

TEMPERATURE CONTROL
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Vimar Group: positive energy for highly developed systems.

Products, systems and solutions for controlling electricity, security and communication: Vimar Group offers all this and much more besides, ensuring continual improvement for every lifestyle. And all under the banner of a Made in Italy brand combining design and technology to deliver top reliability and universal well-being.

A range of residential series offering a wide variety of combinations in terms of design, materials and types of controls; plugs and socket outlets; Home Automation and Building Automation systems; numerous solutions for smart and secure management of video door entry, CCTV and automated access devices.

This is what the Vimar Group offers. An offering that reflects a long history built on tradition, expertise, commitment and passion for a chosen line of work.



Vimar Group. The five points of excellence.

MADE IN ITALY

The heart of the company - where we devise, design and produce products - is still located in the north-east of Italy, because we believe in the Made in Italy in all its forms. Our products are inspired by a truly unique combination of high quality aesthetics and reliable technology. From materials and design to electronic processing, we distinguish ourselves through a renowned style that speaks our language throughout the world.



HIGH QUALITY

We believe that the quality of our products is the best calling card and this is why we test our products one by one. We are proud of our ownership of the most important quality certifications to UNI EN ISO 9001:2008; our environmental management system is certified to the UNI EN ISO 14001:2004 standard, without forgetting health and safety of the work environment certified to BS OHSAS 18001:2007.



RESEARCH AND DEVELOPMENT

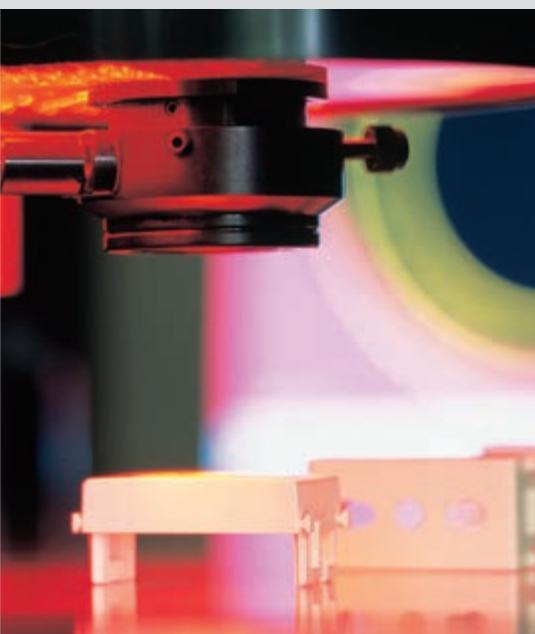
We invest 6% of our annual turnover in Research and Development, to ensure we always offer the very best in terms of technology and design. Over the years we have registered over 150 patents around the world that testify to the equal attention we devote to major innovation and the smaller details that guarantee the safety of simple everyday actions.

ENVIRONMENT

The correct waste material separation ensures the product designed at the outset of being totally dismantled and recycled at the end of its life. Thanks to the water based and UV-cross linked painting we reduce atmospheric emissions of VOCs (Volatile Organic Compounds) lower than the limits set out by the strictest European standards and galvanic bath treatment is replaced with the innovative and greener MSD (Magnetron Sputtering Deposition) treatment. The packaging is made of recycled materials and printed with water-based inks with no harmful substances and with ecological glues.

WE IMPLEMENT IDEAS

We have given shape and life to ideas in order to ensure continual improvement in every lifestyle. Today, for the all-round management of electrical systems, we have a complete range of products: wiring devices, home & building automation systems, video door entry and CCTV and gate automation systems, plugs, socket outlets and accessories. Over 9,000 items in the catalogue that combine aesthetic quality, technological reliability and ease of installation to bring them home to all our customers.



The universe of Vimar group solutions.

For large or small residential, commercial buildings or hospitality facilities, clinics or yachts, we have developed solutions that dialogue with each other, while maintaining their own specificity: technologically

Wiring devices



Eikon



Arké



Plana

AESTHETIC AND FUNCTIONAL SOLUTIONS

Home automation



By-me



By-alarm



Radio frequency
controls

HOME AUTOMATION SYSTEM

advanced functions and systems, which are explained in dedicated catalogues, complement each other with perfect aesthetic coordination to manage any building in the best way possible.

AUTOMATION SYSTEMS

Building automation

KNX



WELL-CONTACT PLUS



NETSAFE



CALL-WAY



Video door entry

EDVAX



Automation systems



CCTV

SOLUTIONS FOR ACCESS AND VIDEO CONTROL

Solutions for conventional systems

A useful summary table to guide you through the solutions for conventional systems. A wide range of functions for any installation requirement, spelled out in a series of preferential applications. Whatever your need Vimar Group always offers the best solution.

CONTROLS

1

For any aesthetic and functional need: touch, axial, rocker, infrared, and radio-frequency.

TEMPERATURE AND ENERGY MANAGEMENT

2

Solutions for thermoregulation and energy management: thermostats and time-thermostats to manage remotely the temperature of the house and view consumption for energy savings.

BURGLAR ALARM

7

Everything you need to create a professional, efficient and complete intrusion detection alarm system, with **pre-configured devices** for systems with up to 24 or 64 zones.

ACCESS CONTROL

8

Transponder and smart card readers to control entry and restrict access to certain rooms.

PLUGS AND SOCKETS

9

A complete system of plugs, socket outlets multiple sockets for simple and professional purposes, adaptors, extension cords and cable reels.

VIDEO DOOR ENTRY

10

Solutions for video door entry system with a wide range of indoor units, entrance panels and controls for landing calls, to suit any building and simplify communication.

Preferential applications.

		1. CONTROLS	2. TEMPERATURE AND ENERGY MANAGEMENT	3. LIGHTING	4. EMERGENCY LIGHTING	5. POWER AND SIGNAL SOCKET OUTLETS	
SMALL RESIDENTIAL BUILDINGS (Small and medium-sized residential units, semi-detached houses and apartments)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LARGE RESIDENTIAL BUILDINGS (Large residential units, detached houses and lofts)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COMMERCIAL BUILDINGS (Small and medium-sized commercial units, shops and offices)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HOTEL BUILDINGS (Small and medium-sized hotel units, B&Bs, hotels, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SCHOOL BUILDINGS (Small and medium-sized school units, infant schools, elementary schools, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HEALTH CARE FACILITIES		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SHIPS AND YACHTS (Small boats, ships and yachts)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LIGHTING

3



Control devices for every type of source (halogen, CFL, LED) and for managing flush-mounted RGB lamps.

EMERGENCY LIGHTING

4



Emergency LED lighting devices with 1 or 3 modules, can be flush mounted, necessary in a black-out or as step lights.

POWER AND SIGNAL SOCKET OUTLETS

5



Devices to provide energy, from Italian and international standard power socket outlets, with SICURY protective shutter, to the power supply unit with USB socket.

SOUND SYSTEM

6



A complete sound system, compatible with MP3 players, iPod and iPhone too, it can be installed in conventional systems.

CCTV

11



Solutions for video surveillance: cameras with analog, analog PRO, AHD, HD-SDI and IP technologies, DVR, NVR video recorders and accessories.

GATE AUTOMATION

12



Specific solutions guaranteed to manage any access and control sliding gates, swing gates, garage doors, doors and windows and barriers.

STRUCTURED CABLING NETSAFE

13



Socket outlets, connectors and devices for transmitting data, videos and images inside and outside the building.

ANTIBACTERIAL DEVICES

14




Controls, socket outlets and cover plates with antibacterial treatment to ensure the utmost hygiene in public facilities.


6. SOUND SYSTEM	7. BY-ALARM BURGLAR ALARM	8. ACCESS CONTROL	9. PLUGS AND SOCKETS	10. VIDEO DOOR ENTRY	11. CCTV	12. GATE AUTOMATION	13. STRUCTURED CABLING	14. ANTIBACTERIAL DEVICES
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Automation solutions for the home and small business sectors.

The By-me home automation system offers four areas of application with a wide range of functions and can be deployed alongside other specific systems, giving added value to your project. See the summary table to check the versatility of our home automation solutions.


HOME AUTOMATION


CONTROL




Sophisticated technology that controls all the functions of the dwelling both centrally by a single control device and room by room via local devices, over the Internet with PCs, tablets and smartphones of the latest generation.

COMFORT



Lighting, scenarios, sound system, moving curtains or roller shutters: each room in the home is an oasis of well-being where you can find the comfortable conditions you prefer.


ENERGY EFFICIENCY



Temperature control, management of energy consumptions, water and gas are optimized with innovative technology that optimizes energy efficiency, reducing waste.







BY-ALARM

BURGLAR ALARM



Total protection guaranteed by the stand-alone By-alarm system, expandable with a wide range of devices; the system can also be integrated with By-me home automation, for continuous, diffused and intelligent control. Certified CEI EN 50131 (grade 2).

Preferential applications.

		HOME AUTOMATION			
		BY-ME			BY-ALARM
		CONTROL	COMFORT	ENERGY EFFICIENCY	BURGLAR ALARM
RESIDENTIAL BUILDINGS (Small and medium-sized residential units, semi-detached houses and apartments)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COMMERCIAL BUILDINGS (Small and medium-sized commercial units: offices, shops, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOTEL BUILDINGS (Small and medium-sized hotel units: hotels, B&Bs, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PUBLIC BUILDINGS (Small and medium-sized school units: infant schools, elementary schools, churches, gymnasiums, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEALTH CARE FACILITIES (Small and medium-sized health care units: nursing homes, convalescent homes, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SHIPS AND YACHTS (Small boats)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VIDEO DOOR ENTRY



Solutions for video door entry system with a wide range of indoor units, entrance panels and controls for landing calls, to suit any building and simplify communication.

CCTV



Solutions for video surveillance: cameras with analog, analog PRO, AHD, HD-SDI and IP technologies, DVR, NVR video recorders and accessories.

GATE AUTOMATION



Specific solutions guaranteed to manage any access and control sliding gates, swing gates, garage doors, doors and windows and barriers.

STRUCTURED CABLING NETSAFE



Socket outlets, connectors and devices for transmitting data, videos and images inside and outside the building.

	VIDEO DOOR ENTRY	CCTV	GATE AUTOMATION	NETSAFE
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Solutions for the building trade and large residential structures.

The Well-contact Plus system — developed to KNX standard to communicate with the other systems in the building — offers four areas of application with a wide range of functions and can be deployed alongside other systems to cover every practical need.

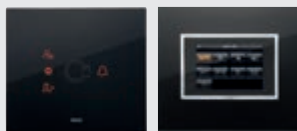
WELL-CONTACT PLUS

CONTROL



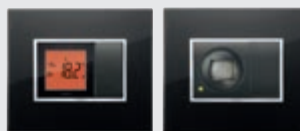
A wide range of products for controlling and supervising scenarios, lights and roller shutters in single rooms or in the entire building.

COMFORT



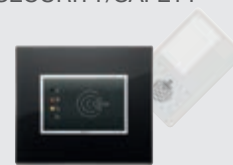
Solutions that guarantee well-being in all the rooms in the facility: lights, automation systems and temperature are controlled with simplicity and tailored to suit the preferences of guests.

ENERGY EFFICIENCY



The system allows intelligent management of energy use in the facility: for example, by switching on lights and activating temperature control only where and when necessary, according to the number of guests in the rooms or the required lighting levels.

SECURITY/SAFETY



The security and safety of rooms is important: access control also covers situations where entry is subject to payment of admission charges.

Preferential applications.

		WELL-CONTACT PLUS			
		CONTROL	COMFORT	ENERGY EFFICIENCY	SECURITY/SAFETY
LARGE RESIDENTIAL BUILDINGS (Large residential units, detached houses and lofts)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COMMERCIAL BUILDINGS (Large commercial units: shopping malls, business centres, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOTEL BUILDINGS (Large hotel units: hotels, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PUBLIC BUILDINGS (Large school units: high schools, universities, churches, gymnasiums, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEALTH CARE FACILITIES (Large health care units: hospitals, clinics, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SHIPS AND YACHTS (Ships and yachts)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use the summary table to find your type of project and you will see that the Vimar offering is truly comprehensive, covering large residential and commercial buildings, and hospitality or healthcare facilities of whatever size.

VIDEO DOOR ENTRY



Solutions for video door entry system with a wide range of indoor units, entrance panels and controls for landing calls, to suit any building and simplify communication.

CCTV



Solutions for video surveillance: cameras with analog, analog PRO, AHD, HD-SDI and IP technologies, DVR, NVR video recorders and accessories.

GATE AUTOMATION



Specific solutions guaranteed to manage any access and control sliding gates, swing gates, garage doors, doors and windows and barriers.

STRUCTURED CABLING NETSAFE



Socket outlets, connectors and devices for transmitting data, videos and images inside and outside the building.

EMERGENCY CALLS CALL-WAY



Emergency call devices for alerting healthcare staff and monitoring patients, controls, socket outlets and cover plates all finished with antibacterial treatment.

	VIDEO DOOR ENTRY	CCTV	GATE AUTOMATION		NETSAFE	CALL-WAY
	■	■	■		■	
	■	■	■		■	
	■	■	■		■	
	■	■	■		■	
	■	■	■		■	■
		■				

Advanced solutions for temperature control and energy supervision.

Devices for constant climate control. But also intelligent solutions for managing energy in the home: thermostats and timer-thermostats combining the highest technological levels with top practical functionality. With a simple touch or the user-friendly cursors.



A WIDE RANGE OF PRODUCTS.

A complete range, packed with functions responding perfectly to any need. Surface and flush mounting thermostats and timer-thermostats, all with user-friendly controls. Some are even available with easy-to-read touch screens, allowing you to manage the device with a simple touch.



AND STYLE COMES WITH THE WHOLE SERIES.

Slim silhouettes, a modern design and reflex white finishes for the surface mounting devices. And for the flush mounting devices, you can choose the cover plate you want from among the many available in the Eikon, Arké, Idea or Plana series.



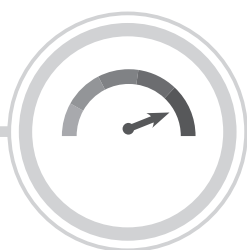
Range



Performances



Functions



ENERGY CLASSIFICATION.

Every device complies with the ERP regulation (Reg. EU 811/2013), providing all the useful information you need to calculate the energy classification of the heating system.



TEMPERATURE AND CONSUMPTION VISUALISATION.

The touch screen makes the control of the perfect temperature and reading energy production or total consumption easy and intuitive.



BY-CLIMA APP.



The intuitive App makes it possible to remotely control the Wi-Fi and GSM surface mounting devices from your smartphone, allowing you to rapidly set the flush mounting devices by sending an audio signal.

The range.

A wide range, satisfying any installation need.

Whether surface or flush mounting, battery or mains powered, designed for stand alone operation or integrated into a home automation system, they help you optimise energy consumption and create the perfect climate throughout the entire building.



GSM



Wi-Fi



SURFACE MOUNTING.

Thermostats and timer-thermostats fitted with user-friendly controls, some with extremely easy-to-read touch screens and others with push buttons, cursors or dials. The new thermostats and timer-thermostats come with intuitive controls and easy-to-read touch screens. They allow for simple and comprehensive temperature control, whether you are at home or away, and display consumption levels to encourage energy saving. And what's more, with the timer-thermostat the boiler can be switched on and off with daily or weekly settings. Stand-alone solutions with wired-in, radio-controlled or wireless controls with GSM and Wi-Fi technology.



Range



FLUSH MOUNTING.

Flush mounting solutions for stand-alone installation or fitted in By-me and Well-contact Plus home automation systems with KNX standard. The climate control and energy functions are combined with a fully range of stylish designs, based on the combination with the Eikon, Arké, Idea and Plana series. Thermostats and timer-thermostats are fitted with highly sensitive, back-lit LED RGB touch screens, allowing perfect colour coordination with the finishes of the chosen cover plates.

Excellent performance from every point of view.

Thermostats and timer-thermostats ensure the highest levels of both functional and technological performance. With the intuitive graphic interfaces, the devices combine user friendliness with advanced technological functions to manage the climate in any building in the best possible way, even remotely.



TOUCH SCREEN.

Many devices are fitted with highly sensitive touch screens to manage the different functions simply and immediately. In the surface mounting version, the GSM and Wi-Fi device screens come with white back-lighting, while in the flush mounting version they have LED RGB back-lighting, matching the colour of the chosen cover plate.



HOTKEYS.

The hotkeys allow you to access specific functions instantly. At a touch, you can set the temperature to stand-by level if you're going out, or lower it a couple of degrees for a pre-set night-time scenario.



INTUITIVE INTERFACE.

The intuitive graphic interfaces allow you to switch on or edit the system operating parameters rapidly: fan-coil speed, required temperature or thermostat operating mode, for example.



Performances



PID ALGORITHM.

The thermostats and timer-thermostats have an advanced algorithm that keeps the temperature as stable as possible, avoiding excessive fluctuations and encouraging energy saving. The total number of boiler operating hours can also be monitored.



CONFIGURABLE MULTI-FUNCTION INPUTS.

Configurable inputs for remote control, energy saving or summer/winter switching and for temperature sensors used to view, adjust or limit consumptions.



WELL-CONTACT PLUS



INTEGRATION WITH BY-ME AND WELL-CONTACT PLUS.

The flush mounting devices integrate perfectly into the Home & Building Automation systems By-me and Well-contact Plus (on KNX standard) offering top installability, performance, functionality, clarity and completeness of the information provided.

Climate comfort.

Complete climate management for any type of building, suited to any environment and controllable locally, centrally from a single point or remotely.

Many possible heating and cooling solutions with systems with two or four pipes, underfloor heating and radiators, fan-coils and split/multisplit systems.



ECOMETER FUNCTION.

An intuitive indicator uses a graduated scale (and dynamic display colour in the flush mounting thermostats) to indicate consumption values and warns through a leaflet symbol, when the comfort temperature is exceeded to encourage greater energy awareness.



LOCAL TEMPERATURE CONTROL.

The climate can also be controlled individually for each room using stylish flush mounting thermostats or by means of intuitive timer-thermostats installed in the various rooms.

The internal sensor calibration function guarantees high-precision temperature control and outstanding levels of comfort.



SETTING HOUR BY HOUR.

With the stand-alone timer-thermostats, the temperature can be set in both manual and timer mode, with weekly settings for each room.



FOR ALL TYPES OF BUILDING.

The devices can be installed in any kind of heat control system: underfloor heating, radiators, fan-coils, split/multisplit systems; both in On/Off and proportional control mode, with both 2 and 4 pipes with neutral zone.



Functions



HUMIDITY CONTROL.

The stand-alone devices display the humidity level in the room. Using special sensors, the home automation devices come on automatically when the set threshold is exceeded, switching on the air recirculation and any dehumidifiers to optimise the climate. Moreover, dew point management allows underfloor cooling systems to operate without forming condensation.



CENTRALISED CLIMATE CONTROL.

Stylish home automation touch screens display the external environmental parameters and the centralised climate management using preset comfort scenarios that are called up easily. With stand-alone devices, the centralised climate management can be configured in this way using multi-function inputs.



THE REQUIRED TEMPERATURE, AS AND WHEN YOU WANT IT

In rooms with underfloor cooling - with high thermal inertia which does not permit sudden variations in temperature - the home automation thermostats can switch on towel heaters or use the innovative "boost" function to automatically start any fan-coils to quickly reach the desired climate comfort.

Intelligent energy management.

Integrated into home automation systems, energy is managed all-round, from consumption monitoring to control of photovoltaic systems, both in single and three-phase systems, in new and renovated buildings, all extremely rationally and intelligently.



COMPLETE ENERGY MANAGEMENT, AT A TOUCH.

The energy loads of a building are managed completely from the touch screen, which can also be used to constantly monitor all the values both by period - on an hourly, daily, weekly, monthly or even yearly basis - and by type of variable (kilowatt hour, euro, carbon dioxide emissions saved) so as to precisely define the energy profile of your home and take action when needed.



AUTO-CONSUMPTION: INDEPENDENT MANAGEMENT OF YOUR SELF-PRODUCED ENERGY.

Thanks to this sophisticated technology, the energy generated by the photovoltaic system during peak production time bands can be sent to selected electrical appliances to optimise consumption. This way, you will only need to purchase energy from the utility company in the evenings when no energy is produced.



Functions



PHOTOVOLTAIC: DISPLAY OF PRODUCED ENERGY.

The new devices allow you to view the energy produced by a photovoltaic system, either locally or remotely using a smartphone. This extremely convenient feature allows you to choose how and when to use the energy you have produced.



VIEWING CONSUMPTION VALUES. NOT JUST ELECTRICAL.

The devices - now also available for three-phase systems - allow you to view the electrical energy consumed by the whole building or single loads as well as other utilities such as water and gas, allowing you to monitor consumption levels. The colour touch screens display energy usage clearly and continuously, promoting greater energy awareness and allowing you to take corrective action to optimise consumption levels.



LOAD CONTROL. NO MORE BLACK OUTS.



No risk of black outs: if the contractual threshold is exceeded, the home automation system decides which loads to switch off, according to preset priorities. Also available for three-phase networks.

Centralised monitoring and control: local or remotely, with By-web.






















Lots of different ways of managing and monitoring the system: directly at home via the touch screen, or remotely using By-web, the app for mobile devices that multiplies the number of control methods.



GUIDELINE		from page 24	GUIDELINE
COMPARATIVE TABLE		from page 30	COMPARATIVE TABLE
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INSTALLATION EXAMPLES		from page 124	INSTALLATION EXAMPLES
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Guideline

Stand alone surface mounting solutions

Wired devices	
Electronic thermostat for ON/OFF ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%), change-over relay output 5(2) A 230 V~, powered by batteries AAA LR3 1.5 V (not supplied), surface mounting	 02900
ClimaThermo electronic touch screen thermostat for ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 programmable multifunction input, change-over relay output 5(2) A 230 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting	 02905
ClimaChrono electronic touch screen timer-thermostat for ambient temperature control (heating and air-conditioning), designed to display energy data via an energy meter, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 programmable multifunction input, change-over relay output 5(2) A 230 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting	 02910
ClimaRadio electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), change-over relay output 5(2) A 250 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting	   01910 01910.14 01910.20
ClimaPiù electronic slider timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%), change-over relay output 5(2) A 250 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting	 01911
Radiofrequency devices	
ClimaPiù electronic slider timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%), change-over relay output 5(2) A 250 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting	  01911 01921.1
ClimaRadio electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), change-over relay output 5(2) A 250 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting	      01910 01921.1 01910.14 01921.1 01910.20 01921.1
Remote devices	
Wi-Fi	
ClimaChrono electronic touch screen timer-thermostat for local or remote control (with dedicated app) of temperature (heating and air-conditioning) in ON/OFF and PID mode, Wi-Fi module for IP connection, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, change-over relay output 5(2) A 230 V~, power supply 230 V~ 50/60 Hz, white LED backlighting, surface mounting	 02911
GSM	
ClimaThermo electronic touch screen thermostat with built-in GSM for local or remote control (with dedicated app) of ambient temperature (heating and air-conditioning), class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, change-over relay output 5(2) A 230 V~, power supply 230 V~ 50/60 Hz, white LED backlighting, surface mounting	 02906
ClimaPhone electronic timer-thermostat for local or remote ON/OFF control (via SMS or dedicated app) of the ambient temperature (heating and air-conditioning) with built-in GSM phone dialler, daily/weekly programming, class I temperature control device (contribution 1%), change-over relay output 5(2) A 230 V~, an additional output and a digital input, remote control via SMS, 120-230 V~ power supply, surface mounting	  01913 01913.14

Guideline

Stand alone surface mounting solutions

Wired devices with energy management

ClimaChrono
electronic touch screen timer-thermostat for ambient temperature control (heating and air-conditioning), designed to display energy data via an energy meter, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 programmable multifunction input, change-over relay output 5(2) A 230 V~, powered by batteries AA LR6 1.5 V (not supplied), surface mounting



02910

02915

Other devices

Radiofrequency

RF transmitter module with spring-terminals connector



01921.1

Energy measurement

Energy meter interface module, 3 toroidal sensor inputs, 1 serial data input



02915

System components for DIN (60715 TH35) rail

1-channel radiofrequency actuator-receiver, for DIN (60715 TH35) rail installation, occupies 6 17,5 mm modules



01923

4-channel radiofrequency actuator-receiver, for DIN (60715 TH35) rail installation



01924

Power meter, 3 inputs for toroidal current sensor 01457, 50 W-10 kW detectable power, 1 RJ9 serial data output, installation on DIN rail (60715 TH35), occupies 1 x 17,5 mm module. Supplied with a toroidal current sensor 01457



02960




















































Wired temperature sensor
from -40 to +120 °C - 3 m



02965.1






















Guideline

Stand alone flush mounting solutions















Stand alone	Eikon	Arké	Idea	Plana
Electronic touch screen thermostat for ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, 1 programmable multifunction input, change-over relay output 5(2) A 230 V~, power supply 120-230 V~ 50/60 Hz, RGB LED backlighting - 2 modules	 02950 black  02950.B white  02950.BN neutral	 02950 black  02950.B white	 16991 : kit composed of 02950, 19041 and 16723	 02950.B white  02950.BN neutral
Electronic thermostat for ON/OFF ambient temperature control (heating and air-conditioning), summer/off/winter switch, class I temperature control device (contribution 1%), input for remote activation of energy-saving function, change-over relay output 6(2) A 230 V~, power supply 120-230 V~ 50/60 Hz - 2 modules		 19440 grey  19440.B white		 14440 white  14440.SL Silver
Electronic touch screen timer-thermostat for ambient temperature control (heating and air-conditioning), locally programmable via dedicated app, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, 1 programmable multifunction input, 1 RJ9 input for energy meter, change-over relay output 5(2) A 230 V~, power supply 120-230 V~ 50/60 Hz, RGB LED backlighting - 3 modules	 02955 black  02955.B white  02955.BN neutral	 02955 black  02955.B white	 16992 : kit composed of 02955 and 16723	 02955.B white  02955.BN neutral
Electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), input for remote switching of phone dialler on/off, change-over relay output 6(2) A 230 V~, power supply 120-230 V~ 50/60 Hz	 20445 grey 2 modules  20445.B white 2 modules  20445.N Next 2 modules		 16575 grey 3 modules  16575.B white 3 modules	 14445 white 2 modules  14445.SL Silver 2 modules
Electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), input for remote switching of phone dialler on/off, change-over relay output 5(2) A 250 V~, AA LR6 1,5 V battery-powered. Not suitable for installation in Isoset IP40 and IP55 enclosures	 20446 grey 3 modules  20446.B white 3 modules  20446.N Next 3 modules	 19446 grey 3 modules  19446.B white 3 modules	 16990 : kit composed of 19446 and 16723	 14446 white 3 modules  14446.SL Silver 3 modules
Electronic temperature sensor , 1 output	 20432 grey  20432.B white  20432.N Next	 19432 grey  19432.B white		 14432 white  14432.SL Silver
Electronic active humidity sensor , 1 output 0-10 V or 4-20 mA, power supply 12/24V - 2 modules. Can be integrated with the By-me home automation system via 01467	 20433 grey  20433.B white  20433.N Next	 19433 grey  19433.B white		 14433 white  14433.SL Silver
Wired temperature sensor from -40 to +120 °C - 3 m	 02965.1			
Power meter , 3 inputs for toroidal current sensor 01457, 50 W-10 kW detectable power, 1 RJ9 serial data output, installation on DIN rail (60715 TH35), occupies 1 17,5 mm module. Supplied with a toroidal current sensor 01457	 02960			







Guideline

Flush mounting solutions for By-me home automation systems

	Eikon	Arké	Idea	Plana
Touch screen home automation system thermostat 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, 1 input for flush mounting or wired NTC temperature sensor, RGB LED backlighting, can be interfaced with actuator with proportional analogue outputs 01466 to make a class V modulating room thermostat (contribution 3%) - 2 modules		 02951 black	 02951.B white	 02951.BN neutral
Thermostat for home automation system with display for ambient temperature ON/OFF control, class I temperature control device (contribution 1%) - 2 modules			 16954 grey	 16954.B white
Thermostat for home automation system with display for automatic or manual three-speed fan-coil control, class I temperature control device (contribution 1%) - 2 modules			 16953 grey	 16953.B white
Temperature probe 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, 1 input for flush mounting or wired NTC temperature sensor, for By-me home automation system, can be interfaced with actuator with proportional analogue outputs 01466 to make a class V modulating room thermostat (contribution 3%)	 20538 grey	 20538.B white	 20538.N Next	 14538 white
Actuator with relay output 16 A 120-230 V~ 50/60 Hz with incorporated current sensor - 2 modules	 20537 grey	 20537.B white	 20537.N Next	 14537 white
Interface for By-me controls transmission to IR receiver, complete with 3 m of cable	 20584.1 grey	 20584.1.B white	 20584.1.N Next	 14584.1 white
Energy meter with incorporated current sensor , measurable powers up to 3680 W, flush mounting (retrofit)			 01451	
Pulse counter interface for measuring data from devices fitted with pulse outputs, such as electricity, water and gas meters, flush mounting (retrofit)			 01452	

System components for By-me home automation system

For DIN (60715 TH35) rail		For DIN (60715 TH35) rail	
Power meter , 3 inputs for toroidal current sensor 01457, 50 W-10 kW detectable power, 1 RJ9 serial data output, installation on DIN rail (60715 TH35), occupies 1 17.5 mm module. Supplied with a toroidal current sensor 01457	 02960	Actuator with 16 A 120-230 V~ change-over relay output , with circulation pump function, push button for manual operating, on DIN (60715 TH35) rail installation, occupies 2 17,5 mm modules	 01850.2
HVAC control for heating systems , class II temperature control device (contribution 2%), power supply 120-230 V~ 50/60 Hz, 3 inputs for PT100, PT1000 and NTC probes, 1 mixer valve control output, 1 output 0-10 V or (0)4-20 mA, 1 change-over relay output 8 A 230 V~, installation on DIN (60715 TH35) rail, occupies 6 17.5 mm modules	 01465	Actuator with 4 16 A 120-230 V~ change-over relay outputs , programmables to control lighting, rolling shutters with laths orientation, fan-coil, push buttons, on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules	 01471
Actuator with 4 (0)4-20 mA or 0-10 V proportional analog outputs with max scaled output voltage, supply voltage 20-230 V~ 50/60 Hz, installation on DIN (60715 TH35) rail, occupies 4 17,5 mm modules. Installed with By-me home automation thermostats and probes enables class V temperature control device (contribution 3%)	 01466	Logic unit for implementing logic, mathematical, timing and messaging functions, installation on DIN (60715 TH35) rail, configurable only with EasyTool Professional, occupies 1 17.5 mm module	 01468
Device with 3 analogue signal inputs , 1 input 0-10 V or 4-20 mA, 1 input for linear or flush mounting NTC temperature sensor, 1 input for brightness sensor 01530, for By-me home automation, installation on DIN (60715 TH35) rail, occupies 2 17.5 mm modules	 01467	Toroidal current sensor for load control and power measurement, hole diameter 7.5 mm , cable length 40 cm	 01457
Energy meter , 3 inputs for toroidal current sensor, measurable powers 25 W-100 kW, single phase power supply 120-230 V 50/60 Hz three phase 230/400 V 50/60 Hz, installation on DIN (60715 TH35) rail, occupies 1 17.5 mm module. Supplied with toroidal current sensor	 01450	Toroidal current sensor for load control and power measurement, hole diameter 19 mm , cable length 40 cm	 01458
Load control module , 3 inputs for toroidal current sensor, measurable powers 25 W-100 kW, single phase power supply 120-230 V 50/60 Hz three phase 230/400 V 50/60 Hz, installation on DIN (60715 TH35) rail, occupies 1 17.5 mm module. Supplied with toroidal current sensor 01457	 01455	Toroidal differential current sensor for power actuator, hole diameter 9 mm , cable length 40 cm	 01459
Actuator with relay output 16 A 120-230 V~ 50/60 Hz with built-in current sensor, 1 input channel for toroidal differential current sensor, installation on DIN (60715 TH35) rail, occupies 1 17.5 mm module. Supplied without toroidal differential current sensor.	 01456	Weather station, KNX standard , power supply 12-32 Vdc or 12-24 Vac. Can be integrated with the By-me home automation system	 01546

Basic components	Eikon	Arké	Plana
Control and configuration unit with monochrome touch screen, temperature sensor input, supplied with V51923 frame for DIN (60715 TH35) rail installation, 3 modules. Supplied with frontal programming RJ45 connector, cable and V51921 accessory for DIN (60715 TH35) rail installation		 21509 grey  21509.B white  21509.N Next	
Power supply with 29 Vdc 400 mA output , supply voltage 230 V~ 50/60 Hz, with decoupling coil (choke) for DIN (60715 TH35) rail installation, occupies 2 17,5 mm modules			 01400
Power supply with 29 Vdc 1280 mA output , supply voltage 120-230 V~ 50/60 Hz, with decoupling coil (choke) for DIN (60715 TH35) rail installation, occupies 8 17,5 mm modules			 01401
Bus system cable , halogen-free 2x0,50 mm ² , rated operating voltage to earth 400 V, suitable for I category cables, white - 100 m			 01840

Flush mounting solutions for Well-contact Plus building automation systems



	Eikon	Arké	Idea	Plana
Electronic touch screen thermostat for ambient temperature control (heating and air-conditioning) of 2 independent zones, KNX standard , class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PI mode, 1 NO relay output 4 A 24 V~, 1 input for wired temperature sensor or electronic temperature sensor, 1 programmable digital input, RGB LED backlighting, can be interfaced with actuator with KNX proportional analogue outputs to make a class V modulating room thermostat (contribution 3%), 2 modules			02952 black 02952.B white 02952.BN neutral	
Electronic thermostat for ON/OFF ambient temperature control (heating and air conditioning) of 2 independent zones, KNX standard , class I temperature control device (contribution 1%), 1 NO relay output 4 A 24 V~, 1 input for temperature sensor compatible with 20432, 19432 or 14432, 1 programmable digital input - 2 modules			16915 grey 16915.B white	
Electronic temperature sensor , 1 output	20432 grey 20432.B white 20432.N Next	19432 grey 19432.B white		14432 white 14432.SL Silver
Electronic active humidity sensor , 1 output 0-10 V or 4-20 mA, power supply 12/24 V - 2 modules. Can be integrated with the By-me home automation system via 01467	20433 grey 20433.B white 20433.N Next	19433 grey 19433.B white		14433 white 14433.SL Silver
Wired temperature sensor from -40 to +120 °C - 3 m	02965.1			

For DIN (60715 TH35) rail

Power supply unit with Bus output of 30 Vdc 320 mA, auxiliary output 30 Vdc, power supply 120-240 V~ 50/60 Hz, with decoupling coil, KNX standard , installation on DIN rail (60715 TH35) occupies 4 17,5 mm modules	▲ 01500.2
Power unit with Bus 30 Vdc 320 mA output, supply voltage 85 -265 V~ 50/60 Hz, with decoupling coil, KNX standard , on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules	▲ 01500.1
Power supply unit with Bus output of 30 Vdc 640 mA, auxiliary output 30 Vdc, power supply 120-240 V~ 50/60 Hz, with decoupling coil, KNX standard , installation on DIN rail (60715 TH35) occupies 4 17,5 mm modules	▲ 01501.2
Power unit with Bus 30 V dc 640 mA output, 30 Vdc auxiliary output, supply voltage 85-265 V~ 50/60 Hz, with decoupling coil, KNX standard , on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules	▲ 01501.1
USB interface , KNX B-type , installation on DIN (60715 TH35) rail, occupies 2 17,5 mm modules	01540
Input/output device , 4 NO 16 A 250 V~ relay outputs, 4 inputs for NO contacts, KNX standard , installation on DIN (60715 TH35) rail, occupies 4 17,5 mm modules	01522







For DIN (60715 TH35) rail

Actuator with 4 NO 16 A 250 V~ relay outputs , KNX standard , installation on DIN rail (60715 TH35), occupies 4 17,5 mm modules	01523
Actuator for solenoid valves , 6 230 V~ 0,5 A outputs, room control push buttons, KNX standard , on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules	▲ 01535
Actuator with 4 0-10 V or (0)4-20 mA analog outputs , KNX standard , on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules	▲ 01536
Interface with 2 channel programmable as clean contact inputs or LED outputs, KNX standard	▲ 01514
Interface with 4 input or output programmable channels for LEDs, KNX standard	01515
Weather station , KNX standard , power supply 12-32 Vdc or 12-24 Vac. Can be integrated with the By-me home automation system	01546
2x2x0,8 mm cable , LSZH halogen-free, KNX standard , green - 100 m	01890

TEMPERATURE CONTROL

Comparative table







Functions comparative table

Surface mounting stand alone devices						
	 02900	 02905	 02906	 01913	 02911	 02910
Type	Electronic thermostat	Touch thermostat	Thermostat GSM	Timer-thermostat GSM	Timer-thermostat Wi-Fi	Touch timer-thermostat
Supply voltage	3 V	3 V	230 V 50/60 Hz	230 V, 50/60 Hz with backup battery	230 V 50/60 Hz	3 V
Control	On/Off	On/Off and PID	On/Off and PID	On/Off	On/Off and PID	On/Off and PID
Energy class	I	I in On/Off IV in PID	I in On/Off IV in PID	I	I	I in On/Off IV in PID
Contribution	1%	1% in On/Off 2% in PID	1% in On/Off 2% in PID	1%	1%	1% in On/Off 2% in PID
Display		Capacitive	Capacitive	LCD	Capacitive	Capacitive
Backlighting			White		White	
Hot keys	YES (eco)	YES (output)	YES (eco/output)		YES (output)	YES (output)
Protected mode		YES (PIN)	YES (PIN)	YES	YES (PIN)	YES (PIN)
Ecometer		YES	YES		YES	YES
Off-set T°		YES	YES		YES	YES
Configurable sensor input			Limitation visualisation adjustment		Limitation visualisation adjustment	
Auxiliary inputs/ outputs		1 configurable input for: Nighttime reduction, Remote activation, Summer/Winter		1 alarm signal input 1 auxiliary relay output		1 configurable input for: Nighttime reduction, Remote activation, Summer/Winter
Special functions						Energy monitor with module 02915 (optional)
Audio feedback		YES (with 02915)			YES	
Configuration			YES: remotely with By-clima App via GSM	YES: remotely with By-clima App via GSM	YES: remotely with By-clima App via Wi-Fi	
Control connectivity			YES: remotely with By-clima App via GSM	YES: remotely with By-clima App via GSM	YES: remotely with via Cloud	
Installation	Surface	Surface	Surface	Surface	Surface	Surface

TEMPERATURE CONTROL

Comparative table

Functions comparative table

Surface mounting stand alone devices		Flush mounting stand alone devices		Flush mounting automation devices	
					
01910	01911	02950: black 02950.B: white 02950.BN: neutral	02955: black 02955.B: white 02955.BN: neutral	02951: black 02951.B: white 02951.BN: neutral	02952: black 02952.B: white 02952.BN: neutral
Digit-timer-thermostat	Sliding timer-thermostat	Touch thermostat	Touch timer-thermostat	By-me Touch thermostat	Well-contact Plus Touch thermostat
3 V	3 V	120/220 V 50/60 Hz	120/220 V 50/60 Hz	29 Vdc	29 Vdc
On/Off	On/Off	On/Off and PID	On/Off and PID	On/Off and PID	On/Off and PI
I	I	I in On/Off IV in PID	I in On/Off IV in PID	I in On/Off IV in PID V with 01466 actuator	I in On/Off IV in PI V with KNX actuator
1%	1%	1% in On/Off 2% in PID	1% in On/Off 2% in PID	1% in On/Off 2% in PID 3% with 01466 actuator	1% in mod. On/Off 2% in mod. PI 3% with KNX actuator
LCD	LCD	Inverse capacitive	Inverse capacitive	Positive capacitive	Positive capacitive
		RGB	RGB	RGB	RGB
		YES (eco/output)	YES (output)		
	YES (PIN)	YES (PIN)	YES (PIN)	YES (from configuration on control unit or EasyTool Pro)	YES (from configuration on ETS)
		YES (color)	YES (color)	YES	YES
		YES	YES	YES	YES
		Limitation visualisation adjustment	Limitation visualisation adjustment	Limitation visualisation adjustment	Limitation visualisation adjustment
1 input for remote activation		1 configurable input for: Nighttime reduction, Remote activation, Summer/Winter	1 configurable input for: Nighttime reduction, Remote activation, Summer/Winter		1 relay-input / 1 relay output, configurables on ETS
RF transmission with 01921.1 (optional)	RF transmission with 01921.1 (optional)		Built-in energy monitor (RS485)	Humidity display, fan-coil control, 2/4 pipe management	Humidity display, fan-coil control, 2/4 pipe management
			YES	YES	
			YES: with By-clima App via audio	YES: from By-me 21509 control unit or PC with EasyTool Professional software	YES: with ETS
				YES: with touch screen; remotely via By-phone App, GSM or By-me via IP	YES: with touch screen; remotely via By-web KNX App and via IP
Surface	Surface	Flush, with Eikon, Arké, Plana and Idea	Flush, with Eikon, Arké, Plana and Idea	Flush, with Eikon, Arké, Plana and Idea	Flush, with Eikon, Arké, Plana and Idea

TEMPERATURE CONTROL

Clima: thermostat

Electronic thermostat

The electronic thermostat is designed to control room temperature by acting on the control circuit of the burner or circulation pump (heating) or on the control circuit of the air conditioner (air conditioning), with the possibility of activating the "energy saving" function.


The device is powered by 2 AAA LR03 1,5 V batteries (not supplied).

Main functions

- **"energy saving"** function: the set temperature is reduced by 4°C (heating) or increased by 4°C (air conditioning).

Main characteristics

- configurable in heating/air conditioning mode (winter/summer);
- type of setting: ON/OFF;
- type of contact opening: micro-disconnection;
- type of action: 1.C;
- degree of pollution: 2 (normal);
- batteries not supplied;

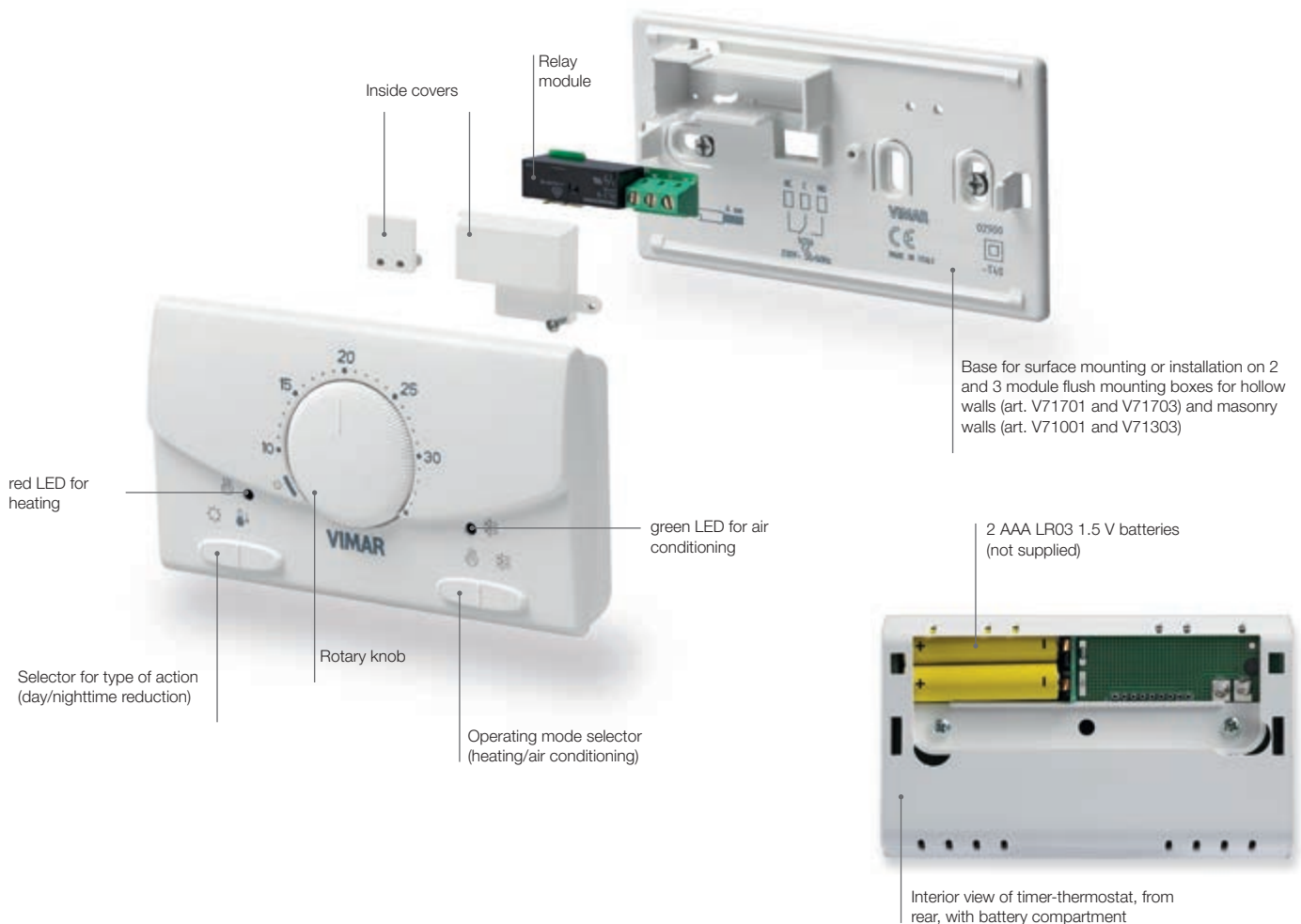
- battery life: more than a year in normal conditions of use;
- protection class: IP20;
- class II appliance:  ;
- surface mounting using expansion plugs.

02900 - Technical data

Power supply with 2 AAA LR03 1.5 V batteries	3 Vdc
Adjustment range	+10°C - +35°C
Number of manual cycles	3,000
Number of automatic cycles	10,000
Nominal pulse voltage	4,000 V
Software class and structure	A
ErP classification (Reg. UE 811/2013)	Class I, contribution 1%
Tracking index	PTI 175
Operating temperature	from 0°C to +40°C (indoor use)
Outputs	
relay with 5(2) A 230 V~ clean change-over contact	NO, NC, C

Conformity to Standards

LV Directive, EMC Directive,
Standards EN 60730-1, EN 60730-2-9



TEMPERATURE CONTROL



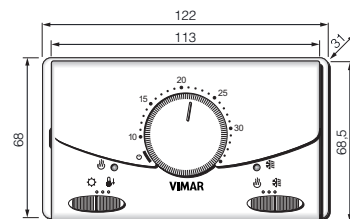
Clima: thermostat

Electronic thermostat

02900 Electronic thermostat for ON/OFF ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%), change-over relay output 5(2) A 230 V~, 2 AAA LR3 1.5 V battery-powered (not supplied), surface mounting, white



02900



02900

SURFACE MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

TEMPERATURE CONTROL

ClimaThermo: touch thermostat



Electronic touch screen thermostat

The device is powered by 2 AA LR6 1.5 V batteries and is suitable for controlling heating and air conditioning systems.

It is equipped with capacitive buttons and a graphic user interface with special screens to help the user operate the system and make energy savings. The device has a multipurpose input that can be configured to activate nighttime reduction mode or adjustment with comfort set-points or to set summer/winter operating mode.

Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface:
 - the **ON/OFF** algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
 - the **PID** is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- **"Ecometer"** function: by means of specific items it provides a general indication of expected consumption, thereby facilitating energy saving measures.
This consumption estimate is based on a comparison between the current set temperature value and an "average" consumption value set on the thermostat.

Main characteristics

- 4" touch screen display;
- configurable in heating/air conditioning mode (winter/summer);
- Off-set mode (T°): for calibrating the temperature read by the thermostat; you can add or subtract (in intervals of 0.1°C) a fixed amount from the temperature detected by the timer-thermostat to make it equal, for example, to that of a sample thermometer;
- use of the "hour meter": the number of hours that the thermostat relay has been on (equal to the number of hours of operation of the heating/air conditioning system);
- operating modes: Off, Antifreeze (heating only), Away, Manual and Nighttime reduction;
- 5 settable temperature set-points/offsets (comfort, manual, away, antifreeze, reduction);
- restriction on local interface access via PIN and configurable multi-function input;

- two modes of use:
 - **Easy mode** in which the user can set only the desired temperature set point without having to confirm the entered value and without accessing the configuration;
 - Normal mode in which the user has access to all thermostat use menus;
- batteries not supplied;
- battery life: more than a year in normal conditions of use;
- protection class: IP20.

02905 - Technical data

Power supply with 2 AA LR6 1.5 V batteries	3 Vdc
Nominal pulse voltage	4000 V
Displayed temperature refresh	every 5 s
Room temperature display	0°C +40°C
Reading resolution	0.1°C
Setting resolution	0.1°C
Adjustable temperature differential	from 0.1°C to 1°C
Adjustment range in antifreeze mode	from +4°C to +15°C
Adjustment range in heating/air conditioning modes	from +5°C to +35°C
Reading accuracy	- $\leq \pm 0.5^\circ\text{C}$ between +15°C and +30°C - $\leq \pm 0.8^\circ\text{C}$ at extremes
Clock error	- $\leq \pm 1$ s per day
Operating temperature	from 0°C to +40°C (indoor use)
ErP classification (Reg. UE 811/2013)	On/Off: class I, contribution 1% PID: class IV, contribution 2%

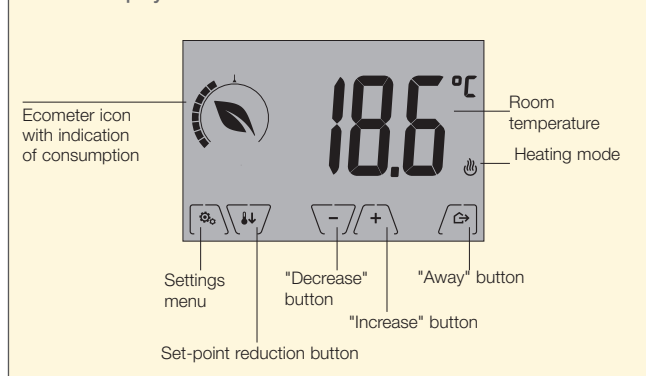
Inputs

multi-function input	+ -
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Outputs

relay with 5(2) A 250 V~ clean change-over contact	NO, NC, C
----------------------------------------------------	-----------

02905 - Display



Conformity to Standards

LV Directive, EMC Directive,
Standard EN 60730-2-9

TEMPERATURE CONTROL

ClimaThermo: touch thermostat

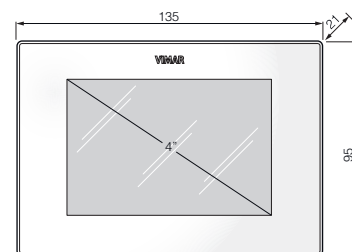


Electronic touch screen thermostat

02905 Electronic touch screen thermostat for ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 programmable multifunction input, change-over relay output 5(2) A 230 V~, 2 AA LR6 1.5 V battery-powered (not supplied), surface mounting, white

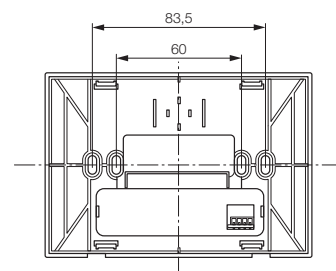


02905

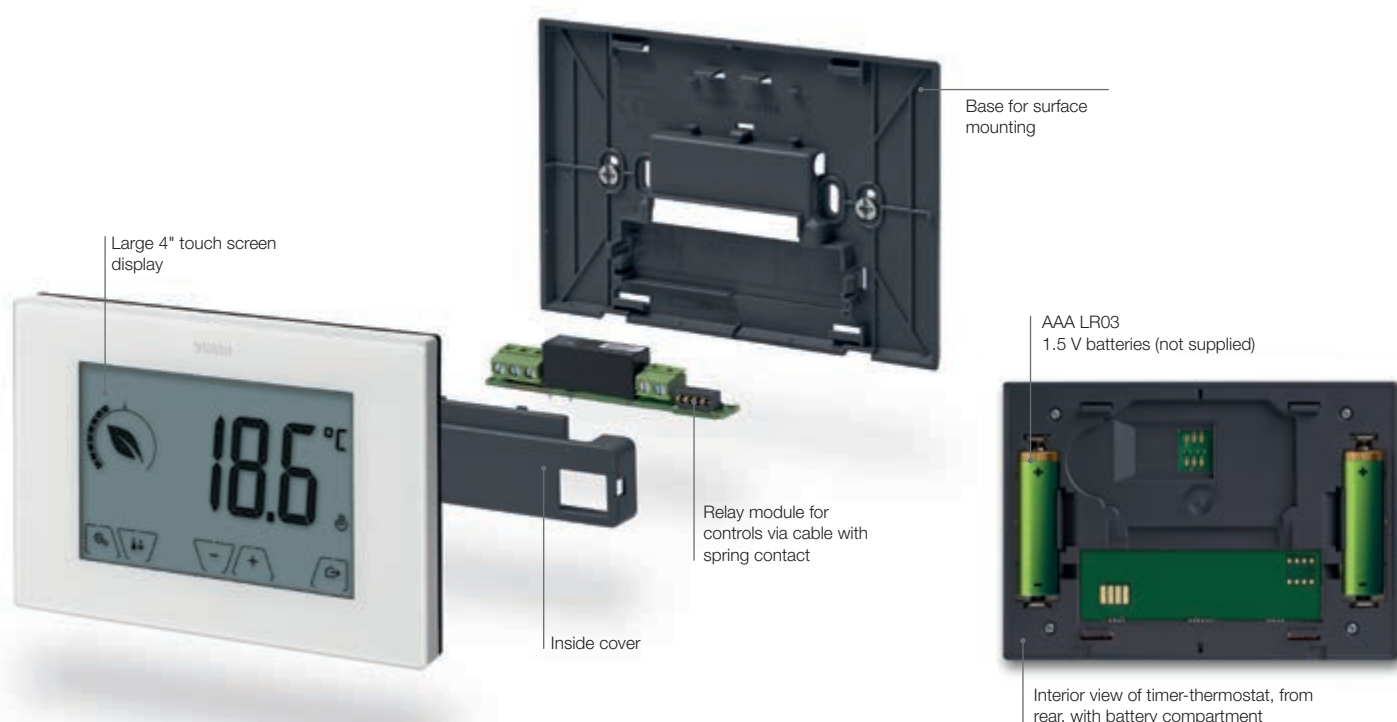


02905

Drilling templates (in mm)



SURFACE MOUNTING
THERMOSTATS
TIMER-THERMOSTATS



ClimaThermo: GSM touch thermostat

GSM touch screen thermostat

The electronic touch screen thermostat is designed to control room temperature by means of the control circuit of the burner or circulation pump (heating) or the control circuit of the air conditioner (air conditioning), ensuring an ideal temperature; it features an incorporated GSM communicator for remote control, capacitive buttons and a graphic interface that uses special screens to help the user manage the system.

The device has an input for the external temperature probe 02965.1 (not supplied).

Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface:
 - the **ON/OFF** algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
 - the **PID** is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- **"Ecometer"** function: by means of specific items it provides a general indication of expected consumption, thereby facilitating energy saving measures.

This consumption estimate is based on a comparison between the current set temperature value and an "average" consumption value set on the timer-thermostat.


Main characteristics

- 4" touch screen display;
- Programmable via smartphone or tablet after downloading the dedicated By-clima app from the website gestione-energia.vimar.it/it;
- remote interaction is facilitated by the By-clima smartphone app available for iOS, Android and WindowsPhone, which automati-

cally sends coded SMS messages to activate and deactivate the thermostat and interrogate it about data, the environment and other functions;

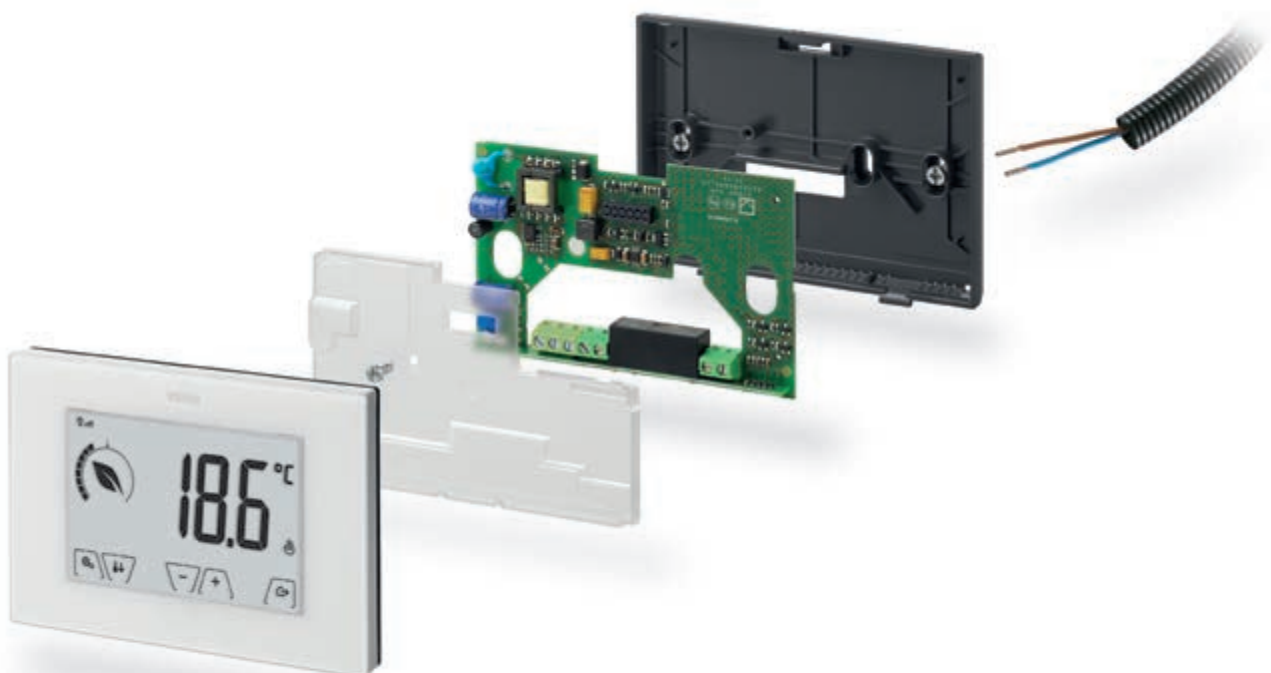
- configurable in Heating/Air Conditioning mode (winter/summer);
- Off-set mode (T°): for calibrating the temperature read by the thermostat; you can add or subtract (in intervals of 0.1°C) a fixed amount from the temperature detected by the timer-thermostat to make it equal, for example, to that of a sample thermometer;
- "hour meter" display: the number of hours that the thermostat relay has been on (equal to the number of hours of operation of the heating/air conditioning system);
- operating modes: Off, Antifreeze (heating only), Away, Manual and Nighttime reduction;
- 5 settable temperature set-points/offsets (Comfort, Manual, Away, Antifreeze, Reduction);
- local interface access protected by PIN;
- protection class: IP40.

02906 - Technical data

Power supply	230 Vac, 50/60 Hz
Mains power draw	3 VA
Room temperature display	0 °C +40 °C
Reading resolution	0,1 °C
Setting resolution	0,1 °C
Adjustable temperature differential	from 0,1 °C to 1° C
Adjustment range in antifreeze mode	from +4 °C to +10 °C
Adjustment range in heating/air conditioning modes	from +10 °C a +35 °C
Reading accuracy	≤ ± 0,5 °C between +15 °C and +30 °C ≤ ± 0,8 °C at extremes
Operating temperature	da 0 °C a + 40 °C (indoor use)
ErP classification (Reg. UE 811/2013)	On/Off: class I, contribution 1% PID: classe IV, contribution 2%
Inputs	
power supply	L, N
external temperature probe (02965.1)	
Outputs	
relay with 5(2) A 250 V~ clean change-over contact	NO, NC, C

Conformity to Standards

LV Directive, EMC Directive,
Standards EN 60730-2-7, EN 60730-2-9



TEMPERATURE CONTROL



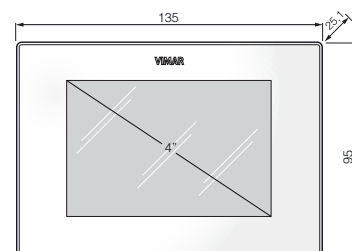
ClimaThermo: GSM touch thermostat

GSM touch screen thermostat

02906 Electronic touchscreen thermostat with built-in GSM for local or remote control (with dedicated App) of ambient temperature (heating and air-conditioning), class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, 5(2) A 230 V~ change-over relay output, power supply 230 V~ 50/60 Hz, white LED backlighting, surface mounting, white

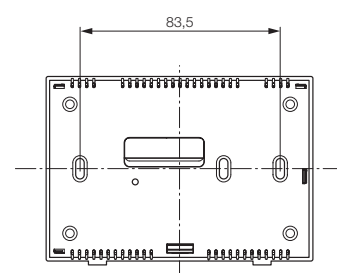


02906



02906

Drilling templates (in mm)



SURFACE MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

Unlimited control with By-clima App.

The By-clima App for smartphone allows the programming and control of via SMS sending. It is available free of charge for iOS, Android, WindowsPhone and Windows 8.1 and 10 operating systems.



By-clima App
for smartphone



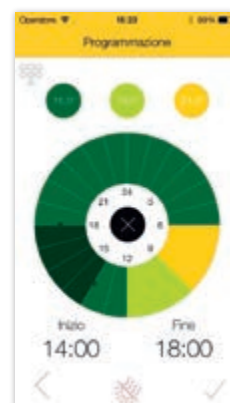
Device menu



Use mode menu



Temperature menu



Daily programming menu

ClimaPhone: GSM timer-thermostat

GSM electronic timer-thermostat

- easy programming thanks to the By-clima App for smartphone, for iOS, Android, WindowsPhone and Windows 8.1 and 10 operating systems;
- integrated GSM communicator with internal antenna that uses SMS messages to:
 - manage timer-thermostat operation;
 - configure the timer-thermostat;
 - query the timer-thermostat to determine its status;
 - switch the supplementary relay output on and off and query its status;
 - query the state of the digital input;
 - redirect non-system SMS messages;
- warn of alarms via SMS that can be associated with the digital input; sending up to 8 different phone numbers;
- possibility of setting a password for access to the timer-thermostat menus and make changes to its operation;
- connection with interface 01998 (provided with arts. 01993) for programming with a PC using EasyTool Professional software;
- 2 AAA Ni-MH 1,2 V rechargeable batteries for the power supply in case of power failure; in the absence of mains power and with the batteries initially charged, the timer-thermostat remains fully operating (i.e. with the GSM module active) for approximately two hours;
- timed temperature setting;
- program for heating and 1 for air conditioning;
- 4 programmable temperature levels for heating and 4 for air conditioning (T1, T2, T3 and Antifreeze));
- operating modes: Manual, Timed Manual, Automatic, Antifreeze, Off and Timed Switch-Off;

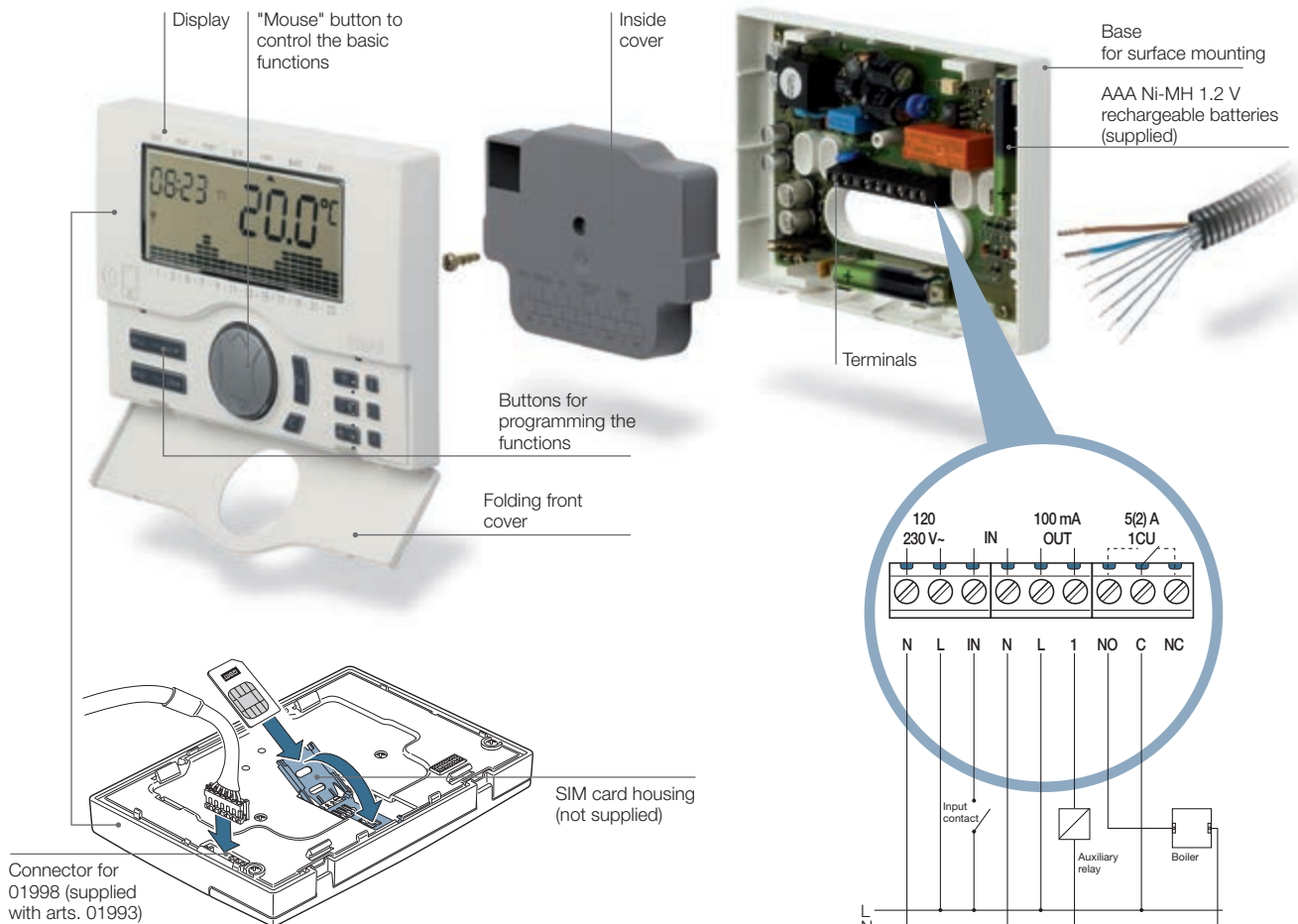
- protection degree: IP30;
- type of contact opening: micro-disconnection;
- phone communication: GSM-GPRS, E-GSM 900, 1800 MHz GPRS class 10.
- surface mounting with expansion plugs or with V71303 or 60 mm distance between centres flush mounting boxes;

01913 - Technical data

Power supply	120-230 V~, 50/60 Hz
Backup power 2 AAA batteries	Ni-MH 1,2 V
Displayed temperature refresh	every 20 s
Room temperature display	0 °C +40 °C
Reading resolution	0,1 °C
Setting resolution	0,1 °C
Adjustable temperature differential	from 0,1 °C to 1° C
Adjustment range in antifreeze mode	from +4 °C to +15 °C
Adjustment range in heating/air conditioning modes	from +5 °C to +35 °C
Reading accuracy	≤ ± 0,5 °C between +15 °C and +30 °C ≤ ± 0,8 °C at extremes
Clock error	- ≤ ± 1 s per day
Operating temperature	from 0 °C to + 40 °C (indoor use)
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
Inputs	
power supply 120-230V~	N, L
1 digital (alarm signalling) 120-230V~	N, L, IN, N
SIM card housing (not supplied)	SIM
Outputs	
for 100 mA 120-230V~ auxiliary relay control	L, 1

Conformity to Standards

R&TTE Directive,
EN 60730-1, EN 60730-2-7, EN 60730-2-9,
EN 301 489-1, EN 301 489-7, EN 301 511 Standards



TEMPERATURE CONTROL



ClimaPhone: GSM timer-thermostat

GSM electronic timer-thermostat

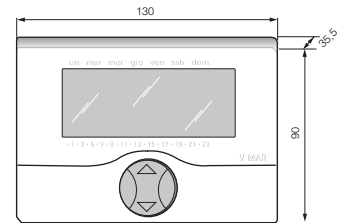
01913 .14 Electronic timer-thermostat for local or remote ON/OFF control (via SMS or dedicated app) of the ambient temperature (heating and air-conditioning) with built-in GSM phone dialler, daily/weekly programming, class I temperature control device (contribution 1%), change-over relay output 5(2) A 230 V~, an additional output and a digital input, remote control via SMS, 120-230 V~ power supply, surface mounting



01913
white



01913.14
anthracite



01913

SURFACE MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

Unlimited control with By-clima App.

The By-clima App for smartphone allows the programming and control of via SMS sending. It is available free of charge for iOS, Android, WindowsPhone and Windows 8.1 and 10 operating systems.

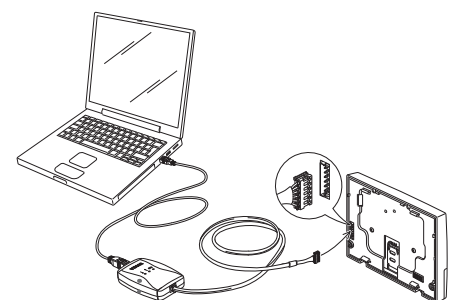


By-clima App
for smartphone

Programming with EasyTool Professional.

In addition to the front buttons and SMS messages, ClimaPhone can also be configured using the EasyTool Professional software downloadable from Vimar web site and the 01998 interface (supplied with arts. 01993) enables by PC these operations:

- configuring the timer-thermostat by setting operating modes and parameters;
- setting the parameters associated with the digital input and the supplementary output;
- customising identification of the digital input, supplementary output and relay controlled by the timer-thermostat by means of a text label;
- setting the phone numbers for sending the SMS alarms.



Interface 01998 (supplied with arts. 01993) for PC connection

ClimaChrono: Wi-Fi touch timer-thermostat

Wi-Fi touch timer-thermostat

The touch screen electronic programmable timer-thermostat is suitable for controlling the room temperature by acting on the control circuit of the burner or the circulating pump (heating) or the control circuit of the air conditioner (air conditioning), ensuring an ideal temperature; it has an integrated Wi-Fi module for IP interconnection, capacitive keys and a graphical interface which, thanks to special displays, facilitates the user in system management. The device has an input for the external temperature probe 02965.1 (not supplied).

Main functions


- algoritmi di termoregolazione: ON/OFF o PID selezionabili da interfaccia utente:
 - the **ON/OFF** algorithm is the control where, if the set temperature increased by a threshold value is exceeded (vice versa for air conditioning), the heating is turned off and then turned on again when the room temperature falls below the set temperature;
 - the **PID** is an advanced algorithm able to keep the room temperature more stable and works by turning the system on and off so as to obtain a gradual increase or decrease in the heat output (or cooling capacity) of the system; ideal for use in floor heating systems, the algorithm needs to be properly calibrated according to the type of environment and system;
- "**Ecometer**" function: provides, through special icons, a general indication of expected consumption, facilitating intervention for energy saving. This expected consumption is given by a comparison between the currently set temperature value and a conventional set point.

Main characteristics

- 4" touch screen display;
- Wi-Fi network configuration via Vimar By-clima App;
- controllable via local interface (touch screen) or remotely via Wi-Fi (with Vimar By-clima App for Android, iOS, Windows Phone, downloadable from the stores of each platform);
- Wi-Fi access via the Internet with Vimar cloud free (for queries/updates/notifications) or via private Wi-Fi network;

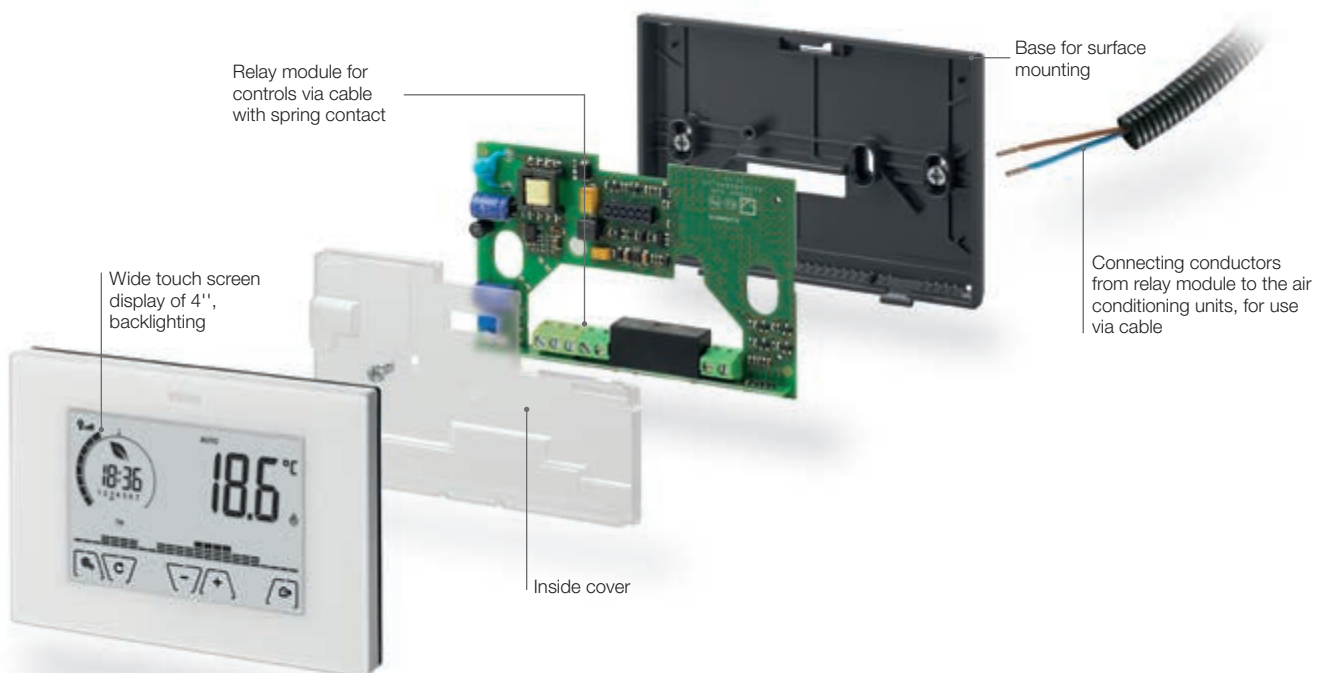
- configurable in Heating/Air Conditioning (winter/summer) mode;
- Off-set (T°): allows the temperature read by the thermostat to be "calibrated"; add or subtract (in 0.1 °C steps) a fixed amount from the temperature detected by the programmable thermostat to make it equal, for example, to that of a sample thermometer;
- hour counter" display: the number of hours that the thermostat relay has been on (the same as the number of hours of operation of the heating/air conditioning system);
- operating modes: Off, Frost Protection (heating only), Away, Manual, Automatic, Timed Manual (temporary modification of automatic mode);
- 6 settable temperature set points/offsets (economy, comfort, manual, away, antifreeze);
- restriction of local interface access via PIN;
- association with a mobile device with By-clima App via PIN;
- protection degree: IP40.

02911 - Technical data

Power supply	230 V~, 50/60 Hz
Mains power draw	3 VA
Room temperature display	0-40°C (-T40)
Reading resolution	0,1 °C
Setting resolution	0,1 °C
Adjustable temperature differential	from 0,1 °C to 1 °C
Adjustment range in antifreeze mode	from +4 °C to +10 °C
Adjustment range in heating/air conditioning modes	from +10 °C to +35 °C
Reading precision (integrated probe)	≤ ± 0,5 °C between +15 °C and +30 °C ≤ ± 0,8 °C at extremes
Wi-Fi network	compliant with 802.11b/g/n
Wi-Fi security	WPA/WPA2, WEP
Operating temperature	from 0 °C to +40 °C (indoor use)
ErP classification (Reg. UE 811/2013)	On/Off: class I, contribution 1% PID: class IV, contribution 2%
Inputs	
power supply	L, N
external temperature probe (02965.1)	
Outputs	
5(2) A 230 V~ change-over relay with clean contact	NO, NC, C

Conformity to Standards

R&TTE Directive, EN 60730-2-7, EN 60730-2-9, EN 301 489-17, EN 300 328, EN 62311, EN 62311 Standards



TEMPERATURE CONTROL



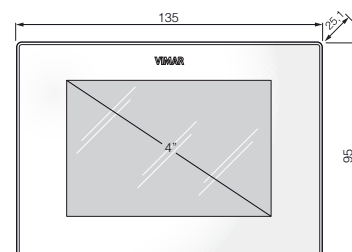
ClimaChrono: Wi-Fi touch timer-thermostat

Wi-Fi touch timer-thermostat

02911 Electronic touch screen timer-thermostat for local or remote control (with dedicated app) of temperature (heating and air-conditioning) in ON/OFF and PID mode, Wi-Fi module for IP connection, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, 5(2) A 230 V~ change-over relay output, power supply 230 V~ 50/60 Hz, white LED backlighting, surface mounting, white

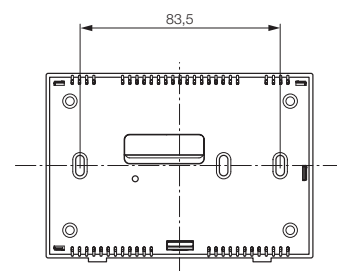


02911



02911

Drilling templates (in mm)



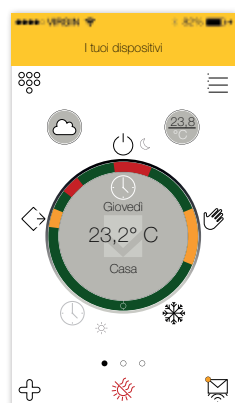
SURFACE MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

Unlimited control with By-clima App.

The By-clima App for smartphone allows the programming and control of via SMS sending. It is available free of charge for iOS, Android, WindowsPhone and Windows 8.1 and 10 operating systems.



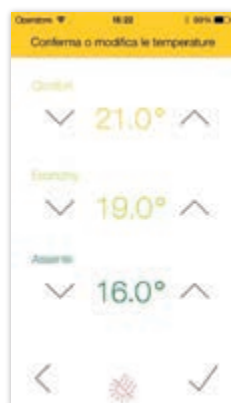
By-clima App
for smartphone



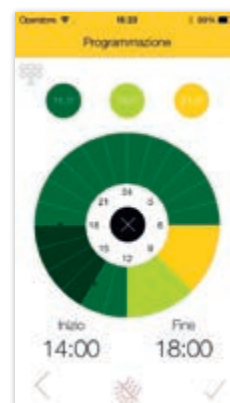
Device menu



Use mode menu



Temperature menu



Daily programming menu

ClimaChrono: touch timer-thermostat

Electronic touch timer-thermostat

The battery-powered device is suitable for controlling heating and air conditioning systems. IT features a capacitive button interface and user-friendly functions to facilitate energy saving. The timer-thermostat can be connected to the energy sensor 02960 (not supplied) via optional card 02915 to display electrical energy consumption and production and the corresponding data logs (up to 3 years), as well as instantaneous data of total power and the voltage of each individual phase. By consulting the energy consumption (or generation), you can monitor up to 3 separate phases (with common neutral), for a maximum of 10 kW per phase. The device does not activate/deactivate loads according to the detected powers but only performs monitoring and emits audible alarms; card 02915 is provided with a buzzer to warn when the set threshold is exceeded. The device has a multipurpose input that can be configured to activate nighttime reduction mode or adjustment with comfort set-points or to set summer/winter operating mode.

Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface:
 - the **ON/OFF** algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
 - the **PID** is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- "**Ecometer**" function: provides, through special icons, a general indication of expected consumption, facilitating intervention for energy saving. This expected consumption is given by a comparison between the currently set temperature value and a conventional set point.
- communication with energy meter 02960 via additional interfacing module 02915 to be installed on the timer-thermostat base for reading, displaying and storing energy data (power, energy);

Main characteristics

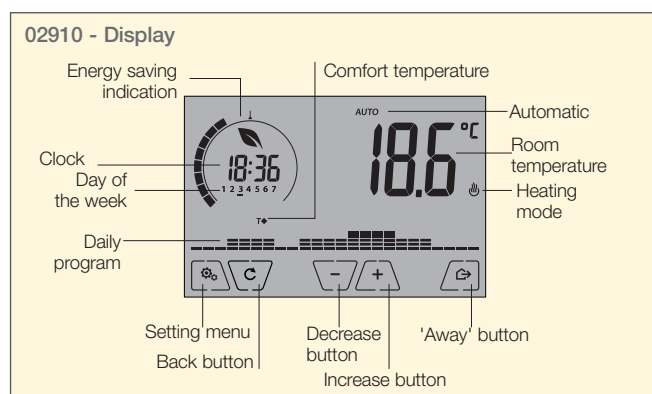
- 4" touch screen display;
- configurable in heating/air conditioning mode (winter/summer);
- Off-set mode (T°): for calibrating the temperature read by the thermostat; you can add or subtract (in intervals of 0.1 °C) a fixed amount from the temperature detected by the timer-thermostat to make it equal, for example, to that of a sample thermometer;
- use of the "hour meter": the number of hours that the thermostat relay has been on (equal to the number of hours of operation of the heating/air conditioning system);
- operating modes: Off, Antifreeze (heating only), Away, Manual, Automatic, Timed Manual;
- set-point and away activation hotkeys;
- 6 settable temperature set-points/offsets (Economy, Comfort, Manual, Away, Antifreeze, Reduction);
- restriction on local interface access via PIN and configurable multi-function input;
- batteries not supplied;
- battery life: more than a year in normal conditions of use;
- type of action: 1.B;
- pollution degree: 2 (normal);
- protection degree: IP20.

02910 - Technical data

Power supply with 2 AA LR6 1,5 V batteries	3 Vdc
Nominal pulse voltage	4000 V
Displayed temperature refresh	every 5 s
Room temperature display	0 °C +40 °C
Reading resolution	0,1 °C
Setting resolution	0,1 °C
Adjustable temperature differential	from 0,1 °C to 1° C
Adjustment range in antifreeze mode	from +4 °C to +15 °C
Adjustment range in heating/air conditioning modes	from +5 °C to +35 °C
Reading precision	≤ ± 0,5 °C between +15 °C and +30 °C ≤ ± 0,8 °C at extremes
Clock error	- ≤ ± 1 s per day
Operating temperature	from 0 °C to +40 °C (indoor use)
ErP classification (Reg. UE 811/2013)	On/Off: class I, contribution 1% PID: class IV, contribution 2%
Inputs	
multi-function input	+ -
Outputs	
5(2) A 230 V- change-over relay with clean contact	NO, NC, C

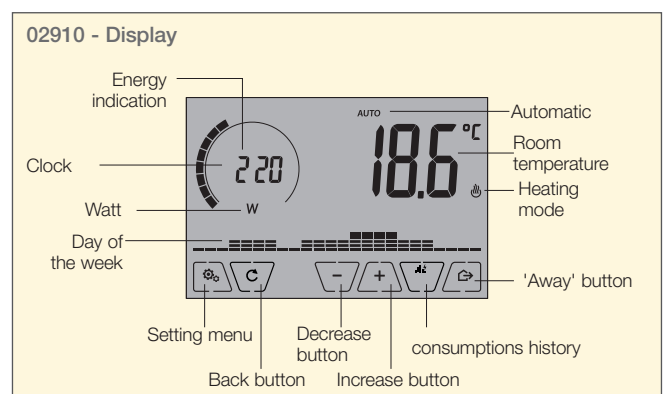
Conformity to Standards

LV Directive, EMC Directive
EN 60730-2-7, EN 60730-2-9 Standards



Energy meter interfacing module

This device, when installed on 02910 timer-thermostat and connected to the 02960 energy meter module, enables displaying the load consumptions and the immediate energy production.



Main characteristics

- to install on 02910 timer-thermostat.

TEMPERATURE CONTROL

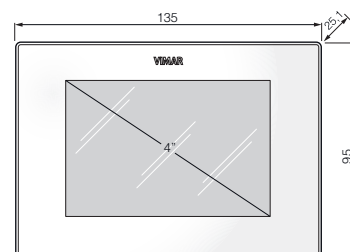
ClimaChrono: touch timer-thermostat

Electronic touch timer-thermostat

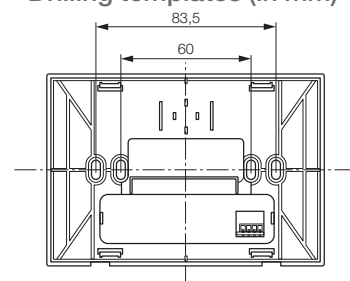
02910 Electronic touchscreen timer-thermostat for ambient temperature control (heating and air-conditioning), designed to display energy data via an energy meter, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 programmable multifunction input, 5(2) A 230 V~ change-over relay output, AA LR6 1.5 V battery-powered (not supplied), surface mounting, white



02910



Drilling templates (in mm)



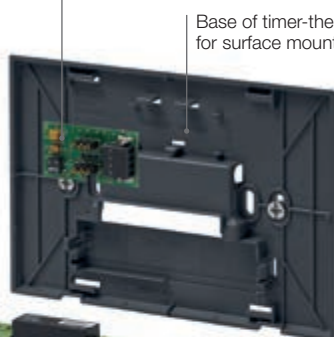
SURFACE MOUNTING
THERMOSTATS
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2 AAA LR03 1,5 V batteries
(not supplied)

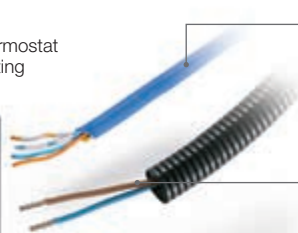


Inner view of the timer-thermostat,
battery housing

Energy meter interfacing
module **02915** (optional)



Base of timer-thermostat
for surface mounting



Cable for connection **02915**
interfacing module (optional) to
02960 energy meter (optional)

Cable for wired connection of relay
module to air conditioning units



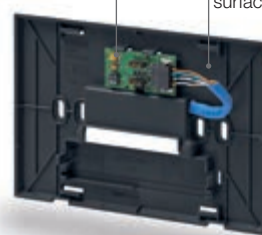
4" wide touch screen
display



Relay module for wired
control with spring
contact

Inner cover

02915 module



Base of timer-
thermostat for
surface mounting

Energy
meter
02960

RJ9 connector

Cat.5e UTP Netsafe
cable

Energy meter interfacing module

02915 Energy meter interfacing module, 3 toroidal sensor inputs, 1 serial data input



02915

TEMPERATURE CONTROL

ClimaRadio: radiofrequency timer-thermostat

Electronic radiofrequency timer-thermostat

- phone dialler input that can be used for remote control of timer-thermostat;
- type of setting: ON/OFF;
- possibility of radio-frequency connection to actuators 01923 and 01924 after replacing the relay module with the transmitter module 01921.1;
- main functions:
 - daily temperature setting with 15 minute steps;
 - 3 programmable temperature levels for heating + 3 temperature levels for air conditioning + 1 antifreeze level;
 - weekly programming;
 - 1 automatic program that can be set by the user (for both heating and air conditioning);
 - possibility of forcing the program by changing the temperature manually;
 - adjustment for heating and air conditioning;
 - antifreeze function;
 - possibility of turning off with timer;
 - possibility of turning on/off with telephone actuator;
 - display in degrees Celsius or Fahrenheit;
 - device reset;
- batteries not supplied;
- battery life: more than a year in normal conditions of use;
- protection degree: IP30;

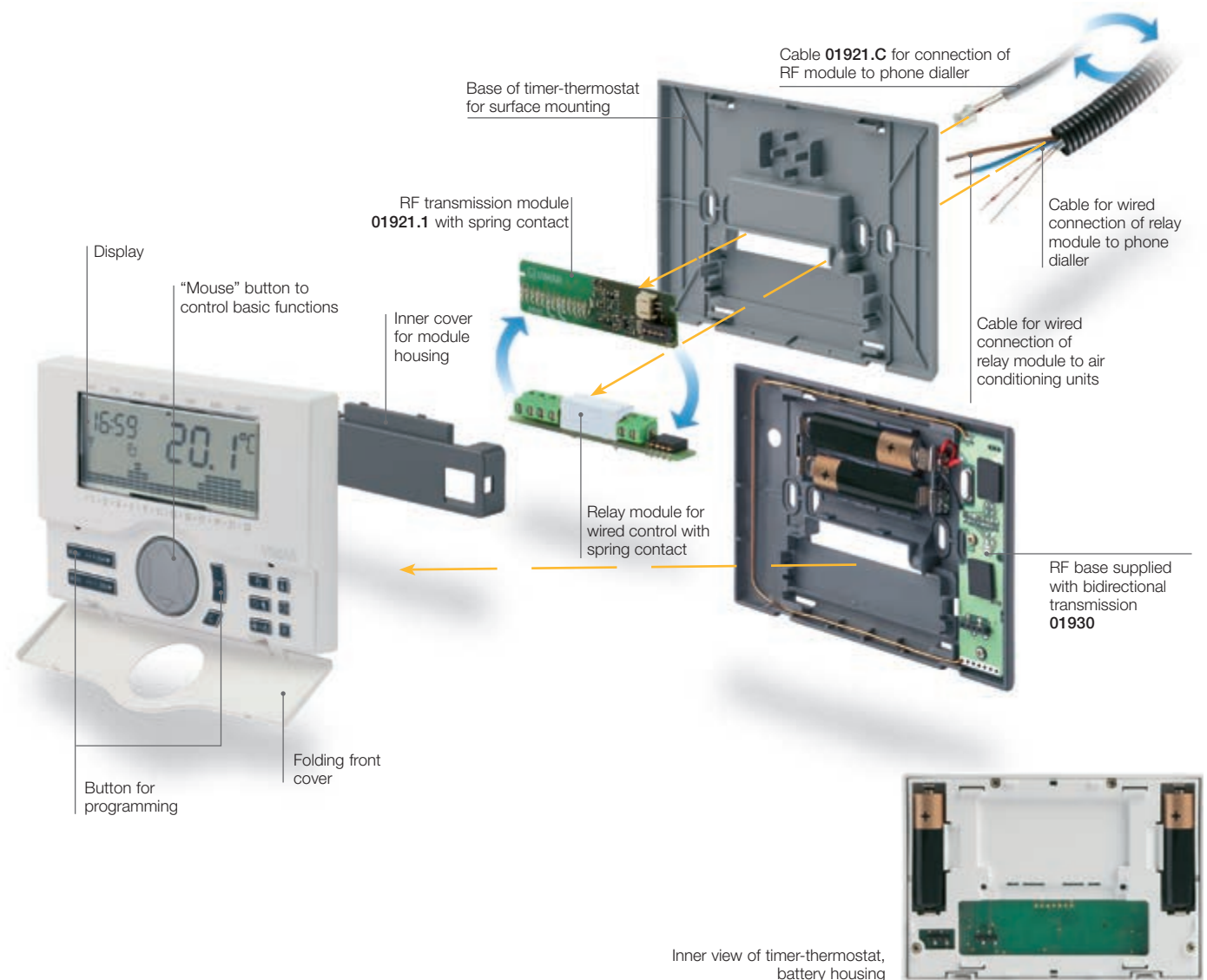
- type of contact opening: micro-disconnection;
- surface mounting with expansion plugs or V71303 or 60 mm distance between centres flush mounting boxes.

01910 - Technical data

Power supply with 2 AA LR6 1,5 V batteries	3 Vdc
Displayed temperature refresh	every 20 s
Room temperature display	0 °C +40 °C
Reading resolution	0,1 °C
Setting resolution	0,1 °C
Adjustable temperature differential	from 0,1 °C to 1° C
Adjustment range in antifreeze mode	from +4 °C to +15 °C
Adjustment range in heating/air conditioning modes	from +5 °C to +35 °C
Reading precision	$\leq \pm 0,5 \text{ °C}$ between +15 °C e +30 °C $\leq \pm 0,8 \text{ °C}$ at extremes
Clock error	- $\leq \pm 1 \text{ s}$ per day
Operating temperature	from 0 °C to + 40 °C (indoor use)
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
Inputs	
phone dialler with clean contact	+ -
Outputs	
5(2) A 250 V~ change-over relay with clean contact	NO, NC, C

Conformity to Standards

LV Directive, EMC Directive,
EN 60730-1, EN 60730-2-7, EN 60730-2-9 Standards



TEMPERATURE CONTROL



ClimaRadio: radiofrequency timer-thermostat

Electronic radiofrequency timer-thermostat

01910 .14 .20 Electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), change-over relay output 5(2) A 250 V~, AA LR6 1,5 V battery-powered (not supplied), surface mounting



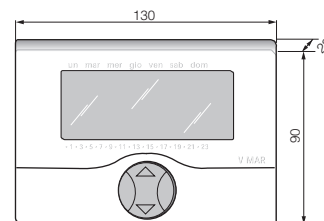
01910
white



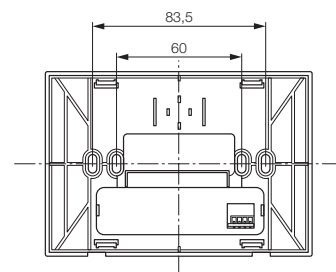
01910.14
anthracite



01910.20
silver

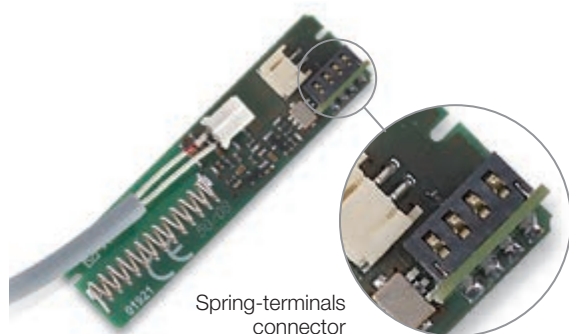


Drilling templates (in mm)



Radiofrequency module

01921.1 Radiofrequency transmitter module with spring-terminals connector



Spring-terminals
connector



01921.1

Modulo trasmettitore con connettore a molla

Replaces relay modules on timer-thermostats 01910 and 01911, for radio transmission of commands to air conditioning devices.

Main characteristics

- dimensions: 81x23,7x10,1 mm;
- mounting: inside the timer-thermostat;
- aerial: integrated into the circuit;
- inner connector for connection to phone dialler with actuator and dedicated cable 01921.C.

01921.1 - Technical data

Power supply (from timer-thermostat)	3 Vdc
Frequency	433,92 MHz
Free field radio range	120 m
Operating temperature	from - 5 °C to + 40 °C (indoor use)

TEMPERATURE CONTROL

ClimaPiù: sliding timer-thermostat

Electronic sliding timer-thermostat

The sliding timer-thermostat is suitable for controlling heating and air conditioning systems. It features a wide display for the temperature and set parameters visualization, a button and knob for the selection of the program and sliding levers for the easy adjustment of temperature. It can operate with different modes, manual, timed and automatic (the last one can be adjusted by the way). It is powered by 2 AA LR06 1.5 V batteries

Main characteristics

- phone dialler input that can be used for remote control of timer-thermostat;
- type of setting: ON/OFF;
- possibility of setting a password to access to the menu of the timer-thermostat for any type of setting changes;
- possibility of radio-frequency connection to actuators 01923 and 01924 after replacing the relay module with the transmitter module 01921.1;
- possibility of manual operation of the timer-thermostat or the switch off for a pre-set time;
- possibility of forcing the program by changing the temperature manually (temporary manual);
- batteries not supplied;
- battery life: more than a year in normal conditions of use;
- protection degree: IP30;
- type of contact opening: micro-disconnection;

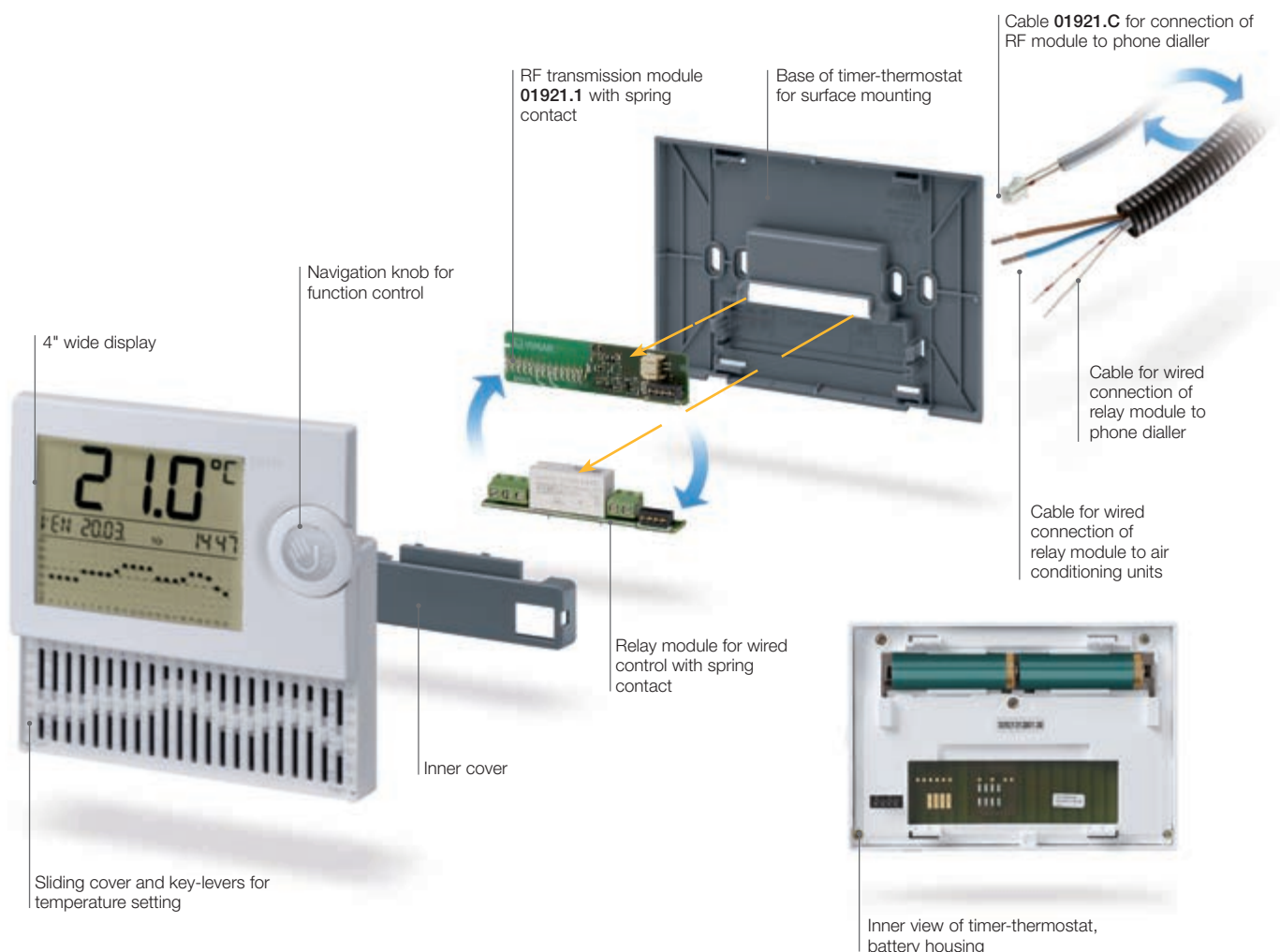
- surface mounting with expansion plugs or V71303 (distance between centres 83.5 mm) or 60 mm distance between centres

01911 - Technical data

Power supply with 2 AA LR6 1,5 V batteries	3 Vdc
Displayed temperature refresh	every 5 s
Room temperature display	0 °C +40 °C
Reading resolution	0,1 °C
Setting resolution	0,1 °C
Adjustable temperature differential	from 0,1 °C to 1° C
Adjustment range in antifreeze mode	from +4 °C to +15 °C
Adjustment range in heating/air conditioning modes	from +5 °C to +35 °C
Reading precision	≤ ± 0,5 °C between +15 °C and +30 °C ≤ ± 0,8 °C at extremes
Clock error	- ≤ ± 1 s per day
Operating temperature	from 0 °C to + 40 °C (indoor use)
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
Inputs	
phone dialler with clean contact	+ -
Outputs	
5(2) A 250 V~ change-over relay with clean contact	NO, NC, C

Conformity to Standards

LV Directive, EMC Directive,
EN 60730-1, EN 60730-2-7, EN 60730-2-9 Standards



TEMPERATURE CONTROL

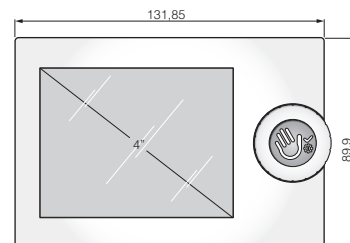
ClimaPiù: sliding timer-thermostat

Electronic sliding timer-thermostat

01911 Electronic sliding timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%), change-over relay output 5(2) A 250 V~, AA LR6 1.5 V battery-powered (not supplied), surface mounting, white



01911



SURFACE MOUNTING
THERMOSTATS
TIMER-THERMOSTATS



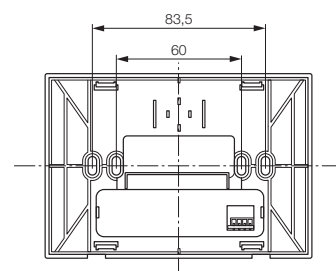
01911

Temperature programming.

While opening with a sliding movement the front side of the timer-thermostat, by the 22 sliding key-levers, it is possible:

- setting the desired temperature even if the timer-thermostat is set in daily programming;
- setting the desired temperature values, even if the timer-thermostat is set in weekly programming.

Drilling templates (in mm)



TEMPERATURE CONTROL

Flush mounting stand alone thermostats


Electronic touch screen thermostat

The device is equipped with a capacitive touch screen interface with colour backlighting and allows for heating or air conditioning adjustment with ON/OFF or PID actuation. IT also has a multifunctional input that can be configured to activate nighttime reduction mode or adjustment with comfort set-points or to set summer/winter operating mode. The thermostat is a universal device for the Eikon, Arkè, Plana and Idea series (Idea series with dedicated mounting frame 16723).

Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface;
- the ON/OFF algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
- the PID is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- **Ecometer**" function: by means of specific items it provides a general indication of expected consumption, thereby facilitating energy saving measures.
This consumption estimate is based on a comparison between the current set temperature value and an "average" consumption value set on the thermostat;
- menu for **selecting display background colour**: in addition to the backlighting colours of each residential series, it is also possible to choose any colour from the entire RGB colour range or set **"Eco" mode** in which the display colour intuitively reflects the set-point;

Main characteristics

- configurable in heating/air conditioning mode (winter/summer);
- Off-set mode (T°): for calibrating the temperature read by the thermostat; you can add or subtract (intervals of 0.1°C) a fixed amount from the temperature detected by the timer-thermostat to make it equal, for example, to that of a sample thermometer;
- use of "hour meter": the number of hours that the thermostat relay has been on (equal to the number of hours of operation of the heating/air conditioning system);
- operating modes: Off, Antifreeze (heating only), Away, Manual and Nighttime reduction;
- 5 set-points/settable temperature offsets (comfort, manual, away, anti-freeze, reduction) and 1 limiting threshold (external probe);
- restriction on local interface access via PIN and configurable multi-function input;
- relay output with clean change-over contacts: 5(2) A 230 V~: with no power supply, the relay moves into position C-NC;
- protection degree: IP20;
- class II appliance:  ;
- type of action: 1.B;
- pollution degree: 2 (normal).


Operating

The electronic touch screen thermostat can be connected to

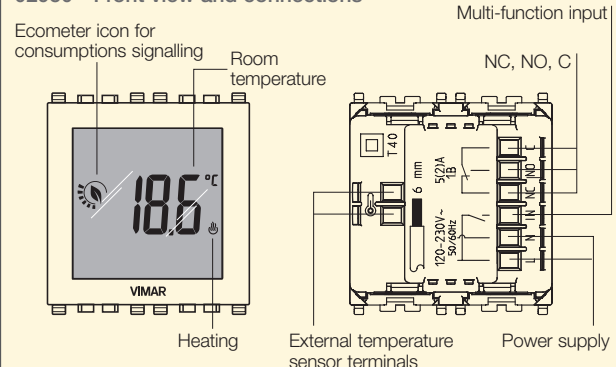
an external temperature probe and can operate in the following modes:

- **adjustment mode** (the external probe is used to adjust the ambient temperature);
- **display mode** (the thermostat's internal probe is used for adjustment and the external probe is used only in display mode);
- **limiting mode** (for floor heating systems, the probe inside the thermostat is used to adjust the ambient temperature and the external probe has the sole purpose of limiting the floor heating delivery temperature).

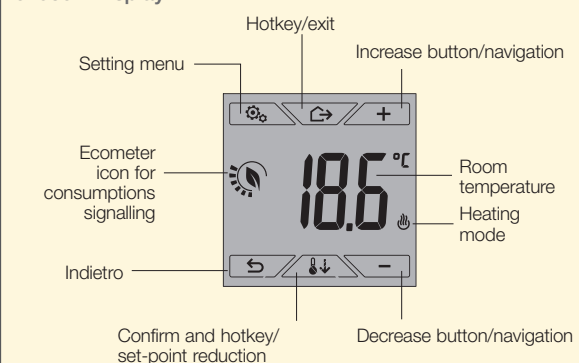
02950 - Technical data

Power supply	120-230 V~, 50/60Hz
Main supply draw	1 VA
Operating temperature range	from 0 °C to 40 °C (-T40)
Reading resolution	$\leq \pm 0,5$ °C between +15 °C and +30 °C $\leq \pm 0,8$ °C at extremes
Adjustment range in heating mode	from +5 °C to +30 °C
Adjustment range in air conditioning mode	from +10 °C to +35 °C
Nominal pulse voltage	4000 V
Operating temperature	from -5 °C to +40 °C (indoor use)
ErP classification (Reg. UE 811/2013)	On/Off: class I, contribution 1% - PID: class IV, contribution 2%
Inputs	
power supply	L, N
external temperature probe (02965.1)	
multi-function	IN
Outputs	
5(2) A 230 V~ change-over relay with clean contact	NO, NC, C

02950 - Front view and connections



02950 - Display



Conformity to Standards

LV Directive, EMC Directive, EN 60730-2-9 Standards

Flush mounting stand alone thermostats

Electronic touch screen thermostat

02950	.B	.BN	Electronic touch screen thermostat for ambient temperature control (heating and air-conditioning), class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, 1 programmable multifunction input, 5(2) A 230 V~ change-over relay output, power supply 120-230 V~ 50/60 Hz, RGB LED backlighting, to be completed with Elkon, Arké or Plana cover plates - 2 modules
16991			Electronic thermostat kit containing: 1 touchscreen thermostat 02950 for ON/OFF and PID temperature control (heating and air-conditioning), 1 input for external temperature sensor, 1 programmable multi-function input, change-over relay output 5(2) A 230 V~, power supply 120-230 V~ 50-60 Hz, RGB LED backlighting, 1 blank module 19041, 1 3-module mounting frame 16723. To be completed with a 3-module Idea cover plate

EIKON
ARKÉ
and PLANA



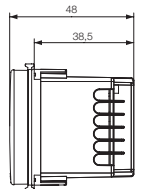
02950
black



02950.B
white



02950.BN
neutral



IDEA



16991

FLUSH MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

Examples of RGB display colours coordinated with Eikon, Arké, Plana and Idea series.



Amber backlighting
Eikon Chrome



Blue backlighting
Arké



Green backlighting
Plana



Green backlighting
Idea with dedicated mounting frame 16723

Note

The **ECometer mode** allows the backlighting colour to be set. Depending on the set temperature, it is associated with the estimated energy consumption level; it does not display the colour according to the temperature measured at that moment but solely according to the set-point.



TEMPERATURE CONTROL

Flush mounting stand alone thermostats

Electronic thermostat

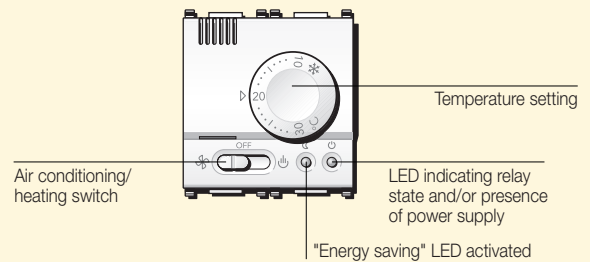
This device is designed for controlling room temperature (heating or air conditioning). It can act on the supply circuit of the burner or circulation pump (heating) or on the supply circuit of the air conditioner (air conditioning).

Main characteristics

- output: relay with clean changeover contact 6(2) A 230 V~;
- type of setting: ON/OFF;
- with the knob at the minimum position the “antifreeze” function is activated (+6°C);
- terminal for remote activation of “energy saving” function (with possibility of enabling timer);
- “energy saving” function: the set temperature is reduced by 4°C (heating) or increased by 4°C (air conditioning);
- front control of comfort temperature by means of graduated knob;
- 3-position front switch:
 - OFF position: the thermostat is off;
 - position ψ : the thermostat is set for the “heating” function;
 - position \ast : the thermostat is set for the “air conditioning” function;
- controllable loads:
 - purely resistive loads \sim : 8 A 230 V~;
- two-colour green/yellow LED ψ :
 - the green colour indicates that the relay output is not active (the set temperature has been reached);
 - the yellow colour indicates that the relay output is active (the set temperature has not been reached);

In any case the illuminated LED (green or yellow) indicates the presence of the power supply;
- green LED $\&$: if illuminated it indicates that the “energy saving” function is activated;

14440 - Front view



14440, 19440 - Technical data

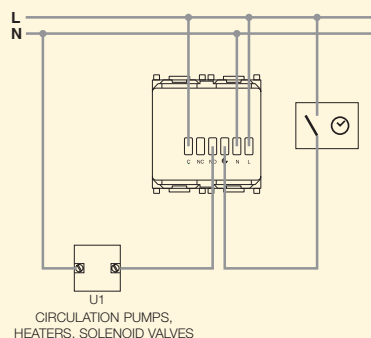
Power supply	120-230 V~ 50/60 Hz
Main supply draw	3 VA
temperature differential	1 °C
adjustment range	from +10 °C to +30 °C
number of manual cycles	3.000
number of automatic cycles	100.000
software class	A
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
type of action	1B
tracking index	PT1175
degree of pollution	2 (normal)
nominal pulse voltage	4000 V
operating temperature	from +0 °C to +40 °C (indoor use)
Inputs	
power supply	L, N
energy saving	$\&$
Outputs	
relay with 6(2) A 250 V~ clean change-over contact	NO, NC, C

- type of contact opening: micro-disconnection;
- protection class: IP40;
- class II appliance: \square .

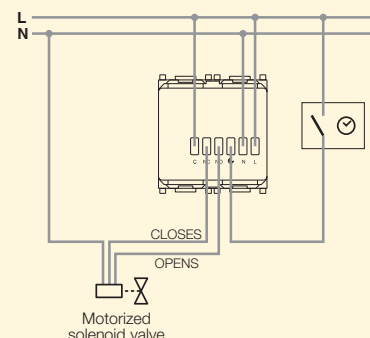
Conformity to Standards

LV Directive, EMC Directive
EN 60730-1, EN 60730-2-9 Standards

Electrical connections to control circulation pumps and solenoid valves



Electrical connections to control motorized valves and remote control for nighttime reduction



TEMPERATURE CONTROL



Flush mounting stand alone thermostats

Electronic thermostat

Electronic thermostat for ON/OFF ambient temperature control (heating and air-conditioning), summer/off/winter switch, class I temperature control device (contribution 1%), input for remote activation of energy-saving function, 6(2) A 230 V~ change-over relay output, power supply 120-230 V~ 50/60 Hz - 2 modules

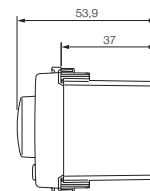
ARKÉ



19440
grey



19440.B
white



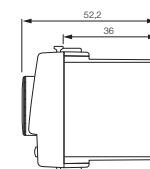
PLANA



14440
white



14440.SL
Silver



FLUSH MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

Flush mounting stand alone timer-thermostats

Electronic touch screen timer-thermostat

The device, equipped with a capacitive touch screen interface with colour backlighting, is ideal for controlling heating and air conditioning systems via relay output C, NC, N/O. IT is equipped with a built-in buzzer, a multi-function input that can be configured to activate nighttime reduction mode, to activate the setting with comfort set-point or to define the summer/winter operating mode, and an input for managing an external temperature probe (not supplied). It can also be connected to the energy probe 02960 (not supplied) to display the consumption/production of electrical energy and the corresponding historical data. Simplified programming with the By-clima smartphone application; available for iOS, Android, WindowsPhone and Windows 8.1 and 10. The timer-thermostat is a universal 3-module device for Eikon, Arkè, Plana and Idea series (Idea series with dedicated mounting frame 16723).


Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface:
 - the **ON/OFF** algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
 - the **PID** is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- **"Ecometer"** function: by means of specific items it provides a general indication of expected consumption, thereby facilitating energy saving measures.


This consumption estimate is based on a comparison between the current set temperature value and an "average" consumption value set on the timer-thermostat;
- menu for **selecting display background colour**: in addition to the backlighting colours of each residential series, it is also possible to choose any colour from the entire RGB colour range or set **"Eco" mode** in which the display colour intuitively reflects the set-point;
- communication with energy probe 02960 for reading, display and storage of energy data (power, energy and phase voltage).

Main characteristics

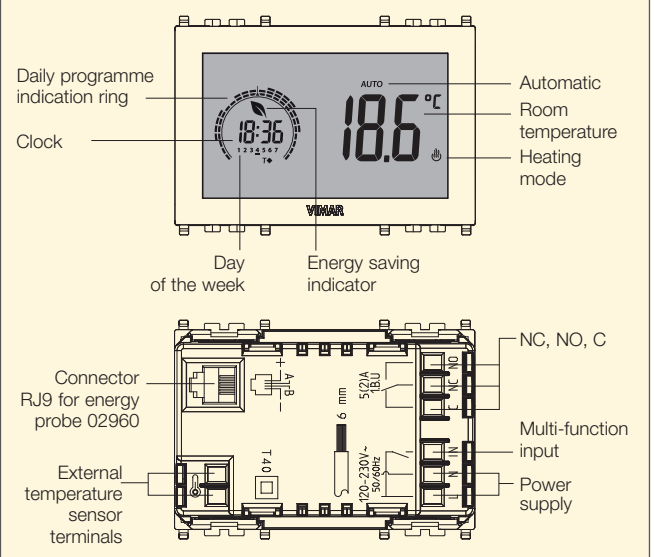
- dedicated By-clima App from the website;
- configurable in heating/air conditioning mode (winter/summer);
- Off-set (T°) mode: for calibrating the temperature read by the thermostat; you can add or subtract (in intervals of 0.1°C) a fixed amount from the temperature detected by the timer-thermostat to make it equal, for example, to that of a sample thermometer;
- temperature probe input: see Operation of 02950;
- use of the "hour meter": the number of hours that the timer-thermostat relay has been on (equal to the number of hours of operation of the heating/air conditioning system);
- anti black-out "acoustic alert": the timer-thermostat is able to generate and report alarm conditions relating to the use of the external temperature probe and monitoring of electrical energy consumption;
- operating modes: Off, Antifreeze (heating only), Away, Manual and Nighttime reduction;
- 5 set-points/settable temperature offsets (comfort, manual, away,

- anti-freeze, reduction) and 1 limiting threshold (external probe);
- Access limitation to local interface with PIN and configurable multi-function input;
- Relay output with 5(2) A 230 V~ clean change-over contact; in mains failure, relay on C-NC;
- protection degree: IP20;
- Class II appliance:  ;
- Type of action: 1.B.U;
- pollution degree: 2 (normal).

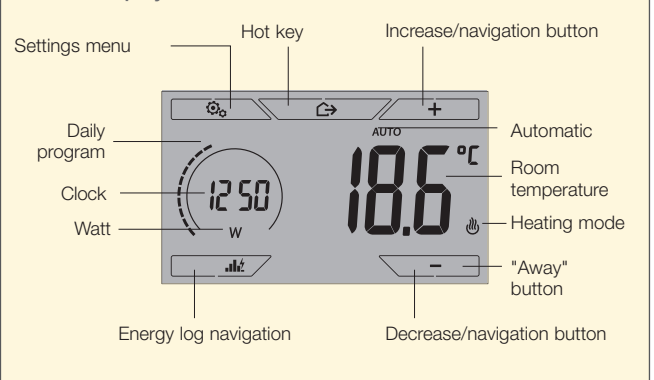
02955 - Technical data

Power supply	120-230 V~, 50/60 Hz
Main supply draw	1 VA
Operating temperature range	from 0 °C to 40 °C (-T40)
Reading precision	≤ ± 0,5 °C between +15 °C and +30 °C ~ ≤ ± 0,8 °C at extremes
Adjustment range in heating mode	from +5 °C to + 30 °C
Adjustment range in air conditioning mode	from +10 °C to + 35 °C
Nominal pulse voltage	4000 V
temperatura di funzionamento	from - 5 °C to + 40 °C (indoor use)
ErP classification (Reg. UE 811/2013)	On/Off: class I, contribution 1% PID: class IV, contribution 2%
Inputs	
power supply	L, N
external temperature probe (02965.1)	
RJ9 for energy probe 02960	+, A, B, -
multi-function	IN
Outputs	
relay with 5(2) A 230 V~ clean change-over contact	NO, NC, C

02955 - Front view and connections+



02955 - Display



Conformity to Standards

LV Directive, EMC Directive,
EN 60730-2-7, EN 60730-2-9 Standards

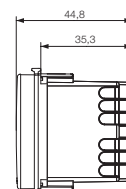
TEMPERATURE CONTROL

Flush mounting stand alone timer-thermostats

Electronic touch screen timer-thermostat

02955 .B .BN	Electronic timer-thermostat for ambient temperature control (heating and air-conditioning), locally programmable via dedicated app, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for external temperature sensor, 1 programmable multifunction input, 1 RJ9 input for energy meter, 5(2) A 230 V~ change-over relay output, power supply 120-230 V~ 50/60 Hz, RGB LED backlighting, to be completed with Eikon, Arké or Plana cover plates - 3 modules
16992	Electronic chronothermostat kit containing: 1 touchscreen chronothermostat 02955 for ON/OFF and PID temperature control (heating and air-conditioning), 1 input for external temperature sensor, 1 programmable multi-function input, 1 RJ9 input for energy meter, change-over relay output 5(2) A 230 V~, power supply 120-230 V~ 50/60 Hz, RGB LED backlighting, 1 3-module mounting frame 16723. To be completed with a 3-module Idea cover plate

EIKON ARKÉ and PLANA



IDEA



Note
The **ECOMeter mode** allows the backlighting colour to be set. Depending on the set temperature, it is associated with the estimated energy consumption level; it does not display the colour according to the temperature measured at that moment but solely according to the set-point.



Examples of RGB display colours coordinated with the Eikon, Arké, Plana and Idea series.



With Eikon Evo cover plate and amber backlighting



With Arké cover plate and blue backlighting



With Plana cover plate and green backlighting



With Idea cover plate and green backlighting with dedicated mounting frame 16723

Unlimited programming with By-clima.

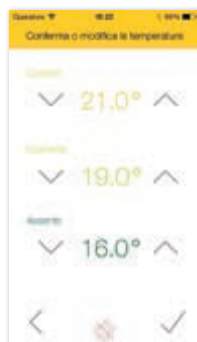
The app allows the timer-thermostat to be programmed rapidly by sending the audio signal directly from the app to the product. It is a new and simple way to set the preferred functions and the time program. Available free of charge for iOS, Android, WindowsPhone and Windows 8.1 and 10 operating systems.



Device menu



"Appearance" and "sounds" menu



Temperature change menu



Daily programming menu



By-clima application for smartphone

Flush mounting stand alone timer-thermostats


Electronic timer-thermostat

The appliance is designed to control room temperature by acting on the supply circuit of the burner or circulation pump (heating) or on the supply circuit of the air conditioner (air conditioning), ensuring an ideal temperature, every day, throughout the week. The numerous functions allow for use of pre-stored fixed programs or creation of new ones. The large display shows the room temperature, day, time, system operating status and the daily profile set for the current program. All parameters can be programmed simply and intuitively by means of self-guided navigation from the interactive menus (all the instructions are shown on the display), using the 4 buttons located on the front of the device.

Main functions

- daily temperature setting with 20 minute steps;
- 3 programmable temperature levels for heating + 3 temperature levels for air conditioning;
- weekly programming;
- 2 fixed programs and 2 user-settable programs (for both heating and air conditioning);
- possibility of forcing the program by changing the temperature;
- programming maintained in the event of a power failure;
- adjustment for heating and air conditioning;
- antifreeze function;
- possibility of turning off with timer;
- possibility of turning on and off with a phone dialler;
- instructions in 5 languages (Italian, English, French, Spanish, German);
- device reset;
- self-diagnostics: automatically activated at regular intervals during normal use, this function checks the presence of the power supply voltage, the state of the temperature sensor, the state of the display driver, the efficiency of the EEPROM memory and the efficiency of the backup stage;
- keypad lock via password with 3-digit PIN to block access to all the functions of the device and protect its operation and programming (for example, if it is installed in a public location).


Main characteristics

- front controls: **"Esc"/"Mod"/"No"**, **"▲"**, **"▼"**, **"Set"/"ok"/"Yes"**;
- power reserve for clock: about 20 days, by means of rechargeable lithium buffer battery;
- output: relay with clean changeover contact 6 (2) A 230 V~;
- type of setting: ON/OFF;
- temperature sampling frequency:
 - every 5 s, with average of acquired values 20 s;
 - instantaneous, when a parameter is changed by the user;
- software calibration: ability to change the probe reading with software calibration ($\pm 3^{\circ}\text{C}$ max) to adapt the measurement to each specific installation condition;
- timed backlit display, activated by pressing one of the four buttons;
- type of contact opening: micro-disconnection;
- protection class: IP40;
- class II appliances: .

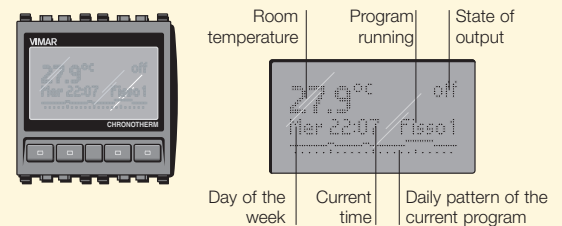
Conformity to Standards

LV Directive, EMC Directive,
EN 60730-1, EN 60730-2-7, EN 60730-2-9 Standards

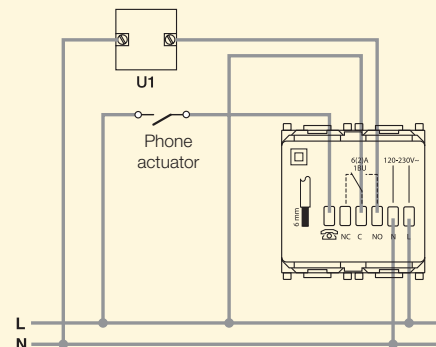
20445 - Technical data

power supply	120-230 V~ $\pm 10\%$ 50/60 Hz
mains power draw	1 W
operating temperature range	from 0 °C to 40 °C (-T40)
reading accuracy in heating mode	$\leq \pm 0,5^{\circ}\text{C}$ between $+15^{\circ}\text{C}$ and $+25^{\circ}\text{C}$ - $\leq \pm 0,8^{\circ}\text{C}$ at extremes
reading accuracy in air conditioning mode	$\leq \pm 0,5^{\circ}\text{C}$ between $+20^{\circ}\text{C}$ and $+30^{\circ}\text{C}$ - $\leq \pm 0,8^{\circ}\text{C}$ at extremes
displayed data refresh	every 20 s
room temperature display	from $+0^{\circ}\text{C}$ to $+40^{\circ}\text{C}$
reading resolution	0,1 °C
setting resolution	0,1 °C
adjustment range in heating/air conditioning	from $+5^{\circ}\text{C}$ to $+35^{\circ}\text{C}$
adjustment range in antifreeze mode	from $+4^{\circ}\text{C}$ to $+15^{\circ}\text{C}$
adjustable temperature differential	settable from 0,1 °C to 1 °C
clock error	$\leq \pm 1$ s per day
number of manual cycles	3.000
number of automatic cycles	100.000
nominal pulse voltage	4000 V
tracking index	PT1175
degree of pollution	2 (normal)
software class	A
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
type of action	1BU
operating temperature	from -5°C to $+40^{\circ}\text{C}$ (indoor use)
Inputs	
power supply	L, N
telephone actuator	
Outputs	
relay with 6(2) A 230 V~ clean change-over contact	NO, NC, C

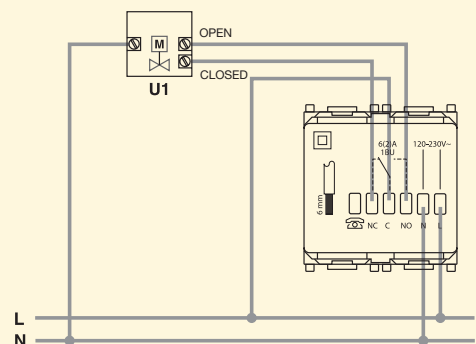
Example of daily programming



Connections with circulation pumps, burners, solenoid valves and control by means of telephone dialler



Connections with motorized valves



TEMPERATURE CONTROL



Flush mounting stand alone timer-thermostats

Electronic timer-thermostat

Electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), input for remote switching of phone dialler on/off, change-over relay output 6(2) A 230 V~, power supply 120-230 V~ 50/60 Hz - 2 modules

EIKON



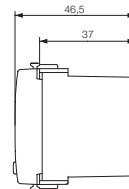
20445
grey



20445.B
white



20445.N
Next



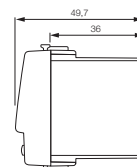
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Silver



FLUSH MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

Flush mounting stand alone timer-thermostats

Electronic timer-thermostat


The device is designed for control and daily/weekly programming of room temperature (heating and air conditioning). It can act on the supply circuit of the burner or circulation pump (heating) or on the supply circuit of the air conditioner (air conditioning).

All parameters can be programmed simply and intuitively by means of self-guided navigation from the interactive menus (all the instructions are shown on the display), using the 4 buttons located on the front of the device.

Main functions

- daily temperature setting with 20 minute steps;
- 3 programmable temperature levels for heating + 3 temperature levels for air conditioning;
- weekly programming;
- 2 fixed programs and 2 user-settable programs (for both heating and air conditioning);
- possibility of forcing the program by changing the temperature;
- programming maintained in the event of a power failure;
- adjustment for heating and air conditioning;
- antifreeze function;
- possibility of turning off with timer;
- possibility of turning on and off with a phone dialler;
- instructions in 5 languages (Italian, English, French, Spanish, German);
- device reset;
- self-diagnostics: automatically activated at regular intervals during normal use, this function checks the presence of the power supply voltage, the state of the temperature sensor, the state of the display driver, the efficiency of the EEPROM memory and the efficiency of the backup stage;
- keypad lock via password with 3-digit PIN to block access to all the functions of the device and protect its operation and programming (for example, if it is installed in a public location).

Main characteristics

- front controls: "Esc"/"Mod"/"No", "▲", "▼", "Set"/"ok"/"Yes";
- power reserve for clock: about 10 days, by means of CR2032 type battery;
- type of setting: ON/OFF;
- temperature sampling frequency:
 - every 5 s, with average of acquired values 20 s;
 - instantaneous, when a parameter is changed by the user;
- software calibration: ability to change the probe reading with software calibration ($\pm 3^{\circ}\text{C}$ max) to adapt the measurement to each specific installation condition;
- timed backlit display, activated by pressing one of the four buttons;
- anti-removal locking using the screw provided;
- type of contact opening: micro-disconnection;
- protection class: IP40;
- class II appliances: ;
- can be installed in boxes with minimum depth of 46 mm.

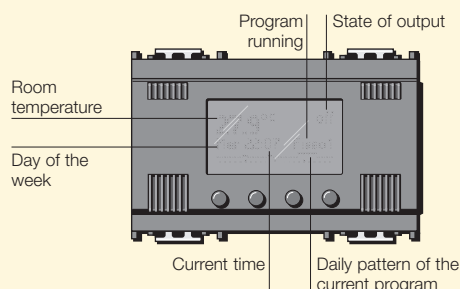
Conformity to Standards

LV Directive, EMC Directive,
EN 60730-1, EN 60730-2-7, EN 60730-2-9 Standards

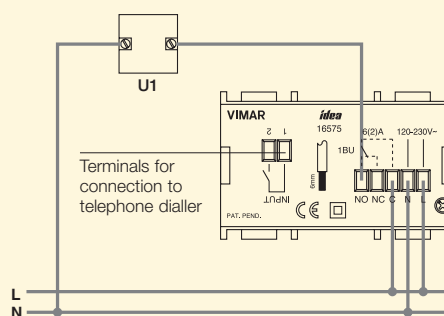
16575 - Technical data

power supply	120-230 V~, 50/60 Hz
mains power draw	1 VA
operating temperature range	from 0 °C to 40 °C (-T40)
reading accuracy in heating mode	$\leq \pm 0,5^{\circ}\text{C}$ between $+15^{\circ}\text{C}$ and $+25^{\circ}\text{C}$ - $\leq \pm 0,8^{\circ}\text{C}$ at extremes
reading accuracy in air conditioning mode	$\leq \pm 0,5^{\circ}\text{C}$ between $+20^{\circ}\text{C}$ and $+30^{\circ}\text{C}$ - $\leq \pm 0,8^{\circ}\text{C}$ at extremes
displayed data refresh	every 20 s
room temperature display	from $+0^{\circ}\text{C}$ to $+40^{\circ}\text{C}$
reading resolution	0,1 °C
setting resolution	0,1 °C
adjustment range in heating/air conditioning	from $+5^{\circ}\text{C}$ to $+35^{\circ}\text{C}$
adjustment range in antifreeze mode	from $+4^{\circ}\text{C}$ to $+15^{\circ}\text{C}$
adjustable temperature differential	settable from 0,1 °C to 1 °C
clock error	$\leq \pm 1$ s per day
number of manual cycles	3.000
number of automatic cycles	100.000
nominal pulse voltage	4000 V
tracking index	PT1175
degree of pollution	2 (normal)
software class	A
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
type of action	1BU
operating temperature	from -5°C to $+40^{\circ}\text{C}$ (indoor use)
Inputs	
power supply	L, N
telephone actuator	INPUT
Outputs	
relay with 6(2) A 230 V~ clean change-over contact	NO, NC, C

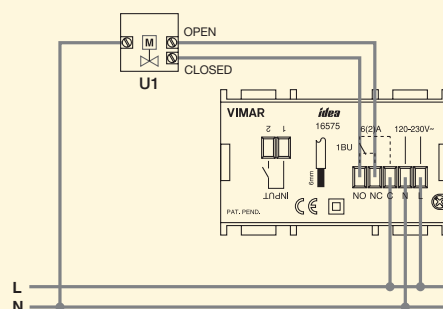
Example of daily programming



Connections with circulation pumps, burners and solenoid valves



Connections with motorized valves



TEMPERATURE CONTROL



Flush mounting stand alone timer-thermostats

Electronic timer-thermostat

Δ 16575	.B	Electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), 6(2) A 230 V~ change-over relay output, supply voltage 120-230 V~ 50/60 Hz - 3 modules
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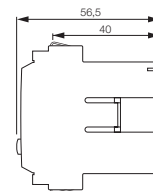
IDEA



Δ 16575
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Δ 16575.B
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TEMPERATURE CONTROL

Flush mounting stand alone timer-thermostats


Electronic timer-thermostat

The appliance is designed to control room temperature by acting on the control circuit of the burner or circulation pump (heating) or on the control circuit of the air conditioner (air conditioning), ensuring an ideal temperature, every day, throughout the week. The large display shows the room temperature, day, time, system operating status and the daily profile set for the current program. The timer-thermostat can also be controlled remotely by means of a telephone dialler to turn the system on and off.

Main functions

- timed temperature setting;
- 3 programmable temperature levels for heating + 3 temperature levels for air conditioning + 1 antifreeze level;
- weekly programming;
- 1 automatic program that can be set by the user (for both heating and air conditioning);
- possibility of forcing the program by changing the temperature manually;
- adjustment for heating and air conditioning;
- antifreeze function;
- possibility of turning off with timer;
- possibility of turning on with a phone actuator;
- display in degrees Celsius or Fahrenheit;
- device reset.

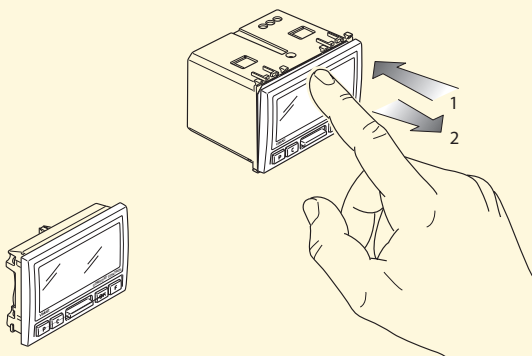
Main characteristics

- output: relay with 5(2) A 250 V~ clean change-over contact;
- type of setting: ON/OFF;
- removable front (fitted with CR2032 type buffer battery, supplied);
- type of contact opening: micro-disconnection;
- protection class:
 - IP40 with anti-removal screw inserted;
 - IP20 with anti-removal screw not inserted;
- class II appliances:  with SELV circuits.

Releasing front panel

The timer-thermostat is equipped with a removable front panel that enables the settings and programming to be changed even when the appliance has been removed from its seat.

20446 - Extracting removable front panel



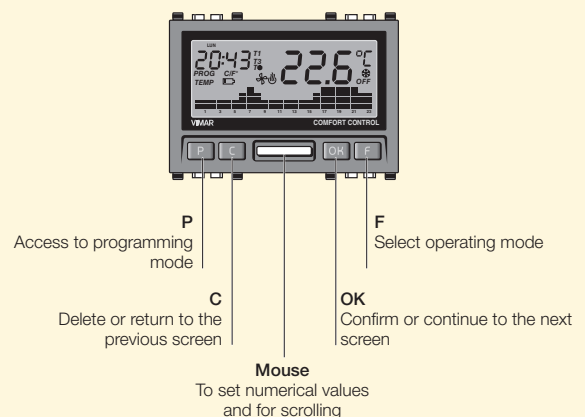
Conformity to Standards

LV Directive, EMC Directive
EN 60730-1, EN 60730-2-7, EN 60730-2-9 Standards

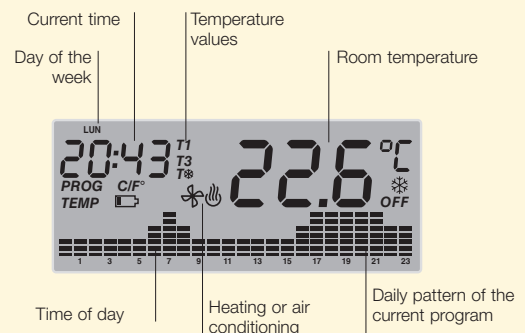
20446 - Technical data

power supply with 2 AA LR6 1.5 V batteries	3 Vdc
mains power draw	1 VA
operating temperature range	from 0 °C to 40 °C (-T40)
reading accuracy	≤ ±0.5°C between +15°C and +30°C ≤ ±0.8°C at the extremes
displayed data refresh	every 20 s
room temperature display	from +0 °C a + 40 °C
reading resolution	0,1 °C
setting resolution	0,1 °C
adjustment range in heating/air conditioning modes	from +5 °C to + 35 °C
adjustment range in antifreeze mode	from +4 °C to + 15 °C
adjustable temperature differential	settable from 0,1 °C to 1 °C
clock error	≤ ±1 s per day
number of manual cycles	3.000
number of automatic cycles	100.000
nominal pulse voltage	4000 V
tracking index	PT1175
degree of pollution	2 (normal)
software class	A
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
type of action	1BU
operating temperature	from +0 °C to +40 °C (indoor use)
Inputs	
power supply	L, N
telephone actuator	INPUT
Outputs	
relay with 5(2) A 250 V~ clean change-over contact	NO, NC, C

20446 - Front view, controls and display



20446 - Example of programming



TEMPERATURE CONTROL



Flush mounting stand alone timer-thermostats

Electronic timer-thermostat

Electronic timer-thermostat for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, class I temperature control device (contribution 1%), input for remote switching of phone dialler on/off, 5(2) A 250 V~ change-over relay output, AA LR6 1,5 V battery-powered - 3 modules. Not suitable for installation in Isoset IP40 and IP55 enclosures

EIKON



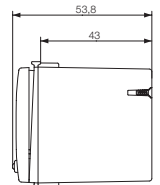
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20446.N
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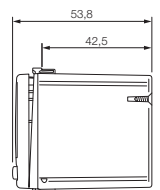
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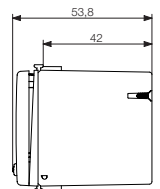
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FLUSH MOUNTING
THERMOSTATS
TIMER-THERMOSTATS

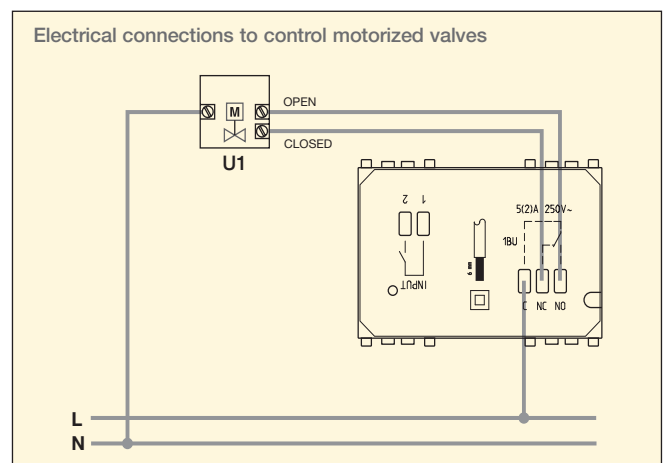
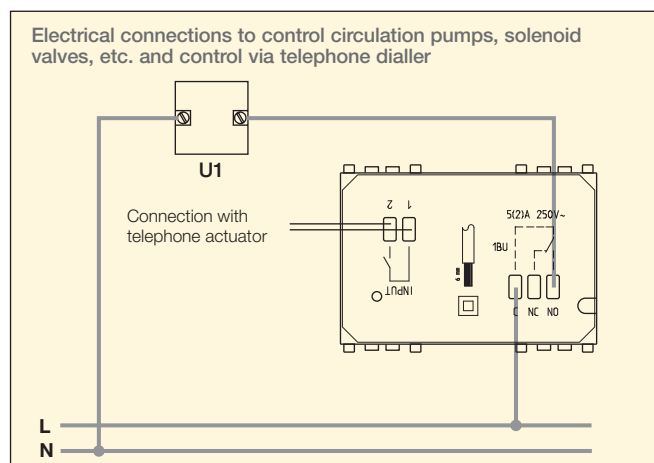
Electronic timer-thermostat

Electronic timer-thermostat kit containing: 1 electronic chronothermostat 19446 for ON/OFF ambient temperature control (heating and air-conditioning), daily/weekly programming, input for remote switching on/off via telephone dialler, change-over relay output 5(2) A 250 V~, powered by AA LR6 1,5 V batteries (included), grey, 1 3-module mounting frame 16723. To be completed with a 3-module Idea cover plate

IDEA



16990



TEMPERATURE CONTROL

Complement devices

Power meter

When interconnected with timer-thermostats 02955 and 02910 (by means of module 02915), the device is able to measure instantaneous consumption and production of electrical energy and save the data over time. The power meter can be connected to single-phase and three-phase lines and is supplied with a current probe for measuring the power of a phase; the power on the other phases can be measured by purchasing another two current probes (01457).

The data (instantaneous power, accumulated daily/weekly/monthly/annual energy and voltage per phase) can be displayed by means of surface mounting timer-thermostat 02910 and flush mounting timer-thermostat 02955.

Main characteristics

- the device performs three types of measurements:
 - measurement of the true root mean square (rms) voltage on each phase (if enabled by viewer art. 02955 or 02910);
 - measurement of the true root mean square power on each phase (if enabled by viewer). The value can be positive or negative depending on the direction of the current through the sensor, so it is possible to measure both the consumption and production values of the electric energy;
 - measurement of 3 separate voltages/powers (the voltages all referring to the same neutral);
- to connect the probe to the timer-thermostat use a cable cat. 5e or higher;
- can be connected to surface mounting timer-thermostat 02910 and 3-module flush mounting timer-thermostat 02955;
- installation on DIN rail (60715 TH35): 1 module size 17.5 mm.

Conformity to Standards

LV Directive, EN 61010-1, EN 61010-2-030 Standards,
EMC Directive, EN 61000-6-1, EN 61000-6-3 Standards

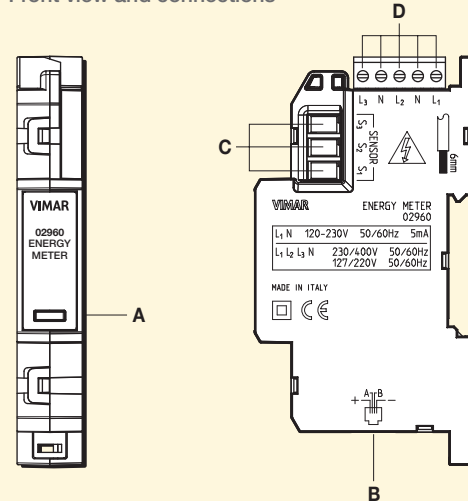
Wired temperature sensor

The sensor, used with Vimar devices, enables the visualization of the room temperature where the product is installed.

Main characteristics

- NTC probe with double insulation (2 wires);
- cable length: **3 m**;
- capsule length: 40 mm;
- capsule diameter: 6 mm;
- cable section: 2x0.25 mm² ø 4.6 mm;
- for the compatibility and range of measurement, please refer to the Vimar products in which the sensor is used;
- to measure the room temperature:** install the sensor at a height of 1.5 m off the floor in a suitable position for correctly detecting the ambient temperature. It must not be installed in niches, behind doors and curtains or in areas affected by sources of heat or atmospheric factors. In particular, avoid installing it on outer walls or in combination with appliances that generate heat (e.g. dimmers or lamps).;
- to measure the outside temperature:** install the sensor outside the building, on the north or north-west/north-east side, at least 2.5 m off the ground; the device should not be affected by any sources of heat and therefore should be sheltered from direct sunlight, away from windows, doors, chimneys or other elements that directly affect temperature and currents of air.;
- to measure the flow temperature:** carefully install the sensor, laying the wires in a dedicated conduit, keeping it separate from the power cables and loads such as pumps,

02960 - Front view and connections

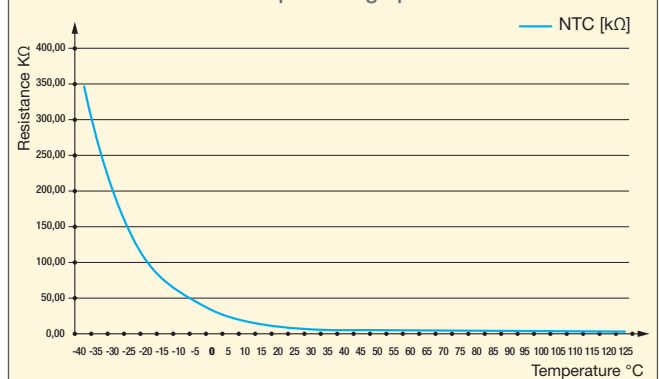


- A:** LED signalling synchronisation with timer-thermostat
B: connector RJ9 for interface module 02915
C: inputs for current sensors
D: terminals for three-phase line connection

02960 - Technical data

power supply with single-phase systems	120 Vac, 50/60 Hz 230 Vac, 50/60 Hz
power supply with three-phase systems	230/400 V, 50/60 Hz 127/220 V, 50/60 Hz
measurable current per phase	50 A max
measurable powers	50 W - 10 kW at 400/230 V 50 W - 6 kW at 127/220 V
maximum power drawn from the grid	1 VA
power measurement accuracy	± 5%
operating temperature	from 0 °C to + 40 °C (indoor use)
Inputs	
power supply	L1, L2, L3, N
RJ9 for module 02915	+, A, B, -
for current sensors	S1, S2, S3

02965.1 - Resistance / temperature graph



burners, etc. Two types of installation are possible: in contact or by immersion in a special well; of the two we recommend the immersion method as it ensures greater accuracy of the temperature measurement and better control dynamics.

- protection degree: IP67.

02965.1 - Technical data

NTC	10 K 1%
reaction time	K=10" in liq. V=2m/s
resistance	10 kΩ at 25 °C
insulation resistance	20 MΩ at 500 Vcc
rigidity	4000 Vac
cable type	SILICONE [9CAVSIL2008]
viewable temperature on supervisors	from - 40 °C to + 120 °C

Complement devices

Power meter

02960 Power meter, 3 inputs for toroidal current sensor 01457, 50 W-10 kW detectable power, 1 RJ9 serial data output, installation on DIN rail (60715 TH35), occupies 1 x 17,5 mm module. Supplied with a toroidal current sensor 01457



02960

Wired temperature sensor

02965.1 NTC 10 k Ω wired temperature sensor, -40 °C / +120 °C operating temperature, IP67, 3 m cable length



02965.1

02965.1 - The sensor can be used with the followed articles:

01465	Climate control device for heating systems
01467	Home automation interface with 3 analogue inputs
02906	Surface mounting touch screen GSM thermostat
02911	Surface mounting Wi-Fi touch screen timer-thermostat
02950	2-module flush mounting touch screen thermostat
02951	2-module flush mounting home automation touch screen thermostat
02952	2-module flush mounting KNX touch screen thermostat
02955	3-module flush mounting touch screen timer-thermostat
20538, 19538, 14538	Home automation temperature probe
21511.1	4.3" Full Flat home automation touch screen
21512.2	3-module Full Flat touch screen
21554	4.3" Full Flat video touch screen
21848.1	4.3" KNX Full Flat touch screen
21849.1	3-module KNX Full Flat touch screen
21509	3-module By-me control unit
01965	By-me module for 19558 video door entry unit

TEMPERATURE CONTROL

Complement devices

Electronic temperature sensor

The sensor, used in conjunction with Vimar devices, can display the temperature of the room where it is installed.

Main characteristics

- maximum length of cable connecting sensor to devices: **60 m**;
- use a twisted cable with a minimum cross-section of 0,5 mm² (art.01840);
- to measure the **ambient temperature** of a room: Install the sensor at a height of 1,5 m off the floor in a suitable position for correctly detecting the ambient temperature. It must not be installed in niches, behind doors and curtains or in areas affected by sources of heat or atmospheric factors. In particular, avoid installing it on outer walls or in combination with appliances that generate heat (e.g. regulators or lamps).

20432 - Technical data

NTC	10 K 1%
resistance	10 kΩ a 25 °C
viewable temperature on supervisors	from - 10 °C to + 70 °C

Electronic active humidity sensor

The device integrates with the By-me home automation system (by means of device 01467 with analog input) for temperature control with the following functions: maintaining humidity below a desired threshold and preventing condensation in underfloor cooling systems. It measures the relative humidity in the room and sends the information via an analog 0-10 V voltage signal or 4-20 mA current signal.

Main characteristics

- dual insulation from the power supply grid;
- for the maximum measurement precision, install the device at a height of about 1,5 m above the floor on an internal wall;
- do not install in corners of rooms, in alcoves, behind bookshelves or curtains or near doors, windows, forced air flows or sources of heat;
- max length of connecting cable to receiving device: 100 m. Use 2x0,5 mm² twisted cable (art.01840);
- protection class: IP20.

20433 - Conversion table

	voltage 0-10 V	current 4-20 mA
conversion function	$RH\% = \text{Voltage}[V] \times 10$	$RH\% = (\text{Current}[mA] - 4) \times 6.25$
external load limits	Minimum 1000Ω	Maximum 500Ω

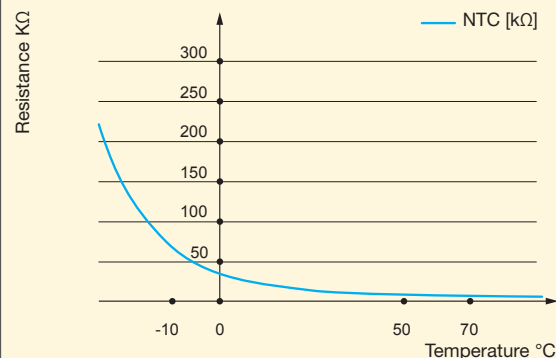
Configuration

The output analog signal mode can be selected by means of a dedicated jumper on the rear of the sensor; set it to 0-10 V or to 4-20 mA to obtain the respective output signal mode.

Conformity to Standards

EMC Directive, EN 60730-2-13 Standard

20432 - Resistance / temperature graph



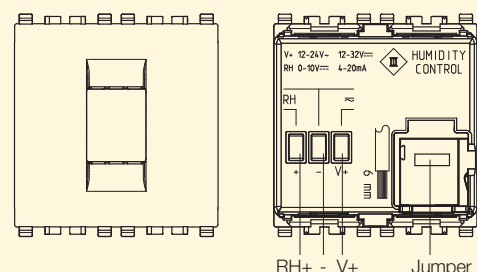
20432 - The sensor can be used with the followed articles:

01465	Climate control device for heating systems
01467	Home automation interface with 3 analogue inputs
02906	Surface GSM touch-thermostat
02911	Surface mounting Wi-Fi touch screen timer-thermostat
02950	2-module flush mounting touch screen thermostat
02951	2-module flush mounting home automation touch screen thermostat
02952	2-module flush mounting KNX touch screen thermostat
02955	3-module flush mounting touch screen timer-thermostat
20538, 19538, 14538	Home automation temperature probe
21511.1	4,3" Full Flat home automation touch screen
21554	Video touch screen 4,3" Full Flat

20433 - Technical data

power supply	12-24 V~ 50 Hz, 12-32 Vdc SELV
maximum power draw at input	1 W
range of humidity without condensation	10-90 RH%
typical humidity measurement precision in still air at 20 °C and 50 RH%	± 3 RH%
operating temperature	from - 5 °C to + 45 °C (indoor use)
viewable range on touch screen supervisors	from 10 to 90 RH%
Inputs	
power supply	V+, -
Outputs	
thermostat	RH+, -

20433 - Front view and connections

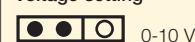


Terminals:

V+: power supply;
- : power supply and output reference;
RH+: output.

Jumper configuration:

Voltage setting



Current setting



TEMPERATURE CONTROL

Complement devices

Electronic temperature sensor

Electronic temperature sensor, 1 output

EIKON



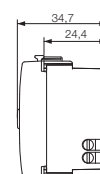
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20432.N
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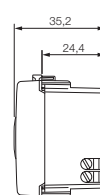
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19432
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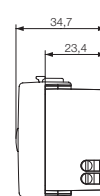
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14432
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14432.SL
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Electronic active humidity sensor

Electronic active humidity sensor, 1 output 0-10 V or 4-20 mA, power supply 12/24V - 2 modules. Can be integrated with the By-me home automation system via 01467

EIKON



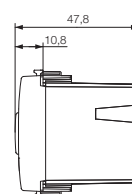
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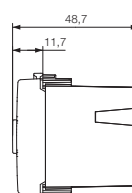
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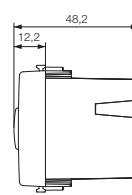
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14433.SL
Silver




Complement devices

01923 - 1-channel actuator-receiver

The device allows for radio reception of commands from the timer-thermostat and thermostat for air conditioning appliances.


Main characteristics

- antenna: 17 cm rigid wire to be positioned vertically; a 433 MHz external antenna can be connected to the terminal using a coaxial cable if the antenna needs to be positioned at a distance or if reception problems occur;
- LED indicating the intensity of the radio signal;
- type of contact opening: micro-disconnection;
- pollution situation: normal;
- protection class: IP40;
- class II appliances:  ;
- installation: on DIN rail (60715 TH35), size 6 modules.

Conformity to Standards

LV, EMC, R&TTE Directives
EN 60730-1, EN 60730-2-9, EN 300 220-3,
EN 301 489-03 Standards


Technical data

power supply	230 V~ ±10% 50/60 Hz
power draw	2 VA
receiver	ASK 433.92 MHz
sensitivity	106 dBm average
number of automatic cycles	100.000
type of action	1B
tracking index	PTI175
operating temperature	from - 0 °C to + 55 °C (indoor use)
Inputs	
power supply	N, L
antenna	
Outputs	
1 relay with 6(2) A 250 V~ clean change-over contact	NC, NO, C

01924 - 4-channel actuator-receiver

Allows for radio reception of commands from the timer-thermostat and thermostat for air conditioning appliances.


Main characteristics

- antenna: 17 cm rigid wire to be positioned vertically; a 433 MHz external antenna can be connected to the terminal using a coaxial cable if the antenna needs to be positioned at a distance or if reception problems occur;
- LED indicating the intensity of the radio signal;
- type of contact opening: micro-disconnection;
- pollution situation: normal;
- protection class: IP40;
- class II appliances:  ;
- installation: on DIN rail (60715 TH35), size 6 modules.

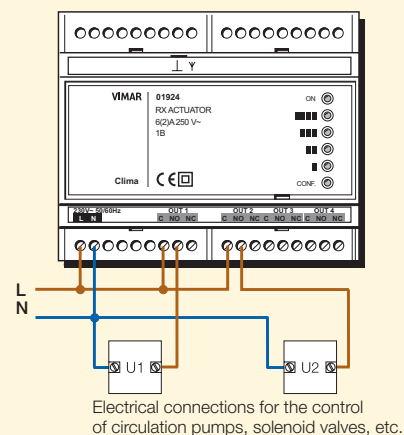
Conformity to Standards

LV, EMC, R&TTE Directives,
EN 60730-1, EN 60730-2-9, EN 300 220-3,
EN 301 489-03 Standards

Technical data

power supply	230 V~ ±10% 50/60 Hz
power draw	2 VA
receiver	ASK 433.92 MHz
sensitivity	106 dBm circa
number of automatic cycles	100.000
type of action	1B
tracking index	PTI175
operating temperature	from - 0 °C to + 55 °C (indoor use)
Inputs	
power supply	N, L
antenna	
Outputs	
4 relay with 6(2) A 250 V~ clean change-over contact	NC, NO, C

01924 - Connections



1-channel actuator-receiver

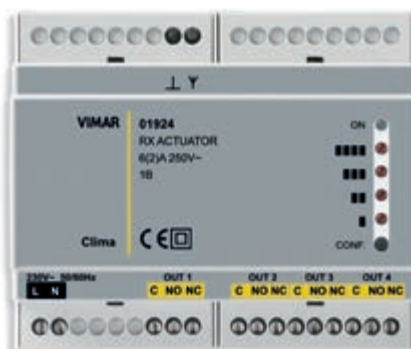
01923 1-channel actuator-receiver, installation on DIN (60715 TH35) rail, occupies 6 modules sized 17,5 mm



01923

4-channel actuator-receiver

01924 4-channel actuator-receiver, installation on DIN (60715 TH35) rail, occupies 6 modules sized 17,5 mm



01924

By-me: temperature control and energy management

Touch screen electronic thermostat

The electronic thermostat integrates with the By-me home automation system for temperature control in 2 or 4 pipe systems (heating/air conditioning) and neutral zone (only in 4 pipe systems), with a boost function to activate a second source and reach the desired comfort temperature more rapidly. The thermostat is equipped with an RGB backlit display and 5 capacitive buttons to control temperature set point, fan coil speed and configuration of the thermostat operating modes; the display colour can be adjusted by means of control unit (21509) or EasyTool Professional software. The thermostat is a universal 2 module device for Eikon, Arkè, Plana and Idea series (Idea series with dedicated mounting frame 16723...).

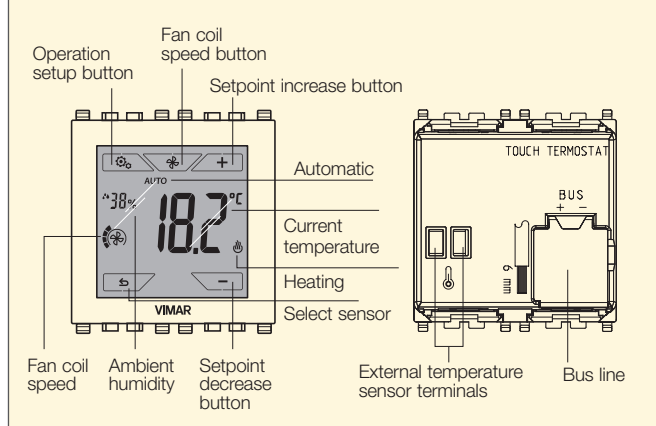
Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface:
 - the **ON/OFF** algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
 - the **PID** is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- the RGB display colour can be:
 - fixed with colour of choice;
 - coordinated with residential series backlighting;
 - or using the **"Ecometer"** function, it can intuitively reflect the expected level of consumption in the system relative to the standard value (see note on the facing page);
- **"boost"** function enables the comfort temperature to be reached more rapidly in the presence of a second source (e.g. a fan-coil) and only if the difference between the measured temperature and the set-point is greater than a settable threshold.

Main characteristics


- 2 and 4 pipe system management;
- heating, cooling, neutral zone (only with 4 pipes);
- control via specific On/Off hot/cold valve By-me actuator with actuator 01471 and proportional type (0-10 V, 4-20 mA) with actuator 01466;
- fan coil management (3 speed/proportional, on/off valves);
- possibility of connecting an external temperature NTC sensor (20432, 19432, 14432 or 02965.1) whose functions are as follows:
 - substitution of the internal sensor;
 - average with the internal one;
 - screed temperature limitation;
 - viewing only via touch screen or web server;
- maximum length of sensor connecting cable to the devices: 60 m. Use a twisted cable with a minimum cross-section of 0,5 mm² (01840);

02951 - Front view and connections



- open window management function;
- device can be managed remotely (touch screen, web server);
- device can be interfaced with KNX standard;
- ability to use an Offset to correct the reading of the temperature measured in accordance with a specimen thermometer so as to compensate for any errors caused by particular installations (north wall, proximity to hot/cold water pipes, etc.);
- display of the relative humidity of a room when associated with its sensor;
- backlit RGB display can be set as fixed colour or Ecometer;
- device compatible only with control unit 21509 or EasyTool Professional software (downloadable from the website www.vimar.com);
- installation: flush or surface mounting (with surface mounting box 09975...).

02951 - Technical data

power supply from By-me Bus	29 Vdc
absorption from By-me Bus	5 mA
thermic differential adjustable from control unit	between 0,1 °C and 1 °C
adjustment range in heating mode	from +5 °C to +30 °C
adjustment range in air conditioning mode	from +10 °C to +35 °C
ErP classification (Reg. EU 811/2013)	- On/Off: class I, contribution 1% - PID: class IV, contribution 2% - with actuator 01466: class V, contribution 3%
temperature measurement accuracy integrated sensor and auxiliary external sensor (from 0 °C to 40 °C)	±0,5 °C between 15 °C and 30 °C, ±0,8 °C at the ends <i>Over the device's operating temperature the error of the auxiliary external sensor increases (max 2,5 °C @ 80 °C)</i>
operating temperature	from 0 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus + -
electronic temperature sensor	

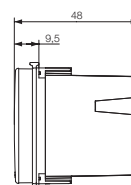
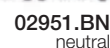
Conformity to Standards

EMC Directive, LV Directive, EN 50428, EN 50491 Standards



Touch screen electronic thermostat

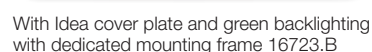
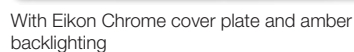
02951	.B	.BN	Touch screen home automation system thermostat for ambient temperature control (heating and air-conditioning), 2 and 4 pipe system management, 3-speed and proportional fan-coil control, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PID mode, 1 input for flush mounting or wired NTC temperature sensor, RGB LED backlighting, can be interfaced with actuator with proportional analogue outputs 01466 to make a class V modulating room thermostat (contribution 3%), to be completed with Eikon, Arké, Plana or Idea cover plates (Idea series with dedicated mounting frame 16723...) - 2 modules
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The **ECometer mode** allows the backlighting colour to be set. Depending on the set temperature, it is associated with the estimated energy consumption level; it does not display the colour according to the temperature measured at that moment but solely according to the set-point.



Examples of RGB display colours coordinated with the Eikon, Arké, Plana and Idea series.



TEMPERATURE CONTROL

By-me: temperature control and energy management

Electronic thermostat

The device integrates with the By-me home automation system for temperature control and energy management and is suitable for controlling ambient temperature (heating and air conditioning). It can be controlled by the control unit in "timer-thermostat" mode or can manage a zone independently in "thermostat" mode.

Main characteristics

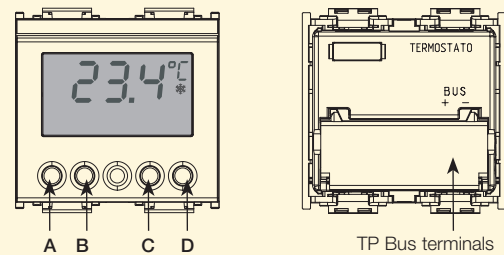
- device not compatible with proportional actuators (01466);
- installation: flush or surface mounting (with surface mounting box 09975...).

16954 - Technical data	
power supply via Bus	29 Vdc
absorption from Bus	20 mA
adjustment range in heating mode	from +5 °C to + 30 °C
adjustment range in air conditioning mode	from +10 °C to + 35 °C
operating temperature	from - 5 °C to + 40 °C (indoor use)
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
Inputs	
TP Bus	Bus + -

Conformity to Standards

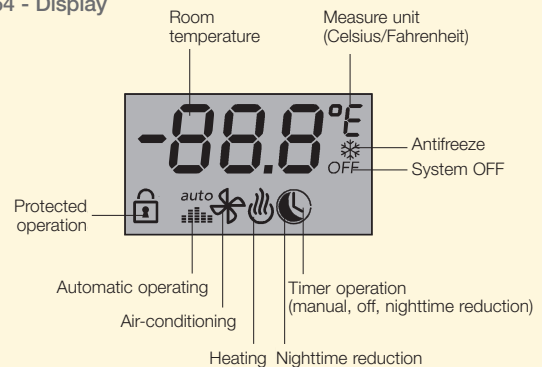
EMC directive, EN 50428 Standard

16954 - Front view and connections



- **Button A:** used to set a time for the selected operating mode; it is also the configuration button.
- **Button B:** decrease displayed value (temperature or time).
- **Button C:** increase displayed value (temperature or time).
- **Button D:** change operating mode.

16954 - Display



Fan coil electronic thermostat

The device integrates with the By-me home automation system for temperature control and energy management and is suitable for controlling ambient temperature (heating and air conditioning) by means of 3-speed fan coils.

Main characteristics

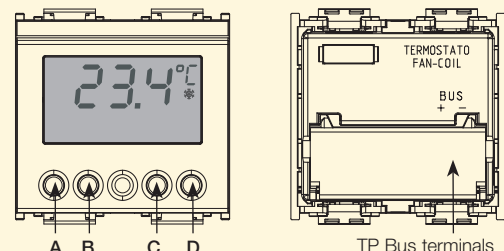
- device not compatible with proportional actuators (01466);
- temperature differential: adjustable between 0.1°C and 1.0°C; default value: 0.2°C. The adjustment is made by the control unit.

16953 - Technical data	
power supply via Bus	29 Vdc
absorption from Bus	20 mA
adjustment range in heating mode	from +5 °C to + 30 °C
adjustment range in air conditioning mode	from +10 °C to + 35 °C
operating temperature	from - 5 °C to + 40 °C (indoor use)
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
Inputs	
TP Bus	Bus + -

Conformity to Standards

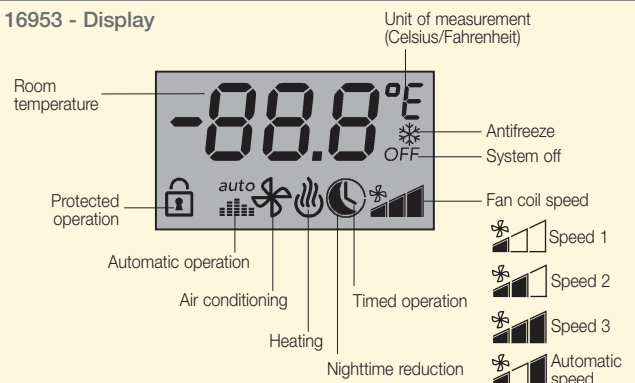
EMC directive, EN 50428 Standard

16953 - Front view and connections



- **Button A:** cancel operation and configuration button.
- **Button B:** decrease displayed value (temperature or time).
- **Button C:** increase displayed value (temperature or time).
- **Button D:** button for changing the speeds of the fan coil; hold down for 3 seconds to access the menus.

16953 - Display



TEMPERATURE CONTROL



By-me: temperature control and energy management

Electronic thermostat

16954 .B Thermostat for home automation system with display for ambient temperature ON/OFF control, class I temperature control device (contribution 1%) - 2 modules

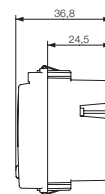
IDEA



16954
grey



16954.B
white



Fan coil electronic thermostat

16953 .B Thermostat for home automation system with display for automatic or manual three-speed fan-coil control, class I temperature control device (contribution 1%) - 2 modules

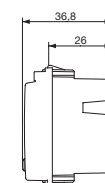
IDEA



16953
grey



16953.B
white



BY-ME
TEMPERATURE CONTROL
ENERGY MANAGEMENT

By-me: temperature control and energy management

Bus temperature probe

The device integrates with the By-me home automation system for temperature control in 2 or 4 pipe systems (heating/air conditioning) and neutral zone (only in 4 pipe systems), with a boost function to activate a second source and reach the desired comfort temperature more rapidly.

Main functions

- temperature control algorithms: ON/OFF or PID selectable via user interface;
- the **ON/OFF** algorithm is the control that turns heating off when the set temperature is exceeded by a given threshold value (the opposite in the case of air conditioning) and turns it back on again when the room temperature returns to below the set temperature;
- the **PID** is an advanced algorithm capable of keeping the temperature of a room stable; it works by turning the system on or off so as to gradually increase or decrease the heating (or cooling) power of the system; ideal for underfloor systems, the algorithm must be suitably calibrated according to the type of room and system;
- use of dedicated By-me actuator to control On/Off type hot/cold valves with actuator 01471 and proportional type valves (0-10 V, 4-20 mA) with actuator 01466;
- fan-coil management (3 speed/proportional, On/Off valves);
- **"boost"** function: control of an auxiliary actuator (On/Off, proportional);
- functions of external sensor (20432, 19432, 14432, 02965.1):
- alternative to internal sensor;
- average with internal sensor.

Main characteristics

- device can be managed remotely (touch screen, web server);
- possibility of connecting an external temperature NTC sensor

Electronic active humidity sensor

The device integrates with the By-me home automation system (by means of device 01467 with analog input) for temperature control with the following functions: maintaining humidity below a desired threshold and preventing condensation in underfloor cooling systems. It measures the relative humidity in the room and sends the information via an analog 0-10 V voltage signal or 4-20 mA current signal.

Main characteristics

- dual insulation from the power supply grid;
- for the maximum measurement precision, install the device at a height of about 1,5 m above the floor on an internal wall;
- do not install in corners of rooms, in alcoves, behind bookshelves or curtains or near doors, windows, forced air flows or sources of heat;
- max length of connecting cable to receiving device: 100 m. Use 2x0,5 mm² twisted cable (art. 01840);
- protection class: IP20.

20433 - Conversion table

	voltage 0-10 V	current 4-20 mA
conversion function	$RH\% = \frac{Voltage[V] - 0}{10} \times 10$	$RH\% = \frac{Current[mA] - 4}{16} \times 6.25$
external load limits	Minimum 1000Ω	Maximum 500Ω

Configuration

The output analog signal mode can be selected by means of a dedicated jumper on the rear of the sensor; set it to 0-10 V or to 4-20 mA to obtain the respective output signal mode.

Conformity to Standards

EMC Directive, EN 60730-2-13 Standard


(20432, 19432, 14432, 02965.1): maximum length of sensor connecting cable to the devices: 60 m. Use a twisted cable with a minimum cross-section of 0,5 mm² (01840);

- device compatible only with control unit 21509 or EasyTool Professional software (downloadable from the website www.vimar.com).

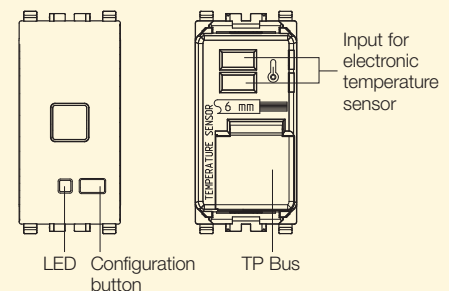
Conformity to Standards

LV directive, EMC Directive, EN 50428, EN 50491 Standards

20538 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	5 mA
adjustment range in heating mode	from +5 °C to +30 °C
adjustment range in air conditioning mode	from +10 °C to +35 °C
thermal differential adjustable from control unit 21509	between 0,1 °C and 1 °C
reading accuracy (from 0 °C to 40 °C)	- ≤ ±0,5 °C between +15 °C and +30 °C - ≤ ±0,8 °C at the extremes
ErP classification (Reg. EU 811/2013)	- On/Off: class I, contribution 1% - PID: class IV, contribution 2% - with actuator 01466: class V, contribution 3%
operating temperature	from 0 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus + -
electronic temperature sensor	

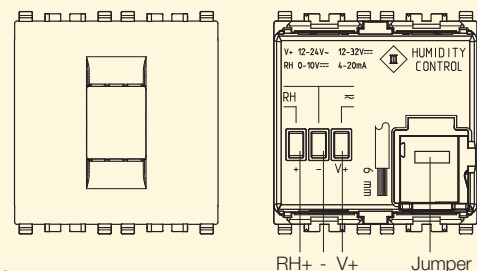
20538 - Front view and connections



20433 - Technical data

power supply	12-24 V~ 50 Hz, 12-32 Vdc SELV
maximum power draw at input	1 W
range of humidity without condensation	10-90 RH%
typical humidity measurement precision in still air at 20°C and 50 RH%	± 3 RH%
operating temperature	from -5°C to +45°C (indoor use)
viewable range on touch screen supervisors	from 10 to 90 RH%
Inputs	
power supply	V+, -
Outputs	
thermostat	RH+, -

20433 - Front view and connections

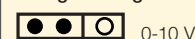


Terminals:

- V+: power supply;
- : power supply and output reference;
- RH+: output.

Jumper configuration:

Voltage setting



0-10 V

Current setting



4-20 mA

TEMPERATURE CONTROL



By-me: temperature control and energy management

Bus temperature probe

Temperature probe 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, 1 input for flush mounting or wired NTC temperature sensor, for By-me home automation system, can be interfaced with actuator with proportional analogue outputs 01466 to make a class V modulating room thermostat (contribution 3%)

EIKON



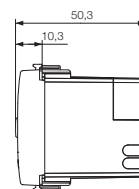
20538
grey



20538.B
white



20538.N
Next



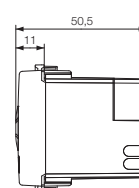
ARKÉ



19538
grey



19538.B
white



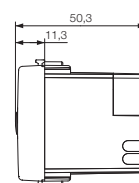
PLANA



14538
white



14538.SL
Silver



Electronic active humidity sensor

Electronic active humidity sensor, 1 output 0-10 V or 4-20 mA, power supply 12/24V - 2 modules. Can be integrated with the By-me home automation system via 01467

EIKON



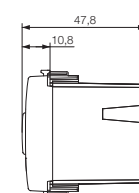
20433
grey



20433.B
white



20433.N
Next



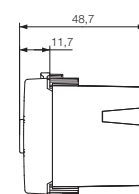
ARKÉ



19433
grey



19433.B
white



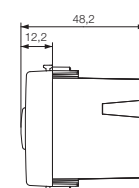
PLANA



14433
white



14433.SL
Silver



BY-ME
TEMPERATURE CONTROL
ENERGY MANAGEMENT

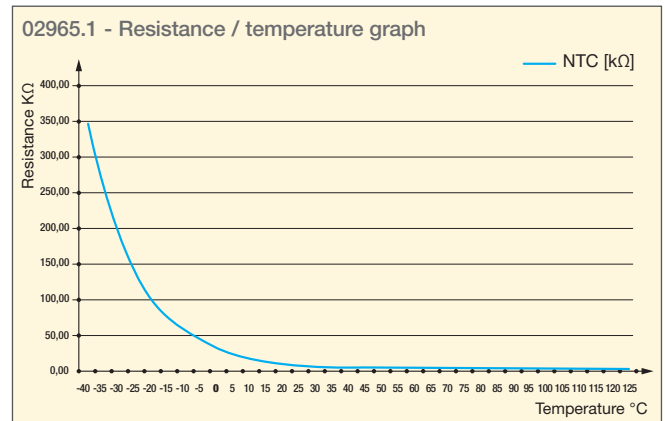
By-me: temperature control and energy management

Wired temperature sensor

The sensor, used with Vimar devices, enables the visualization of the room temperature where the product is installed.

Main characteristics

- NTC probe with double insulation (2 wires);
- cable length: **3 m**;
- capsule length: 40 mm;
- capsule diameter: 6 mm;
- cable section: 2x0.25 mm² Ø 4.6 mm;
- for the compatibility and range of measurement, please refer to the Vimar products in which the sensor is used;
- **to measure the room temperature:** install the sensor at a height of 1.5 m off the floor in a suitable position for correctly detecting the ambient temperature. It must not be installed in niches, behind doors and curtains or in areas affected by sources of heat or atmospheric factors. In particular, avoid installing it on outer walls or in combination with appliances that generate heat (e.g. dimmers or lamps).;
- **to measure the outside temperature:** install the sensor outside the building, on the north or north-west/north-east side, at least 2.5 m off the ground; the device should not be affected by any sources of heat and therefore should be sheltered from direct sunlight, away from windows, doors, chimneys or other elements that directly affect temperature and currents of air.;
- **to measure the flow temperature:** carefully install the sensor, laying the wires in a dedicated conduit, keeping it separate from the power cables and loads such as pumps, burners, etc. Two types of installation are possible: in contact or by immersion in a special well; of the two we recommend the immersion method as it ensures greater accuracy of the temperature measurement and better control dynamics.
- protection degree: IP67.



02965.1 - Technical data

NTC	10 K 1%
reaction time	K=10" in lyq. V=2m/s
resistance	10 kΩ at 25 °C
insulation resistance	20 MΩ at 500 Vcc
rigidity	4000 Vac
cable type	SILICONE [9CAVSIL2008]
viewable temperature on supervisors	from - 40 °C to + 120 °C

02965.1 - The sensor can be used with the followed articles:

01465	Climate control device for heating systems
01467	Home automation interface with 3 analogue inputs
02906	Surface mounting touch screen GSM thermostat
02911	Surface mounting Wi-Fi touch screen timer-thermostat
02950	2-module flush mounting touch screen thermostat
02951	2-module flush mounting home automation touch screen thermostat
02952	2-module flush mounting KNX touch screen thermostat
02955	3-module flush mounting touch screen timer-thermostat
20538, 19538, 14538	Home automation temperature probe
21511.1	4.3" Full Flat home automation touch screen
21512.2	3-module Full Flat touch screen
21554	4.3" Full Flat video touch screen
21848.1	4.3" KNX Full Flat touch screen
21849.1	3-module KNX Full Flat touch screen
21509	3-module By-me control unit
01965	By-me module for 19558 video door entry unit

TEMPERATURE CONTROL



By-me: temperature control and energy management

Wired temperature sensor

02965.1 NTC 10 k Ω wired temperature sensor, -40 °C / +120 °C operating temperature, IP67, 3 m cable length



02965.1

TEMPERATURE CONTROL

By-me: temperature control and energy management

Electronic temperature sensor

The sensor, used in conjunction with Vimar devices, can display the temperature of the room where it is installed.

Main characteristics

- maximum length of cable connecting sensor to devices: **60 m**;
- use a twisted cable with a minimum cross-section of 0,5 mm² (art.01840);
- to measure the **ambient temperature** of a room: Install the sensor at a height of 1,5 m off the floor in a suitable position for correctly detecting the ambient temperature. It must not be installed in niches, behind doors and curtains or in areas affected by sources of heat or atmospheric factors. In particular, avoid installing it on outer walls or in combination with appliances that generate heat (e.g. regulators or lamps).

20432 - Technical data

NTC	10 K 1 %
resistance	10 kΩ a 25 °C
viewable temperature on supervisors	from - 10 °C to + 70 °C

KNX standard weather station

The weather station integrates with the By-me home automation system for temperature control and for managing energy and automation systems. The weather station measures variables such as temperature, wind speed, rainfall and brightness, the values of which can be used for:

- viewing on monitors;
- activating automation systems in the home automation system on exceeding the threshold based on limit values.

Main functions

- **Brightness measurement:** this function can be used to turn exterior lights on at dusk and off at dawn.
- **Wind measurement:** the strength of the wind is measured electronically, so the measurement is quiet and reliable even in the event of hail, snow and sub-zero temperatures. The weather station is also able to detect whirlwinds and updraughts. This function can also be used to activate awning winding in the case of strong wind or precipitation.
- **Rain measurement:** the weather station is equipped with a sensor with a heated surface so that only rain and snow is measured as precipitation (and not fog or dew). Automatic irrigation can be deactivated in the event of rain. Once it has stopped raining or snowing, the sensor dries quickly and the precipitation message is turned off.
- **Temperature measurement:** the weather station measures the value of the current temperature.

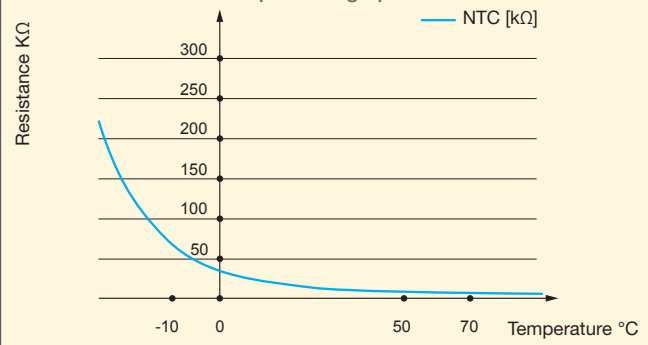
Main characteristics

- configuration button;
- configuration LED;
- protection class: IP44;
- dimensions: 96x77x118 mm (L x H x D);
- weight: approx. 170 g.

Configuration

The weather station functions and parameters are configured via the EasyTool Professional software; the manual and the technical info sheet can be downloaded from the Software->Product Software section of the website www.vimar.com.

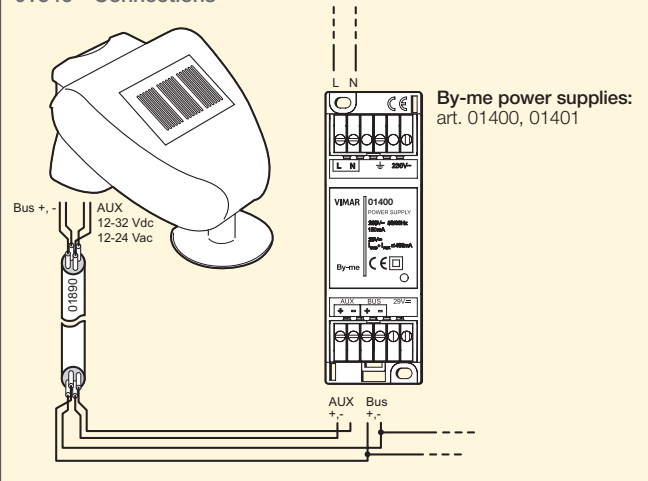
20432 - Resistance / temperature graph



20432 - The sensor can be used with the followed articles:

01465	Climate control device for heating systems
01467	Home automation interface with 3 analogue inputs
02906	Surface mounting touch screen GSM thermostat
02911	Surface mounting Wi-Fi touch screen timer-thermostat
02950	2-module flush mounting touch screen thermostat
02951	2-module flush mounting home automation touch screen thermostat
02952	2-module flush mounting KNX touch screen thermostat
02955	3-module flush mounting touch screen timer-thermostat
20538, 19538, 14538	Domotic temperature probe
21511.1	4,3" Full Flat home automation touch screen
21554	Video touch screen 4,3" Full Flat

01546 - Connections



01546 - Technical data

AUX power supply	12-32 V , 12-24 V- SELV
max current draw, ripple 10%	100 mA
absorption from Bus	10 mA
group addresses	254 max
possible associations	255 max
communication objects	109
rain sensor heating	1,2 W
temperature measurement range	from -40 °C to + 80 °C
temperature definition	0,1 °C
temperature accuracy	1° C from -10 °C - +85 °C 1,5 °C from -25 °C - +150 °C
wind measurement range	0 - 70 m/s
wind definition	<10% of the reading
wind accuracy with an angle of incidence of 45° and mounting on a suitable support	25% from 0 - 15 m/s
brightness measurement range	0 - 150.000 Lux
brightness definition	1 Lux from 0-120 Lux 2 Lux from 121-1.046 Lux 63 Lux from 1.047-52.363 Lux 423 Lux from 52.364-150.000 Lux
brightness accuracy	35%
operating temperature	from -30°C to +50°C (exterior use)
Inputs	
power supply	+, -
Bus	TP Bus

Conformity to Standards

EMC directive, EN60730-1, EN 50491 Standards

TEMPERATURE CONTROL



By-me: temperature control and energy management

Electronic temperature sensor

Electronic temperature sensor, 1 output

EIKON



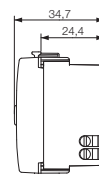
20432
grey



20432.B
white



20432.N
Next



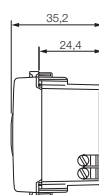
ARKÉ



19432
grey



19432.B
white



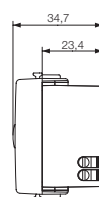
PLANA



14432
white



14432.SL
Silver



KNX standard weather station

01546 Weather station, KNX standard, power supply 12-32 Vdc or 12-24 Vac. Can be integrated with the By-me home automation system

Installation



Base with straps supplied



01546

By-me: temperature control and energy management

IR home automation transmission interface

The IR module enables audio sources (combo stereo, CD/DVD players, etc.) and air-conditioner splitters to be controlled by learning and emulating the commands of the original remote control of the target devices.

Paired with an RCA transmitter (20582, 19582, 14582) it then enables having audio sources controlled directly by the By-me system; if instead it is paired with the touchscreen thermostat 02951, the touchscreen supervisors 21554, 21511.1, 21512.1, 16952, or the web server 01945, 01946, it enables controlling the splitters directly via the By-me system, manually or with scenes and events.

The extension lead for the IR control is supplied (length 3 m).

Main characteristics

- connector for jack 2,5 mm²;
- possibility of programming the group to which it belongs using the control panel 21509 or from a PC using EasyTool Professional software;
- configuration button;
- LED for configuring and indicating IR reception and transmission;
- ability to store and replicate 32 commands sent from an infrared remote control;
- 3 m cable with 2,5 mm² jack and IR transmitter (supplied).

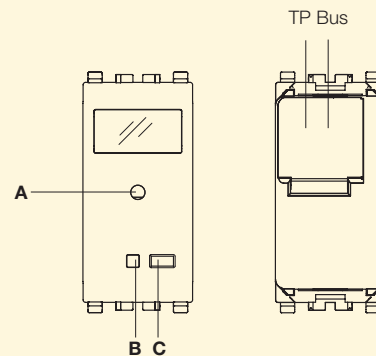
20584.1 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	20 mA
infrared frequency	30 KHz - 60 KHz
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
TP Bus	Bus +, -

Conformity to Standards

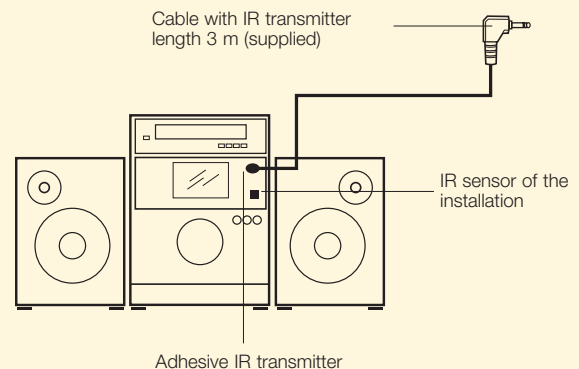
EMC directive,
EN 50428, EN 50491 Standards

20584.1 - Front view and connections

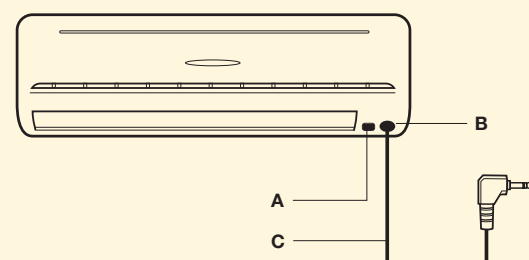


- A:** 2,5 mm jack input
B: LED
C: configuration button

20584.1 - Installation of cable with IR transmitter



Installation of cable with IR transmitter



- A:** IR sensor of splitter
B: adhesive IR transmitter (does not inhibit operation of the remote control)
C: cable with IR transmitter to be plugged into jack input. Length 3 m (supplied)

TEMPERATURE CONTROL



By-me: temperature control and energy management

IR home automation transmission interface

Interface for transmission of By-me commands to IR receiver, for By-me home automation, complete with 3 m cable

EIKON



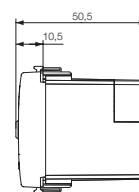
20584.1
grey



20584.1.B
white



20584.1.N
Next



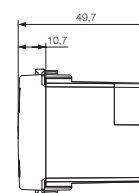
ARKÉ



19584.1
grey



19584.1.B
white



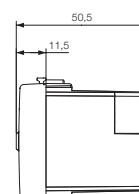
PLANA



14584.1
white



14584.1.SL
Silver



TEMPERATURE CONTROL



By-me: temperature control and energy management

Climate control device for heating systems

The climate control device for HVAC systems is a By-me device for controlling the delivery water temperature via a mixer valve. The temperature can be controlled in the following ways:

- **fixed:** the delivery temperature, for both heating and conditioning is kept constant at the value set in the set-point. In this mode the external probe is not required;
- **modulating (climatic):** the delivery temperature is controlled according to the external temperature and the correction factor "K" (the correction factor can be set and varies according to the type of system, the heating/cooling elements installed and the energy class of the building).

Main functions

- For each control mode (fixed or modulating) there are 4 operating modes: auto, comfort, economy and off;
- PID type control;
- mixer valve with parametrisable opening and closing times (valve opening/closing time ≥ 30 s);
- Scenario function that sets the control and operating mode to the stored conditions;
- anti-seize function for circulation pump and mixer valve;
- anti-condensation function (conditioning only);
- system alarm detection function through the auxiliary input. The alarm indicator logic can be configured as NC or NO; a SELV voltage-free clean contact must be used, which must ensure safety isolation;
- maximum delivery temperature limitation in heating can be used to limit the screed temperature;
- minimum delivery temperature limitation in cooling;
- delivery probe failure alarm;
- external probe failure alarm;
- auxiliary probe failure alarm;
- OUT3 proportional output overload alarm;
- block alarm when the auxiliary contact input is opened or closed according to the set polarity (NO or NC); in an alarm, the climate control device is switched on, the pump is switched off and the valve closed. Once the alarm has been resolved the control device returns to normal operation.
- test procedure (device not configured) to check the connections and earthing of the climate control device during installation.

Main characteristics

- 1 output per 3-point motorised mixer valve command;
- 1 output per circulation pump command;
- 1 analogue output to pilot the proportional mixer valve; the output can be configured in voltage (0-10V) or current (0-20 mA or 4-20 mA) and is overload protected;
- status LED and 4 output status indicator LEDs;
- LED and configuration button;
- 3 inputs for temperature probes T1, T2, T3;
- installation on DIN rail (60715 TH35), occupies 6 module size 17,5 mm.

Note. This device cannot be configured on control panels art. 01950, 01960, 20510, 16950, 14510 and is not compatible with thermostats art. 20513, 19513, 16953, 14513.

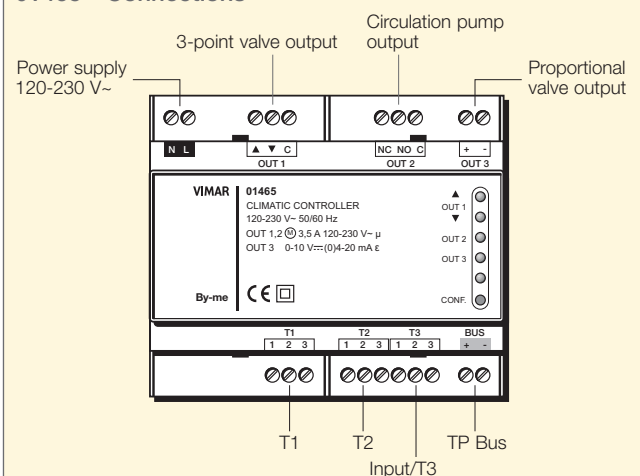
Conformity to Standards

LV Directive, EMC Directive, EN 60730-2-9, EN 50491 Standards

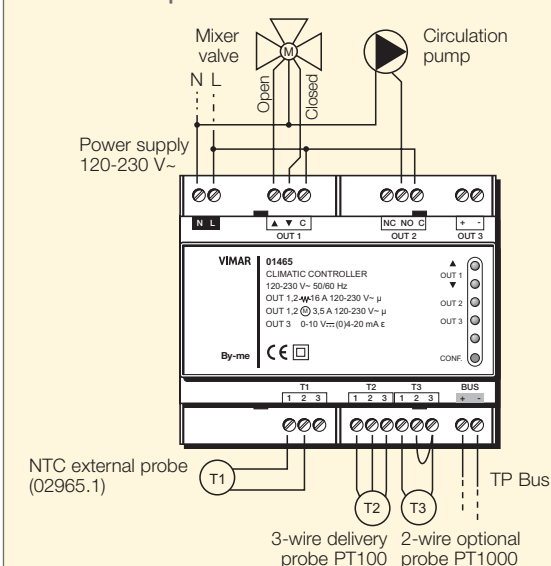
01465 - Technical data

power supply	120-230 V~, 50/60 Hz
mains power draw	5 VA
power supply from TP Bus	29 Vdc, SELV
absorption from TP Bus	5 mA
dissipated power	6 VA at 230 V~ 4 VA at 120V~
ErP classification (Reg. EU 811/2013)	class II, contribution 2%
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
power supply	N, L
TP Bus	+, -
probes	T1, T2, T3
Outputs	
solenoid valve	OUT 1
circulation pump	OUT 2
proportional solenoid valve	OUT 3

01465 - Connections



01465 - Example of connection



01465 - Controllable loads

OUT 1	resistive loads: 8 A 120-230 V motori cos ϕ 0,6: 3,5 A 120-230 V
OUT 2	resistive loads: 8 A 120-230 V motors cos ϕ 0,6: 3,5 A 120-230 V
OUT 3	Voltage output: 0-10 V configurable. If set in voltage, the controllable load is 1000 Ω Current output: (0) 4-20 mA configurable. If set in current the controllable load is $\leq 500 \Omega$ It is not possible to control ballast control devices for dimmers

TEMPERATURE CONTROL



By-me: temperature control and energy management

Climate control device for heating systems

01465 HVAC control for heating systems, class II temperature control device (contribution 2%), power supply 120-230 V~ 50/60 Hz, 3 inputs for PT100, PT1000 and NTC probes, 1 mixer valve control output, 1 output 0-10 V or (0)4-20 mA, 1 change-over relay output 8 A 230 V~, installation on DIN rail (60715 TH35), occupies 6 modules size 17,5 mm



01465

TEMPERATURE CONTROL

By-me: temperature control and energy management

Actuator with 4 proportional analogue outputs

The device functions as a proportional actuator and integrates with the By-me home automation system for managing temperature control and automation.

It is able to control/adjust the degree of opening of the proportional motorised valves or fan-coils that accept variable voltage- or current-controlled signals (e.g. 0-10 V or 4-20 mA). Controls up to 4 valves. The following functions can be performed independently for each output:

- controlling proportional motorised valves for current operated temperature control systems with customisable range (0-20 mA or 4-20 mA);
- controlling proportional motorised valves for voltage operated temperature control systems with customisable range (0-10 V, 1-10 V, 0-5 V, 0-1 V, etc.);
- output overload alarm by means of flashing LED (only with voltage control).

Main characteristics

- maximum distance between actuator and valve: 10 m with twisted cable;
- protection class IP20;
- device compatible only with control unit 21509 or EasyTool Professional software;
- installation on DIN rail (60715 TH35), size 4 modules.

01466 - Controllable loads

OUT 1	If set in terms of voltage, the minimum controllable load is 1000 Ω
OUT 2	
OUT 3	If set in terms of current, the maximum controllable load is 500 Ω
OUT 4	

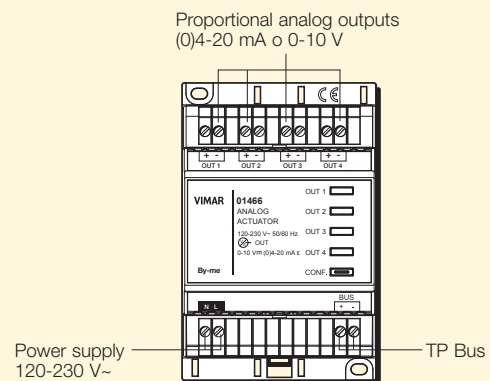
Conformity to Standards

LV Directive, EMC Directive,
EN 50428, EN 50491 Standards

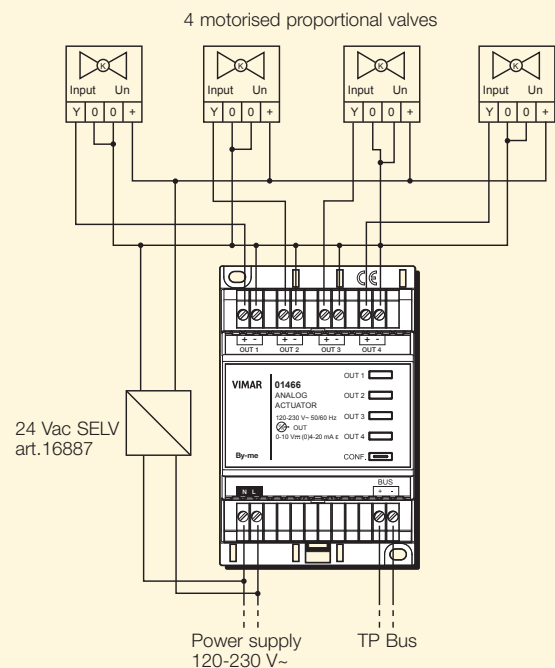
01466 - Technical data

power supply	120-230 Vac, 50/60 Hz
mains power draw da rete	5 VA
power supply from TP Bus	29 V
absorption from TP Bus	5 mA
ErP classification (Reg. EU 811/2013)	class V, contribution 3% with By-me temperature sensors and thermostats
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
power supply	N, L
TP Bus	+, -
Outputs	
solenoid valves	OUT 1, OUT 2, OUT 3, OUT 4

01466 - Connections



01466 - Example of connection



By-me: temperature control and energy management

Actuator with 4 proportional analogue outputs

01466 Actuator with 4 proportional analogue outputs (0)4-20 mA or 0-10 V with re-scalable maximum output voltage or current, power supply 120-230 V~ 50/60 Hz, By-me home automation, installation on DIN rail (60715 TH35), occupies 4 modules size 17,5 mm. Combined with By-me temperature sensors and thermostats allows you to make a modulating room thermostat in class V (3% contribution)



01466

TEMPERATURE CONTROL

By-me: temperature control and energy management

01467 - Device with 3 analog signal inputs

The device with analog signal inputs integrates with the By-me home automation system for temperature and energy management; the device has 3 analog inputs: 1 input for 0-10 V voltage or 0-20 mA current sensor, 1 input for NTC wired or flush mounting temperature sensor and 1 input for brightness sensor (01530).

The brightness sensor allows for energy savings because it enables artificial light to be balanced with natural light to achieve the desired brightness level.

Main functions

The device can perform the following functions:

with temperature sensor input:

- send temperature measurement to the Bus;
- block temperature sensor input;

with voltage or current sensor input:

- send measured value to the Bus;
- ON or OFF command for a load on exceeding a settable level;
- voltage or current sensor input block;

with brightness sensor input:

- maintain a constant set brightness level in a room (this mode is available only if a dimmer is also present in the same group);
- block brightness sensor input.

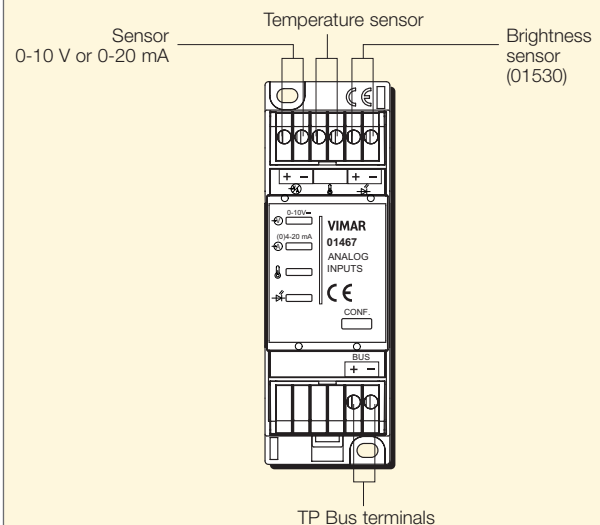
Main characteristics

- input for temperature sensors 20432, 19432, 14432 and 02965.1;
- input for brightness sensor 01530;
- input for current or voltage sensor;
- device compatible only with control unit 21509 or EasyTool Professional software;
- maximum length of sensor cables:
 - brightness sensor (01530): 100 m;
 - electronic temperature sensor (20432, 19432, 14432, 02965.1): 60 m;
 - current/voltage sensor (20433, 19433, 14433): 100 m;
- all the sensors must be connected to SELV devices;
- installation: on DIN rail (60715 TH35), size 2 modules.

01467 - Technical data

power supply from TP Bus	29 Vdc
absorption from TP Bus	20 mA
voltage input resistance	66 k Ω
current input resistance	200 Ω
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
TP Bus	+, -
current or voltage sensor	0-10 V or 0-20 mA
temperature sensor	NTC
brightness sensor	01530

01467 - Connections



Conformity to Standards

EMC directive,
EN 50428, EN 50491 Standards

TEMPERATURE CONTROL



By-me: temperature control and energy management

Device with 3 analog signal inputs

01467 Device with 3 analogue signal inputs, 1 input 0-10 V or 4-20 mA, 1 input for linear or flush mounting NTC temperature sensor, 1 input for brightness sensor 01530, for By-me home automation, installation on DIN rail (60715 TH35), occupies 2 modules size 17,5 mm



01467

TEMPERATURE CONTROL

By-me: temperature control and energy management

Actuator with relay output 16 A 230 V ~ with current sensor

The actuator integrates with the By-me home automation system for temperature and energy control.

The device performs the function of an actuator and measures power and calculates energy consumption. It also creates a log of the energy values and allows for load malfunction alarm signals.

The device can be used in automation, energy saving and climate control systems.

Main functions

- measuring the power absorbed by the load;
- monostable/bistable relay behaviour;
- delay in activation, deactivation and duration;
- load fault alarm with fault detection power threshold;
- scenario control;
- log of energy values.

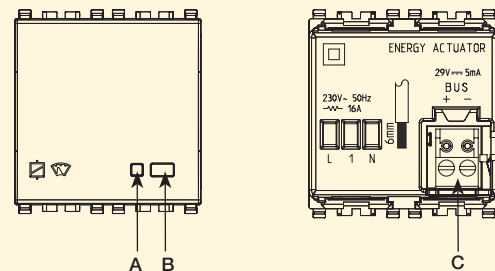
Main characteristics

- controllable loads at 230 V ~ (NO contact):
 - resistive loads: 16 A (20.000 cycles);
 - incandescent lamps: 8 A (20.000 cycles);
 - fluorescent lamps and energy saving lamps: 1 A (20.000 cycles);
 - electronic transformers: 4 A (20.000 cycles);
 - ferromagnetic transformers: 10 A (20.000 cycles);
 - cosφ 0,6 motors: 3,5 A (100.000 cycles);
- protection class IP20;
- overvoltage category: III;
- measurement category: III.

20537 - Technical data

mains power supply	230 V~ dc, 50 Hz
power supply via Bus	29 Vdc
absorption from Bus	5 mA
operating temperature	from -5 °C to + 40 °C (indoor use)
Inputs	
TP Bus	Bus + -
230 V~ 50 Hz	L, 1, N

20537 - Front view and connections



- A: configuration LED
B: configuration button
C: TP Bus terminals

Conformity to Standards

LV directive,
EN 61010-1, EN 61010-2-030 Standards,
EMC directive,
EN 61000-6-1, EN 61000-6-3 Standards

TEMPERATURE CONTROL



By-me: temperature control and energy management

Actuator with relay output 16 A 230 V~ with current sensor

Actuator with relay output 16 A 230 V~ 50/60 Hz with incorporated current sensor - 2 modules

EIKON



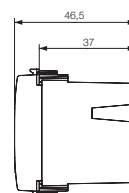
20537
grey



20537.B
white



20537.N
Next



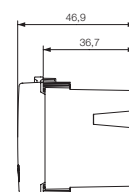
ARKÉ



19537
grey



19537.B
white



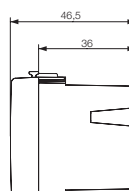
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14537
white



14537.SL
Silver



TEMPERATURE CONTROL

By-me: temperature control and energy management

Power meter with current sensor

The power meter integrates with the By-me home automation system for temperature and energy control.

The device measures the consumption of a load supplied by the electrical line. The consumption data such as power and energy dissipation are displayed on the touch screens (21553.2, 21554, 21511.1, etc.) connected to the By-me Bus.

Main characteristics

- measurable powers up to 3680 W;
- configuration by means of By-me control unit or EasyTool Professional application;
- flush mounting installation;
- protection class IP20;
- overvoltage category: III;
- measurement category: III.

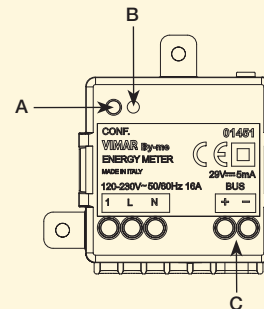
Conformity to Standards

LV directive, EN 61010-1, EN 61010-2-030 Standards
EMC directive, EN 61000-6-1, EN 61000-6-3 Standards

01451 - Technical data

mains power supply	120-230 V~, 50/60 Hz
rated current	16 A
power supply via Bus	29 Vdc
absorption from Bus	5 mA
operating temperature	from -5 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus + -
120-230 V~ 50/60 Hz	1, L, N

01451 - Front view and connections



- A: configuration button
B: configuration LED
C: TP Bus terminals

Pulse counter interface

The pulse counter interface integrates with the By-me home automation system for temperature and energy control.

The device enables the pulses transmitted by a fiscal meter or counter for gas, water, hot water, electricity, wind speed, etc. to be counted and puts the data collected onto the By-me Bus. The pulse is reproduced on the output for other similar devices.

Main characteristics

- parameters:
 - minimum pulse duration;
 - conversion parameters;
 - setting for measured variable;
 - setting for initial meter value;
- flush mounting installation;
- configuration by means of By-me control unit (21509) or EasyTool Professional application;
- device compatible only with control unit 21509 or EasyTool Professional software;
- protection class IP20;
- overvoltage category: III;
- measurement category: III.

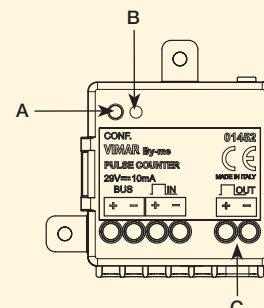
Conformity to Standards

EMC directive,
EN 61010-1, EN 61010-2-030, EN 61000-6-1,
EN 61000-6-3 Standards

01452 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	10 mA
operating temperature	from -5 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus +, -
IN (pulse input)	+, -
Outputs	
OUT (pulse reproduction)	+, -

01452 - Front view and connections



- A: configuration button
B: Configuration LED
C: TP bus terminals

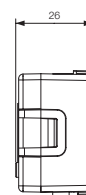
TEMPERATURE CONTROL



By-me: temperature control and energy management

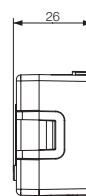
Power meter with current sensor

01451 Power meter with built-in current sensor, detectable power up to 3680 W, flush mounting



Pulse counter interface

01452 Pulse counter interface for detecting data from devices equipped with pulse output such as electricity, water and gas meters, with flush mounting



BY-ME
TEMPERATURE CONTROL
ENERGY MANAGEMENT

TEMPERATURE CONTROL

By-me: temperature control and energy management

Power meter with 3 inputs for current sensor for DIN rail (60715 TH35)

The power meter integrates with the By-me home automation system for temperature and energy control.

The device measures the power on one or more mains lines. It can work on both single and three phase systems and can monitor up to 3 electrical lines independently.

The current on the electrical line to be monitored is measured with a current probe (01457, 01458); it creates a log of the energy values of each of the lines.

Main characteristics

- measurable powers: from 25 W to 100 kW (up to 33 kW each line);
- it measures active power on a maximum of 3 lines (L1, L2 and L3);
- inputs for current sensors (01457, 01458);
- configuration by means of By-me control unit (21509) or EasyTool Professional application;
- protection class: IP20;
- overvoltage category: III;
- measurement category: III;
- installation on DIN rail (60715 TH35): 1 module size 17,5 mm.

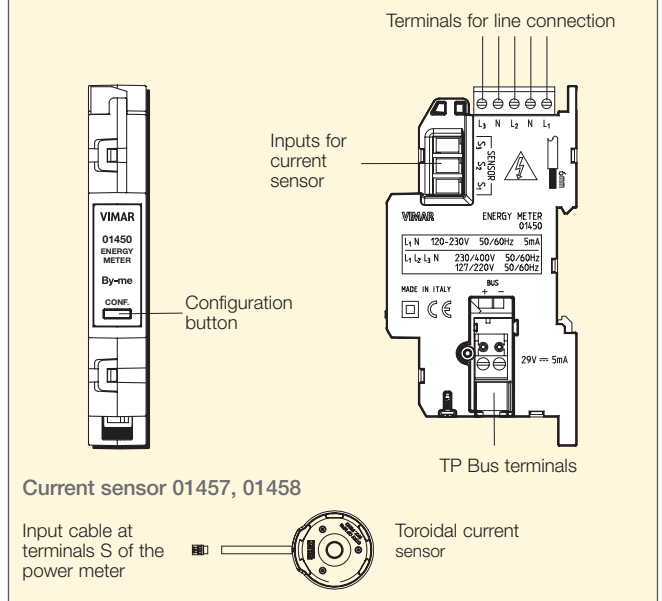
Conformity to Standards

LV directive, EN 61010-1, EN 61010-2-030 Standards
EMC directive, EN 61000-6-1, EN 61000-6-3 Standards

01450 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	5 mA
power supply L1-N	120-230 V, 50/60 Hz
power supply L1-L2-L3-N	127-200 V, 50/60 Hz 230-400 V, 50/60 Hz
operating temperature	from -5 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus +, -
three-phase power supply	L1, L2, L3, N
current sensors (01457, 01458)	S1, S2, S3

01450 - Front view and connections



Load control module, 3 inputs for toroidal current sensor for DIN rail (60715 TH35)

The load control module integrates with the By-me home automation system for temperature and energy control.

The device prevents the switch in the electricity meter from tripping due to overload; it can operate on both single-phase and three-phase systems. The current on the electrical line to be monitored is measured with a current probe (01457, 01458) and it is capable of controlling up to 3 electrical lines independently. It is designed to control systems in which a generating plant is also present (e.g. photovoltaic systems). If the line cable is not easily accessible, the measurement can be made remotely by means of the power meter 01450 connected to the By-me Bus. It saves the log of the energy values of each line.

Main characteristics

- measurable powers: 25 W - 100 kW (up to 33 kW for each line);
- measures the active power on a maximum of 3 local lines and 3 remote lines;
- inputs for current sensors (01457, 01458);
- configuration by means of By-me control unit (21509) or EasyTool Professional application;
- protection class: IP20;
- overvoltage category: III;
- measurement category: III;
- installation on DIN rail (60715 TH35): 1 module size 17,5 mm.

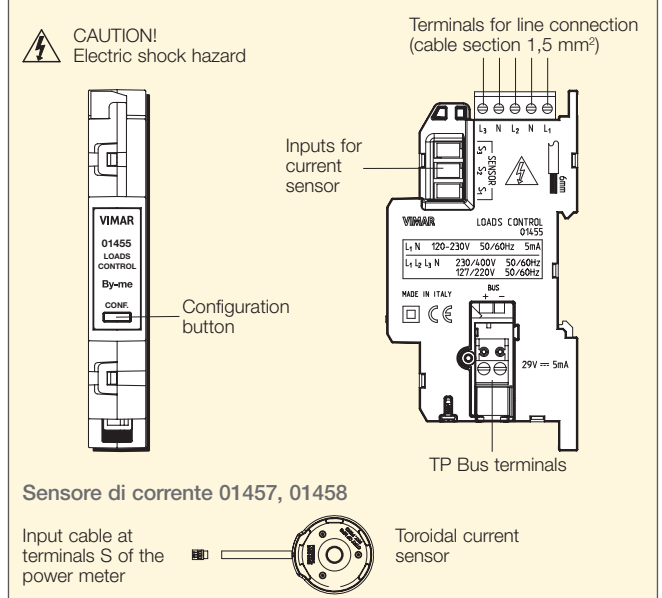
Conformity to Standards

LV directive, EN 61010-1, EN 61010-2-030 Standards
EMC directive, EN 61000-6-1, EN 61000-6-3 Standards

01455 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	5 mA
power supply L1-N	120-230 V, 50/60 Hz
power supply L1-L2-L3-N	127-200 V, 50/60 Hz 230-400 V, 50/60 Hz
operating temperature	from -5 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus +, -
three-phase power supply	L1, L2, L3, N
current sensors (01457, 01458)	S1, S2, S3

01455 - Front view and connections



By-me: temperature control and energy management

Power meter with current sensor for DIN (60715 TH35) rail

01450 Power meter, 3 inputs for toroidal current sensor, 25 W-100 kW detectable power, single-phase supply voltage 120-230 V 50/60 Hz three-phase 230/400 V 50/60 Hz, installation on DIN (60715 TH35) rail, occupies 1 module sized 17,5 mm. Supplied with a toroidal current sensor 01457



01457



01450

Load control module, 3 inputs for toroidal current sensor for DIN (60715 TH35) rail

01455 Load control module, 3 inputs for toroidal current sensor, 25 W-100 kW detectable power, single-phase supply voltage 120-230 V 50/60 Hz three-phase 230/400 V 50/60 Hz, installation on DIN (60715 TH35) rail, occupies 1 module sized 17,5 mm. Supplied with a toroidal current sensor 01457



01457



01455

Toroidal current sensor

01457 Toroidal current sensor for load control and power meter, hole diameter 7,5 mm, cable length 40 cm



01457

TEMPERATURE CONTROL

By-me: temperature control and energy management

Actuator with 16 A 120-230 V~ relay output and built-in current sensor for DIN rail (60715 TH35)

The actuator integrates with the By-me home automation system for temperature and energy control.

The device performs the function of an actuator and measures power and calculates energy consumption. It also creates a log of the energy values and enables alarm signalling due to malfunctioning such as current leakage and load faults.

The device can be used in automation, energy saving and climate control systems.

Main characteristics

- controllable loads at 120 - 230 V~ (NO contact):
 - resistive loads: 16 A (20.000 cycles);
 - incandescent lamps: 8 A (20.000 cycles);
 - fluorescent lamps and energy saving lamps: 1 A (20.000 cycles);
 - electronic transformers: 4 A (20.000 cycles);
 - ferromagnetic transformers: 10 A (20.000 cycles);
 - cosφ 0,6 motors: 3,5 A (100.000 cycles);
- configuration by means of By-me control unit (21509) or EasyTool Professional application;
- protection class IP20;
- overvoltage category: III;
- measurement category: III;
- installation on DIN rail (60715 TH35): 1 module size 17,5 mm.

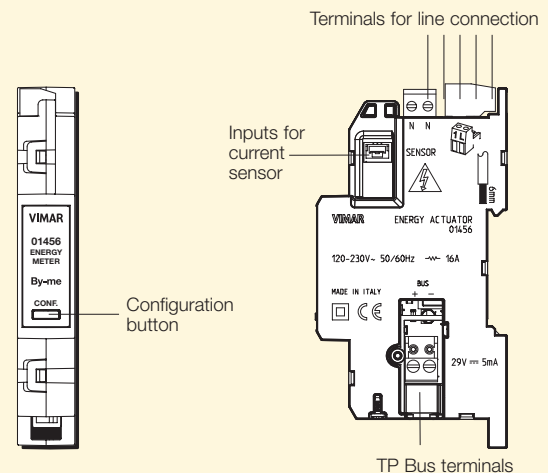
Conformity to Standards

LV directive, EN 61010-1, EN 61010-2-030 Standards,
EMC directive, EN 61000-6-1, EN 61000-6-3 Standards

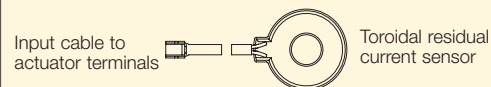
01456 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	5 mA
power supply L1-N	120-230 V, 50/60 Hz
operating temperature	from -5 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus +, -
power supply	L, N
current sensors (01459)	Sensor

01456 - Front view and connections



Optional current sensor 01459



By-me: temperature control and energy management

Actuator with 16 A 120-230 V~ relay output and built-in current sensor for DIN (60715 TH35) rail

01456 Actuator with 16 A 120-230 V~ 50/60 Hz relay output and built-in current sensor, 1 input channel for toroidal residual current sensor, DIN (60715 TH35) rail installation, occupies 1 module size 17,5 mm. Supplied without toroidal residual current sensor.



01456

Toroidal current sensor, hole ø 19 mm

01458 Toroidal current sensor for load control and power meter, hole diameter 19 mm, 40 cm cable length



01458

Toroidal residual current sensor, hole ø 9 mm

01459 Toroidal residual current sensor for power actuator, hole diameter 9 mm, 40 cm cable length



01459

TEMPERATURE CONTROL

By-me: temperature control and energy management

Actuator with 1 relay output

Main characteristics

- changeover relay output;
- controllable loads at 120-230 V~:
 - resistive loads: 16 A (20.000 cycles);
 - 12-24 Vdc max 1 A loads;
 - incandescent lamps: 10 A (20.000 cycles);
 - fluorescent lamps and energy saving lamps: 1 A (20.000 cycles);
 - electronic transformers: 4 A (20.000 cycles);
 - ferromagnetic transformers: 10 A (20.000 cycles);
 - cos ϕ 0,6 motors: 3,5 A (100.000 cycles);
- removable terminal covers;
- removable Bus terminal;
- removable cover and spacer for installation on conduits, ceilings and false ceilings;
- screw seats for surface mounting;
- local control buttons with LED backlighting;
- installation on DIN rail (60715 TH35): 2 modules size 17,5 mm.

Operation

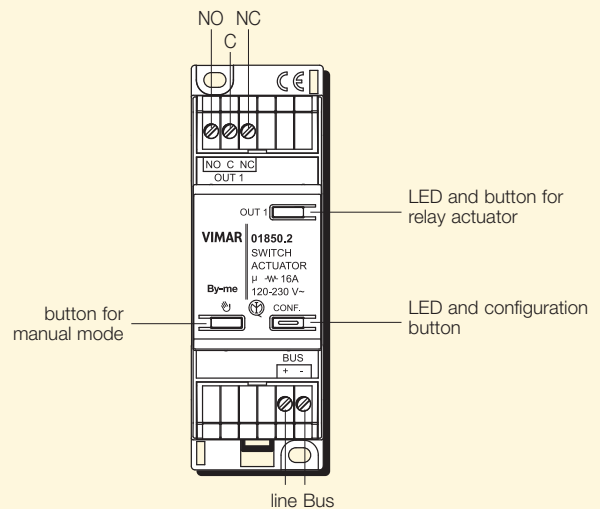
- monostable and bistable relay;
- the actuator 01850.2 can also be used as a relay for the pump or for the circulation valve in a multi-zone heating or 2 or 4-pipe air conditioning system.

Important: to control large loads (electrical appliances, groups of lamps, etc.) an actuator 01456 or a support contactor must be installed.

Conformity to Standards

LV directive, EMC Directive, EN 50428 Standard

01850.2 - Front view and connections



01850.2 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	14 mA
dissipated power	1,5 W
heat loss with cable Ø 4 mm ²	1,5 W at 16 A
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
TP Bus	Bus +, -
Outputs	
OUT	NO, C, NC

4 relay outputs multifunction activator

Actuator with 4 change-over relay outputs 16 A 120-230 V~, programmable with control function for lights, roller shutters with slat orientation, fan-coil, push-buttons for local control, By-me home automation system.

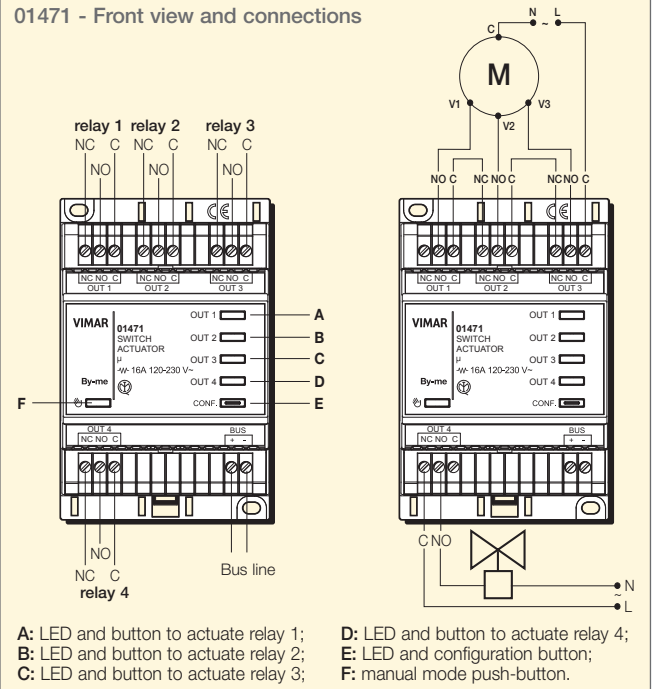
Main characteristics

- Can be used for the fan-coil function;
- 4 relay outputs (N/C, C, NO) for lights control; relays 1+2 and 3+4 can be grouped for roller shutter control;
- push-buttons for manual relay control;
- push-button to enable/disable the manual controls;
- LED for relay status;
- LED and configuration button;
- compatible with By-me 21509 control units and EasyTool Professional;
- relay output (controllable loads at 120-230 V~, NO contacts):
 - resistive loads: 16 A (20.000 cycles);
 - incandescent lamps: 8 A (20.000 cycles);
 - fluorescent lamps, with energy saving: 0,5 A (20.000 cycles);
 - electronic transformers: 6 A (20.000 cycles);
- relay output (controllable loads at 120-230 V~, NO and NC contacts):
 - cos ϕ 0,6 motors: 3,5 A (100.000 cycles).
- removable terminal covers;
- removable Bus terminal;
- screw seats for surface mounting;
- local control buttons with LED backlighting;
- protection class IP20;
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

Conformity to Standards

LV directive, EMC Directive, EN 60669-2-5, EN 50491 Standards

01471 - Front view and connections



01471 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	25 mA
dissipated power	6,5 W
heat loss with cable Ø 4 mm ²	1,5 W at 16 A
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
TP Bus	Bus +, -
Outputs	
OUT 1, 2, 3, 4	NC, NO, C

By-me: temperature control and energy management

1 relay output actuator for DIN (60715 TH35) rail

01850.2 Actuator with 16 A 120-230 V~ change-over relay output, with circulation pump function, push button for manual operating, complete with removable spacer for installation on DIN (60715 TH35) rail, occupies 2 modules sized 17,5 mm



01850.2

4 relay outputs multifunction activator for DIN (60715 TH35) rail

01471 Actuator with 4 change-over relay outputs 16 A 120-230 V~, programmable with control function for lights, roller shutters with slat orientation, fan-coil, push-buttons for local control, By-me home automation system, installation on DIN rail (60715 TH35), occupies 4 modules size 17,5 mm



01471

TEMPERATURE CONTROL

By-me: temperature control and energy management

Power supply unit for DIN rail (60715 TH35)

The power unit supplies the 29 Vdc voltage needed to power By-me devices. The maximum output current is 400 mA. A maximum of 2 power units can be installed on a line with a minimum distance of 40 m of Bus cable.

Main characteristics

- auxiliary output to supply other devices (for example touch screens);
- installation on DIN rail (60715 TH35): 2 modules size 17,5 mm.

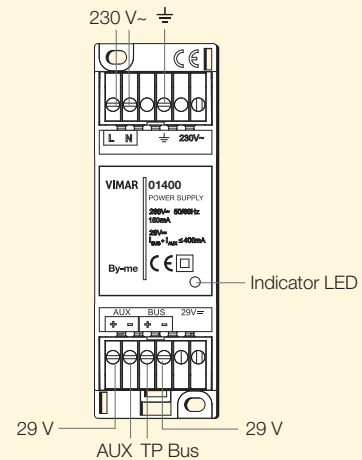
01400 - Technical data

power supply	230 V~ 50/60 Hz
current draw	150 mA
Bus output voltage with decoupling coil	29 Vdc
AUX output voltage	29 Vdc
max output load	400 mA (IBUS + IAUX)
dissipated power	4 W
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
power supply 230 V~	L, N
TP Bus	Bus +, -
Output	
29 Vdc	AUX +, -

Conformity to Standards

Direttiva BT, Direttiva EMC,
Norme EN 60065, EN 61000-6-3, EN 50130-4, EN 50491

01400 - Front view and connections



Power supply unit for DIN rail (60715 TH35)

The power unit supplies the 29 Vdc voltage needed to power By-me devices. The maximum output current is 1280 mA. A maximum of 2 power units can be installed on a line with a minimum distance of 40 m of Bus cable.

Main characteristics

- auxiliary output to supply other devices (for example touch screens);
- installation on DIN rail (60715 TH35): 8 modules size 17,5 mm.

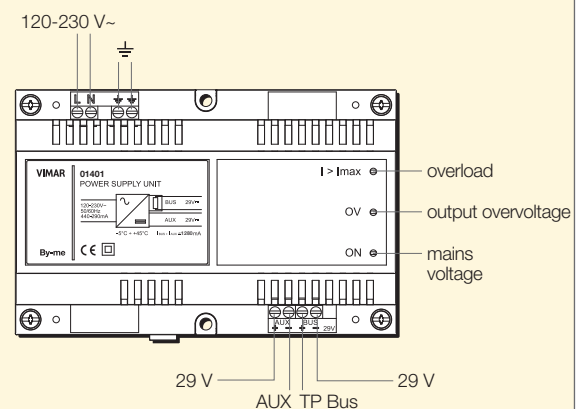
01401 - Technical data

power supply	120-230 V~ 50/60 Hz
current draw	580 mA @ 120 V~ 370 mA @ 230 V~
Bus output voltage with decoupling coil	29 Vdc
AUX output voltage	29 Vdc
max output load	1280 mA (IBUS + IAUX)
dissipated power	7,5 W
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
power supply 230 V~	L, N
TP Bus	Bus +, -
Output	
29 Vdc	AUX +, -

Conformity to Standards

Direttiva BT, Direttiva EMC,
Norme EN 60065, EN 61000-6-3, EN 50130-4, EN 50491

01401 - Front view and connections



TEMPERATURE CONTROL

By-me: temperature control and energy management

Power supply unit for DIN (60715 TH35) rail

01400 Power unit with 29 Vdc 400 mA output, supply voltage 230 V~ 50/60 Hz, with decoupling coil, installation on DIN (60715 TH35) rail, occupies 2 modules sized 17,5 mm



01400

Power supply unit for DIN (60715 TH35) rail

01401 Power supply unit with 29 Vdc 1280 mA output, supply voltage 120-230 V~ 50/60 Hz, with decoupling coil, installation on DIN (60715 TH35) rail, occupies 8 modules sized 17,5 mm



01401

By-me: temperature control and energy management

Logic unit

The logic unit allows adjustment and control functions (logics) to be performed within the By-me system. These logics are defined using the EasyTool Professional software and then transferred to the device via USB to become operative. The device is equipped with an OTG type micro USB port used in "device" mode for connection to the PC, which is required to download configuration files. For the detailed list of usable logics, functional blocks of various kinds (delays, mathematical functions, calendars, etc.) and By-me blocks available for configuring the logic unit, refer to the installer manual.

Main functions

The device allows complex logics to be defined in the By-me system using the EasyTool Professional interface for logic unit configuration. With this interface it is possible to:

- create various relationships between various By-me system blocks by means of logic gates, delay blocks and mathematical functions;
- save and manage scenarios;
- plan calendar events (time programmes), with various frequencies, durations, validity periods, etc. To be able to perform this kind of function, the device requires the presence of the system clock provided by the control unit 21509 or by video touch screen 21554.

Main characteristics

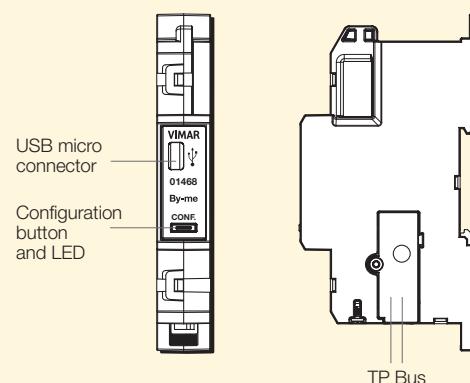
- LED and configuration button;
- connection to laptop PC by means of a cable with connector USB micro-B on the card side and USB type A on the PC side: to guarantee conformity with standards the connected PC must be battery (not mains) powered;
- device compatible only with control unit 21509 or EasyTool Professional software (downloadable from the website www.vimar.com);

- protection class IP20;
- installation on DIN rail (60715 TH35): 1 module size 17,5 mm.

01468 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	25 mA
dissipated power	< 1 W
operating temperature	from 0 °C to 45 °C (indoor use)
Inputs	
TP Bus	Bus +, -
USB	micro-B

01468 - Front view and connections



Conformity to Standards

LV Directive, EMC Directive,
EN 50428, EN 50491 Standards

By-me: temperature control and energy management

Logic unit

01468 Unit for implementing logic, mathematical, timing and messaging functions, installation on DIN (60715 TH35) rail, for By-me home automation, configurable only with EasyTool Professional, occupies 1 module sized 17,5 mm



01468

By-me: temperature control and energy management

Touch screen control unit

The control unit is the device that programs operation of the entire By-me system; as an alternative the By-me system can be programmed from PC using EasyTool Professional software. The control unit is necessary for management of climate control, events, and intrusion detection system, whereas all the other system functions can be configured using solely the software EasyTool Professional.

The system can be configured easily and intuitively from the innovative touch screen with no keys, from the definition of individual devices to programming all functions, including: scenes, automated tasks, sound distribution, load control, intrusion detection and access control.

The diagnostics function provides a rapid analysis of the operation of all the system devices, while the events memory function enables all the operations performed by the system to be viewed (switching on and off, intrusion detection alarms and technical alarms, etc.). The device allows you to connect an external temperature sensor (art. 20432, 19432, 14432, 02965.1) to view the climate in the area in which the sensor is installed (maximum length of cable connecting sensor to device: 60 m). **The centralized controller does not require an auxiliary power supply for the display.**

Main characteristics

- with external temperature sensor (20432, 19432, 14432, 02965.1); use a twisted cable with minimum cross-section of 0,5 mm² (01840);
- flush mounted or mounted on DIN rail (60715 TH35) via the support provided V51923.

Operation

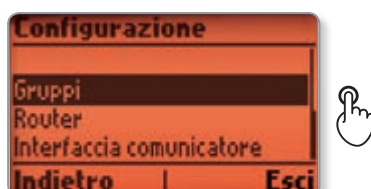
Touching the menus on the main screen gives access to all sub-menus and parameters enabling you to:

- manage the ambient temperature, dividing the system into up to 40 areas controlled by 40 separate programs;
- centralize and automate functions (up to 32 scenarios and 16 programs);
- manage the intrusion-detection system;
- control and command functions/applications;
- control loads and energy consumption;
- manage the sound system.

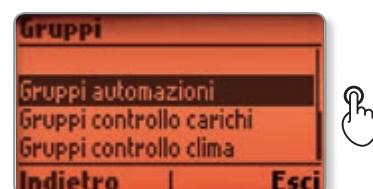
Example of control unit menu



Setup Menu



Configuration Menu

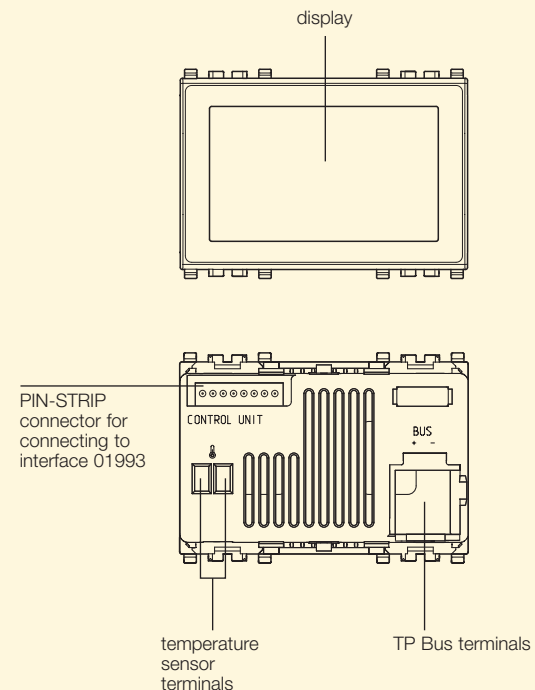


Groups / Automation Groups Menu



Automated Task Groups / Stair Light Menu

21509 - Front view and connections



21509 - Technical data

power supply via Bus	29 Vdc
absorption from Bus	45 mA
absorption from Bus on stand-by (without backlighting)	25 mA
audio/video module absorption	120 mA
operating temperature	from -5 °C to +40 °C (indoor use)
Inputs	
TP Bus	Bus + -
external temperature sensor (20432, 19432, 14432, 02965.1)	⌚
connection to interface 01993	PIN-STRIP connector

Conformity to Standards

EMC directive,
EN 50428, EN 50491 Standards

TEMPERATURE CONTROL

By-me: temperature control and energy management

Touch screen control unit

21509	.B	.N	Control and configuration unit, monochrome touch screen, 1 input for temperature sensor, supplied with V51923 support for installation on DIN (60715 TH35) rail - 3 modules. Complete with RJ45 connector for front-panel programming, cable and V51921 support for installation on DIN (60715 TH35) rail
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Support for DIN rail (60715 TH35)

V51921	1 module support for installation of Eikon, Arké and Plana appliances on DIN (60715 TH35) rail, occupies 1,5 modules sized 17,5 mm, RAL grey 7035. Supplied with protective diaphragm
V51923	3 module support for installation of Eikon, Arké and Plana appliances on DIN (60715 TH35) rail, occupies 4 modules sized 17,5 mm, RAL grey 7035. Supplied with protective diaphragm



By-me: temperature control and energy management

Hardware interfaces for programming and configuring

The package contains the **hardware interface 01998** for programming By-me serial devices and Well-contact Plus touch screens and the **hardware interface 01847** for configuring By-me systems via Bus connection with special RJ11 socket. EasyTool Professional software is required along with Well-contact Plus touch screen configuration software, downloadable from the website www.vimar.com.

01847 - Hardware interface

The device allows reading and writing of data on the Bus, which are used to carry out all configuration, programming, diagnostics, maintenance and monitoring operations on the By-me system.

The interface should be connected to a computer installed with the EasyTool Professional application and to the special jack for the Bus (20329, 19329, 16339, 14329).

Main characteristics

- power supplied by way of computer using the USB port (5 Vdc)
- USB computer cable with type A connector, length 1,8 m (supplied)
- customised and polarised cable with RJ11 connector for special jack connector, 2 metres long (supplied)
- HID (Human interface device) class
- operating temperature: + 5 °C - + 40 °C
- dimensions: 115x75x25 mm

Operation

The USB LED lights up when the interface is connected to the computer. During the transmission/reception of data, the Bus LED will blink.

01998 - Hardware interface

The device enables programming:

- By-me control unit 21509, module 01965, communicator 01942, GSM timer-thermostat 01913, touch screens 21554, 21511.1, 21512.1, 16952, via the EasyTool Professional software;
- touch screens 21848.1, 21849.1, 16849, via the Well-contact Plus touch screen configurator software.

Main characteristics

- power supplied by way of computer using the USB port
- USB computer cable with type A connector, length 1,8 m (supplied)
- cable customized and polarized for connection of programming device, length 1,5 m (supplied)
- operating temperature: +5 °C - +40 °C
- dimensions: 115x75x25 mm

Operation

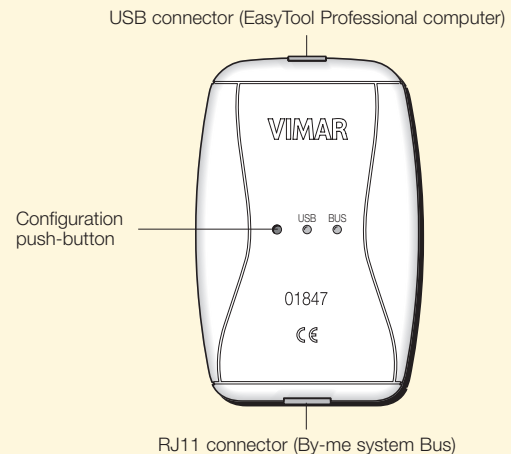
The ON LED lights up when the interface is connected to the computer via the USB cable. During the transmission/reception of data, the ↑ and ↓ LEDs light up as follows:

- LED ↑ alight when the computer is receiving data from the specific device;
- LED ↓ alight when the computer is transmitting data to the specific device.

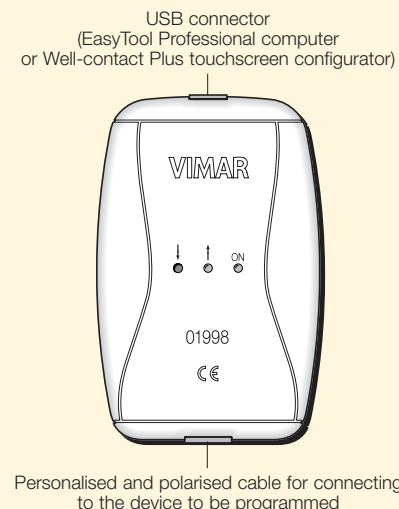
Conformity to Standards

EMC Directive, EN 55022, EN 55024 Standards

01847 - Front view



01998 - Front view



System requirements for EasyTool Professional software

PC processor	Pentium 4 or higher
RAM	2 Gb (recommended)
monitor resolution	1024 x 768 pixel
HD free space	1 Gb
operating system	Windows 2000®, Windows XP®, Windows Vista®, Windows 7®, Windows 8®

Can be installed on 32 bit or 64 bit systems

By-me: temperature control and energy management

Hardware interfaces for programming and configuring

01993 Hardware interface for serial programming By-me devices and Well-contact Plus touch screen and configuration of By-me systems via RJ11 socket for Bus connection. It is necessary to use EasyTool Professional software and touch Well-contact Plus touch screen configuring software, downloadable from Vimar website



01993

By-me: temperature control and energy management

Special RJ11 jack for Bus

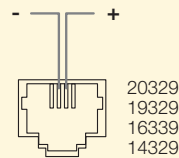
The jack enables the connection, through 01847 interface, of By-me system with PC supplied of application for management of the system with EasyTool Professional.

Technical specifications

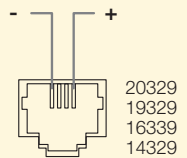
- 6-conductor, 4-contact;
- screw terminals connection.

20329 - RJ11 jack for Bus

Bus By-me control unit



Bus By-me control unit



OR

Bus cable

TP (Twisted Pair) electric cable for data transmission with twisted pairs with a constant pitch to limit electromagnetic emissions and increase immunity against interference. The Bus cable is ideal for command and control applications for HBES (Home and Building Electronic Systems) for fixed laying in pipes and/or ducts, ideal also for laying underground in appropriate piping.

Main characteristics

- white external sheath made with a thermoplastic halogen-free compound with delayed flame propagation, low emissions of toxic and corrosive fumes and gases;
- minimum thickness of the sheath: 0.5 mm;
- flexible conductors made of bare annealed copper.
- conductor insulation made of halogen-free polyethylene thermoplastic compound;
- nominal cross-section: 0,5 mm²;
- nominal conductor diameter: 1,7 mm;
- conductor colour: red and black.

Conformity to Standards

LV Directive, RoHS Directive,
EN 50290-2-27, EN 60228, EN 61034-1,
EN 61034-2, EN 60754-1, EN 60754-2,
CEI-UNEL 36011, CEI-UNEL 36762

01840 - Technical data

nominal diameter of the cable	5,4 mm
insulation voltage U_i/U	300/500 V
maximum resistance at 20° C	39,0 Ω/Km
maximum loop resistance at 20°C	75,0 Ω/Km
maximum conductor/conductor capacity at 20°C	50 pF/m
maximum inductance 10 kHz	850 µH/km
attenuation	<div>≤ 50 kHz <5 dB/km</div> <div>50-500 kHz <10dB/km</div> <div>0,5-5 MHz <30 dB/km</div> <div>5-10 MHz <50 dB/km</div>
conductor voltage test	2500V 15 minutes
conductor/sheath voltage test	4000V 1 minute
minimum conductor/sheath insulation resistance	1000 MΩ/km
operating temperature	from -15 °C to +50 °C
storing temperature	from -15 °C to +70 °C
radius of curvature	10 times the maximum outer diameter
maximum tractive force	60 N

TEMPERATURE CONTROL

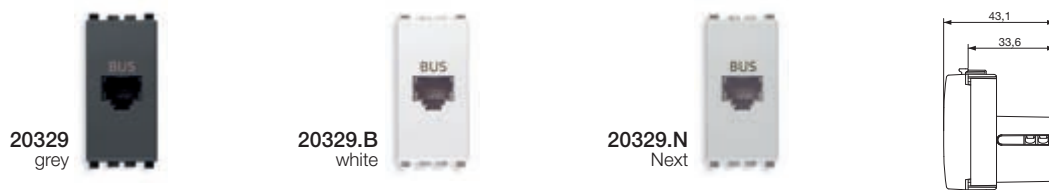


By-me: temperature control and energy management

Special RJ11 socket for Bus

Special RJ11 socket for Bus, screw terminals

EIKON



ARKÉ



IDEA



PLANA



BY-ME
TEMPERATURE CONTROL
ENERGY MANAGEMENT

Accessories for Bus system

01839 Removable 2 pole screw terminal for Bus circuit

01840 Bus system cable, halogen-free 2x0,50 mm², rated operating voltage to earth 300/500 V, suitable for I category cables - 100 m



01839



01840

Electronic thermostat KNX

The thermostat is suitable for controlling room temperature (heating/air-conditioning) in 2 or 4 pipe systems (heating/air-conditioning) and neutral zone (only in 4-pipe systems), with the "boost" function to activate a second source that enables reaching the desired thermal comfort faster; it can interact with other thermostats and with a supervision centre (PC with Well-contact Suite software).

It can manage 2 temperature zones completely independently (equivalent to two thermostats A and B). For each zone the heating/air-conditioning modes are managed according to the relative reference temperature.

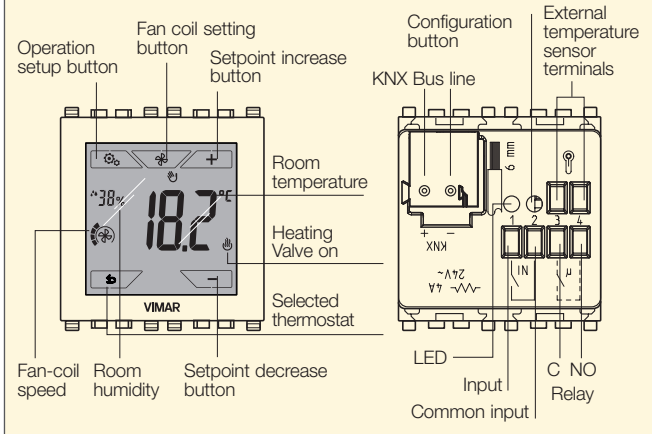
The thermostat is a universal 2 module device for Eikon, Arkè, Plana and Idea series (Idea series with dedicated mounting frame 16723...).

Weekly thermostat programming requires using a logic module or a compatible external supervisor to transmit the setpoints on the set days and at the set times. It is equipped with a relay programmable as NC or NO that can be used for general use (e.g. lighting, closing zone solenoid valve, activating electric towel warmer, etc.) or to control speed 1 of the fan coil, which is managed by thermostat A or thermostat B. It also has a digital input programmable as NC or NO, which can be used for other applications such as detecting an open window. The thermostat features an **RGB display** with 5 capacitive buttons for controlling the temperature set-point and the speed of the fan coil, the configuration of the operating modes and the selection of thermostat A or B to view/control; it has an RGB backlit display whose colours can be adjusted via parameters with ETS.

Main characteristics


- RGB backlit touch display with colours that can be configured via ETS parameter:
 - fixed colour chosen by the installer;
 - dynamic colour change depending on the set-point value by enabling the Ecometer function;
- temperature sensors that can be managed by the thermostat 02952:
 - internal NTC;
 - possibility of connecting an external NTC art. 02965.1 or 20432, 19432, 14432.
 - possibility of using the temperature values sent over the Bus from 8 different KNX temperature sensors (DPT_Value_Temp 9.001 data);
- reference temperature:
 - for each of the two thermostats A and B the reference temperature for the climate control is the weighted average among all the available temperature sources (if present):
 - internal NTC;
 - external NTC art. 02965.1 or 20432, 19432, 14432;
 - via Bus (KNX temperature sensors 1÷8).
 - The weights of the various temperature sources are set via ETS; source temperatures with weight 0 are not included in the calculation of the reference temperature;
- systems management with:
 - 2/4 pipes and on/off and proportional valves;
 - fan coils with 3 speeds, 3 proportional and constant proportional speeds;
 - neutral zone (only 4 pipes);
 - control algorithm: On/Off, I, PI;

02952 - Front view and connections



- boost function: each thermostat A and B has a second temperature control stage which, if enabled, triggers to support the first one when the detected temperature differs from the desired set-point by at least a predetermined threshold;
- ambient humidity display: the thermostat can display ambient humidity whose value is sent by the Bus to the thermostat via appropriate data points;
- dew point;
- system protection functions:
 - Antifreeze and Too Hot;
 - floor temperature protection;
 - generic alarm.;
- 16 scenarios.

02952 - Technical data

power supply from KNX Bus	29 Vdc
absorption from KNX Bus	10 mA
inner sensor reading precision (from 0 °C to 40 °C)	- $\leq \pm 0,5$ °C between +15 °C and +30 °C - $\leq \pm 0,8$ °C at the ends
outer sensor reading precision (from -20 °C to 70 °C)	- $\leq \pm 0,5$ °C between +15 °C and +30 °C - $\leq \pm 0,8$ °C at the ends over the stated value, the error improves (max 2.0°C @ 70°C)
ErP classification (Reg. UE 811/2013)	- On/Off: class I, contribution 1% - Pt: class IV, contribution 2% - with actuator KNX: class V, contribution 3%
operating temperature	from 0 °C to +40 °C (indoor use)
Inputs	
KNX TP Bus	+, -
programmable digital input	1, 2
external temperature sensor (20432, 19432, 14432, 02965.1)	
Outputs	
relay NO 24 V~ SELV 4 A cosφ 1; 24 V~ SELV 2 A cosφ 0,6	NO, C

Conformity to Standards

EMC directive, EN 50428, EN 50491 Standard

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Electronic thermostat KNX

02952	.B	.BN	Electronic touchscreen thermostat for ambient temperature control (heating and air-conditioning) of 2 independent zones, KNX standard home automation system, class I temperature control device (contribution 1%) in ON/OFF mode, class IV (contribution 2%) in PI mode, 1 NO relay output 4 A 24 V~, 1 input for wired temperature sensor or electronic temperature sensor, 1 programmable digital input, RGB LED backlighting, can be interfaced with actuator with KNX proportional analogue outputs to make a class V modulating room thermostat (contribution 3%), to be completed with Eikon, Arké, Plana or Idea cover plates (Idea series with dedicated mounting frame 16723...) - 2 modules
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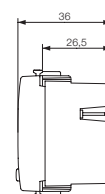
02952
grey



02952.B
white



02952.BN
neutral



Examples of RGB display colours coordinated with the Eikon, Arké, Plana and Idea series.



With Eikon Evo cover plate
and amber backlighting



With Arké cover plate and blue backlighting



With Plana cover plate
and green backlighting



With Idea cover plate and green backlighting
with dedicated mounting frame 16723

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Electronic thermostat

Device for ambient temperature control (heating/air conditioning), can interact with the other thermostats and with a supervision centre (PC with Well-contact Suite software). It is able to manage 2 climatic zones entirely independently (equivalent to two thermostats A and B). The heating/air conditioning modes are managed for each zone according to the corresponding reference temperature. It is equipped with an NC or NO programmable relay that can be used for generic applications (e.g. switching on light, closing zone solenoid valve, activating electric towel heater, etc.) or to control speed 1 of the fan coil managed by thermostat A or thermostat B. It also has an NC or NO programmable digital input that can be used for applications such as detecting an open window. The device is equipped with a display and four front buttons to control the temperature set-point and the speed of the fan-coil.

Main characteristics

- this device contains only SELV circuits that must be kept separate from circuits with dangerous voltage;
- digital input for NO or NC contact (voltage-free, SELV); max distance between the input contact and the thermostat: 30 m;
- input for temperature sensor (20432, 19432, 14432, 02965.1); maximum length of sensor connecting cable to the devices: 60 m. Use a twisted cable with a minimum cross-section of 0,5 mm² (01840);
- NO relay output (\sim 24 V~ SELV 4 A cos ϕ 1; 24 V~ SELV 2 A cos ϕ 0,6);
- temperature sensors that can be managed by the thermostat:
 - internal NTC;
 - possibility of connecting an external NTC (20432, 19432, 14432, 02965.1);
- possibility of using the temperature values measured by 8 different probes connected to the KNX Bus.

Configuration

The thermostat and its physical address, parameters, operation, etc. are all configured using the ETS software. If the thermostat is loaded with an incorrect ETS application, the red LED on the back of the device will flash and all the LCD segments will blink on the display ("device type" error). To restore the desired configuration, load the device with the correct ETS application. The user can use the front buttons to change the temperature set point and the speed of the fan-coil; changing these parameters forces the thermostat onto manual operation. With ETS it is possible to set the following parameters (directly from the graphic windows):

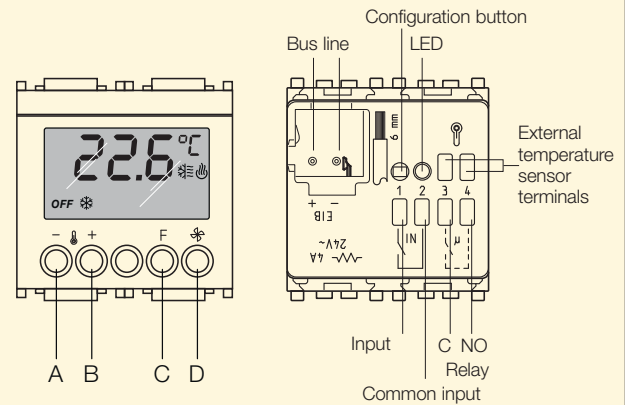
- general settings;
- temperature sensor;
- temperature setpoint;
- setpoint temperature;
- input and output;
- adjustment;
- valve;
- fan coil speed;
- scenarios.

Operation

Using the thermostat it is possible to set:

- the temperature set-point in the room (the change can only be made within certain limits set by the control centre or reception, etc.);

16915 - Front view and connections



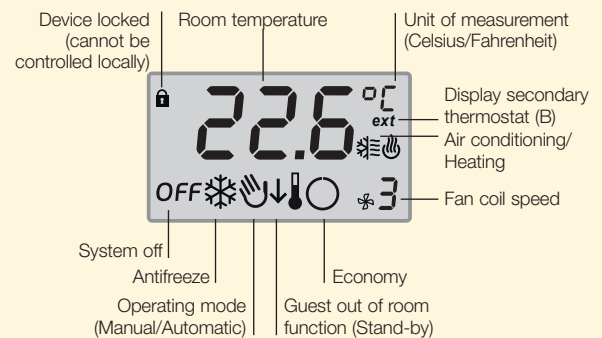
Button A: reduce temperature set-point.

Button B: increase in temperature set-point.

Button C: select thermostat to display/control (A or B) and display temperature of external probe (20432, 19432, 14432, 02965.1)

Button D: increase/reduce the fan-coil speed.

16915 - Thermostat display



16915 - Technical data

power supply from KNX Bus	30 Vdc SELV
absorption from KNX Bus	10 mA
reading accuracy	- $\leq \pm 0,5$ °C between +15 °C and +30 °C - $\leq \pm 0,8$ °C at extremes
clock error	- $\leq \pm 1$ s a day
operating temperature	from -5°C to +45°C (indoor use)
ErP classification (Reg. EU 811/2013)	Class I, contribution 1%
Inputs	
KNX TP Bus	EIB + -
programmable digital input	1, 2
external temperature sensor (20432, 19432, 14432, 02965.1)	
Outputs	
NO relay 4 A 24 V~	NO, C

- the speed of the fan-coil.

To change the temperature press the + or - button twice:

- on pressing it the first time the display will show the currently set temperature;
- on pressing it the second time the increase/decrease in the displayed value will begin.

Conformity to Standards

EMC directive, Standards EN 50090-2-2, EN 50428

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Electronic thermostat

16915 .B Electronic thermostat for ON/OFF ambient temperature control (heating and air conditioning) of 2 independent zones, KNX standard home automation system, class I temperature control device (contribution 1%), 1 NO relay output 4 A 24 V~, 1 input for temperature sensor compatible with 20432, 19432 or 14432, 1 programmable digital input - 2 modules

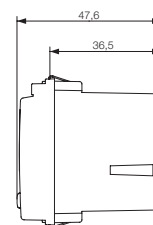
IDEA



16915
grey



16915.B
white



Electronic temperature sensor

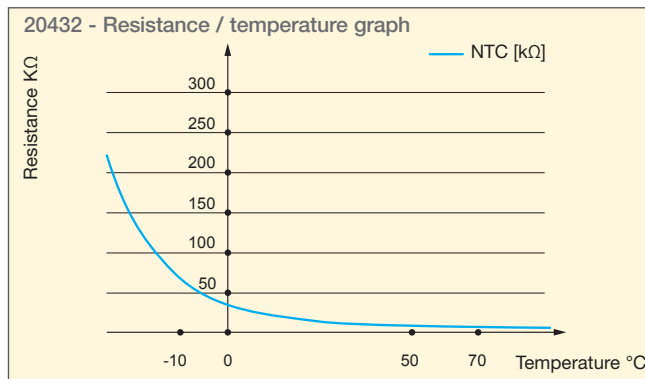
The sensor, used in conjunction with Vimar devices, can display the temperature of the room where it is installed.

Main characteristics

- maximum length of cable connecting sensor to devices: **60 m**;
- use a twisted cable with a minimum cross-section of 0,5 mm² (art.01840);
- to measure the **ambient temperature** of a room: Install the sensor at a height of 1,5 m off the floor in a suitable position for correctly detecting the ambient temperature. It must not be installed in niches, behind doors and curtains or in areas affected by sources of heat or atmospheric factors. In particular, avoid installing it on outer walls or in combination with appliances that generate heat (e.g. regulators or lamps).

20432 - Technical data

NTC	10 K 1%
resistance	10 kΩ at 25 °C
viewable temperature on supervisors	from - 10 °C to + 70 °C



20432 - The sensor can be used with the following articles:

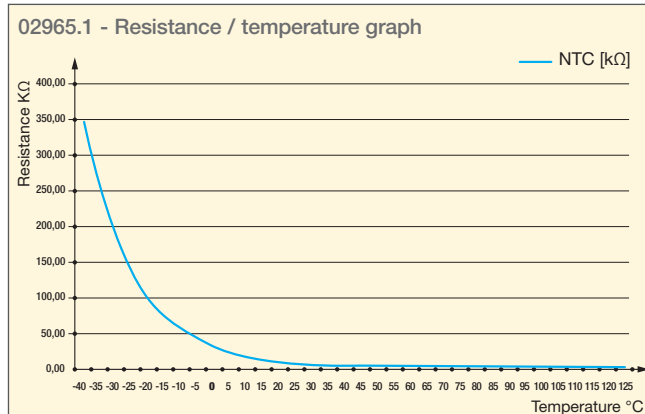
01465	Climate control device for heating systems
01467	Home automation interface with 3 analogue inputs
02906	Surface mounting touch screen GSM thermostat
02911	Surface mounting Wi-Fi touch screen timer-thermostat
02950	2-module flush mounting touch screen thermostat
02951	2-module flush mounting home automation touch screen thermostat
02952	2-module flush mounting KNX touch screen thermostat
02955	3-module flush mounting touch screen timer-thermostat
20538, 19538, 14538	Home automation temperature probe
21511.1	4,3" Full Flat home automation touch screen
21554	Video touch screen 4,3" Full Flat

Wired temperature sensor

The sensor, used with Vimar devices, enables the visualization of the room temperature where the product is installed.

Main characteristics

- NTC probe with double insulation (2 wires);
- cable length: **3 m**;
- capsule length: 40 mm;
- capsule diameter: 6 mm;
- cable section: 2x0.25 mm² Ø 4.6 mm;
- for the compatibility and range of measurement, please refer to the Vimar products in which the sensor is used;
- **to measure the room temperature:** install the sensor at a height of 1.5 m off the floor in a suitable position for correctly detecting the ambient temperature. It must not be installed in niches, behind doors and curtains or in areas affected by sources of heat or atmospheric factors. In particular, avoid installing it on outer walls or in combination with appliances that generate heat (e.g. dimmers or lamps).;
- **to measure the outside temperature:** install the sensor outside the building, on the north or north-west/north-east side, at least 2.5 m off the ground; the device should not be affected by any sources of heat and therefore should be sheltered from direct sunlight, away from windows, doors, chimneys or other elements that directly affect temperature and currents of air;
- **to measure the flow temperature:** carefully install the sensor, laying the wires in a dedicated conduit, keeping it separate from the power cables and loads such as pumps,



burners, etc. Two types of installation are possible: in contact or by immersion in a special well; of the two we recommend the immersion method as it ensures greater accuracy of the temperature measurement and better control dynamics.

- protection degree: IP67.

02965.1 - Technical data

NTC	10 K 1%
reaction time	K=10" in liq. V=2m/s
resistance	10 kΩ at 25 °C
insulation resistance	20 MΩ at 500 Vcc
rigidity	4000 Vac
cable type	SILICONE [9CAVSIL2008]
viewable temperature on supervisors	from - 40 °C to + 120 °C

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Electronic temperature sensor

Electronic temperature sensor, 1 output

EIKON



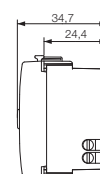
20432
grey



20432.B
white



20432.N
Next



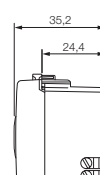
ARKÉ



19432
grey



19432.B
white



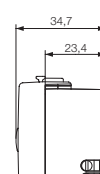
PLANA



14432
white



14432.SL
Silver



Wired temperature sensor

02965.1 NTC 10 kΩ wired temperature sensor, -40 °C / +120 °C operating temperature, IP67, 3 m cable length



02965.1

02965.1 - The sensor can be used with the followed articles:

01465	Climate control device for heating systems
01467	Home automation interface with 3 analogue inputs
02906	Surface mounting touch screen GSM thermostat
02911	Surface mounting Wi-Fi touch screen timer-thermostat
02950	2-module flush mounting touch screen thermostat
02951	2-module flush mounting home automation touch screen thermostat
02952	2-module flush mounting KNX touch screen thermostat
02955	3-module flush mounting touch screen timer-thermostat
20538, 19538, 14538	Home automation temperature probe
21511.1	4.3" Full Flat home automation touch screen
21512.2	3-module Full Flat touch screen
21554	4.3" Full Flat video touch screen
21848.1	4.3" KNX Full Flat touch screen
21849.1	3-module KNX Full Flat touch screen
21509	3-module By-me control unit
01965	By-me module for 19558 video door entry unit

TEMPERATURE CONTROL

Well-contact Plus : temperature control and energy management

KNX standard weather station

The weather station integrates with the Well-contact Plus system for managing temperature control, energy and automation systems. The KNX weather station measures variables such as temperature, wind speed, rain and brightness, the values of which can be used to control the device outputs based on limit values; the states can then be associated amongst themselves using the weather station's AND and OR logic gates.

Main functions

- **Brightness measurement:** this function can be used to turn exterior lights on at dusk and off at dawn.
- **Wind measurement:** the strength of the wind is measured electronically, so the measurement is quiet and reliable even in the event of hail, snow and sub-zero temperatures. The weather station is also able to detect whirlwinds and updraughts. This function can also be used to activate awning winding in the case of strong wind or precipitation.
- **Rain measurement:** the weather station is equipped with a sensor with a heated surface so that only rain and snow is measured as precipitation (and not fog or dew). Automatic irrigation can be deactivated in the event of rain. Once it has stopped raining or snowing, the sensor dries quickly and the precipitation message is turned off.
- **Temperature measurement:** the weather station measures the value of the current ambient temperature.
- **Control outputs for all values:** the limit values can be set via the respective parameters or via the ETS communication objects.
- **8 AND logic gates and 8 OR logic gates each with 4 inputs:** the control operations themselves as well as the 8 logic inputs (in the form of communication objects) can be used as inputs for the AND and OR logic gates; the output of each gate can be configured as 1 bit or as 2 x 8 bits.

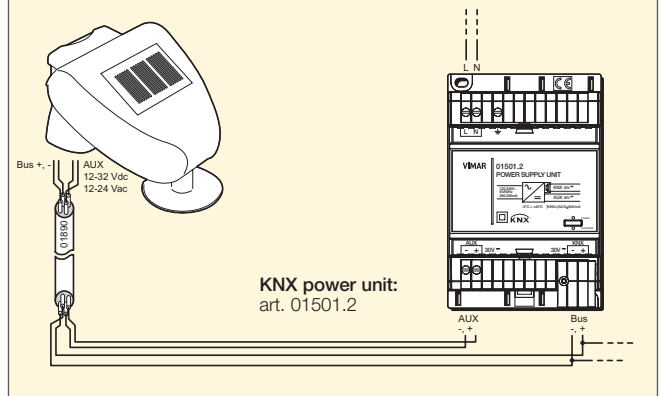
Main characteristics

- configuration button;
- Configuration LED;
- protection class: IP44;
- dimensions: 96x77x118 mm (L x H x D);
- weight: approx. 170 g.

Configuration

The weather station functions and parameters are configured via the ETS software; the program file (in VD format), the manual and the technical info sheet are available for download in the Software->Product Software section of the website www.vimar.com.

01546 - Connections



01546 - Technical data

AUX power supply	12-32 V , 12-24 V~ SELV
max current draw, ripple 10%	100 mA
absorption from Bus	10 mA
group addresses	254 max
possible associations	255 max
communication objects	109
rain sensor heating	1,2 W
temperature measurement range	from -40 °C to +80 °C
temperature definition	0,1 °C
temperature accuracy	1° C from -10 °C - +85 °C 1,5 °C from -25 °C - +150 °C
wind measurement range	0 - 70 m/s
wind definition	<10% of the reading
wind accuracy with an angle of incidence of 45° and mounting on a suitable support	25% from 0 - 15 m/s
brightness measurement range	0 - 150.000 Lux
brightness definition	1 Lux from 0-120 Lux 2 Lux from 121-1.046 Lux 63 Lux from 1.047-52.363 Lux 423 Lux from 52.364-150.000 Lux
brightness accuracy	35%
operating temperature	from -30°C to +50°C (exterior use)
Inputs	
power supply	+, -
Bus	Bus TP

Conformity to Standards

EMC directive,
EN 60730-1, EN 50491 Standards

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

KNX standard weather station

01546 Weather station, KNX standard, power supply 12-32 Vdc or 12-24 Vac. Can be integrated with the By-me home automation system

Installation



Base with straps supplied



01546

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Input/output device

This device enables managing 4 inputs and 4 generic outputs for typical applications in the tertiary sector (entry to offices, hospital or hotel rooms, swimming pools, saunas, sports facilities, reserved spaces, etc.). The device is equipped with 4 ON/OFF inputs and 4 relay outputs of 16 A 250 V~ and has manual control for local implementation.

Main characteristics

- relay configuration: one- or two-position stable;
- maximum distance of the input contact from the device: 30 m with twisted cable;
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

01522 - Technical data

power supply from KNX Bus	30 Vdc SELV
absorption from KNX Bus	10 mA
dissipated power	4 W
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
KNX TP Bus	+, -
4 digital inputs for NO or NC contacts (with no potential, SELV)	IN1, IN2, IN3, IN4
Outputs	
4 relay outputs 16 A 250 V~	C, C, NO

01522 - Controllable loads at 250 V~

resistive loads	16 A (20.000 cycles)
incandescent lamps	10 A (20.000 cycles)
fluorescent lamps and energy saving lamps	1 A (20.000 cycles)
electronic transformers	4 A (20.000 cycles)
ferromagnetic transformers	10 A (20.000 cycles)
cosφ 0,6 motors	3,5 A (100.000 cycles)

Conformity to Standards

LV Directive, EMC Directive
EN 50090-2-2, EN 50428 Standards

Actuator with 4 relay outputs NO 16 A 250 V~

This device enables managing 4 generic outputs for typical applications in the tertiary sector (entry to offices, hospital or hotel rooms, swimming pools, saunas, sports facilities, reserved spaces, etc.). The device is equipped with 4 relay outputs of 16 A 250 V~ and has manual control for local implementation.

Main characteristics

- relay configuration: one- or two-position stable;
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

Configuration

The configuration of the device, physical address and parameters (normal or timed relay outputs, logical interlocking of the four relay outputs, etc.) takes place through the ETS software.

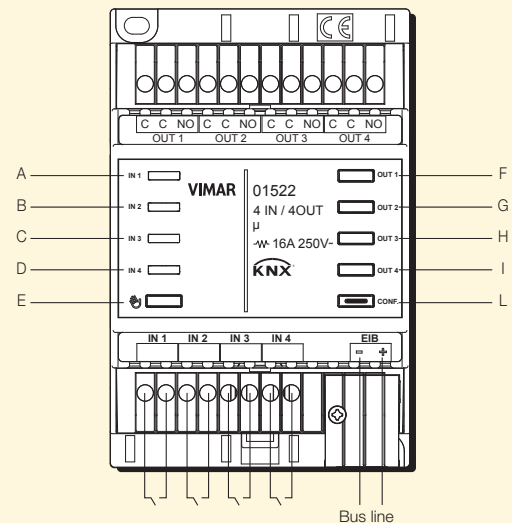
01523 - Technical data

power supply from KNX Bus	30 Vdc SELV
absorption from KNX Bus	10 mA
dissipated power	4 W
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
KNX TP Bus	+, -
Outputs	
4 relay outputs 16 A 250 V~	C, C, NO

01523 - Controllable loads at 250 V~

resistive loads	16 A (20.000 cycles)
incandescent lamps	10 A (20.000 cycles)
fluorescent lamps and energy saving lamps	1 A (20.000 cycles)
electronic transformers	4 A (20.000 cycles)
ferromagnetic transformers	10 A (20.000 cycles)
cosφ 0,6 motors	3,5 A (100.000 cycles)

01522 - Front view and connections



LED

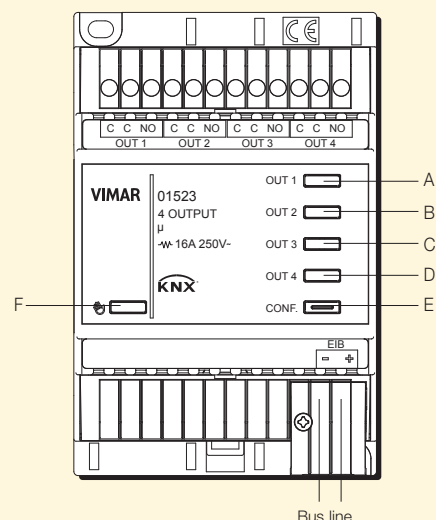
- A: state of input 1
- B: state of input 2
- C: state of input 3
- D: state of input 4
- E: button for switching to manual mode

- F: LED and button to activate relay 1
- G: LED and button to activate relay 2
- H: LED and button to activate relay 3
- I: LED and button to activate relay 4
- L: LED and configuration button

TERMINALS

- OUT 1: relay output 1
- OUT 2: relay output 2
- OUT 3: relay output 3
- OUT 4: relay output 4
- IN 1: 1 common and 1 digital input
- IN 2: 1 common and 1 digital input
- IN 3: 1 common and 1 digital input
- IN 4: 1 common and 1 digital input

01523 - Front view and connections



LED

- A: LED and button to activate relay 1
- B: LED and button to activate relay 2
- C: LED and button to activate relay 3
- D: LED and button to activate relay 4
- E: LED and configuration button
- F: button for switching to manual mode

TERMINALS

- OUT 1: relay output 1
- OUT 2: relay output 2
- OUT 3: relay output 3
- OUT 4: relay output 4

Conformity to Standards

LV Directive, EMC Directive
EN 50090-2-2, EN 50428 Standards

Input/output device

01522 Input/output device, 4 relay outputs NO 16 A 250 V~, 4 inputs for NO or NC contacts, KNX standard, installation on DIN rails (60715 TH35), occupies 4 modules size 17,5 mm



01522

Actuator with 4 relay outputs NO 16 A 250 V~

01523 Actuator with 4 relay outputs NO 16 A 250 V~, KNX standard, installation on DIN rails (60715 TH35), occupies 4 modules size 17,5 mm



01523

TEMPERATURE CONTROL

Well-contact Plus : temperature control and energy management

Actuator for solenoid valves with 6 outputs

The actuator for solenoid valves is equipped with 6 semiconductor outputs, protected against short-circuiting and overloading, which enable controlling 24 V or 230 V thermoelectric actuators in heating or cooling systems. The manual control buttons enable directly controlling the outputs and the LEDs indicate the current status of the output or a failure.

Configuration

The configuration of the device and its parameters takes place via the ETS software.

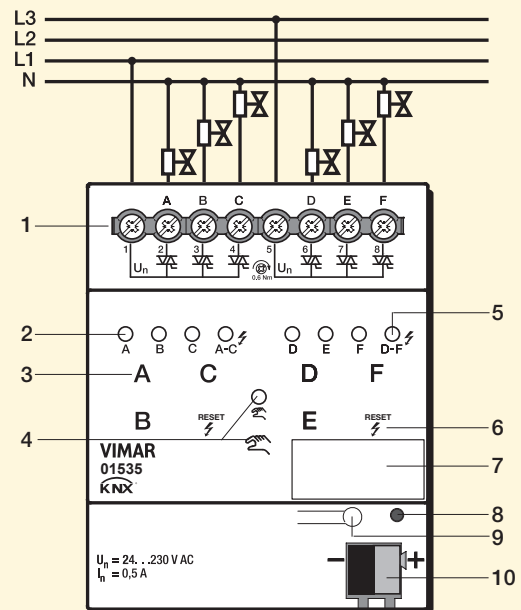
01535 - Technical data

Bus supply voltage	21-30 Vdc
current consumption	< 12 mA
dissipated power	max 250 mW
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
TP Bus	+, -
Outputs	
rated voltage U_n	24...230 Vac, 50/60 Hz
rated current I_n for output	160 mA at $T_a=45^\circ\text{C}$
inrush current for output	750 mA at $T_a=60^\circ\text{C}$

Conformity to Standards

LV Directive, EMC Directive,
EN 50428 Standard

01535 - Front view and connections



- 1: output terminals A-F and UN
- 2: status LED (amber) output A-F
- 3: button output A-F
- 4: amber LED and manual control push button
- 5: red fault LED, each one for 3 outputs
- 6: RESET push button, each one for 3 outputs
- 7: identification plate
- 8: red configuration LED
- 9: configuration push button
- 10: Bus connection terminals

KNX actuator with 4 analogue outputs

The analogue actuator has 4 analogue outputs and converts KNX messages (1 byte, 2 bytes and 4 bytes) into analogue output signals. The analogue output signals enable the actuators of heating, cooling and ventilation systems or those of lighting systems to adjust their respective output variables according to the Bus messages to make adjustments. The outputs are parameterized on the voltage or current signals via the ETS software; it is also possible to perform a forced operation for the output variables. The voltage outputs are monitored so as to detect a short circuit while the current signals are monitored to detect an overload. By creating a characteristic line it is possible to generate different output curves and signals. Device operation requires an external power supply of from 100 to 240 Vac 50/60 Hz.

Configuration

The configuration of the device and its parameters takes place via the ETS software.

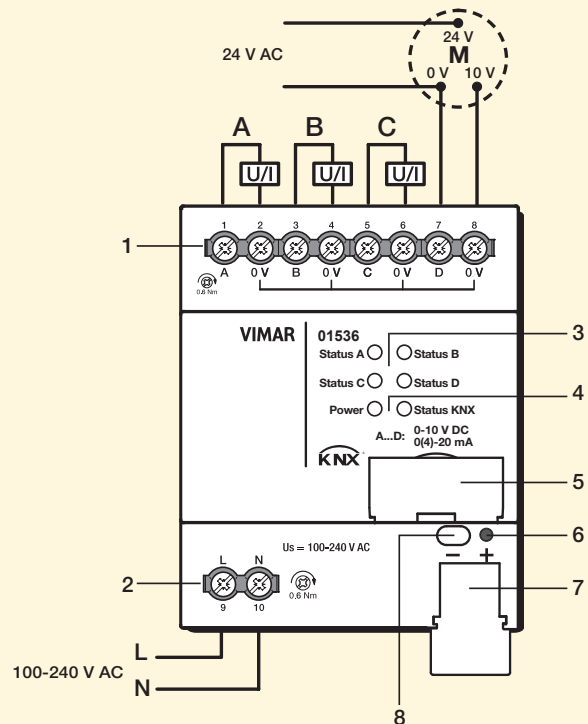
01536 - Technical data

Bus supply voltage	21-30 Vdc
current consumption	max 12 mA
dissipated power	max 250 mW
additional power supply	100-240 Vac, 50/60 Hz
dissipated power on the additional power supply	0.8 W
maximum range	85-265 Vac, 50/60 Hz
4 analogue outputs	A1-A4: 0 - 1 Vdc; 0 - 5 Vdc
voltage signals	0 - 10 Vdc; 1 - 10 Vdc Load $\geq 1\text{ k}\Omega$
current signals	0 - 20 mA/4 - 20 mA Load $\leq 500\ \Omega$
electrical resistance	24 Vac; 34 Vdc
operating temperature	from -5°C to +45°C (indoor use)

Conformity to Standards

LV Directive, EMC Directive, EN 50428 Standard

01536 - Front view and connections



- 1: analogue output A
- 2: additional power supply U_s
- 3: channel status amber LED
- 4: device status green LED
- 5: identification plate
- 6: red configuration LED
- 7: Bus connection terminals
- 8: configuration push button

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Actuator for solenoid valves with 6 outputs

- ▲ **01535** Actuator for solenoid valves, 6 230 V~ 0,5 A outputs, local control push buttons, KNX standard, on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules



▲ 01535

KNX actuator with 4 analogue outputs

- ▲ **01536** Actuator with 4 0-10 V or (0)4-20 mA analogue outputs, KNX standard, on DIN (60715 TH35) rail installation, occupies 4 17,5 mm modules



▲ 01536

TEMPERATURE CONTROL

Well-contact Plus : temperature control and energy management

Interface with 2 programmable channels

The device is equipped with 2 channels that can be configured as inputs or outputs with the ETS software. The connecting cables with pins approximately 30 cm long permit connecting conventional controls, contacts with zero potential and LEDs. The contact interrogation voltage and the supply voltage for the LEDs are available on the device. The additional resistors for the external light emitting diodes are integrated in the same device. The universal interface is flush mounted in a box behind the pushbutton. The connection to the Bus is made with the terminal block for connection to the Bus.

Main characteristics

- input:
 - detection voltage: 20 V pulsating;
 - input current: 0,5 mA;
 - power loss: max 0,3 W;
- output:
 - supply voltage: 3 to 5 Vdc;
 - output current: max 2 mA limited by additional resistors;
- short-circuit proof, overload protection, polarity-reversal protection;
- terminals: - TP Bus;
 - terminal block with 4 connection cables 30 cm long;
- protection class: IP20;

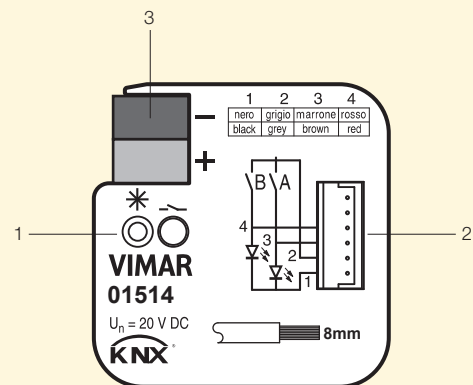
Operation

The configuration of the device, physical address and parameters takes place through the ETS software.

Conformity to Standards

EMC directive, EN 50428 Standard

01514 - Front view



- 1: Red LED and configuration button
2: inputs/outputs: 4 leads with plugs
3: Bus connection terminals

01514 - Technical data

power supply from KNX Bus	21-30 Vdc
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
KNX TP Bus	+, -
Inputs/Outputs	
2 configurable as input or output	A, B

Interface with 4 programmable channels

The device is equipped with 4 channels that can be configured as inputs or outputs with the ETS software. The connecting cables with pins approximately 30 cm long permit connecting conventional controls, contacts with zero potential and LEDs. The contact interrogation voltage and the supply voltage for the LEDs are available on the device. The additional resistors for the external light emitting diodes are integrated in the same device. The connection to the Bus is made with the terminal block for connection to the Bus.

Main characteristics

- input:
 - detection voltage: 20 V pulsating;
 - input current: 0,5 mA;
- output:
 - supply voltage: 3...5 Vdc;
 - output current: max 2 mA limited by additional resistors (to control LED 5 V, 2 mA);
- protection against overload and polarity reversal;
- terminals: - TP Bus;
 - terminal block with 6 connection cables 30 cm long;
- inputs for voltage free contacts;
- protection class: IP20;

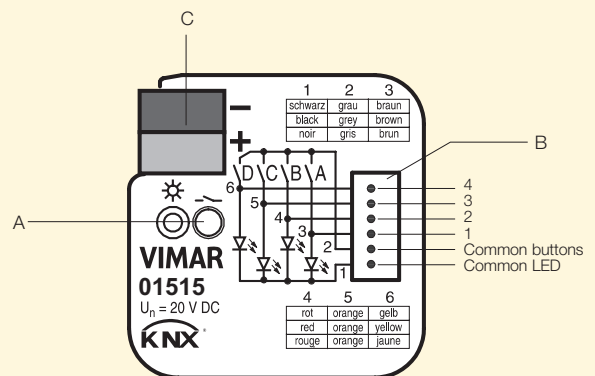
Operation

The configuration of the device, physical address and parameters takes place through the ETS software.

Conformity to Standards

EMC directive,
EN 50090-2-2 Standard

01515 - Front view and connections



- A: Red LED and configuration button
B: inputs/outputs: 6 conductors with pin
C: Bus connection terminals

Terminals:

- 1: common terminal when driving a LED with contacts 1-2-3-4
2: common terminal when connecting a key/button with contacts 1-2-3-4
3: IN/OUT 1
4: IN/OUT 2
5: IN/OUT 3
6: IN/OUT 4

01515 - Technical data

power supply from KNX Bus	30 Vdc SELV
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
KNX TP Bus	+, -
Inputs/Outputs	
4 configurable as input or output	A, B, C, D

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Interface with 2 programmable channels

▲ **01514** Interface with 2 channels that can be programmed as inputs or outputs for LEDs, KNX standard



▲ 01514

Interface with 4 programmable channels

01515 Interface with 4 channels that can be programmed as inputs or outputs for LEDs, KNX standard



01515

WELL-CONTACT PLUS:
TEMPERATURE CONTROL
ENERGY MANAGEMENT

01540 - USB interface type B

This device is used, via the built-in USB port, to connect a personal computer to the Bus line (or Bus lines) to configure, address, parameterize, display, record and diagnose all the components of the Bus system. The interface is connected to the PC via the USB port (type B) built into the device and any USB port (type A) of the personal computer or of a HUB. The interface is powered by the PC over the USB cable; if this is not connected or the personal computer is switched off, the interface is not active and cannot be accessed by the Bus.

In addition, the USB interface enables connecting the reception PC for the complete supervision and management of the system with the Well-contact Suite software.

Note.

The USB cable (type A on the PC side and type B on the interface side) is not provided.

Main characteristics

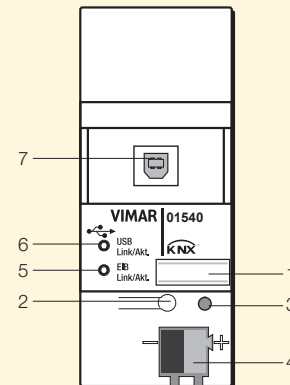
- installation on DIN rail (60715 TH35): 2 modules size 17,5 mm.

Conformity to Standards

EMC directive, EN 50090-2-2 Standard

01540 - Technical data	
power supply	30 Vdc SELV
absorption	10 mA
operating temperature	from -5°C to +45°C (indoor use)
Inputs	
KNX TP Bus	+, -
Outputs	
USB port	

01540 - Front view and connections



1. identification plate
2. button for switching between normal mode or programming mode or detecting the physical address
3. Configuration LED
4. Bus connection terminals
5. USB LED: data transmission/reception on the USB port
6. KNX LED: data transmission/reception on the Bus
7. USB port

INDICATORS

LED 3 on red: "addressing mode" indicator (the LED goes out automatically after programming the physical address)

LED 3 off: "normal operation" indicator

USB LED on green: "USB connected" indicator

KNX LED flashing green: "data in transit on the Bus line" indicator

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

USB interface type B

01540 USB interface type B, KNX standard, installation on DIN rail (60715 TH35), occupies 2 modules of 17,5 mm



01540

Bus cable

01890 Cable 2x2x0,8 mm, free of LSZH halogens, KNX standard, green - 100 m



01890

Well-contact Plus : temperature control and energy management

Power supply with 30 Vdc Bus output

Power supply unit for Bus systems equipped with decoupling coil. Each Bus line needs at least one power unit; if the voltage on the Bus is less than 21 V it is necessary to install a second power unit at a distance of at least 200 m from the first one. If there are 30 or more Bus devices installed near to each other (for instance in 10-15 m of cable or in the same electric panel), it is advisable to install the power unit near to these devices.

The maximum distance between the power unit and the furthest device must not exceed 350 m. The power unit is moreover equipped with an auxiliary output that supplies a voltage of 30 Vdc that can be used to connect an additional Bus line via a decoupling coil. The power unit is self-protected against short circuits (thanks to a voltage and current regulator) and ensures a power supply even in the event of brief mains failures provided they do not exceed 200 ms. It is recommended to always have a safety switch for the electric power supply circuit of the device 01500.2.

Main characteristics

- short-circuit current: 0,8 A;
- protection rating: IP40
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

Operation

To "Reset" the power unit, remove the Bus connection terminals and, after approximately 20 seconds, put them back in place. The Bus line is connected to the power supply again and the Bus devices return to their predefined initial conditions.

Conformity to Standards

LV directive, EMC directive, EN 60065, EN 50491 Standards

Power supply with 30 Vdc Bus output

Power supply unit for Bus systems equipped with decoupling coil. Each Bus line needs at least one power unit; if the voltage on the Bus is less than 21 V it is necessary to install a second power unit at a distance of at least 200 m from the first one. If there are 30 or more Bus devices installed near to each other (for instance in 10-15 m of cable or in the same electric panel), it is advisable to install the power unit near to these devices.

The maximum distance between the power unit and the furthest device must not exceed 350 m. The power unit is self-protected against short circuits (thanks to a voltage and current regulator) and ensures a power supply even in the event of brief mains failures provided they do not exceed 200 ms. It is recommended to always have a safety switch for the electric power supply circuit of the device 01500.1.

Main characteristics

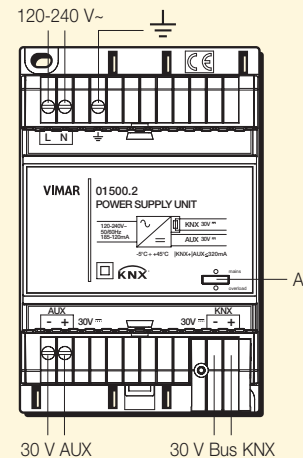
- short-circuit current: 0,8 A.
- protection rating: IP20
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

Connections

The connection to the Bus is made directly from the Bus terminals on the front of the device.

To "Reset" the power unit, remove the Bus connection terminals and, after approximately 20 seconds, put them back in place. The Bus line is connected to the power supply again and the Bus devices return to their predefined initial conditions.

01500.2 - Front view

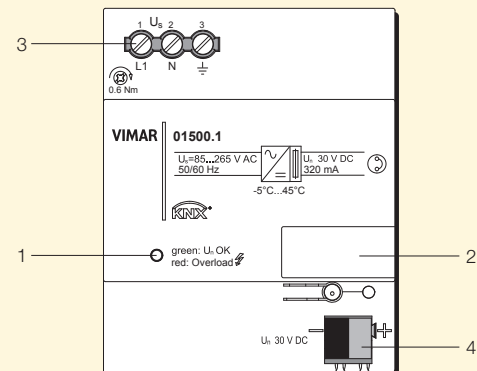


A: green LED: normal operation; red LED: overload

01500.2 - Technical data

supply voltage	120-240 V~ 50/60 Hz
Bus KNX output voltage	30 Vdc SELV with decoupling coil
AUX output voltage	30 Vdc SELV
consumption	120 V~: 185 mA, ~ 240 V~: 120 mA
dissipated power	3 W
total max output current I_{MAX}	320 mA ($I_{KNX} + I_{AUX}$)
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
power supply 230 V~	L, N, \perp
Outputs	
KNX TP Bus	+, -

01500.1 - Front view and connections



- 1: LED ON: "normal operation" indicator
- 2: identification plate
- 3: power supply terminals: rete 85 ÷ 265 V~
- 4: Bus connection terminals

01500.1 - Technical data

supply voltage	85 ÷ 265 V~ 50/60 Hz
absorption	30 W max
power loss	2,5 W
Bus KNX output voltage	30 Vdc SELV
total max output current	320 mA
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
power supply 230 V~	L1, N, \perp
Outputs	
KNX TP Bus	+, -

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Power supply unit with 30 Vdc Bus output

▲ **01500.2** Power supply unit with Bus output of 30 Vdc 320 mA, auxiliary output 30 Vdc, power supply 120-240 V~ 50/60 Hz, with decoupling coil, KNX standard, installation on DIN rail (60715 TH35), occupies 4 17,5 mm modules



▲ 01500.2

Power supply unit with 30 Vdc Bus output

Δ **01500.1** Power supply unit with Bus output of 30 Vdc 320 mA, power supply 85-265 V~ 50/60 Hz, with decoupling coil, KNX standard, installation on DIN rail (60715 TH35), occupies 4 modules of 17,5 mm



Δ 01500.1

WELL-CONTACT PLUS:
TEMPERATURE CONTROL
ENERGY MANAGEMENT

Power supply with 30 Vdc Bus auxiliary output

Power supply unit for Bus systems equipped with decoupling coil. Each Bus line needs at least one power unit; if the voltage on the Bus is less than 21 V it is necessary to install a second power unit at a distance of at least 200 m from the first one. If there are 30 or more Bus devices installed near to each other (for instance in 10-15 m of cable or in the same electric panel), it is advisable to install the power unit near to these devices.

The maximum distance between the power unit and the furthest device must not exceed 350 m. The power unit is moreover equipped with an auxiliary output that supplies a voltage of 30 Vdc that can be used to connect an additional Bus line via a decoupling coil. The power unit is self-protected against short circuits (thanks to a voltage and current regulator) and ensures a power supply even in the event of brief mains failures provided they do not exceed 200 ms. It is recommended to always have a safety switch for the electric power supply circuit of the device 01501.2.

Main characteristics

- short-circuit current: 1,4 A;
- protection rating: IP40
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

Operation

To "Reset" the power unit, remove the Bus connection terminals and, after approximately 20 seconds, put them back in place. The Bus line is connected to the power supply again and the Bus devices return to their predefined initial conditions.

Conformity to Standards

LV directive, EMC directive, EN 60065, EN 50491 Standards

Power supply with 30 Vdc Bus auxiliary output

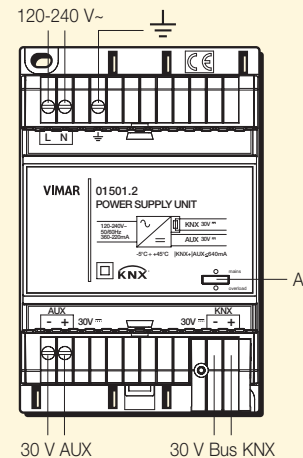
Power supply unit for Bus systems equipped with decoupling coil. Each Bus line needs at least one power unit; if the voltage on the bus is less than 21 V it is necessary to install a second power unit at a distance of at least 200 m from the first one. If there are 30 or more bus devices installed near to each other (for instance in 10-15 m of cable or in the same electric panel), it is advisable to install the power unit near to these devices. The maximum distance between the power unit and the furthest device must not exceed 350 m.

The power unit is moreover equipped with an auxiliary output that supplies a voltage of 30 Vdc that can be used to connect an additional Bus line via a decoupling coil. The power unit is self-protected against short circuits (thanks to a voltage and current dimmer) and ensures a power supply even in the event of brief mains failures provided they do not exceed 200 ms. It is recommended to always have a safety switch for the electric power supply circuit of the device 01501.1.

Main characteristics

- short-circuit current: 1,4 A;
- protection rating: IP20;
- installation on DIN rail (60715 TH35): 4 modules size 17,5 mm.

01501.2 - Front view

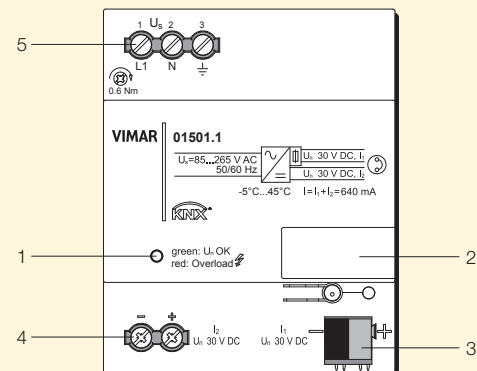


A: green LED: normal operation; red LED: overload

01501.2 - Technical data

supply voltage	120-240 V~ 50/60 Hz
Bus KNX output voltage	30 Vdc SELV with decoupling coil
AUX output voltage	30 Vdc SELV
consumption	120 V~: 360 mA, 240 V~: 220 mA
dissipated power	4,5 W
total max output current I_{MAX}	640 mA ($I_{KNX} + I_{AUX}$)
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
power supply 230 V~	L, N, \perp
Outputs	
KNX TP Bus	+, -

01501.1 - Front view and connections



- 1: two-color LED green/red
- 2: identification plate
- 3: Bus connection terminals
- 4: terminals for connection to the auxiliary output: 30 Vdc
- 5: power supply terminals: mains 85 ÷ 265 V~

01501.1 - Technical data

supply voltage	85 ÷ 265 V~ 50/60 Hz
power consumption	55 W max
power loss	4 W
Bus KNX output voltage	30 Vdc SELV
auxiliary output voltage	30 Vdc SELV
total max output current	640 mA
operating temperature	from -5 °C to +45 °C (indoor use)
Inputs	
power supply	L1, N, \perp
Outputs	
KNX TP Bus	+, -
auxiliary output	+, -

TEMPERATURE CONTROL



Well-contact Plus **KNX**: temperature control and energy management

Power supply unit with 30 Vdc Bus auxiliary output

▲ **01501.2** Power supply unit with Bus output of 30 Vdc 640 mA, auxiliary output 30 Vdc, power supply 120-240 V~ 50/60 Hz, with decoupling coil, KNX standard, installation on DIN rail (60715 TH35) occupies 4 17,5 mm modules



▲ 01501.2

Power supply unit with 30 Vdc Bus auxiliary output

Δ **01501.1** Power supply unit with Bus output of 30 Vdc 640 mA, auxiliary output 30 Vdc, power supply 85 - 265 V~ 50/60 Hz, with decoupling coil, KNX standard, installation on DIN rail (60715 TH35), occupies 4 modules of 17,5 mm



Δ 01501.1

Installation examples

TEMPERATURE CONTROL FOR STAND ALONE SYSTEMS

from page 126

TEMPERATURE CONTROL
FOR STAND ALONE SYSTEMS

TEMPERATURE CONTROL AND ENERGY MANAGEMENT FOR STAND ALONE SYSTEMS

from page 130

TEMPERATURE CONTROL AND ENERGY
MANAGEMENT FOR STAND ALONE SYSTEMS

TEMPERATURE CONTROL AND ENERGY MANAGEMENT WITH BY-ME SYSTEM



from page 132

TEMPERATURE CONTROL AND ENERGY
MANAGEMENT WITH BY-ME SYSTEM

TEMPERATURE CONTROL AND ENERGY MANAGEMENT WITH WELL-CONTACT PLUS SYSTEM

WELL-CONTACT PLUS
by-com



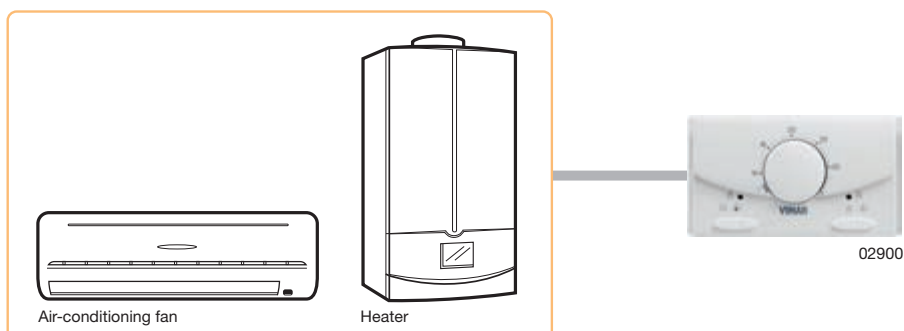
from page 142

TEMPERATURE CONTROL AND ENERGY
MANAGEMENT WITH WELL-CONTACT-PLUS SYSTEM

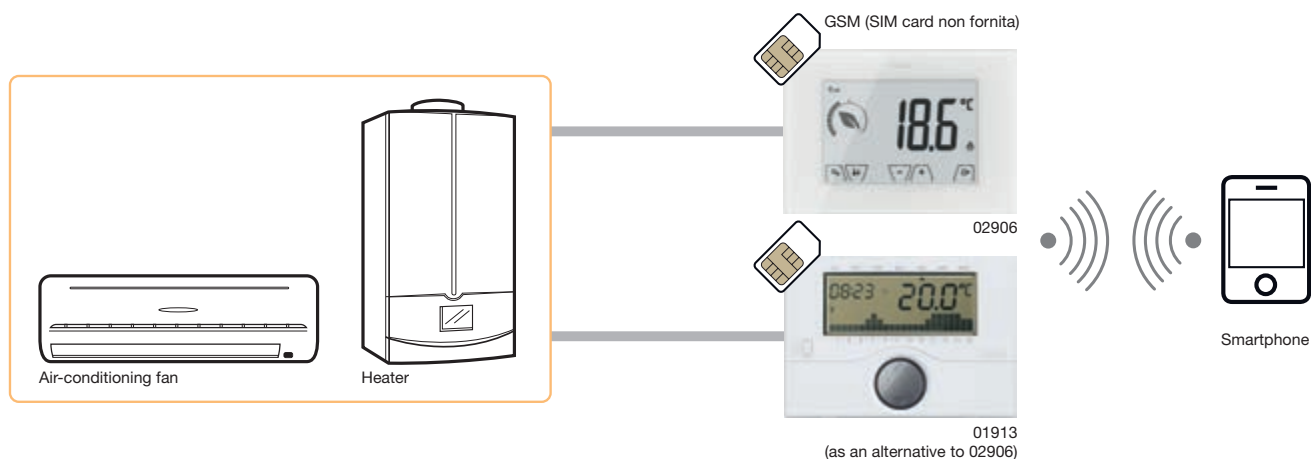
TEMPERATURE CONTROL

Stand alone installation: temperature control

02900 - Electronic thermostat installation example.



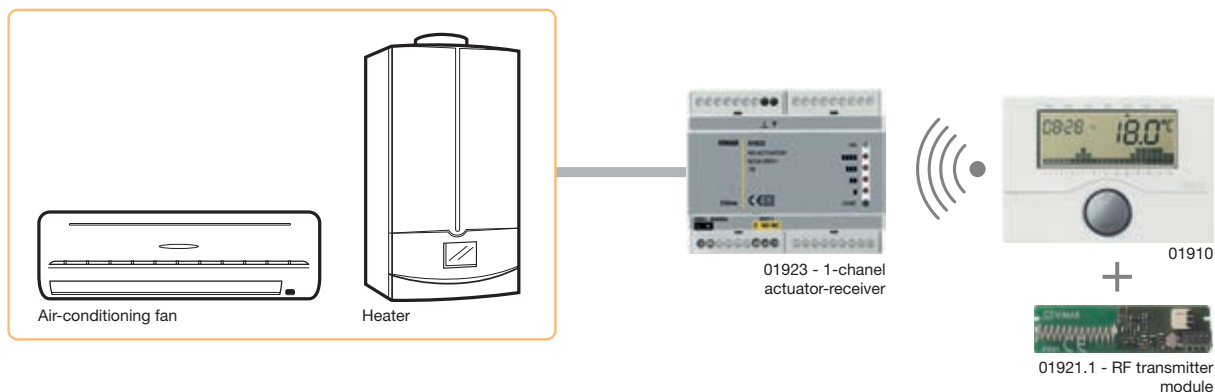
02906 - GSM touch screen thermostat installation example.



Note.

This solution for the single-zone heating/air conditioning system has a single control point. The GSM touch screen thermostat can also be controlled via a smartphone using the By-clima software.

01910 - Electronic timer-thermostat and radiofrequency transmitter module 01921.1 in an independent heating system.



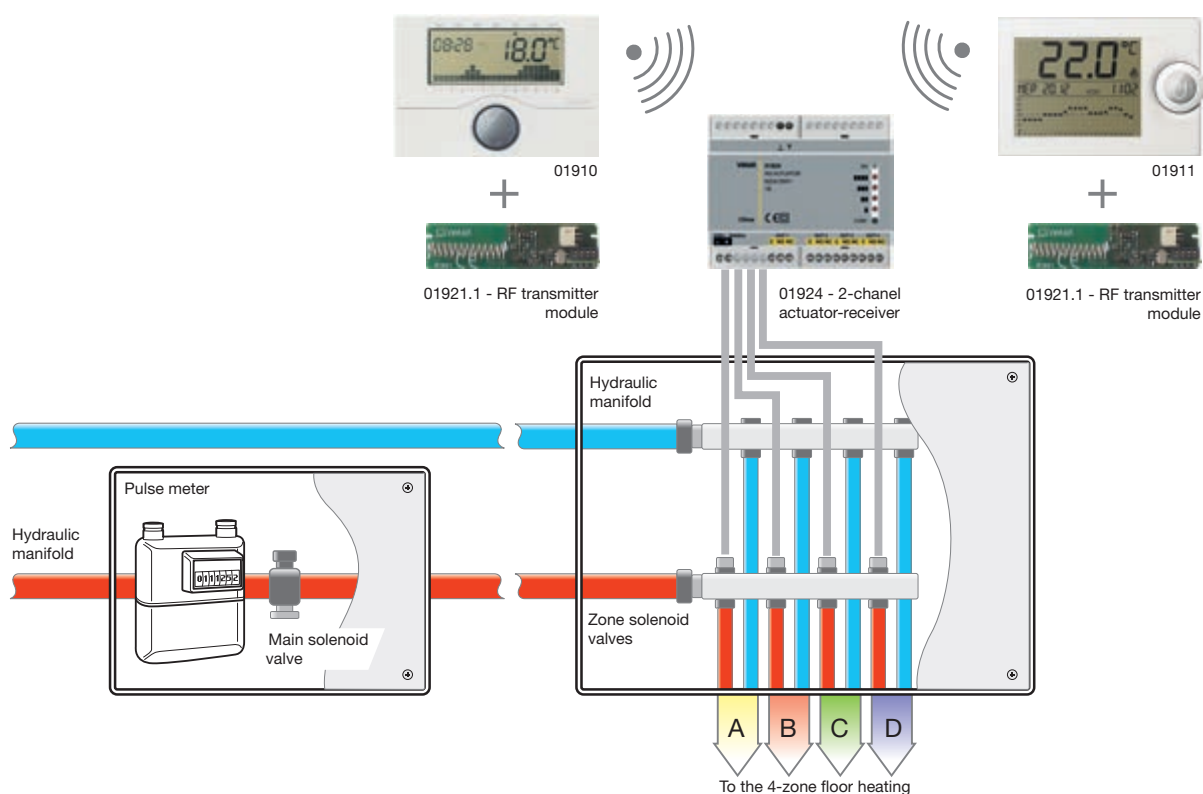
Note.

This solution for the autonomous single-zone heating/air conditioning system has a single control point. The timer-thermostat activates the boiler circulation pump by radio via the output of actuator-receiver 01923 according to the set point.

TEMPERATURE CONTROL

Stand alone installation: temperature control

Multiple control points in a multizone heating/air conditioning system.

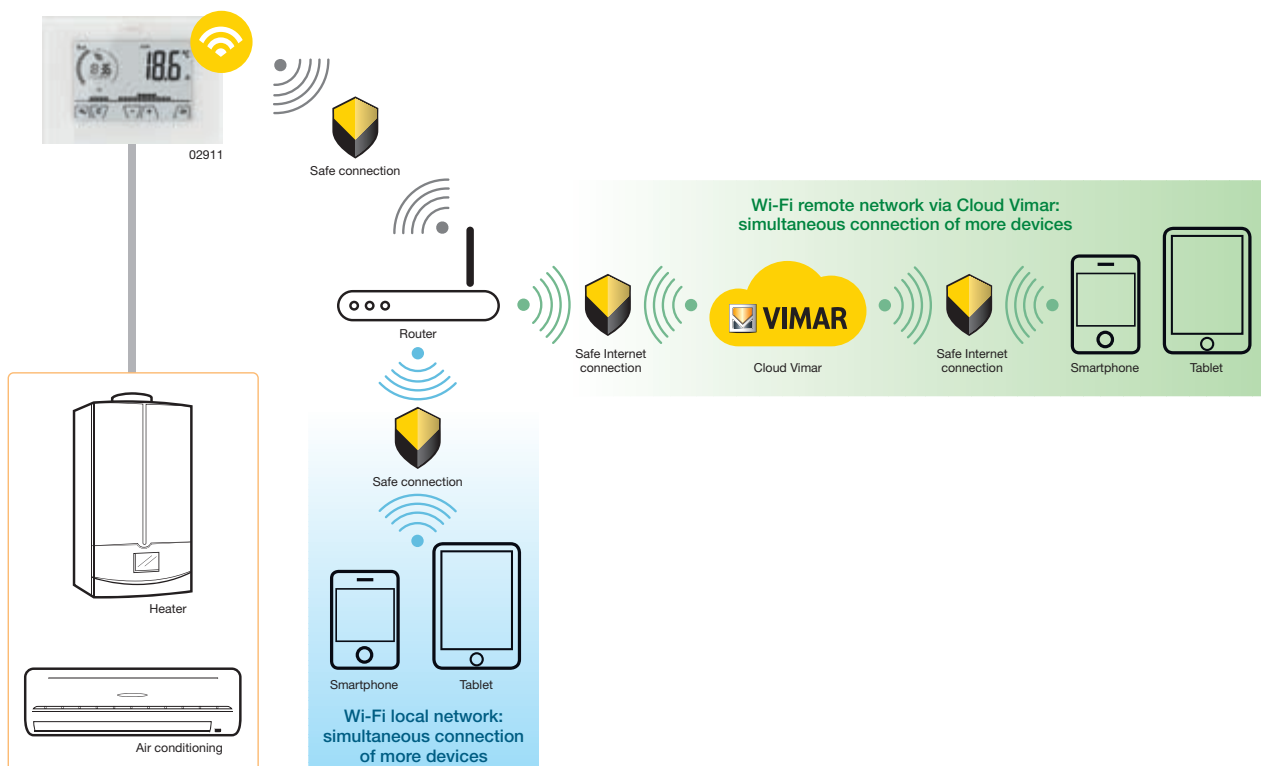


Note.

This solution for the autonomous or centralised heating/air conditioning system has a maximum of 4 control points for the various independent zones. Each timer-thermostat equipped with a radiofrequency module communicates with the actuator-receiver 01924 to control an individual zone.

Stand alone installation: temperature control

Installation with 02911 Wi-Fi touch timer-thermostat.



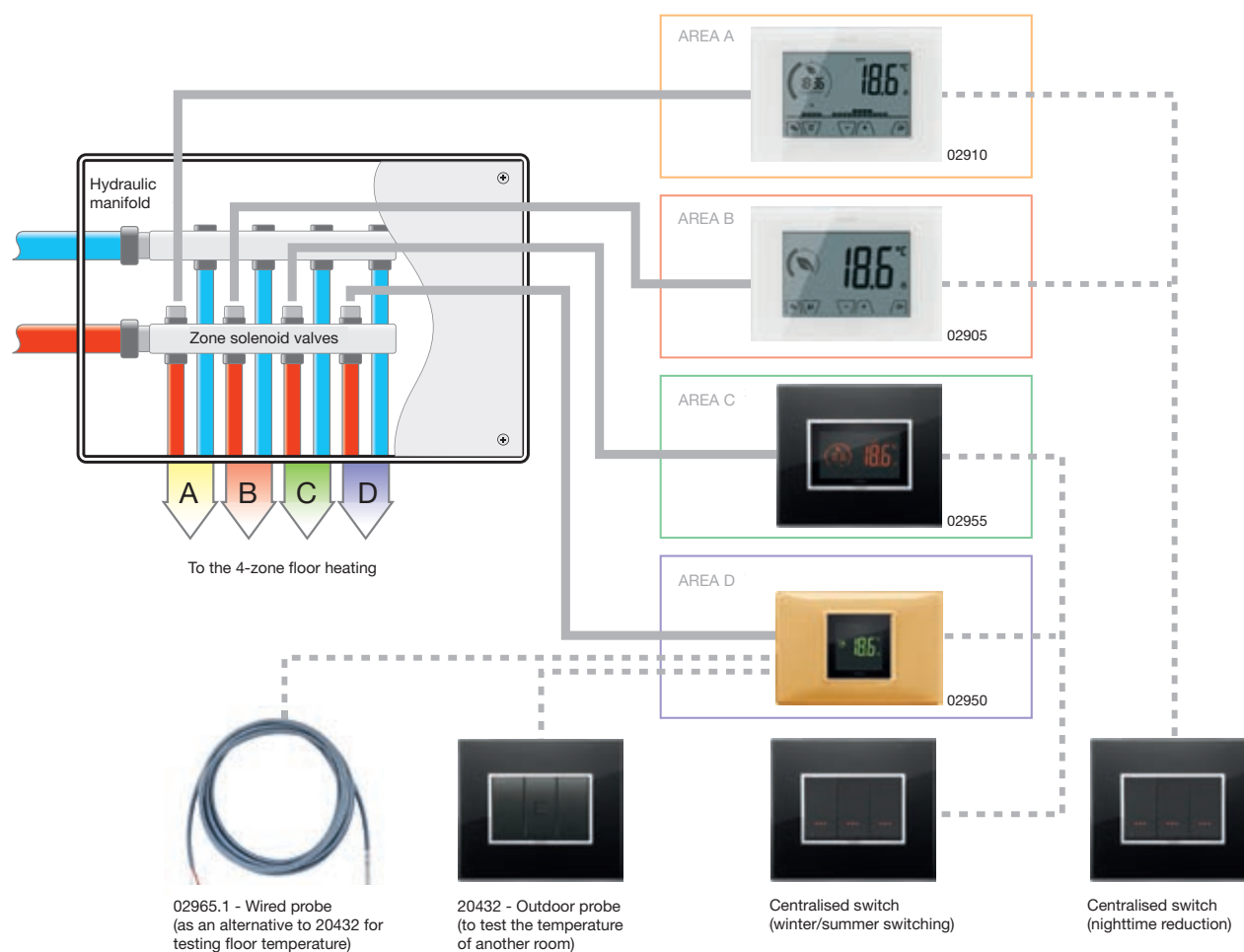
Note.

This solution for a single zone heating/air conditioning system has a single control points. The Wi-Fi touch timer-thermostat can be controlled by mobile devices or by By-clima app by means the Wi-Fi network or remotely by the Vimar cloud internet site. Connecting smartphone/tablet to the timer-thermostat, these devices have been logically stored for the connection to the cloud site.

TEMPERATURE CONTROL

Stand alone installation: temperature control

Multi-zone heating/air conditioning system with unlimited control points and independent zones.



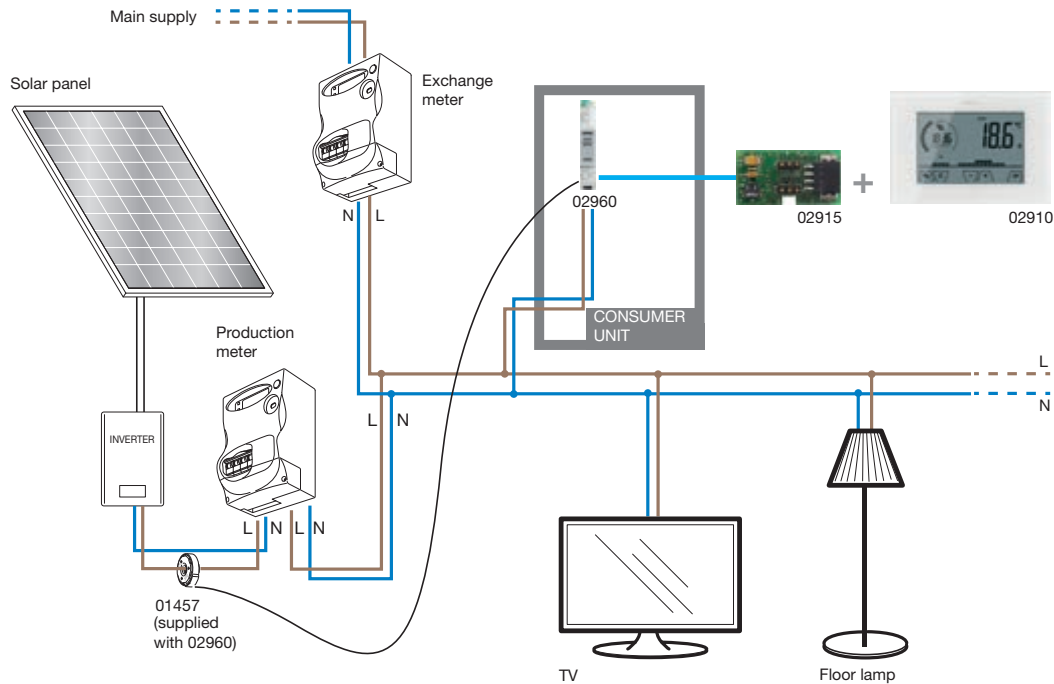
Note.

This solution for multi-zone heating/air conditioning system (with manual switching to boiler) has an unlimited number of control points for the independent zones. It is also possible to have a single centralised control for energy saving, system deactivation and summer/winter switching.

TEMPERATURE CONTROL

Stand alone installation: temperature control and energy management

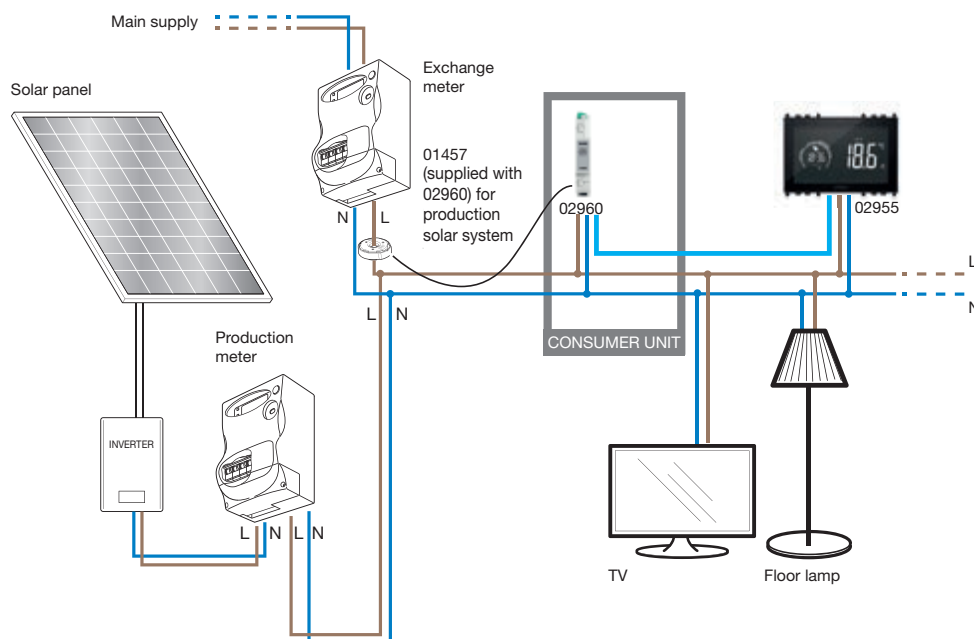
Single-phase system with monitoring of energy production by means of power meter 02960 and touch screen timer-thermostat 02910.



Notes.

The example shows a single-phase system in which the power meter 02960 uses the toroidal current sensor 01457 to measure the energy produced by the photovoltaic system and allows the data (instantaneous power generated, average energy generated) to be displayed on the touch screen of timer-thermostat 02910.

Single-phase system with monitoring of energy consumption by means of power meter 02960 and flush mounting timer-thermostat 02955.



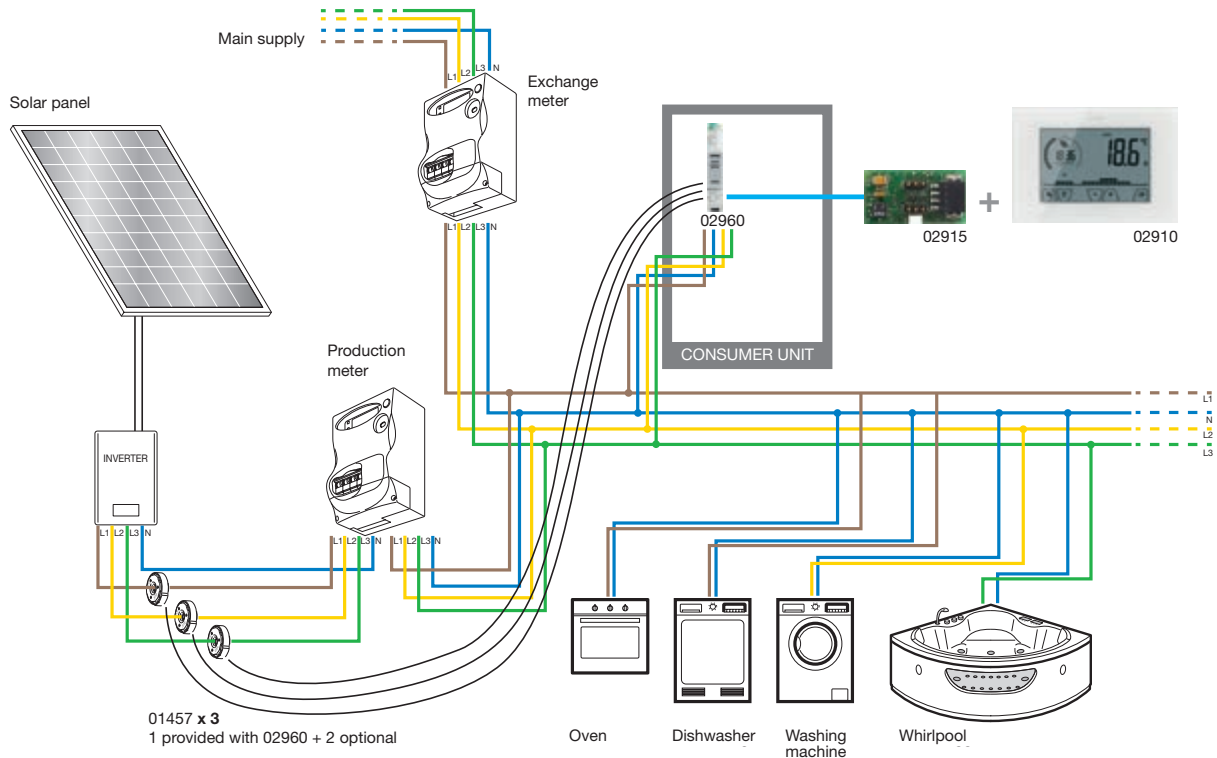
Notes.

The example shows a single-phase system in which the power meter 02960 uses the toroidal current sensor 01457 to measure the energy absorbed by the domestic loads and by the overall system, average energy consumed, meter trip alarm) to be displayed on the touch screen of flush-mounted timer-thermostat 02955. It is also possible to monitor individual loads by connecting the toroidal sensor to the relevant power supply line.

TEMPERATURE CONTROL

Stand alone installation: temperature control and energy management

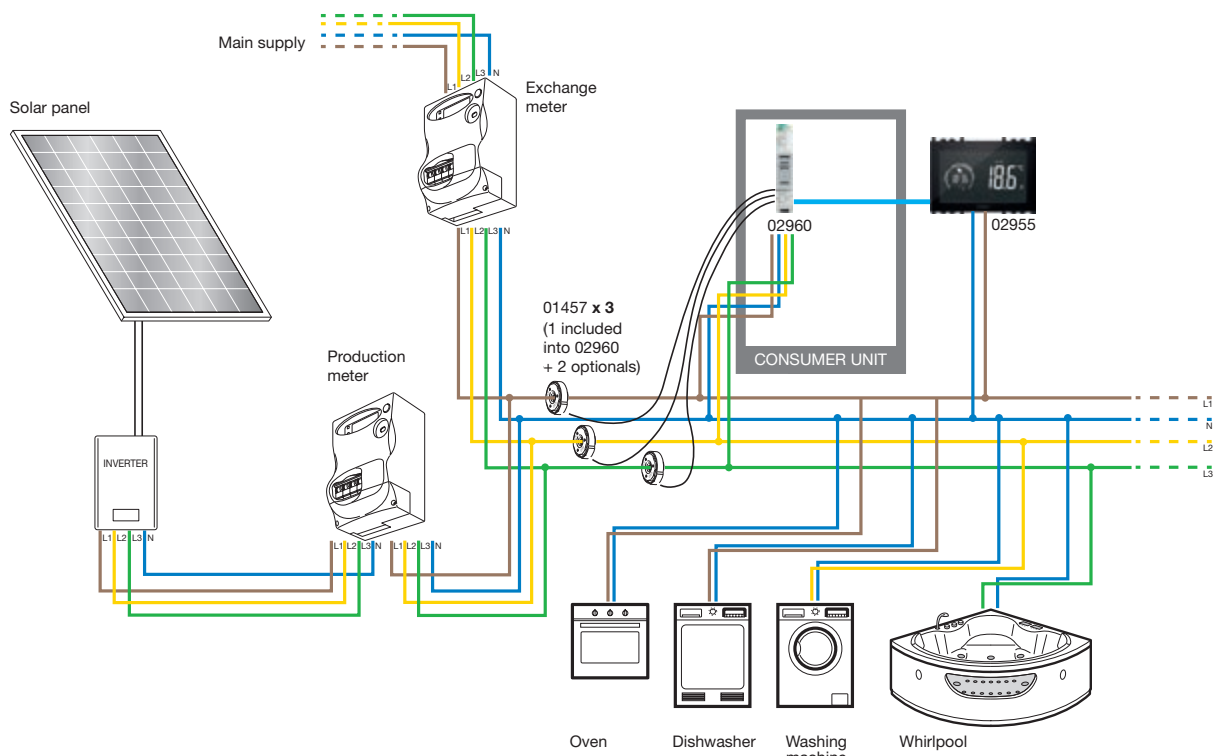
Three-phase system with monitoring of energy production by means of power meter 02960 and touch screen timer-thermostat 02910.



Notes.

The example shows a three-phase system in which the power meter 02960 uses the toroidal current sensor 01457 to measure the energy produced by the photovoltaic system and allows the data (instantaneous power generated, average energy generated) to be displayed on the touch screen of timer-thermostat 02910.

Three-phase system with monitoring of energy consumption by means of power meter 02960 and flush mounting timer-thermostat 02955.



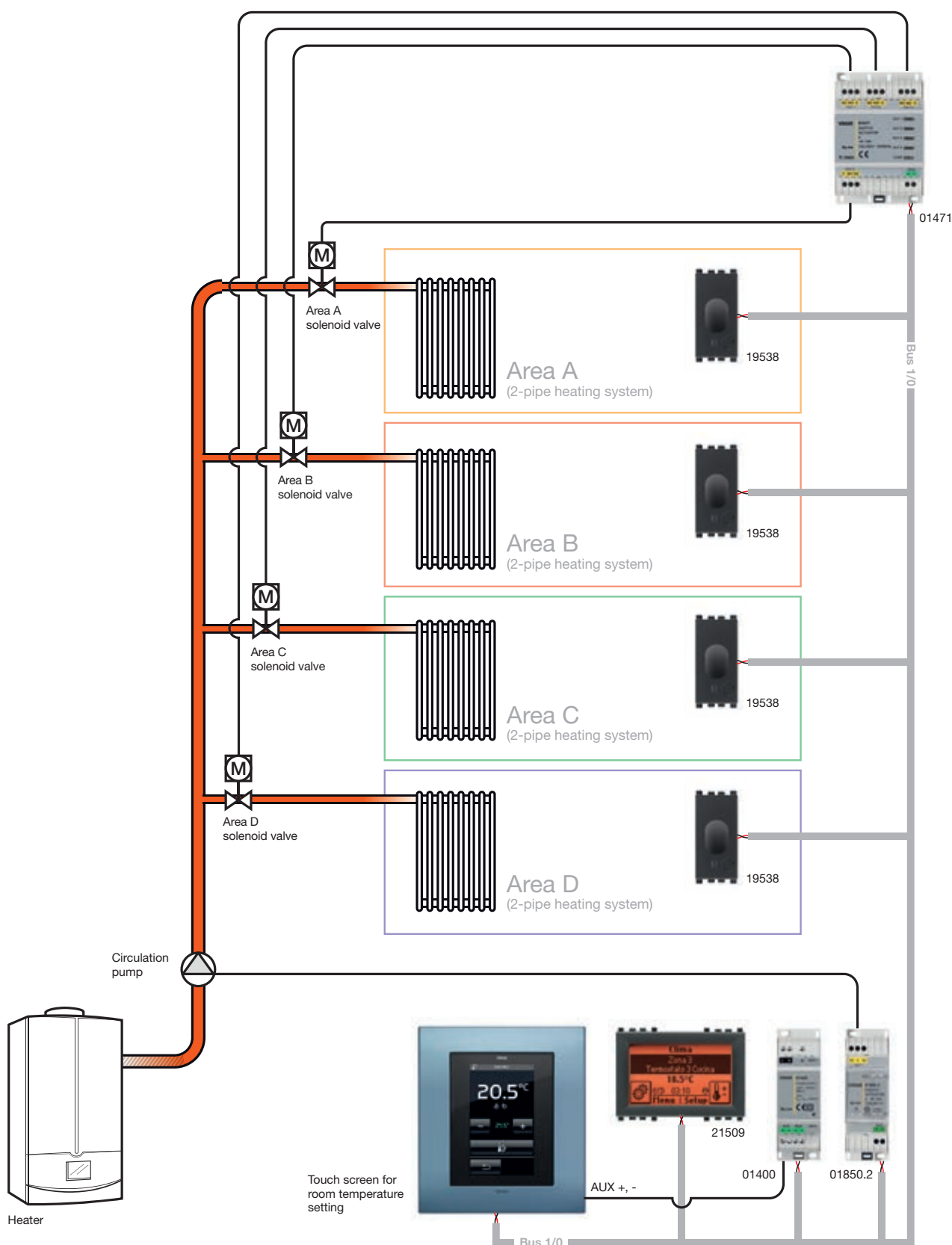
Note.

The example shows a three-phase system in which the power meter 02960 uses the toroidal current sensor 01457 to measure the energy absorbed by the domestic loads and allows the data (power absorbed by the load and by the complete system, average energy consumed, meter trip alarm) to be displayed on the touch screen of flush mounting timer-thermostat 02955.

TEMPERATURE CONTROL

By-me installation: temperature control

By-me home automation system with multi-zone management of temperature regulation.



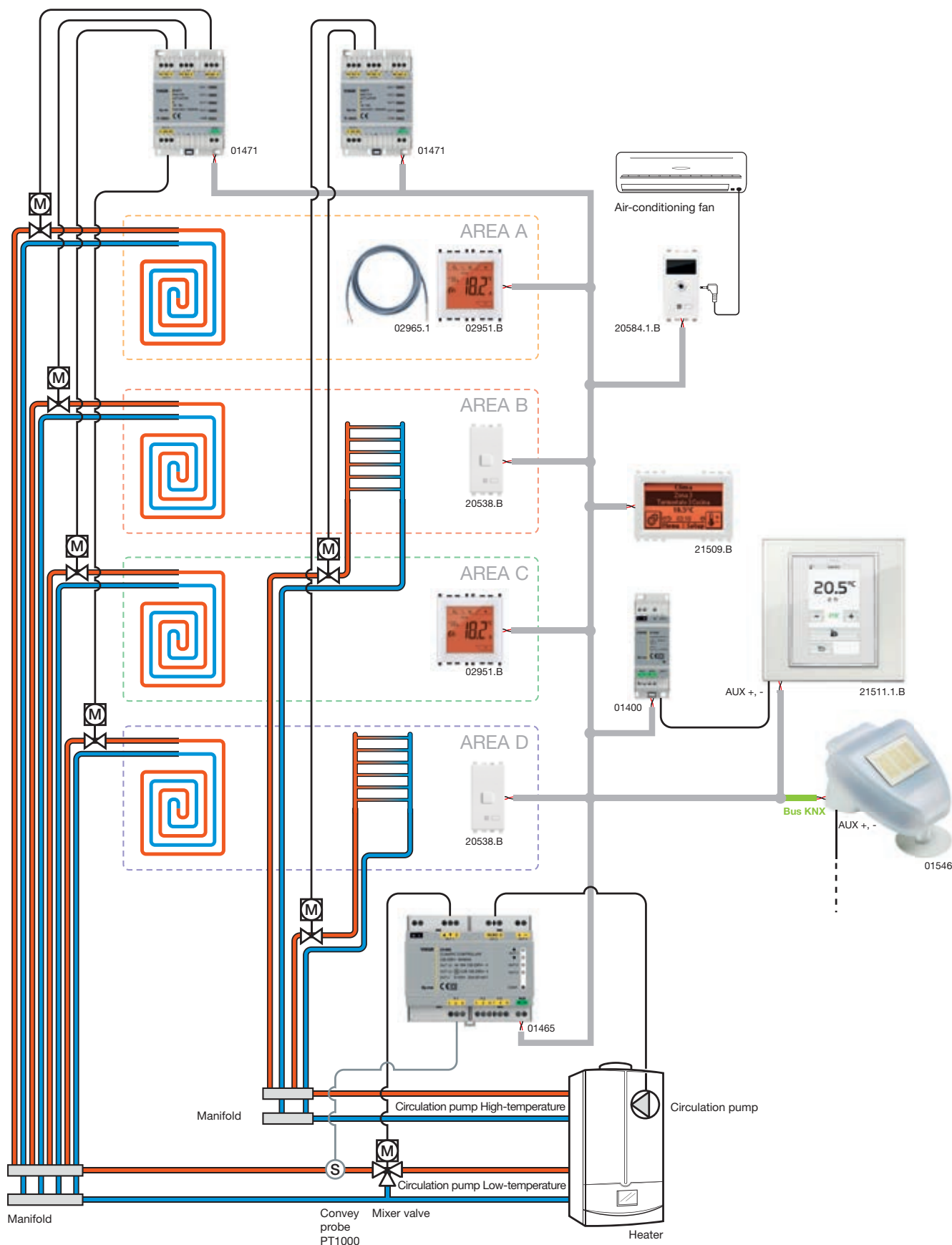
Note.

The example shows a convention 2-pipe heating system with radiators, circulation pump, zone valve and single boiler. Using the electronic temperature probes connected to the By-me Bus, it is possible to set the climatic zones by means of the supervision touch screens present in the system or remotely via smartphone, PC or tablet if web server 01945 connected to the internet is present.

TEMPERATURE CONTROL

By-me installation: temperature control

By-me home automation system with 4-zone temperature control.

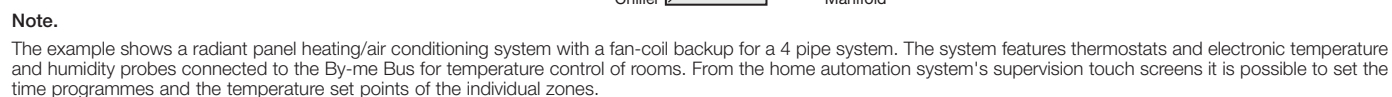


Note.

The example shows an underfloor heating system with high-temperature towel warmers in the bathrooms and a single or multi split air conditioning system. It is controlled by the By-me home automation system by means of a touch screen control unit, thermostats, electronic temperature probes, actuators, IR interfaces and a weather station.

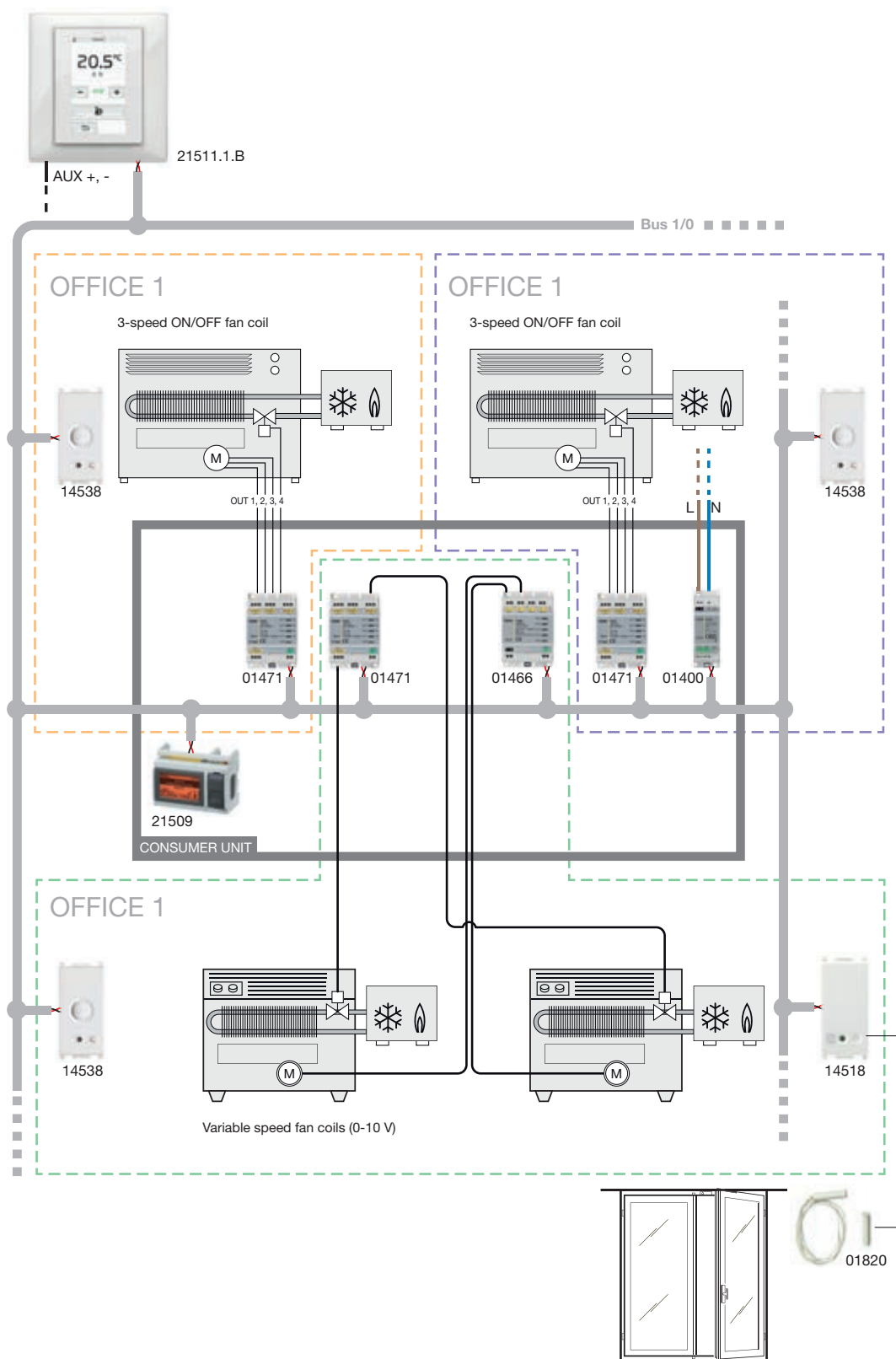


By-me home automation system with 6-zone temperature control.



By-me installation: temperature control

By-me home automation system with multi-zone temperature control in the service sector.

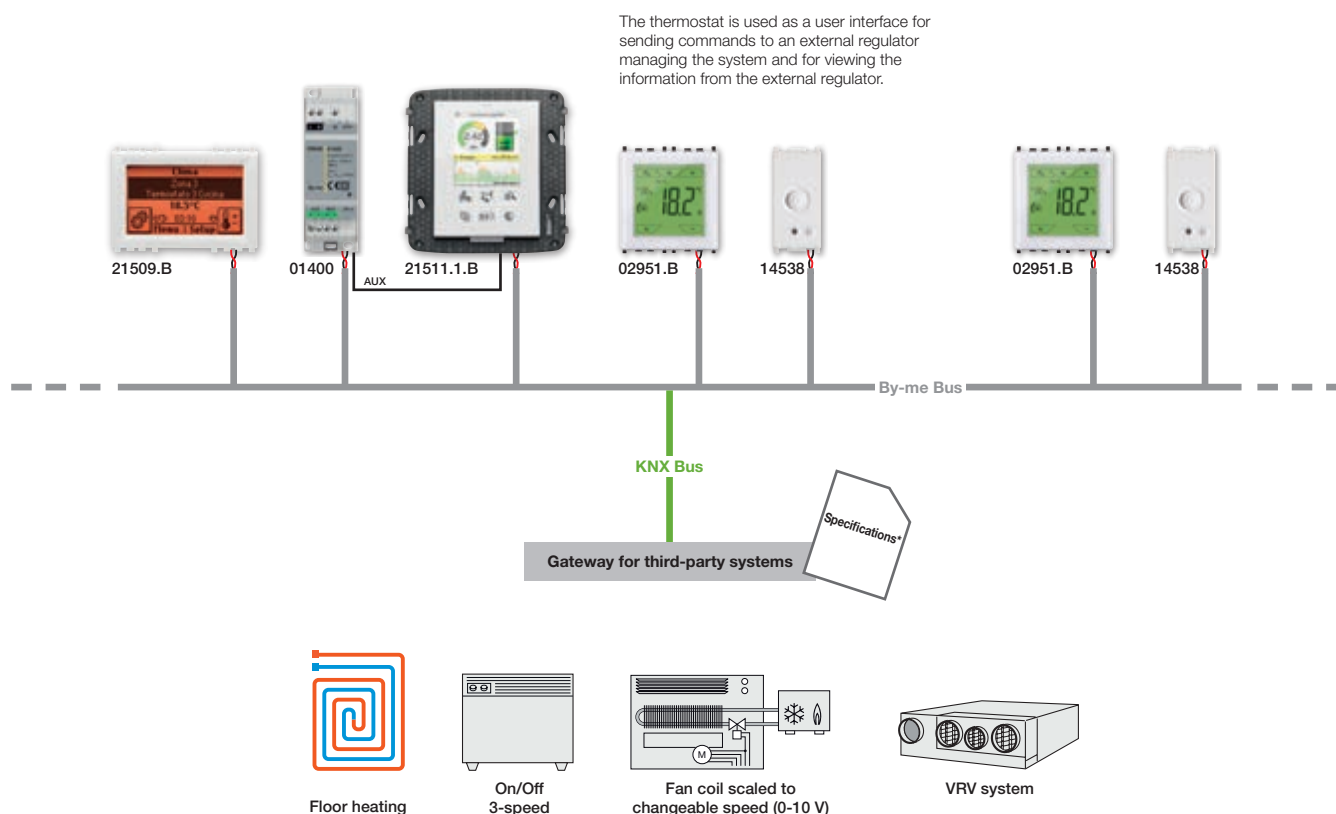


Note.

The example shows a heating system managed by the By-me home automation system in which 3-speed fan-coils are installed in two zones (offices 1 and 2), while the third zone (office 3) is equipped with variable-speed fan-coils (0-10V) with window opening control for energy saving (with configurable delay).

By-me installation: temperature control

System with By-me integration (logic wiring diagram) via KNX gateway



Controls (from thermostat / sensor):

- temperature set point
- room temperature
- operating mode

Visualisations (from third-part systems):

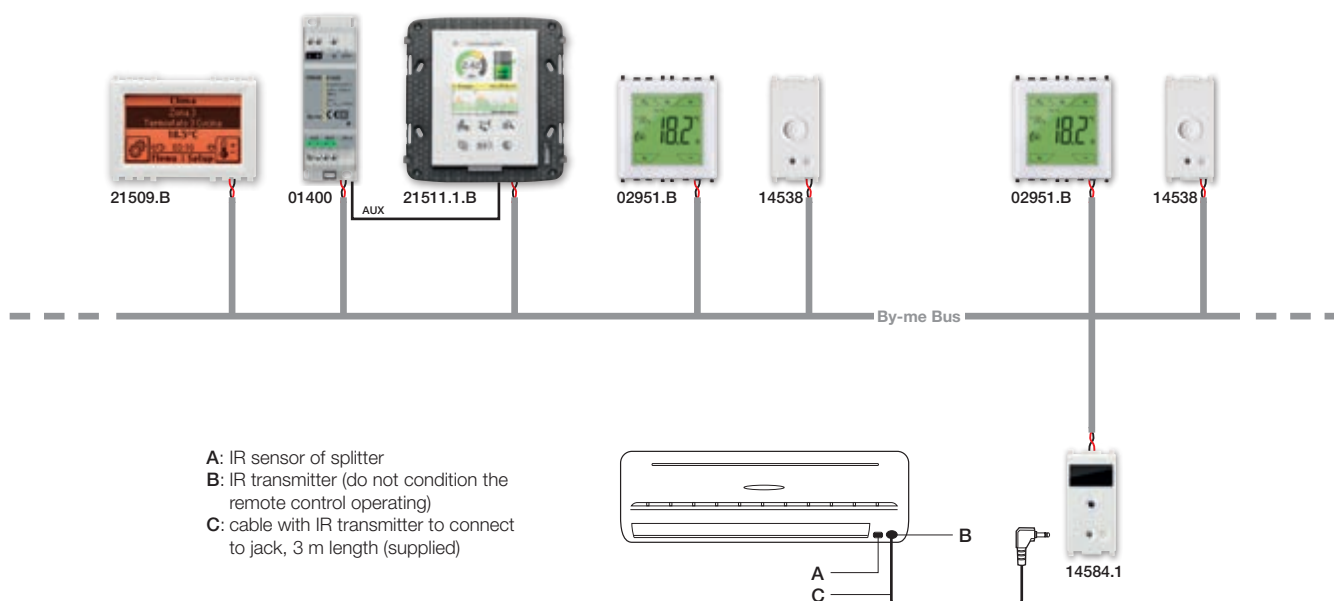
- fan coil speed and status / relay / valve
- humidity
- summer/winter

* For integration specifications contact the Sales Network or Vimar Customer Service.

TEMPERATURE CONTROL

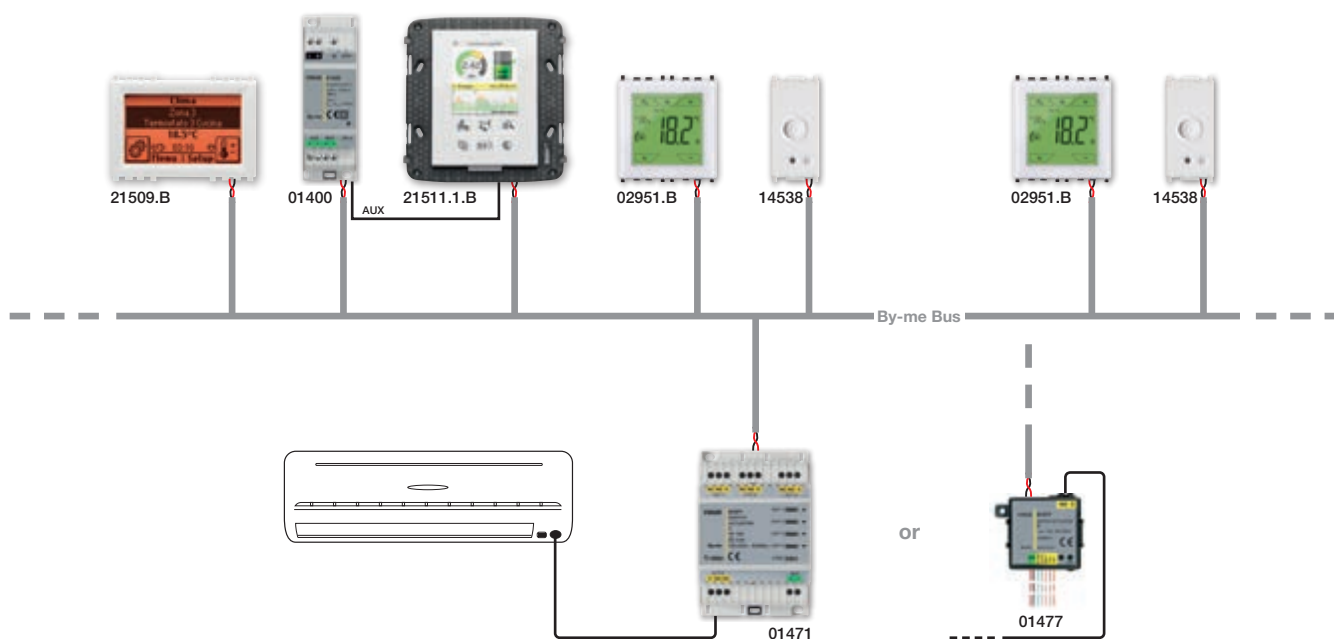
By-me installation: temperature control

System with By-me integration (logic wiring diagram) via IR interface



The thermostat activates the IR transmitter that operates as remote control of the split, simulating the switching ON and OFF for summer and winter mode. The programming takes place by self-study. The transmission frequency is between 30 kHz and 60 kHz.

System with By-me integration (logic wiring diagram) via relay actuator or contacts interface

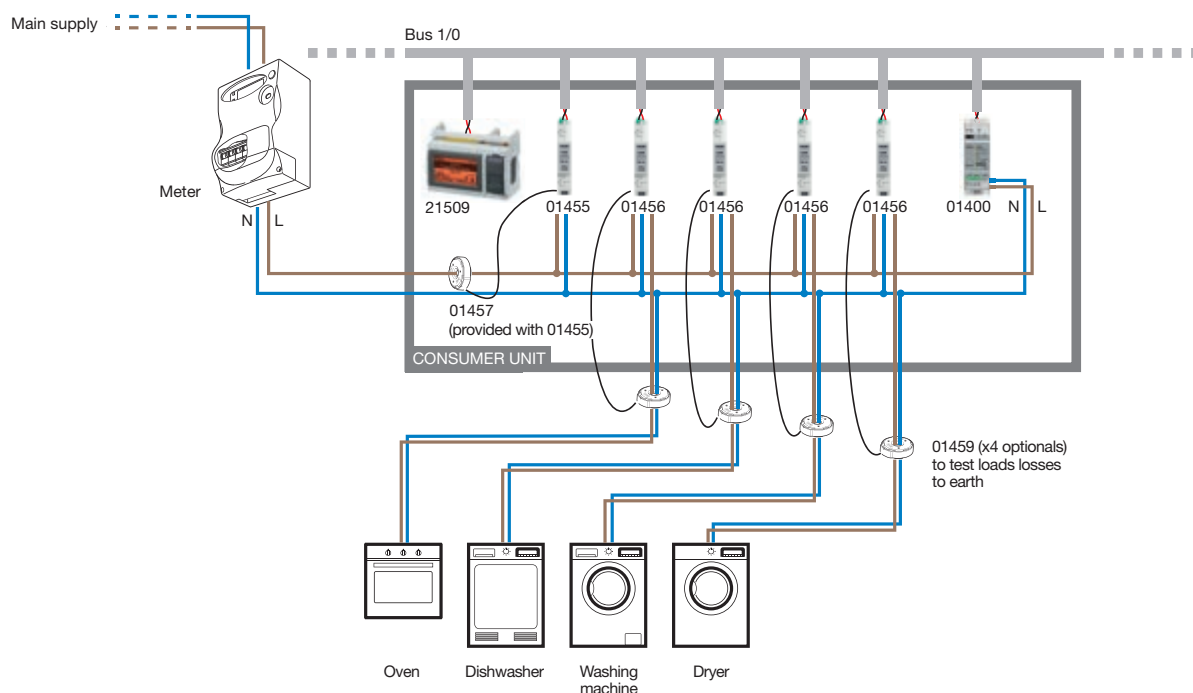


The thermostat controls the relay actuator that activates/deactivates (only ON/OFF) the split with clean contacts interface (or voltage supplied).

The diagrams are provided as examples only. For details on the correct size of the system, refer to the installation manual and technical pages in the catalogue.

By-me installation: energy management

Single-phase system (up to 33 kW total) with 4 loads, display of individual loads and test (optional) of loads losses to earth.

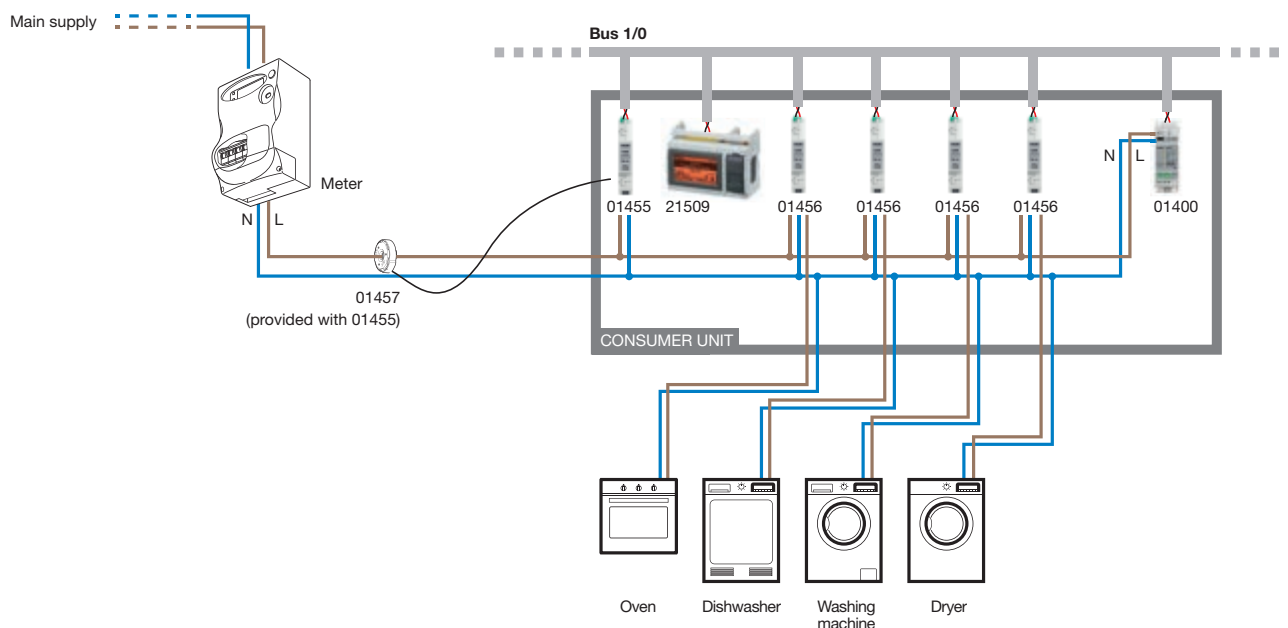


Notes.

Up to 16 loads or groups of loads that can be controlled by controlling the same number of relay actuators. The groups of controlled loads must be assigned a priority that determines the order in which they are disconnected.

It is possible to measure the absorption of up to max 20 loads or groups of loads.

Single-phase system (up to 33 kW total) with control of 4 loads and measurement of consumption of 4 single loads (oven, dishwasher, washing machine and dryer).



Note.

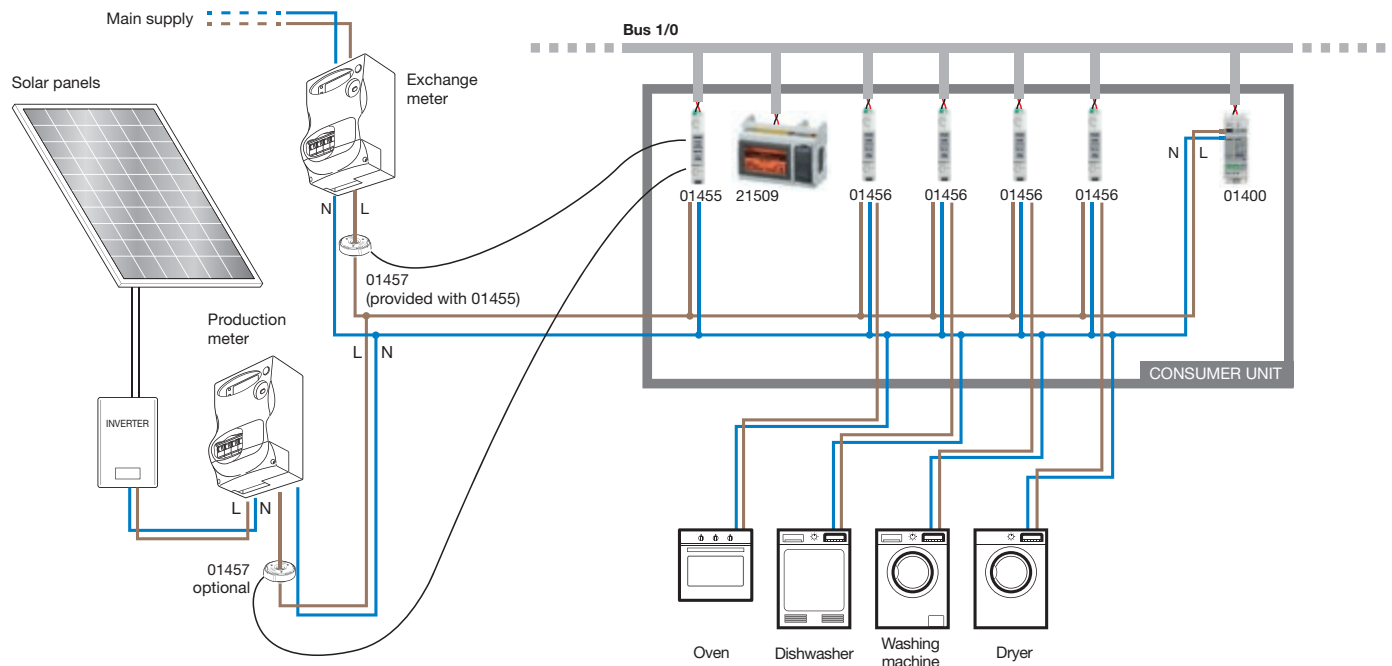
Up to 16 loads or groups of loads that can be controlled by controlling the same number of relay actuators. The groups of controlled loads must be assigned a priority that determines the order in which they are disconnected.

It is possible to measure the absorption of up to max 20 loads or groups of loads.

TEMPERATURE CONTROL

By-me installation: energy management

Single-phase system (up to 33 kW total) with control of 4 loads, measurement of consumption of 4 load (oven, dishwasher, washing machine, dryer) and measurement of photovoltaic production (optional). There is a single control unit shared by all devices.

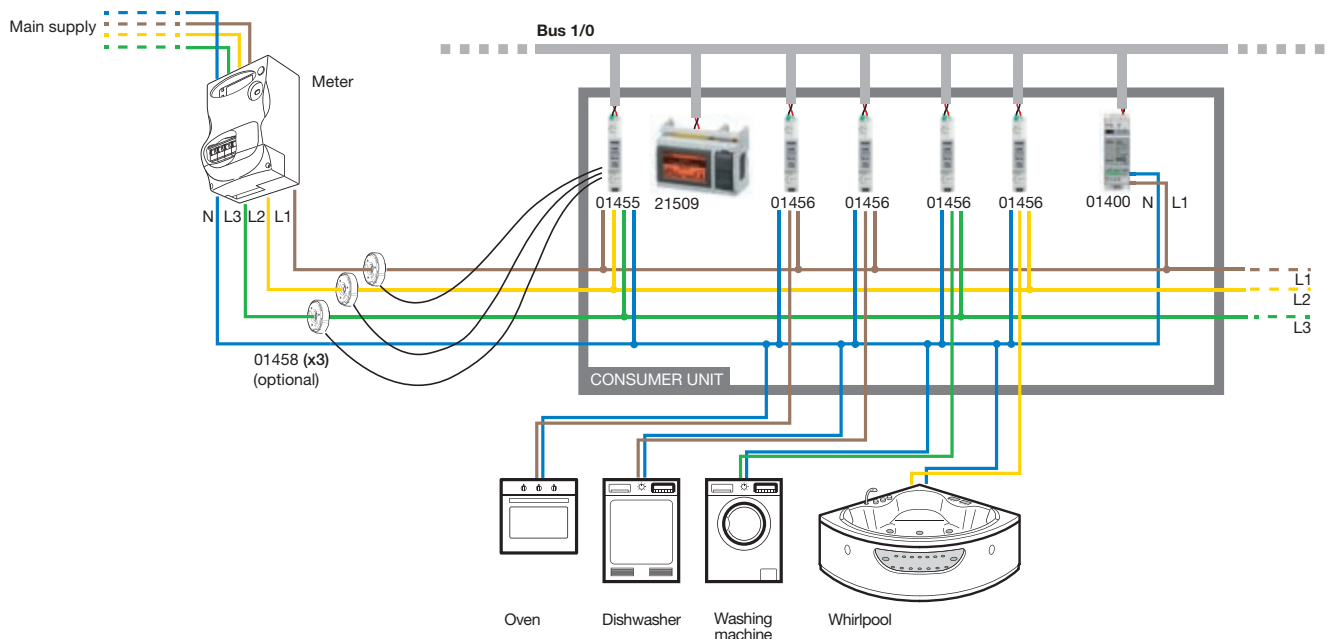


Notes.

Up to 16 loads or groups of loads that can be controlled by controlling the same number of relay actuators. The groups of controlled loads must be assigned a priority that determines the order in which they are disconnected.

By setting the parameter "Production threshold" on a control group, the load activates when the power fed to the operator exceeds the threshold and remains active as long as production exceeds total consumption. By suitably configuring the parameters "Minimum ON time", the load control logic activates the load when the production threshold is achieved or passed, keeping it active for the minimum set time.

Three-phase system (up to 100 kW total) with control of 4 single-phase loads on different phases.

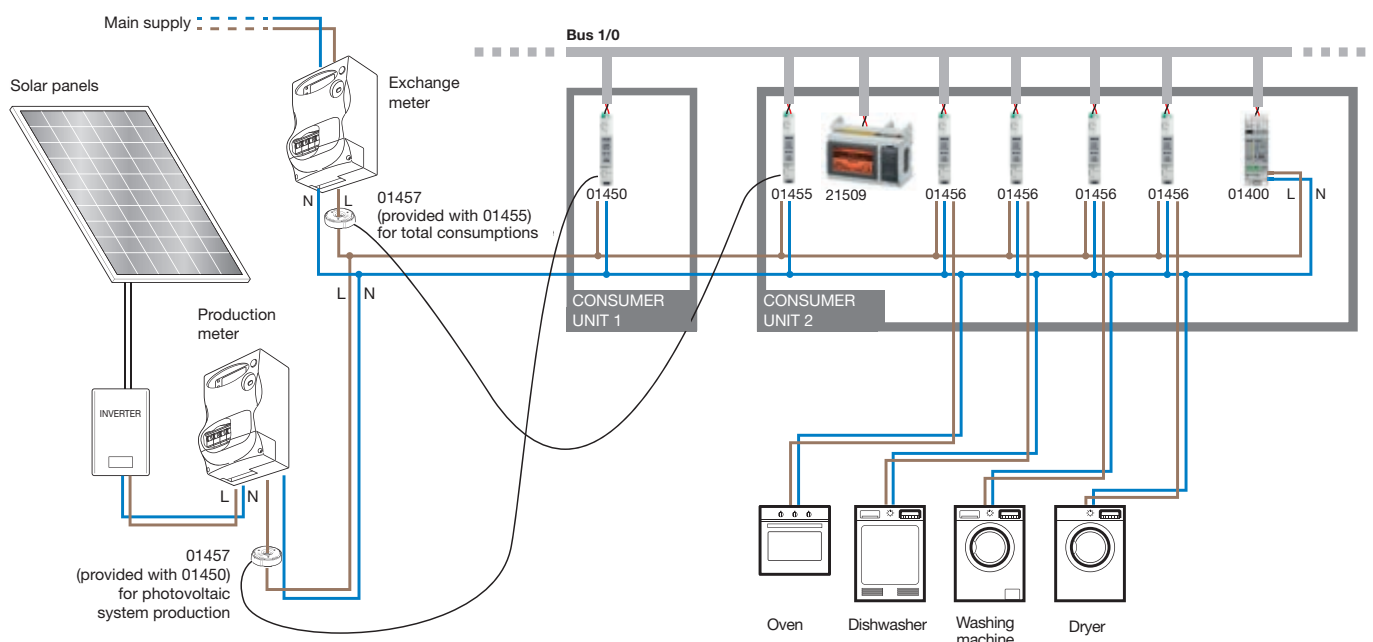


Note.

Up to 16 loads or groups of loads that can be controlled by controlling the same number of relay actuators. The groups of controlled loads must be assigned a priority that determines the order in which they are disconnected.

By-me installation: energy management

Single-phase system (up to 33 kW total) with control of 4 loads and energy production with photovoltaic panels and devices inserted in a dedicated control unit.



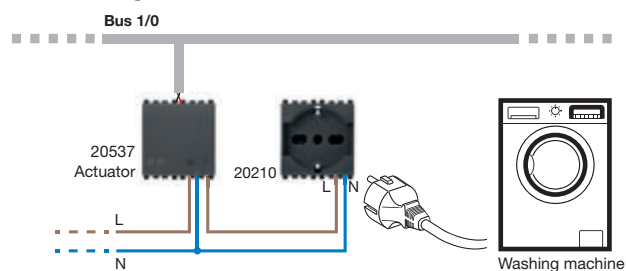
Notes.

Up to 16 loads or groups of loads that can be controlled by controlling the same number of relay actuators. The groups of controlled loads must be assigned a priority that determines the order in which they are disconnected.

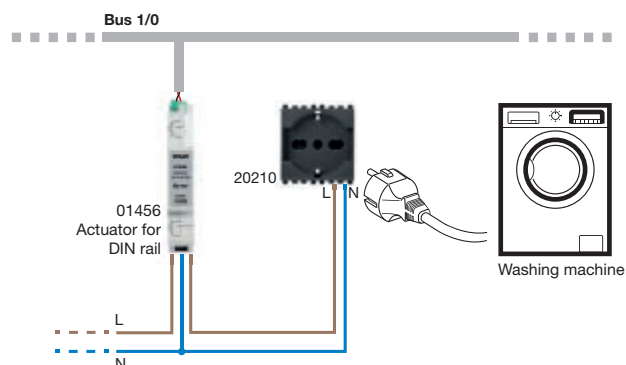
By setting the parameter "Production threshold" on a control group, the load activates when the power fed to the operator exceeds the threshold and remains active as long as production exceeds total consumption. By suitably configuring the parameters "Minimum ON time", the load control logic activates when the production threshold is achieved or passed, keeping it active for the minimum set time.

System with display of single loads control by actuator 16 A.

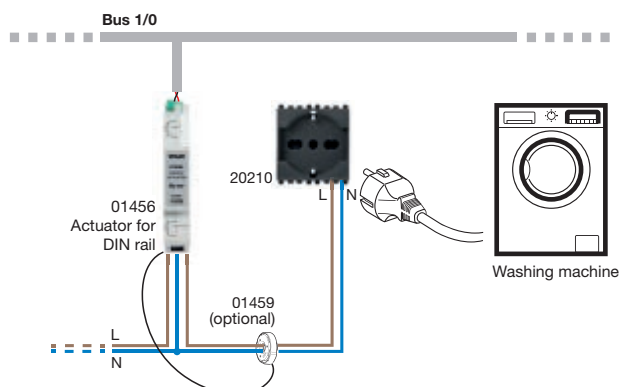
Flush mounting actuator.



Actuator for DIN rail.



Actuator for DIN rail, with optional probe for diagnostics of differential current loss to earth.



Note.

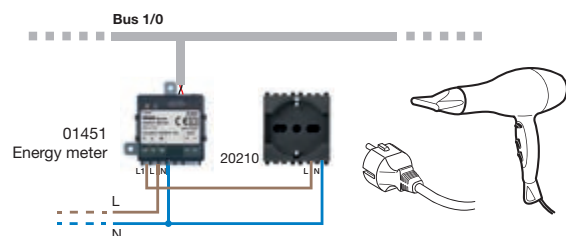
It is possible to measure the absorption of up to 20 loads or groups of loads.

TEMPERATURE CONTROL

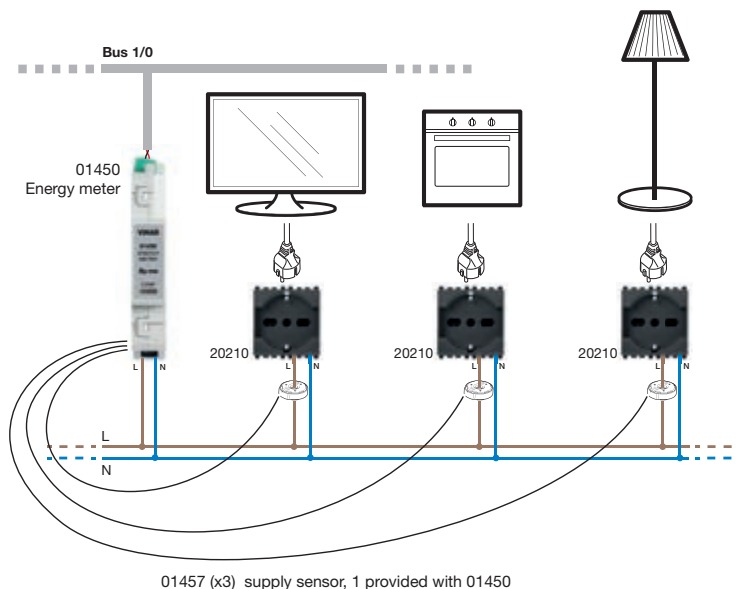
By-me installation: energy management

System with display of individual loads with power meter.

Power meter 01451 with 1 input.



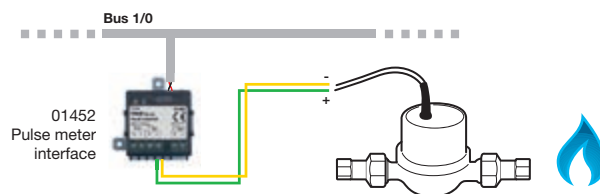
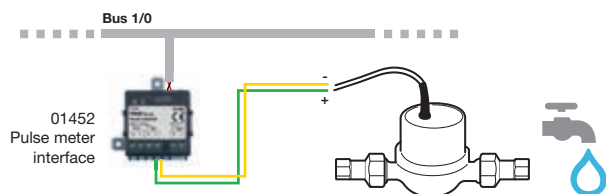
Power meter 01450 with 3 inputs.



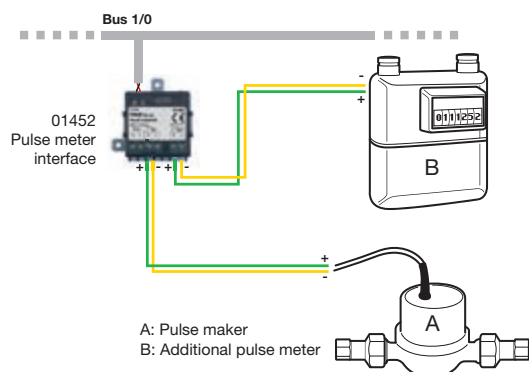
Note.

It is possible to measure the absorption of up to 20 loads or groups of loads.

Display of non-electrical utilities (water, natural gas) by connecting to pulse counter.



Example of a second metering device.

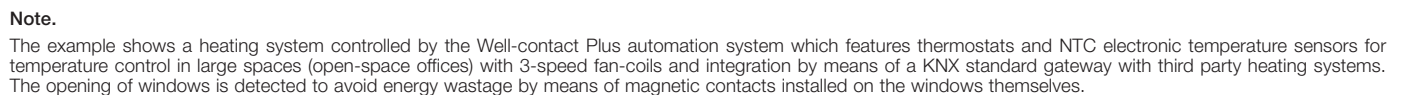


Note.

It is possible to measure the absorption of up to 20 loads or groups of loads.

The diagrams are provided as examples only. For details on the correct size of the system, refer to the installation manual and technical pages in the catalogue.

Well-contact Plus building automation: system with multi-zone temperature control in the service sector.



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