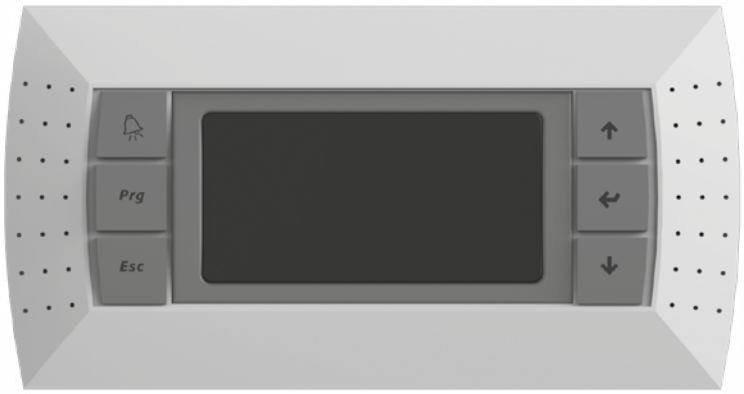


Timeframe settings on display can be disabled "--:--":



To set up the OFF range on th-Tune, the value can be set to minimum as shown in the figure below.

pGNE control panel



The panel has 6 buttons:

(ALARM) – to manually reset alarm signals.

Prg (PRG) — to change the operating mode.

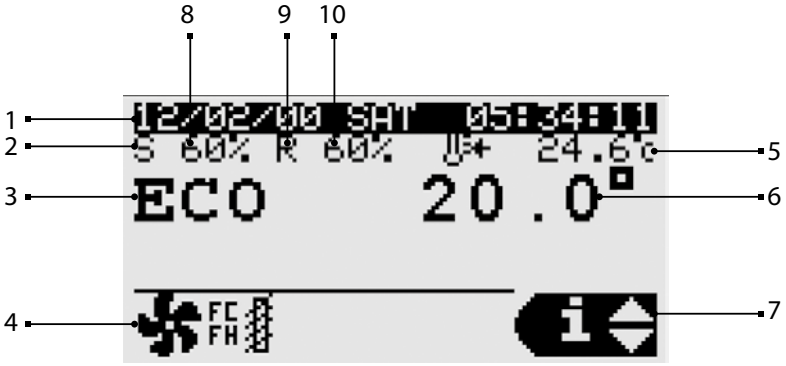
Esc (ESC) — to return to the previous menu screen.

(UP, DOWN) — to switch between the display screens or increase / decrease values.

(ENTER) — to confirm the set values and return to the list of parameters.

RUNNING THE UNIT

When the unit is connected to power mains, the controller boots and displays the main page.

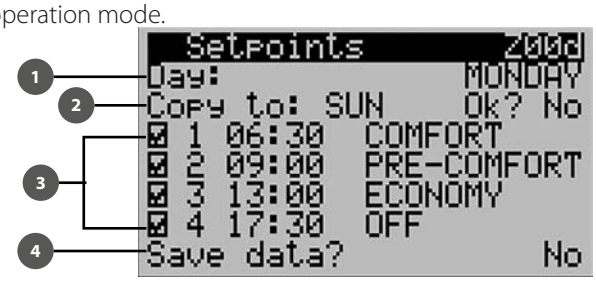


1. Date and time
2. The supply fan is on.
3. Operating mode.
   - STOP
   - ECONOMY
   - PRECOMFORT
   - COMFORT
   - AUTO
4. Current unit state.
   - — Air dampers open / closed.
   - — Operation of fans.
   - — Heating.
   - — Cooling.
   - — Free heating / cooling.
   - — Humidification.
   - — Drying.
   - — Active recovery.
   - — Normal stop.
   - — Emergency stop.
   - — Active schedule.
   - — Frost protection of the heat exchanger.
   - — Boost activation.

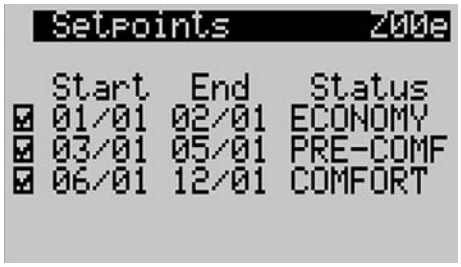
5. Current temperature in the supply air duct.
6. The preset indoor or supply duct temperature setpoint (based on the settings).
7. Indicates access to user menu by means of UP, DOWN and ENTER buttons for confirmation.
   INFO — displays the general status of devices, physical status of device and sensor inputs and outputs.
   SET — displays the current set value and schedule-based operating mode.
   The schedule and devices can be preset.
   MODE — changing the operation mode of the device (stop, economy, precomfort, comfort, auto).
8. Supply fan speed.
9. The extract fan is on.
10. Extract fan speed.

Setting up the schedule mode

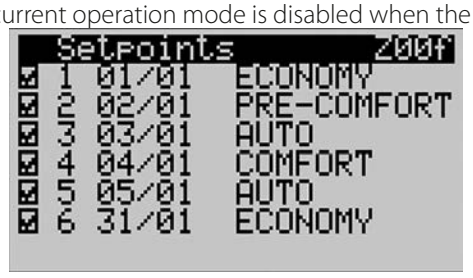
Press ENTER to move to the SET mode menu.
The menu has the following 3 setting positions:
1) Setting up operation modes for each day of the week. Up to 4 timeframes for operation modes can be set for a single day (mon-sun), as well as the starting time for the set operation mode.



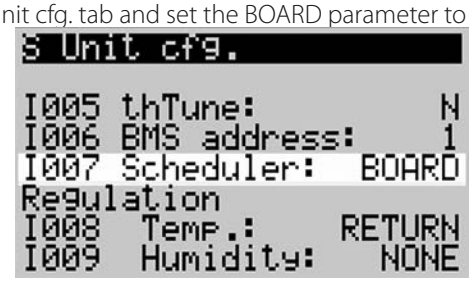
1 – selecting the day of the week to be set up; 2 – the set parameters can be copied onto another day of the week. Select Yes to copy the parameters onto the selected day (the Copy to parameter); 3 – the number of timeframes can be specified for the selected day. The current operation mode is disabled when the next one starts; 4 – saving the set parameters.
2) Setting up operation modes for 3 timeframes (ranging from one day to one year). The current operation mode is disabled when the next one starts.



3) The transition day to the selected mode can be specified.
Up to 6 transition days can be specified. The current operation mode is disabled when the next one starts.

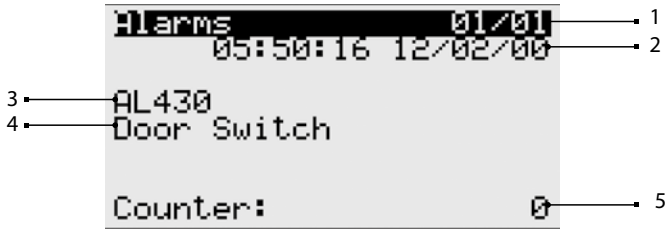


To enable operation by schedule, enter the Unit cfg. tab and set the BOARD parameter to the value I007 Scheduler.



ALARMS

In case of an alarm, the alarm signal screen is displayed.



Item	Description
1	Alarm No. / Alarms total
2	Date and time of alarm
3	Alarm code
4	Alarm description
5	Alarm-triggered sensor value.

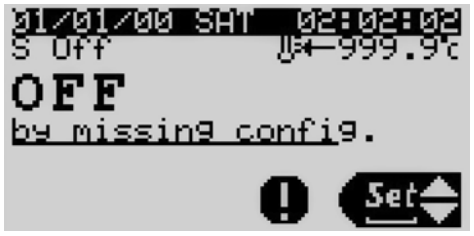
Alarms can be reset manually, automatically, or automatically on a regular basis.

- Manual reset: when the cause of the alarm is resolved, reset the sound signal using the ALARM button, then press and hold the button for 3 seconds to complete the reset.
- Automatic reset: when the alarm state is automatically interrupted, the sound signal turns off, and the alarm resets.
- Automatic reset with repetitions: the number of interventions per hour is checked. If this number is less than the set maximum, the alarm is automatically reset. Once the limit is exceeded, only manual reset is possible.

Caution!

By default, the unit control is done using the TH-Tune controller.
If **pGNE** and/or **BMS** control is performed, TH-Tune must be disabled to avoid the **A010** error (th-Tune offline).

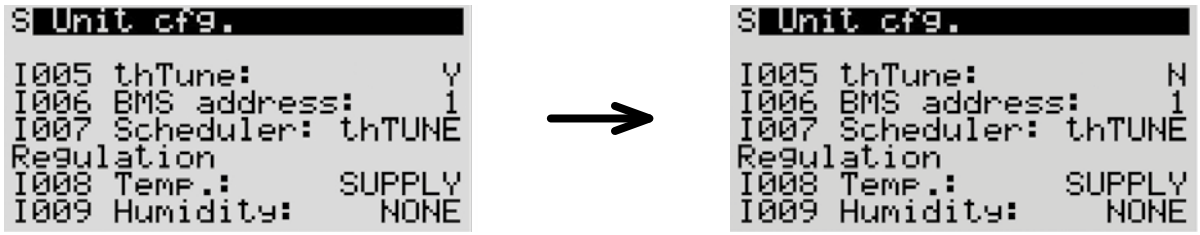
The figure below shows the opening screen of a **pGNE**-controlled unit.



The button is lit up. Alarm code is displayed when the button is hit.
To continue, do the following:

1. Hit the **Prg** button to enter the main menu. Use the ↑ and ↓ arrow buttons to select the **Unit cfg**. tab and enter it by hitting the ↵ button.

2. In the **Unit cfg.** tab, select the I005 **thTune** parameter and change its value from **Y** to **N**.



If control is performed via **BMS**, the **I005 Enable thTune management** parameter must be set to 0.

Alarms

Alarm code	Alarm description	Reset	Action
A000	Supply temperature probe not working	Auto reset	Stop unit
A001	Cooling device alarm	User reset	Stop cooling
A002	Antifreeze alarm by DIN	Auto reset until counter (3 in 3600s)	Stop unit, force heating at 100%
A003	Prototype software	Auto reset	Stop unit
A004	High number of retaining memory writings	User reset	None
A005	Error in retaining memory writings	User reset	None
A006	Return temperature probe broken not working	Auto reset	Switch to supply regulation
A007	External temperature probe broken, not working	Auto reset	Disable external compensation
A008	CO_2 air quality probe not working	Auto reset	Disable CO_2 regulation
A009	Exhaust temperature probe not working	Auto reset	Stop unit
A010	th-Tune offline	Auto reset	Disable room compensation
A011	Supply temperature out of range	Auto reset	None
A012	Supply air flow alarm	User reset	Stop unit
A013	Extract air flow alarm	User reset	Stop unit
A014	Humidifier alarm	Auto reset	Stop humidifier
A015	Humidifier maintenance required	Auto reset	None
A016	Extract fan maintenance required	Auto reset	None
A017	Supply fan maintenance required	Auto reset	None
A018	Reheating coil maintenance required	Auto reset	None
A019	Heat recovery maintenance required	Auto reset	None
A020	Supply filters alarm	Auto reset	None
A021	th-Tune clock not working	Auto reset	None
A022	th-Tune temperature probe not working	Auto reset	Disable room temperature regulation
A023	th-Tune humidity probe not working	Auto reset	Disable room humidity regulation
A024	BMS offline	Auto reset	None
A025	Supply differential pressure probe not working	Auto reset	None
A026	Return differential pressure probe not working	Auto reset	None
A027	Fire alarm by digital input	User reset	Stop unit, force fan at fire speed
A028	Heating coil water temp.probe not working	Auto reset	Stop unit, force valve at 100% open

A029	Preheating coil water temp.probe not working	Auto reset	Stop unit, force valve at 100% open
A030	After preheating coil temp.probe not working	Auto reset	Disable preheater
A031	Heating device alarm	Auto reset until counter (3 in 3600s)	Stop heating
A032	Fire alarm by temperature	User reset	Stop unit, force fan at fire speed
A033	Antifreeze alarm by heat back water temp.	Auto reset until counter (3 in 3600s)	Stop unit, force valve at 100% open
A034	Antifreeze alarm by preheat back water temp.	Auto reset until counter (3 in 3600s)	Stop unit, force valve at 100% open
A035	Fans overload alarm	Auto reset	Stop unit
A036	Supply humidity probe not working	Auto reset	Stop humidifier
A037	Unit configuration not allowed	Auto reset	Stop unit
A038	Supply fan - Offline	Auto reset	Stop unit
A039	Supply fan - Line Fault	Auto reset	Stop unit
A040	Supply fan - Motor blocked	Auto reset	Stop unit
A041	Supply fan - Fire alarm	Auto reset	Stop unit
A042	Supply fan - Uin Low (FW 10)	Auto reset	Stop unit
A043	Supply fan - Uin High (FW 10)	Auto reset	Stop unit
A044	Supply fan - UZK low	Auto reset	Stop unit
A045	Supply fan - UZK high	Auto reset	Stop unit
A046	Supply fan - IGBT fault	Auto reset	Stop unit
A047	Supply fan - Earth-GND fault	Auto reset	Stop unit
A048	Supply fan - Peak current error	Auto reset	Stop unit
A049	Supply fan - Hall sensor error	Auto reset	Stop unit
A050	Supply fan - Offline	Auto reset	Stop unit
A051	Supply fan - Phase Failure	User reset	Stop unit
A052	Supply fan - Motor blocked	User reset	Stop unit
A053	Supply fan - Mains undervolt.	User reset	Stop unit
A054	Supply fan - Mains overvoltage	User reset	Stop unit
A055	Supply fan - DC-link overvoltage	User reset	Stop unit
A056	Supply fan - DC-link undervoltage	User reset	Stop unit
A057	Supply fan - Motor blocked	User reset	Stop unit
A058	Supply fan - Intern.circ.overheat	User reset	Stop unit
A059	Supply fan - Out stage overheat.	User reset	Stop unit
A060	Supply fan - Hall sensor error	User reset	Stop unit
A061	Supply fan - Communic. Error	User reset	Stop unit
A062	Supply fan - Generic error	User reset	Stop unit
A063	Supply fan - Out stage high temp.	Auto reset	Stop unit
A064	Supply fan - Int.circ.high temp.	Auto reset	Stop unit
A065	Supply fan - Motor high temp.	Auto reset	Stop unit
A066	Supply fan - DC-link volt.low	Auto reset	Stop unit
A067	Supply fan - Lim. mains power	Auto reset	Stop unit
A068	Supply fan - Lim. mains current	Auto reset	Stop unit
A069	Supply fan - Brake mode	Auto reset	Stop unit
A070	Supply fan - Cable break	Auto reset	Stop unit
A071	Supply fan - Ice protection	Auto reset	Stop unit
A072	Supply fan - Heating: motor stop	Auto reset	Stop unit
A073	Supply fan - Speed under limit	Auto reset	Stop unit

A074	Supply fan - DC-voltage high	Auto reset	Stop unit
A075	Supply fan - Supply volt.high	Auto reset	Stop unit
A076	Supply fan - Line imp. High	Auto reset	Stop unit
A077	Extract fan - Offline	Auto reset	Stop unit
A078	Extract fan - Line Fault	Auto reset	Stop unit
A079	Extract fan - Motor blocked	Auto reset	Stop unit
A080	Extract fan - Fire alarm	Auto reset	Stop unit
A081	Extract fan - Uin Low (FW 10)	User reset	Stop unit
A082	Extract fan - Uin High (FW 10)	User reset	Stop unit
A083	Extract fan - UZK low	User reset	Stop unit
A084	Extract fan - UZK high	User reset	Stop unit
A085	Extract fan - IGBT fault	User reset	Stop unit
A086	Extract fan - Earth-GND fault	User reset	Stop unit
A087	Extract fan - Peak current error	User reset	Stop unit
A088	Extract fan - Hall sensor error	User reset	Stop unit
A089	Extract fan - Offline	User reset	Stop unit
A090	Extract fan - Phase Failure	User reset	Stop unit
A091	Extract fan - Motor blocked	User reset	Stop unit
A092	Extract fan - Mains undervolt.	User reset	Stop unit
A093	Extract fan - Mains overvoltage	User reset	Stop unit
A094	Extract fan - DC-link overvoltage	User reset	Stop unit
A095	Extract fan - DC-link undervoltage	User reset	Stop unit
A096	Extract fan - Motor overheat.	User reset	Stop unit
A097	Extract fan - Intern.circ.overheat	User reset	Stop unit
A098	Extract fan - Out stage overheat.	User reset	Stop unit
A099	Extract fan - Hall sensor error	User reset	Stop unit
A100	Extract fan - Communic. Error	Auto reset	Stop unit
A101	Extract fan - Generic error	Auto reset	Stop unit
A102	Extract fan - Out stage high temp.	Auto reset	Stop unit
A103	Extract fan - Int.circ.high temp.	Auto reset	Stop unit
A104	Extract fan - Motor high temp.	Auto reset	Stop unit
A105	Extract fan - DC-link undervoltage	Auto reset	Stop unit
A106	Extract fan - Lim. mains power	Auto reset	Stop unit
A107	Extract fan - Lim. mains current	Auto reset	Stop unit
A108	Extract fan - Brake mode	Auto reset	Stop unit
A109	Extract fan - Cable break	Auto reset	Stop unit
A110	Extract fan - Ice protection	Auto reset	Stop unit
A111	Extract fan - Heating: motor stop	Auto reset	Stop unit
A112	Extract fan - Speed under limit	Auto reset	Stop unit
A113	Extract fan - DC-voltage high	Auto reset	Stop unit
A114	Extract fan - Supply volt.high	Auto reset	Stop VOC regulation
A115	Extract fan - Line imp. High	Auto reset	None
A404	VOC air quality probe not working	Auto reset	None
A405	Supply filter 2 alarm	Auto reset	Stop Stop humidity check for freecooling
A406	Return filter alarm	Auto reset	None
A407	Fresh air humidity probe not working	Auto reset	None
A408	Preheating coil maintenance required	Auto reset	None

A412	IEC humidifier maintenance required	Auto reset	None
A413	Cool device maintenance required	Auto reset	None
A414	Cool device 2 maintenance required	Auto reset	None
A415	Heat device maintenance required	Auto reset	None
A416	Heat device 2 maintenance required	Auto reset	None
A417	Reverse device maintenance required	Auto reset	None
A418	Reverse device 2 maintenance required	Auto reset	None
A422	Out of design temperature limits alarm	Auto reset	Open mixer or stop ventilation if not available
A429	Heat exchanger clogged	Auto reset	Stopping heat recovery
A430	Door switch	Auto reset	Stop unit
A431	HEPA 1 filter's sensor fault	Auto reset	None
A432	HEPA 2 filter's sensor fault	Auto reset	None
A433	Heating pump fault	Auto reset	Stop unit
A434	General external fault	Auto reset	Stop unit
A435	HEPA 1 filters	Auto reset	None
A436	HEPA 2 filters	Auto reset	None

Password control

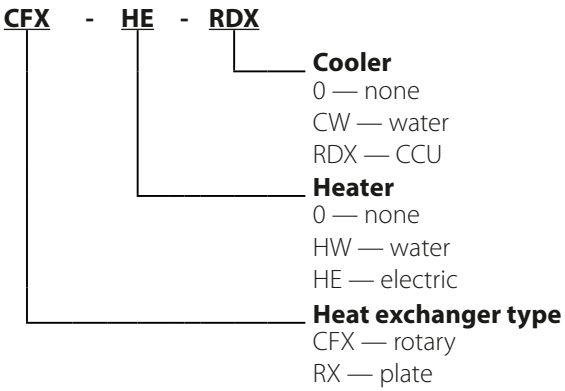
There are three password levels:

1. Service: read only access to all parameters By default the password is 0000.
2. Maintenance: read only access to all parameters, but some can be modified. By default the password is 0001.
3. Manufacturer: read/write access to all parameters. By default the password is 0002.

Configuration selection

If the delivery set includes optional items (e.g. adding a heater), an appropriate configuration must be loaded.
Hit the **Prg** button, select **Unit cfg**. Select **Import** and specify the filename to be loaded. Select **Confirm**; select **Y**.

Configuration code structure



Standard configuration names

For configurations equipped with a plate heat exchanger

Configuration	Filename
CFX-0-0	EXPORT_20
CFX-0-CW	EXPORT_21
CFX-0-RDX	EXPORT_22
CFX-HW-0	EXPORT_23
CFX-HE-0	EXPORT_24
CFX-HW-CW	EXPORT_25
CFX-HW-RDX	EXPORT_26
CFX-HE-CW	EXPORT_27
CFX-HE-RDX	EXPORT_28

For configurations equipped with a rotary heat exchanger

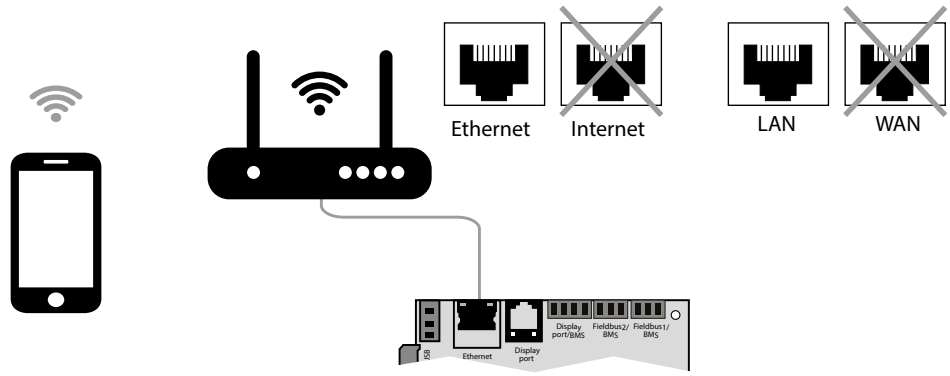
Configuration	Filename
RX-0-0	EXPORT_30
RX-0-CW	EXPORT_31
RX-0-RDX	EXPORT_32
RX-HW-0	EXPORT_33
RX-HE-0	EXPORT_34
RX-HW-CW	EXPORT_35
RX-HW-RDX	EXPORT_36
RX-HE-CW	EXPORT_37
RX-HE-RDX	EXPORT_38

The automated system can also operate autonomously with no remote controller.
The control unit has an in-built WEB interface, and supports Modbus and Bacnet protocols through RS485 and Ethernet interfaces.
The information on protocol settings is specified in the controller's user manual.

The engineering menu enables setting up the control unit operation with pGNE and th-Tune remote controls (one by one or simultaneously)

ENGINEERING SETTINGS ARE DESCRIBED IN DETAIL IN THE CONTROLLER SOFTWARE USER'S MANUAL.
CONTACT THE UNIT SUPPLIER TO RECEIVE THE CONTROLLER SOFTWARE USER'S MANUAL.

Unit control with the smartphone app



The unit can be controlled via a smartphone or tablet.
Use a twisted pair cable (4x2x0.51) of Cat5 or higher with 8P8C connectors to connect the router to the controller via Ethernet (LAN).
Enter the router menu and find the unit's IP address.
Enter the IP address into the address bar on the smartphone browser.
It will enable unit control through the smartphone device.
The control interface is similar to that of the pGNE. control panel.

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