WELL-CONTACT PLUS

32142.x

Linea XT platform control device, KNX standard, thermostat function for ambient temperature control (heating and air-conditioning), 2- and 4-pipe system management, 3-speed and proportional fan coil control, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, can be interfaced with actuator with proportional analogue outputs to create a class V modulating room thermostat (contribution 3%), humidistat function with ON/OFF control with respect to a set parameter, VOC (volatile organic compound) function with ON/OFF control, proportional or to call up 2 scenarios, 2 push button function with configuration also as 1 rocker button with status identification LED, central LED matrix to customise symbols or animation, proximity function, white LED backlighting - 2 front modules

The device is KNX Data Secure and is equipped with a dedicated QR code to be used with ETS (version 5.5 and later) during configuration.

The device is integrated with the following four sensors:

- Temperature sensor
  The temperature sensor is integrated with the KNX home automation system and allows the current temperature to be shown on the display or the data to be sent to the bus. It can be used in the thermostat function to manage temperature control in 2 or 4 pipe systems (heating/conditioning) and neutral zone (4 pipe systems only), with "boost" function to run a second source to reach the desired thermal comfort quicker. The 4 available outputs (hot, cold, second stage hot, second stage cold) for the fans can be configured to control 3-speed fan coils, proportional fan coils or to control HVAC type split/VRV systems via third-party KNX interfaces (if the first stage controls split/VRV systems, the second cannot do so). The thermostat is fitted with a white LED matrix display and 2 keys to control the temperature setpoint and to turn the temperature control system on/off. Opposite each key are white LEDs for the "up and down arrow" or "+ and -" symbols. There are also two LEDs that indicate the heating valve control phase (amber or configurable white LED) or cooling phase (blue or configurable white LED). During the configuration phase, you can choose whether to view the room temperature, the current setpoint or the current setpoint delta normally. The thermostat can control proportional fan coils, 3-speed fan coils or HVAC type split/VRV systems via third-party KNX interfaces.
- Humidity sensor
  The humidity sensor is integrated with the KNX home automation system and allows the current humidity to be shown on the display or the data to be sent to the bus. It also allows the humidistat function by sending an On/Off control on the bus when the humidity value increases or decreases with respect to a parameter set during the configuration phase. It can be used to manage ventilation and for dewpoint management, in combination with the temperature.
- VOC air quality control sensor
  The VOC (volatile organic compounds) sensor is integrated with the KNX home automation system and allows the air quality variations to be shown on the display or the data to be sent to the bus. It also allows the sending of an On/Off control or to call up 2 scenarios when the air quality worsens or improves with respect to parameters set during the configuration phase. The VOC sensor, in combination with temperature and humidity, makes it possible to manage ventilation to improve the quality of the air.
- Proximity sensor
  The proximity sensor (the sensitivity of which can be set from ETS) enables the multisensor activation by approaching a hand at a distance set during the configuration phase. Activation propagates the information to the other controls on the same electrified XT mounting frame. The time on standby is configurable. Proximity detection can be associated with the sending of a bit control or the calling up of a scenario.

The device can be used in the following ways:

- Mode 1 - "Master thermostat": Locally controlled thermostat for ON/OFF + setpoint adjustment, possibly with interface block function (as per parameter) without symbols on the keys. The symbols of the upper and lower keys can be customised, choosing from a list on ETS.
  It allows:
  - Viewing of temperature and setpoint on central display. If the climate control art. 32144.x is present, values T, H and VOC will be shown on the display every time the key is pressed.
  - Editing of the values: summer_winter/fan speed/Celsius_Farenheit/on_off using the external keys of the climate control.
- Mode 2 - "Slave thermostat": It only works as a remote user interface for the master thermostat and as a viewer for the internal sensors for internal temperature, humidity, and air quality. The slave thermostat can modify the setpoint set on the master thermostat by sending the new value to the bus. The average temperature calculated with related weighting and distributed by the master thermostat can be displayed on both the master thermostat and the slave thermostats. Temperature control is performed by the master thermostat based on the average temperature. For this function to work, the slave thermostats must send their detected temperature to the master thermostat, which then distributes the average temperature to be displayed and the setpoint.
- Mode 3 - "Sensor viewer": Viewer of the values T, Text, H and VOC on the display. It is used as a simple viewer and normally shows the current temperature. Using the two keys on the device (or with climate control art. 32144.x) the values of the local temperature, remote probe temperature, humidity and air quality can be browsed and displayed.
- Mode 4 - "Rocker switch/push button control": Control with 2 push buttons or 1 rocker switch where the 2 keys can be configured as 2 push buttons or grouped together as 1 rocker switch. The symbols of the upper and lower keys can be customised. In the case of 1 rocker switch the central white LED matrix can be used for customised symbols or for animation, while in the case of 2 push buttons it can be used to display any alarms, load status and scenario activation with customised symbols. The values T, H and VOC are not shown on the display but they are made available on the bus.
- Mode 5 - "Push button control/rocker switch with thermostat function": Control with 2 push buttons or 1 rocker switch where the 2 keys can be configured as 2 push buttons or grouped together as 1 rocker switch + thermostat.
  The symbols of the upper and lower keys can be customised. In the case of 1 rocker switch the central white LED matrix can be used for customised symbols or for animation, while in the case of 2 push buttons it can be used to display any alarms, load status and scenario activation with customised symbols.
  The values T, H and VOC are not shown on the display but they are made available on the bus.
- Mode 6 - "Room number": Allows you to view the room number from 0 to 9999. The lower push button can be programmed for "bell" function with message sending on the bus.

Functions available for each mode:

- Humidity/air quality/external temperature values made available on the bus.
- Sending of ON/OFF controls when the humidity value measured increases/decreases with respect to a threshold configured on ETS (sending of two controls in reference to two thresholds).
- Sending of ON/OFF control or activation of two scenarios when the air quality improves or worsens with respect to a threshold configured on the ETS App.
- Wake-up of device upon external events (e.g. change in contact interface status, PIR sensors).
- Sending of ON/OFF control or activation of a scenario upon proximity detection

CHARACTERISTICS.

- Power supply: supplied with electrified XT mounting frame art. 32602.x, 32603.x, 32604.x or 32614.x and related node art. 32101.
- Maximum absorption from the BUS: 15 mA TP1-256.
- Red LED and configuration/reset push button
- Rear connection to the electrified XT mounting frame 32602.x, 32603.x, 32604.x or 32614.x.
- Occupies 2 front module size 30.5 mm
- Brightness on standby levels selectable from the related parameters
- Hysteresis: adjustable from 0.1°C to 1°C.
- Temperature measurement precision of the built-in sensor: measurement range from 0 to 40°, ±0.5 °C between 15 °C and 30 °C, ±0.8 °C at the extremes.
- Precision of integrated sensor humidity measurement: ± 6RH% typical (in still air at 20 °C and 50RH%)
- Management of 2- and 4-pipe systems.
- Heating, air conditioning with management of the neutral zone.
- Operation via a dedicated ON/OFF or 6-way or proportional hot/cold valve actuator (0-10 V, 4-20 mA).
- Fan coil management (3-speed/proportional and split/VRV system control).
- Selectable PID or ON/OFF control algorithm:
  - the ON/OFF algorithm is the control which, on exceeding the set temperature increased by the threshold value (vice versa for air conditioning), the heating is switched off to then be turned back on when the room temperature drops below the set temperature.
  - PID is a sophisticated algorithm capable of keeping the temperature in the room more stable and it works by switching the system on and off so as to be like a gradual increase or decrease in the system's thermal (or refrigerating) power; ideal for use in floor heating systems, the algorithm needs to be properly calibrated according to the type of environment and system.
- Boost function: control of an auxiliary actuator to speed up the heating or air conditioning of the environment.
- Mild season function: available from the supervisor only for systems configured with 4 pipes; when active, the secondary output is controlled with its own parameters.
- Possibility of using external sensors connected to the bus for:
  - Replacement of the internal sensor.
  - Average with the internal one.
  - Screed temperature limitation.
  - Display on display only.
- Open window management function with delayed power on management.
- Device can be interfaced natively with third-party systems (KNX systems).
- Remote manageable device.
- Anti-stratification function that compares temperatures detected at 2 different heights within the room. If the temperature difference exceeds the value set in a parameter, it controls the fans to run at minimum speed without activating the valve.
- Possibility of using an offset to correct the reading of the temperature measured according to a possible sample thermometer in order to compensate for errors due to special installations (North-facing wall, proximity to hot/cold water pipes, etc.).
- The thermostat can be controlled from a key on the device 32144.x for the ON/OFF, scrolling the viewable values, heating/cooling, fan speed modification, degrees Celsius/Fahrenheit modification, display functions.
- Humidity check: control of an actuator to activate humidification or dehumidification systems.
- Air quality check: control of an actuator to activate air recirculation systems. Calling up of scenarios if the air quality improves or worsens.
- Dewpoint calculation: if there is a risk of dew forming, the thermostat is switched off and sends an alarm signal on the bus to the dedicated object (the delivery temperature required for the calculation can be received via bus or be set fixed using a parameter).

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- 17x7 LED matrix; when configured as 2 push buttons or 1 rocker switch a 5x5 matrix is used.
- Operating temperature: 0 °C - +40 °C (-T40, indoor use).
- ErP classification (EU Reg. 811/2013):
  - ON/OFF: class I, contribution 1%;
  - PID: class IV, contribution 2%;
- Configuration from ETS software.
- Protection degree: IP30
- Tracking index: PTI175
- Degree of pollution: 2 (normal)
- Room temperature during transportation: -25 - +60°C
- Software class: A

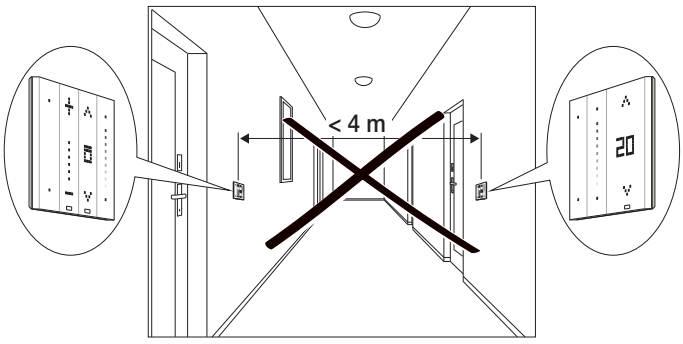
CONFIGURATION.

For all the details relating to the ETS communication objects and to the device configuration, please consult the Well-contact Plus manual available for downloading under "Download -> Software -> Well-contact Plus" on the www.vimar.com website.

Using the front keys, the user can modify the temperature set point and the speed of the fan coil; modifying these parameters forces the device into manual operation.

INSTALLATION RULES.

- Installation and configuration must be carried out by qualified persons in compliance with the current regulations regarding the installation of electrical equipment in the country where the products are installed.
- The device should be installed on electrified XT mounting frames with:
  - 2 modules art. 32602.x (for 2-module mounting box)
  - 3 modules art. 32603.x (for rectangular 3-module mounting box)
  - 4 modules art. 32604.x and 32614.x (for 4-module rectangular mounting box)
- To obtain the temperature and humidity performance levels declared, the device should be installed in the furthest place to the right in the electrified XT mounting frame 32602.x, 32603.x, 32604.x; what's more, a maximum of one actuator can be installed at the back in the furthest place to the left in electrified XT mounting frames 32603.x and 32604.x.
  If this type of installation is not observed, an offset can be set (the temperature and humidity measurement accuracy is however not guaranteed).
- The device must be surface mounted using the electrified XT mounting frame, typically at a height of 1.5 m above floor level, in a suitable position for the correct detection of the room temperature, avoiding installation in recesses, behind doors and curtains, areas affected by heat sources or subject to the flow of forced heating/cooling ventilation sources or affected by atmospheric factors. Avoid in particular installation on perimeter walls or in association with devices which generate heat (e.g. dimmers or lamps).
- To optimise operation, we recommend leaving only one proximity sensor (proximity function) active per lighting device, disabling the others.
- Avoid installing two or more controls with an active proximity sensor (proximity function) facing one another if the distance is less than 4 m:



- Avoid installing a key with an active proximity sensor (proximity function) directly in front of a device with an infrared receiver to prevent potential interference.

REGULATORY COMPLIANCE.

LV Directive. EMC directive. RoHS directive.

Standards EN 60730-2-9, EN 50491-2, EN IEC 63044, EN IEC 63000, EN 60730-2-13.

Temperature control device regulation (EU) no. 811/2013.

REACH (EU) Regulation no. 1907/2006 – Art.33. The product may contain traces of lead.

WEEE - User information

The crossed out bin symbol indicates that the product must be sent to separate collection facilities for recovery and recycling, in compliance with the national laws of EU Countries that implement the WEEE Directive. The objective is to prevent any harmful effects on the environment and on human health by ensuring that products are disposed of correctly, avoiding illegal disposal sanctioned by law. To dispose of the product correctly, please check local dispositions in your country.

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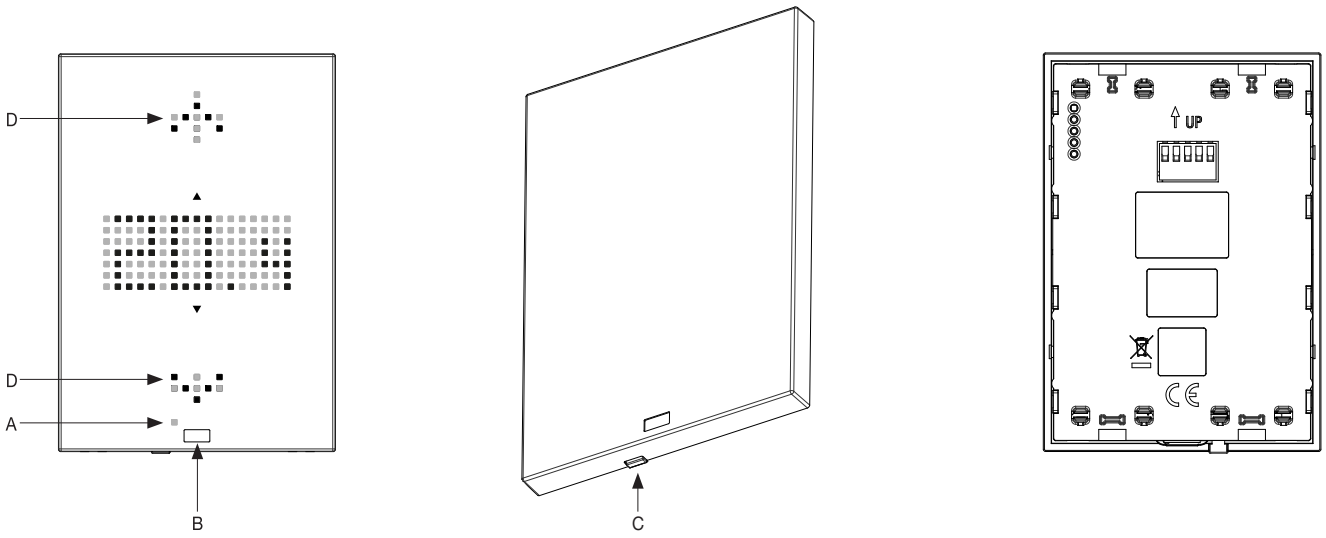
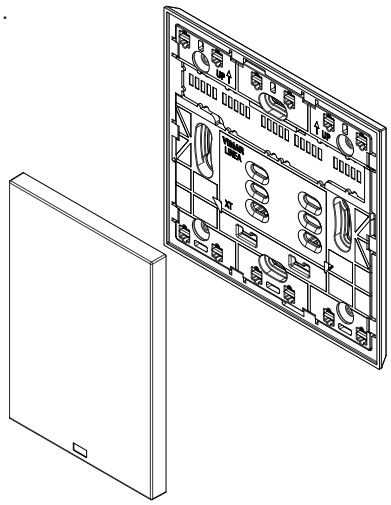
FRONT AND REAR VIEW



A: Red LED
B: Proximity sensor
C: Configuration/Reset push button
D: Push button and white LED matrix

HOOKING THE DEVICE

1.



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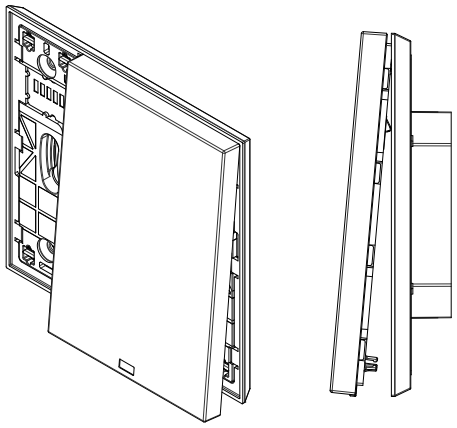

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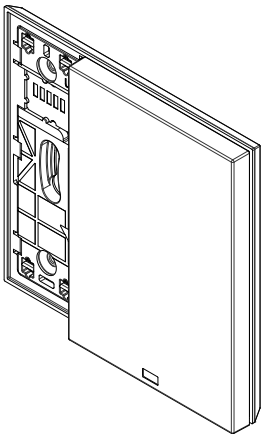
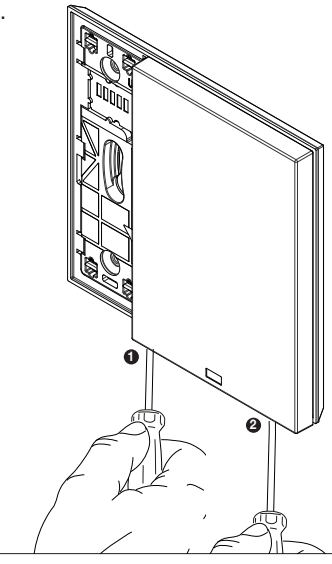


See the INSTALLATION RULES chapter for the position.

REMOVING THE DEVICE

1.



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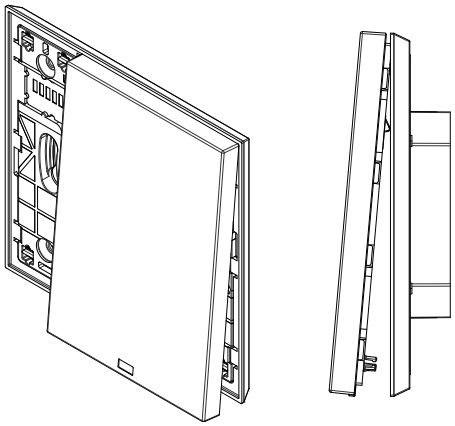
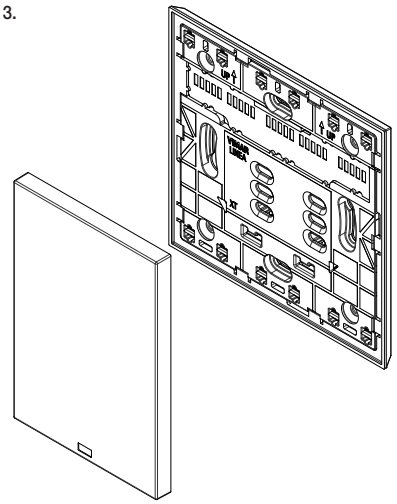


3.



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