



BLAUAIR AUTOMATIC CONTROL SYSTEM

S30 (KVENT, TH-TUNE)

S31 (KVENT)

S32 (KVENT, PGDE)

EN

USER'S MANUAL



BLAUBERG
Ventilatoren

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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 S30, S31, S32 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. The information in this user's manual is correct at the time of the document's preparation.

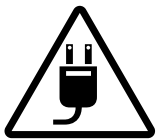
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SAFETY REQUIREMENTS

- Please read the user's manual carefully prior to installing and operating 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.
- The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information.
- Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.
- After a careful reading of the manual, keep it for the entire service life of the unit.
- While transferring the unit control, the user's manual must be turned over to the receiving operator.

UNIT INSTALLATION AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- Unpack the unit with care.



- The unit must be grounded!



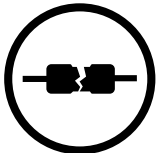
- While installing the unit, follow the safety regulations specific to the use of electric tools.



- Do not change the power cable length at your own discretion. Do not bend the power cable. Avoid damaging the power cable. Do not put any foreign objects on the power cable.



- Do not lay the power cable of the unit in close proximity to heating equipment.



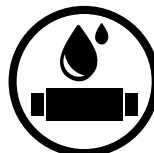
- Do not use damaged equipment or cables when connecting the unit to power mains.



- Do not operate the unit outside the temperature range stated in the user's manual. Do not operate the unit in aggressive or explosive environments.



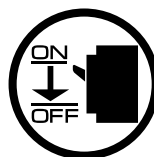
- Do not touch the unit controls with wet hands. Do not carry out the installation and maintenance operations with wet hands.



- Do not wash the unit with water. Protect the electric parts of the unit against ingress of water.



- Do not allow children to operate the unit.



- Disconnect the unit from power mains prior to any technical maintenance.



**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 for controlling ventilation systems of various configurations. The control system controls basic ventilation system components, such as supply and extract fans, heat exchanger, air heater, air cooler, air humidifier, air mixing chamber, air dampers. The automation unit has a configurable controller with installed software. The controller can be individually configured for each ventilation system. The control panels are rated for non-stop operation.

**For detailed description of the automatic control system functions please refer to the controller's manual.
Please ask the ventilation unit seller to provide the manual.**



THE UNIT SHOULD NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL, OR SENSORY CAPACITIES, OR THOSE WITHOUT THE APPROPRIATE TRAINING.

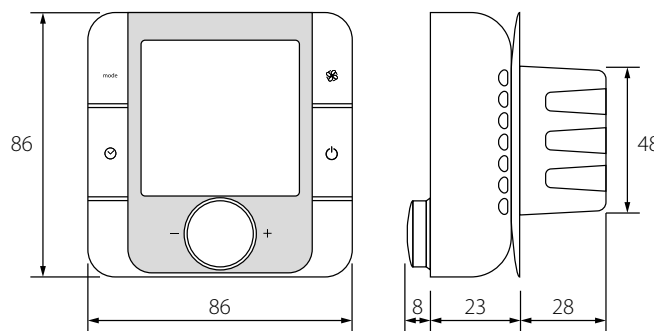
THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.

THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORISED ACCESS BY UNATTENDED CHILDREN.

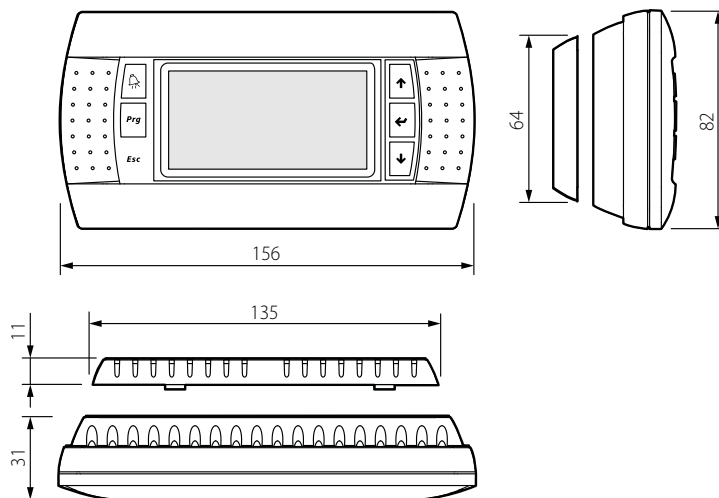
TECHNICAL DATA

| Parameter | Value | |
|----------------------------|------------------------------|---|
| | th-Tune | pGDE |
| Storage temperature [°C] | -20...+70 | -20...+70 |
| Storage humidity [%] | 10...90 (no condensation) | 10...90 (no condensation) |
| Operation temperature [°C] | -10...+60 | -20...+60 |
| Operation humidity [%] | 10...90 (no condensation) | 10...90 (no condensation) |
| Cable | AWG 20 or AWG 22 up to 500 m | Telephone cable max. 50 m; twisted pair AWG 22 max. 500 m |
| Ingress Protection | IP20 | IP40 |

Overall dimensions for thTune control panel



Overall dimensions for pGDE control panel

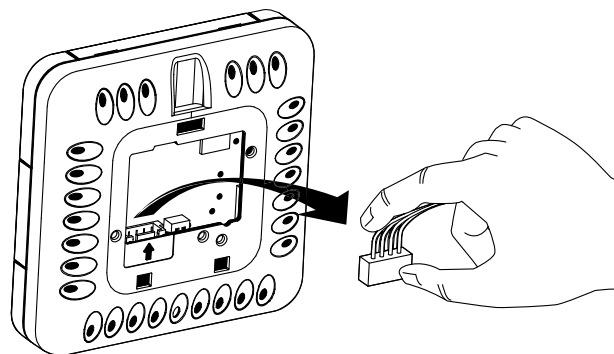
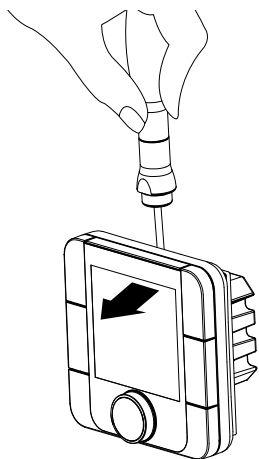


INSTALLATION AND SET-UP

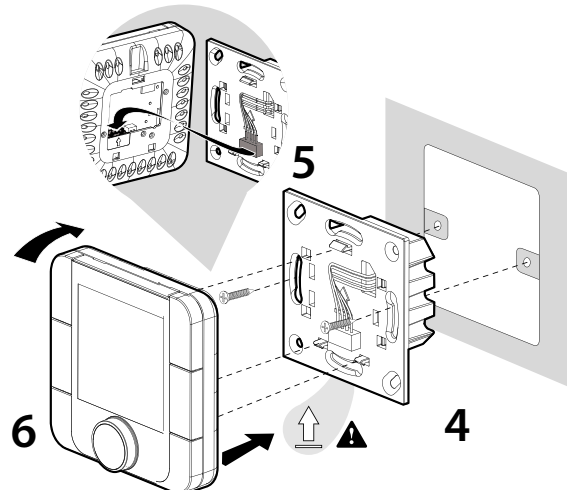
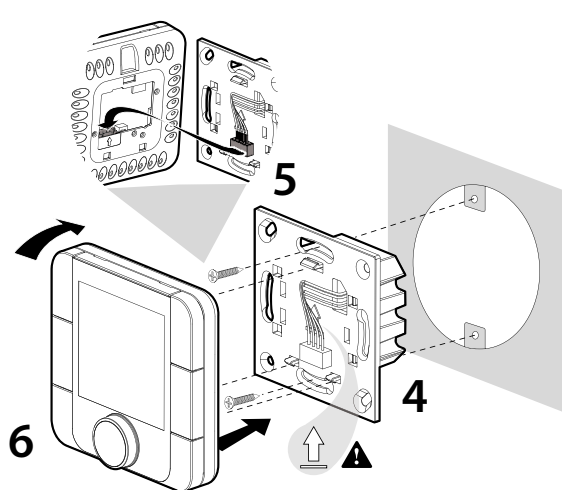
INSTALLATION OF TH-TUNE CONTROL PANEL

For installation of the back side of the control panel use a mounting box with a minimum diameter 65 mm and installation depth 31 mm.

1. Detach the front side of the control panel from the back side using a screwdriver.
2. Disconnect the 4-pin connector from the front side of the control panel.

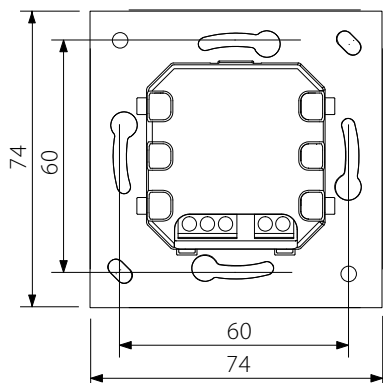


3. Complete the electric connection in compliance with wiring diagram.
4. Fix the back side of the control panel in the mounting box using the supplied screws.
5. Re-connect the 4-pin connector.
6. Lay all the wires inside of the control panel and install the control panel from the bottom. Press the control panel front side to click to complete installation.



Overall dimensions of the control panel back side, mm

Outline drawing of the control panel back side is shown on the left.

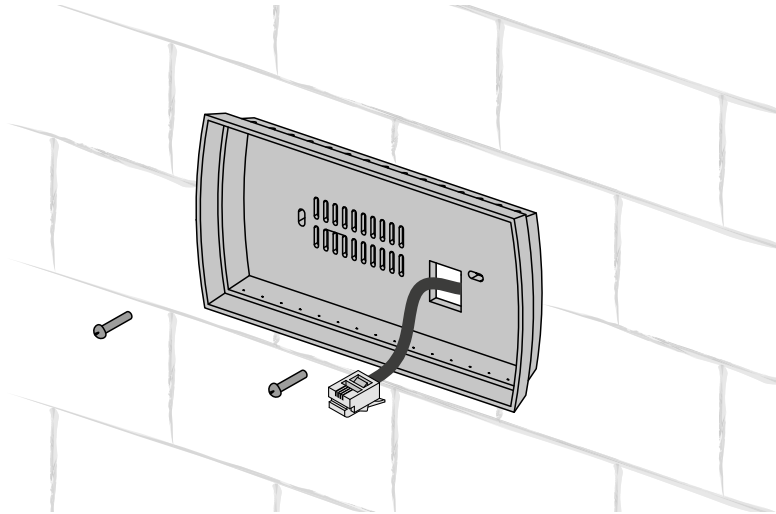


INSTALLATION OF PGDE CONTROL PANEL

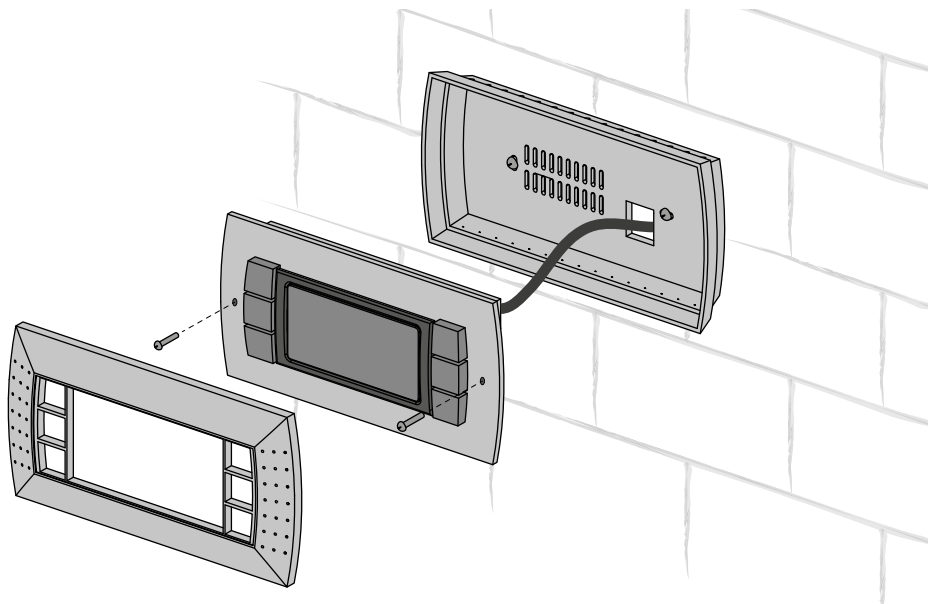
Connect the pGDE control panel to the connector on the controller using the 6P6C phone connector (PLUG-6P6C-P-C2). The maximum telephone cable length is 50 m.

Lay the telephone cable to the installation place of the control panel.

1. Fix the back side of the control panel inside of the mounting box using the supplied round-head screws.



2. Connect the telephone cable to the front side of the control panel. Attach the front side of the control panel to its back side using the supplied countersunk head screws as shown below. Press the control panel front side to click to complete installation.



CONNECTION TO POWER MAINS

**POWER OFF THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
THE UNIT MUST BE CONNECTED TO POWER SUPPLY BY A QUALIFIED ELECTRICIAN.
THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE
MANUFACTURER'S LABEL.**

- The unit is rated for connection to single-phase 230 V/50 Hz or three-phase 400 V/50 Hz power mains (refer to Technical data) in compliance with wiring diagrams.
- The unit must be connected to power mains using durable, insulated and heat-resistant conductors (cables and wires). The actual wire cross section selection must be based on the maximum load current, maximum conductor temperature depending in the wire type, insulation, length and installation method.
- The external power input must be equipped with an automatic circuit breaker QF built into the stationary wiring to open the circuit in the event of overload or short-circuit. The position of the external automatic circuit breaker must ensure free access for quick power-off of the unit. The trip current of the automatic circuit breaker must exceed the maximum current consumption of the unit (refer to the "Technical data" section). The recommended trip current of the circuit breaker is the next current in the standard trip current row following the maximum current of the connected unit. The automatic circuit breaker is not included in the delivery set and can be ordered separately.



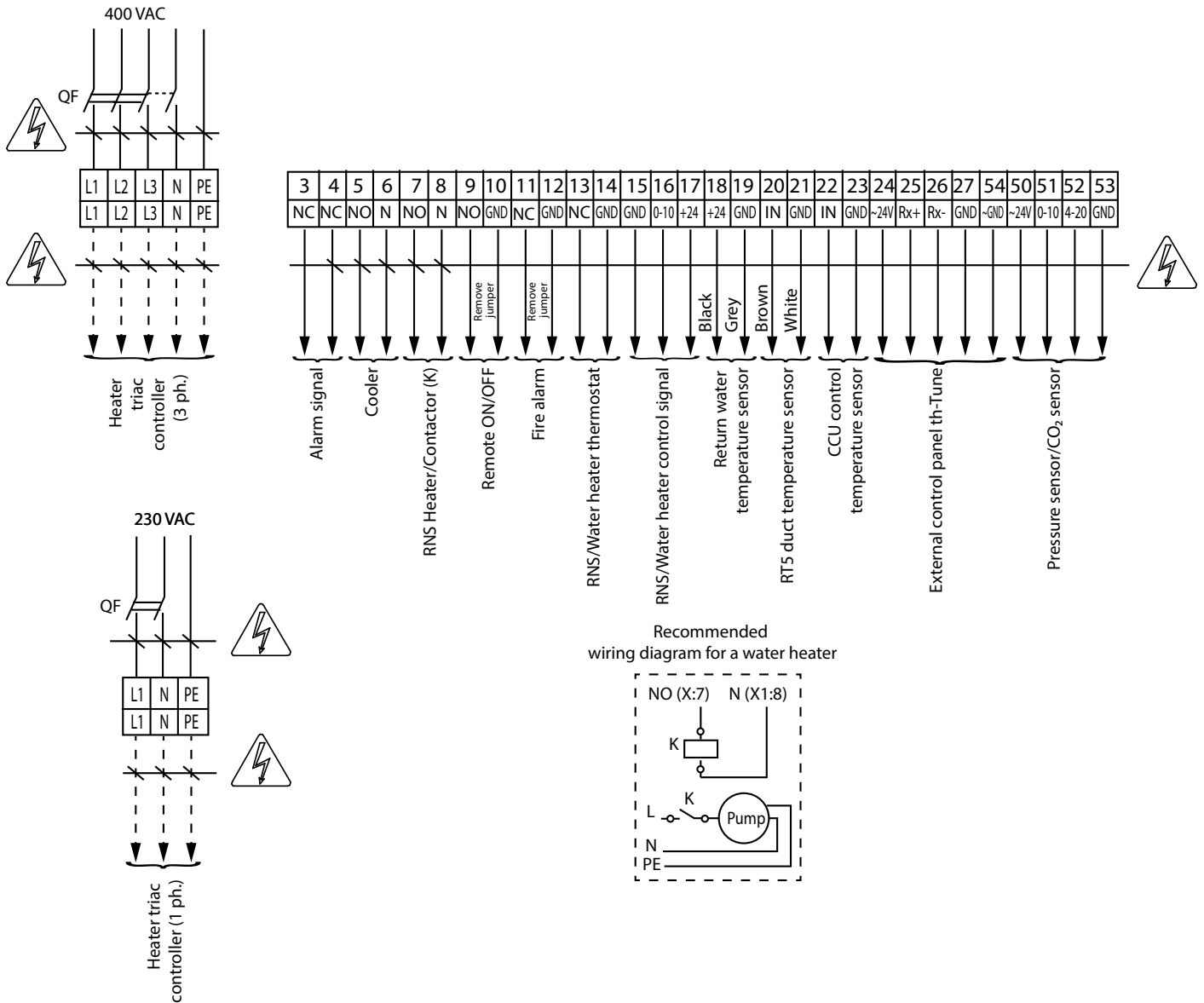
**ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED
AND WILL VOID THE WARRANTY.**



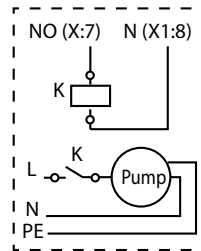
**DO NOT LAY THE VENTILATION UNIT POWER CABLE IN CLOSE
PROXIMITY TO THE CONTROL PANEL CABLE!
DO NOT COIL THE CABLE FROM THE CONTROL PANEL IN LOOPS WHILE
LAYING IT.**



Route the cables to the control unit via the cable glands on the air handling unit.
 Complete the electric connections in compliance with external wiring diagram via the terminal blocks in the control unit.



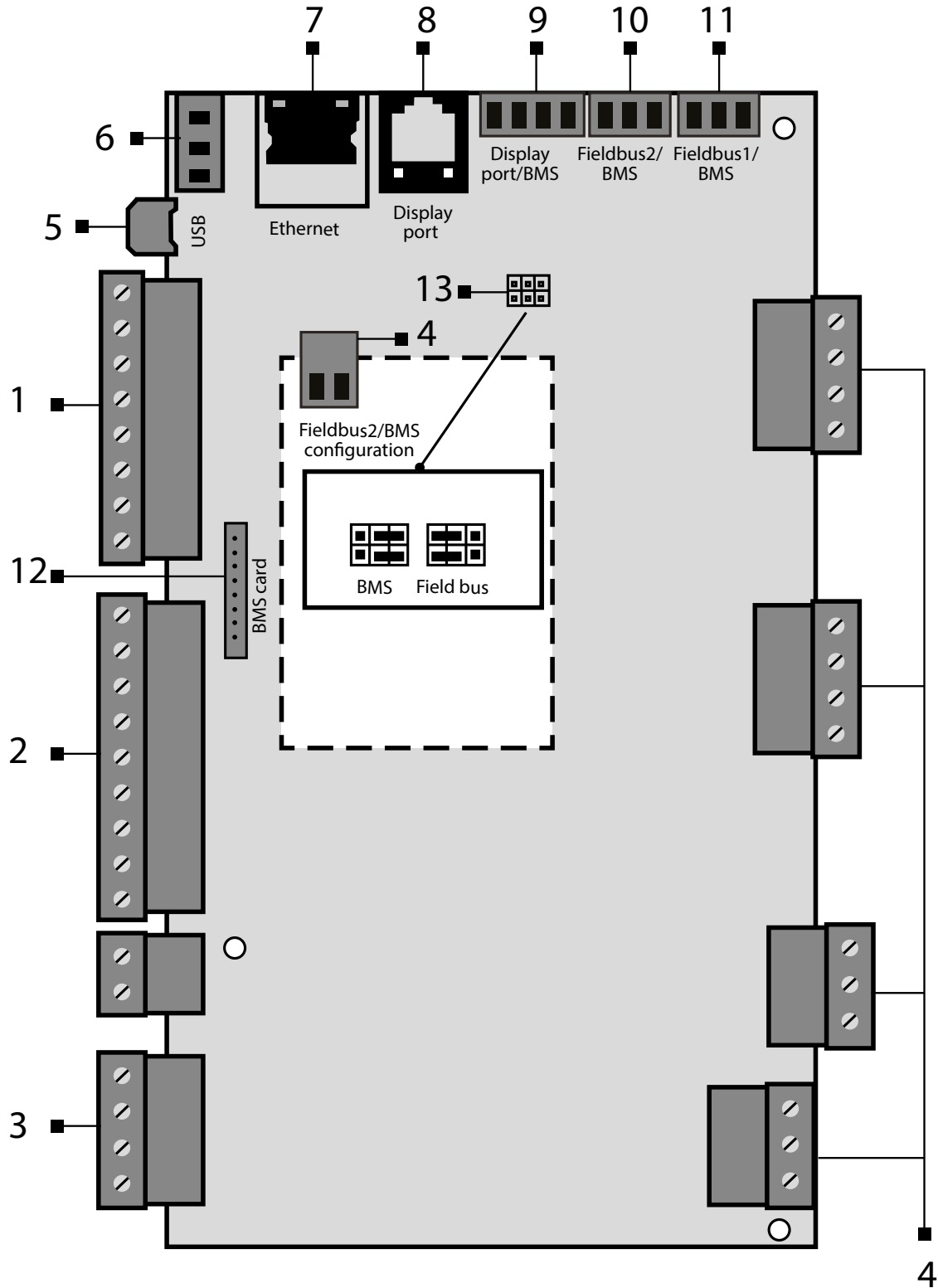
Recommended wiring diagram for a water heater



— ELECTRIC SHOCK HAZARD!

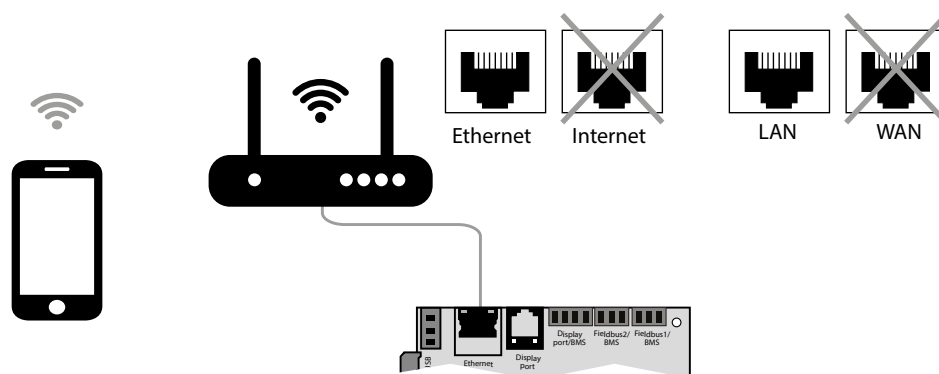
CONTROL

S31 controller (KVENT) inputs/outputs



| Position | Description |
|----------|--|
| 1 | Digital inputs |
| 2 | Analogue inputs |
| 3 | Analogue outputs |
| 4 | Digital outputs |
| 5 | Micro USB for updating applications, import and export of settings, alarm log |
| 6 | Power source for external sensors |
| 7 | Ethernet port |
| 8 | Connection port for PGDe control panel |
| 9 | Display port |
| 10 | BMS/Fieldbus2 port |
| 11 | BMS/Fieldbus1 port. Used for connection of th-Tune as well |
| 12 | Slot for connection of BMS card (not included in the delivery set, available as a specially ordered accessory) |
| 13 | Jumpers for configuration of BMS/Fieldbus2 port |
| 14 | Power input |

Ventilation unit control with a mobile device



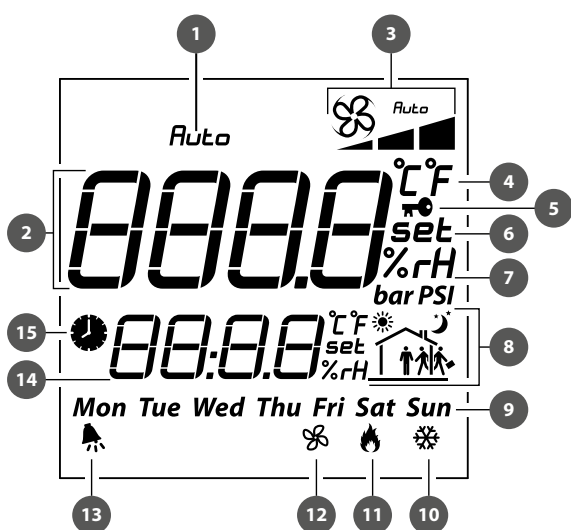
The ventilation unit is controllable via a mobile device or tablet. Connect the router through the Ethernet (LAN) connector using the twisted pair (4 x 2 x 0.51) not below Cat5 with 8P8C connectors. Go to router menu and find IP address of the ventilation unit. Enter IP address in the URL bar in a mobile device.

After that the unit is ready for operation via mobile device. The control interface is identical to the PGDe control panel interface.

TH-TUNE CONTROL PANEL



| BUTTON | FUNCTIONS |
|-------------|--|
| mode (MODE) | Standby/auto mode. Boost function deactivation. |
| (FAN) | Editing operation settings: ECO, PRECOMFORT, COMFORT, STOP. |
| (CLOCK) | Schedule mode on/off: press once shortly. To get access to the schedule menu, press and hold for 2 seconds. Use the rotation knob to select variants. |
| MODE+CLOCK | To turn off the Boost function, press and hold for 3 seconds. |
| (ON-OFF) | On/Off switch and Exit settings. |
| (ENCODER) | Setting of the required value using the rotation knob. Setup menu of the set indoor temperature - press once. Supply air temperature - press twice. External temperature - press thrice. |



DISPLAY SYMBOLS

| | |
|-----|---|
| 1. | System on/off indication |
| 2. | Main field (current indoor temperature, field for temperature setup, schedule setup, etc.) |
| 3. | Operation modes: ECO PRECOMFORT COMFORT AUTO |
| 4. | Temperature measurement unit |
| 5. | Schedule blocking function (the pictogram appears in case of attempt to activate schedule on unconfigured unit) |
| 6. | Set value |
| 7. | Humidity measurement unit |
| 8. | Current time band |
| 9. | Day of the week |
| 10. | Cooling on |
| 11. | Heating on |
| 12. | Ventilation mode |
| 13. | Alarm signal. The error code is displayed in the line 14 |
| 14. | Time |
| 15. | Activated scheduled mode |

Description of the operation modes:

STOP: the fans are off, the protection functions are on (no indication in the field 3).

ECO: low fan speed, low temperature and power consumption.

PRECOMFORT: medium fan speed, medium temperature and power consumption.

COMFORT: maximum fan speed, increased temperature and power consumption.

AUTO: scheduled operation mode.

TO reset the alarms synchronously, press and hold the FAN and ON/OFF buttons for 3 seconds.

Schedule setup

The th-Tune panel enables setup of scheduled operation and temperature settings. To enter the menu, turn off the schedule mode and press the CLOCK button for 2 seconds.

After entering the setup menu of schedule mode the following points are displayed:

Clock: enables setting for current time

Sel days: enables schedule and temperature setting. Press the ENCODER buttons to get access to the settings. Then rotate ENCODER to select several days or one day to set an operation mode as follows:

7 days (mon, tue, wed, thu, fri, sat, sun). For Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday the time band settings are common.

5 days (mon, tue, wed, thu, fri). For Monday, Tuesday, Wednesday, Thursday and Friday the time band settings are common.

2 days (sat, sun). For Saturday and Sunday the time band settings are common.

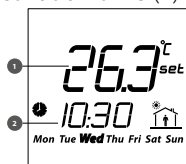
Day by day. The time band settings for each day are individually settable.

Each time period can have up to 6 time bands. The time bands are marked with following pictures:

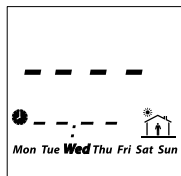


Rotate the ENCODER button to switch between the time band settings.

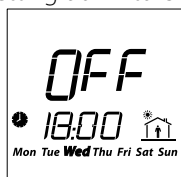
Each selected time band has the set temperature (1) and activation time (2) parameters.



The time band «-:-» can be deactivated on the display:




To set the OFF band on the th-Tune, rotate the minimum setting down to OFF point as shown in the figure below.





PGDE CONTROL PANEL





The control panel has 6 buttons:
 (ALARM): manual reset of alarm signals.

Prg (PRG): operation mode editing.

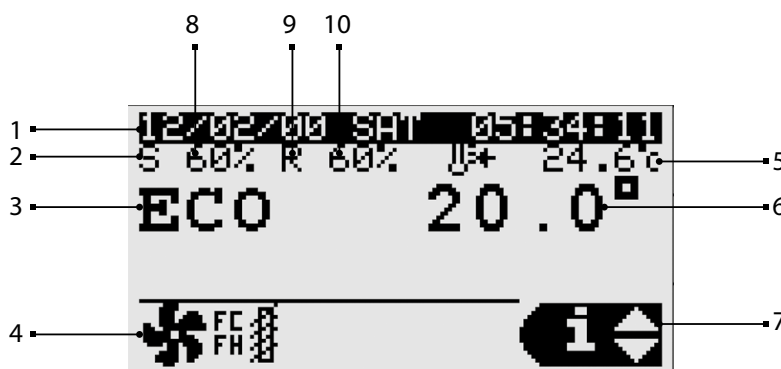
Esc (ESC): return to previous display.

  (UP, DOWN): moving between displays screens or increasing/decreasing values

  (ENTER): data validation and reset to parameter list

UNIT START

After connection of the unit to power mains the controller is loaded and the home page opens.



- 1. Day and time.
- 2. Supply fan is on.
- 3. Operation mode.

STOP
 ECONOMY
 PRECOMFORT
 COMFORT
 AUTO

- 4. Current unit condition.

-  — damper opening/closing
-  — fan run
-  — heating
-  — cooling
-  — free heating/cooling
-  — humidification
-  — dehumidification
-  — active heat recovery
-  — standard shutdown
-  — alarm shutdown
-  — scheduler is active
-  — heat exchanger freeze protection
-  — active Boost function

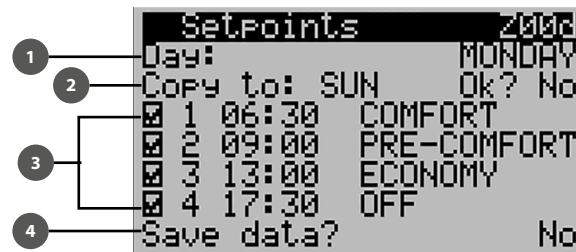
5. Main temperature control (air temperature in the supply air duct).
6. Set indoor air or supply duct temperature point (depending on settings).
7. Indicates access to the user menu with UP, DOWN and ENTER buttons.
 - INFO: indicates general condition of devices, operation status of outputs and inputs of devices and sensors.
 - SET: indicates current set point and operation mode according to schedule. It is possible to set the set points for devices and schedule.
 - MODE: indicates changing of operation mode (stop, economy, precomfort, comfort, auto).
8. Supply fan speed.
9. Extract fan is on.
10. Extract fan speed.

Set-up of scheduled mode

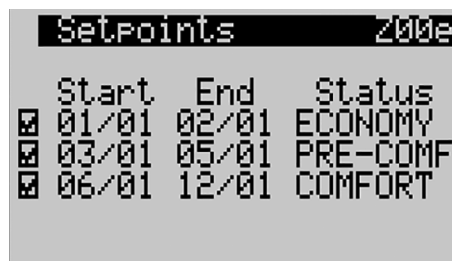
Press ENTER to switch to menu in the SET mode.

The menu has three set points:

- 1) Setup of operation mode for each week day. It is possible to set maximum four time bands for one day (from Monday till Sunday) and start time for set mode.



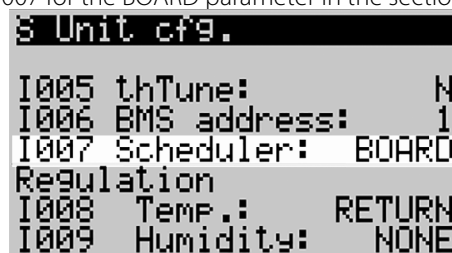
- 1: Selection of week day for setup.
 - 2: Copying of set parameters to enter for the other week day. Select Yes to copy parameters on the next day (parameter Copy to).
 - 3: Setting number of time bands for the day. Current mode exits as the next mode starts.
 - 4: Saving set parameters.
- 2) Setting operation mode for 3 time bands (from one day till one year).
Current operation mode exits as the next mode starts.



- 3) It is possible to set a day for switching to set mode.
It is possible to set maximum 6 days. Current operation mode exits as the next mode starts.

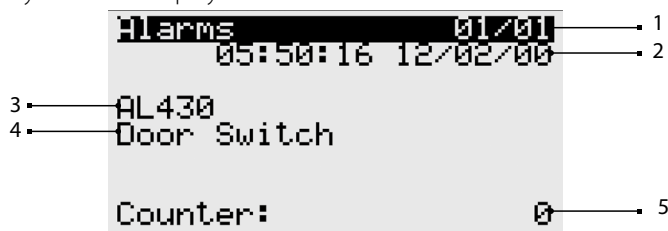


To activate the schedule mode, set the value I007 for the BOARD parameter in the section Unit cfq.




ALARMS

In case of alarms, the alarms are displayed on the display.



| Position | Description |
|----------|-----------------------------|
| 1 | Alarm number / total alarms |
| 2 | Alarm date and time |
| 3 | Alarm code |
| 4 | Alarm description |
| 5 | Alarmed sensor value |

The alarms can be reset manually, automatically or repeated automatically.

- Manual reset: after troubleshooting an alarm reset the audio signal using the ALARM button, then press and hold the  button for 3 seconds for final reset.
- Automatic reset: after automatic troubleshooting of the alarm the audio signal turns off and the signal is reset.
- Automatically repeated reset: the system checks number of repeated interventions per hour. If this number is below the set maximum value, the alarm is automatically reset. As soon as the limit is crossed, the alarm must be reset manually.

Alarm list

| Alarm code | Alarm description | Reset | Action |
|------------|--|---|---|
| A000 | Supply temperature sensor not working | Automatic reset | Unit shutdown |
| A001 | Cooling device alarm | Reset by user | Cooler shutdown |
| A002 | Antifreeze alarm by DIN | Up to two times per hour (3600s), automatic reset of error, from the third time on, manual reset required | Unit shutdown and forced 100% power heating |
| A003 | Prototype software | Automatic reset | Unit shutdown |
| A004 | High number of retain memory writings | Reset by user | No |
| A005 | Error in retain memory writings | Reset by user | No |
| A006 | Return temperature sensor broken not working | Automatic reset | Changeover in the supply control mode |
| A007 | External temperature sensor broken not working | Automatic reset | Deactivation of outdoor air temperature compensation mode |
| A008 | CO ₂ air quality sensor not working | Automatic reset | Deactivation of CO ₂ control mode |
| A009 | Exhaust temperature sensor not working | Automatic reset | Unit shutdown |
| A010 | th-Tune offline | Automatic reset | Deactivation of indoor air temperature compensation mode |
| A011 | Supply temperature out of range | Automatic reset | No |
| A012 | Supply air flow alarm | Reset by user | Unit shutdown |
| A013 | Return air flow alarm | Reset by user | Unit shutdown |
| A014 | Humidifier alarm | Automatic reset | Humidifier shutdown |
| A015 | Humidifier maintenance required | Automatic reset | No |
| A016 | Return fan maintenance required | Automatic reset | No |
| A017 | Supply fan maintenance required | Automatic reset | No |
| A018 | Reheating coil maintenance required | Automatic reset | No |
| A019 | Heat recovery maintenance required | Automatic reset | No |
| A020 | Supply filters alarm | Automatic reset | No |
| A021 | th-Tune clock not working | Automatic reset | No |

| | | | |
|------|--|--|---|
| A022 | th-Tune temperature sensor not working | Automatic reset | Deactivation of indoor air temperature regulation mode |
| A023 | th-Tune humidity sensor not working | Automatic reset | Deactivation of indoor air humidity regulation mode |
| A024 | BMS offline | Automatic reset | No |
| A025 | Supply differential pressure sensor not working | Automatic reset | No |
| A026 | Return differential pressure sensor not working | Automatic reset | No |
| A027 | Fire alarm by digital input | Reset by user | Unit shutdown, forced switching of fans to fire speed |
| A028 | Heating coil water temperature sensor not working | Automatic reset | Unit shutdown, forced switching to 100% bypass damper opening |
| A029 | Preheating coil water temperature sensor not working | Automatic reset | Unit shutdown, forced switching to 100% bypass damper opening |
| A030 | After preheating coil temp.sensor not working | Automatic reset | Preheater shutdown |
| A031 | Heating device alarm | Automatic reset to counter (filter timer) value (3 times 3600 s) | Heater shutdown |
| A032 | Fire alarm by temperature | Reset by user | Unit shutdown, forced switching of fans to fire speed |
| A033 | Antifreeze alarm by heat back water temperature | Automatic reset to counter (filter timer) value (3 times 3600 s) | Unit shutdown, forced switching to 100% bypass damper opening |
| A034 | Antifreeze alarm by preheat back water temperature | Automatic reset to counter (filter timer) value (3 times 3600 s) | Unit shutdown, forced switching to 100% bypass damper opening |
| A035 | Fans overload alarm | Automatic reset | Unit shutdown |
| A036 | Supply humidity sensor not working | Automatic reset | Humidifier shutdown |
| A037 | Unit configuration not allowed | Automatic reset | Unit shutdown |
| A038 | Supply fan - Offline | Automatic reset | Unit shutdown |
| A039 | Supply fan - Line Fault | Automatic reset | Unit shutdown |
| A040 | Supply fan - Motor blocked | Automatic reset | Unit shutdown |
| A041 | Supply fan - Fire alarm | Automatic reset | Unit shutdown |
| A042 | Supply fan - Uin Low (FW 10) | Automatic reset | Unit shutdown |
| A043 | Supply fan - Uin High (FW 10) | Automatic reset | Unit shutdown |
| A044 | Supply fan - UZK low | Automatic reset | Unit shutdown |
| A045 | Supply fan - UZK high | Automatic reset | Unit shutdown |
| A046 | Supply fan - IGBT fault | Automatic reset | Unit shutdown |
| A047 | Supply fan - Earth-GND fault | Automatic reset | Unit shutdown |
| A048 | Supply fan - Peak current error | Automatic reset | Unit shutdown |
| A049 | Supply fan - Hall sensor error | Automatic reset | Unit shutdown |
| A050 | Supply fan - Offline | Automatic reset | Unit shutdown |
| A051 | Supply fan - Phase Failure | Reset by user | Unit shutdown |
| A052 | Supply fan - Motor blocked | Reset by user | Unit shutdown |
| A053 | Supply fan - Mains undervoltage | Reset by user | Unit shutdown |
| A054 | Supply fan - Mains overvoltage | Reset by user | Unit shutdown |
| A055 | Supply fan - DC-link overvoltage | Reset by user | Unit shutdown |
| A056 | Supply fan - DC-link undervoltage | Reset by user | Unit shutdown |
| A057 | Supply fan - Motor overheating | Reset by user | Unit shutdown |
| A058 | Supply fan - Internal circuit overheating | Reset by user | Unit shutdown |
| A059 | Supply fan - Outer stage overheating | Reset by user | Unit shutdown |
| A060 | Supply fan - Hall sensor error | Reset by user | Unit shutdown |
| A061 | Supply fan - Communication error | Reset by user | Unit shutdown |
| A062 | Supply fan - Generic error | Reset by user | Unit shutdown |
| A063 | Supply fan - Outer stage high temperature | Automatic reset | Unit shutdown |
| A064 | Supply fan - Internal circuit high temperature | Automatic reset | Unit shutdown |
| A065 | Supply fan - Motor high temperature | Automatic reset | Unit shutdown |
| A066 | Supply fan - Low DC-link voltage | Automatic reset | Unit shutdown |

| | | | |
|------|--|-----------------|----------------------------|
| A067 | Supply fan - Limited mains power | Automatic reset | Unit shutdown |
| A068 | Supply fan - Limited mains current | Automatic reset | Unit shutdown |
| A069 | Supply fan - Brake mode | Automatic reset | Unit shutdown |
| A070 | Supply fan - Cable break | Automatic reset | Unit shutdown |
| A071 | Supply fan - Freeze protection | Automatic reset | Unit shutdown |
| A072 | Supply fan - Heating: motor stop | Automatic reset | Unit shutdown |
| A073 | Supply fan - Speed under limit | Automatic reset | Unit shutdown |
| A074 | Supply fan - High DC-link voltage | Automatic reset | Unit shutdown |
| A075 | Supply fan - High supply voltage | Automatic reset | Unit shutdown |
| A076 | Supply fan - High line Impedance | Automatic reset | Unit shutdown |
| A077 | Return fan - Offline | Automatic reset | Unit shutdown |
| A078 | Return fan - Line fault | Automatic reset | Unit shutdown |
| A079 | Return fan - Motor blocked | Automatic reset | Unit shutdown |
| A080 | Return fan - Fire alarm | Automatic reset | Unit shutdown |
| A081 | Return fan - Uin Low (FW 10) | Reset by user | Unit shutdown |
| A082 | Return fan - Uin High (FW 10) | Reset by user | Unit shutdown |
| A083 | Return fan - UZK low | Reset by user | Unit shutdown |
| A084 | Return fan - UZK high | Reset by user | Unit shutdown |
| A085 | Return fan - IGBT fault | Reset by user | Unit shutdown |
| A086 | Return fan - Earth-GND fault | Reset by user | Unit shutdown |
| A087 | Return fan - Peak current error | Reset by user | Unit shutdown |
| A088 | Return fan - Hall sensor error | Reset by user | Unit shutdown |
| A089 | Return fan - Offline | Reset by user | Unit shutdown |
| A090 | Return fan - Phase failure | Reset by user | Unit shutdown |
| A091 | Return fan - Motor blocked | Reset by user | Unit shutdown |
| A092 | Return fan - Mains undervoltage | Reset by user | Unit shutdown |
| A093 | Return fan - Mains overvoltage | Reset by user | Unit shutdown |
| A094 | Return fan - DC-link overvoltage | Reset by user | Unit shutdown |
| A095 | Return fan - DC-link undervoltage | Reset by user | Unit shutdown |
| A096 | Return fan - Motor overheating | Reset by user | Unit shutdown |
| A097 | Return fan - Internal circuit overheating | Reset by user | Unit shutdown |
| A098 | Return fan - Outer stage overheating | Reset by user | Unit shutdown |
| A099 | Return fan - Hall sensor error | Reset by user | Unit shutdown |
| A100 | Return fan - Communication error | Automatic reset | Unit shutdown |
| A101 | Return fan - Generic error | Automatic reset | Unit shutdown |
| A102 | Return fan - Outer stage high temperature | Automatic reset | Unit shutdown |
| A103 | Return fan - Internal circuit high temperature | Automatic reset | Unit shutdown |
| A104 | Return fan - Motor high temperature | Automatic reset | Unit shutdown |
| A105 | Return fan - DC-link low voltage | Automatic reset | Unit shutdown |
| A106 | Return fan - Limited mains power | Automatic reset | Unit shutdown |
| A107 | Return fan - Limited mains current | Automatic reset | Unit shutdown |
| A108 | Return fan - Brake mode | Automatic reset | Unit shutdown |
| A109 | Return fan - Cable break | Automatic reset | Unit shutdown |
| A110 | Return fan - Freeze protection | Automatic reset | Unit shutdown |
| A111 | Return fan - Heating: motor stop | Automatic reset | Unit shutdown |
| A112 | Return fan - Speed under limit | Automatic reset | Unit shutdown |
| A113 | Return fan - DC-voltage high | Automatic reset | Unit shutdown |
| A114 | Return fan - High supply voltage | Automatic reset | Shutdown of VOC regulation |
| A115 | Return fan - High line impedance | Automatic reset | No |
| A404 | VOC air quality sensor malfunction | Automatic reset | No |

| | | | |
|------|--|-----------------|---|
| A405 | Supply filter 2 alarm | Automatic reset | Shutdown. Check-up of air humidity for natural cooling |
| A406 | Return filter alarm | Automatic reset | No |
| A407 | Fresh air humidity sensor not working | Automatic reset | No |
| A408 | Preheating coil maintenance required | Automatic reset | No |
| A412 | IEC humidifier maintenance required | Automatic reset | No |
| A413 | Cooling device maintenance required | Automatic reset | No |
| A414 | Cooling device 2 maintenance required | Automatic reset | No |
| A415 | Heating device maintenance required | Automatic reset | No |
| A416 | Heating device 2 maintenance required | Automatic reset | No |
| A417 | Reverse device maintenance required | Automatic reset | No |
| A418 | Reverse device 2 maintenance required | Automatic reset | No |
| A422 | Out of design temperature limits alarm | Automatic reset | Opening air mixing unit or ventilation shutdown if mixing unit is not available |
| A429 | Heat exchanger clogged | Automatic reset | Shutdown of heat recovery |
| A430 | Door switch | Automatic reset | Unit shutdown |

THE ENGINEERING SETTINGS ARE PASSWORD PROTECTED.

**FOR DETAILED DESCRIPTION OF ENGINEERING SETTINGS PLEASE REFER TO THE
MANUAL FOR THE CONTROLLER SOFTWARE.**

PLEASE ASK THE UNIT SUPPLIER FOR THE MANUAL TO THE CONTROLLER SOFTWARE.

The engineering menu enables to set operation of the automation unit with the control panels A30 and A32 both individually and jointly. The automation system is operable also without control panel.

The system can be operated also with an external on/off switch.

The automation unit has a built-in WEB interface and supports the Modbus and Bacnet protocols according to RS485 and Ethernet interfaces.

Please refer to the controller operation manual for information about the protocol setup.



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