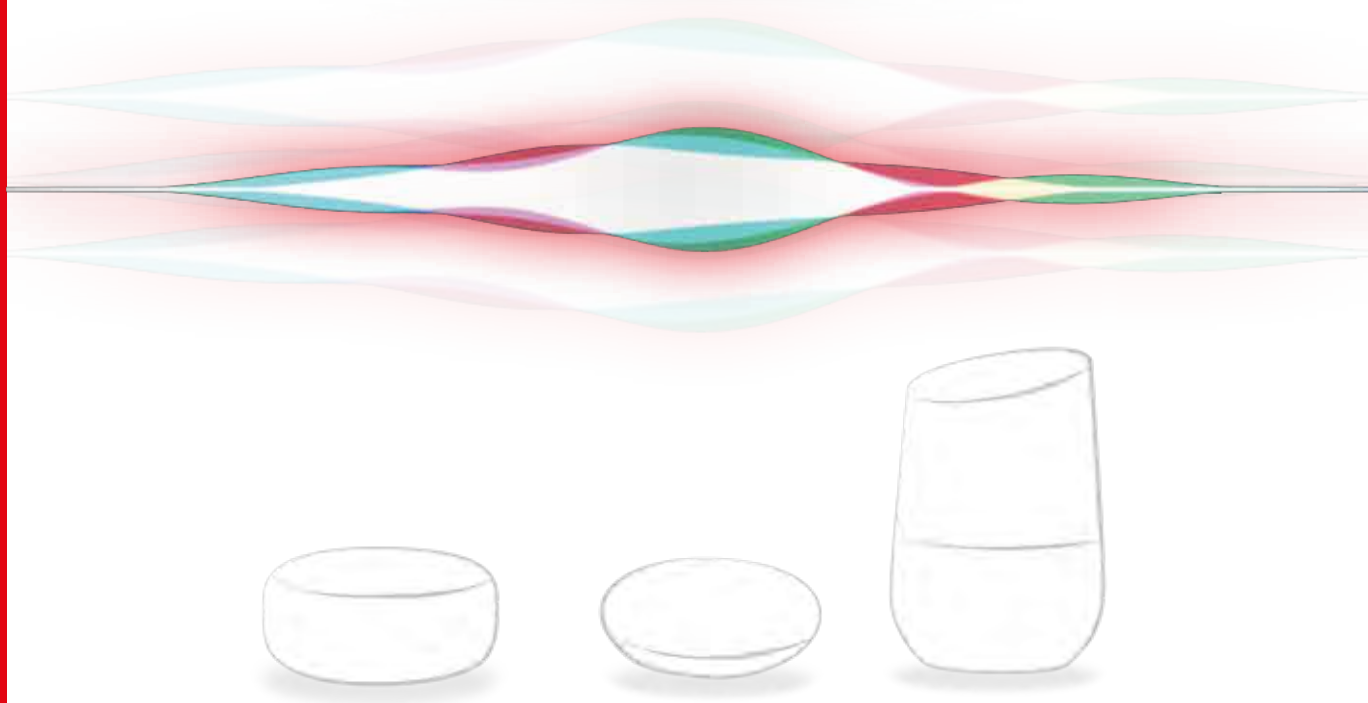
Technical Catalogue Home Automation **Residential and for Hotels**

100 ECCELLENZE ITALIANE
Award for the 100 EXCELLENT ITALIAN Companies

ave®



smart domina
Home Automation IoT

ENG 2019/20

COMPASSO D'ORO

Winner of
"Qualitec design award"

Top selection innovation
"Innovation design award"

DESIGN Index

100 ECCELLENZE ITALIANE
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Membro **KNX** n.423 (M-Ø1A7)
KNX Member n.423 (M-Ø1A7)

Warnings

The information contained on this catalogue may include technical inaccuracies, omissions or typing mistakes. The information may be changed or updated without notice. Ave S.p.A. may make changes and/or improvements at any time, without notice, to this introduction and to the services, products and/or programmes described on this catalogue.

Ave material must be installed by qualified people and the plant must be tested by an expert; according to regulations in force

Technical Catalogue Home Automation Residential and for Hotels
Created by:

AVE spa
Communication, Marketing and Advertising Department

100 ECCELLENZE ITALIANE
Award for the 100 EXCELLENT ITALIAN Companies

ave®

smart domina
Home Automation IoT

www.domoticaplus.it

www.domoticahotel.com

photography:
Alessandro Mombelli

Ave material must be installed by qualified personnel, and the system must be tested by an expert, in compliance with the legislation in force.

The installer must leave his name and contact details to the client and, preferably, also leave the name and address of the Technical Assistance Service for the area.

TABLE OF CONTENTS

* AVE proposes a product range for home automation, with its proprietary AVEbus protocol, which is discussed in this technical catalogue, and with the KNX protocol.

For more information, follow the link to download the KNX brochure: www.ave.it/it/notizie/dépliant-gamma-knx-di-ave


ave
Elettricità
Evoluta
dal 1904

AVE S.p.A. is a leading Italian company in the international scene of manufacturers of premium quality electrical and electronic architectural solutions. Innovation is our keyword to face change. Our solutions for electrical and automation systems combine design and technology to improve lifestyle and ensure highly reliable and flexible systems.

Why choose AVE

Made in Italy

AVE focuses on product value and quality by maintaining its production lines in Italy. Choosing AVE means choosing Italian products and enhancing the quality of your creations with innovative technical solutions and design features.

Research and Development

Every year a significant percentage of investments made by AVE is allocated for research and development. Each AVE product is the result of cutting edge production technologies and the outcome of consolidated and specialised know-how, of practical experience developed alongside architects, technicians and installers.

Technical Assistance Service

AVE offers professional technical support in Italy and abroad. The service is provided by inhouse specialists and by a Network of Technical Assistance Centres (CAT) that covers markets where the Company is present. Technical Assistance Centres ensure highly qualified interventions, offering specific expertise for Home Automation and Safety systems.

Design

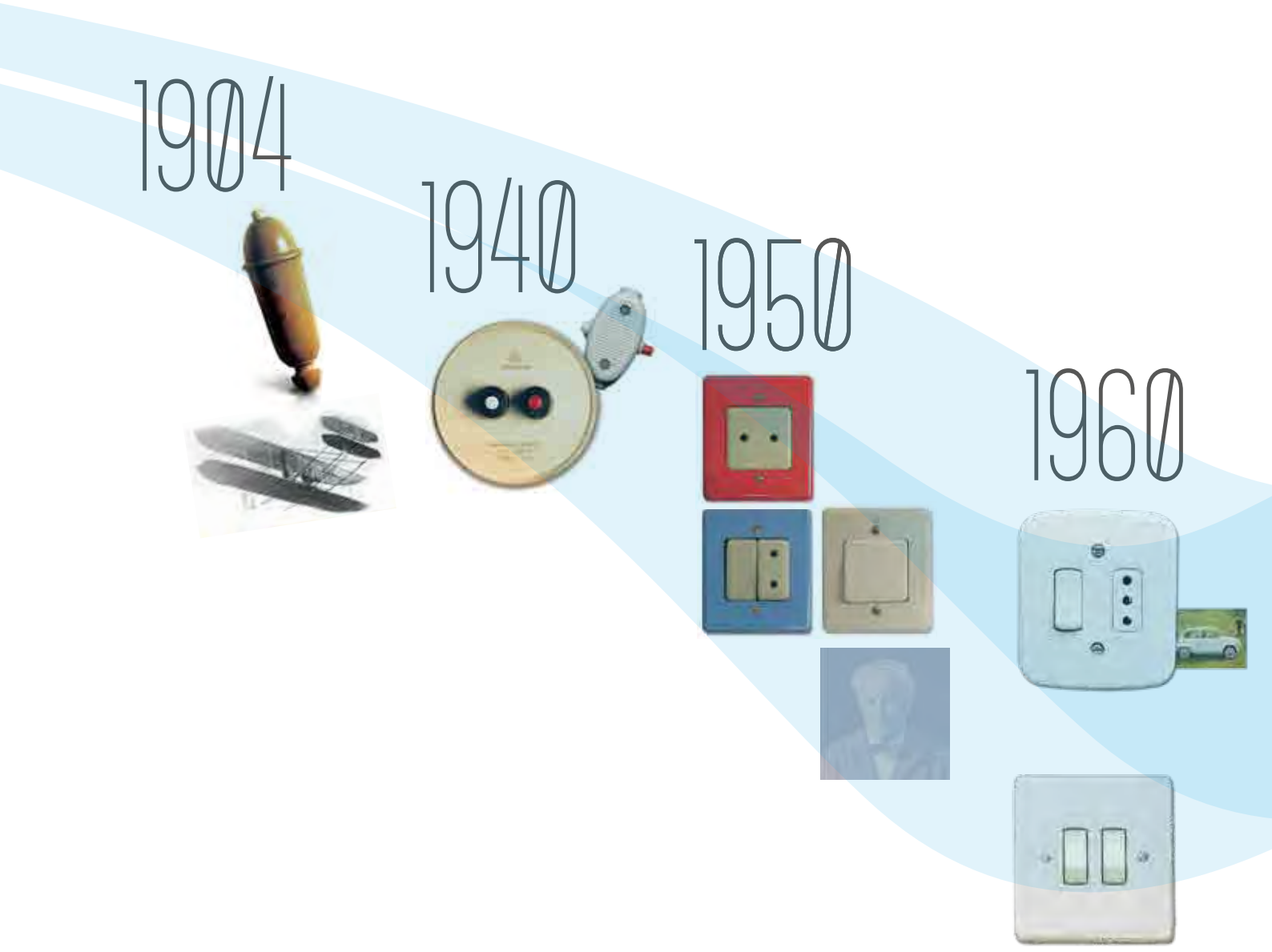
At AVE, design becomes project quality, technological innovation, competence, professional expertise and creative know-how. Giò Ponti, Andries Van Onck and Makio Hasuike are some of the renowned architects and designers who have partnered AVE. AVE has also received many awards and acknowledgements, including the Compasso d'Oro Award.

Quality

We guarantee constant standards of qualitative excellence maintained with deep commitment and witnessed by leading brands and certifications obtained over the years. Every item is subjected to strict quality checks before it leaves the factory, and we perform a 100% function check on every switch we produce.

Training

Besides "conventional" inhouse training, for product ranges that feature very high technological content, AVE partners distributors of electrical supplies by organising, in their points of sale, training courses on automation and on access control systems for hotels.



Innovative, from the onset

Established in 1904, AVE has always been a forerunner in adopting innovative solutions that continuously enrich the offer of products and systems for electrical and home automation plants. The entire production of AVE, the iconic brand for “made in Italy”, is firmly grounded in design, the added value on which the Company has established its philosophy.

2010

2000

1904 100 2004

2020

1980

ave Cloud
HOME SUPERVISION

ave Connect
IOT & SMART HOME SYSTEM

Our proposal

By ensuring research and development of new solutions, besides precise design and production of individual components, the AVE brand confidently approaches installers, designers and architects, offering logical answers that are appropriate for the steadily evolving needs of residential, hospitality and industrial systems worldwide.

Wiring accessories

Home Automation

Safety

Ventilation

Boxes, Modular Units and Control Units

Modular Devices

* AVE proposes a product range for home automation, with its proprietary AVEbus protocol, which is discussed in this technical catalogue, and with the KNX protocol. The KNX range, which is described in these pages, is designed to match the aesthetics of AVE's wiring accessories, and features a configurable user interface that issues alerts of all events: load status, presence of alarms or merely a repeated call.

442KNXT6
Axial control device KNX

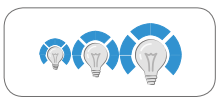
442KNXTC6
Touch control device KNX

442KNXT4
Axial control device KNX

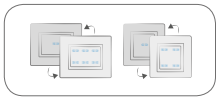
442KNXTC4
Touch control device KNX

Alert with triple colour LEDs (blue, red and purple) that can switch on with a fixed light or with a configurable frequency.

Sound alarms with buzzer



Variable luminous intensity in three modes (Night, Medium Day and Maximum Day).



Sensitive control areas that can be configured in terms of quantity and layout to enhance flexible use.

Recognition of the duration of pressure on the switch to make the most of control potential.

Cyclic submission of values for advanced control of loads and/or review of multiple actions

Besides the aesthetics and functions of control units, AVE's KNX line features the main system modules.
They are designed to better express: multiple functions, scenarios, alarm and programmable logic control.

53KNX-8OUT
Actuator device KNX

Reduced bulk to optimize spaces in the electrical switching board and thus make space for other home automation functions

AND/OR operating logic to control output, even taking into account other orders, besides the one just issued.

Multifunctional modules to ensure more flexible use for the various purposes. Eight configurable outputs for the lighting function or for automation of door and window fittings. All enclosed in a single module.

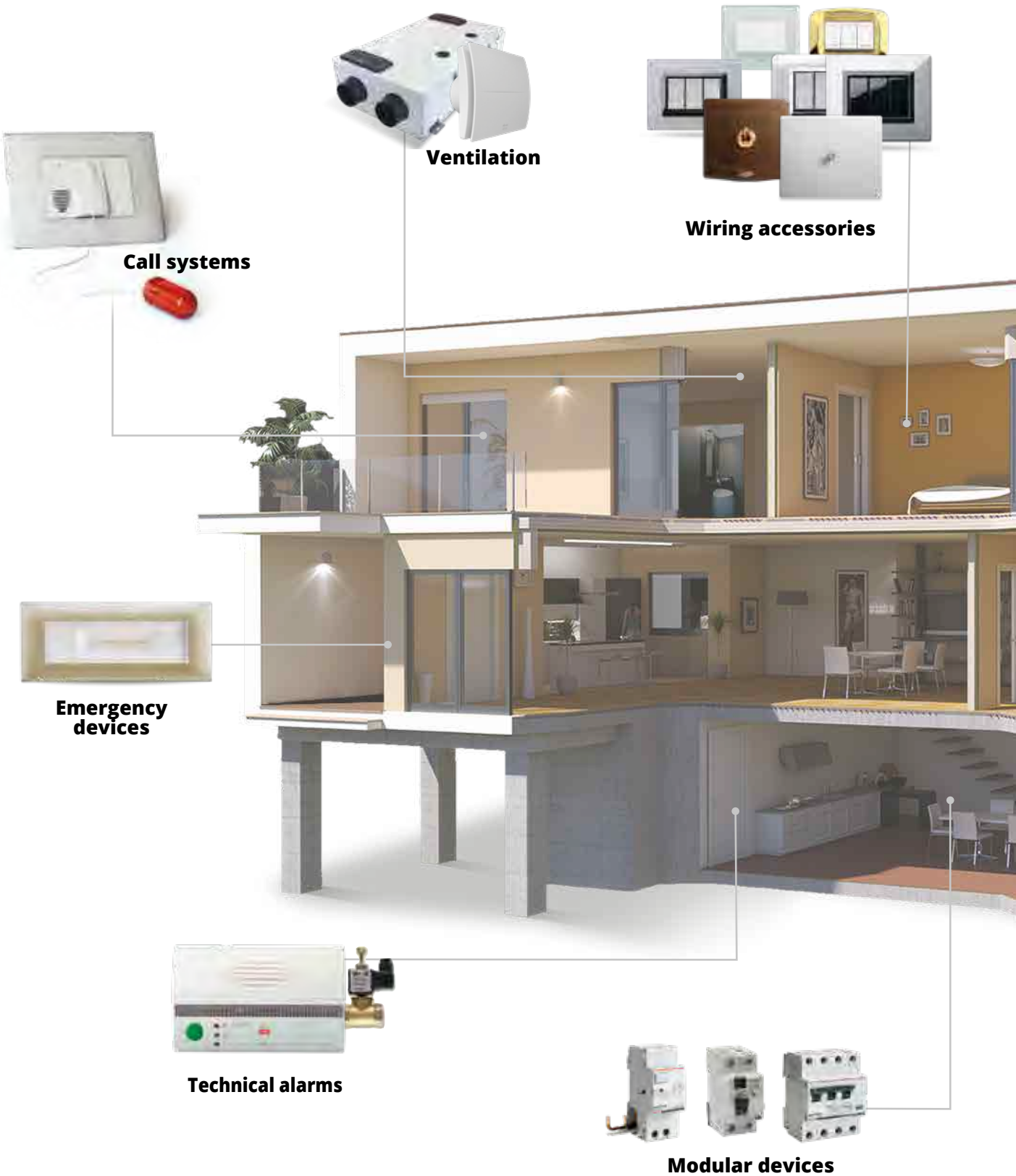
53KNX-640
Power supply unit for home automation KNX

Reduced bulk to optimize spaces in the electrical switching board and thus make space for other home automation functions

640 mA

Besides the controlled system power supply, the module has 640mA auxiliary power output. Hence, it ensures enhanced flexibility for use.

For more information about the KNX product range, and to download ETS application libraries, refer to the Online Catalogue on the website www.ave.it/it/catalogo-tecnico/domotica-e-gestione-alberghiera/knx


Ventilation
Wiring accessories
Call systems
Emergency devices
Technical alarms
Modular devices

Ave Touch

Ave Touch
DOMINA^plus

Touch Screen
Web Server

Burglar alarm system

Boxes, Control Units
and Panels

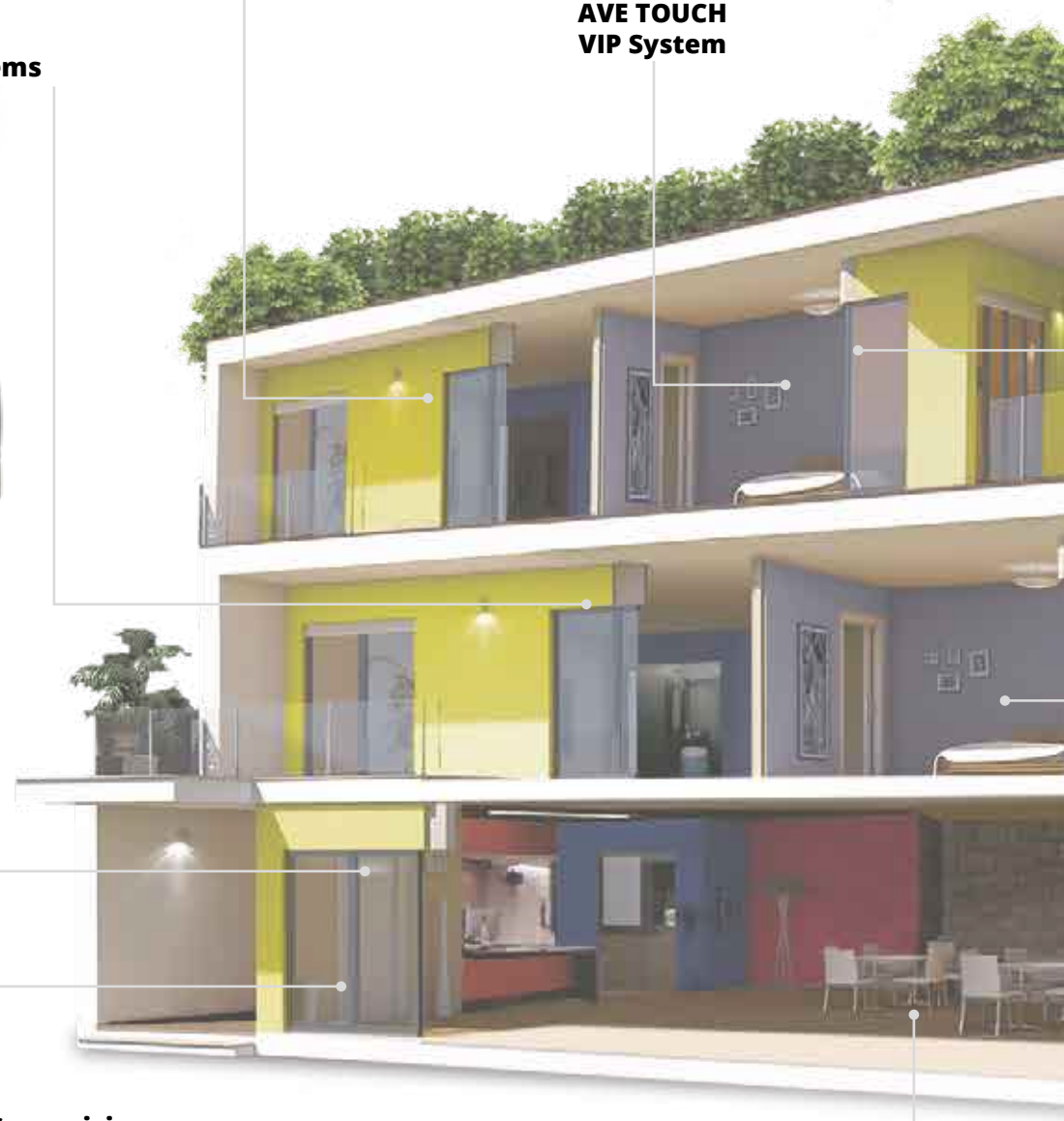
Frames and
Modules

Ventilation

AVE TOUCH
VIP System

Call systems

Boxes, Control Units
and Panels



Supervision
Software

Emergency
devices

Wiring accessories

Touch Screen

Hotel Management

Frames and Modules

Fire detection systems

photography:
Alessandro Mombelli

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Home Automation

IP video intercom

MTA816S - MTA816

TUTONDO

Sound system

Sound system

ViVALDi

GIOVE FREENETmk2

Home automation Touch controls

Interaction between systems for System Integrator

CRESTRON

JUST ASK alexa

Modbus

works with the Google Assistant

Home automation Axial controls

Motion sensors

Management with IR remote controls

Temperature control

Anti-intrusion alarm system

IP cameras

DAIKIN* HITACHI* MITSUBISHI ELECTRIC* TOSHIBA*

Central air conditioning

Modbus

Home automation system supervision, both local and remote, with AVE Cloud

ave Cloud
HOME SUPERVISION

ave Connect
IOT & SMART HOME SYSTEM

DALI lighting interface

Consumption control

IR controls management (air conditioners, Hi-Fi stereo, etc.)

CMV (controlled mechanical ventilation) Management

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DOMINA: a range of devices for simple, basic home automation, with the choice of using only basic functions or the complete home automation system, for high value installations, with matching devices and interfaces made of sophisticated materials and design features.

Lighting

ON/OFF control and management using presence and daylight sensors.

Dimmer

ON/OFF control and dimming of light intensity using standard 1-10V.

Shutter

Controlled Opening and Closing of main electrical drive systems.

Load control

ON/OFF control based on actual consumption and associated priorities.

Energy saving

Monitoring of electricity, water and gas consumption with graphic consumption displays.

Temperature control

Multi-zone temperature control with energy saving function in case of open windows.

Anti-intrusion alarm system

Supervision and control of the AVE anti-intrusion system with graphic maps of alarm areas.

Sound system

Supervision and control of the multi-zone “MondoT” Audio system by TUTONDO. For further information, please contact the sales network.

IP video intercom

Integration with VoIP devices.

Supervision

Control of home automation functions using mobile devices, locally and remotely.

Scenarios

Control of order sequences to re-establish predetermined settings for various situations.

Technical alarms

ALARM

Management and control of water and gas leaks and other technical alarms, as required.

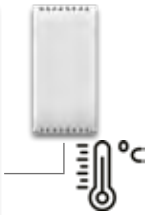
53AB-ALI

53ABAUX12V

System power

TS03B-V

Supervisors



TS01
441SO-NTC

442ABTC6

442ABTC1

442ABT4

442ABT2-1

Multi-function
control devices

Multi-function
control interfaces

ABIN02

441AB68

441AB-IR
IR-REMOTE

53ABAN02

53ABR4

441ABR1-M

442ABT4R2

53AB-DIM

Actuation devices (lights,
Dimmer or shutters)

Temperature/air
conditioning control
devices

441ABTM03B

441AB-IRT

53ABRTM-FC

53ABRTM-PV

BUS system usually means a group of devices connected to one single communication channel. The main function of a BUS is to physically and logically connect devices, reducing the number of interconnections and the time required to transfer information from one device to another. Each device, known as terminal, station, node or point, can send and receive electric signals sequentially. These signals are information or messages, which have been coded through a special protocol (Domina uses the AVEbus proprietary protocol). The message receiver is identified by its address, which is an integral part of each message. A special configuration procedure assigns each device its own address.

The increasing demand for automatic control and management systems in modern buildings requires sophisticated wiring systems that often saturate the initial receptive capacity. This inevitably complicates the installation of new functions as well as maintenance and updating of already existing ones that can often be carried out only with very expensive interventions.

Installing Domina by AVE means relying on a system that not only offers the automation, comfort and communication functions that are required in a modern house, but also counting on an expandable and modular system, whose basic functions may be expanded according to the needs of the most demanding customers. This system is of the “distributed intelligence” type, meaning that each component of the system has one or more functions, and can communicate with the other components through one single cable (bus line). Using DominaBus also means facilitating installation, improving maintenance and easily expanding the existing systems.

DOMINAplus aesthetics are designed to match AVE’s wiring accessories

Home automation controls

Wiring accessories

Home automation Supervisors

AVE TOUCH series

DOMUS series

TEKLA series

LIFE series

ALLUMIA series

STYLE series

DOMINAplus is AVE's home automation system that is proposed to meet comfort, safety and lifestyle-related needs in residential facilities and in the small and medium enterprises services sector.

Residential

Offices

Schools

Bed & Breakfast facilities

Each Domina bus device has one or more channels, each of which is totally independent and can be identified by an address that is assigned during programming. One channel of a control device and of an actuator device having the same address are "logically connected" to one another. The actuator device receives the message sent by the control device and activates the load that is physically connected to it.

Addressing methods

The address of each DominaBus channel device is made up of two alphanumeric characters (according to a hexadecimal system from 0 to F). The control device can be programmed to control one address associated with an actuator device, one group of addresses associated with several actuator devices or all addresses of the actuator devices.

This mechanism is programmed and managed according to the address assigned to the control device, where the first alphanumeric character of the address represents the group of actuator devices and the second alphanumeric character represents the single actuator device, which belongs to that group of addresses. There are 15 groups of addresses, each comprising 16 independent addresses (called "points").

The channels of the AVEBus devices can be basically addressed in three ways:

• Direct mode (Point – Point): a single channel of a control device (Tx) controls only the channels having the same address of one or more actuator devices (Rx).

• By group (multicast): a single channel of a control device (Tx) controls all the channels of the actuator devices, whose first digit of the address is the same as the second digit of the address of the control device (Tx).

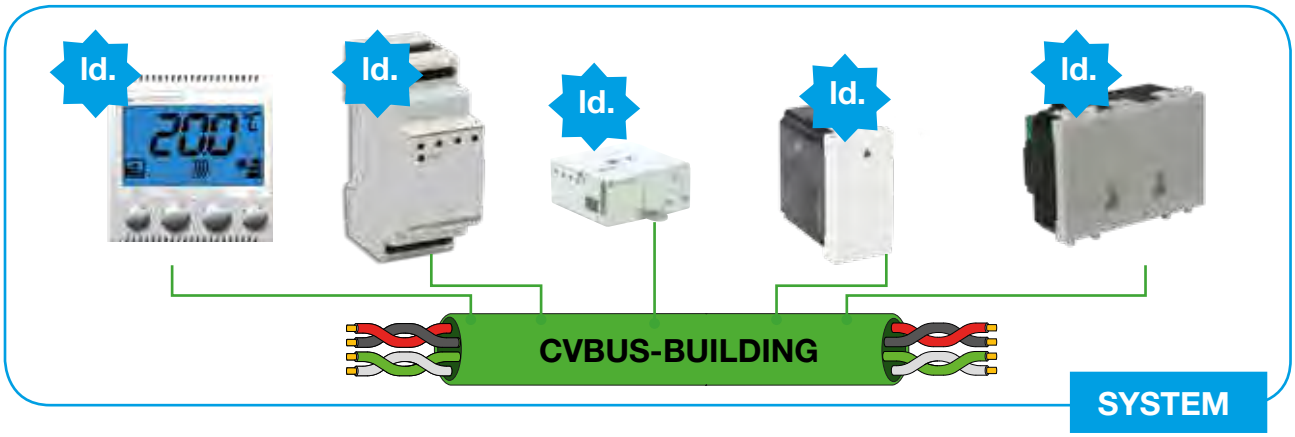
The address of the control device must always begin with the special value "F" followed by the group of addresses to be controlled. There are 15 groups with a maximum number of 16 addresses each.

E.g., the control device (Tx) with address "F0" controls all Actuators (Rx) of group 0, whose address starts with "0", hence from "01" to "0F".

• General (broadcast): a single channel of a control device (Tx) controls all the channels of the actuator devices contained in the system. The address of the control device must be set to "FF".

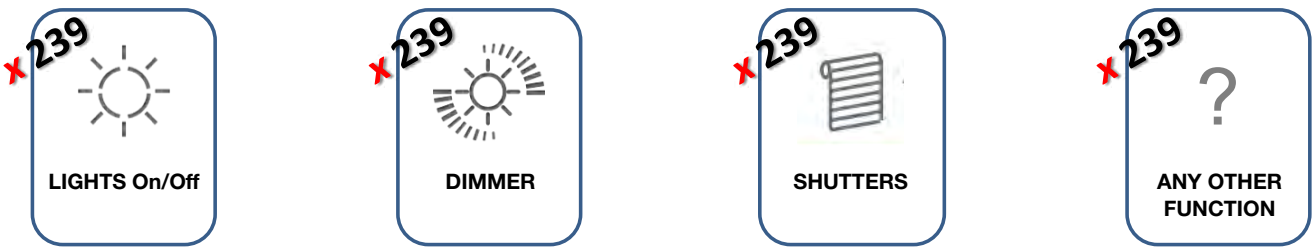
If the channel is programmed with the group address (F/X) or the general address (F/F), functions with status feedback are not available (alert always disabled).

• DOMINAplus envisages the use of a certain number of devices that are mutually connected by a single bus cable.
• Each device (every channel of the device) has its own address and communicates with the system's other devices, exchanging data and information required to operate.



The address of each channel of the device is made up of two hexadecimal alphanumeric characters:

0,1,2,3,4,5,6,7,8,9
A,B,C,D,E,F



AVEbus peripheral units are programmed with the configuration software SFW-BSA. This device allows two different system configuration modes:

- OFF-Line configuration, which allows to virtually preconfigure AVEbus peripheral units, even if it is not physically connected to them.

  In this mode the technician selects the peripheral unit desired from the list of devices, enters the appropriate settings and, finally, saves them in a System Configuration file. In this file the peripheral units can be labelled with an appropriate nomenclature and logically grouped under a text item that states, for instance, its position in the system.

  Among other things, this allows to define the configuration before reaching the system, and then to send it to every peripheral unit through the ON-Line Configuration. Moreover, it allows to maintain a copy of the system configuration in order to replicate it in any homogeneous situation or to merely reset a system after maintenance .

- ON-Line Configuration, which allows to actually programme peripheral units that are connected
  to the bus, both starting from the system configuration created OFF-Line and from a completely new situation.

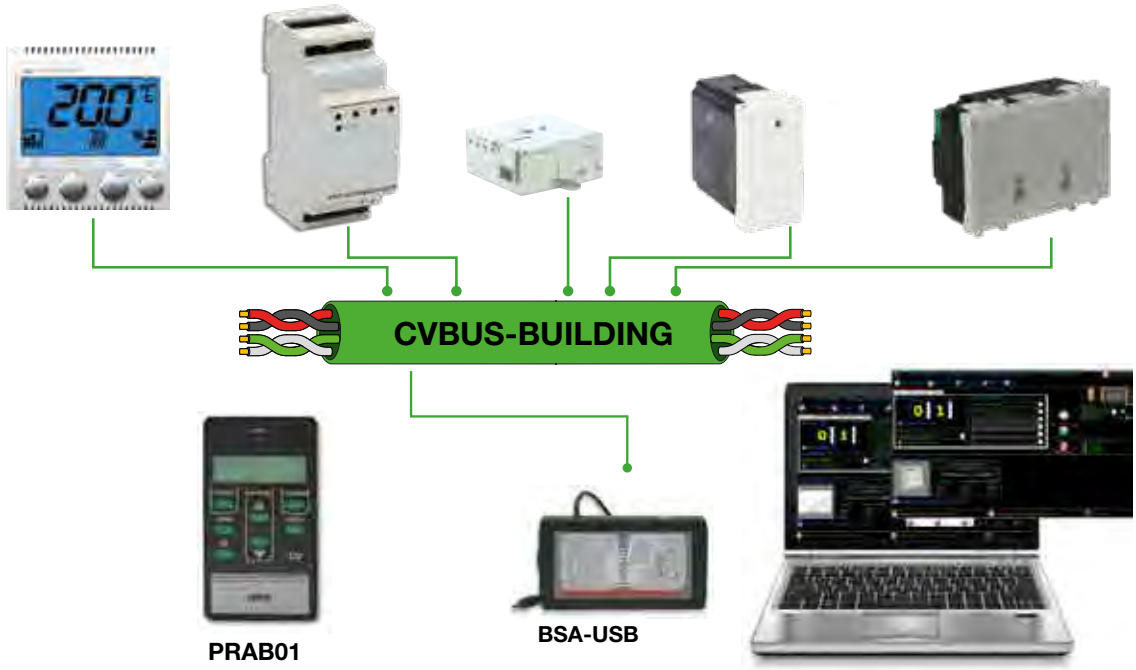
  Starting from the system Configuration previously entered in OFF-Line mode, the user will select, from the list, the peripheral unit to be programmed and, after physically identifying the peripheral unit on the system, press the relative programming button, and then send the configuration by confirming on the software. A confirmation message will report that programming has been completed, and the user may then proceed with the remaining peripheral units.

  This method requires a physical connection to the bus by means of an interface that can be the device BSA-USB, rather than a home automation supervisor 53AB-WBS or the Touch Screens TS01, TS03..-V or higher.

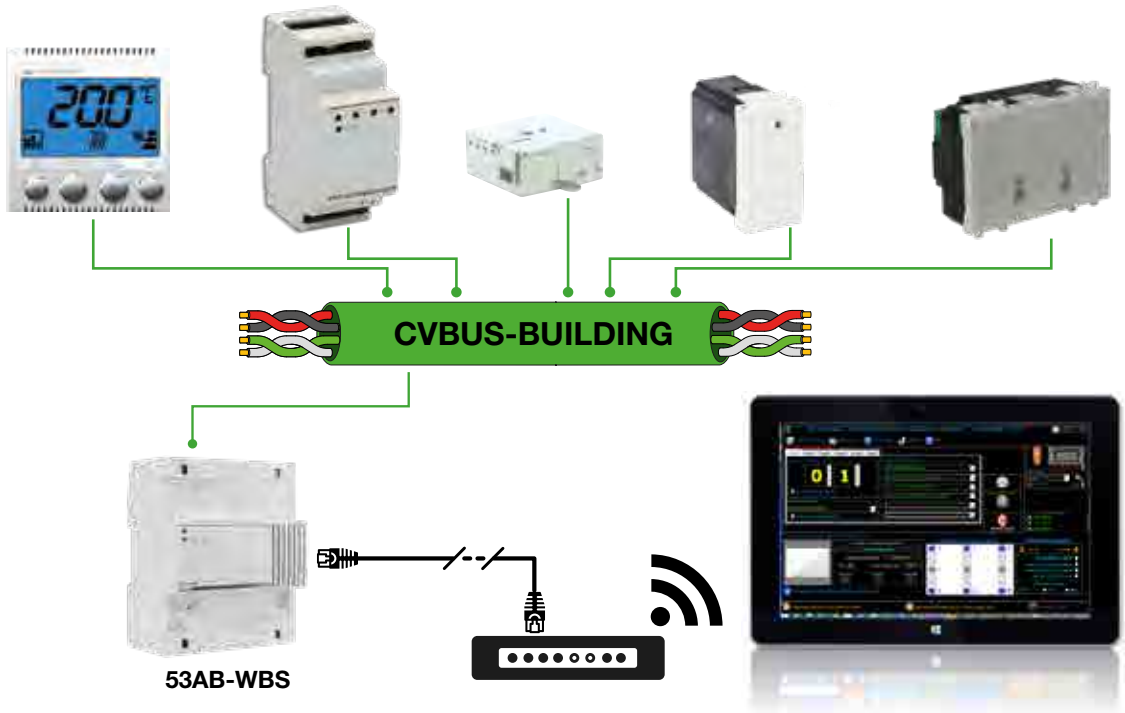
By pressing the programming button on board the device to be programmed, the device reports its configuration pending status by rapidly flashing the relative LED. The software displays the configuration present on the device being programmed. This will be overwritten when the application sends the configuration.

Note that the devices will remain in the programming status for about 2 minutes and, therefore, must be programmed within this time period, at the end of which they will return to the normal function status and, thus, have to be programmed again.

The address and other parameters are programmed by connecting to any point of the bus with an interface.



Or by means of an Ethernet connection to the system supervisor. Also with Wi-Fi…



DOMINA^{plus} is able to supervise all the functions in the AVEbus home automation system. Using the graphic interface of the supervision devices it is possible to manage functions, such as complete control of lights, shutters, air conditioning, sound system, scenarios, hourly programmes, load control, consumption records (electricity, water and gas), display technical alarms, such as water or gas leaks, and manage the anti-intrusion system.

Example of system supervision screen by means of graphic maps 53AB-WBS

TS05N-V
TOUCH SCREEN
15” colour with glass front panel

TS04X-V
TOUCH SCREEN
12.1” colour with graphic maps

TS03B-V
TOUCH SCREEN
5.7” colour with graphic maps

TS03N-V
TOUCH SCREEN
5.7” colour with graphic maps

TS01
TOUCH SCREEN
4.3” colour with LCD graphics

53AB-WBS
WEB SERVER Home Automation

	TS05N-V	TS04X-V	TS03..-V
			
	15” colour display (4:3)	12.1” colour display (4:3)	5.7” colour display (4:3)
	Images of rooms with photographic maps		
	Local supervision with applications for Android and iOs, and/or via Web pages. Remote supervision with Ave Cloud (IoT)		
	Compatible with standard VoIP video door intercom, SIP (without authentication on SIP server - peer to peer)		
	Compatible with h264 cameras and motion jpeg (RTSP) Locally and from AVE Cloud		
	Compatible with the Mondo T Sound System of Tutondo by means of an Ethernet connection		
	Compatible with the leading air conditioner brands by using a Modbus interface (Ethernet connection)		
	Compatible with anti-intrusion control unit AF949 - AF999 (TSINT02) and cod. AF998EXP (TSINT01)		

Index

Display

Cloud and Supervision

Video intercom (of other companies)

Camera (of other companies)

	TS01	53AB-WBS	TS02
			
	4.3” colour display (16:9)	--	5.7” monochromatic display (4:3)
	Images of rooms with menus and icons	Remote images of rooms with menus, icons and photographic maps on mobile devices.	Images of rooms with graphic maps
	Local supervision with applications for Android and iOs, and/or via Web pages. Remote supervision with Ave Cloud (IoT)		N.D.
	N.D.		
	Compatible with motion jpeg (RTSP) and H.264 cameras only by using mobile devices, locally and from AVE Cloud.		N.D.
	Compatible with the Tutondo Mondo T Sound System (Ethernet connection) and with the Vivaldi Giove free net modules (RS485 connection).		N.D.
	Compatible with the leading air conditioner brands by using a Modbus interface (Ethernet and RS485 connection)		N.D.
	Compatible with anti-intrusion control unit AF949 - AF999 (TSINT02)	Compatible with anti-intrusion control unit AF949 - AF999 (TSINT02) and cod. AF998EXP (TSINT01)	Compatible with anti-intrusion control unit cod. AF998EXP (TSINT01)

Sound system (of other companies)

Air conditioners (of other companies)

Anti-intrusion alarm system

Smart home: the future is connected with AVE Connect

With DOMINA plus the world of Home Automation and of Internet of Things come together to enhance the peculiarities of both through AVE Connect. The first real IoT ready domotics of AVE is born: a system totally integrated to your home, always ready to listen to you and to meet your technological needs.

Domotica IoT ready, and you it's ready for a magic house?

Imagine an house that is always connected to your habits, that gives you a good morning when you wake up and is ready to protect what you love most when you leave. All you need is a smartphone, an internet connection and a bit of imagination, without any wiring other than home automation. The magic is called DOMINAplus.

WITH AVE CONNECT, HOME AUTOMATION EVOLVING: NOW ALSO WITH VOICE COMMANDS

Voice controls: Ask your Assistant

DOMINAplus integrates with the most common Vocal Assistants and related Smart Speakers to allow you to manage the house as you like. Do you want to turn on a light, raise the temperature or insert the alarm? Ask your Assistant. All functions, even the most advanced ones, can also be controlled by voice.

ave Connect
IOT & SMART HOME SYSTEM

Manage your home from phone and Smart Speaker

Thanks to the AVE Cloud app you can control your home automation system as if you were in front of the top of the range touch screens. Do you want to concentrate everything in one app? Connect DOMINAplus to the native app of your Assistant, so you can use smartphones and Smart Speakers to manage your IoT ecosystem (home automation and connected devices).

Manage your home from smartphones and tablets

Make your home more and more smart with AVE cloud app! Interact with the home automation system from your Smartphone or tablet, from anywhere and at any time. You can manage any automation and function integrated into the system! In addition, you can also control the Burglar Alarm System. All from a single app.

Home automation adapts to your habits

While you're at work you can keep in touch with your home even from a PC, by keeping opened a web page. With your smartphone you can create various scenarios and customize them according to where you are (geo-location). For example, when you go out, you can watch the gate that closes behind you. That's all you have to do. Your home will do everything by itself: lowering the rolling shutters and inserting the alarm.

Managing your home has never been so simple

With AVE cloud you can choose among three different control modes. When you open the app, it will be as if you are in front of your home automation supervisor but, if you prefer, you can switch to a simplified visualization with icons. Instead, just turning the smartphone horizontally, you can browse among the rooms of your house through graphical maps, as on the top-of-the-range touch screens.

ave Cloud
HOME SUPERVISION

AVE cloud is always ready to help you

Has the gardener arrived, and you aren't at home? No problem. You can open the gate remotely, deactivate the perimeter burglar alarm and leave the internal one active for maximum protection. Instead, when you are at home, it will be like having a personal assistant always at your disposal. You can check from your smartphone which lights are on, manage the temperature of each room and select the songs to be played on your sound system.

AVE cloud, a single app to control your smart home

Enhance the smart features of your home with the AVE cloud app! Interact with the home automation system from your Smartphone or tablet, from anywhere and at any time. You can manage any automation and function integrated into the system! In addition, you can also control the Burglar Alarm System. All from a single app.

AVE's first app. that is closely interwoven with your lifestyle.

AVE Cloud is much more than a simple app. While you are at work, you can remain in contact with your home even via the Internet by keeping a Web page open on your PC. When you return, your house will welcome you by opening the gate and the tilting garage door.

The home automation system adapts to your habits. With AVE Cloud you can create Scenarios directly from your Smartphone and customise them, depending on your location (geo-localisation). For instance, when you go out you will see the gate close behind you. Your house will do everything independently: lower the shutters, close door and window fittings, activate the burglar alarm and simulate your presence at home to discourage ill-intentioned persons.

Managing your home has never been easier.

With AVE Cloud you can choose from various control modes. As soon as you open the app. you will see your automation supervisor but, if you prefer, you can switch to a simplified icon-based display. You will only have to turn your Smartphone horizontally to step into your app. and move around the rooms of your house with graphic maps, as you can do with top of the range Touch Screens.

An exceptionally safe multi-user multi-system

Share the benefits of home automation with your family: AVE Cloud allows you to connect to your home from multiple devices at the same time, without limitations. Do you want total control? With the AVE Cloud app. you can manage multiple home automation systems to even supervise your holiday home at the seaside.

Instead, when you are away or on holiday, you need not be concerned about anything: AVE Cloud is ever ready to inform you when necessary. You will receive a push alert on your Smartphone, if the burglar alarm is activated or if a technical alarm in progress is detected.

Expand your control with AVE Cloud

Remote but near. AVE Cloud is ever ready to assist you. Has the gardener arrived, and you are not at home? Don't worry. You can open the gate remotely, deactivate the perimeter burglar alarm and leave the internal one active for maximum protection.

Instead, when you are at home, it will be like having a personal assistant always at your disposal. With AVE Cloud you can use your mobile device to instantly check the lighting status, control temperature in every zone or use your sound system to enhance comfort.

WIRELESS

53AB-WBS

WEB SERVER Home Automation

Example of Supervision application via Web Server

Supervision using Web pages that can be accessed with the Web Server device differs by the dimension of the display showing the graphic interface, thus offering excellent performance. There are two display modes:

- Device mode, in which your home is represented as an interactive menu;

- Map mode, in which your home is represented by customisable graphic maps containing interactive icons.

The DOMINAplus system is based on distributed logic technology. Hence, the system exploits this essential feature to provide a range of devices that form two macro groups: control devices and actuator devices.
The first group, the home automation control devices, includes all devices that act as a user interface. Such as button controls, ambient temperature switch and customisable MULTI-TOUCH control.
The second group, the actuator devices, includes devices that electrically implement the order received, depending on the type of load to be managed. Such as the actuator for the shutters rather than the temperature control actuator.
Both groups of devices are developed in boxes for hidden installation, in a panel (DIN modules) and/or aesthetically match AVE's wiring accessories. This makes the system scalable to suit the final user's needs.

ABR01

53ABR4

44PATC16ALS

DOMINAplus can be used to create a home automation system where the modules are distributed in a way that optimises the use of electrical panels of reasonable dimensions, a particularly sensitive point in small homes where space for large electrical panels is hard to find without disturbing the aesthetic effect of the living space.
Supervision devices come with the scenario function, a particular home automation function that allows you to set the controlled devices to a certain condition that is stored in the system's memory. For example, it would be nice if your home woke up with you, raising the shutters to let the sunlight in, turning on the heating, switching off the burglar alarm, etc. Or else, it would be nice to make the home secure by activating the burglar alarm and preventing energy wastage by adjusting the air conditioning and switching off any unnecessary loads when you are away from home.

Domina can do all this by means of the scenarios, a range of multiple controls that concomitantly manage various programmed functions of the supervision devices. Simply activate the dedicated scenario and DOMINAplus will release you from all those repetitive actions that mark the various moments of day.
A scenario can be called up by simply pressing a home automation button, or by using an infra-red remote control to click on the relative icon on the fixed Touch Screen display, or from any computer in the house, or from outdoors, even with a mobile device connected to the Web pages of the Web Server device. Scenarious can also be automatically called up according to a cyclic hourly, weekly or monthly time schedule.

Basic

- LIGHTING
- AUTOMATION

Intermediate

- LIGHTING
- AUTOMATION
- TEMPERATURE CONTROL
- SUPERVISION

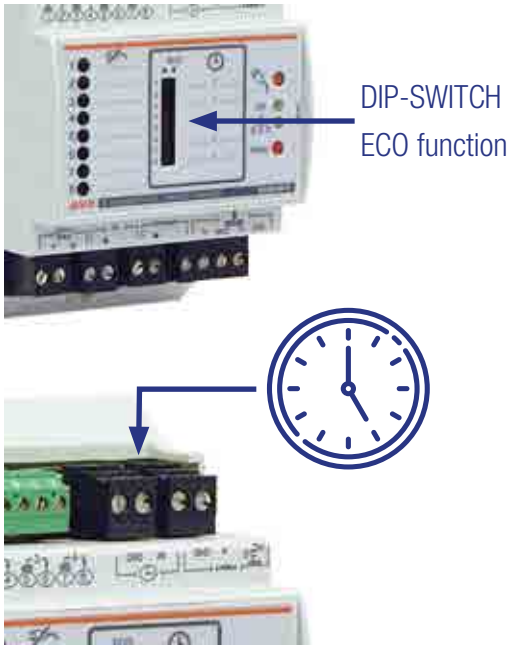
Advanced

- LIGHTING
- AUTOMATION
- TEMPERATURE CONTROL
- SUPERVISION
- ANTI-INTRUSION ALARM SYSTEM

Energy saving comprises several actions and technological solutions studied to facilitate the reduction of energy consumption. With DOMINAplus it is possible to achieve the best in terms of comfort while reducing energy wastage to a minimum. In addition to contributing to environmental conservation, this also improves the energy classification of the building and, consequently, its economic value, in accordance with the legislation in force.

The load control home automation device and energy saving device of DOMINAplus makes it possible to control the maximum power of the system and, in the event of electrical overload, to automatically disconnect household appliances, thus avoiding a bothersome blackout and reducing consumption peaks that weigh heavily on utility bills. Moreover, the device uses the ECO function, which allows differentiated management of load activation depending on a consent signal from a clock. DOMINAplus home automation thus enables rational management of electrical loads to encourage energy saving by making use of the most suitable time slots and avoiding unexpected blackouts.

With DOMINAplus the user can also monitor electricity, gas and water consumption constantly on the consumption graphics displayed on the Touch Screens of the home automation system. With the home automation system, in just a few intuitive steps the user can choose the type of consumption to check and the period (day, month or year). This information is extremely useful to learn the best way to use resources, thus reducing wastage and evaluating any malfunctions, such as leaks, etc.



Impulse emitter for water meters

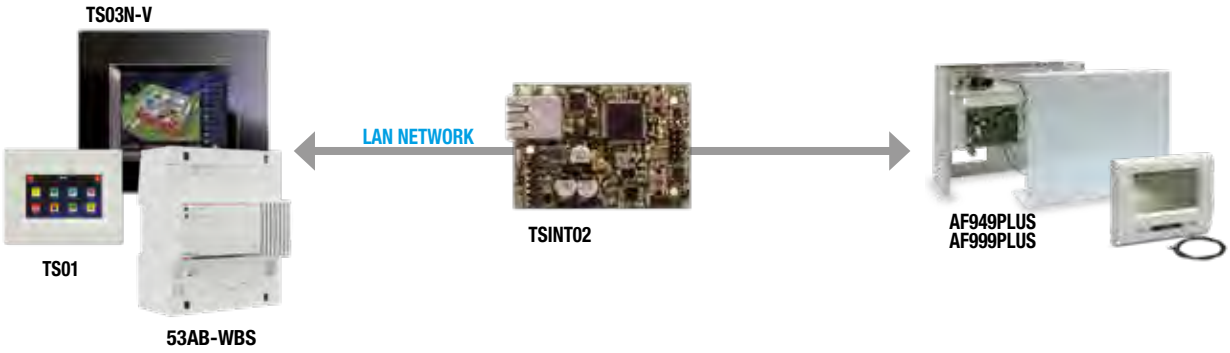
Current transformer for electricity

Impulse emitter for membrane water meters

DOMINAplus home automation also enables you to use the lighting system only when necessary, depending on the presence of persons and on the amount of natural light present in the room. In fact, the "Luce Amica" device detects the movement of a person and checks whether the amount of light in the room is insufficient (twilight function), and switches on artificial lighting only when it is really necessary.

441AB68

When totally integrated with the DOMINA anti-intrusion system and the centralised control through the Touch Screen and Web Server supervisors, DOMINAplus silently watches over your property and the safety of persons, increasing the safety of the home against possible intrusions.
The DOMINA anti-intrusion system is the result of the most modern technological solutions in terms of security. The three models of modular wire/wireless units make it possible to protect every type of building and to supervise it from the home automation system in the best possible way.
The appropriate communication interfaces, which not only allow the user to communicate with the system but also to keep it electrically isolated, thus ensuring greater reliability, allow you to constantly monitor the map of the rooms and, in the event of an alarm, to receive an immediate flashing alert of the area where the alarm is generated, along with a report of all the alarms detected. You can use the virtual keypad reproduced on the display of supervision devices to activate, deactivate or partially activate the alarm system.



The units are perfectly integrated with the AVE “DOMINAplus” home automation system: the user can experience the advantages of combining security and home automation systems.

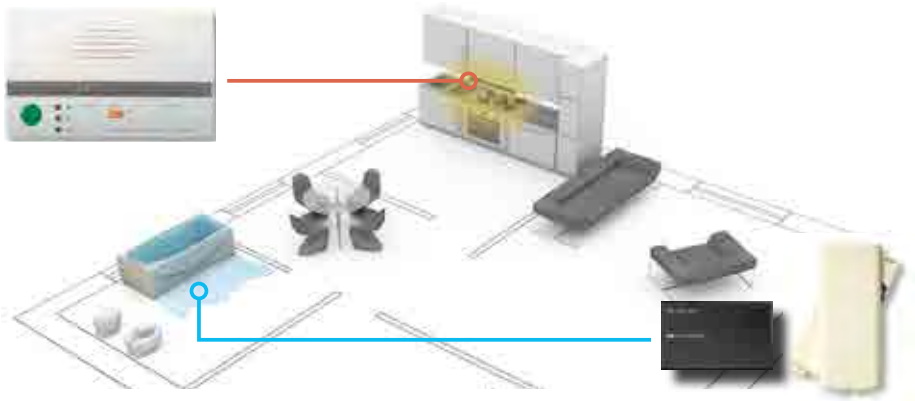
Touch Screen with integrated anti-intrusion system

Web Server with integrated anti-intrusion system

DOMINAplus oversees and takes preventive action, blocking the onset of events that could damage your home, clearly showing you on the customisable graphic maps on the Touch Screen where the problem is located, also with the date and time of the event. The DOMINAplus home automation system also advises you with an SMS and an e-mail through the additional remote supervision service.
But that is not all of it. In fact, dealing with a technical alarm may require a number of operations. DOMINAplus takes care of this. A special detector constantly checks the room for gas leaks and stops gas delivery immediately, if the gas level exceeds the set limits. Similarly, the water leak detector, which consists of a probe installed at floor level, detects any flooding caused by a water leak: when the water reaches the probe, the detector sends an optical and sound signal to warn the user of the alarm, while the valve shuts off the water supply. The system also performs all those operations that might be necessary to make the room secure, such as cutting off the electricity rather than other customisable operations, at the discretion of the installer.

Gas leak detectors

The gas leak detector detects the presence of gas in the room where it is installed. If the gas level exceeds the set limit (factory setting), the detector sends an optical and sound signal to warn of the alarm. A special relay installed on the system stops the gas supply by closing the corresponding valve when the detector is under alarm. The detector must be installed at about 30 cm from the ceiling (for methane) or 30 cm from the floor (for LPG), and the solenoid valve must be placed downstream from the gas meter. The alarm signal from the detector can be sent by a transmitter to the supervision devices (Touch Screen), which transfer it to the graphic maps to show its position.



Water leak detectors

The water leak detector, which consists of a probe installed at floor level, detects the onset of flooding caused by a leak. If water reaches the probe, the detector sends an optical and sound signal to warn that an alarm is occurring; by means of a special output relay it can also shut off the valve to stop the water supply.
Here too, the alarm signal from the detector can be sent by the alarm signal transmitter to the supervision devices (Touch Screen), which transfer it to the graphic maps to show its position and allow an overall and real-time view of the alarms.

The range of home automation functions of DOMINAplus offers integration with systems produced by other companies within the Sound System category.

Using this interface with **MondoT by TUTONDO**, on the supervision devices (Touch Screen and Web Server) the user can choose the preferred sound source for each room, adjust volume and tones, and switch on/off the loudspeakers installed in different zones. All this can be done using the graphic maps that represent the virtual rooms.

By interfacing with **Giove free by VIVALDI** through the Web Server 53AB-WBS and/or the Touch Screen TS01, the user can use the decentralized VIVALDI system, supervising is functions. Each device may thus be controlled by choosing the preferred sound source, adjusting the volume and tones, and switching on/off the loudspeakers installed in different zones.

DOMINAplus thus makes it possible to:

- select the sound source for each zone (select the radio station or MP3 file)
- adjust the volume, equalisation and balance in each zone
- control the sound in the customisable scenarios
- in the event of an alarm or when the doorbell rings, the volume of the music is automatically turned down. When the alarm status is over, the music is restored to its previous volume automatically.

To complete the system AVE also offers high performance flush-mounted loudspeakers, which aesthetically match the wiring accessories. These loudspeakers can be directly connected to the TUTONDO unit and related expansions, or used individually in conventional units with volume controls once again matching the wiring accessories.

442AP01

Loudspeaker with 8 Ohm impedance and 5 W power, protection against overloading and limit signalled by LED. Provided with frame to be used with front plates 6(3+3) mod.:
Zama/Personal 44 (44P933... – 44P033...)
Vera 44 (44PV33... - 44PA33... - 44PL33...)

442DS02

Stereo volume control for loudspeakers that allows simultaneous control of a pair of loudspeakers (left and right channels) with no interference on the volume of other pairs of loudspeakers installed in the same plant.

Using the infra-red interface, a device that assimilates and emulates the original remote control of any domestic appliance, it is possible to create a simple but versatile sound system using your own Hi-Fi (provided it has an IR remote control) and controlling it through DOMINAplus.

DOMINAplus can be used to supervise 239 temperature zones, each with its own weekly program for summer and winter, within which the temperatures for energy saving, pre-comfort and comfort for each season are established. Furthermore, each temperature zone is also able to control an air conditioner via the infra-red interface, thus making the DOMINAplus home automation system versatile and integrated with the components of the domestic system.

The supervision devices, Touch Screen and Web Server, monitor the entire temperature control system, also acting as a centralised user graphic interface. From these devices it is possible to:

- Switch the temperature zone on and off
- Set the season (Summer / Winter)
- Set the ambient temperature desired in “Temporary” or “Permanent” mode
- Set the maximum speed of any fan coil unit to improve living comfort

- Customise the weekly programme
- Display the status of any window present in the temperature zone and disable its control to obviate any failures in the fittings.
- Lock and Unlock the keypad of the ambient thermostat to protect its setting

The ambient temperature thermostat allows the user to use the front buttons to temporarily override the Set Point of the weekly Programme in operation, which is present in the home automation supervisors (Touch Screen or Web Server). This regulation field is determined during installation by specific configuration and allows the home automation system to operate in various types of location that need not necessarily be residential.
Furthermore, if window status management is enabled, if the window is open the thermostat will interrupt the air conditioning of the room where it is located, and the ambient temperature shown on the digital display will flash for the entire period of the interruption. When the window is closed again, the air conditioning will come on again automatically and the display will cease flashing and become constant.

The DOMINAplus system can manage up to 239 independent zones. This means the capacity to monitor and control the temperature of every room from a single point, using a simple and user-friendly graphic user interface, increasing comfort and optimising consumption by keeping the classic functions to set the temperature locally by adjusting the thermostat located in each room.
DOMINAplus temperature control can also be controlled remotely. You can use a mobile phone, Smartphone or PC to check and set the temperature even when you are away from home, so that when you return home the conditions are always just right.

Mini Touch Screen 4.3” with outdoor temperature probe

In addition to the Supervisor function of the entire home automation system, DOMINAplus integrates the management of temperature zones in which it is located, acting as a genuine home automation chronothermostat by detecting ambient temperature with a dedicated outdoor probe 44..SO-NTC.

TS01

Room thermostat with digital display

Measures room temperature, controls the actuators and window status, ensuring comfort but also energy saving. Also allows to temporarily override the Set Point of the weekly Program that is running.

441ABTM03B

Temperature control actuators (ON – OFF)

Actuation devices for solenoid valves and/or hydraulic solenoid pumps for a single zone or multiple zones. Can be used for radiator systems with two pipes or four pipes.

53ABRTM-PV

441ABRTM-PV

ABRTM-PV

Temperature control actuator for fan coil units

Actuation device for the solenoid valve and the three speeds of the fan coil unit. Implements temperature measurement of water delivered to increase comfort by inhibiting ventilation at insufficient temperatures. Can be used for radiator systems with two pipes or four pipes.

53ABRTM-FC

Infra-red interface for air conditioners

Interface to control air conditioners by replicating the action of the original IR remote control. Integrates the DOMINAplus system with leading air conditioner brands.

442AB-IRT

The integration of DOMINAplus with the new range of Domusair products, using stand alone extraction fans or heat exchangers of the CMV (controlled mechanical ventilation) system allows to control air change in certain conditions, using home automation rather than continual double flow air change with heat recovery, thus making it possible to maintain air quality constant.

Benefits

The double flow CMV (controlled mechanical ventilation) with heat recovery is a simple solution to install. It is highly effective for continual air change, 24 hours a day, throughout the home, offering the maximum living comfort and energy saving. It maintains excellent internal air quality, extracting components that are harmful for both the person's health and for the building itself, and producing fresh filtered air. It ensures not only air change but also excellent heat energy recovery with the highly efficient electrical recovery pack, which has a low consumption motor.

Added value to the building

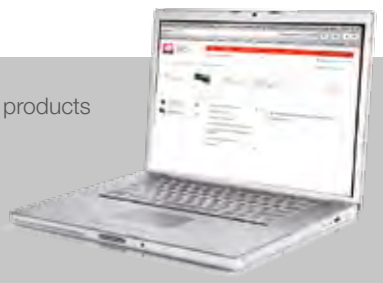
In latest generation buildings, which comply with strict thermal insulation requirements for the external shell and which, therefore, have no natural air change (drafts from doors and window), the controlled mechanical ventilation with heat recovery makes it possible to keep the level of pollutant components in the rooms constantly under control, thus protecting the health and well-being of the occupants and preventing degradation of the building due to mould and condensation. By installing a heat recovery system, the building acquires added value and reaches high energy classes.

Operation

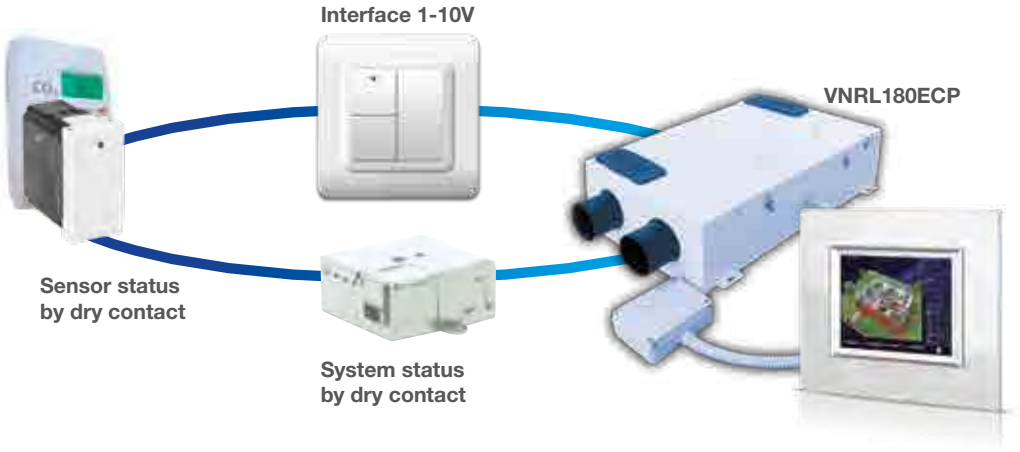
Stale indoor air, either heated or cooled depending on the season, is extracted
from technical rooms and damp rooms, such the bathroom and kitchen. The heat exchanger, which is the heart of this product, transfers most of its heat energy to the fresh filtered external air, which is emitted heated/cooled and free of impurities into the main rooms of the home, such as the bedrooms and living room. The low power consumption fans run at a continual minimum speed, depending on the air changes required by local regulations. Higher speeds can be obtained automatically by external sensors, such as humidity or CO_2 detectors, or manually by the user when the internal air quality drops.

For further information on the new range of ***DomusAir*** products request the catalogue of the AVE sales network.

For further information visit the following websites:
www.ave.it - www.domoticaplus.it



Having an orientation toward continual improvement in terms of efficiency, energy saving and comfort, Ave offers the new home automation interface for distributed management of a controlled mechanical ventilation (CMV) system in domestic or commercial locations in order to create a healthy environment and keep the air healthy. The CMV (cod. 441ABRV1) interface device is able to control mechanical ventilation motors with a standard input of 1-10V and, if required, one or more sensors (up to a maximum of 6 connected to the device cod. 44ABTA with consecutive addresses to that of the interface itself), that detect air quality, relative humidity and CO_2 for air monitoring.



Moreover, with the analogue interface DOMINAplus acquires signals from the air quality sensors and, if necessary, sends the command via the infra-red interface device to manage the single flow ventilation unit alternated with heat recovery, all under optional supervision from the Touch screen.

This section of the catalogue helps you to choose the home automation functions that can be used in an electrical system. The following pages show which home automation functions are available for each room of the apartment.

Home automation functions are generally selected after studying each room on a floor plan or directly by performing an on site inspection. The following pages describe which functions are available for each room in the apartment.

When examining this standard apartment, one has to consider that the different home automation functions and scenarios described for each room include those which are most often used. Each professional can develop new home automation applications by logically associating several devices and creating a tailored home automation system each time to meet the customer's needs.

The user may also create customised functions called "scenarios" (lists of actions that can be automatically recalled from various points), for better control and management of a home studied to suit personal habits.

DOMINA, EXTERNAL PERIMETER

The home automation system can be used to better control openings towards areas outside the apartment (shutters, sun awnings, motorised doors and windows, skylights, etc.).

More in detail, it is possible to:

- manually control opening and closing using the local controls of the actuators;
- control general (or only for one group) opening / closing from a central location;
- open and close automatically at certain times of the day;
- automatically open/close depending on sunlight or bad weather;
- control automatic closing when the anti-intrusion system is switched on to avoid leaving any possible access unguarded;
- control opening and closing by means of scenarios (night scenario, go-out scenario, etc.).

1. KITCHEN
2. LIVING-ROOM
3. BATHROOM
4. BEDROOM
5. OUTDOOR AREAS

Home automation does not only mean comfort but also safety and automation designed to improve your living experience at home. DOMINA provides a number of measures to protect your home against burglary. DOMINA also makes it possible to control the outdoor areas automatically, depending on the weather, watering the garden during established time periods and only if certain conditions occur.

LIGHTING

- Switching on lights manually
- Automatically switching lights on by time periods or twilight sensor or movement sensor
- Switching on accessory lights (such as niches with ornaments, ponds, fountains, etc.) in particular time periods or with the "party with friends" scenario.

IP CAM - DVR

- IP camera display directly on the touch screen (TS03..-V or higher).

IP VIDEO INTERCOM

ANTI-INTRUSION ALARM

- Window protection: if the window is left open, the Domina system warns the user, thus avoiding unpleasant surprises on returning home.
- Scenarios simulating the presence of people (possibility of creating a sequence of preset orders over the course of the day to simulate the presence of the user and discourage ill-intentioned persons).

GARDEN WATERING

- Manually switch on/off each watering zone directly from the touch screen
- Water the garden using customised programmes and only when required
- Disconnect the watering system in the case of bad weather to prevent wastage of water.

OUR SOLUTIONS - FUNCTIONS:

1. Light control
2. Dimmable light control
3. Motorised shutters/windows control
4. Anti-intrusion alarm
5. Wireless controls for automation
6. System supervision
7. Web video control
8. IP video intercom

In the kitchen, DOMINA enables you to safely deal with technical alarms for water and gas leaks. With the home automation system the room is safe and protected against the consequences of failure to deal with water or gas leaks.

WATER LEAKS

- Close the mains water supply valve to stop the leak.
- Cut off electricity at the mains to prevent short circuits.
- Locally warn the user that a technical alarm is under way.
- Remotely warn the user that a technical alarm is under way.

GAS LEAKS

- Close the mains gas supply valve to stop the leak.
- Cut off the electricity at the mains to prevent short circuits and a possible consequent fire.
- Automatically open windows and skylights to ventilate the room.
- Locally warn the user that a technical alarm is under way.
- Remotely warn the user that a technical alarm is under way.

FIRE ALARM REPETITION

- Using item code AC500C1R (addressed output module), the fire alarm repetition can be interfaced through the 44..ABTA alarm interface.

LOAD CONTROL MANAGEMENT

- Electricity distribution companies have introduced differentiated management of the cost of energy consumption based on time periods. Home automation provides rational management of household appliances to save energy by taking advantage of the most suitable time periods, and prevents the main switch from disconnecting due to overloading.

OUR SOLUTIONS - FUNCTIONS:

1. Technical alarm “water leaks”
2. Technical alarm “gas leaks”
3. Management of energy control and load disconnection
4. Light control
5. Dimmable light control
6. Motorised shutters/windows control
7. Temperature control
8. Sound system
9. “Dinner” scenario (sets comfort temperature in the kitchen and energy saving mode in the other rooms, lighting at 100% and safety mode in the other zones of the apartment, etc.)
10. Burglar alarm system
11. Ip cam

The home automation system considerably enhances comfort in the living-room. This room is usually used in different ways and DOMINA enables you to manage the room in the right way for each occasion, such as for a party, a dinner with friends or other occasions for entertainment, such as watching a movie or simply relaxing with a book. With the home automation system you can save a particular combination of commands or configurations and use a scenario to recall the setting selected for that special occasion.

DIMMABLE LIGHTS

• Manual light dimming
• Automatic light dimming using the “relaxation” scenario
• Switching on accessory lights (such as, glass cabinets, niches with ornaments, etc.) in particular time periods or with the “party with friends” scenario.

TEMPERATURE CONTROL

• Management of independent temperature control for each zone with energy saving, depending on how the room is used.

ENERGY SAVING

• Consumption monitoring (not valid for tax purposes).


SUPERVISING THE SYSTEM VIA TOUCH SCREEN

• Home automation means, above all, comfort. Indeed, centralised supervision by Touch screen devices is a genuine advantage in everyday life. With these devices the whole house can be kept under control and all the automated equipment and functions of each room, from switching on the lights to video control via Web, can be managed.

• Using the Touch Screen devices you can visually check the inside and outside of your home remotely to make sure no one has entered your home and no damage has been caused by bad weather or other causes.

OUR SOLUTIONS - FUNCTIONS:

1. Consumption management and control
2. Light control
3. Dimmable light control
4. Motorised shutters/windows control
5. Temperature control
6. Sound system
7. Supervising the system via touch screen
8. Video control
9. Anti-intrusion alarm system
10. “Watch film”, “party with friends”, etc. scenario
11. Wireless controls for automation
12. Home automation video door entry system

In the bathroom, home automation enhances both comfort and safety. By means of scenarios and technical alarms, the room can always be kept under control.

WATER LEAKS

- Close the mains water supply valve to stop the leak.
- Cut the electricity off to avoid short circuits that may be dangerous for people.
- Locally warn the user that a technical alarm is under way.
- Remotely warn the user that a technical alarm is under way.

INTELLIGENT TIMER

- Air circulation must be provided in the bathroom, and this can be done automatically by the home automation system without energy wastage.

RELAXATION SCENARIOS

- Possibility of customising control of multiple commands in order to create a relaxing ambience by controlling temperature, lighting and the sound system.

ANTI-INTRUSION ALARM

- Window protection: if the window is left open, the Domina system warns the user, thus avoiding unpleasant surprises on returning home.
- Scenarios simulating the presence of people (possibility of creating a sequence of preset orders over the course of the day to simulate the presence of the user and discourage ill-intentioned persons).

OUR SOLUTIONS - FUNCTIONS:

1. Technical alarm “water leaks”
2. Light control
3. Dimmable light control
4. Motorised shutters/windows control
5. Temperature control
6. Sound system
7. Anti-intrusion alarm system
8. “Relaxation” scenario

IP CAM - DVR

• Display of the IP cameras of the home directly on the touch screen.

DIMMABLE LIGHTS

• Manual light dimming
• Automatic light dimming using the “relaxation” scenario
• Switching on accessory lights (such as, glass cabinets, niches with ornaments, etc.) in particular time periods or with the “party with friends” scenario.

TEMPERATURE CONTROL

• Management of independent temperature control for each zone with energy saving, depending on how the room is used.

ANTI-INTRUSION ALARM

• Window protection: if the window is left open, the Domina system warns the user, thus avoiding unpleasant surprises on returning home.
• Scenarios simulating the presence of people (possibility of creating a sequence of preset orders over the course of the day to simulate the presence of the user and discourage ill-intentioned persons).

SOUND SYSTEM

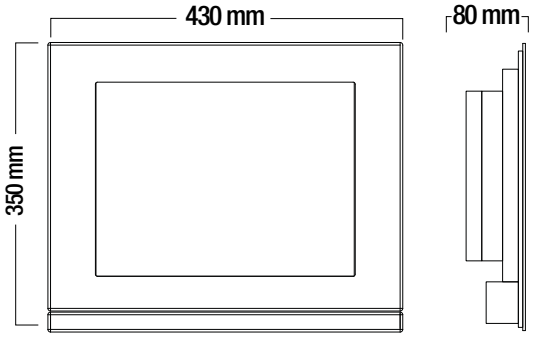
• With the home automation system, you can comfortably choose from your bedroom which sound track to listen to, and adjust the sound in order to create the desired ambience without moving to the place where the stereo system is installed. This can also be implemented with customised scenarios.

OUR SOLUTIONS - FUNCTIONS:

1. Light control
2. Dimmable light control
3. Motorised shutters/windows control
4. Temperature control
5. Sound system
6. Anti-intrusion alarm system
7. “Wake-up” and “night” scenario
8. Wireless controls for automation

DOMINAPLUS TOUCH SCREEN WITH 15” GLASS DISPLAY - COD. TS05N-V

The TS05N-V device is a Touch Screen supervisor, which allows users to control their home automation system through a graphical user interface featuring graphic maps to present the living environments with photographs of the rooms. A set of stylised graphic icons and interactive menus allow to control the various home automation functions available. The TS05N-V Touch Screen allows to manage the room’s home automation system locally and remotely by appropriately setting up the Ethernet network, performing the functions of “Multi-Zone Chronothermostat”, “Scenario Control Switch”, “Time Scheduler”, “Programmable Logic Management”, “Lighting Control”, “Shutter Control”, “Anti-Intrusion Control” and “Load Supervision Control”. It can also generate browser accessible Web pages, which graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.



In fact, the graphic user interface includes several customisable pages where the user can insert and configure the icons of the application he wants to manage. This graphic image, which is totally customisable, can be a photograph of the room to be controlled, with a 2D layout or a 3D rendering made by the architect or the designer. Through the Touch Screen the user can “surf” the rooms:
- by means of a general map of the whole house;
- by seeing each room graphically represented on a page; the user can either display all the available functions or select the type of function to be displayed by means of a “function filter”;

Note: The device is provided with the dedicated clear black glass front plates, and must be completed with the dedicated flush-mounted box.

Technical details

- Capacitative glass Touch Screen: 15” 430x350 mm (WxH)
- flush-mounted box: provided separately 376x325x80 mm (WxHxD)
- Power supply: - Rated voltage: 12Vdc - 1.2A by dedicated line
- Surfing: using a pull-down menu and customisable graphic maps
- Screen: backlit colour display with 1024x768 pixel resolution
- Possibility of managing the scenarios with AVEbus
- Virtual simulation of AF983 keypad and related functions
- Display of Technical Alarms with information that could be helpful for the user to manage the event
- Temperature control option
- Display of the alarms of the anti-intrusion control unit AF999EXP and AF949
- IP camera display (mjpeg video flow)
- Management of VoIP Mobotix® video entry phone.

Connections

- Terminal 1: positive power supply (12Vdc)
- Terminal 2: negative power supply (GND)
- Terminal 3: positive AVEbus
- Terminal 4: negative AVEbus

- LAN network connector

- RS232C connector (for anti-intrusion alarm control unit AF998EXP)

Warnings

DOMINAplus supervisors manage a maximum of 100 maps, 50 scenarios with a maximum of 300 devices. Consult the “Installation Provisions” at www.ave.it in the section TECHNICAL MANUALS. The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured. Using a dedicated power supply line (UPS) is recommended. Moreover, the user should regularly check for software updates to have the best performance and ensure correct function. Updates can be found through the technical assistance network.

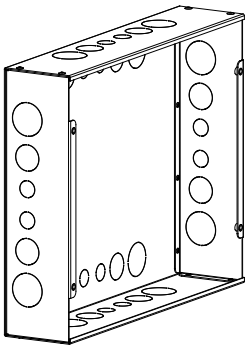
TS05N-V

TS05N-V
DOMINAplus 15" Touch Screen with glass front plate and colour graphic LCD display
- Power supply: • 12Vdc (Max. 1.7A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation in the dedicated box TS05NBOX.

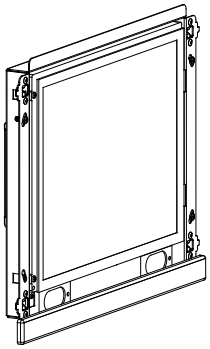
TS05NBOX
flush-mounted box for brickwork and plasterboard walls, 376x325x80 mm (W H D)

TECHNICAL INFORMATION

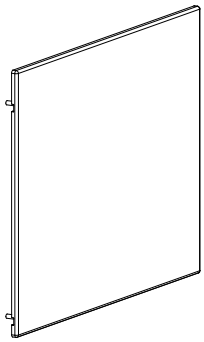
FLUSH-MOUNTED BOX



TS05NBOX

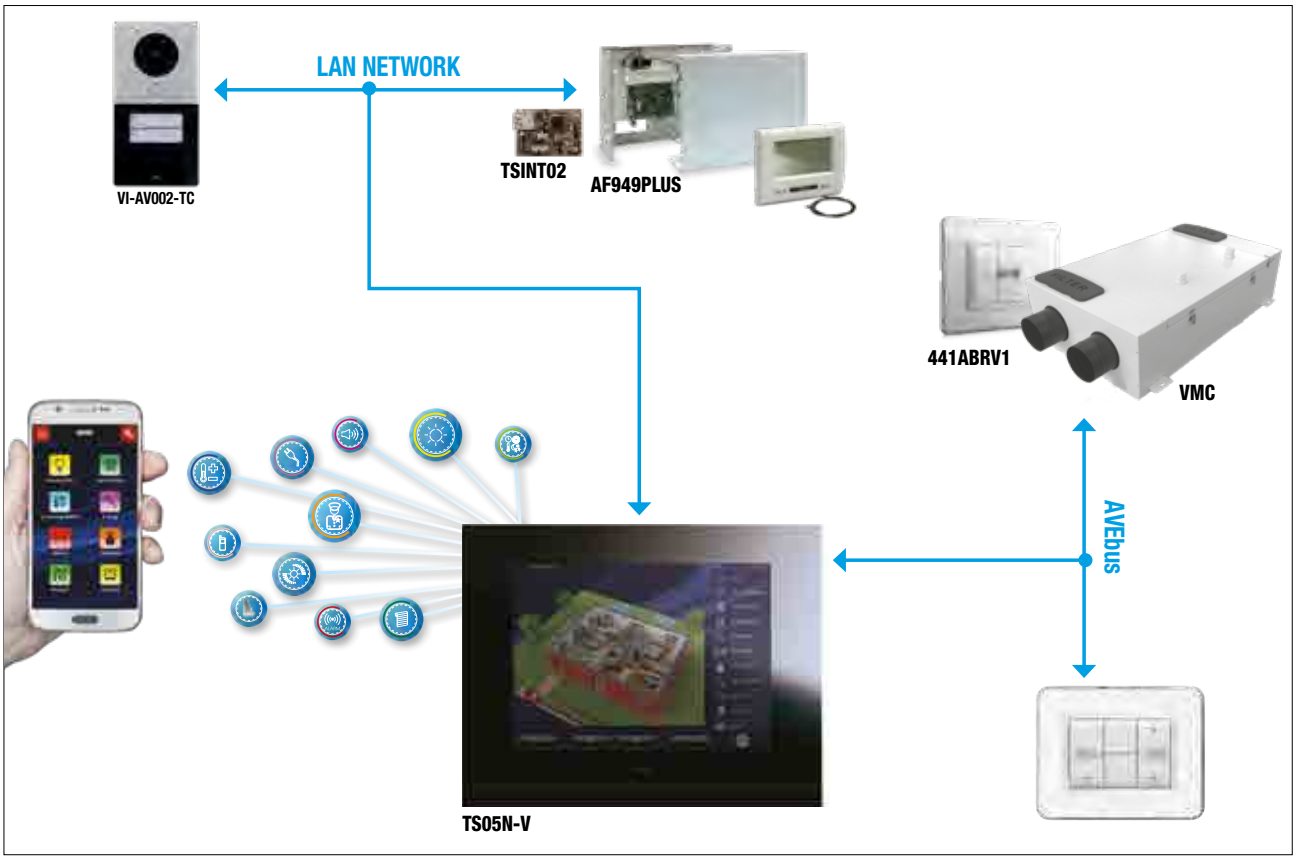


TS05N-V



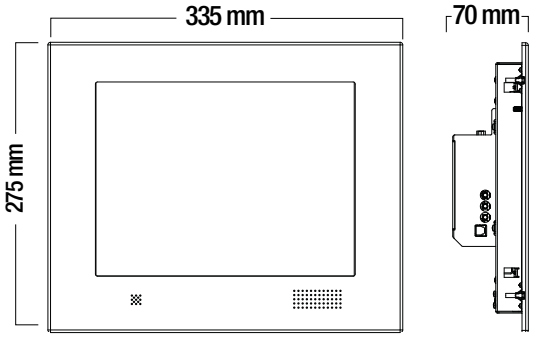
LIFE COLOUR FRONT PLATE IS INCLUDED

EXAMPLE OF USE



DOMINAPLUS TOUCH SCREEN WITH 12.1" DISPLAY - COD. TS04X-V

The TS04X-V device is a Touch Screen supervisor, which allows users to control their home automation system through a graphical user interface featuring graphic maps to present the living environments with photographs of the rooms. A set of stylised graphic icons and interactive menus allow to control the various home automation functions available. The TS04X-V Touch Screen allows to manage the automation system locally and remotely by appropriately setting up the Ethernet network, performing the functions of "Multi-Zone Chronothermostat", "Scenario Control Switch", "Time Scheduler", "Programmable Logic Management", "Lighting Control", "Shutter Control", "Anti-Intrusion Control" and "Load Supervision Control". It can also generate browser accessible Web pages, which graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.



In fact, the graphic user interface includes several customisable pages where the user can insert and configure the icons of the application he wants to manage. This graphic image, which is totally customisable, can be a photograph of the room to be controlled, with a 2D layout or a 3D rendering made by the architect or the designer. Through the Touch Screen the user can "surf" the rooms:
- by means of a general map of the whole house;
- by seeing each room graphically represented on a page; the user can either display all the available functions or select the type of function to be displayed by means of a "function filter";

Note: The device is provided with the dedicated RAL9010 white metal plates, and must be completed with the dedicated flush-mounted box.

Technical details

- Touch Screen: 12.1"
- flush-mounted box: provided separately 320x258x73 mm (WxHxD)
- Power supply: - Rated voltage: 12Vdc - 0.7A by dedicated line
- Surfing: using a pull-down menu and customisable graphic maps
- Screen: backlit colour display with 1024x768 pixel resolution
- Possibility of managing the scenarios with AVEbus
- Virtual simulation of AF983 keypad and related functions
- Display of technical alarms with information that could be helpful for the user to manage the event
- Temperature control option
- Display of the alarms of the anti-intrusion control unit AF999EXP and AF949
- IP camera display (mjpeg video flow)
- Management of VoIP Mobotix® video entry phone.

Connections

- Terminal 1: positive power supply (12Vdc)
- Terminal 2: negative power supply (GND)
- Terminal 3: positive AVEbus
- Terminal 4: negative AVEbus

- LAN network connector

- RS232C connector (for anti-intrusion alarm control unit AF998EXP)

Warnings

DOMINAplus supervisors manage a maximum of 100 maps, 50 scenarios with a maximum of 300 devices. Consult the "Installation Provisions" at www.ave.it in the section TECHNICAL MANUALS. The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured. Using a dedicated power supply line (UPS) is recommended. Moreover, the user should regularly check for software updates to have the best performance and ensure correct function. Updates can be found through the technical assistance network.

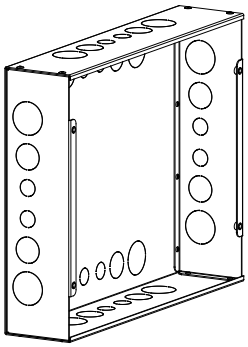
TS04X-V

TS04X-V
DOMINAplus 12.1" Touch Screen with colour graphic LCD display.
- Power supply: • 12Vdc (Max. 12Vdc (Max. 1.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation in the dedicated box item cod. TS04XBOX

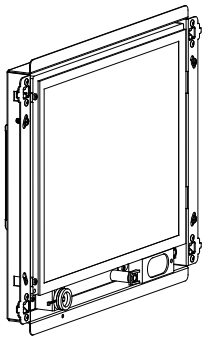
TS04XBOX
flush-mounted box for brickwork and plasterboard walls, 320x258x73 mm (W H D)

TECHNICAL INFORMATION

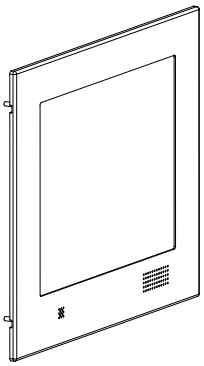
FLUSH-MOUNTED BOX



TS04XBOX

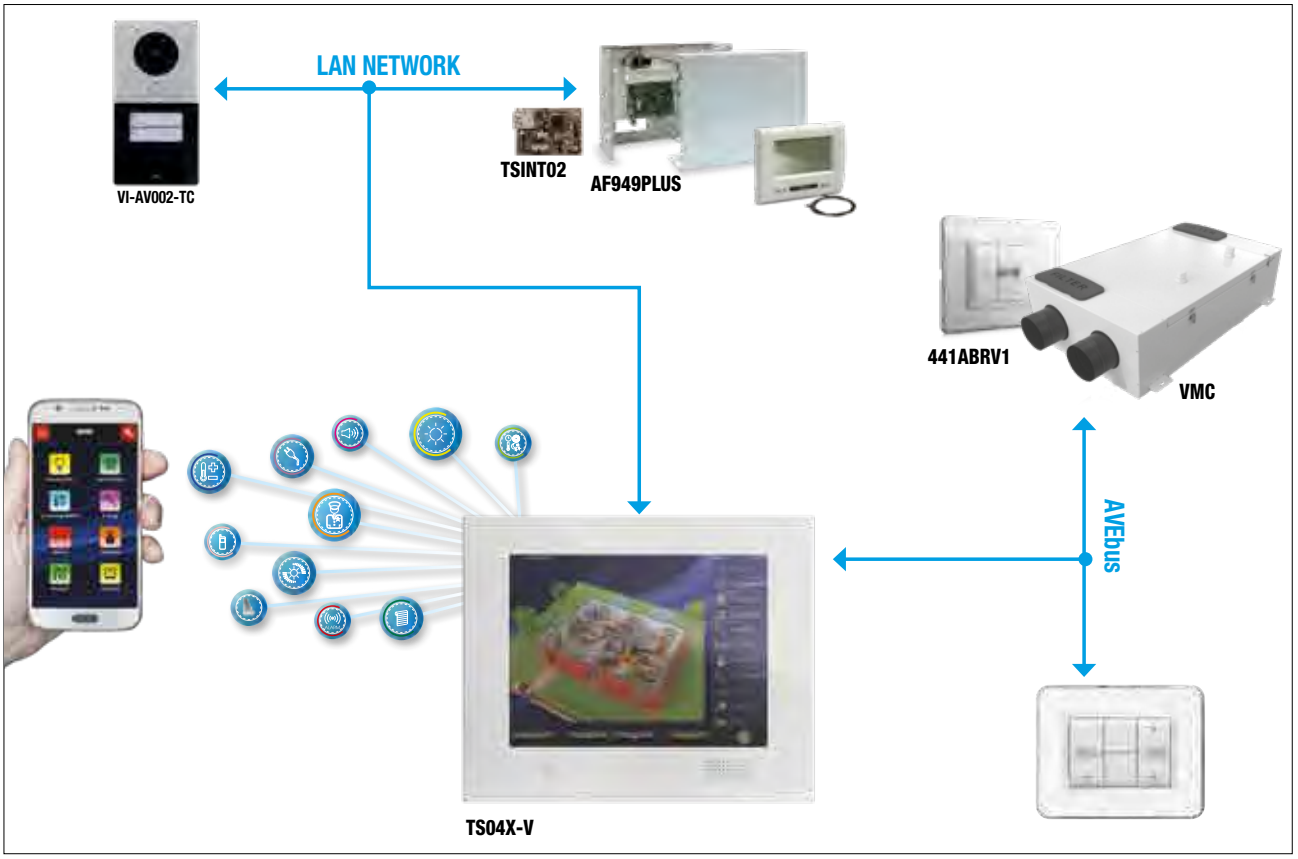


TS04X-V



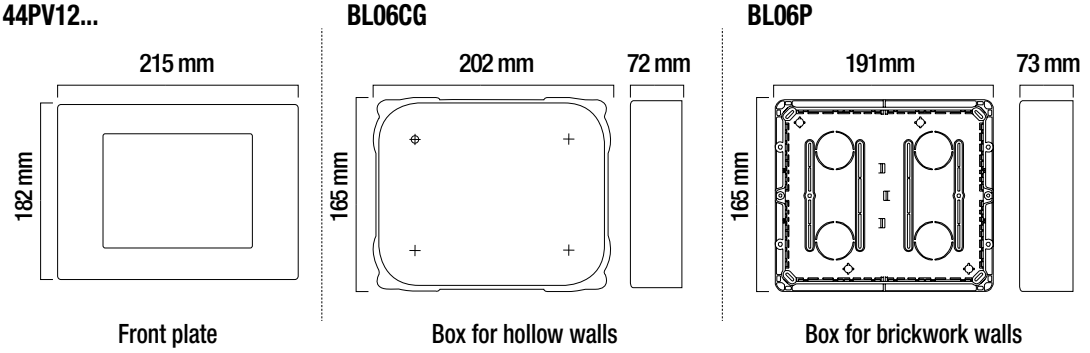
DOMUS COLOUR FRONT PLATE IS INCLUDED

EXAMPLE OF USE



DOMINA^PLUS TOUCH SCREEN WITH 5.7" DISPLAY - COD. TS03..-V

The TS03..-V device is a Touch Screen supervisor, which allows users to control their home automation system through a graphical user interface featuring graphic maps to present the living environments with photographs of the rooms. A set of stylised graphic icons and interactive menus allow to control the various home automation functions available. The TS03..-V Touch Screen allows to manage the automation system locally and remotely by appropriately setting up the Ethernet network, performing the functions of "Multi-Zone Chronothermostat", "Scenario Control Switch", "Time Scheduler", "Programmable Logic Management", "Lighting Control", "Shutter Control", "Anti-Intrusion Control" and "Load Supervision Control". It can also generate browser accessible Web pages, which graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.



In fact, the graphic user interface includes several customisable pages where the user can insert and configure the icons of the application he wants to manage. This graphic image, which is totally customisable, can be a photograph of the room to be controlled, with a 2D layout or a 3D rendering made by the architect or the designer. Through the Touch Screen the user can "surf" the rooms:
- by means of a general map of the whole house;
- by seeing each room graphically represented on a page; the user can either display all the available functions or select the type of function to be displayed by means of a "function filter";

Note: The device must be completed with plates "Vera 44" and "Zama 44" for the box BL06P and BL06CG.

Technical details

- Touch Screen: 5.7"
- flush-mounted box: BL06P and BL06CG
- Power supply: - Rated voltage: 12Vdc - 0.5A by dedicated line
- Surfing: using a pull-down menu and customisable graphic maps
- Screen: backlit colour display with 640x480 pixel resolution
- Possibility of managing the scenarios with AVEbus
- Virtual simulation of AF983 keypad and related functions
- Display of Technical Alarms with information that could be helpful for the user to manage the event
- Temperature control option
- Display of the alarms of the anti-intrusion control unit AF999EXP and AF949
- IP camera display (mjpeg video flow)

Connections

- Terminal 1: positive power supply (12Vdc)
- Terminal 2: negative power supply (GND)
- Terminal 3: positive AVEbus
- Terminal 4: negative AVEbus
- LAN network connector
- RS232C connector (for anti-intrusion alarm control unit AF998EXP provided)

Warnings

DOMINAplus supervisors manage a maximum of 100 maps, 50 scenarios with a maximum of 300 devices. Consult the "Installation Provisions" at www.ave.it in the section TECHNICAL MANUALS. The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured. Using a dedicated power supply line (UPS) is recommended. Moreover, the user should regularly check for software updates to have the best performance and ensure correct function. Updates can be found through the technical assistance network.

TS03N-V

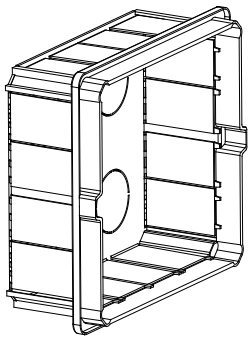
TS03N-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear black front
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.0A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation with a dedicated box BL06P or BL06CG

TS03B-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear white front
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.0A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation with a dedicated box BL06P or BL06CG

TECHNICAL INFORMATION

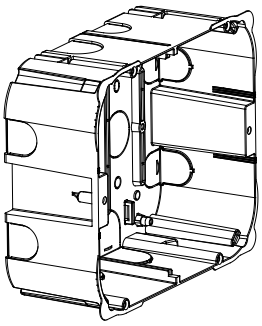
FLUSH-MOUNTED BOX

FOR BRICKWORK WALLS

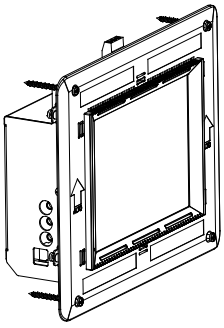


BL06P

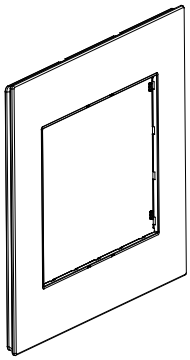
FOR HOLLOW WALLS



BL06CG

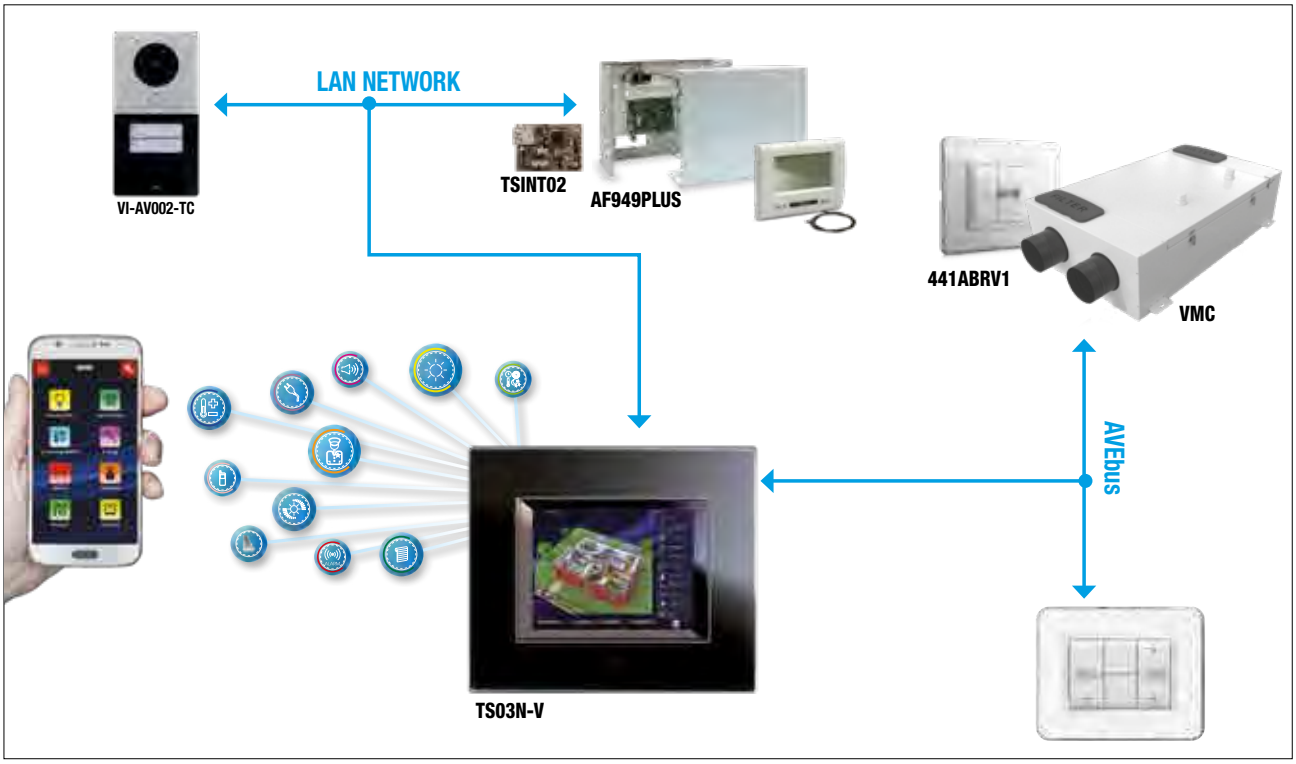


TS03...-V



44PV12... "Vera 44" glass front plate
44PA12... "Vera 44" aluminium front plate

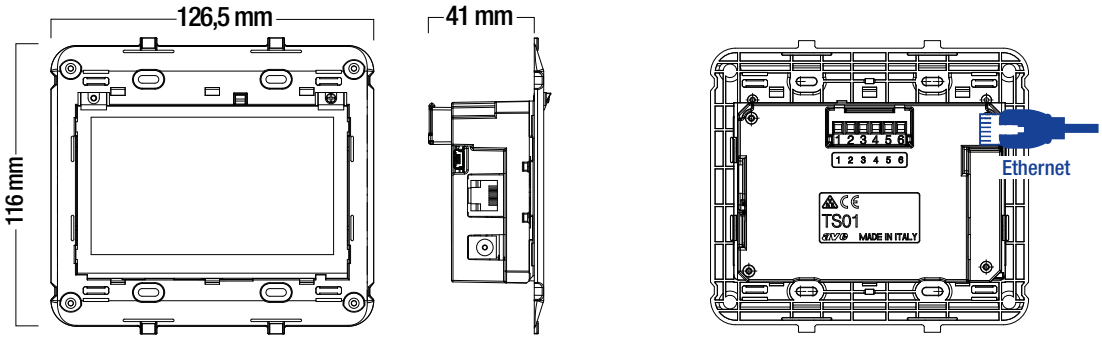
EXAMPLE OF USE



DOMINAPLUS TOUCH SCREEN WITH 4,3"DISPLAY - cod. TS01

The TS01 device is a Touch Screen supervisor, which allows users to control their home automation system through a stylised graphical user interface featuring graphic icons and interactive menus. In addition to the Supervisor function, it integrates the function of ambient Thermostat by exploiting the possibility of being connected to an external temperature probe. The TS01 Touch Screen allows to manage the home automation system locally and remotely by appropriately setting up the Ethernet network, the home automation system, performing the functions of "Multi-Zone Chronothermostat", "Scenario Control Switch", "Time Scheduler", "Programmable Logic Management", "Lighting Control", "Shutter Control", "Anti-Intrusion Control" and "Load Supervision Control". It can also generate browser accessible Web pages, which graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.
The device can be installed either vertically or horizontally (the technical menu of the device contains the icon that allows to change the orientation of user graphics). The device is installed using a flush-mounted box BL02P or
cod. BL02CG (the dimensions are given below).
Regarding the electrical wiring, the device needs the connection to AVEbus and, depending on the functions, also an Ethernet connection (using the provided small RJ45 connector) and a connection to the external temperature probe 44..SO-NTC using a 2x0.50 mm2 cable (use ducts that are separated from the power and segments not exceeding 10 m).

Note: The device must be completed with plates "Vera 44", "Zama 44" and "Personal 44" for the box BL02P and BL02CG.



Technical details

• Module:	3+3 modules S44 (WxHxD) 116x126.5x41 mm
• Protection degree:	IP30 installed in the respective flush-mounted box
• Power supply from SELV source:	- Rated voltage: 12Vdc - Allowed fluctuation: 10.5Vdc - 14Vdc - Absorption at 12Vdc: 300 mA - Absorption from Bus line 4.5C
• Reference Temp. and Rel. Humidity:	25°C RH 65%
• Temperature range Operating environment:	from +5°C to +35°C
• Maximum Relative Humidity:	90% at 30°C
• Max. Height:	2000 m a.s.l.

Connections

• Terminal 1:	Positive BUS
• Terminal 2:	Negative BUS, Negative power supply and ground references for the NTC sensor
• Terminal 3:	RS485 (A) – Integration between systems
• Terminal 4:	RS485 (B) – Integration between systems
• Terminal 5:	Positive 12Vdc power supply
• Terminal 6:	Input temperature sensor NTC 10K ß=3380K AVE 44..SO-NTC) with maximum distance from TS01 not exceeding 5 m using a twisted and shielded cable.
• ETH:	LAN network connector (for space-saving reasons, the connector supplied as standard must be used)

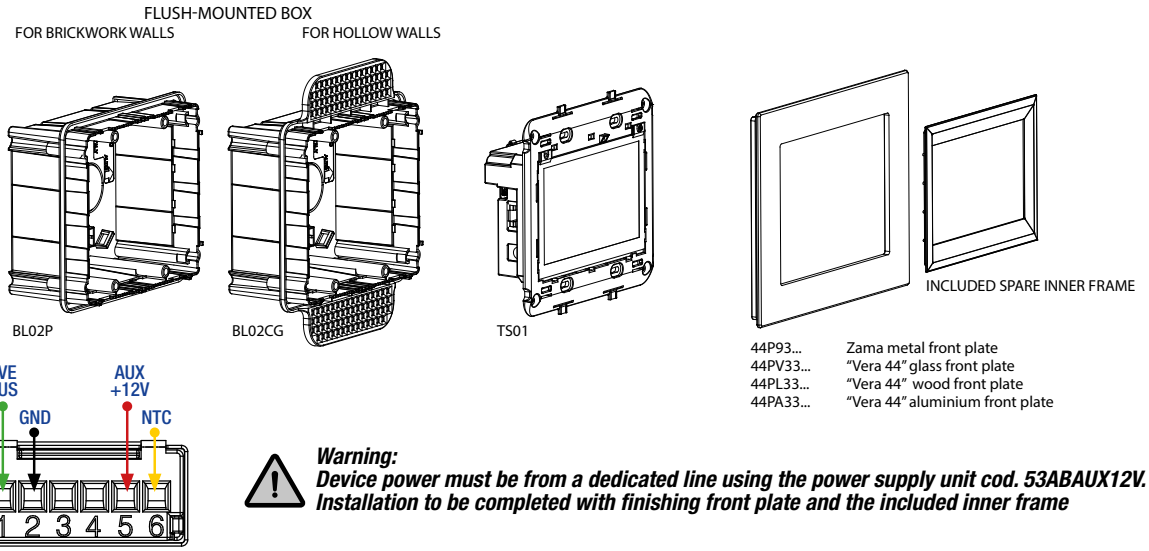
Warnings

DOMINAplus supervisors manage a maximum of 100 maps, 50 scenarios with a maximum of 300 devices. Consult the "Installation Provisions" at www.ave.it in the section TECHNICAL MANUALS. The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured. Using a dedicated power supply line (UPS) is recommended. Moreover, the user should regularly check for software updates to have the best performance and ensure correct function. Updates can be found through the technical assistance network.

TS01

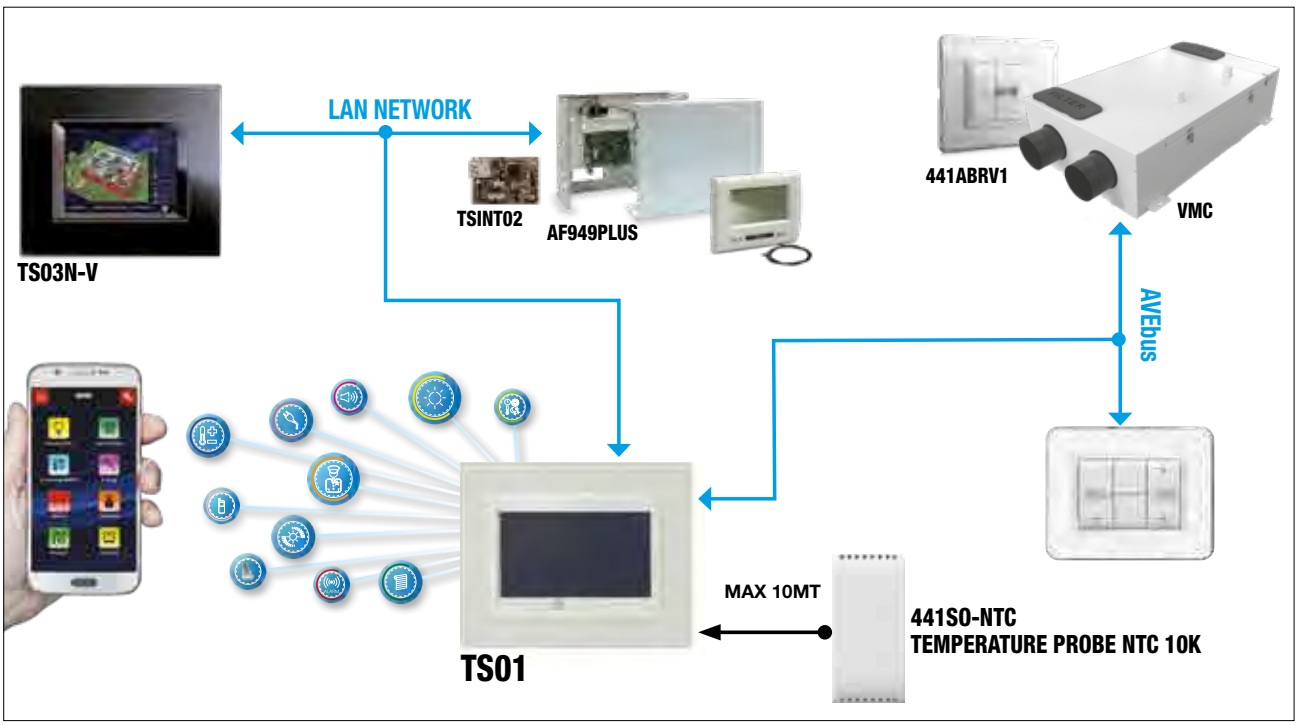
TS01
DOMINAplus Touch Screen with 4.3" colour display and user interface with icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Power supply: 12Vdc (Max. 0.5A)
- Operating Room Temperature: 0°C - 40°C
- Integrated home automation Web Server
- Combined with the temperature probe, it also works as a chronothermostat.

TECHNICAL INFORMATION



Warning:
Device power must be from a dedicated line using the power supply unit cod. 53ABAUX12V.
Installation to be completed with finishing front plate and the included inner frame

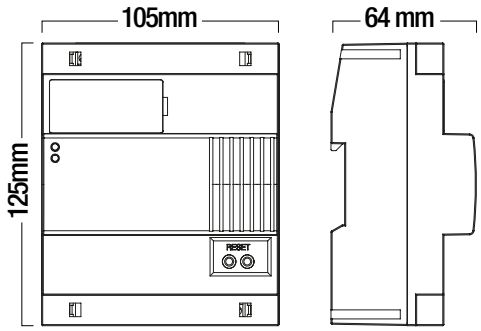
EXAMPLE OF USE



HOME AUTOMATION WEB SERVER - COD. 53AB-WBS

The 53AB-WBS device is a Web Server supervisor designed to manage the automation system via PC, Notebook, Tablet and any other mobile device that has a browser, which can display Web pages. The Web Server 53AB-WBS allows to manage the home automation system locally and remotely by appropriately setting up the Ethernet network, the home automation system, performing the functions of “Multi-Zone Chronothermostat”, “Scenario Control Switch”, “Time Scheduler”, “Programmable Logic Management”, “Lighting Control”, “Shutter Control”, “Anti-Intrusion Control” and “Load Supervision Control”. The Web pages generated by the browser graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.

Regarding the electrical wiring, the device needs the connection to AVEbus and also an Ethernet connection.



Technical details

• Module:	6 DIN modules (WxHxD) 105 x 125 x 60 mm
• Protection degree:	IP30 installed in the respective electrical panel
• Power supply from SELV source:	- Rated voltage: 12Vdc - Allowed fluctuation: 10.5Vdc - 14Vdc - Absorption at 12Vdc: 250 mA max
• Reference Temp. and Rel. Humidity:	25°C RH 65%
• Temperature range Operating environment:	from 0°C to +40°C
• Maximum Relative Humidity:	90% at 30°C
• Max. Height:	2000 m a.s.l.

Connections

• Terminal [AVEbus AVE]:	Positive BUS
• Terminal [AVEbus GND]:	Negative BUS,
• Terminal [AUX +12]:	Positive 12Vdc power supply
• Terminal [AUX GND]:	Negative 12Vdc power supply
• Terminal [RS232 RX]:	RX for Supervision AF998EXP via TSINT01
• Terminal [RS232 TX]:	TX for Supervision AF998EXP via TSINT01
• Terminal [RS232 GND]:	GND for Supervision AF998EXP via TSINT01
• Terminal [RS485 U2-A]:	“A” for Supervision of the Vivaldi sound system
• Terminal [RS485 U2-B]:	“B” for Supervision of the Vivaldi sound system
• Terminal [RS485 U2-GND]:	GND for Supervision of the Vivaldi sound system
• Terminal [RS485 U4-A]:	“A” to communicate with the Modbus gateway to interface with the air conditioners
• Terminal [RS485 U4-B]:	“B” to communicate with Modbus gateway to interface with the air conditioners
• Terminal [RS485 U5-GND]:	GND to communicate with the Modbus gateway to interface with the air conditioners
• ETH Connector LAN network	

Warnings

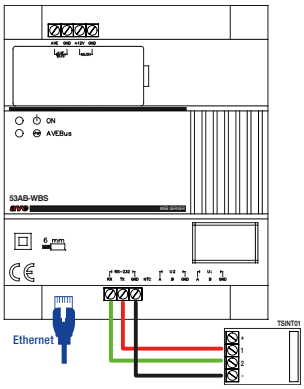
DOMINAplus supervisors manage a maximum of 100 maps, 50 scenarios with a maximum of 300 devices. Consult the “Installation Provisions” at www.ave.it in the section TECHNICAL MANUALS. The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured. Using a dedicated power supply line (UPS) is recommended. Moreover, the user should regularly check for software updates to have the best performance and ensure correct function. Updates can be found through the technical assistance network.

53AB-WBS

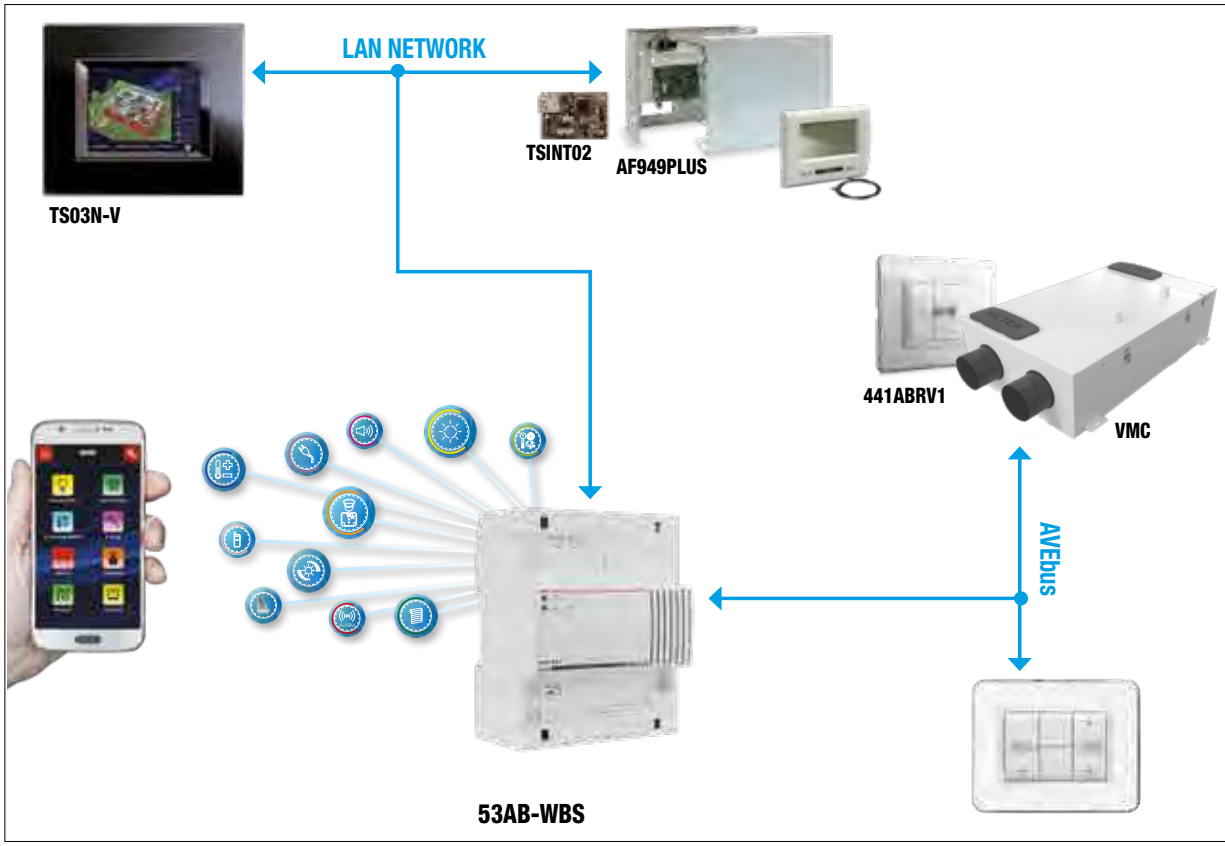
53AB-WBS
Web Server for the supervision of the home automation system using the Ethernet network
6 DIN modules
- Power supply: 12Vdc (Max. 12Vdc (Max. 250mA)
- Operating Room Temperature: 0°C - 40°C
- AVEbus and LAN connection for other online devices.
- Made in monoblock for DIN installation

TECHNICAL INFORMATION

Warning:
Device power must be from a dedicated line using the power supply unit cod. 53ABAUX12V.

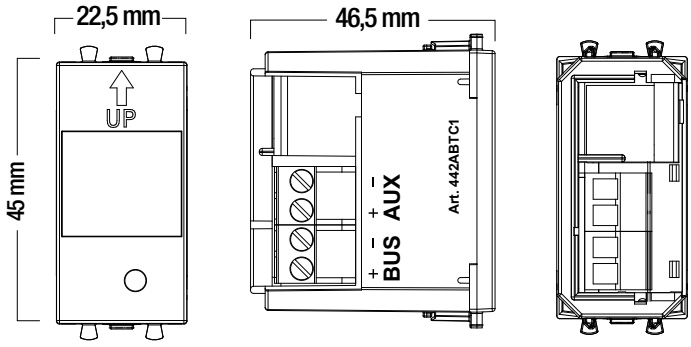


EXAMPLE OF USE



1-CHANNEL TOUCH CONTROL DEVICE - 442ABTC1

The 442ABTC1 device is a single-channel bus control with Ave Touch technology, which can control all the actuator devices of the AVEbus family by simply touching the front plate. In the configuration phase the device can be assigned a home automation function, as desired.



Technical details

- Module: 1 m. "hidden" S.44 (22.5 w x 45 h x 46.5 d) mm, to complete with front plate.
- Protection degree: IP41 if completed with front plate and installed in the corresponding flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 6.6 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.2 C
  - Only AVEbus line: 5.0 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Description of the front

At the front a two colour optical signal makes the device visible in the dark and it can be configured to show the status of the associated receiver.

- Blue LED (working only when the auxiliary power is on)
  - ON, makes the device visible in the dark (with the functions START, STOP, START+STOP, STEP and DIMMER) when the relay contact of the associated receiver is open or when the status signal of the associated receiver has not been configured.
- Amber LED
  - Fast flashing, device being programmed
  - Slow flashing, self-cut out for front plate cleaning

  ON, relay contact of the associated closed receiver (with lighting function) or shutter open (with shutter function)
- amber / blue LED
  - Alternating, shutter movement in progress

Function Table

☼	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + STOP	Function 13:	START + STOP	(with signal of the status of the associated receiver)
☼	Function 5:	DIMMER	Function 14:	DIMMER	(with signal of the status of the associated receiver)
▤	Function 6:	SHUTTER	Function 15:	SHUTTER	(with signal of the status of the associated receiver)
	Function 7:	DOORS / WINDOWS	Function 16:	DOORS / WINDOWS	(with signal of the status of the associated receiver)
	Function 8:	SUNSHADE	Function 17:	SUNSHADE	(with signal of the status of the associated receiver)
✲	Function 9:	VENTILATION	Function 18:	VENTILATION	(with signal of the status of the associated receiver)

442ABTC1

442ABTC1
1-channel AVE Touch control device - to be used under the AVE Touch front plate - 1 module

FRONT PANEL TOUCH CONTROLS SET UP

LIGHTING

It sends the switch on/off signal, depending on the previous status of the actuator.

AUTOMATION

It sends the open or close signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to send the movement signal “person present”.

1 Touch control

SCENARIOS

Sends the home automation system the order to execute the relevant scenario.

DIMMER

It sends the switch on/off signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to regulate brightness.

COMPATIBLE WITH SYSTEM 44 PLATES

44PVTC01...

44PVTC02...

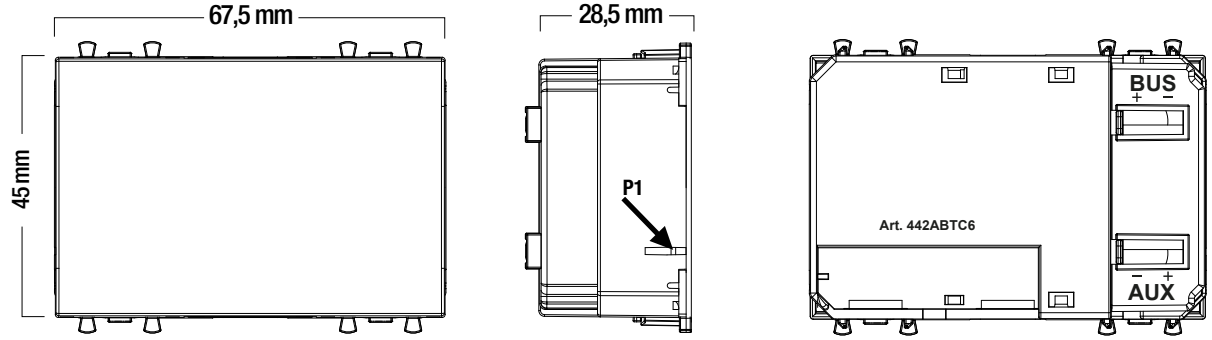
44PVTC03...

44PATC3...

44PJTC3...

6-CHANNEL MULTI TOUCH CONTROL DEVICE - cod. 442ABTC6

The 442ABTC6 device is a 6-channel bus control with Ave Touch technology that can control all the actuator devices of the AVEbus family by simply touching the front plate. It can be set as a control device with 1 to 6 AVEbus channels, each of which can be assigned to an indipendent home automation function.



Technical details

- Module: 3 m. "hidden" S.44 (67.5 w x 45 h x 28.5 d) mm, to be completed with front plate.
- Protection degree: IP41 if completed with front plate and installed in the corresponding flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage 12Vac/dc
  - Admissible variation 10.5V - 14V
  - Absorption at 12Vdc: 17.5 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 33 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Description of the front

The front area is divided into 9 sensitive zones. During the programming phase the user can choose which to use, from 1 control to 6 controls. At the front a two colour optical signal makes the device visible in the dark and it can be configured to show the status of the associated receiver:

- Blue LED
  ON, makes the device visible in the dark (with the functions START, STOP, START+STOP, STEP and DIMMER) when the relay contact of the associated receiver is open or when the status signal of the associated receiver has not been configured.
  Note: The configuration parameter can be used to set the level of brightness.
- Amber LED
  - Fast flashing, device being programmed
  - Slow flashing, self-cut out for front plate cleaning
  - ON, relay contact of the associated closed receiver (with lighting function) or shutter open (with shutter function)
- amber / blue LED
  - Alternating, shutter and door/window fitting movement in progress

Function Table

☼	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + STOP	Function 13:	START + STOP	(with signal of the status of the associated receiver)
☼	Function 5:	DIMMER	Function 14:	DIMMER	(with signal of the status of the associated receiver)
▤	Function 6:	SHUTTER	Function 15:	SHUTTER	(with signal of the status of the associated receiver)
	Function 7:	DOORS / WINDOWS	Function 16:	DOORS / WINDOWS	(with signal of the status of the associated receiver)
	Function 8:	SUNSHADE	Function 17:	SUNSHADE	(with signal of the status of the associated receiver)
✲	Function 9:	VENTILATION	Function 18:	VENTILATION	(with signal of the status of the associated receiver)

442ABTC6

442ABTC6
1-6 channel multi touch control device - to be used under the AVE Touch front plate - 3 modules

FRONT PANEL TOUCH CONTROLS SET UP

LIGHTING

It sends the switch on/off signal, depending on the previous status of the actuator.

SCENARIOS

Sends the home automation system the order to execute the relevant scenario.

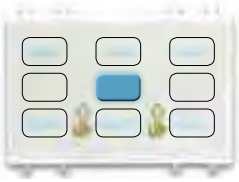
DIMMER

It sends the switch on/off signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to regulate brightness.

AUTOMATION

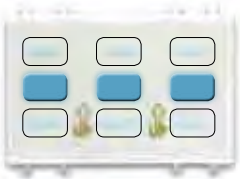
It sends the open or close signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to send the movement signal "person present".

1 Touch control

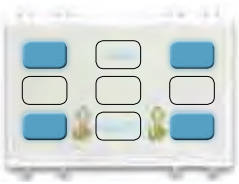


2 Touch controls

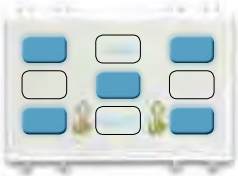
3 Touch controls



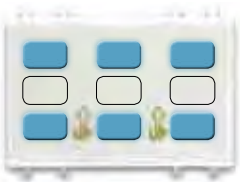
4 Touch controls



5 Touch controls



6 Touch controls



COMPATIBLE WITH SYSTEM 44 PLATES

44PVTC01...

44PVTC02...

44PVTC03...

44PVTC16...

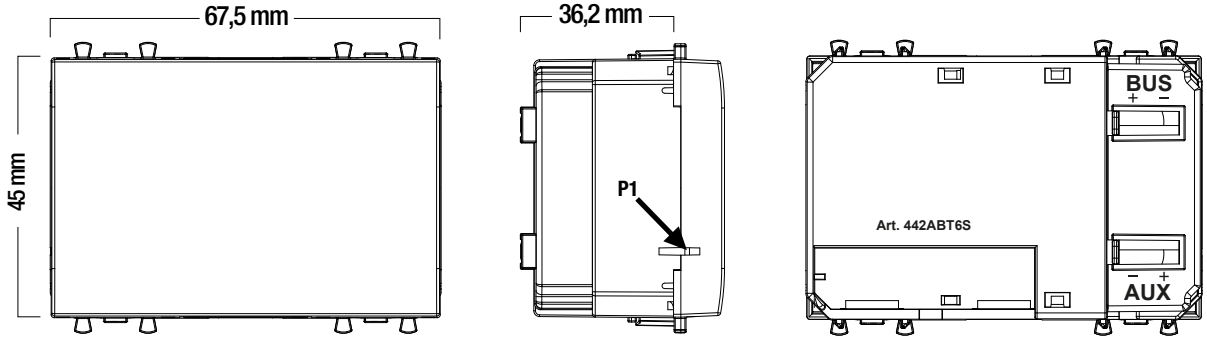
44PATC3...

44PATC16...

44PJTC3...

6-CHANNEL "TOUCH" CONTROL DEVICE - cod. 44..ABT6S

The device 44..ABT6S is a 6-channel bus control with 2 Touch" technology that is capable of controlling all the actuator devices in the AVEbus family. It can be set as a control device with 2 to 6 AVEbus channels, each of which can be assigned a home automation function that is independent from the other channels.



Technical details

- Module: 3 modules System 44 (67.5 w x 45 h x 36.2 d) mm.
- Protection degree: IP40 installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage 12Vac/dc
  - Admissible variation 10.5V - 14V
  - Absorption at 12Vdc: 17.5 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 33 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Description of the front

The front area is divided into 6 sensitive zones. During the programming phase the user can choose which to use, from 2 control to 6 controls. Each area has a two colour optical signal that makes the device visible in the dark and it can be configured to show the status of the associated receiver:

- Blue LED
  ON, makes the device visible in the dark (with the functions START, STOP, START+STOP, STEP and DIMMER) when the relay contact of the associated receiver is open or when the status signal of the associated receiver has not been configured.
  Note: The configuration parameter can be used to set the level of brightness.
- Amber LED
  - Fast flashing, device being programmed
  - ON, relay contact of the associated closed receiver (with lighting function) or shutter open (with shutter function)
- amber / blue LED
  - Alternating, shutter and door/window fitting movement in progress

Function Table

☼	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + STOP	Function 13:	START + STOP	(with signal of the status of the associated receiver)
☼	Function 5:	DIMMER	Function 14:	DIMMER	(with signal of the status of the associated receiver)
▤	Function 6:	SHUTTER	Function 15:	SHUTTER	(with signal of the status of the associated receiver)
	Function 7:	DOORS / WINDOWS	Function 16:	DOORS / WINDOWS	(with signal of the status of the associated receiver)
	Function 8:	SUNSHADE	Function 17:	SUNSHADE	(with signal of the status of the associated receiver)
✲	Function 9:	VENTILATION	Function 18:	VENTILATION	(with signal of the status of the associated receiver)


441ABT6S


445ABT6S


442ABT6S


443ABT6S

□ **441ABT6S** ■ **445ABT6S** ■ **449ABT6S**
AVEbus control device with 6 "touch" Channels - Domus series - Tekla - 3 modules
The device can be requested with customised front panel. Compatible with the plates: Vera 44, Technopolymer 44, Zama 44, Personal 44 and Young 44

■ **442ABT6S** ■ **443ABT6S**
AVEbus control device with 6 "touch" Channels - Life series - Allumia - 3 modules
The device can be requested with customised front panel. Compatible with the plates: Vera 44, Technopolymer 44, Zama 44, Personal 44 and Young 44

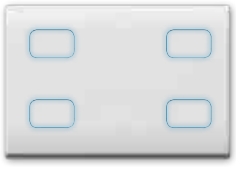
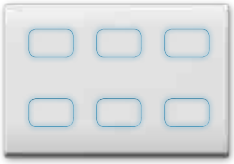
FRONT PANEL CONTROLS SET UP

LIGHTING
It sends the switch on/off signal, depending on the previous status of the actuator.

SCENARIOS
Sends the home automation system the order to execute the relevant scenario.

DIMMER
It sends the switch on/off signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to regulate brightness.

AUTOMATION
It sends the open or close signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to send the movement signal "person present".

EXAMPLE OF CUSTOMISATION MADE TO ORDER

COMPATIBLE WITH SYSTEM 44 PLATES


44PV3...


44PL3...


44PA3...


44P93...


44PJ03...


44P03...

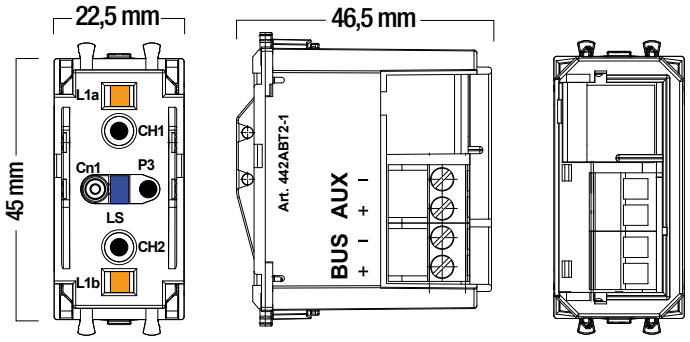

44PY03...

TECHNICAL CATALOGUE

DOMINA^{plus} control devices

2-CHANNEL CONTROL DEVICE - cod. 442ABT2-1

The 442ABT2-1 device is a 2-channel control bus that is capable of controlling all receivers of the AVEbus family. It can be set as a control device with 1 to 2 AVEbus channels, each of which can be assigned a home automation function that is independent from the other channels. It must be completed with an appropriate key (central or asymmetrical core).



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm to be completed with keys cod. 44...ELA01 or 44..ELA02.
- Protection degree: IP41 if completed with keys and installed in the corresponding flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 21 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 7.2 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Description of the front

Several optical signals are visible on the front to enable the user to locate the device in the dark and, if properly set, they show the status of the associated receiver.

- Blue LED (working only when the auxiliary power is on)
  - ON allows orientation in the dark.

- Amber LED
  - Fast flashing, device being programmed
  - ON, relay contact of the associated closed receiver (with lighting function)
  - ON slow flashing, moving shutter or window/door fitting (with related function)

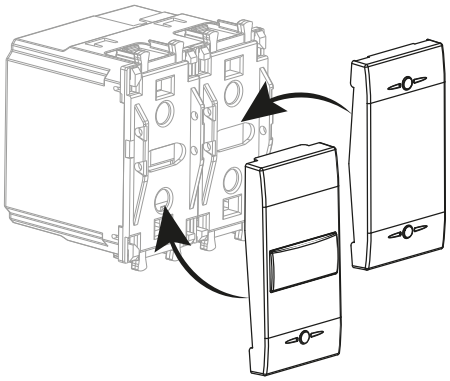
Function Table

	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + STOP	Function 13:	START + STOP	(with signal of the status of the associated receiver)
	Function 5:	DIMMER	Function 14:	DIMMER	(with signal of the status of the associated receiver)
	Function 6:	SHUTTER	Function 15:	SHUTTER	(with signal of the status of the associated receiver)
	Function 7:	DOORS / WINDOWS	Function 16:	DOORS / WINDOWS	(with signal of the status of the associated receiver)
	Function 8:	SUNSHADE	Function 17:	SUNSHADE	(with signal of the status of the associated receiver)
	Function 9:	VENTILATION	Function 18:	VENTILATION	(with signal of the status of the associated receiver)

442ABT2-1

442ABT2-1
Control device with 2 channels - to be completed with key cover - 1 module

To be completed with key covers. Next page:



Example of key cover (44..ELA01, 44...ELA01-C, 44..ELA02 or 44..ELA02-C)

FRONT PANEL CONTROLS SET UP

LIGHTING

It sends the switch on/off signal, depending on the previous status of the actuator.

AUTOMATION

It sends the open or close signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to send the movement signal “person present”.

441ELA02-C

2 tilting controls

SCENARIOS

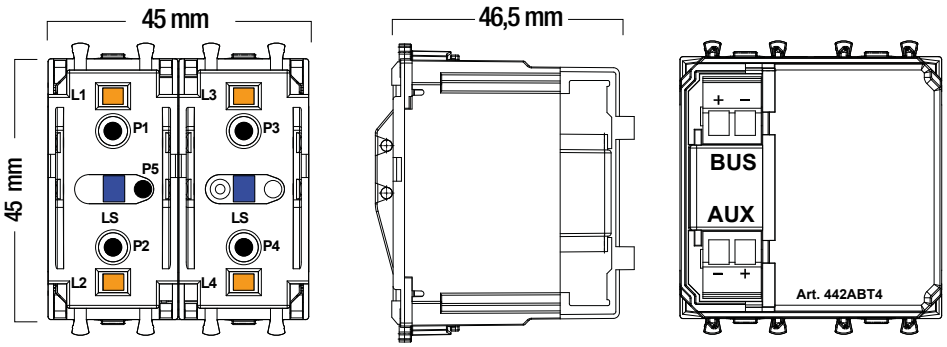
Sends the home automation system the order to execute the relevant scenario.

DIMMER

It sends the switch on/off signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to regulate brightness.

1-4 CHANNEL CONTROL DEVICE - cod. 442ABT4

The device 442ABT4 is a control device with 4 independent channels that is capable of controlling all receivers of the AVEbus family. It can be set as a control device with 1 to 4 AVEbus channels, each of which can be assigned a home automation function that is independent from the others. It must be completed with the appropriate keys (central or asymmetrical core).



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if completed with keys and installed in the corresponding flush-mounted box.
- Reference temperature and relative humidity: 25°C RH 65%
- Operating Ambient Temperature Range: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

- Auxiliary power supply:
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 15.9 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 9.4 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Description of the front

Several optical signals are visible on the front to enable the user to locate the device in the dark and, if properly set, they show the status of the associated receiver.

- Blue LED (working only when the auxiliary power is on)
  - ON allows orientation in the dark.

- Amber LED
  - Fast flashing, device being programmed
  - ON, relay contact of the associated closed receiver (with lighting function)
  - ON slow flashing, moving shutter or window/door fitting (with related function)

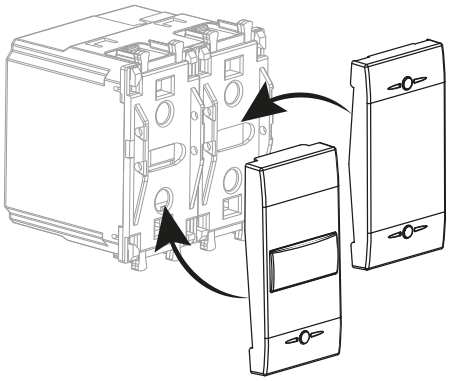
Function Table

	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + STOP	Function 13:	START + STOP	(with signal of the status of the associated receiver)
	Function 5:	DIMMER	Function 14:	DIMMER	(with signal of the status of the associated receiver)
	Function 6:	SHUTTER	Function 15:	SHUTTER	(with signal of the status of the associated receiver)
	Function 7:	DOORS / WINDOWS	Function 16:	DOORS / WINDOWS	(with signal of the status of the associated receiver)
	Function 8:	SUNSHADE	Function 17:	SUNSHADE	(with signal of the status of the associated receiver)
	Function 9:	VENTILATION	Function 18:	VENTILATION	(with signal of the status of the associated receiver)

442ABT4

442ABT4
Control device with 1-4 channels - to be completed with key cover - 2 modules

To be completed with key covers. Next page:



Example of key cover (44..ELA01, 44...ELA01-C, 44..ELA02 or 44..ELA02-C)

FRONT PANEL CONTROLS SET UP

LIGHTING

It sends the switch on/off signal, depending on the previous status of the actuator.

AUTOMATION

It sends the open or close signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to send the movement signal “person present”.

4 tiling controls

SCENARIOS

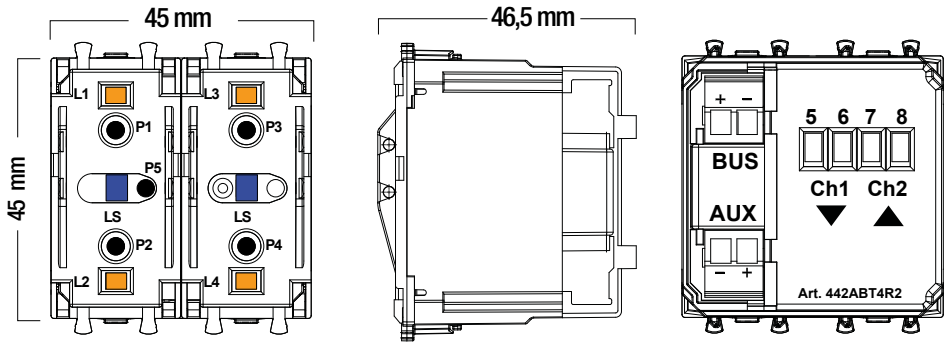
Sends the home automation system the order to execute the relevant scenario.

DIMMER

It sends the switch on/off signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to regulate brightness.

4-CHANNEL CONTROL DEVICE WITH 2 CHANNEL ACTUATOR - cod. 442ABT4R2

The 442ABT4R2 is a 4-independent channels command device with incorporated multi-function actuator able to control lights and roller shutters. The device consists of a front control part, and also of two actuation devices whose power contacts are placed on the back: lighting actuator and roller shutters actuator. The three devices (4-channel command, lighting actuator and roller shutters actuator) are independent from each other and freely configurable, except for the constraint related to the choice of the type of actuator which is exclusive (by selecting the lighting actuator mode the device excludes the roller shutter actuator and vice versa). It must be completed with the appropriate keys (central or asymmetrical core).



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if completed with keys and installed in the corresponding flush-mounted box.
- Reference temperature and relative humidity: 25°C RH 65%
- Operating Ambient Temperature Range: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 41.0 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 16.0 C

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND
- Terminal 3: Positive auxiliary power
- Terminal 4: Negative auxiliary power
- Terminal 5 and 6: Output Ch1 LIGHTING or CLOSE SHUTTER
- Terminal 7 and 8: Output Ch2 LIGHTING or OPEN SHUTTER

Description of the front

Several optical signals are visible on the front. During normal function they enable the user to locate the device in the dark and, if properly set, they show the status of the actuator associated with each channel of the control device.

- Blue LED (working only when the auxiliary power is on)
  - ON allows orientation in the dark.
  Note: The configuration parameter can be used to set the level of brightness.
- Amber LED
  - Fast flashing, device being programmed
  - ON, relay contact of the associated closed receiver (with lighting function)
  - ON slow flashing, moving shutter or window/door fitting (with related function)

Functions Table (Control Device) - For actuation functions, see the actuator section.

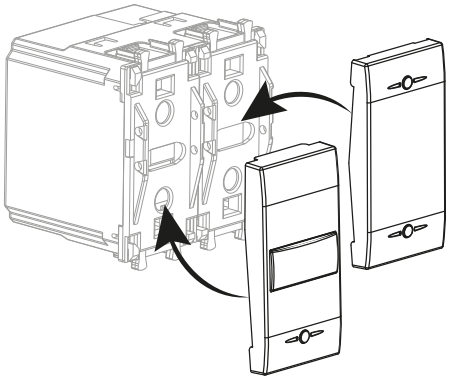
	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + STOP	Function 13:	START + STOP	(with signal of the status of the associated receiver)
	Function 5:	DIMMER	Function 14:	DIMMER	(with signal of the status of the associated receiver)
	Function 6:	SHUTTER	Function 15:	SHUTTER	(with signal of the status of the associated receiver)
	Function 7:	DOORS / WINDOWS	Function 16:	DOORS / WINDOWS	(with signal of the status of the associated receiver)
	Function 8:	SUNSHADE	Function 17:	SUNSHADE	(with signal of the status of the associated receiver)
	Function 9:	VENTILATION	Function 18:	VENTILATION	(with signal of the status of the associated receiver)

442ABT4R2

442ABT4R2
4-channel control device with built-in 2 channel multifunction actuator - 10A resistives - 4A incandescent lamps 4A COSφ 0.6 - 2 modules

Warning:
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 80A ("inrush current").

To be completed with key covers. Next page:



Example of key cover (44..ELA01, 44...ELA01-C, 44..ELA02 or 44..ELA02-C)

FRONT PANEL CONTROLS SET UP

LIGHTING

It sends the switch on/off signal, depending on the previous status of the actuator.

AUTOMATION

It sends the open or close signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to send the movement signal "person present".

4 tiling controls

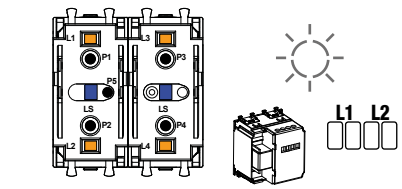
SCENARIOS

Sends the home automation system the order to execute the relevant scenario.

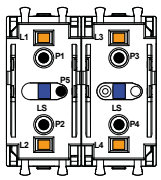
DIMMER

It sends the switch on/off signal, depending on the previous status of the actuator. Holding the button pressed down will allow the device to regulate brightness.

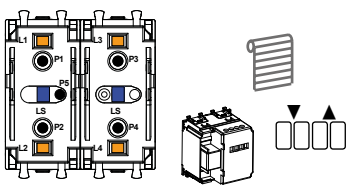
On the back there are four terminals of the two channels of the actuator that is built into this device. Their function methods, which can be selected during set-up, can be: LIGHTING mode (two channels for lighting actuation) or SHUTTER mode (one channel comprising both relays for the actuation of a shutter).



Lighting actuator mode



Control device mode



Shutter actuator mode

Key assembly

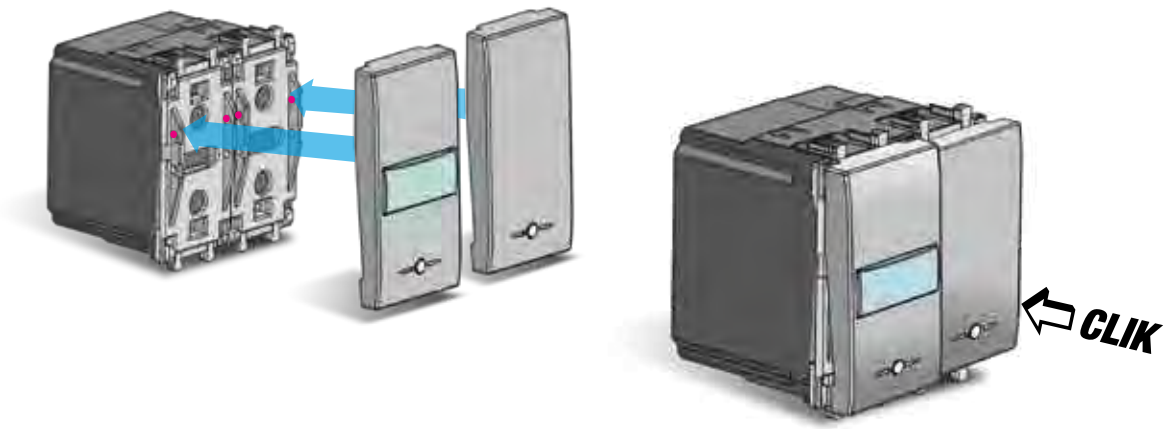
Once programming of the control device has ended, the appropriate key covers must be installed on the front for aesthetic purposes and to allow the user to use them.

There are four types of keys for each of the aesthetic finishes of S.44 (Domus, Tekla, Life and Allumia):

Single-function keys

- Smooth key with single function; it allows to use only the bottom control and indicates the status of the associated load with the amber colour LED that is present in the control bus below;

- back lit key with single function; it allows to use only the bottom control and indicates the status of the associated load with the amber colour LED that is present in the control bus below. Moreover, the central transparent gem allows the user to locate it in the dark by showing the blue colour back light, and also offering customisation by affixing the labels provided between the key and the transparent gem.



Dual-function keys

- Smooth key with two functions; it allows to use both top and bottom controls, and indicates the status of the associated load/s with the amber colour LED that is present in the control bus below;

- back lit key with two functions; it allows to use both the top and bottom controls and indicates the status of the associated load/s with the amber colour LED that is present in the control bus below. Moreover, the central transparent gem allows the user to locate it in the dark by showing the blue colour back light, and also offering customisation by affixing the labels provided between the key and the transparent gem.


441ELA01-C


445ELA01-C


449ELA01-C

□ 441ELA01-C **■ 445ELA01-C** **■ 449ELA01-C**
Smooth key with single function for transmitters - Domus, Tekla and Class series - 1 module

■ 442ELA01-C **■ 443ELA01-C**
Smooth key with single function for transmitters - Life series - Allumia - 1 module

□ 441ELA02-C **■ 445ELA02-C** **■ 449ELA02-C**
Smooth key with two functions for transmitters - Domus, Tekla and Class series - 1 module

■ 442ELA02-C **■ 443ELA02-C**
Smooth key with two functions for transmitters - Life series - Allumia - 1 module


442ELA01-C


443ELA01-C


441ELA02-C


445ELA02-C


449ELA02-C


442ELA02-C


443ELA02-C

Lightable “key” with one/two functions


441ELA01


445ELA01


449ELA01

□ 441ELA01 **■ 445ELA01** **■ 449ELA01**
Key with single function for transmitters - Domus, Tekla and Class series - 1 module

■ 442ELA01 **■ 443ELA01**
Key with single function for transmitters - Life series - Allumia - 1 module

□ 441ELA02 **■ 445ELA02** **■ 449ELA02**
Key with two functions for transmitters - Domus, Tekla and Class series - 1 module

■ 442ELA02 **■ 443ELA02**
Key with two functions for transmitters - Life series - Allumia - 1 module


442ELA01


443ELA01


441ELA02

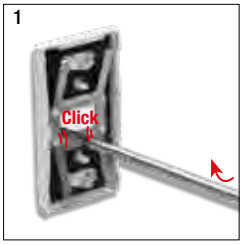

445ELA02


449ELA02


442ELA02


443ELA02

APPLICATION SEQUENCE OF IDENTIFICATION LABELS



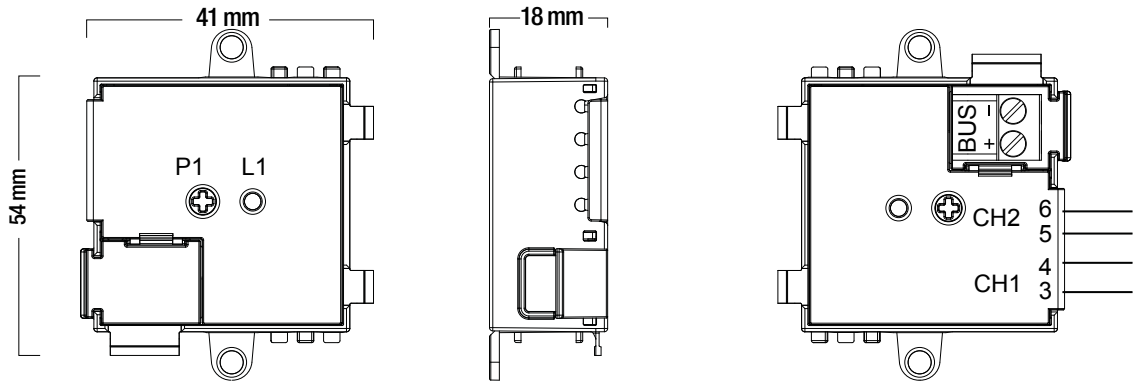
Remove the central transparent plate

Insert the front of the symbol label supplied with the key

Insert the transparent plate frontally

HIDDEN 2-CHANNEL CONTACT INTERFACE - cod. ABIN02

The ABIN02 device is a volt free contact interface that is capable of sending the order associated with the two channels controlled by the external contacts to two independent channels of the AVEbus system.
The device is contained in a compact versatile module that is suitable for installation anywhere. For example, it can be placed in a junction box or in a false ceiling. The two tabs make it possible to anchor it using screws but if necessary they can be broken off to reduce the overall bulk.
Due to its dimensions, it can be inserted in a blank insert of the wiring accessories (S44).



Technical details

- Module: (54 w x 41 h x 18 d) mm
- Protection degree: IP20D
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

- Absorption from the AVEbus line:
  - With AUX line: n.d.
  - Only AVEbus line: 2.7 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: Input Ch1 (grey colour)
- Terminal 4: GND (black colour)
- Terminal 5: Input Ch2 (blue colour)
- Terminal 6: GND (black colour)

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED (L1): indicates the status of the device
  - Fast flashing, device being programmed
  - OFF, normal function

Function Table

☼	Function 1:	START
	Function 2:	STOP
	Function 3:	STEP
	Function 4:	START + STOP
☼	Function 5:	DIMMER
▤	Function 6:	SHUTTER
	Function 7:	DOORS / WINDOWS
	Function 8:	SUNSHADE
✣	Function 9:	VENTILATION

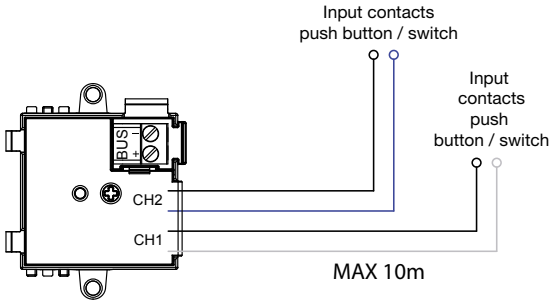
		With function from 1 to 4	With function from 5 to 9
Parameter 1	0	On / Off lighting control	Open/close control for window and door fittings and increase/ reduce lighting
	1	On / Off lighting control	Only ON order (open)
	2	On / Off lighting control	Only OFF order (down, close)
	3	Only light ON order	Only increase light order
	4	Only light Off order	Only reduce lighting order

ABIN02

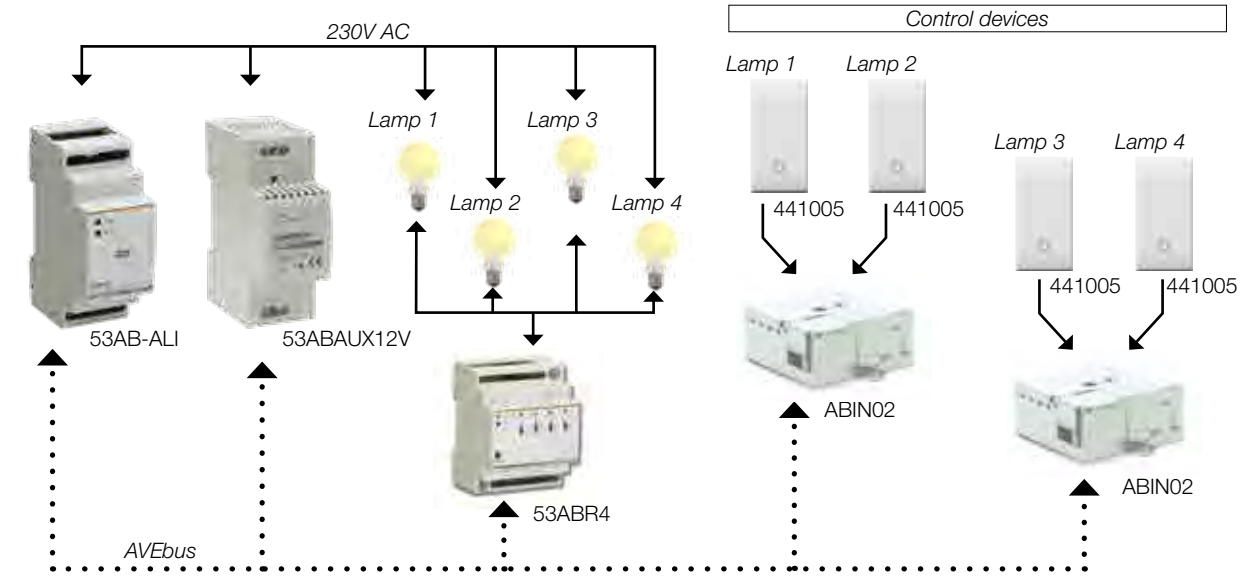
ABIN02
2-channel hidden contact interface - dimensions (WxHxD) 54x41x18 mm

TECHNICAL INFORMATION

Warning:
To interface any contacts use the twisted shielded wire.

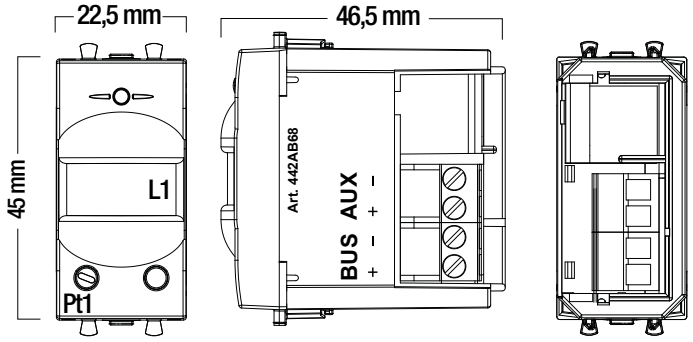


EXAMPLE OF USE



PASSIVE INFRA-RED DETECTOR 1 CHANNEL "LUCE AMICA" – cod. 44..AB68

The 44..AB68 device is a passive infra-red revealer detector, which includes a digital pyroelectric sensor and Fresnel lens.
It is combined with a twilight sensor that can be adjusted by turning the potentiometer placed on the front.



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm
- Protection degree: IP41 installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 2.5 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.4 C
  - Only AVEbus line: 4.8 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Volumetric coverage

- Scanned angle: 150° horiz. – 50° vert.
- No. of sectors: 12 on 2 layer (6+6 scanned sectors)
- Max range: 12 metres adjustable

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED (L1): indicates the status of the device
  - Fast flashing, device being programmed
  - Slow flashing, coverage test mode
  - OFF, normal function

The device enables the user to adjust the twilight sensor through potentiometer Pt1 located on the front of the device. (End of rotation clockwise, twilight sensor disabled with motion detection always active). The maximum adjustment is 100 lx and the minimum is 1 lx.

Function Table

Function 1:	10 s
Function 2:	20 s
Function 3:	30 s
Function 4:	45 s
Function 5:	1 min
Function 6:	1 min 30 sec
...	
Function 14:	5 min 30 s
Function 15:	6 min
Function 16:	6 min 30 s
Function 17:	7 min
Function 18:	7 min 30 s
Function 19:	8 min

Time elapsing between sending the actuator activation control and the actuator disconnection control with parameter 2 set at 1 or 3

441AB68

445AB68

449AB68

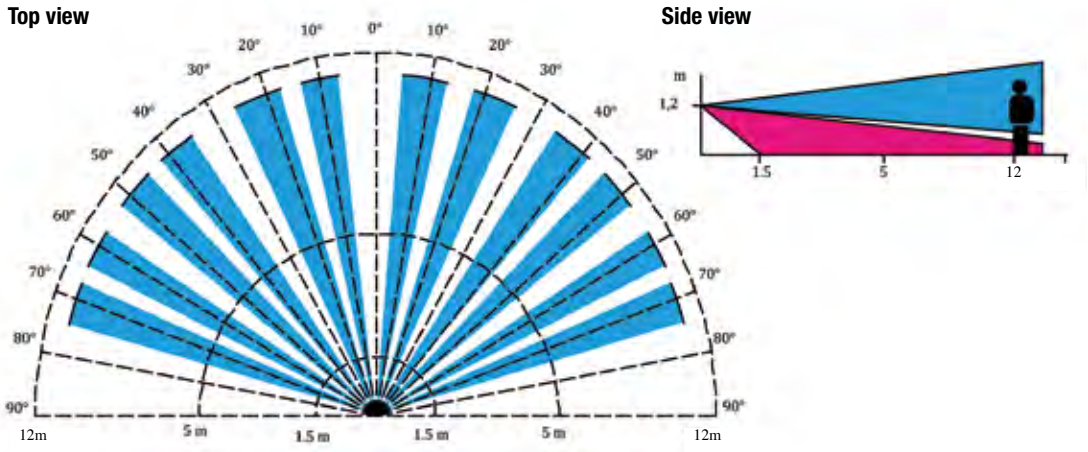
442AB68

443AB68

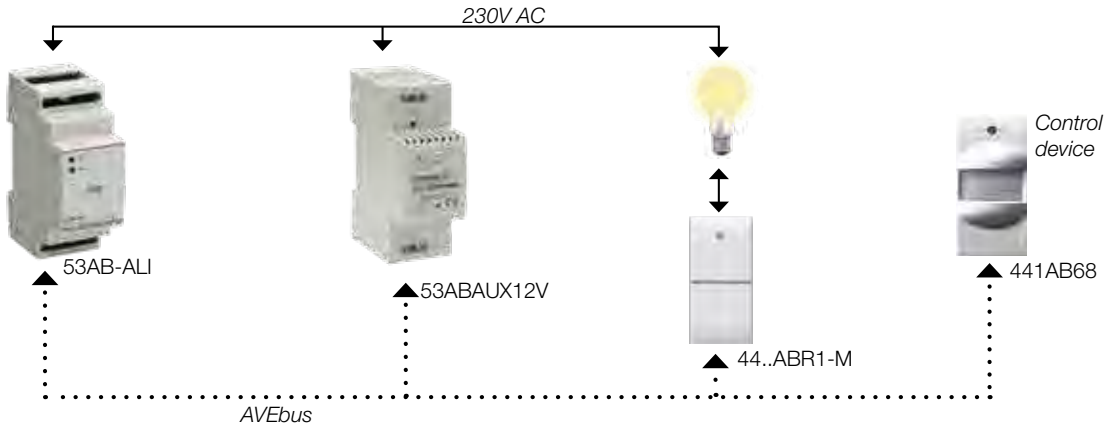
☐ **441AB68** ■ **445AB68** ■ **449AB68**
Passive infra-red detector LUCE AMICA - Domus series - Tekla - Class -1 module

■ **442AB68** ■ **443AB68**
Passive infra-red detector LUCE AMICA - Life series - Allumia - 1 module

VOLUMETRIC COVERAGE AND FUNCTIONAL DIAGRAM

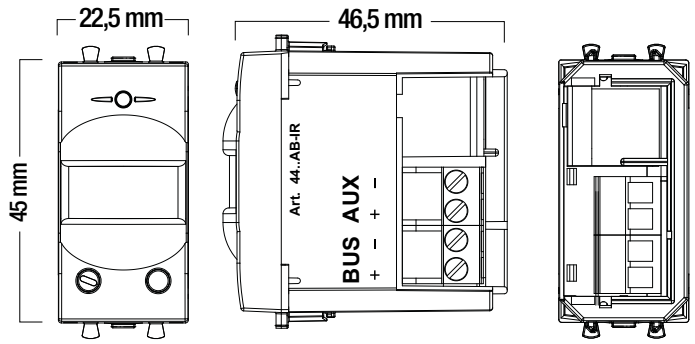


EXAMPLE OF USE



AveBus RECEIVER FOR IR REMOTE CONTROL - COD. 44..AB-IR

Cod. 44..AB-IR is an interface between the DOMINAplus home automation system and the infra-red remote control cod. IR-REMOTE (or other remote controls with "Philips RC-5" infra-red protocol). The device allows to see most of the automation functions by pressing a button on the appropriately set up infra-red remote control. Functions are stored in the device using the relative programming software SFW-IR.
The device allows:



- Switching on/off the lights,
- Adjusting light intensity of the dimmer,
- Total opening and closing of motorised window and door fittings,
- opening and closing of motorised window and door fittings in "Person Present" mode,
- Switching on/off and BOOST mode of the CMV system appropriately interfaced with cod. 441ABRV1.
- Moreover, the device allows to see the execution of scenarios present in the DOMINAplus supervision device.

Technical details

- Module: 1 module S.44 (WxHxD) 22.5 x 45 x 46.5 mm
- Protection degree: IP40 installed in the respective wall-mounted or built-in box
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 4.8 mA

- Absorption from the AVEbus line:
  - With AUX line: 0.4 C
  - Only AVEbus line: 4.5 C

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND (BUS)
- Terminal 3: Positive SELV auxiliary power supply
- Terminal 4: GND (AUX)

Technical characteristics compatible IR controls

- Remote control address: from "0" to "32" (configurable with software SFW-IR)
- Power supply frequency: 36.0 kHz - 38.0 kHz - 40.0 kHz (remote control AVE 36.0kHz)
- Toggle Function: managed (configurable with software SFW-IR).

Description of the front

On the front there are a yellow optical indicator that shows the following conditions pushbutton.

- Yellow LED:
  ON, AVEbus communication error.
  OFF, stand-by mode.
  Single flash, IR control with correctly received (Philips RC-5 protocol).
  Fast flashing, device being programmed.

Function Table

LIGHTING	(ON - OFF - CHANGE STATUS)
DIMMER	(ON - OFF - CHANGE STATUS - INCREASE - REDUCE – SET LEVEL)
SHUTTERS	(RAISE - LOWER)
CUSTOM	(AVEbus Frame)

441AB-IR

445AB-IR

449AB-IR

442AB-IR

443AB-IR

IR-REMOTE

☐ **441AB-IR** ■ **445AB-IR** ■ **449AB-IR**
Interface for infra-red remote controls - Domus series - Tekla - Class - 1 module
(usable with dedicated remote control cod. IR-REMOTE or in alternative with RC-5 protocol)

■ **442AB-IR** ■ **443AB-IR**
Interface for infra-red remote controls - Domus series - Allumia - 1 module
(usable with dedicated remote control cod. IR-REMOTE or in alternative with RC-5 protocol)

IR-REMOTE
Infra-red remote control for interface cod. 44..AB-IR

⚠ **Warning:**
The device is programmed using the interface cod. BSA-USB combined with the SFW-IR configuration software that can be found on www.ave.it in the download section.

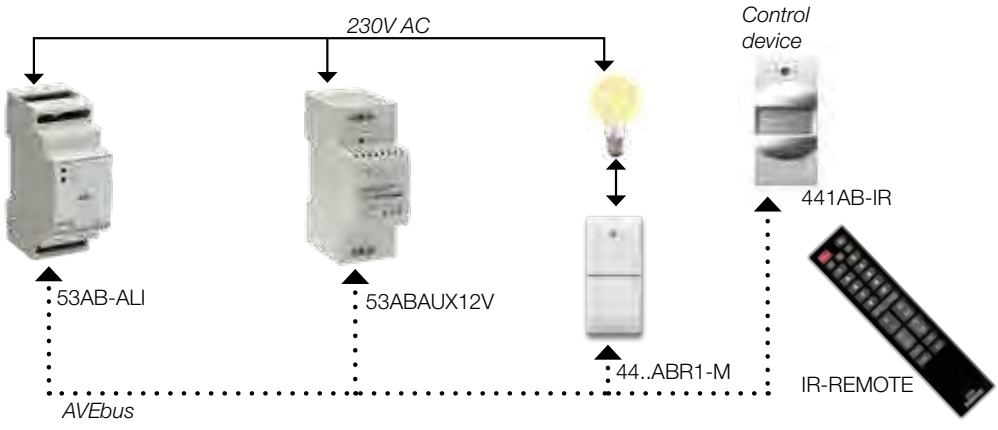
TECHNICAL INFORMATION

1	Key code : 0x01
2	Key code : 0x02
3	Key code : 0x03
4	Key code : 0x04
5	Key code : 0x05
6	Key code : 0x06
7	Key code : 0x07
8	Key code : 0x08
9	Key code : 0x09
0	Key code : 0x00

Out	Key code : 0x0C
In	Key code : 0x0D
F1	Key code : 0x30
F3	Key code : 0x31
F2	Key code : 0x32
F4	Key code : 0x33
S1	Key code : 0x11
S2	Key code : 0x12
S3	Key code : 0x13

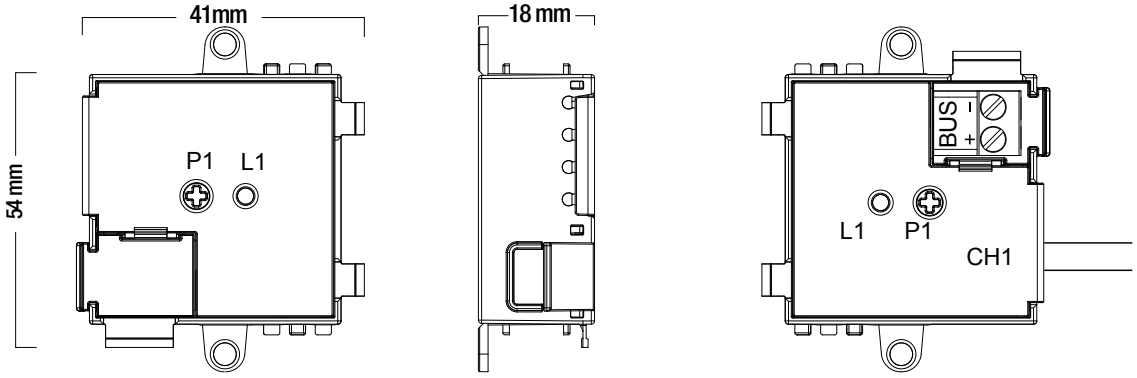
S4	Key code : 0x14
S5	Key code : 0x15
S6	Key code : 0x16
S7	Key code : 0x17
C1	Key code : 0x21
C1	Key code : 0x22
C2	Key code : 0x23
C2	Key code : 0x24
C3	Key code : 0x25
C3	Key code : 0x26

EXAMPLE OF USE



HIDDEN 1-CHANNEL LIGHTING ACTUATOR - cod. ABR01

The ABR01 device is a single channel actuator bus, which can control electric loads by means of a volt free contact. The device is contained in a compact versatile module that is suitable for installation anywhere. For example, it can be placed in a junction box or in a false ceiling. The two tabs make it possible to anchor it using screws but if necessary they can be broken off to reduce the overall bulk. Due to its dimensions, it can be inserted in a blank insert of the wiring accessories (S44).



Technical details

- Module: (54 w x 41 h x 18 d) mm
- Protection degree: IP20D
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

- Absorption from the AVEbus line:
  - With AUX line: n.d.
  - Only AVEbus line: 4.6 C

Characteristics of controllable electric load

- Ohmic load (cosφ1): 2A at 230Vac
- Incandescent load: 2A at 230Vac
- Inductive load (cosφ 0.6): 2A at 230Vac
- Fluorescent load: Not suitable

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Ch1: output contact (white colour)

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED (L1): indicates the status of the device
  - Slow flashing, indicates that the relay is about to change status (actuation delay)
  - Fast flashing, device being programmed
  - OFF, normal function

Function Table

	Parameter 1 = 0,1,2 (delay)	Parameter 1=3 (flashing)
Function 1:	Instantaneous	0.4 s
Function 2:	1 s	0.6 s
Function 3:	3 s	0.8 s
Function 4:	5 s	1 s
Function 5:	10 s	1.4 s
Function 6:	20 s	1.8 s
	...	
Function 13:	5 min	16 s
Function 14:	6 min	20 s
Function 15:	7 min	24 s
Function 16:	8 min	30 s

ABR01

ABR01
1-channel hidden actuator - 2A resistive, incandescent and inductive lamps
COSφ 0,6 - dimensions (WxHxD) 54x41x18 mm

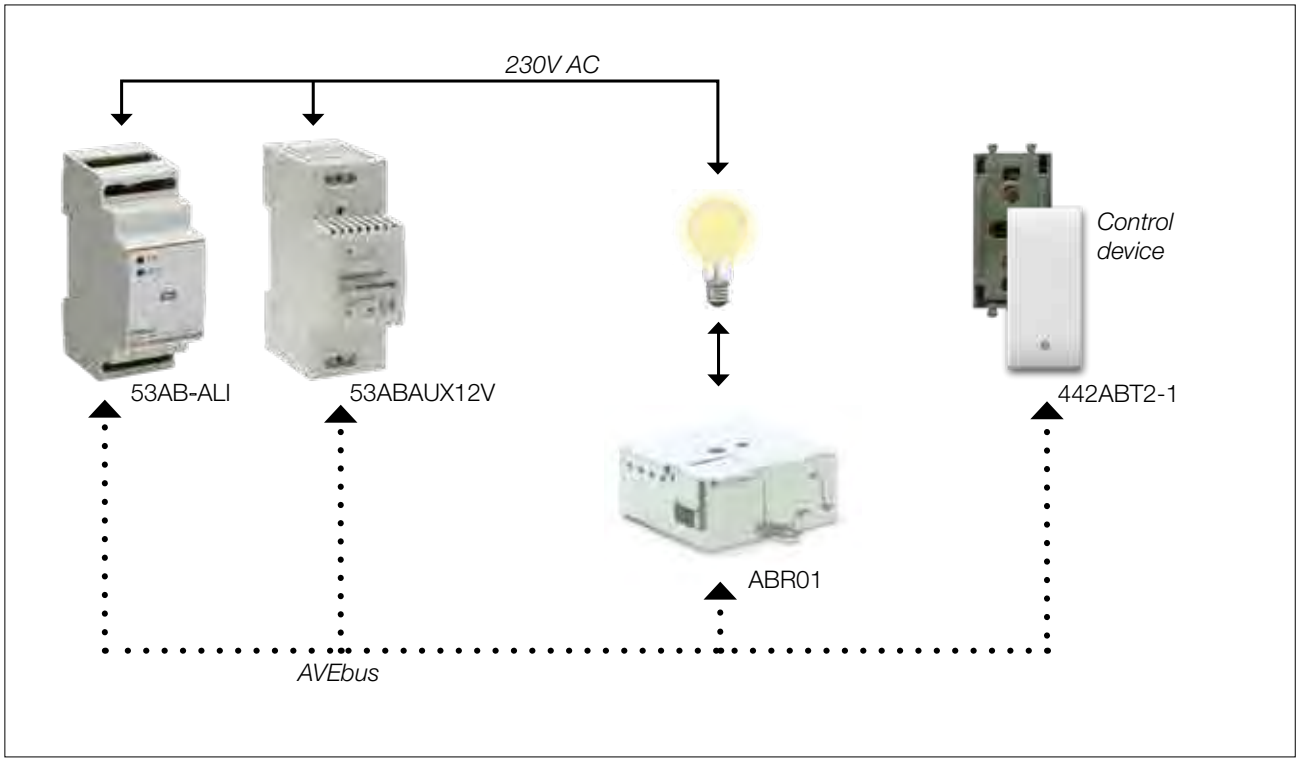
Warning:
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 20A.

TECHNICAL INFORMATION

Characteristics of controllable electric load

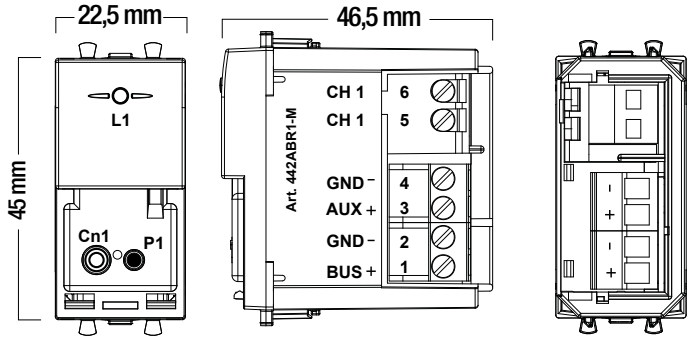
• Ohmic load (cosφ 1):	2A at 230Vac
• Incandescent load:	2A at 230Vac
• Inductive load (cosφ 0.6):	2A at 230Vac
• Fluorescent load:	Not suitable

EXAMPLE OF USE



1-CHANNEL LIGHTING ACTUATOR - cod. 44..ABR1-M

The 44..ABR1-M device is a 1-channel actuator that is able to control electric loads by means of volt free contacts. It has a status memory that can restore the output, upon restoration of the mains power.



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if completed with front plate and installed in the corresponding flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 3.4 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 4.6 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power
- Terminal 5: relay contact
- Terminal 6: relay contact

Characteristics of controllable electric load

- Ohmic load (cosφ1): 10A at 230Vac
- Incandescent load: 4A at 230Vac
- Inductive load (cosφ 0.6): 4A at 230Vac
- Power factor correction in fluorescent load: 1A at 230Vac

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - Slow flashing, the relay is about to change status (actuation delay)
  - ON, relay contact of the receiver closed
  - OFF, relay contact of the receiver open

Function Table

	Parameter 1 = 0,1,2 (delay)	Parameter 1=3 (flashing)
Function 1:	Instantaneous	0.4 s
Function 2:	1 s	0.6 s
Function 3:	3 s	0.8 s
Function 4:	5 s	1 s
Function 5:	10 s	1.4 s
Function 6:	20 s	1.8 s
	...	
Function 13:	5 min	16 s
Function 14:	6 min	20 s
Function 15:	7 min	24 s
Function 16:	8 min	30 s



441ABR1-M **445ABR1-M** **449ABR1-M**

□ 441ABR1-M **■ 445ABR1-M** **■ 449ABR1-M**
1-channel actuator with memory status upon restoration of the mains power - 10A resistive or 4A incandescent lamps - 4A COSφ 0.6 - Domus series - Tekla - Class - 1 module

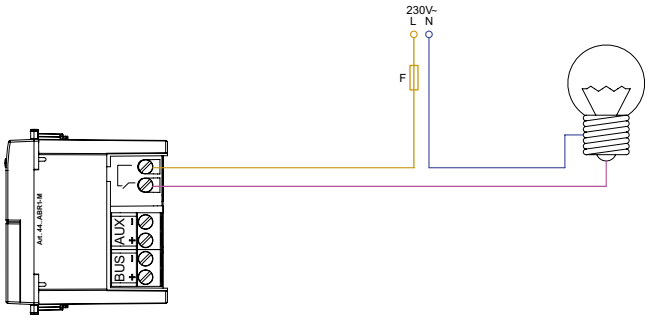
■ 442ABR1-M **■ 443ABR1-M**
1-channel actuator with memory status upon restoration of the mains power - 10A resistive or 4A incandescent lamps - 4A COSφ 0.6 - Life series - Allumia - 1 module


442ABR1-M **443ABR1-M**

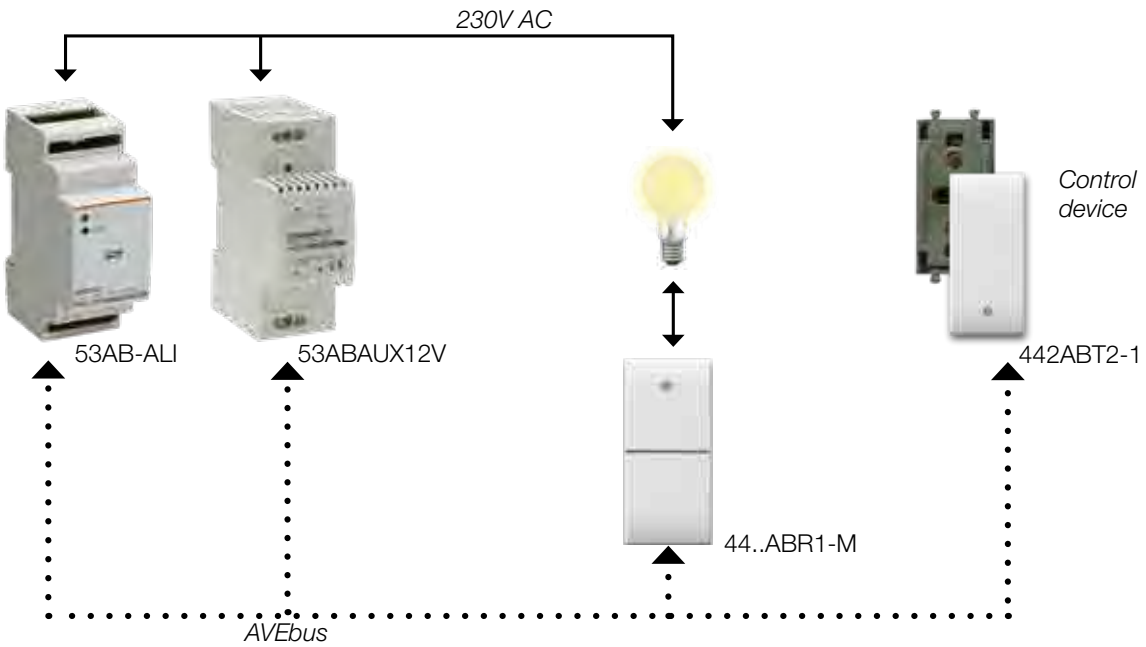
Warning:
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 40A.

TECHNICAL INFORMATION

Device with status memory.
It allows restoration of load status as it was prior to power failure

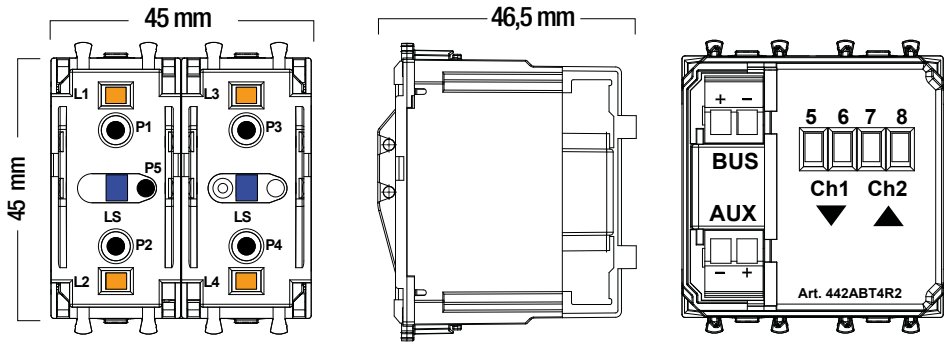


EXAMPLE OF USE



4-CHANNEL CONTROL DEVICE WITH 2-CHANNEL ACTUATOR - cod. 442ABT4R2

The 442ABT4R2 is a 4-independent channels command device with incorporated multi-function actuator able to control lights and roller shutters. The device consists of a front control part, and also of two actuation devices whose power contacts are placed on the back: lighting actuator and roller shutters actuator. The three devices (4-channel command, lighting actuator and roller shutters actuator) are independent from each other and freely configurable, except for the constraint related to the choice of the type of actuator which is exclusive (by selecting the lighting actuator mode the device excludes the roller shutter actuator and vice versa). It must be completed with the appropriate keys (central or asymmetrical core).



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if completed with keys and installed in the corresponding flush-mounted box.
- Reference temperature and relative humidity: 25°C RH 65%
- Operating Ambient Temperature Range: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 41.0 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 16.0 C

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND
- Terminal 3: Positive auxiliary power
- Terminal 4: Negative auxiliary power
- Terminal 5 and 6: Output Ch1 LIGHTING or CLOSE SHUTTER
- Terminal 7 and 8: Output Ch2 LIGHTING or OPEN SHUTTER

Description of the front

Several optical signals are visible on the front. During normal function they enable the user to locate the device in the dark and, if properly set, they show the status of the actuator associated with each channel of the control device.

- Blue LED (working only when the auxiliary power is on)
  - ON allows orientation in the dark.
  Note: The configuration parameter can be used to set the level of brightness.
- Amber LED
  - Fast flashing, device being programmed
  - ON, relay contact of the associated closed receiver (with lighting function)
  - ON slow flashing, moving shutter or window/door fitting (with related function)

Function Table (Lighting actuator device)

	Parameter 1 = 0,1,2 (delay)	Parameter 1=3 (flashing)
Function 1:	Instantaneous	0.4 s
Function 2:	1 s	0.6 s
Function 3:	3 s	0.8 s
Function 4:	5 s	1 s
	...	
Function 13:	5 min	16 s
Function 14:	6 min	20 s
Function 15:	7 min	24 s
Function 16:	8 min	30 s

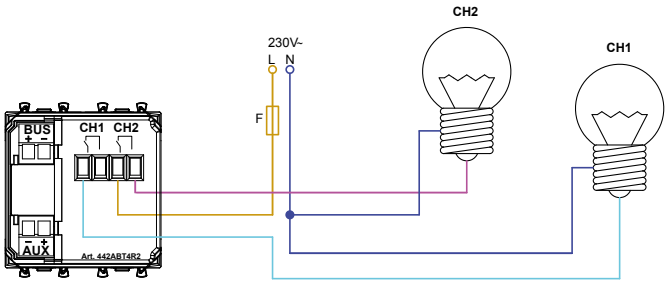
442ABT4R2

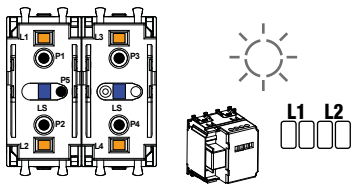
442ABT4R2
4-channel control device with built-in 2 channel multifunction actuator - 10A resistives - 4A incandescent lamps 4A COSφ 0.6 - 2 modules

Warning:
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 80A ("inrush current").

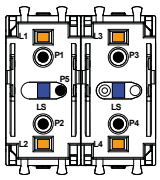
TECHNICAL INFORMATION

On the back there are four terminals of the two channels of the actuator that is built into this device. Their function methods, which can be selected during set-up, can be: LIGHTING mode (two channels for lighting actuation) or SHUTTER mode (one channel comprising both relays for the actuation of a shutter).

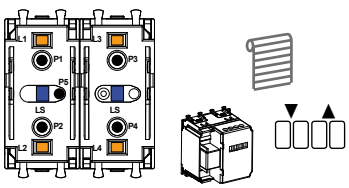




Lighting actuator mode

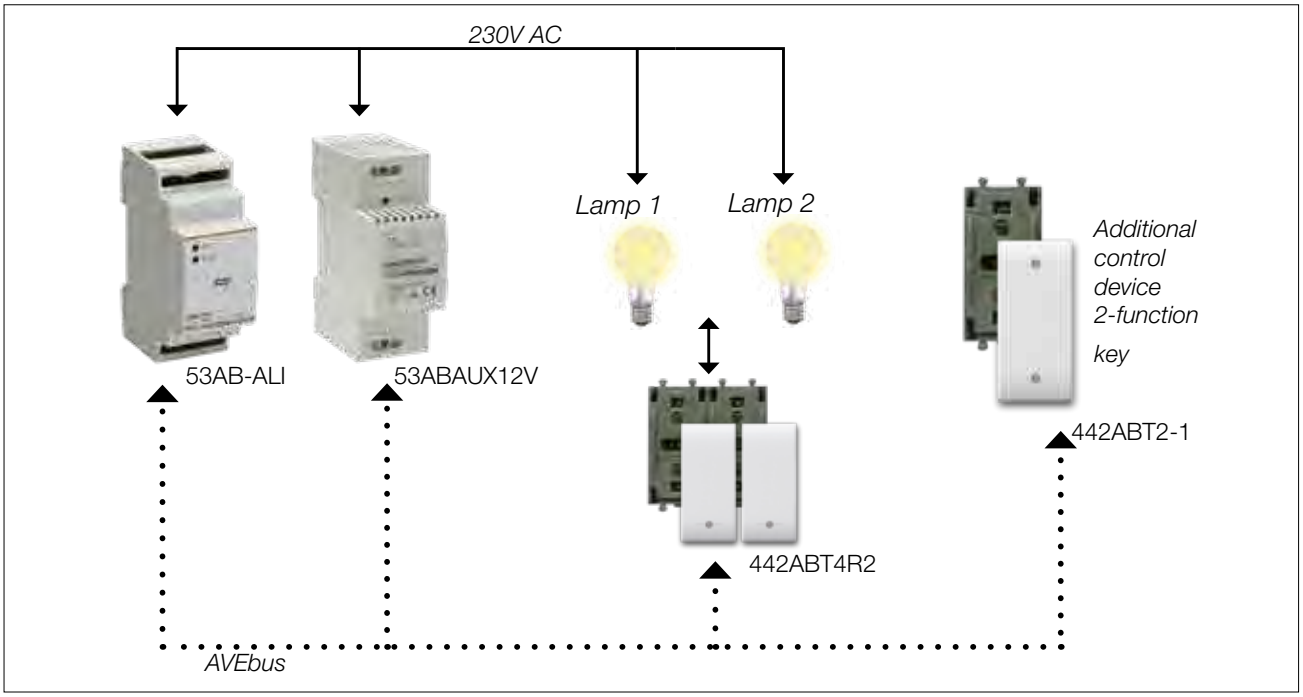


Control device mode



Shutter actuator mode

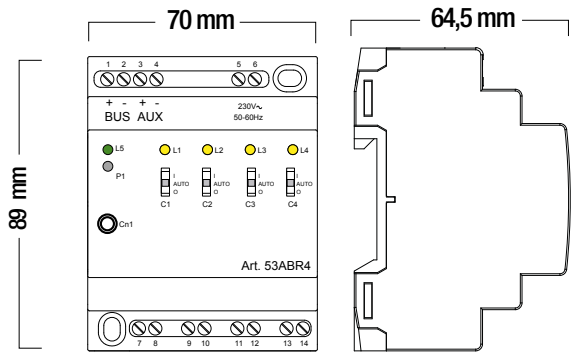
EXAMPLE OF USE



4-CHANNEL LIGHTING ACTUATOR - cod. 53ABR4

The 53ABR4 device is an actuator provided with four ON/OFF outputs made with volt free relay contacts. It must be powered by an auxiliary power supply source or 230Vac power line. Outputs can also be manually forced by means of micro-switches placed on the front.

Technical details



- Module: 4 DIN modules (WxHxD) 70 x 89 x 66 mm
- Protection degree: IP 30D in DIN boxes
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Mains power supply
  - Rated voltage 230Vac
  - Allowed fluctuation: 190Vac - 253Vac
  - Absorption at 230Vac: 25mA max
- Auxiliary power supply (alternative)
  - Rated voltage from SELV source: 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 130mA max

- Absorption from the AVEbus line:
  - With AUX line: 0.7 C
  - Only AVEbus line: n.d.

Characteristics of controllable electric load

- Ohmic load (cosφ 1): 8A at 230Vac
- Incandescent load: 8A at 230Vac
- Inductive load (cosφ 0.6): 5A at 230Vac
- Capacitative load 140μF: 5A at 230Vac

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND
- Terminal 3: Positive power supply aux SELV
- Terminal 4: GND power supply aux SELV
- Terminal 5 - 6: 230 V~ auxiliary power supply
- Terminal 7-8: CH1 contact output
- Terminal 9 - 10: CH2 contact output
- Terminal 11-12: CH3 contact output
- Terminal 13-14: CH4 contact output

Description of the front

Four yellow optical signals are visible on the front, each one indicating the status of the output contact associated with each channel.

- Yellow LED (L1,L2,L3,L4): indicates the actual status of the relay output contact
  - ON, relay contact closed (of the associated channel) - ON slow flashing, awaiting load actuation.
  - OFF, relay contact open (of the associated channel)
- Green LED (L5): indicates the status of the device
  - ON, auxiliary power supply present, Bus absent or circuit malfunction
  - Short flashing: auxiliary power supply and bus present (normal function)
  - Fast flashing, device in programming
  - OFF, power failure
- C1, C2, C3, C4, manual/automatic output control.

Function Table

	Parameter 1 = With delay	Parameter 1= With flashing
Function 1:	Instantaneous	0.4
Function 2:	1 s	0.6
Function 3:	3 s	0.8
Function 4:	5 s	1.0 s
Function 5:	10 s	1.4
	...	
Function 16:	8 min	30 s

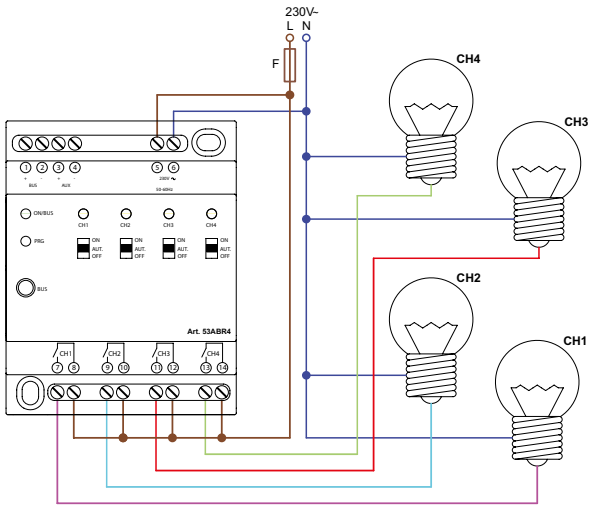
53ABR4

53ABR4
4-channel independent actuator - 8A resistive and incandescent lamps, 5A capacitative and inductive cosφ 0.6 - 4 DIN modules

Warning:
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 80A.

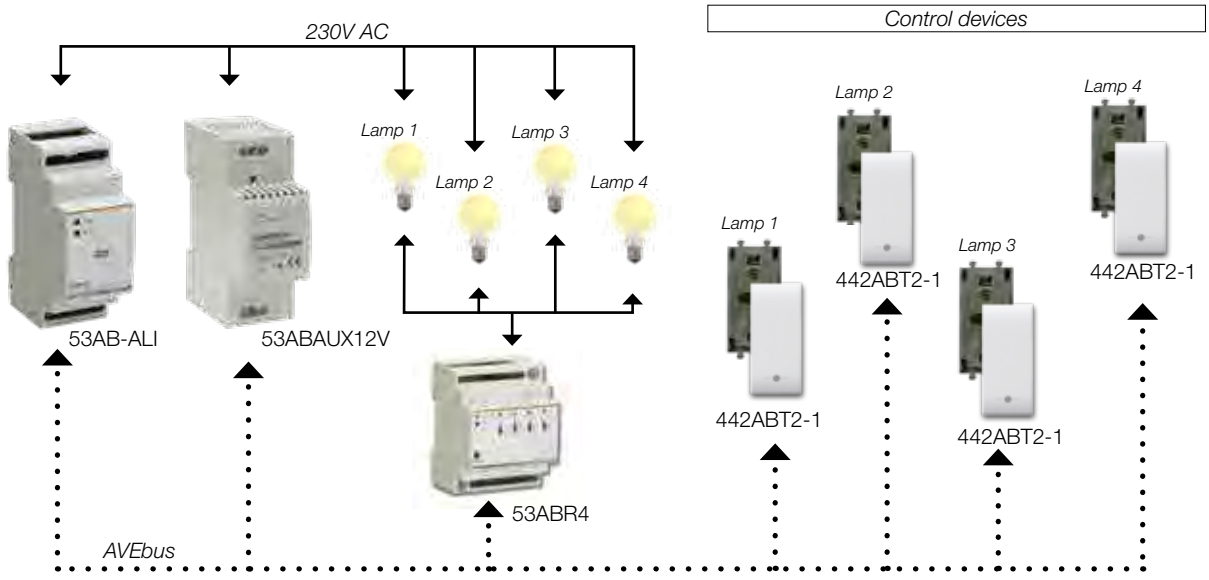
TECHNICAL INFORMATION

Warning:
power supply from SELV source and from 230Vac power line MUST NOT be connected at the same time,
but they must be used alternatively.



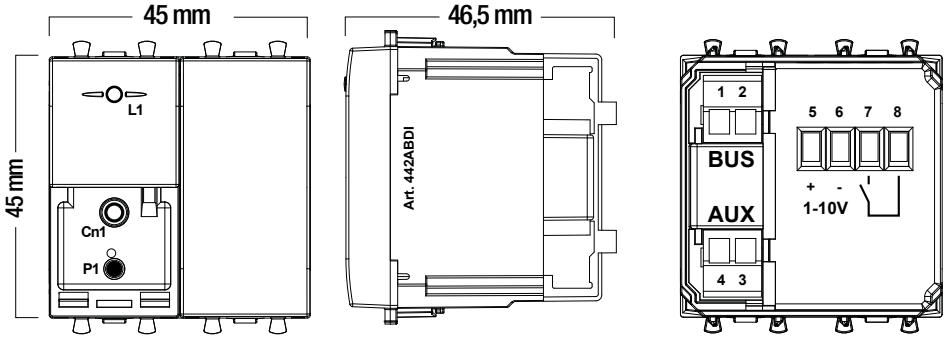
Note:
the micro-two-way switches placed on the front, if in the ON or OFF position, manually force the output, while in the AUTO position the output follows the controls received from the bus.

EXAMPLE OF USE



1-CHANNEL DIMMER ACTUATOR 1-10V - cod. 44..ABDI

The 44..ABDI device is an actuator that acts as dimmer interface between the AVEbus line and an analogue output, which is able to control any type of light control device based on standard 1 – 10V (10% minimum brightness, 100% maximum brightness). The device is also equipped with a relay output for direct control of switching on/off operations. The device is able to control the dimmer AVE 53DIM010 rather than an electronic controller for LED and/or LED RGB.



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 46.5 d) mm
- Protection degree: IP41 installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 5 mA MAX
- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 5.4 C

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power supply
- Terminal 4: negative auxiliary power
- Terminal 5: positive 1-10V analogue output
- Terminal 6: negative 1-10V analogue output
- Terminal 7: relay contact
- Terminal 8: relay contact

Warning: The device cod. 44..ABDI does not generate a 1-10V voltage signal to be sent to the electronic control of the lamps, but adjusts the control signal generated by it. The analogue output type is CURRENT SINK.

Characteristics of controllable electric load

- Ohmic load (cosφ1): 10A at 230Vac
- Incandescent load: 10A at 230Vac
- Inductive load (cosφ 0.6): 6A at 230Vac
- Power factor correction in fluorescent load: 4A at 230Vac
- Maximum number of controllable electronic reactors: no. 100 cod. 53DIM010

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - ON, relay contact of the receiver closed
  - OFF, relay contact of the receiver open

53DIM010

The 53DIM010 device is a controller for incandescent lamps, ferromagnetic transformers and electronic transformers. Command and control are managed by means of input with 1-10V analogue interface.

Technical details

- Module: 2 DIN modules (35 x 89 x 65) mm
- Supply voltage: 230V ~ 50Hz

Characteristics of controllable electric load

- Incandescent and halogen lamps (40-500 W 230V~50Hz)
- Ferromagnetic transformers for very low voltage halogen lamps (40-300 VA 230V~50Hz).

Connections

- Terminal 1: Dimmer output 230V~
- Terminal 2 - 3: N Line 230V~
- Terminal 4 : L Line
- Terminal 5 - 6 : Jumper input
- Terminal 7: 1-10V adjustment negative input
- Terminal 8: 1-10V adjustment positive input

441ABDI

442ABDI

53DIM010

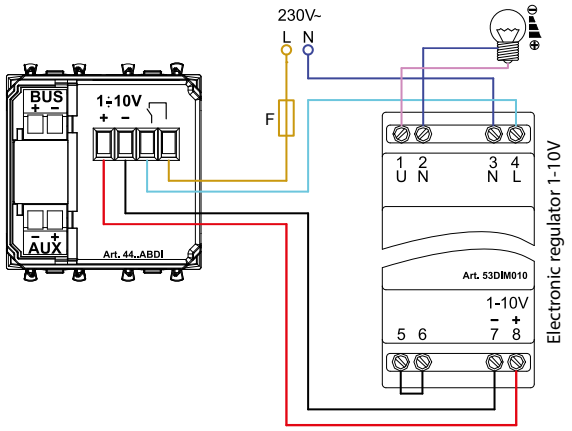
□ 441ABDI
Dimmer actuator with standard 1-10V and 10A resistive relay - Domus series - Tekla
2 modules

■ 442ABDI **■ 443ABDI**
Dimmer actuator with standard 1-10V and 10A resistive relay - Life series - Allumia
2 modules

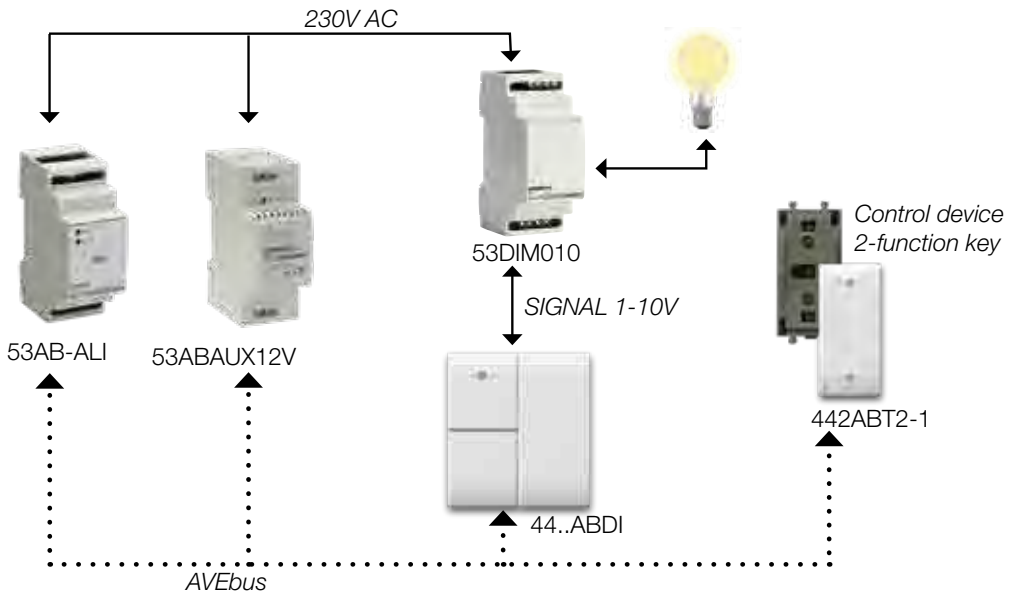
53DIM010
Dimmer for 40-500W incandescent and halogen lamps, toroidal and ferromagnetic transformers from 40 to 300W 230Vac 50Hz - Adjustable with 10kΩ potentiometer (not not provided) or with a 1-10Vdc signal from the actuator DOMINA 44..ABDI - 2 DIN modules

TECHNICAL INFORMATION

Warning:
The device cod. 44..ABDI does not generate a 1-10V voltage signal to be sent to the electronic control of the lamps, but adjusts the control signal generated by it. The analogue output type is CURRENT SINK.



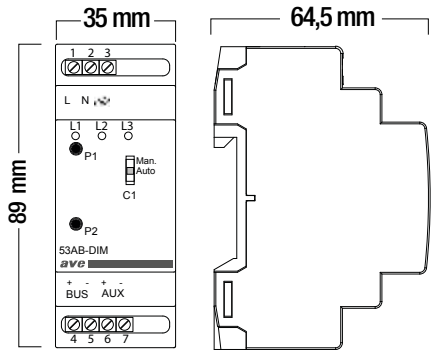
EXAMPLE OF USE



Note:
Instead of the common lamp, the device is able to control LED strips by simply installing an electronic controller for LED and/or LED RGB, instead of item cod. 53DIM010. For information about the compatibility of these controllers, please contact AVE's sales network or Technical Assistance Service

1-CHANNEL UNIVERSAL DIMMER ACTUATOR – Cod.53AB-DIM

The 53AB-DIM is an AVEbus dimmer actuator to control LED Lights, Incandescent Lamps, Compact Fluorescent Lamps (CFL), Electronic Transformers and Electronic Power Units for LED.
The device can function both in LE Leading Edge mode and in TE Trailing Edge mode. Appropriately configured, it acts as either MASTER or SLAVE to control multiple light lines at the same time (using max. no. 7 devices, cod. 53AB-DIM as SLAVE).
After connecting the dimmer to the BUS and to the load, light intensity can be controlled from any appropriately configured AVEbus control station. The load can be switched on or off by briefly pressing the local control button, while prolonged pressure on the button adjusts light intensity. The dimmer can adjust the load with 255 different light intensity levels. The switch on time and minimum adjustable power can be set to ensure total absence of any buzzing sound.
Built-in "Staircase Lighting" function with "Switch Off Alert" to ensure that lamps do not switch off instantly but gradually decrease light intensity. "Timer" and "Override" for staircase cleaning.



Technical details

- Module: 2 DIN modules (35 w x 89 h x 64.5 d) mm
- Protection degree: IP40 in DIN boxes
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -5°C to +35°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage from SELV source: 12Vdc
  - Allowed fluctuation: 10.5Vdc ÷ 14Vdc
  - Absorption at 12Vdc: 4.8mA max

- Absorption from the AVEbus line:
  - With AUX line: 0.4 C
  - Only AVEbus line: 12.5 C

Characteristics of controllable electric load

- Operating voltage field:
  - Rated voltage: 100Vac ÷ 240Vac
  - Voltage limit: 90Vac ÷ 253Vac
  - Power supply frequency: 50Hz ÷ 60Hz
- Controllable electric loads: - See table below

Connections

- Terminal 1: L Mains line Vac
- Terminal 2: N Mains neutrum Vac
- Terminal 3: Dimmer output Vac
- Terminal 4: Positive BUS
- Terminal 5 : GND
- Terminal 6 : Positive auxiliary power
- Terminal 7: Negative auxiliary power

Description of the front
On the front there are three optical indicators of device function:

	L1 - Power supply	L2 - Output	L3 - Output failure
Fixed ON light	AVEbus and auxiliary power missing	ON load: Trailing - Leading	Interrupted load / Power below minimum / Thermal protection
3 flashings	AVEbus missing	- -	- -
1 flashing	Normal function	- -	- -
Slow flashing	- -	OFF alert: Trailing - Leading	Overload protection
Fast flashing	Device being programmed	- -	Short-circuit protection
Off	Mains / fuse failure	OFF load	Normal function

53AB-DIM

53AB-DIM
1-Channel universal dimmer actuator for LED Lights, Incandescent Lamps, Compact Fluorescent Lamps (CFL), Electronic Transformers and Electronic Power Units for LED.
(LE) Leading Edge and (TE) Trailing edge mode control with MASTER or SLAVE function and staircase lighting function with switch off alert - 2 modules

TECHNICAL INFORMATION

Warning:
Mains power supply for dimmable load output (see table below)

PROTECTION FUSE
The back of the device presents the short-circuit protection comprising a replaceable time-delay fuse with high interruption power (1,6A / 250Vac - T1,6AH - Ø 5 x 20 mm).

AVEbus connection

AVEbus controls

Stepper control: AVEbus addresses from 01 to EF

Family control: AVEbus addresses from F0÷FE

General control: AVEbus FF addresses

Group control (configuration through dedicated parameter):
- AVEbus addresses from C0÷CF / D0÷DF / E0÷EF

Status memory
The previous light intensity level is saved in the memory when the load is switched off in order to apply the same level when switched on again.

Soft or flash switch on
Gradual switch on and off (soft start and soft end) to lengthen lamp life. Flash function for special lamp types.

Minimum charge control
The technology controls the minimum light intensity for correct lamp function.

"Staircase lighting" function
"Switch Off Alert" ensures that lamps do not switch off instantly but gradually diminish light intensity, alerting that lights are switching off.

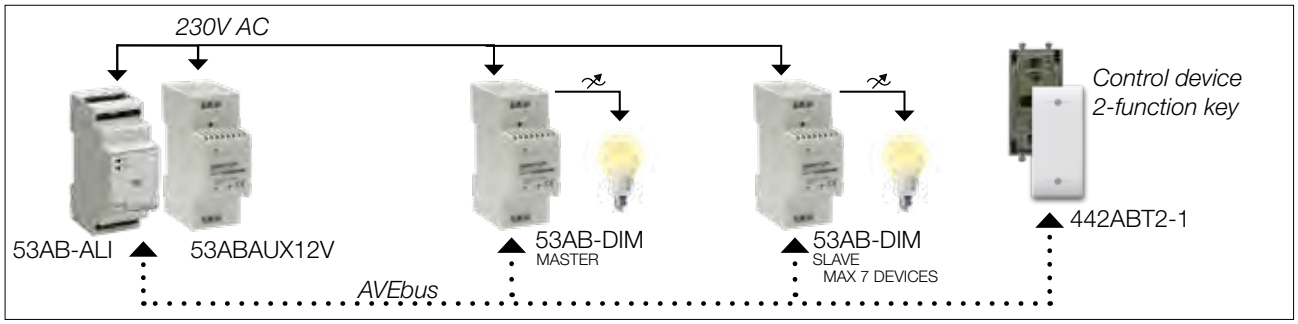
Master-Slave structure
Controls up to 8 light lines at the same time (no. 1 Master + no. 7 SLAVE).

Load table

Mains voltage		230V~ 50Hz				115V~ 60Hz				U.M.
Type of load		Leading		Trailing		Leading		Trailing		
		Min	Max	Min	Max	Min	Max	Min	Max	
		3	360	3	200	1.5	180	15	100	[W]
		Forbidden		10	200 1)	Forbidden		5	100 1)	[W]
		10	360 1)	Forbidden		5	180 1)	Forbidden		[W]
		10	360 2)			5	180 2)			[VA]
		Forbidden		3	150 3)	Forbidden		1.5	80 3)	[W]
		3	100 3)	Forbidden		1.5	50 3)	Forbidden		[W]
		3	200 4)	3	200 4)	1.5	100 4)	1.5	100 4)	[W]

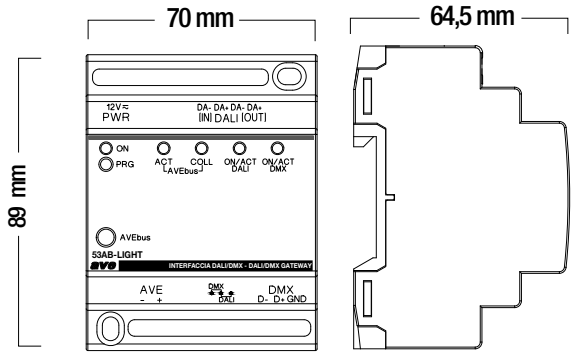
1) max 4 transformers - 2) max 43 transformers - 3) max 20 lamps - 4) max 10 lamps

EXAMPLE OF USE



AVEBUS GATEWAY FOR DALI LIGHTING - cod. 53AB-LIGHT

The 53AB-LIGHT device is an interface between AVEBus and the DALI lighting buses® and DMX-II or DMX512. The device converts into two directions some chosen information that transits along the AVEbus automation bus (from control or supervisor devices) and retransmits it to the lighting bus. This allows to control switching on/off and adjustment of lights with a DALI® connection and DMX-II or DMX512 through the AVEbus automation devices.
The function mode (DALI or DMX) is by default defined by positioning a hardware jumper (provided). Moreover, by modifying the set up, it is possible to, instead, force a specific mode, regardless of the position of the hardware jumper.
The device also acts as configuration interface for the main parameters of the DALI® lighting bus, allowing the user to use the same software both to program the AVEbus peripheral units and to program the Addresses, groups and scenarios of the DALI® lighting bus.



Technical details

- Module: 4 DIN modules (68.5 w x 89 h x 64.5 d) mm
- Protection degree: IP 30D in DIN boxes
- Reference Temperature and Relative Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage from SELV source: 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 130mA

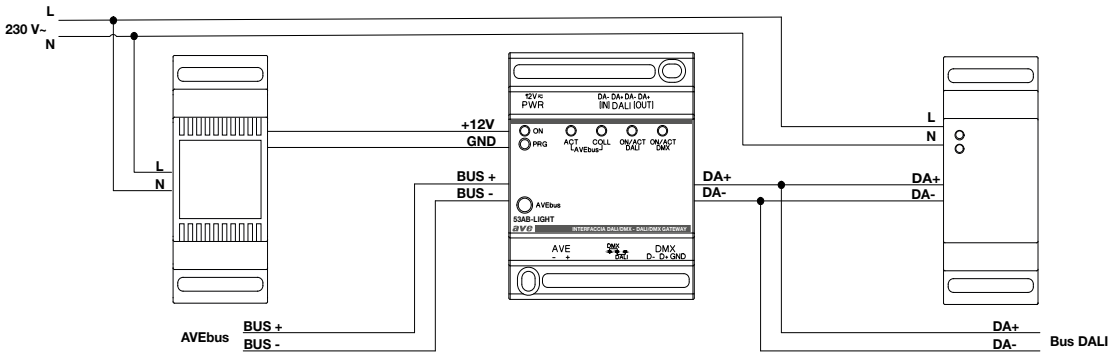
- Absorption from the AVEbus line:
  - With AUX line: 0.7 C
  - Only AVEbus line: n.d.

Connections

- Terminal 1: ± Input power supply device 12Vdc/ac
- Terminal 2: ± Input power supply device 12Vdc/ac
- Terminal 3: [DA-] Input DALI bus
- Terminal 4: [DA+] Input DALI bus
- Terminal 5: [DA-] Output DALI bus
- Terminal 6: [DA-] Output DALI bus
- Terminal 7: [-] Negative AVEbus
- Terminal 8: [+] Positive AVEbus
- Terminal 9: [D-] Line B DMX-II bus (cold pole)
- Terminal 10: [D+] Line A DMX-II bus (hot pole)
- Terminal 11: [GND] Reference ground for DMX-II bus

Warning: The device cod. 53AB-LIGHT does not power the DALI bus. It must be combined with an appropriate power supply unit for the DALI bus.

Wiring diagram



53AB-LIGHT

53AB-LIGHT
Two-way AVEbus interface device for lighting systems with DALI interface and DMX512 - 4 modules

Warning:
The device cod. 53AB-LIGHT does not power the DALI bus. It must be combined with an appropriate power supply unit for the DALI bus.

TECHNICAL INFORMATION

Warning:
power supply from dedicated 53ABAUX12V.

Connection to the DALI® bus
Self-learning and recognition of peripheral units present.
Configuration of addresses, groups and scenarios.
Control and supervision of 64 DALI® addresses.
* Basic configurations possible with the software SFW-BSA

Warning: The gateway function in exclusive mode or for the DALI bus or for the DMX bus.

AVEbus connection

Connection to the DMX bus
Control and supervision with AVEbus devices.

AVEbus controls
Stepper control: On / Off / Increase / Reduce
- AVEbus addresses from 01 to EF

Stepper control: On / Off / Increase / Reduce
- AVEbus addresses from A0-AF, B0-BF, C0-CF, D0-DF and E0-EF

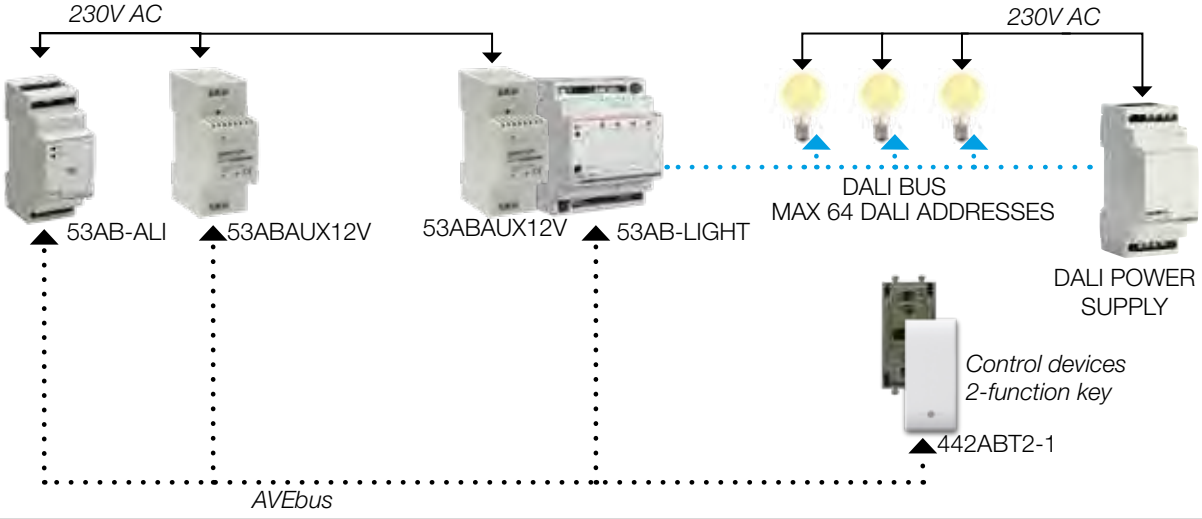
Stepper control: On / Off / Increase / Reduce
- AVEbus addresses from A0-AF, B0-BF, C0-CF, D0-DF and E0-EF

Conversion to DALI controls
Stepper control: On / Off / Increase / Reduce
- DALI addresses from 1 to 64

Group Control: On / Off / Increase / Reduce
- DALI addresses from 1 to 16

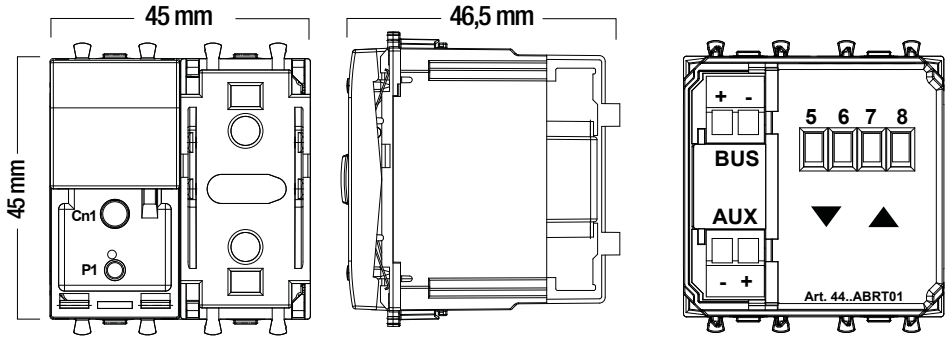
See Scenario: On / Off / Value
- DALI addresses from 1 to 16

EXAMPLE OF USE



SHUTTER ACTUATOR WITH LOCAL CONTROL - cod. 44..ABRT01

The device 44…ABRT01 is a built-in actuator with local control to control motorised shutters. The device comprises, besides the front part of the control, also actuation devices, whose volt free relay contacts with interlock are located at the back. The two functions, local control and actuator, are mutually dependent and the configuration is, therefore, binding. The device is provided with central core key.



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 18.6 mA MAX
- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 7.3 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power
- Terminal 5: relay contact for “lower” control signal
- Terminal 6: common relay contact
- Terminal 7: common relay contact
- Terminal 8: relay contact for “raise” control signal

Characteristics of controllable electric load

- Ohmic load (cosφ1): 10A at 230Vac
- Inductive load (cosφ 0.4): 4A at 230Vac

Description of the front

On the front there are two optical indicators for the function and programming status of the device:

- Blue LED (working only when the auxiliary power is on)
  - ON allows orientation in the dark.
- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - Slow flashing, the relay is about to change status (actuation delay)
  - ON, relay contact of the receiver closed
  - OFF, relay contact of the receiver open

Function Table

	Function 1:	5 s	Function 9:	1 min 20 s
	Function 2:	10 s	Function 10:	1 min 30 s
	Function 3:	20 s	Function 11:	1 min 40 s
	Function 4:	30 s	Function 12:	1 min 50 s
	Function 5:	40 s	Function 13:	2 min
	Function 6:	50 s	Function 14:	2 min 10 s
	Function 7:	1 min	...	
	Function 8:	1 min 10 s	Function 31:	5 min

441ABRT01

445ABRT01

□ **441ABRT01** ■ **445ABRT01** ■ **449ABRT01**
Actuator for shutter motor with local control. It has two relays with interlocked contacts - 10A resistive - Domus series - Tekla - Class - 2 modules

■ **442ABRT01** ■ **443ABRT01**
Actuator for shutter motor control with local control. It has two relays with interlocked contacts - 10A resistive - Life series - Allumia - 2 modules

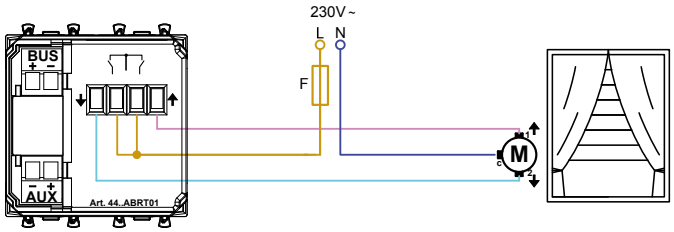
449ABRT01

442ABRT01

443ABRT01

TECHNICAL INFORMATION

Warning:
The front control is bound to the load control connected to the device. To release the control, use the device cod. 442ABT4R2



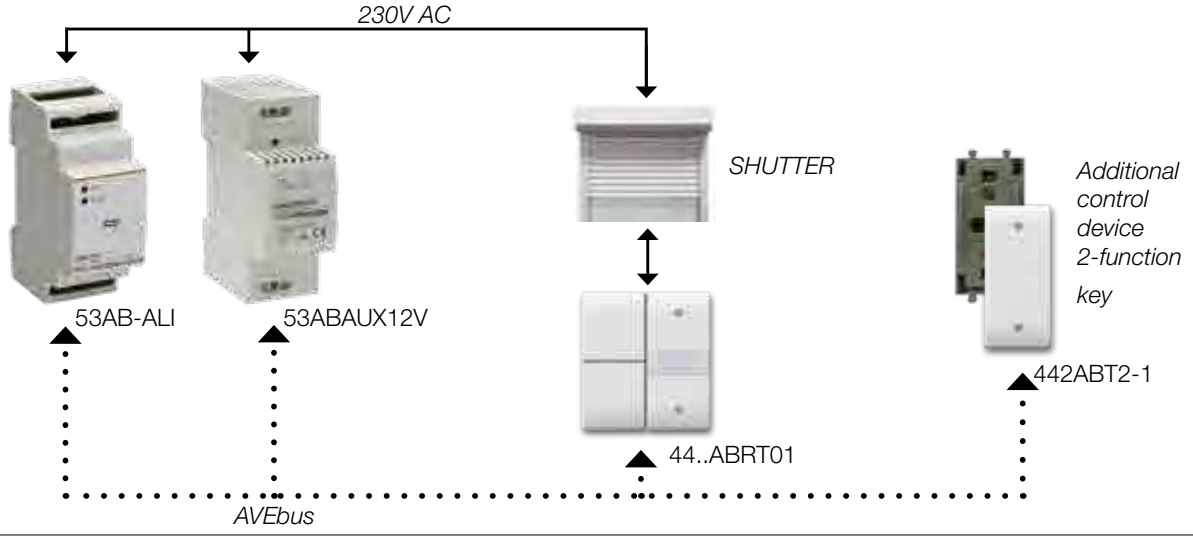
The type of shutter movement changes depending on the order received:

• **Complete rise/descent**, when the front key is pressed for less than 0.5 s.
The shutter moves for the entire time interval indicated by the programmed function (see table on the next page). If any order is received (by pressing the button again) during the actuation phase, the shutter stops moving.

• **Shutter level increases/decreases**, when the front key is pressed for more than 0.5 s. The shutter moves for the entire period the button is pressed (**function with person present**).

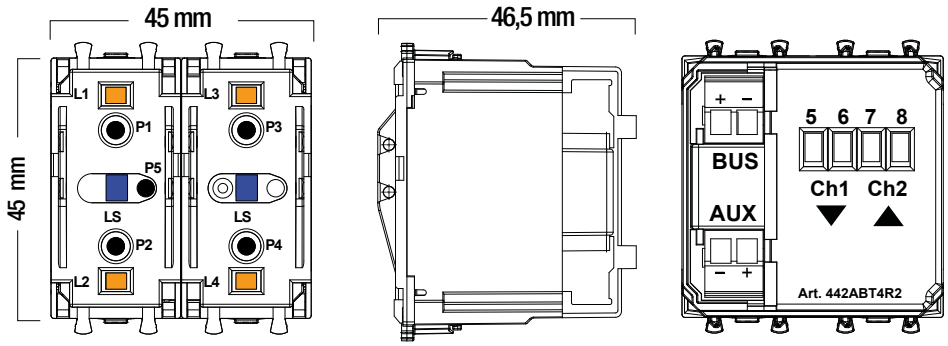
To avoid the sum of current absorptions resulting from the inrush of the motors, the relay actuation delay of each device can be set when controls with broadcast (FF) address are used. The programmed time lapse will be multiplied by the number equivalent of the first character of the address of the device (e.g., 5 s with Address 21, which corresponds to a delay of 5s x 2 = 10s).

FUNCTIONAL DIAGRAM



1-4 CHANNEL CONTROL DEVICE WITH 2 CHANNEL ACTUATOR - cod. 442ABT4R2

The 442ABT4R2 is a 4-independent channels command device with incorporated multi-function actuator able to control lights and roller shutters. The device consists of a front control part, and also of two actuation devices whose power contacts are placed on the back: lighting actuator and roller shutters actuator. The three devices (4-channel command, lighting actuator and roller shutters actuator) are independent from each other and freely configurable, except for the constraint related to the choice of the type of actuator which is exclusive (by selecting the lighting actuator mode the device excludes the roller shutter actuator and vice versa). It must be completed with the appropriate keys (central or asymmetrical core).



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if completed with keys and installed in the corresponding flush-mounted box.
- Reference temperature and relative humidity: 25°C RH 65%
- Operating Ambient Temperature Range: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply:
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 41.0 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 16.0 C
  - Only AVEbus line: 0.3 C

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND
- Terminal 3: Positive auxiliary power
- Terminal 4: Negative auxiliary power
- Terminal 5 and 6: Output Ch1 LIGHTING or CLOSE SHUTTER
- Terminal 7 and 8: Output Ch2 LIGHTING or OPEN SHUTTER

Description of the front

Several optical signals are visible on the front. During normal function they enable the user to locate the device in the dark and, if properly set, they show the status of the actuator associated with each channel of the control device.

- Blue LED (working only when the auxiliary power is on)
  - ON allows orientation in the dark.
  Note: The configuration parameter can be used to set the level of brightness.
- Amber LED
  - Fast flashing, device being programmed
  - ON, relay contact of the associated closed receiver (with lighting function)
  - ON slow flashing, moving shutter or window/door fitting (with related function)

Function Table (Shutter actuator device)

	Function 1:	5 s	Function 9:	1 min 20 s
	Function 2:	10 s	Function 10:	1 min 30 s
	Function 3:	20 s	Function 11:	1 min 40 s
	Function 4:	30 s	Function 12:	1 min 50 s
	Function 5:	40 s	Function 13:	2 min
	Function 6:	50 s	Function 14:	2 min 10 s
	Function 7:	1 min	...	
	Function 8:	1 min 10 s	Function 31:	5 min

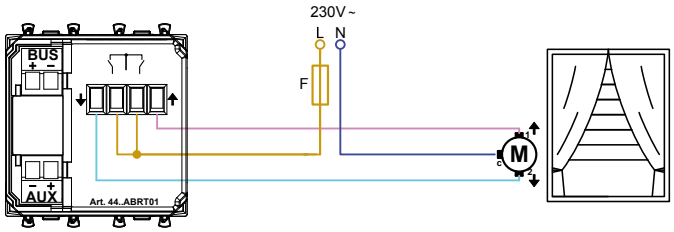
442ABT4R2

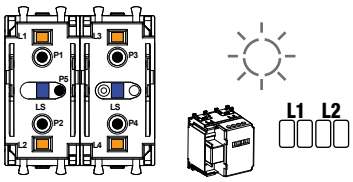
442ABT4R2
4-channel control device with built-in 2 channel multifunction actuator - 10A resistives - 4A incandescent lamps 4A COSφ 0.6 - 2 modules

Warning:
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 80A.

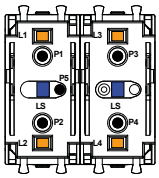
TECHNICAL INFORMATION

On the back of the device there are four terminals for the two channels of the actuator built into this device. Their function methods, which can be selected during set-up, can be: LIGHTING mode (two channels for lighting actuation) or SHUTTER mode (one channel comprising both relays for the actuation of a shutter).

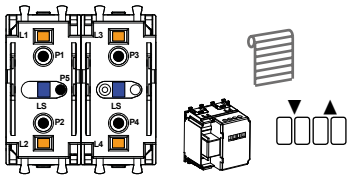




Lighting actuator mode



Control device mode

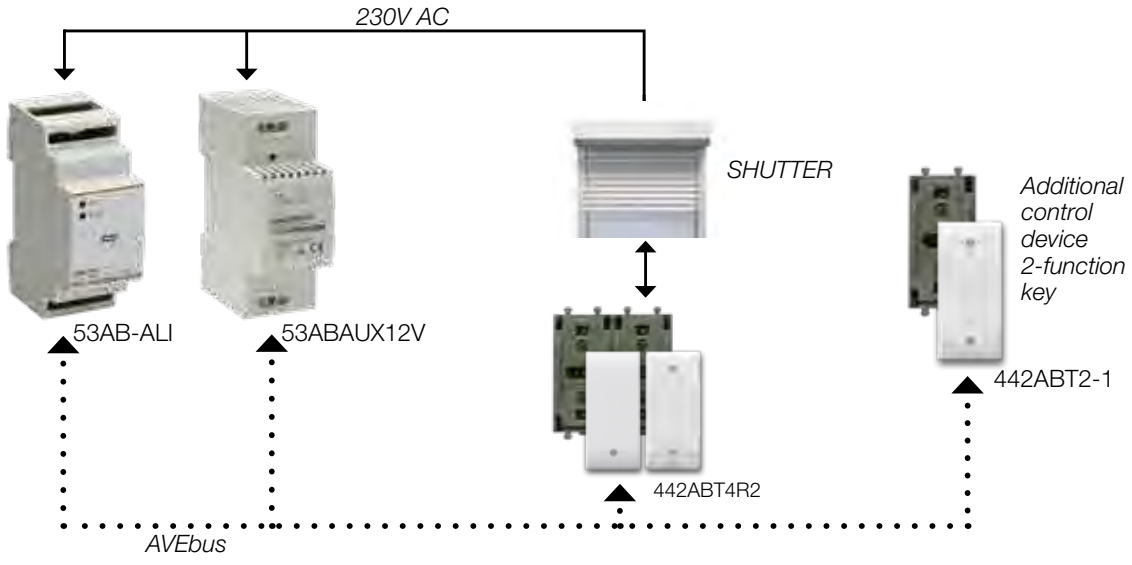


Shutter actuator mode

The type of shutter movement changes depending on the order received:
• **Complete rise/descent**, when the front key is pressed for less than 0.5 s.
The shutter moves for the entire time interval indicated by the programmed function (see table on the next page). If any order is received (by pressing the button again) during the actuation phase, the shutter stops moving.
• **Shutter level increases/decreases**, when the front key is pressed for more than 0.5 s. The shutter moves for the entire period the button is pressed (**function with person present**).

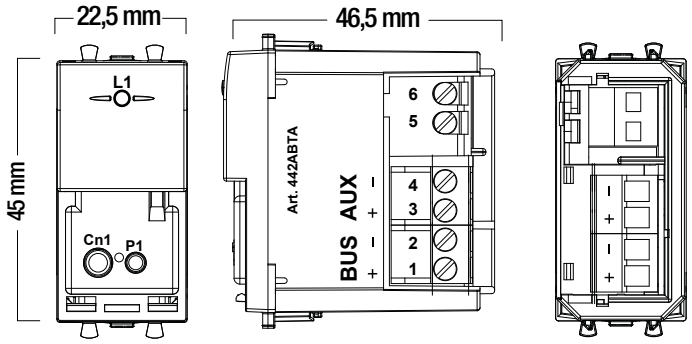
Moreover, to avoid the sum of current absorptions resulting from the inrush of the motors, the relay actuation delay of each device can be set when controls with broadcast (FF) address are used. The programmed time lapse will be multiplied by the number equivalent of the first character of the address of the device (e.g., 5 s delay with Address 21, which corresponds to a delay of 5s x 2 = 10s).

EXAMPLE OF USE



TRANSMITTER FOR ALARM SIGNALS – COD. 44..ABTA

The 44..ABTA device is a 1-channel alarm transmitter with two inputs, one (IN input) is always active and the second one (RESET) can be used only for functions that require local recognition of an alarm, if any. This device monitors the IN input status and sends an alarm message when the status changes (for example a "bathroom call"), allowing to control a lighting actuator ..ABRx (for optical/luminous activation, if any).



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 2.2 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 2.7 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power
- Terminal 5: input alarm
- Terminal 6: input alarm reset

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - OFF, normal function

Function Table

	Input N.O.		Input N.C.	
	Function 1:	BINARY INPUT	ND	
ALARM	Function 2:	without memory, sends the ALARM signal	Function 7:	without memory, sends the ALARM signal
	Function 3:	without memory, sends the START signal	Function 8:	without memory, sends the START signal
	Function 4:	without memory, sends the STOP signal	Function 9:	without memory, sends the STOP signal
	Function 5:	without memory, sends the STEP signal	Function 10:	without memory, sends the STEP signal
	Function 6:	without memory, sends the RUN + STOP signal	Function 11:	without memory, sends the START + STOP signal
ALARM	Function 12:	with memory, sends the ALARM signal	Function 17:	with memory, sends the ALARM signal
	Function 13:	with memory, sends the START signal	Function 18:	with memory, sends the START signal
	Function 14:	with memory, sends the STOP signal	Function 19:	with memory, sends the STOP signal
	Function 15:	with memory, sends the STEP signal	Function 20:	with memory, sends the STEP signal
	Function 16:	with memory, sends the START + STOP signal	Function 21:	with memory, sends the START + STOP signal


441ABTA


445ABTA


449ABTA


442ABTA

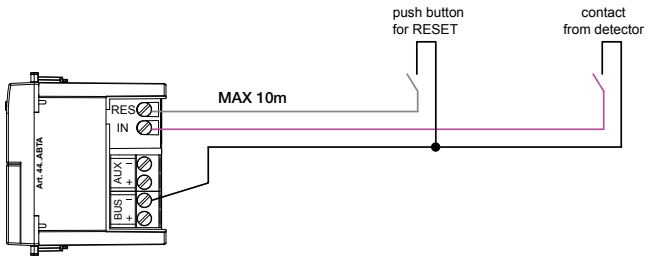

443ABTA

□ **441ABTA** ■ **445ABTA** ■ **449ABTA**
1-channel transmitter for alarm signals - Domus series - Tekla - 1 module

■ **442ABTA** ■ **443ABTA**
1-channel transmitter for alarm signals - Life series - Allumia - 1 module

TECHNICAL INFORMATION

Warning:
To interface any contacts use twisted shielded wires.



COMPATIBLE WITH PROBES AND/OR SENSORS

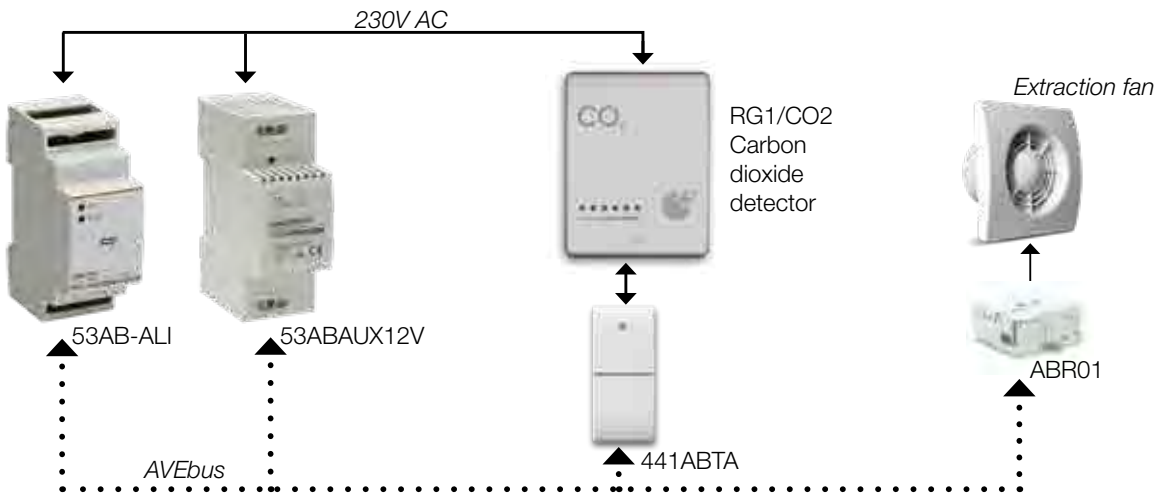

RG1-G / RG1-M
GAS detector


RG1/CO2
Carbon dioxide detector


AF44..062
Movement detector

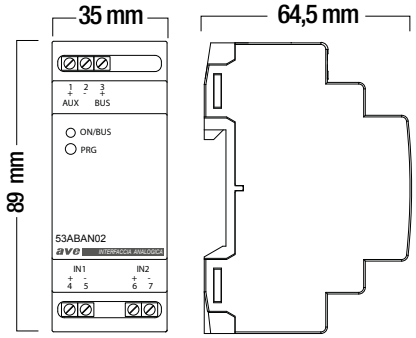

441079
Electronic hygrostat (humidostat) with knob

FUNCTIONAL DIAGRAM



2-CHANNEL ANALOG INTERFACE DEVICE - cod. 53ABAN02

The 53ABAN02 is an AVEbus interface with two analog inputs that can be managed in various configurations and modes. The two inputs read the analog voltage signals (e.g., 0-10V), voltage (e.g., 4-20mA), and can also be configured as digital input (frequency measures 0-2kHz) and/or as temperature detection inputs with NTC (10kΩ - ß=3380) or thermocouple Pt100.
The device is developed to function with distributed logic. In fact, it can be configured to manage AVEbus controls independently, based on the input value detected, compared to the five programmable thresholds (L0, L, M, H and H0).
Moreover, the device can be supervised by a DOMINAplus Touch Screen from which, besides displaying the status of analog inputs, it is also possible to set the value of parameter thresholds for the independent function of the interface.



Technical details

- Module: 2 DIN modules (35 w x 89 h x 64.5 d) mm
- Protection degree: IP30D with dedicated terminal covers provided
- Auxiliary power supply from SELV source: 12Vdc
- Allowed fluctuation: 10.5Vdc - 14Vdc
- Absorption at 12Vdc: 30mA (analog input)
  - 35mA (Pt100 input)
  - 25mA (digital input)

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: n.d.

- Input impedance (0-10V): 375 kΩ
- Input impedance (4-20mA): 121 Ω
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal 1: Positive auxiliary power supply
- Terminal 2: GND
- Terminal 3: Positive BUS
- Terminal 4: Positive analog input 1
- Terminal 5: Reference ground for input 1
- Terminal 6: Positive analog input 2
- Terminal 6: Reference ground for input 2

Table of values that can be acquired

Voltage
Measurement range: from 0 to 12V (MAX)
Scales: 0-10V, 1-10V, 0-5V, 0-1V
Resolution: 1mV (absolute) / 10mV (%)
Input impedance: > 300kΩ

Current
Measurement range: from 0 to 22mA (MAX)
Scales: 0-20mA, 4-20mA
Resolution: 1µA (absolute) / 20µA (%)
Input impedance: 121Ω

Resistance
Measurement range: 0-2,5kΩ (1mA), 0-250kΩ (10µA)
Scales: 0-2,2kΩ, 0-220kΩ
Resolution: 0.1Ω (absolute) / 2.2Ω(%)
Resolution: 0,1Ω (absolute) / 220Ω (%)
Measurement currents (K): 1mA and 10µA

Warning: If both inputs are used to measure the resistance, they must be programmed with the same lowest value of the scale

Dry contact
Impulse count (minimum duration of impulse: 10ms)
Contact status reading: N.C. or N.O.
Rapid alarm detection: 10ms min (fast)
Standard alarm detection: 0.5s min (std)
Input with internal pull-up at +5Vdc

Frequency
Measurement range: from 0 to 12kHz
Scales: 0-200Hz, 0-2kHz, 0-10kHz
Resolution: 1Hz (absolute) / 1–1–5Hz (%)
Reading type: Clean contact status

PT100
Measurement range: from -120°C to +180°C
Single scale: -100°C to +150°C
Resolution: 0.1°C (absolute) / 0.25°C (%)
Measurement currents (K): 1mA

NTC 10k – ß=3380
Measurement range: from -50°C to +140°C
Single scales: -40°C to +125°C, -40°C to +60°C, -0°C to +50°C
Resolution: 0.1°C (absolute) / 0.165°C (%)
Measurement currents (K): 10µA C

Warning: The device does not implement corrections and/or typical algorithms of a thermostat (offset, hysteresis, temperature compensations, etc.), and sends the temperature values measured in the dedicated format to DOMINAplus temperature control; hence, it cannot be used to replace ambient thermostats cod. 44xABTM03 or higher. If both inputs are used to measure the temperature, they must be programmed and connected to identical probes (either both PT100 or both NTC).

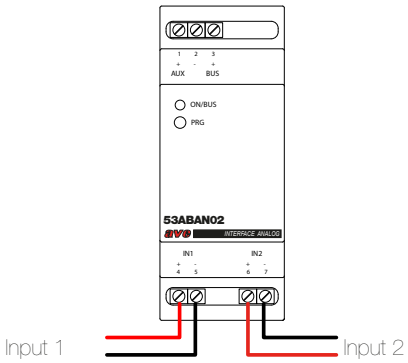
53ABAN02

53ABAN02
Interface with 2 analog inputs (0-10V, 4-20mA, PT100 and NTC) for probes and sensors
2 DIN

TECHNICAL INFORMATION

Warning:
The device 53ABAN02, combined with one of the stand-out covers with temperature probe, allows to detect ambient temperature and to control an actuator (note: this function is not included in DOMINA plus temperature control). The DOMINAplus System manages at most 50 devices 53ABAN02.

The device does not allow to use the following combinations of probes:
• If an input is connected to an NTC type probe, Pt100 or R2.2K type probes cannot be connected to the other input (Resistance from 0 to 2200Ω).
• If an input is connected to a Pt100 type probe, NTC or R220K type probes cannot be connected to the other input (Resistance from 0 to 220000Ω).
• If an input is connected to a R2.2K type probe (Resistance from 0 to 2200Ω), R220K type probes cannot be connected to the other input (Resistance from 0 to 220000Ω).



COMPATIBLE WITH PROBES AND/OR SENSORS

RG1/CO2
Carbon dioxide detector

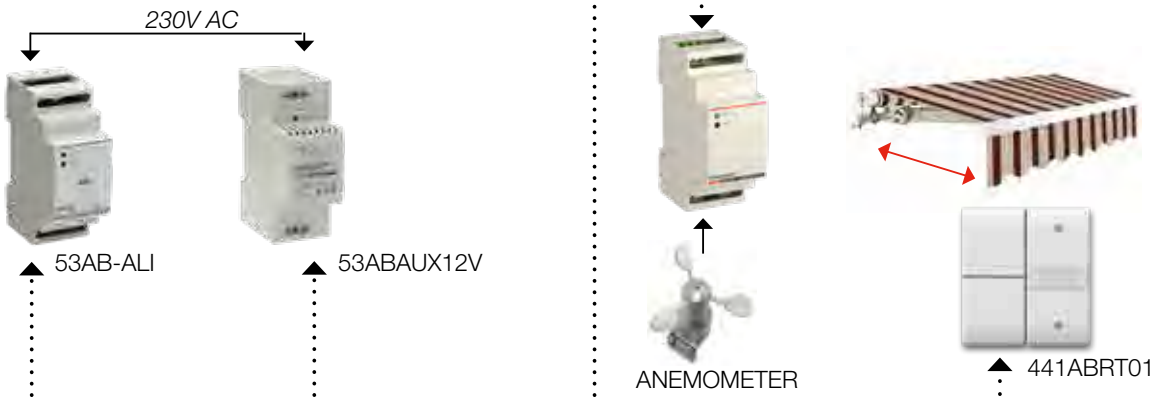
441079
Electronic hygrostat (humidostat) with handpiece

441SO-NTC
Ambient temperature probe type NTC 10K

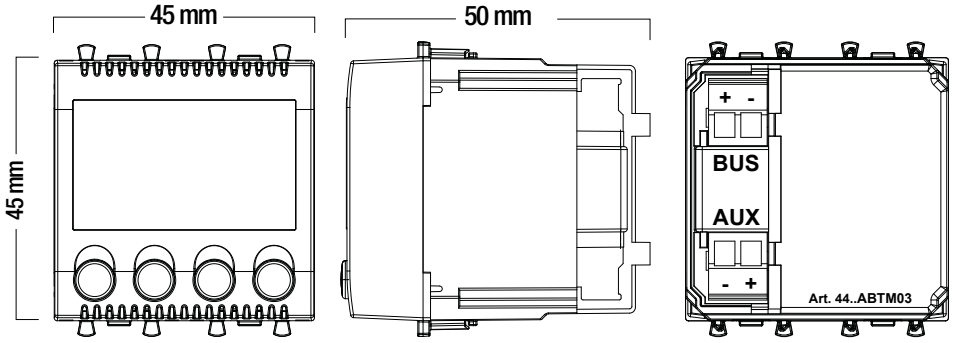
POWER-420
Amperometric transformer (AC and DC) with analogue output

AR105
Floor level water sensor

FUNCTIONAL DIAGRAM



The 44..ABTM03B is an ambient thermostat connected to the AVEbus automation bus. The device can be installed combined with a temperature control actuator when time programming is not required. In this case there is an independent "only thermostat" type function. If, instead, time programming is required (weekly temperature profile), the device must be combined with the Web Server or Touch Screen automation supervisor on which any choice can be made regarding temperature profile and control of several temperature zones. In this case there is a centralised "Chronothermostat" type function.



Technical details

- Module: 2 modules System 44 (45 w x 45 h x 50 d) mm
- Protection degree: IP40 if installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 11.5 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.7 C
  - Only AVEbus line: 5.5 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power

Characteristics of temperature control

Measurement range: from 0°C to 40°C
- Regulation range: from 5°C to 35°C (independent function)
  ± 5° compared to the set point set on the touch screen (central operation)
- Reproducibility error: 0.2°C max
- Fidelity error: 0.3°C max
- Differential: 0.2°C to 2.5°C adjustable

Description of the operation

The user can use the front buttons of the ambient thermostat to set the required temperature. Or, if combined with a supervisor, it allows to temporarily override the Weekly Programme in operation, which is present in the home automation supervisors (Touch Screen or Web Server). This regulation field is determined during installation by specific configuration and allows the home automation system to operate in various types of location that need not necessarily be residential.

There are 239 addresses to be assigned to temperature zones, each with its own weekly programme for summer and winter, within which the temperatures for saving, pre-comfort and comfort for each season are established. Furthermore, each temperature zone is also able to control an air conditioner via the infra-red interface, thus making the DOMINAplus home automation system versatile and integrated with the components of the domestic system.

The supervision devices, Touch Screen and Web Server, monitor the entire temperature control system with the contribution of the centralised user graphic interface. From these devices it is possible to: Switch on/off the temperature zone, Set the season (Summer / Winter), Set the desired ambient temperature in "Temporary" or "Permanent" mode, Set the maximum speed for any fan coil units to improve the living comfort, Customise the weekly programme, Display the status of any window present in the temperature zone and Lock/Unlock the keypad of the ambient thermostat to protect its settings.
Moreover, if window status management is enabled, detected via the alarm interface, cod. 44..ABTA or by interfacing with the anti-intrusion alarm system, if the window is open, the thermostat will interrupt air conditioning in the relevant room. For the entire period of the interruption the ambient temperature shown on the digital display of the thermostat will flash and when the window is closed, the air conditioning will automatically recommence and the display will stop flashing.

441ABTM03B

445ABTM03B

449ABTM03B

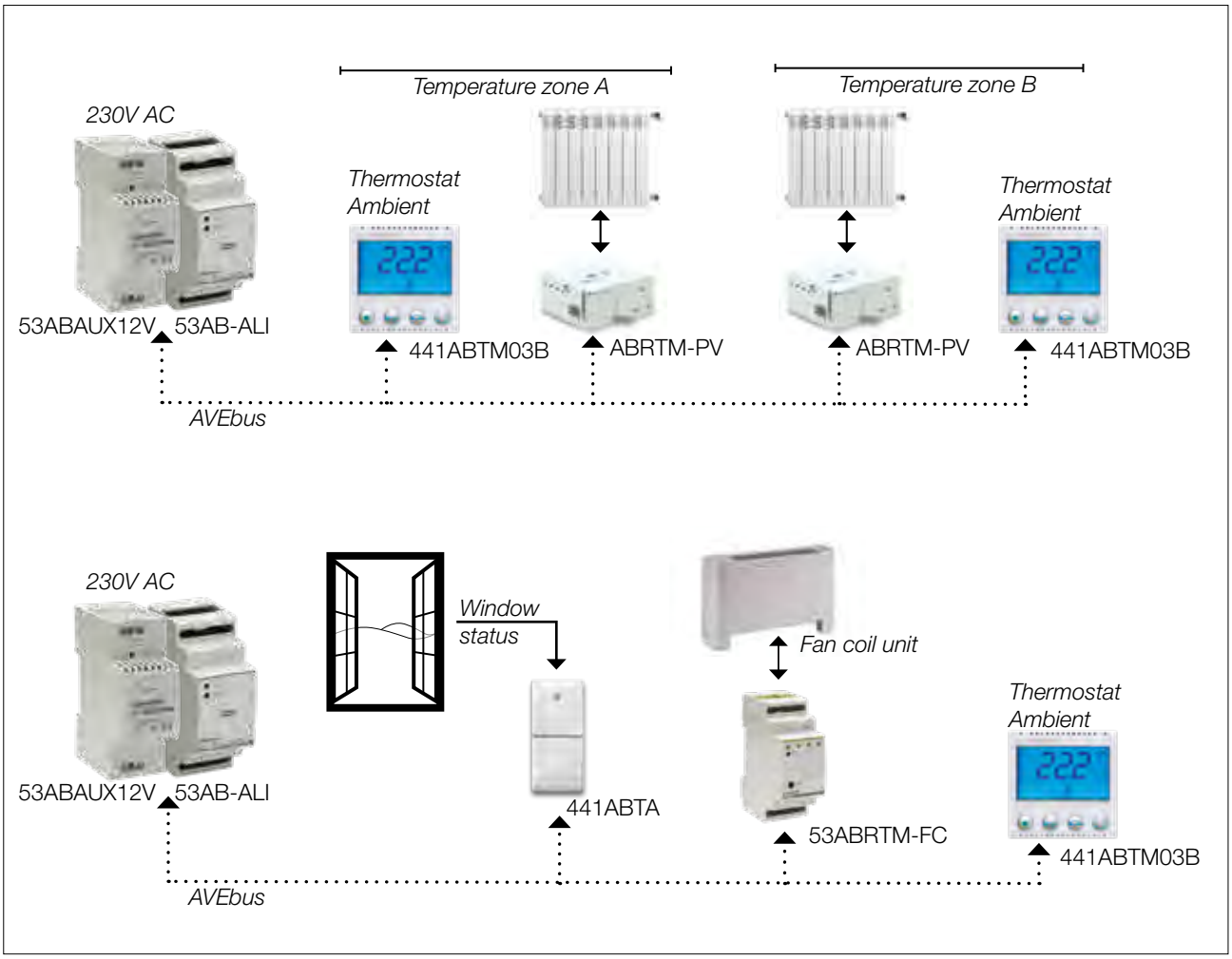
442ABTM03B

443ABTM03B

□ **441ABTM03B** ■ **445ABTM03B** ■ **449ABTM03B**
Thermostat with display - Domus series - Tekla - Class - 2 modules

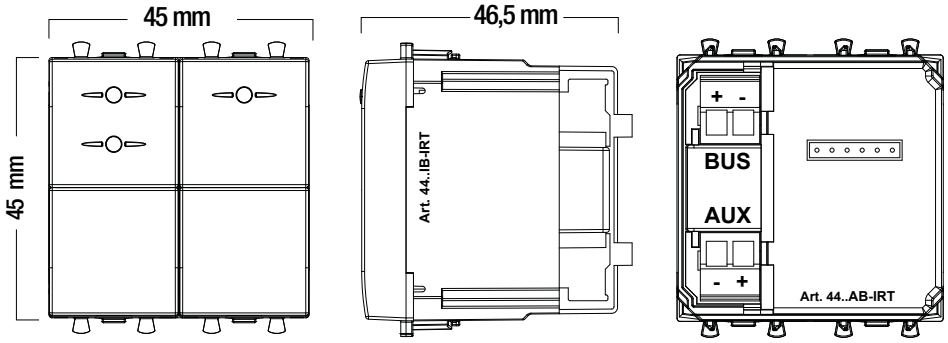
■ **442ABTM03B** ■ **443ABTM03B**
Thermostat with display - Life series - Allumia - 2 modules

FUNCTIONAL DIAGRAM



AVEBUS INTERFACE FOR IR CONTROL TRANSMISSION - COD. 44..AB-IRT

The 44..AB-IRT is a device for the transmission of IR controls that allows integration between the DOMINAplus automation system and air conditioning systems, sound (Stereo, CD readers, etc.) and other domestic appliances controlled by infra-red, learning and imitating the controls of the original remote control of the devices.



Technical details

- Module: 2 module S.44 (WxHxD) 45 x 45 x 46.5 mm
- Protection degree: IP40 installed in the respective wall-mounted or built-in box
- Auxiliary power supply from SELV source:
  - Rated voltage 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 27.0 mA
- Absorption from the AVEbus line:
  - With AUX line: 0.12 C
  - Only AVEbus line: n.d.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Technical characteristics compatible IR controls: Power supply frequency between 30kHz and 60kHz

Connections

- Terminal 1: Positive BUS
- Terminal 2: GND (BUS)
- Jack 3.5 mm for IR transmitter (front)
  WARNING: As an alternative to the local emitter.
- Terminal 3: Positive SELV auxiliary power supply
- Terminal 4: GND (AUX)
- Cable configuration connector (rear)

Function with Air Conditioners The device cod. 44..AB-IRT can be used in combination with a home automation thermostat cod. 44..ABTM03B to automatically manage any split installations of air conditioners with infra-red interface. When the "split" function is active, a message is displayed on the home automation bus that allows to send the IR command associated with the data received.

SLOT 1	Cool – Temperature Control OFF	Memorise the IR order "Air Conditioner OFF"
SLOT 2	Cool - Set-point = 05°C	Memorise the IR order "ON 05°C - COOL""
…	…	…
SLOT 63	Heating - Set-point = 34°C	Memorise the IR order "ON 34°C - HEATING""
SLOT 64	Heating - Set-point = 35°C	Memorise the IR order "ON 35°C - HEATING""

Function with AVEbus Control devices The device cod. 44..AB-IRT can be used in combination with one or more control devices with the function "Run" and/or "Stop" with AVEbus address between "A0" and "AF" to transmit the IT order stored in the dedicated area of the memory.

SLOT 1	AVEbus order RUN Address "A0"	Memorise the IR order chosen
SLOT 2	AVEbus order RUN Address "A1"	Memorise the IR order chosen
…	…	…
SLOT 31	AVEbus order STOP Address "AE"	Memorise the IR order chosen
SLOT 32	AVEbus order STOP Address "AF"	Memorise the IR order chosen

Function with AVEbus Control devices The device cod. 44..AB-IRT can be used to transmit an IR order associated with a certain AVEbus message, for example "OPEN SHUTTER". In this manner, whenever that specific AVEbus message is displayed, the associated IR order is transmitted.

SLOT 1	AVEbus order chosen	Memorise the IR order chosen
…	…	…
SLOT 16	AVEbus order chosen	Memorise the IR order chosen

441AB-IRT

445AB-IRT

449AB-IRT

442AB-IRT

☐ 441AB-IRT **■ 445AB-IRT** **■ 449AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems - Domus series
Domus series - Tekla - Class - 2 modules

■ 442AB-IRT **■ 443AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems
Life series - Allumia - 2 modules

ABPC001
Cavo USB di programmazione per dispositivi 44xAB-IRT.
Permette la configurazione del contenuto della memoria del dispositivo (comandi IR da replicare) con relativo software SFW-IRT disponibile nell'area download del sito www.ave.it

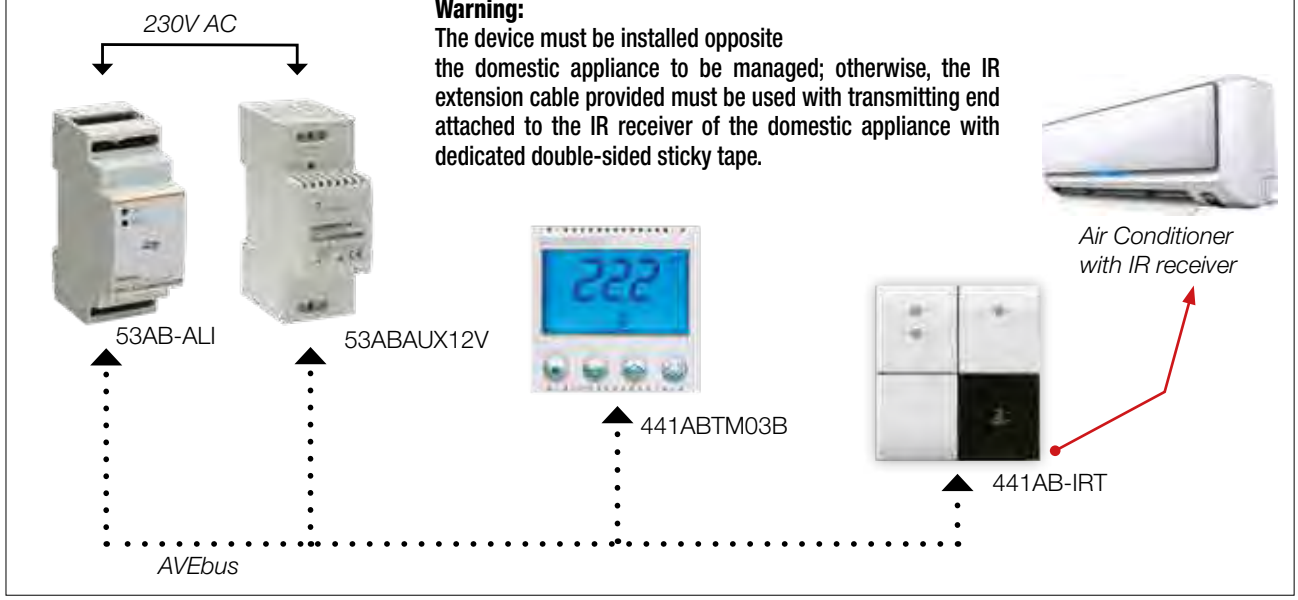
TECHNICAL INFORMATION

Configuration of AVEbus parameters
The configuration of parameters and the bus address is implemented via the software SFW-BSA with relative USB interface cod. BSA-USB connected to the home automation bus via the Cn1 socket of any device connected to the same bus.
The device enters configuration mode when the PRG button is briefly pressed, and this is indicated by a flashing yellow LED (L1).

While the configuration of the contents of the device's memory (IR orders to be replicated) occurs via the dedicated serial cable for configuration cod. ABPC001 with relative software SFW-IRT with device only powered with 12V (AUX) (it must be disconnected from the BUS)

Addressing
For normal IR commands, the device can be freely addressed using the addresses available, which range from 01 to EF. Instead, air conditioner control via IR orders depends on the configuration of the air conditioning system. Particularly, the R interface must be addressed with the same bus address of the zone thermostat cod. 44..ABTM03B

FUNCTIONAL DIAGRAM

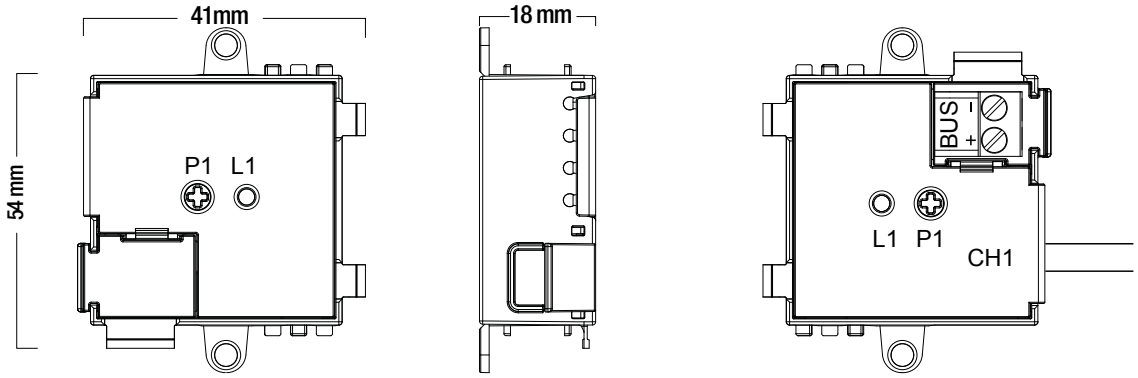


Warning:
The device must be installed opposite
the domestic appliance to be managed; otherwise, the IR extension cable provided must be used with transmitting end attached to the IR receiver of the domestic appliance with dedicated double-sided sticky tape.

Air Conditioner with IR receiver

HIDDEN 1-CHANNEL TEMPERATURE CONTROL ACTUATOR - cod. ABRTM-PV

The ABRTM-PV device is a 1-channel bus actuator for temperature control with dry contact that can control solenoid valves and hydraulic solenoid pumps. The device is contained in a compact versatile module that is suitable for installation anywhere. For example, it can be placed in a junction box or in a false ceiling. The two tabs make it possible to anchor it using screws but if necessary they can be broken off to reduce the overall bulk. Due to its dimensions, it can be inserted in a blank insert of the wiring accessories (S44).
In temperature control systems the control activation depends on the configuration of the hydraulic air conditioning system and, in particular, the solenoid valve or the pump must be controlled by zone, group of zones or central control. Moreover, the valve can be of several types (ON/OFF, OPEN/CLOSE, etc.). The AVEbus home automation actuator allows to manage all these functions through an advanced configuration of the programming parameters.



Technical details

- Module: (54 w x 41 h x 18 d) mm
- Protection degree: IP20D
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

- Absorption from the AVEbus line:
  - With AUX line: n.d.
  - Only AVEbus line: 4.6 C

Characteristics of controllable electric load

- Ohmic load (cosφ1): 2A at 230Vac
- Inductive load (cosφ 0.6): 2A at 230Vac

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Ch1: output contact (white colour)

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED (L1): indicates the status of the device
  - Slow flashing, indicates that the relay is about to change status (actuation delay)
  - Fast flashing, device being programmed
  - OFF, normal function

Function Table

Function 1:	Summer/Winter operation with actuation type ON/OFF
Function 2:	Summer only operation with actuation type ON/OFF
Function 3:	Winter only operation with actuation type ON/OFF
Function 4:	Summer/Winter operation with actuation type OPEN
Function 5:	Summer only operation with actuation type OPEN
Function 6:	Winter only operation with actuation type OPEN
Function 7:	Summer/Winter operation with actuation type CLOSE
Function 8:	Summer only operation with actuation type CLOSE
Function 9:	Winter only operation with actuation type CLOSE

ABRTM-PV

ABRTM-PV
1-channel hidden actuator for valves and hydraulic solenoid pumps
dimensions (WxHxD) 54x41x18 mm

TECHNICAL INFORMATION

Warning
The device can be programmed as **zone actuator**, thus controlling a solenoid valve, or as **actuator for a group of zones**, thus controlling the hydraulic solenoid pump.

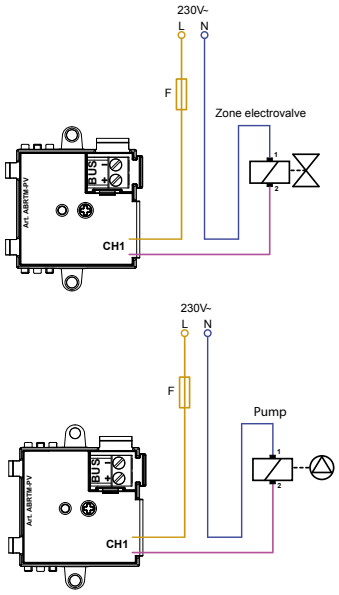
The choice of the type of operation is given by parameter no. 3, which can assume two values:

"**Actuator type in Valve mode**"

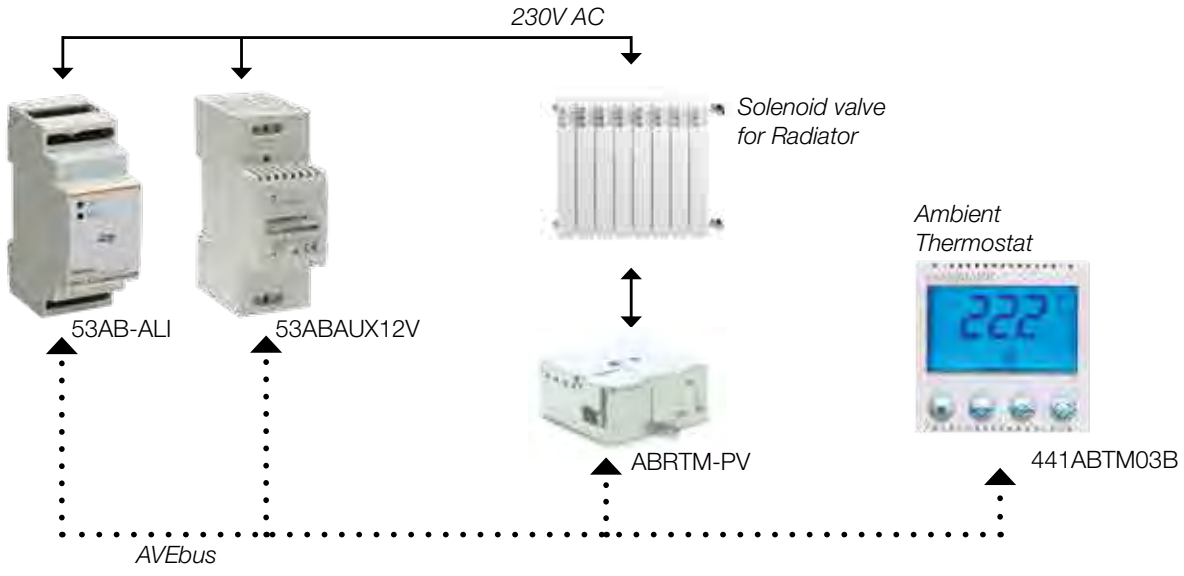
"**Actuator type in Pump mode**"

When the Pump mode is selected, the device will implement the output depending on the requests transmitted by the ambient Thermostats with address between that of the actuator and that of the address indicated in parameter no. 2.

In this mode the device also manages a **delay in implementation of the "pump" order** defined in parameter no. 1, to allow the solenoid valves to open before the pump starts operating.

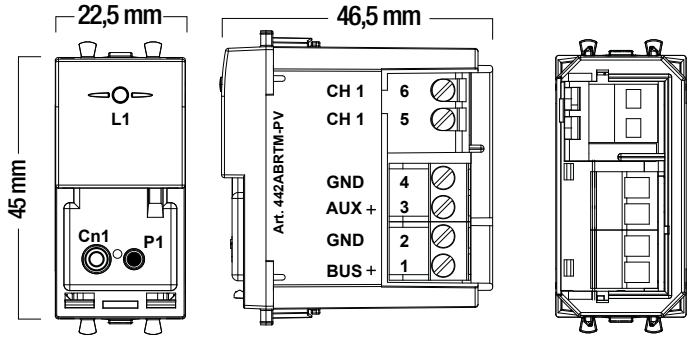


FUNCTIONAL DIAGRAM AND CONFIGURATION SOFTWARE



1-CHANNEL TEMPERATURE CONTROL ACTUATOR - cod. 44..ABRTM-PV

The 44..ABRTM-PV device is a 1-channel bus actuator for temperature control with dry contact output, which can control solenoid valves or hydraulic solenoid pumps. In temperature control systems the control activation depends on the configuration of the hydraulic air conditioning system and, in particular, the solenoid valve or the pump must be controlled by zone, group of zones or central control. Moreover, the valve can be of several types (ON/OFF, OPEN/CLOSE, etc.). The AVEbus home automation actuator allows to manage all these functions through an advanced configuration of the programming parameters.



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 3.4 mA MAX
- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 4.6 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power
- Terminal 5: relay contact
- Terminal 6: relay contact

Characteristics of controllable electric load

- Ohmic load (cosφ1): 10A at 230Vac
- Inductive load (cosφ 0.6): 4A at 230Vac

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - Slow flashing, indicates that the relay is about to change status (actuation delay)
  - ON, relay contact of the receiver closed
  - OFF, relay contact of the receiver open

Function Table

	Function 1:	Summer/Winter operation with actuation type ON/OFF
	Function 2:	Summer only operation with actuation type ON/OFF
	Function 3:	Winter only operation with actuation type ON/OFF
	Function 4:	Summer/Winter operation with actuation type OPEN
	Function 5:	Summer only operation with actuation type OPEN
	Function 6:	Winter only operation with actuation type OPEN
	Function 7:	Summer/Winter operation with actuation type CLOSE
	Function 8:	Summer only operation with actuation type CLOSE
	Function 9:	Winter only operation with actuation type CLOSE

441ABRTM-PV

445ABRTM-PV

□ **441ABRTM-PV** ■ **445ABRTM-PV** ■ **449ABRTM-PV**
1-channel actuator for valves and hydraulic solenoid pumps - Domus series - Tekla - Class 1 module

■ **442ABRTM-PV** ■ **443ABRTM-PV**
1-channel actuator for valves and hydraulic solenoid pumps - Life series - Allumia
1 module

449ABRTM-PV

442ABRTM-PV

443ABRTM-PV

TECHNICAL INFORMATION

Warning
The device can be programmed as **zone actuator**, thus controlling a solenoid valve, or as **actuator for a group of zones**, thus controlling the hydraulic solenoid pump.

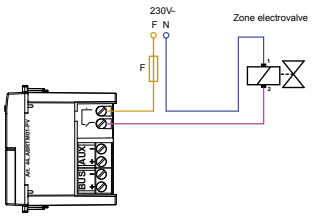
The choice of the type of operation is given by parameter no. 3, which can assume two values:

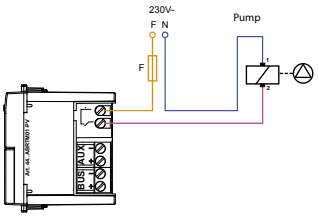
"**Actuator type in Valve mode**"

"**Actuator type in Pump mode**"

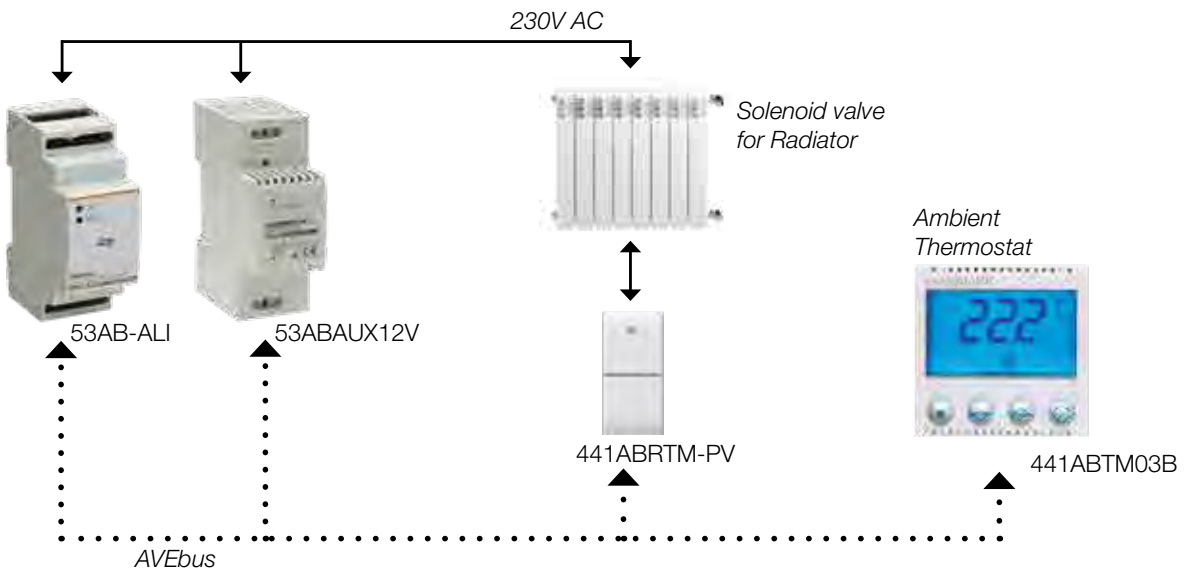
When the Pump mode is selected, the device will implement the output depending on the requests transmitted by the ambient Thermostats with address between that of the actuator and that of the address indicated in parameter no. 2.

In this mode the device also manages a **delay in implementation of the "pump" order** defined in parameter no. 1, to allow the solenoid valves to open before the pump starts operating.



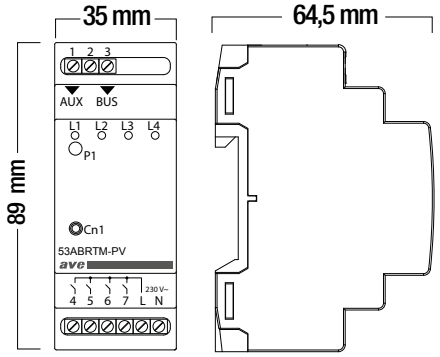


FUNCTIONAL DIAGRAM



4-CHANNEL TEMPERATURE CONTROL ACTUATOR - cod. 53ABRTM-PV

The 53ABRTM-PV device is a 4-channel temperature control actuator for solenoid valves and hydraulic solenoid pumps. Depending on the configuration, the device can implement, for each of the four channels, the solenoid valve or the pump of the single zone, of a group of temperature zones or of all temperature zones by acting as general system actuator. In temperature control systems the control activation depends on the configuration of the hydraulic air conditioning system and, in particular, the solenoid valve or the pump must be controlled by zone, group of zones or central control. Moreover, the valve can be of several types (ON/OFF, OPEN/CLOSE, etc.). The AVEbus home automation actuator allows to manage all these functions through an advanced configuration of the programming parameters.



Technical details

- Module: 2 DIN modules (WxHxD) 35 x 89 x 64.5 mm
- Protection degree: IP30D in DIN boxes
- Auxiliary power supply from SELV source:
  - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5 - 14Vdc
  - Absorption at 12Vdc: 65mA (MAX)
- Absorption from the AVEbus line:
  - With AUX line: 0.1 C
  - Only AVEbus line: n.d.
- Power supply from the 230Vac line:
  - Rated voltage: 230Vac
  - Allowed fluctuation: 190Vac - 253Vac
  - Absorption at 230Vac: 10mA (MAX)
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

Warning:
power supply from SELV source and from the mains MUST NOT be connected at the same time, but must be used alternatively.

Characteristics of controllable electric load

- Ohmic load (cosφ1): 1A at 230Vac
- Motor load: 1A at 230Vac

Connections

- Terminal 1: Power supply aux SELV
- Terminal 2: GND (BUS and AUX)
- Terminal 3: Positive BUS
- Terminal 4: CH1 contact output
- Terminal 5: CH2 contact output
- Terminal 6: CH3 contact output
- Terminal 7: CH4 contact output
- Terminal L: Power supply line 230 V~ and Common of the outputs
- Terminal N: Neutral power supply 230 V~

Function Table

	Function 1:	Summer/Winter operation with actuation type ON/OFF
	Function 2:	Summer only operation with actuation type ON/OFF
	Function 3:	Winter only operation with actuation type ON/OFF
	Function 4:	Summer/Winter operation with actuation type OPEN
	Function 5:	Summer only operation with actuation type OPEN
	Function 6:	Winter only operation with actuation type OPEN
	Function 7:	Summer/Winter operation with actuation type CLOSE
	Function 8:	Summer only operation with actuation type CLOSE
	Function 9:	Winter only operation with actuation type CLOSE

53ABRTM-PV

53ABRTM-PV
4-channel actuator for valves and hydraulic solenoid pumps - 1A - 2 DIN modules DIN

⚠ Warning:
power supply from SELV source and from the 230Vac mains MUST NOT be connected at the same time, but must be used alternatively.

TECHNICAL INFORMATION

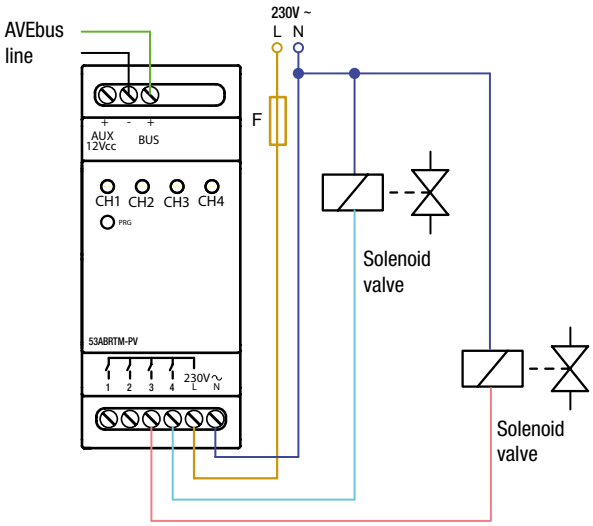
Warning
Each channel of the device can be programmed as **zone actuator**, thus commanding a solenoid valve, or as **actuator for a group of zones**, thus controlling the hydraulic solenoid pump.

The choice of the type of operation is given by parameter no. 3, which can assume two values:
"**Actuator type in Valve mode**" or "**Actuator type in Pump mode**"

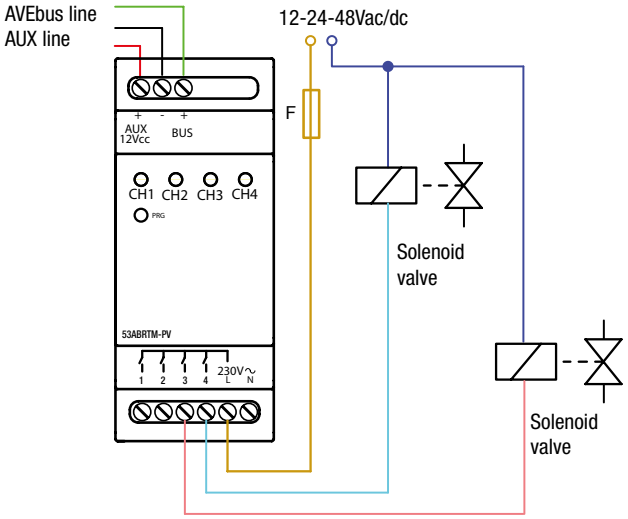
When the Pump mode is selected, the device will implement the output depending on the requests transmitted by the ambient Thermostats with address between that of the actuator and that of the address indicated in parameter no. 2.

In this mode the device also manages a **delay in implementation of the "pump" order** defined in parameter no. 1, to allow the solenoid valves to open before the pump starts operating.

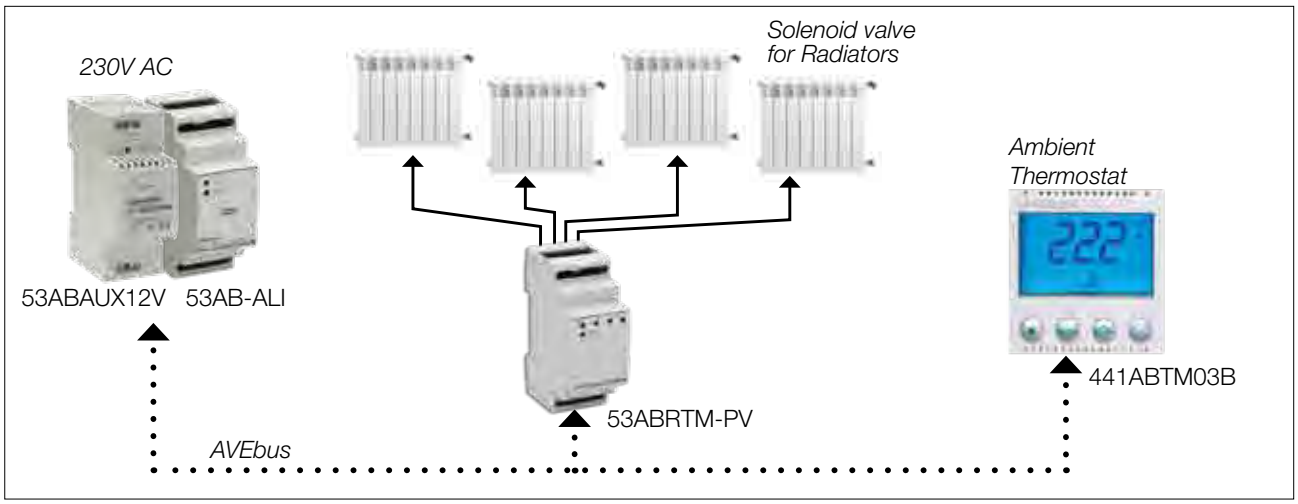
Actuation of solenoid valves 230Vac



Actuation of solenoid valves 12-24-48Vac/dc

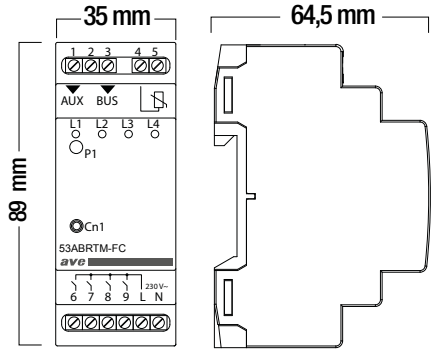


FUNCTIONAL DIAGRAM



TEMPERATURE CONTROL ACTUATOR FOR FAN COIL UNITS - cod. 53ABRTM-FC

The 53ABRTM-FC device is a temperature control actuator for fan coil units. It has four relay outputs to control the solenoid valve and the three speeds of the fan coil unit. It allows to bind the actuation of the speed function of the temperature of the fluid circulating inside the radiator in order to avoid emission into the room of cold air in winter. The speeds are managed independently in a manner that is proportionate to the difference observed between ambient temperature and set temperature.



Technical details

- Module: 2 DIN modules (WxHxD) 35 x 89 x 64.5 mm
- Protection degree: IP30D in DIN boxes
- Auxiliary power supply from SELV source:
  - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5 - 14Vdc
  - Absorption at 12Vdc: 34mA (MAX)
- Power supply from the 230Vac line:
  - Rated voltage: 230Vac
  - Allowed fluctuation: 190Vac - 253Vac
  - Absorption at 230Vac: 11mA (MAX)
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Absorption from the AVEbus line:
  - With AUX line: 0.1 C
  - Only AVEbus line: n.d.

Warning:
power supply from SELV source and from the mains MUST NOT be connected at the same time, but must be used alternatively.

Characteristics of controllable electric load

- Ohmic load (cosφ1): 1A at 230Vac
- Motor load: 1A at 230Vac

Connections

- Terminal 1: Power supply aux SELV
- Terminal 2: GND (BUS and AUX)
- Terminal 3: BUS positive
- Terminal 4: NTC water probe
- Terminal 5: NTC water probe
- Terminal 6: Solenoid valve contact output
- Terminal 7: Speed 1 contact output
- Terminal 8: Speed 2 contact output
- Terminal 9: Speed 3 contact output
- Terminal L: Power supply line 230 V~ and Common of the outputs
- Terminal N: Neutral power supply 230 V~

The input of the probe (cod. 53GA91-T) allows to measure the delivery temperature to prevent starting ventilation when the liquid in the heat exchanger has not reached the operating temperature. If the probe is not connected, the function is not managed (see Parameters).

Function Table

	Function 1:	Summer/Winter operation
	Function 2:	Summer only operation
	Function 3:	Winter only operation

Parameter 1	0	Summer temperature probe disabled
	1	Fan operating in summer with Temp. probe < 13°C
	...	...
	11	Fan operating in summer with Temp. probe < 23°C

Parameter 4	1	Only speed 1 can be enabled
	2	Speeds 1 and 2 can be enabled
	3	Speeds 1, 2 and 3 can be enabled

Parameter 12	0	Winter temperature probe disabled
	1	Fan operating in winter with Temp. probe > 31°C
	...	...
	11	Fan operating in winter with Temp. probe > 41°C

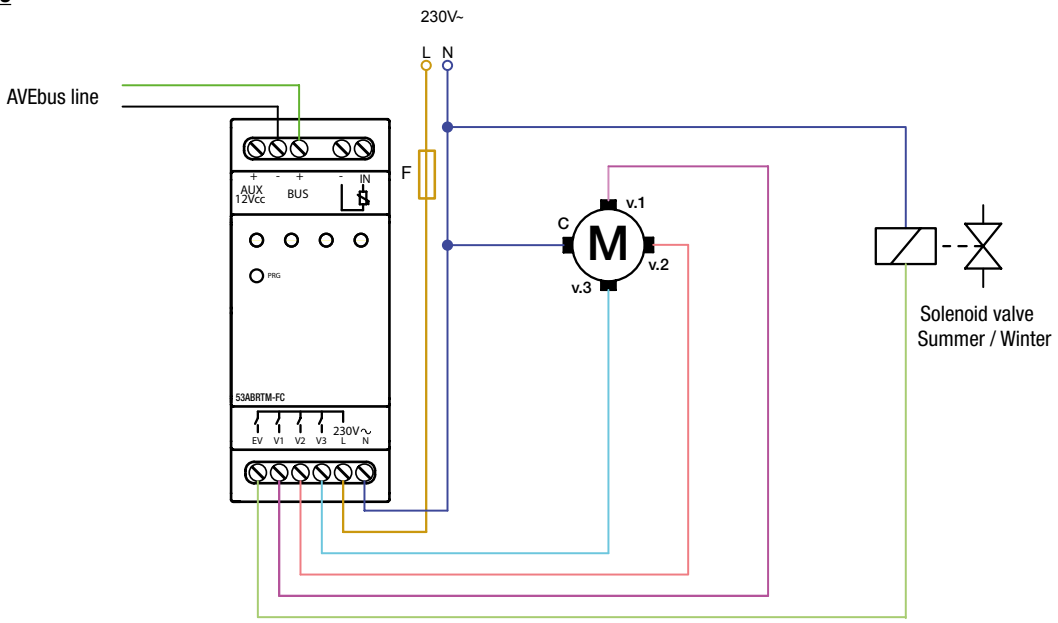
53ABRTM-FC

53ABRTM-FC
1-channel actuator for fancoils - 1A - 2 DIN modules DIN

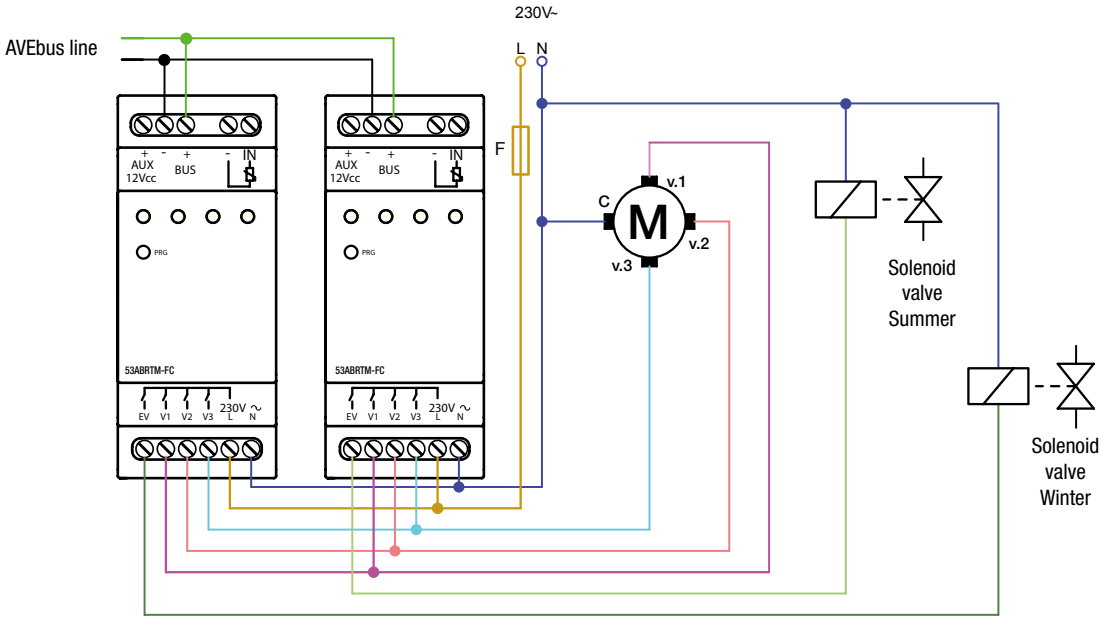
Warning:
power supply from SELV source and from the 230Vac mains MUST NOT be connected at the same time, but must be used alternatively.

TECHNICAL INFORMATION

SYSTEMS WITH 2 TUBES



SYSTEMS WITH 4 TUBES



The 53AB-ALI device is a power supply unit that is stabilised by the AVEBus system. The AVEbus power supply system can be created using one or two power supply units connected in parallel or distributed appropriately in the system. The maximum distance between a power supply unit and another must not be greater than 300 m, while the maximum distance between a power supply unit and a peripheral unit must not exceed the maximum distance of 600 m.
Each power supply unit provides a quantity of energy that is represented with a numerical value equal to 150 "C". This value takes into account both the power issued and the signal band required for communication between the peripheral buses. Hence, the correct dimensioning of the system establishes that the absorption "C" of the peripheral units must not exceed the value of 300 "C" for each bus segment where there are two stabilised power supply units of the system. Any increase in this value requires the use of another bus segment via the line isolation device 53ABISO-1.

Technical details

- Module: 2 DIN modules (35 x 89 x 64.5) mm
- Protection degree: IP40 in the dedicated modules
- Power supply from the 230Vac line: - Rated voltage: 230Vac
  - Allowed fluctuation: 100Vac ÷ 240Vac
- Power supply frequency: 50 - 60 Hz
- Output voltage: - Rated voltage: 15Vdc
- Tolerance: ±2%
- Operating Ambient Temperature Range: from -10°C to +40°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal 1 - 2: AVEbus line (1 negative – 2 positive)
- Terminal 3-4: Power supply from the 230Vac line

Description of the front

Two indicator LEDs can be seen on the front:

- Green LED "ON":
  ON: normal operation
  OFF: failure or power failure
- Red LED "limit":
  - Flashing: transmission on bus
  - ON: short circuit or bus overloaded
  - OFF: normal operation

53ABAUX12V

The 53ABAUX12V device is the switching power supply unit of the AVEBus system that is dedicated to the auxiliary power of the peripheral units. This auxiliary line can only comprise no. 1 switching power supply unit because parallel connections are not allowed. The correct dimensioning of the system establishes that the power absorption of the peripheral units must not exceed the value of 2000 mA for each bus segment. Any increase in this value requires the creation of another bus segment via the line isolation device 53ABISO-1.

Technical details

- Module: 2 DIN modules (35.5 x 94 x 68.5) mm
- Protection degree: IP40 in DIN enclosures
- Power supply from the 230Vac line: - Rated voltage: 230Vac
  - Allowed fluctuation: 100Vac ÷ 240Vac
- Power supply frequency: 50 - 60 Hz
- Output voltage: 12 Vdc - 14 Vdc (adjustable with the potentiometer)
- Rated voltage: 2000 mA
- Operating Ambient Temperature Range: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal 1 - 2: AUX line (1 positive – 2 negative)
- Terminal 3-4: Power supply from the 230Vac line

53AB-ALI

53ABAUX12V

53AB-ALI
Stabilised power supply of the AVEbus system - extended mains voltage range - 2 DIN

53ABAUX12V
Mains voltage power supply with extended range for AVEbus and Touch Screen systems.
Adjustable output voltage with potentiometer (12 to 14Vdc). Max current supplied: 2 A
2 DIN modules

PRAB01
Programmer for AVEbus devices

BSA-USB
AVEbus-USB interface (supplied with SFW-BSA software)

CVAVEBUS
Cable for AVEbus systems, compliant with EU Regulation 305/2011 - Coil 100 m
Technical details: 2x2x0.50 mm2 - Eca performance category
It allows the connection of all AVEbus devices. It comprises two twisted pairs

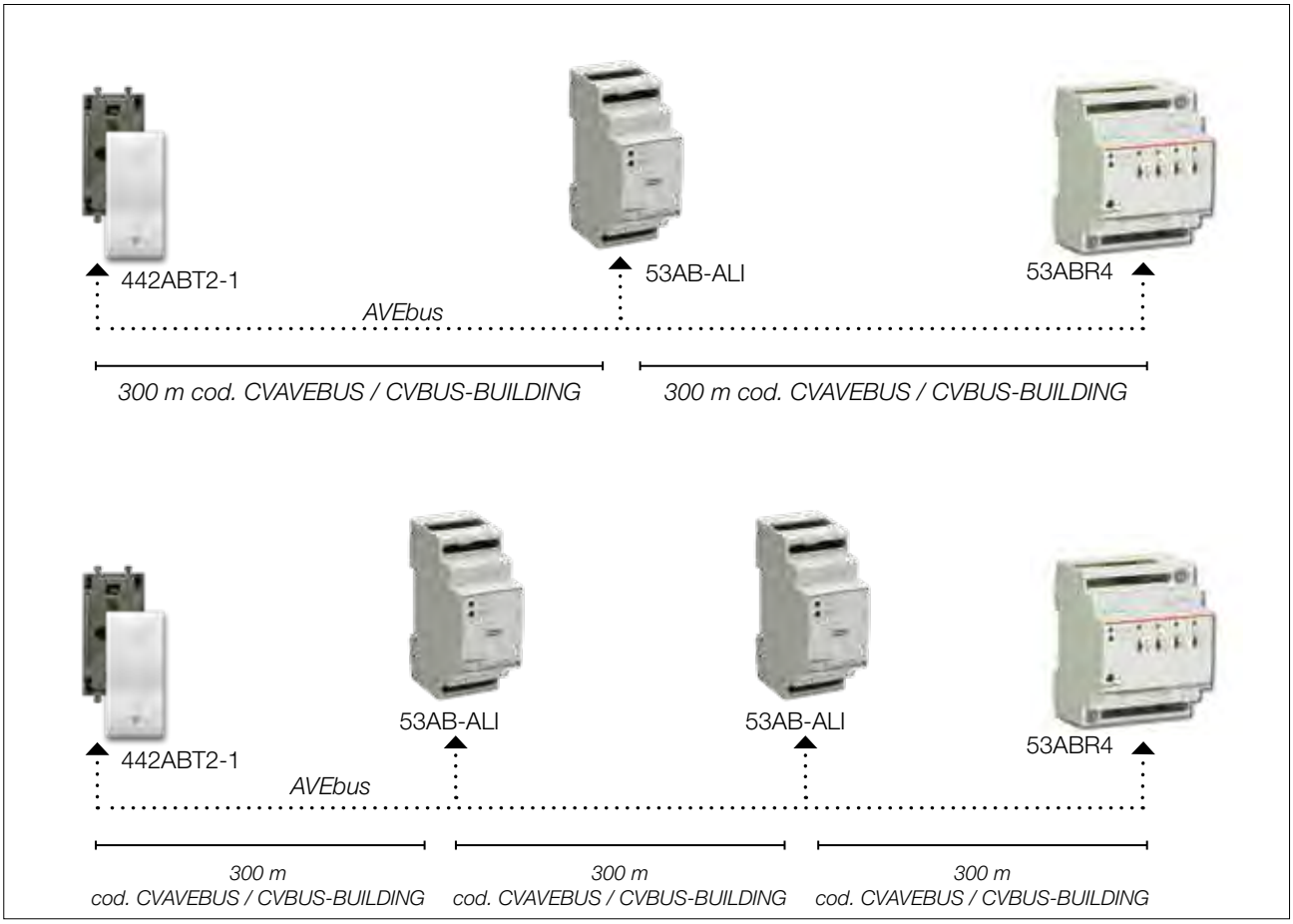
CVBUS-BUILDING
Cable for AVEbus systems, compliant with EU Regulation 305/2011 - Coil 200m
Technical details: 4x 0.50 mm2 - Performance category B_{2ca}-S_{1a}-d_0 - a_1 (HIGH Risk Level)
Allows to connect all AVEbus devices, comprising four wires.

PRAB01

BSA-USB

CVAVEBUS
CVBUS-BUILDING

FUNCTIONAL DIAGRAM



LOGICAL LINE ISOLATOR - cod. 53ABISO-1

The device 53ABISO-1 is a bus signal repeater that provides insulation, both logical and electric, between the two home automation segments to which it is connected, and allows to divide the bus into a multi-system structure that can even have multiple levels. Device function is defined by the function chosen during the configuration phase. Three different functions are managed: Isolator and/or signal repeater, Logical level sectioner and router.

Function in Isolator or Repeater mode
The device acts as a galvanic isolator and allows messages to transit as long as their syntax is correct.

Logical level sectioner
The device acts both as galvanic isolator and logical filter, either blocking or allowing only certain messages to pass, depending on how it is programmed. The device has a memory area where it memorises the actuator devices, whose message will be either enabled or disabled for transit, allowing the creation of a group of actuator devices that are common to both home automation segments.

Router
The device acts both as galvanic isolator and as router of messages that transit from the secondary segment (2) to the primary segment (1), increasing its address with the identification of the device 53ABISO-1.

Technical details

- Module: 1 DIN module (WxHxD) 17.5 x 89 x 64.5 mm
- Protection degree: IP40 in the dedicated modules
- Auxiliary power supply from SELV source: 12Vdc
- Allowed fluctuation: 10.5Vdc - 14Vdc
- Absorption at 12Vdc: Segment 1 - 6.9 mA MAX; Segment 2 - 7.7 mA MAX
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

- Absorption from the AVEbus line:
  - With AUX: 0.5 C Only BUS: 7.4 C
  - With AUX: 0.6 C Only BUS: 13.8 C

Connections

Primary bus segment [1]
- Terminal 1: positive auxiliary of the branch
- Terminal 2: GND of the branch [1]
- Terminal 3: Positive BUS of the branch [1]

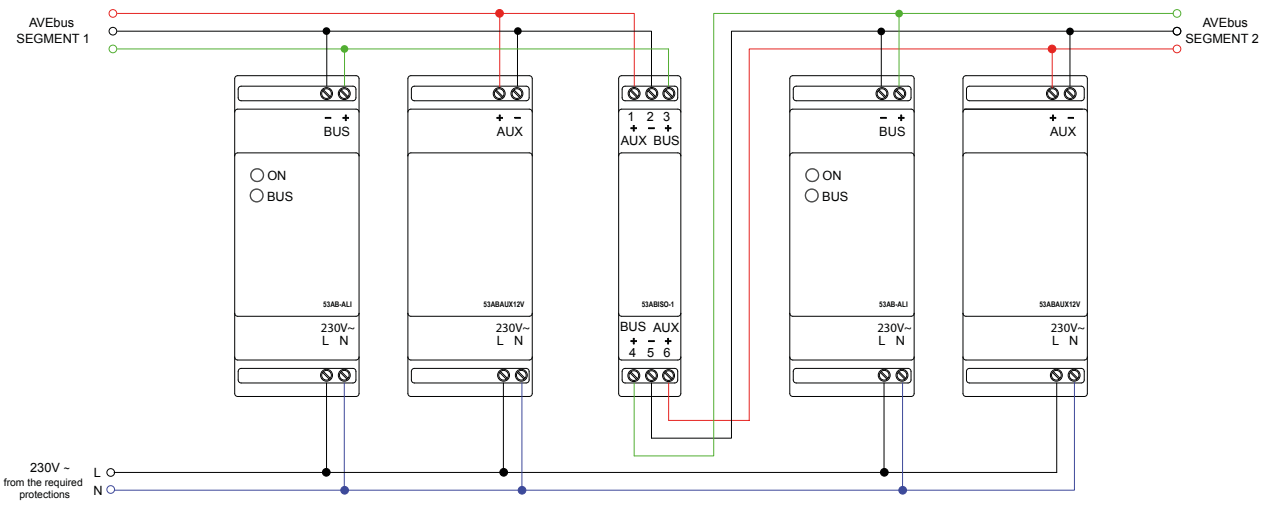
Secondary bus segment [2]
- Terminal 4: Positive BUS of the branch [2]
- Terminal 5: GND of the branch [2]
- Terminal 6: Positive auxiliary of the branch [2]

Warning: Terminals 2 and 5 are isolated:

Function Table

Function 1: Electric isolator and line repeater		...
Function 2: Logical level sectioner with filter	Parameter 1	**Black list:** all AVEbus frames pass except for those of devices stored in the memory.
Function 3: Router for the extension of addresses		**White list:** only AVEbus frames of devices stored in the memory pass.

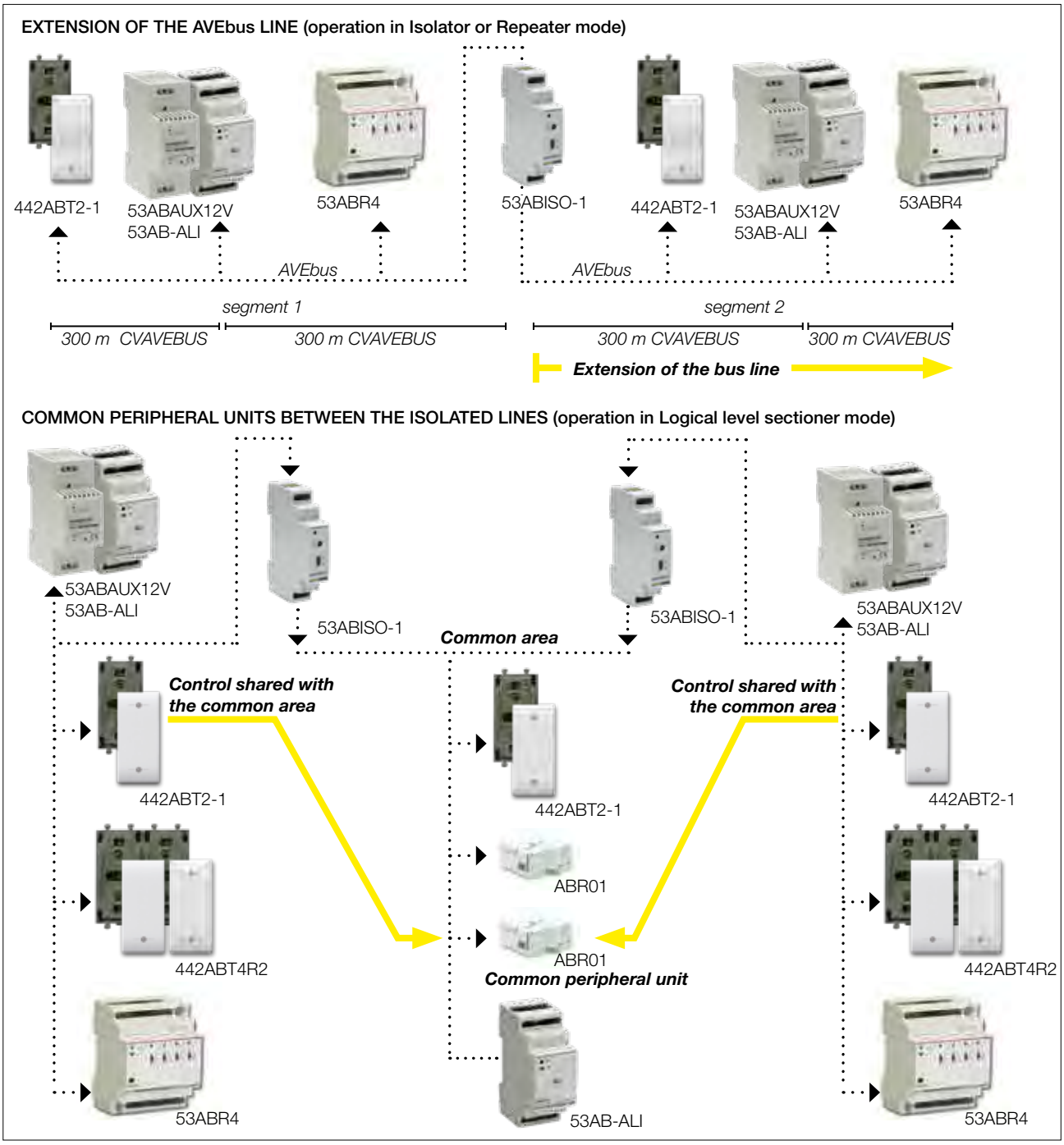
Diagram



53ABISO-1

53ABISO-1
Logical line isolator - 1 DIN

FUNCTIONAL DIAGRAM



AVE cloud
More than just an App, a personal assistant always at your disposal

TS05N-V | TS04X-V | TS03x-V | TS01 | 53AB-WBS

Make your home smarter with the AVE Cloud App! Interact with the home automation system from your smartphone or tablet, wherever you are and at any time. You can manage every automation and function integrated in the system! Plus: you can also control the alarm. All from a single App.

Smart home: the future is connected with AVE Connect
With DOMINA plus the world of home automation and that of connected objects come together, enhancing the peculiarities of both through AVE Connect. The first real IoT ready home automation system from AVE is born: a totally integrated system for your home, always ready to listen to you and satisfy your technological needs.

ave Connect
IOT & SMART HOME SYSTEM

53AB-WBS

TS05N-V

TS04X-V

TS03N-V + 44PV12NAL

TS03B-V + 44PV12BL

53AB-WBS

TS01

TS05N-V
DOMINAplus 15" Touch Screen with glass front plate and colour graphic LCD display
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.7A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation in the dedicated box TS05NBOX.

TS04X-V
DOMINAplus 12" Touch Screen with colour graphic LCD display.
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation in a dedicated box cod. TS04XBOX

TS03N-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear black front
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.0A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation with a dedicated box cod. BL06P or cod. BL06CG

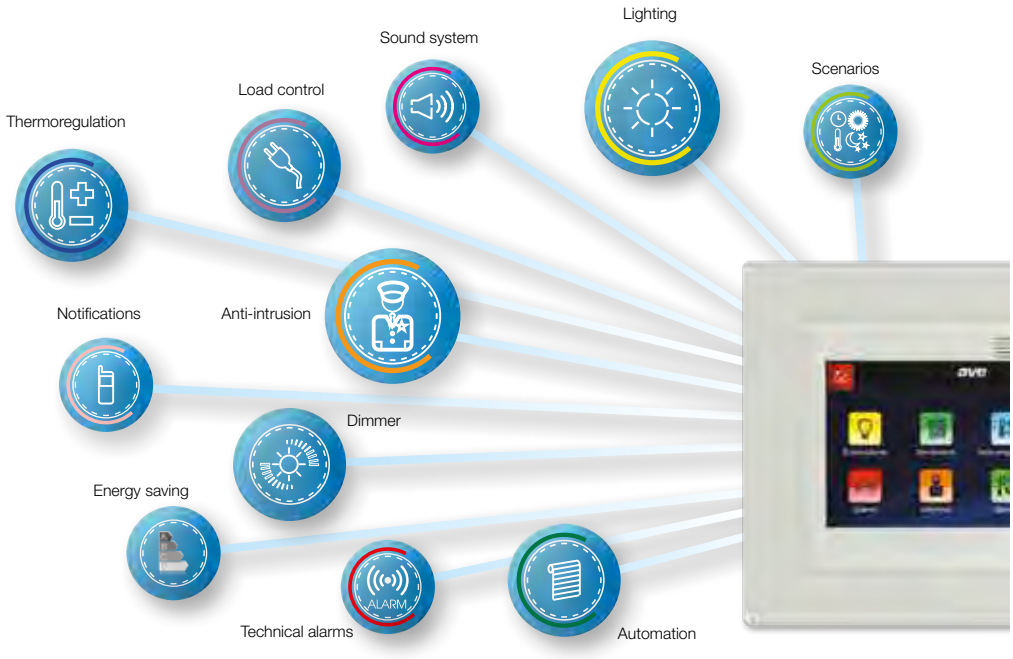
TS03B-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear white front

TS01
DOMINAplus Touch Screen with 4.3" colour display and user interface with icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Power supply: 12Vdc (Max. 0.5A)
- Operating Room Temperature: 0°C - 40°C
- Integrated home automation Web Server
- Combined with the temperature probe, it also works as a chronothermostat.

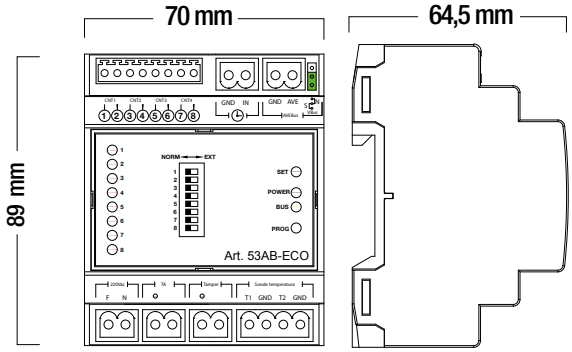
53AB-WBS
Web Server for the supervision of the home automation system using the Ethernet network 6 DIN modules
- Power supply: 12Vdc (Max. 12Vdc (Max. 250mA)
- Operating Room Temperature: 0°C - 40°C
- AVEbus and LAN connection for other online devices.
- Made in monoblock for DIN installation

Download on the App Store

GET IT ON Google Play



The 53AB-ECO is a energy saver home automation device, which prevents the activation of the current limiting switch for overloading and accounts the electric energy consumptions. With the input present directly on the device, it is able to measure the consumption of Water, Gas (connecting the pulsed output meters) and to read the two temperature probes cod. 53GA92-T (the data measured are stored in the internal memory of the device and sent to the bus line). It can control up to 8 loads or load groups by controlling home automation actuators, based on the the current requirement measured by the CT. Each one of the 8 load groups (8 channels of the home automation system) must be given a priority to fix its order of disconnection. In case of overload, loads are disconnected according to the priorities to prevent the current limiting switch from activating. When the power consumption is within the set value, the device checks for every load whether the power managed (set during the programming phase) is supported by the system and that it is, hence, possible to attach the relative electric load. Loads can be set for activation in predetermined time periods (ECO function), selected by means of an optional external time or weekly programmer, to make use of the time established by the various power suppliers by contract.



Technical details

• Module:	4 DIN modules
• Dimensions:	(WxHxD) 70 x 109 x 64 mm
• Protection degree:	IP20 (IP 30D in dedicated containers)
• Weather conditions:	0°C at +50°C – 2000 m a.s.l.
• Rated voltage:	230Vac
• Current absorption at 230Vac:	60mArms

Connections

• Terminal 230Vac (F, N) :	Phase and Neutral for power supply
• Terminal CT (•) :	CT measure connection (start of winding)
• Terminal CT:	CT measure connection (End of winding)
• Terminal CT Tamper:	Not used
• Terminal TEMP (T1, GND):	Temperature probe 1
• Terminal TEMP (T2, GND):	Temperature probe 2
• Terminal (1, 2):	Meter input 1
• Terminal (3, 4):	Meter input 2
• Terminal (5, 6):	Meter input 3
• Terminal (7, 8):	Meter input 4
• Terminal TIMER (IN, GND):	ECO consent input
• AVEBUS Terminal (GND, +):	AVEBUS communication bus (see note)

Warning:

The energy saving device communicates with the DOMINA home automation devices and acts as bus power supply unit, thus allowing the use of the device also in stand alone mode (maximum current supplied 37mA). This function is enabled by placing the jumper (J) in position (S).

Description of the front

A series of optical signals is visible on the front indicating the function, programming status of the device and the status of the various loads managed:

- Green LED, lighted indicates the presence of mains voltage;
- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - Slow flashing, correct AVEbus communication
  - Fixed light, short circuit on the AVEbus line
- Red LED (1…8), lighted indicates the disconnection of the relative load;

The front also presents:

- Button for manual override of the load, used to choose which disconnected loads to override;
- PROG Button, used to enter the device configuration mode;
- Dip-switch to enable ECO function, they are used to select which of the eight loads to manage, depending on the status of the TIMER terminal (ECO input consent).

53AB-ECO

53AB-ECO
Energy saving device for Energy Management - 4 DIN modules

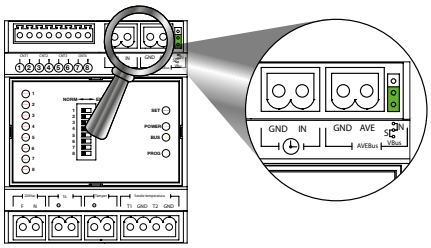
53ABR4
Actuator with 4 independent channels - 8A resistive and incandescent lamps - 5A cosφ 0.6
4 DIN modules

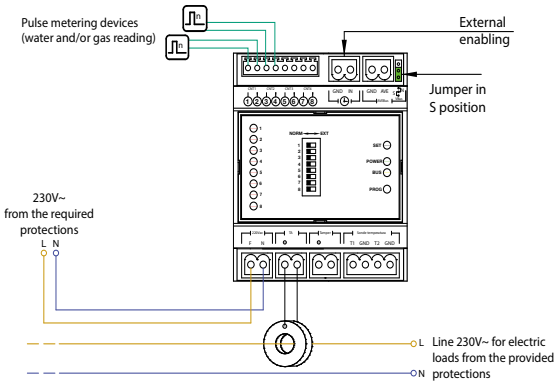
Warning:
The device cod. 53AB-ECO must be connected, without a UPS placed between, downstream of the single-phase electronic meter of the electricity distribution company.

53ABR4

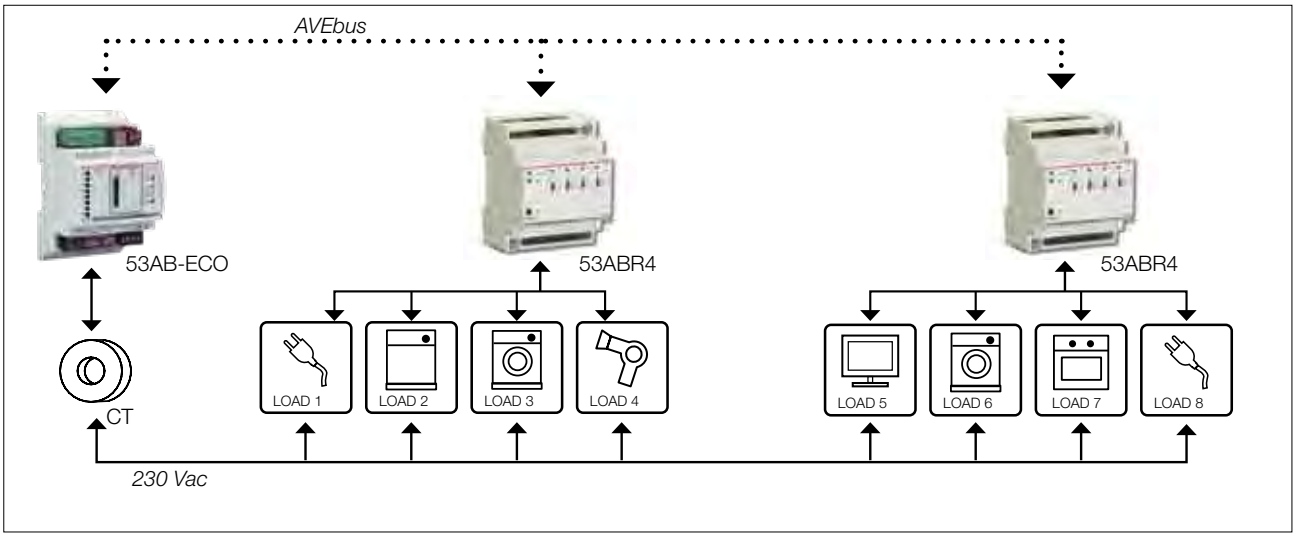
TECHNICAL INFORMATION

Setting the jumper on "S" enables the function "AVEbus power supply" thus allowing the device to be used in Stand Alone mode (max deliverable current 37mA).

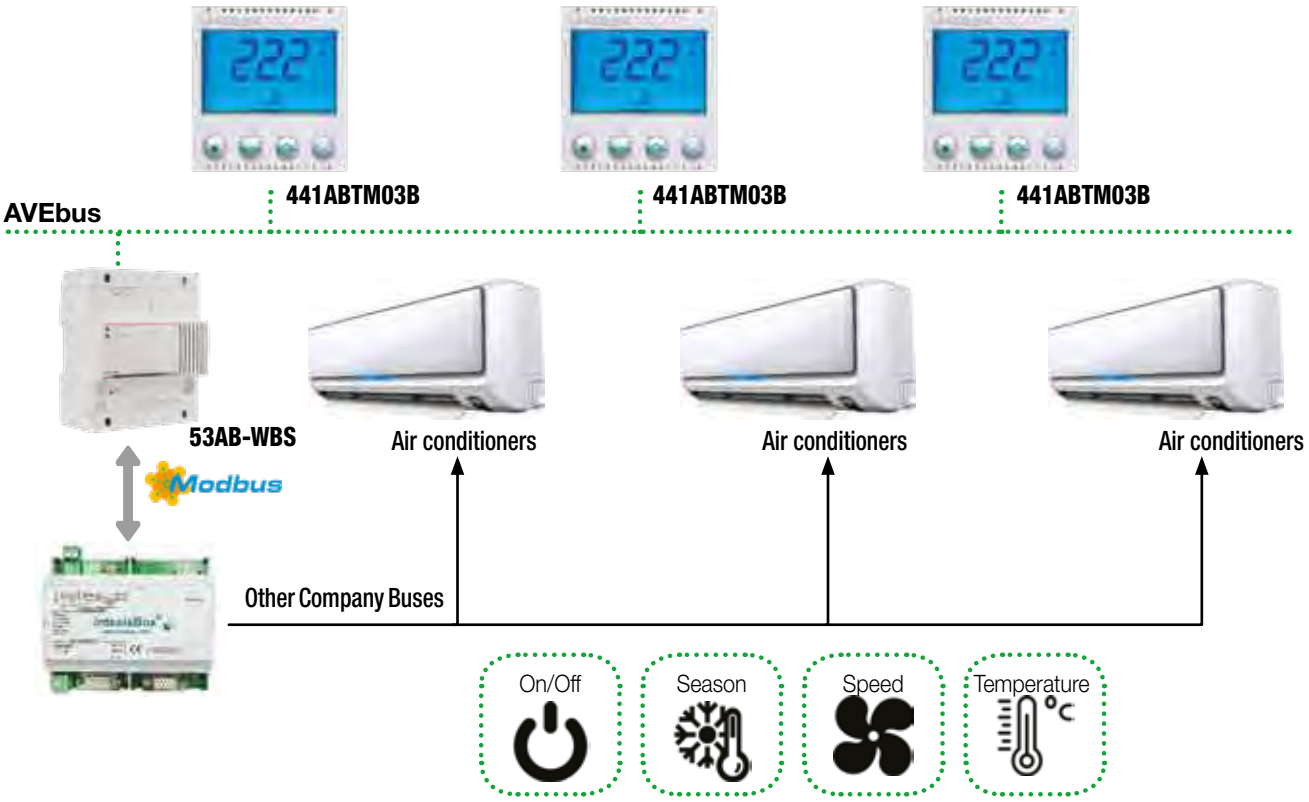




FUNCTIONAL DIAGRAM



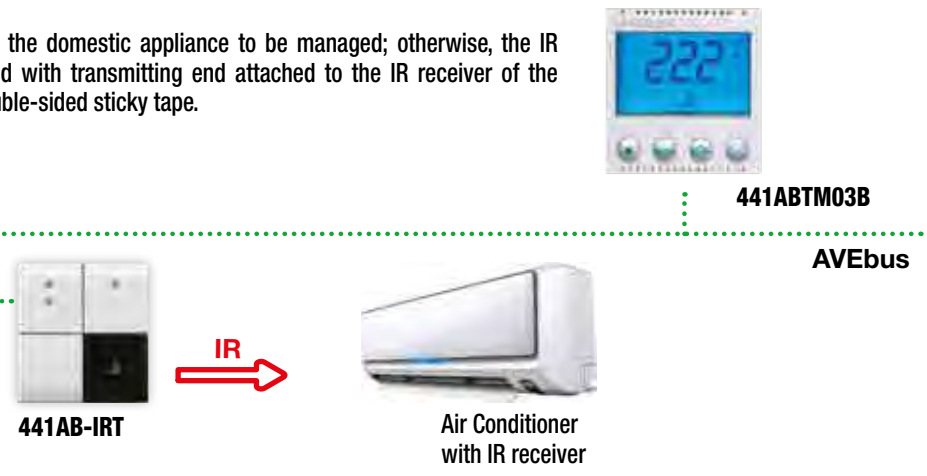
Integration with Modbus gateway for Air Conditioning control



The DOMINAplus supervisors range interfaces with the leading brands used for Central Air Conditioning by using the Modbus standard protocol.

Integration with IR Interface for Air Conditioning control

Warning:
The device must be installed opposite the domestic appliance to be managed; otherwise, the IR extension cable provided must be used with transmitting end attached to the IR receiver of the domestic appliance with dedicated double-sided sticky tape.



Air Conditioning - Control with Modbus Protocol

TS05N-V

TS05N-V
DOMINAplus 15" Touch Screen with glass front plate and colour graphic LCD display
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.7A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation in the dedicated box TS05NBOX.

TS04X-V

TS04X-V
DOMINAplus 12" Touch Screen with colour graphic LCD display.
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation in a dedicated box cod. TS04XBOX

TS03N-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear black front
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.0A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation with a dedicated box cod. BL06P or cod. BL06CG

TS03N-V + 44PV12NAL

TS03B-V + 44PV12BL

TS03B-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear white front

TS01
DOMINAplus Touch Screen with 4.3" colour display and user interface with icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Power supply: 12Vdc (Max. 0.5A)
- Operating Room Temperature: 0°C - 40°C
- Integrated home automation Web Server
- Combined with the temperature probe, it also works as a chronothermostat.

53AB-WBS

53AB-WBS
Web Server for the supervision of the home automation system using the Ethernet network
6 DIN modules
- Power supply: 12Vdc (Max. 12Vdc (Max. 250mA)
- Operating Room Temperature: 0°C - 40°C
- AVEbus and LAN connection for other online devices.
- Made in monoblock for DIN installation

TS01

Air Conditioning - Control with cod. 44..AB-IRT

Description

441AB-IRT

445AB-IRT

□ **441AB-IRT** ■ **445AB-IRT** ■ **449AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems - Domus series
Domus series - Tekla - Class - 2 modules

■ **442AB-IRT** ■ **443AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems - Life series - Allumia
2 modules

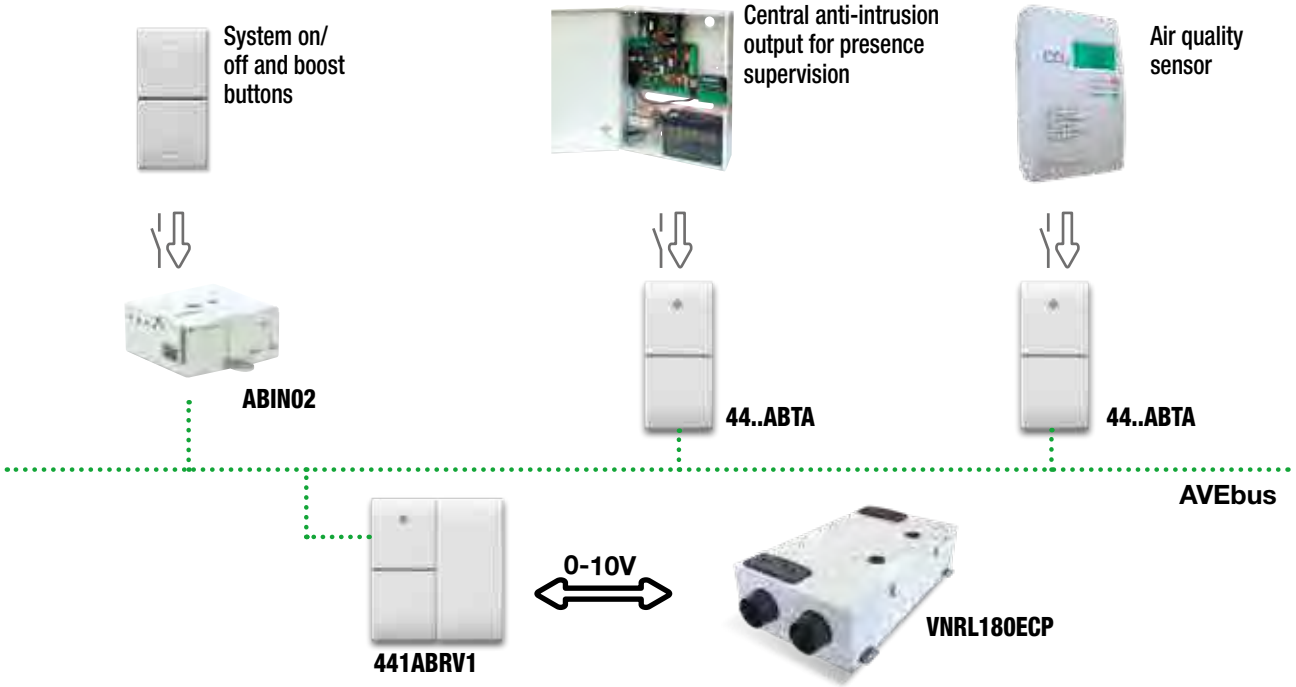
449AB-IRT

442AB-IRT

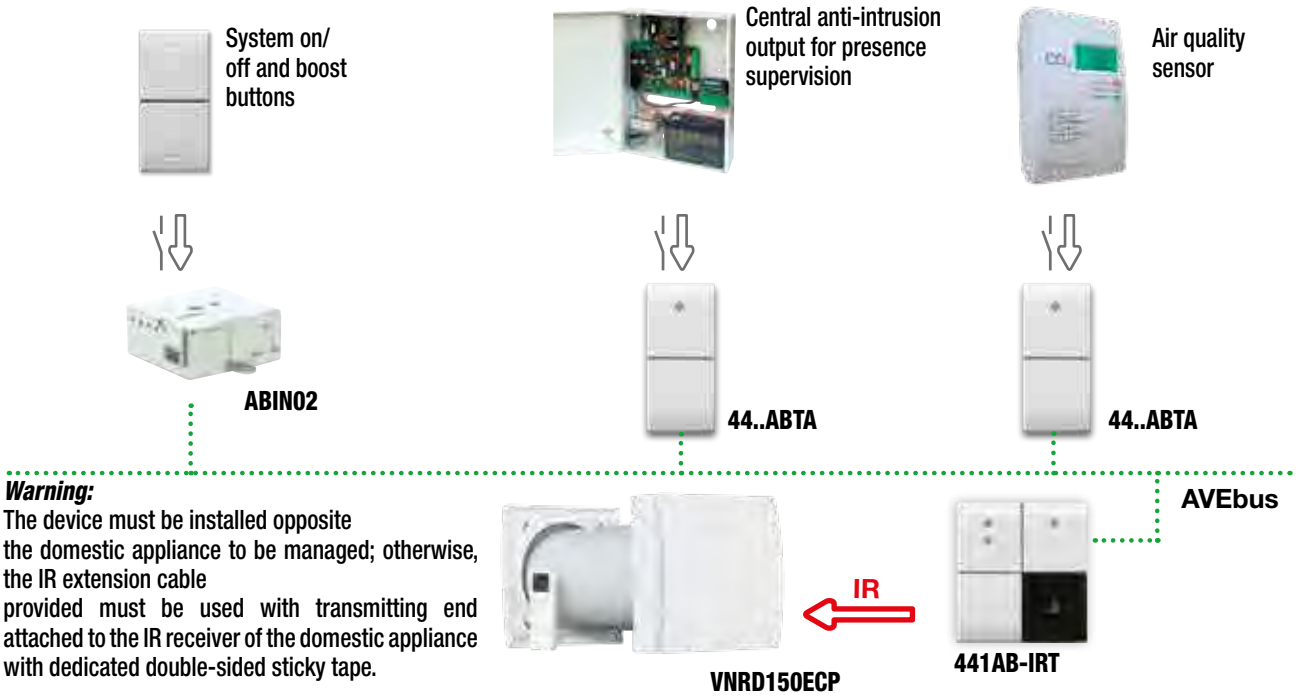
443AB-IRT

Through integration with the new range of AVE DomusAir products, by using CMV (controlled mechanical ventilation), continuous change of air with double flow can be guaranteed with heat recovery, thus allowing to constantly maintain excellent internal air quality, extracting components that are harmful for both the person's health and for the building itself, and producing fresh filtered air. (for more information, see the page on CMV in the relevant section of the Technical Catalogue).

Central CMV with heat recovery - Control with cod. 441ABRV1



Decentralised CMV with "SOLAIR" heat recovery - Control with cod. 44..AB-IRT



Warning:
The device must be installed opposite the domestic appliance to be managed; otherwise, the IR extension cable provided must be used with transmitting end attached to the IR receiver of the domestic appliance with dedicated double-sided sticky tape.

Central CMV with heat recovery - Control with cod. 441ABRV1

441ABRV1

442ABT2-1

441ABTA

445ABTA

442ABTA

443ABTA

VNRL180ECP

441ABRV1
Analogue interface with 1-10V output for CMV systems
in combination with other components of the home automation system allows:
- To switch on/off the CMV system
- Timed forcing at maximum speed
- Control depending on user presence
- Sensor management (Air Quality, Humidity and CO2)
- Motor speed configuration (10% - 100%)

☐ 441ABTA **■ 445ABTA** **■ 449ABTA**
1-channel transmitter for alarm signals - Domus series - Tekla - 1 module

■ 442ABTA **■ 443ABTA**
1-channel transmitter for alarm signals - Life series - Allumia - 1 module

442ABT2-1
Control device with 2 channels - to be completed with key cover - 1 module

VNRL180ECP
Central double flow ventilation unit with heat recovery for in-line installation (ceiling or false ceiling) - up to 88% actual efficiency - compact size: only 269 mm high - EC brushless energy saving motors - maximum capacity 209 m3/h - automatic activation of integrated physical bypass - external multi-function control panel with LCD display codes VNRCP1, VNRCP2, VNRCP3 (not provided) - for rooms with max surface area 130 m2 - version Plus

Decentralised CMV with “SOLAIR” heat recovery - Control with cod. 44..AB-IRT

441AB-IRT

445AB-IRT

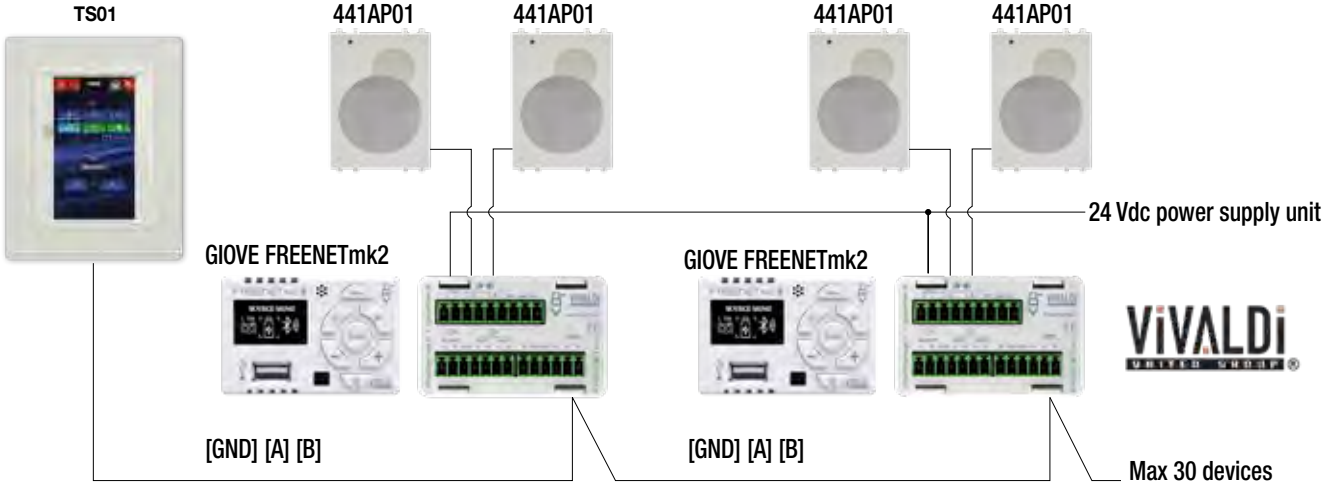
VNRD150ECP

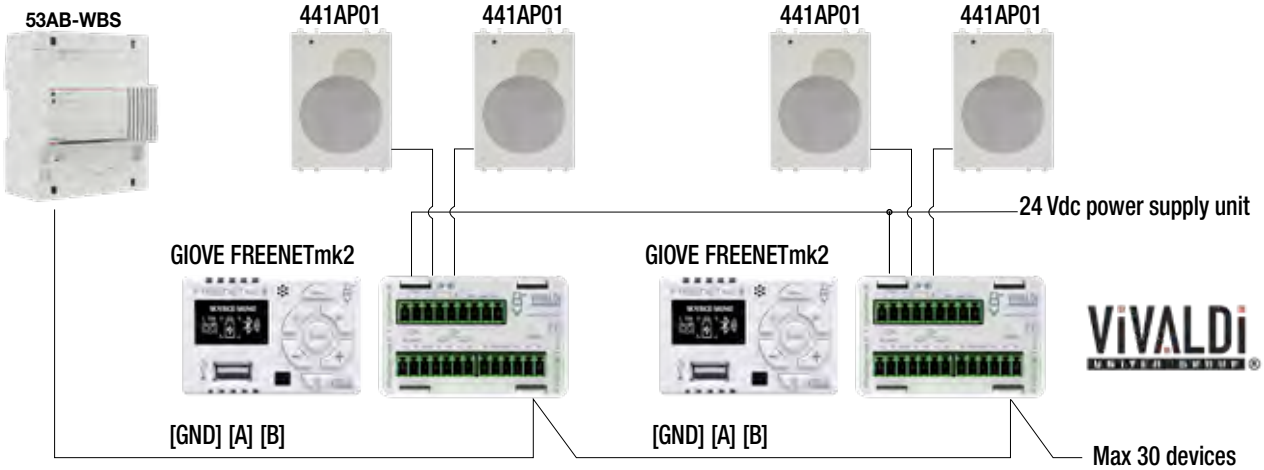
☐ 441AB-IRT **■ 445AB-IRT** **■ 449AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems - Domus series - Tekla 2 modules

■ 442AB-IRT **■ 443AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems - Life series - Allumia 2 modules

VNRD150ECP
Decentralised single flow ventilation unit alternated with heat recovery Ø150 mm - internal unit with front design - standard infra-red remote control provided - up to 82% actual efficiency - EC brushless energy saving motors with very low energy consumption, with ball bearings (long life) - maximum capacity 60 m3/h - for reversible and continuous multi-speed operation - for rooms with max surface area 45 m2 - for installation in living areas (bedrooms and living rooms) - Plus version

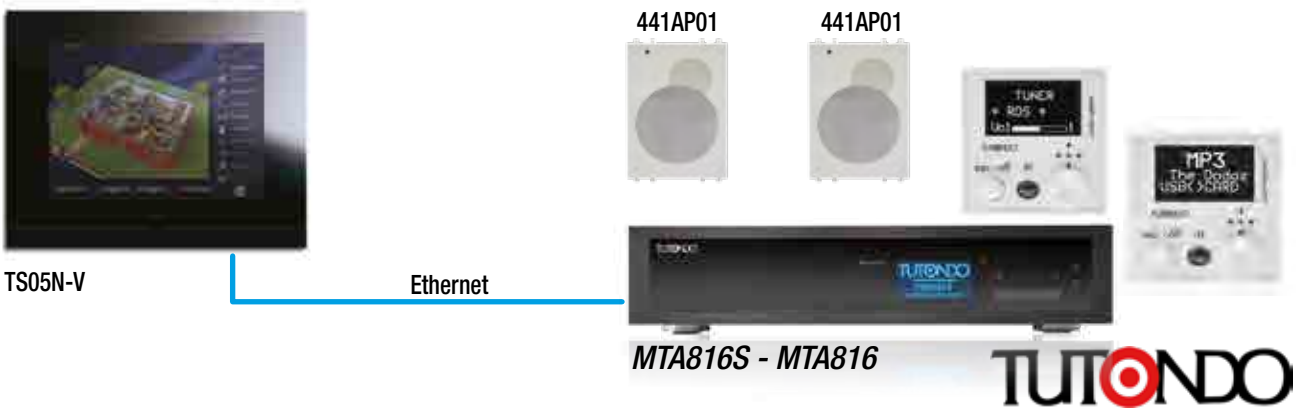
Integration with Vivaldi sound devices





Functions: ON, OFF - Volume Control and MUTE - High and Low tone control - Source change TUNER, USB, AUX-IN, B.T. and MIC - Change of radio station frequency (+/- 0.1Hz) - Change of USB folder and MP3 File.

Integration with Tutondo sound devices



Functions: ON, OFF - Volume Control and MUTE - High and Low tone control - Source change TUNER, USB, AUX-IN, B.T. - Change of radio station frequency - Change of USB folder and MP3 File.

TS05N-V

TS04X-V

TS03N-V + 44PV12NAL

TS03B-V + 44PV12BL

53AB-WBS

TS01

TS05N-V
DOMINAplus 15" Touch Screen with glass front plate and colour graphic LCD display
- Compatible with Tutondo sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 2.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation in the dedicated box TS05NBOX.

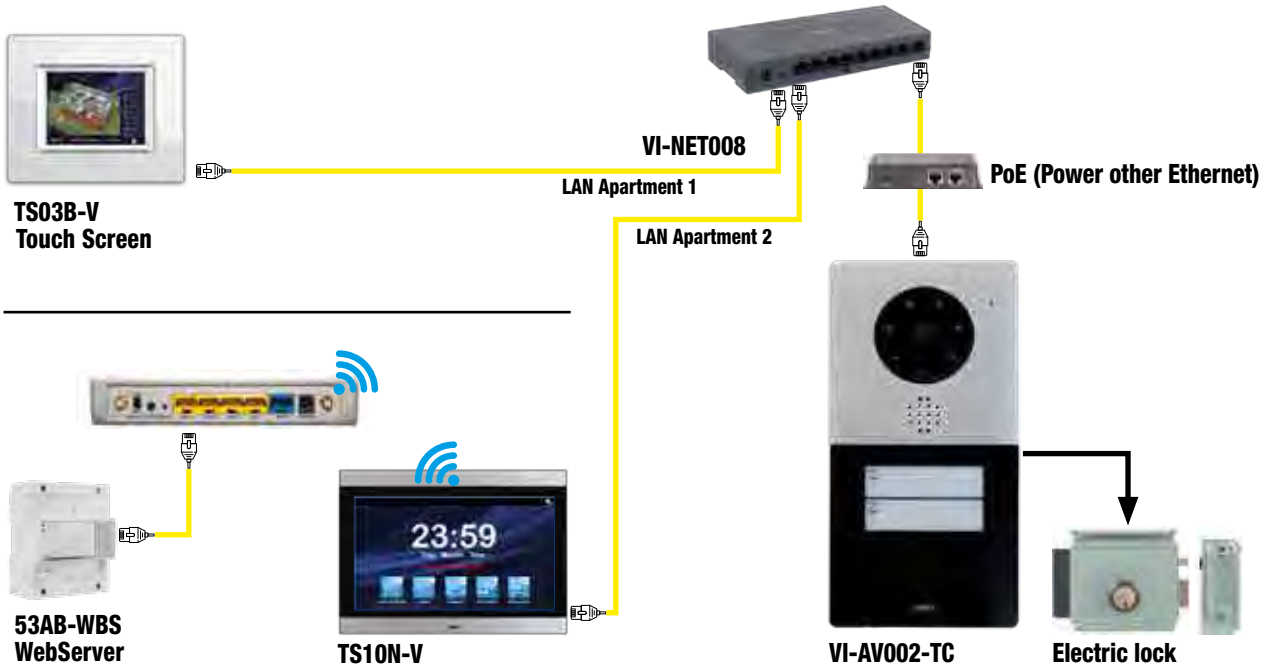
TS04X-V
DOMINAplus 12" Touch Screen with colour graphic LCD display.
- Compatible with Tutondo sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 2.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation in a dedicated box cod. TS04XBOX

TS03N-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear black front
- Compatible with Tutondo sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 2.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation with a dedicated box cod. BL06P or cod. BL06CG

TS03B-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear white front

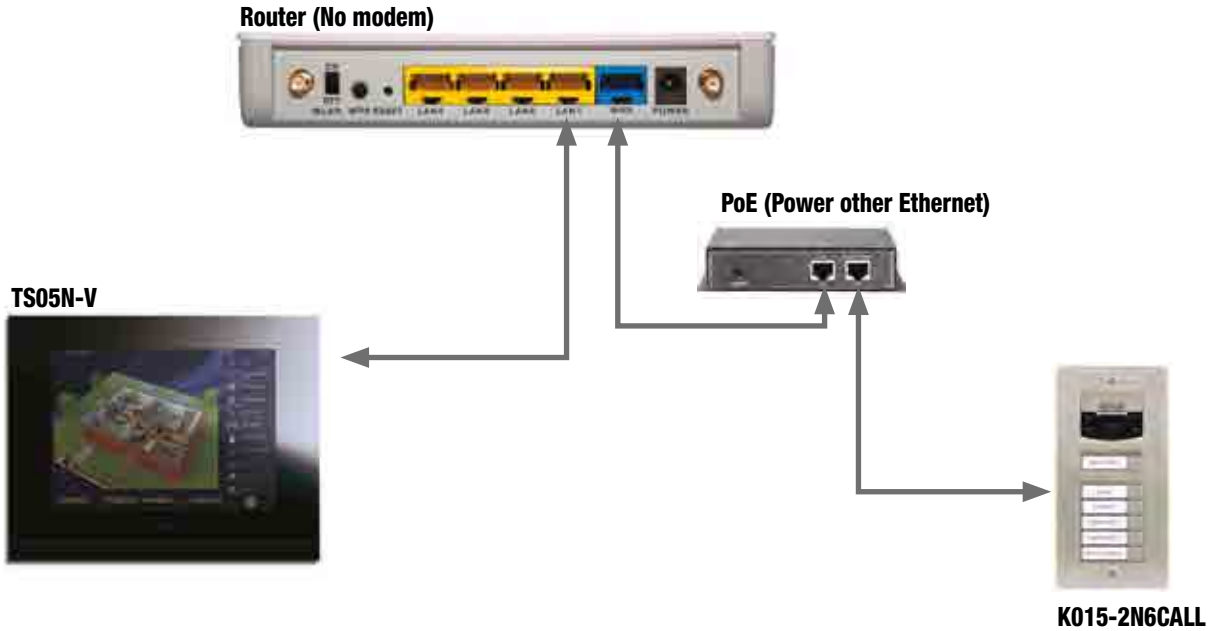
TS01
DOMINAplus Touch Screen with 4.3" colour display and user interface with icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Compatible with Tutondo and Vivaldi sound integration
- Power supply: 12Vdc (Max. 0.5A)
- Operating Room Temperature: 0°C - 40°C
- Integrated home automation Web Server
- Combined with the temperature probe, it also works as a chronothermostat.

53AB-WBS
Web Server for the supervision of the home automation system using the Ethernet network
6 DIN modules
- Compatible with Tutondo and Vivaldi sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 250mA)
- Operating Room Temperature: 0°C - 40°C
- AVEbus and LAN connection for other online devices.
- Made in monoblock for DIN installation



AVAILABLE VERSIONS

EXAMPLE OF USE



TS05N-V

TS04X-V

TS03N-V + 44PV12NAL

TS03B-V + 44PV12BL

VI-AV002-VP

VI-AV002-TC

K015-2N1CALL

K015-2N6CALL

K015-2NKEYPAD

TS05N-V
DOMINAplus 15" Touch Screen with glass front plate and colour graphic LCD display
- Compatible with Tutondo sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.7A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush-mounted installation in the dedicated box TS05NBOX.

TS04X-V
DOMINAplus 12" Touch Screen with colour graphic LCD display.
- Compatible with Tutondo sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.2A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation in a dedicated box cod. TS04XBOX

TS03N-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear black front
- Compatible with Tutondo sound integration
- Power supply: 12Vdc (Max. 12Vdc (Max. 1.0A)
- AVEbus and LAN connection for other online devices.
- Made in monoblock for flush mounted installation with a dedicated box cod. BL06P or cod. BL06CG

TS03B-V
DOMINAplus 5.7" Touch Screen with integrated audio – Clear white front

VI-AV002-TC
IP video intercom for home automation double family plants - "Villa type"
Suitable with DOMINAplus Touch Screen TS03B-V, V-TS03N, TS04X-V and TS05N-V.

VI-AV002-VP
IP video intercom for home automation double family plants - "Vandal proof type"
Suitable with DOMINAplus Touch Screen TS03B-V, V-TS03N, TS04X-V and TS05N-V.

K015-2N1CALL
IP video intercom kit for home automation single family plants.
The kit does not include the flush mounted box.
Suitable with DOMINAplus Touch Screen TS03B-V, V-TS03N, TS04X-V and TS05N-V.
The packet contains: 2N-9155101C, 2N-9155012, 2N-9137907 and 2N-91378100E.

K015-2N6CALL
IP video intercom kit for home automation multifamily plants (six call buttons).
The kit does not include the flush mounted box.
The packet contains: 2N-9155101C, 2N-9155012, 2N-9137907, 2N-91378100E and 2N-9155035.

K015-2NKEYPAD
IP video intercom kit (with keypad) for home automation multifamily plants (more than six call users). The kit does not include the flush mounted box.
Suitable with DOMINAplus Touch Screen TS03B-V, V-TS03N, TS04X-V and TS05N-V.
The packet contains: 2N-9155101C, 2N-9155012, 2N-9137907, 2N-91378100E and 2N-9155031.

2NBOX
Flush mounted box – dimension : 238 x 108 x 45 mm. The packet contains: 2N-9155015.

AF941R
Two-way remote control with system status signal.

AF909RR
Two-way wireless module. Allows to use all wireless devices of the wireless anti-intrusion alarm range.

AF975R-DB
Dual PIR wireless dual band perimeter detector with anti-blinding function. For protected outdoor area.

AF963N
Dual technology detector with anti-blinding function.

AFEXPU
Module with remote relay output. It works as "stepper" (e.g., for lights) or as "inversion stepper" (e.g., for shutters).

AFEX6I–REN
Remote expansion module with 6 inputs.

TSINT02
LAN interface for homeautomation touch screens.

AF984TM
Back lit LCD touch screen. It has a voice guidance, which gives information to the installer and to the final user.

AF999EXP
Central unit with 4A power supply unit.
It can manage up to:
- 128 peripheral units
- 7 touch screen keypads
- 2 wireless modules
- 16 multifunctional relay output modules.
- 16 transponder activators

AFGSM03
GSM modules. It allows complete control of the central unit also via SMS.

AF441045
Transponder activator Domus series. It can also be used as access control.

AF441062
Wired PIR flush mounted detector. Domus series.

AF442099RS
Auxiliary siren. It can also be used as an acoustic alarm thanks to the possibility of two sound intensity levels. Possibility to choose among 4 different acoustic sounds.

AF949PLUS
AF999PLUS

App for Smartphone
App for Smartphones

TSINT02

AF927PLUSTC

AF927PLUS

AF949PLUS
Kit with:
AF949 wired/wireless anti-intrusion central unit with six inputs on-board expandable to 36.
The central unit also has a PSTN telephone dialler and a voice synthesizer included.
Central unit with 1.5A power supply unit. It can control up to 36 peripheral units:
· 7 touch screen keypads (1 master and 6 slaves)
· 2 wireless modules
· 16 multifunctional relay output modules.
· 16 transponder activators.
Dimensions 340x255x80 mm To be completed with 2 AF912 batteries.
• AF984TM Backlighted master touch screen keypad with reader for integrated tag transponder AF340-T. It has a voice guidance, which gives information to the installer and to the final user. - Dimensions 106x135x30mm.

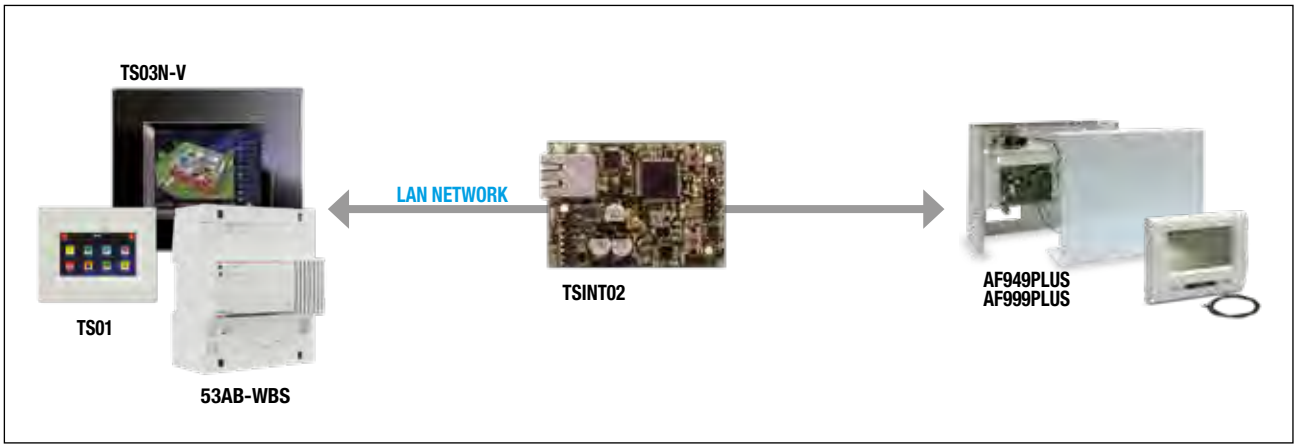
AF999PLUS
Kit with:
AF999EXP wired/wireless anti-intrusion central unit with six inputs on-board expandable to 128.
The central unit also has a PSTN telephone dialler and a voice synthesizer included.
Central unit with 4A power supply unit. It can control up to 128 peripheral units:
· 7 touch screen keypads (1 master and 6 slaves)
· 2 wireless modules
· 16 multifunctional relay output modules.
· 16 transponder activators.
Dimensions 380x365x130 mm To be completed with 2 AF919 batteries.
• AF984TM Backlighted master touch screen keypad with reader for integrated tag transponder AF340-T. It has a voice guidance, which gives information to the installer and to the final user. - Dimensions 106x135x30mm.

TSINT02
LAN interface for anti-intrusion control unit cod. AF999PLUS and AF949PLUS

AF927PLUSTC
Radio and wire control central unit with integrated web server and Wi-Fi module. 230Vac power supply. 99 radio channels, 99 detectors individually identifiable by a 7 ”color touch screen LCD display and/or with a web browser.
Dual band. To be completed with 2 AF911 batteries. Dimensions (307x200x53) mm.

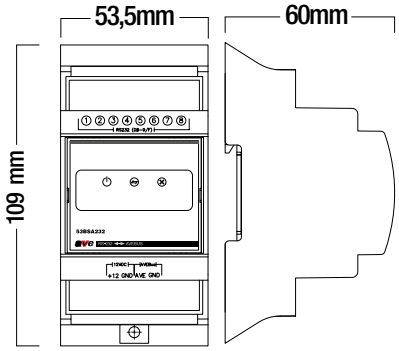
AF927PLUS
Radio and wire control central unit with integrated web server and Wi-Fi module. 230Vac power supply. 99 radio channels, 99 detectors individually identifiable by a device equipped with a web browser. Multi-signal LED on the front. Possibility to transmit voice messages and / or SMS alarms. 8 wired inputs (16 with double function).
Dual band. To be completed with 2 AF911 batteries. Dimensions (307x200x53) mm.

FUNCTIONAL DIAGRAM



HARDWARE INTERFACE RS-232 – AVEBUS – cod. 53BSA232

Product 53BSA232 is an interface allowing a personal computer (PC) to be connected to the home automation bus used by devices of the Domina series (AVEbus) by means of a serial port RS-232.



Technical details

- Module: 3 DIN modules (53.5 w x 109 h x 60 d) mm
- Protection degree: IP30
- Auxiliary power supply from SELV source: 12Vdc
- Allowed fluctuation: +12VDC ±20%
- Absorption at 12Vdc: < 25mA at +12VDC
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal 1: Data Carrier Detect (DCD) [pin 1 RS232]
- Terminal 2: Received Data (RX) [pin 2 RS232]
- Terminal 3: Transmitted Data (TX) [pin 3 RS232]
- Terminal 4: Data terminal Ready (DTR) [pin 4 RS232]
- "AVE" Terminal: Positive AVEBUS
- Terminal "GND": Negative AVEbus
- Terminal 5: Signal Ground (GND) [pin 5 RS232]
- Terminal 6: Data Set Ready (DSR) [pin 6 RS232]
- Terminal 7: Request To Send (RTS) [pin 7 RS232]
- Terminal 8: Clear To Send (CTS) [pin 8 RS232]
- Terminal "+12V": Positive 12Vdc power supply
- Terminal "GND": negative 12VDC power supply

Warning: Reference ground between RS232 and AVEBus are uncoupled.

Description of the front

Several optical alerts can be seen on the front:

- Green LED: Powered interface (POWER)
- Yellow LED: Communication on AVEBus (TRAFFIC)
- Red LED: Collision detected (COLLISION).

Warning: After a collision is detected, the interface automatically prevents the transmission of messages from PC to AVEBus until it is reset through the management software.

53BSA232
AVEbus-RS232 interface - 3 DIN modules

53BSA232

TECHNICAL INFORMATION - INTERFACE MANAGEMENT THROUGH A PC

To correctly "control" the home automation receivers from the PC (e.g., 441ABR1) or to "intercept" the controls sent by the transmitters (e.g., 441ABT1) the serial door that is physically connected to 53BSA232 must be opened by setting the following parameters:

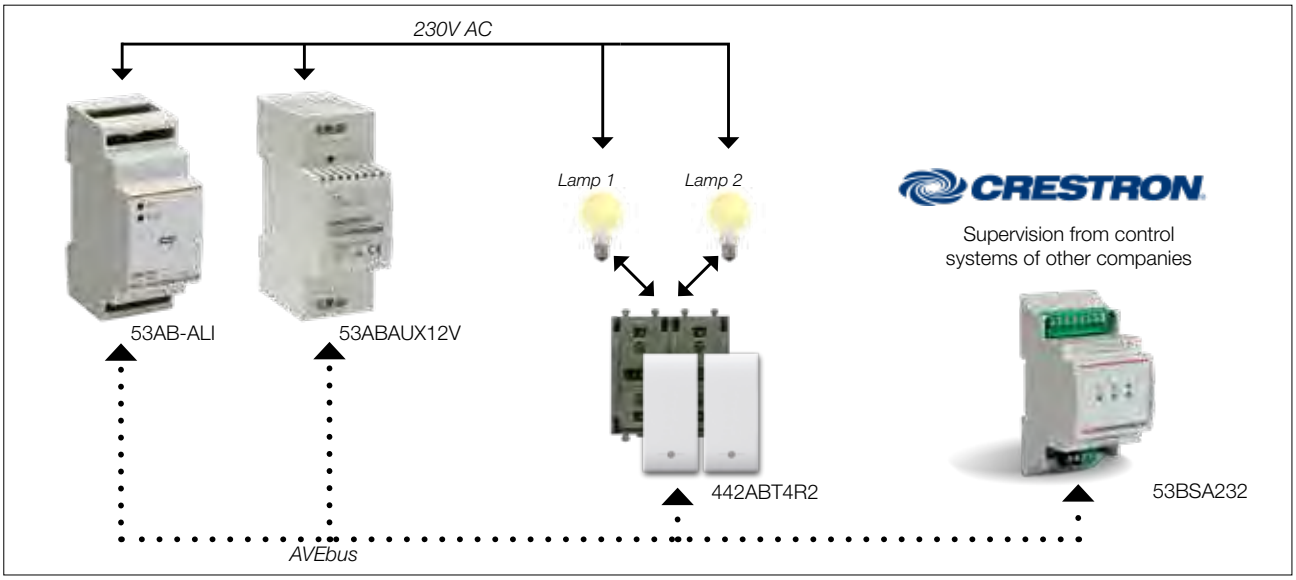
• BaudRate 4800 • DataBits 8 • DiscardNull False • DtrEnable True • Handshake None • Parity Odd • RtsEnable True • StopBits One

For the main function of AVEBus, the reception driver is always active; hence it is possible to automatically reread the message sent and/or to receive the data transmitted by the various devices connected on the home automation bus.

During normal function of the interface five of the six typical control signals of a serial RS-232 are used:

- DTR (from PC to AVEBus) - Control line usually maintained in its active status (True) and used to reset the condition of collision and re-enable the transmission driver of the interface. To perform this operation, this line must be placed in an inactive status (False) for 200ms and then restored to the active status (True). The RESET of the collision detection circuit can be visually observed by switching off the red LED of the interface 53BSA232.
- RTS (from PC to AVEBus) - Control line not used
- CTS (from AVEBus to PC) - Control line that indicates, if it is in an inactive status (False), that a transmission is active on AVEbus. This condition can be seen on the interface 53BSA232 by means of the flashing yellow LED. For correct management of the protocol, a new transmission cannot commence if at least 22 ms have not elapsed from the moment this line was restored to its active status (True).
- DSR (from AVEBus to PC) - Control line that indicates, if it is in an inactive status (False), that a collision has been detected for which the transmission driver was disabled. This condition can be seen when the red LED lights up on interface 53BSA232.
- DCD (from AVEBus to PC) - Always in the active status (True). It is used jointly with the RI line to detect the presence of the interface.
- RI (from AVEBus to PC) - Always in the inactive status (False). It is used jointly with the DCD line to detect the presence of the interface.

FUNCTIONAL DIAGRAM



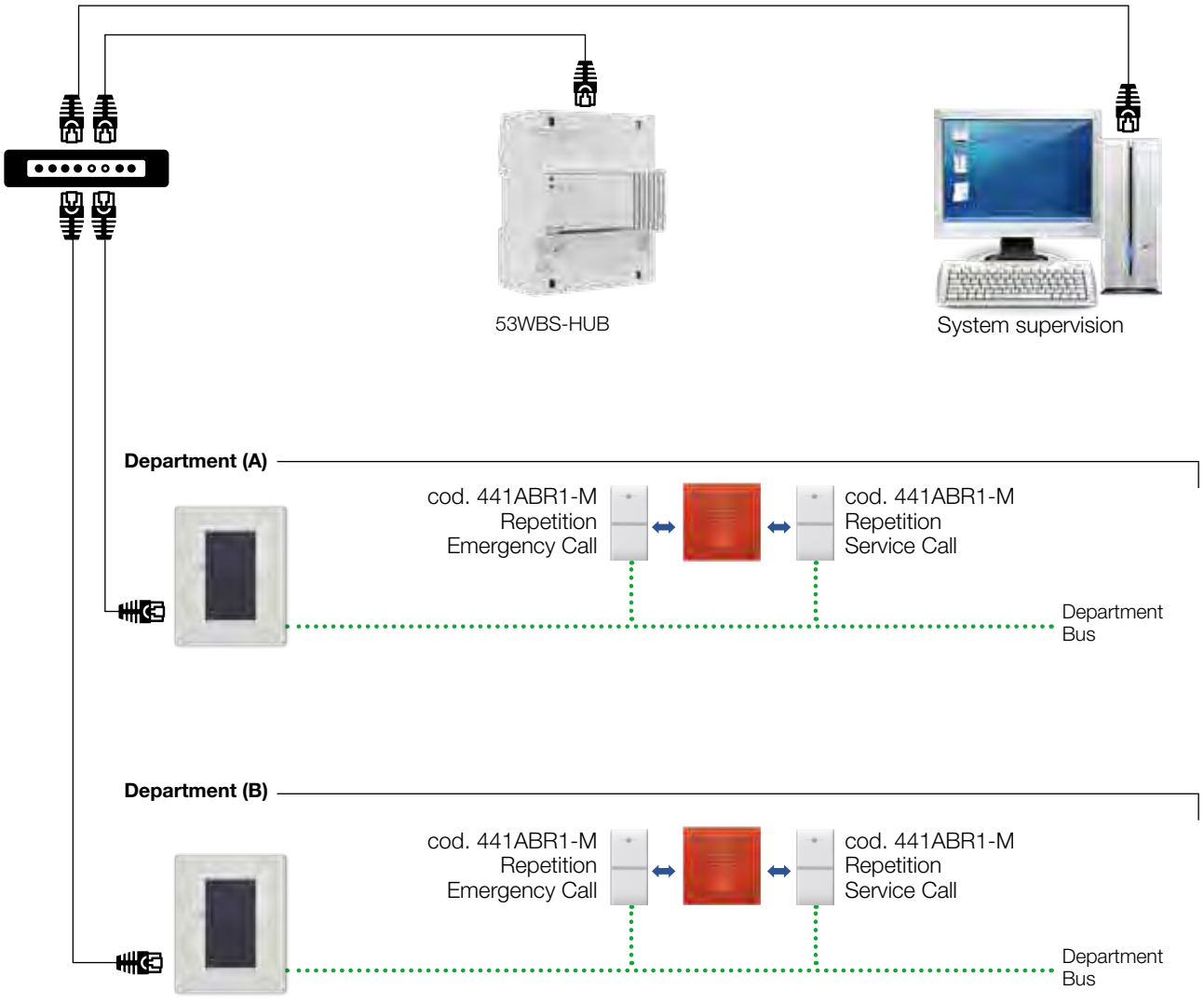
The system offers the possibility of central supervision for the entire structure, however allowing each department's autonomous function (Distributed Logic Technology).

Hence, the area is monitored and managed by a local supervisor that constantly checks the correct operation of the home automation modules connected to it, reporting any anomalies and/or calls of the same both acoustically and visually (with an internal buzzer and spontaneously switching on its display).

It also replicates this information to the domotic module for Optical and Sound alerts (actuators and relevant alerts). These alerts must be recognised and silenced with the appropriate 'manoeuvre' implemented on the local display.
The failure check, call signals and their recognition, silencing and reactivation, if required, due to failed recognition are submitted to the Central Supervisor who, besides managing and displaying them, appropriately records them in the general log.

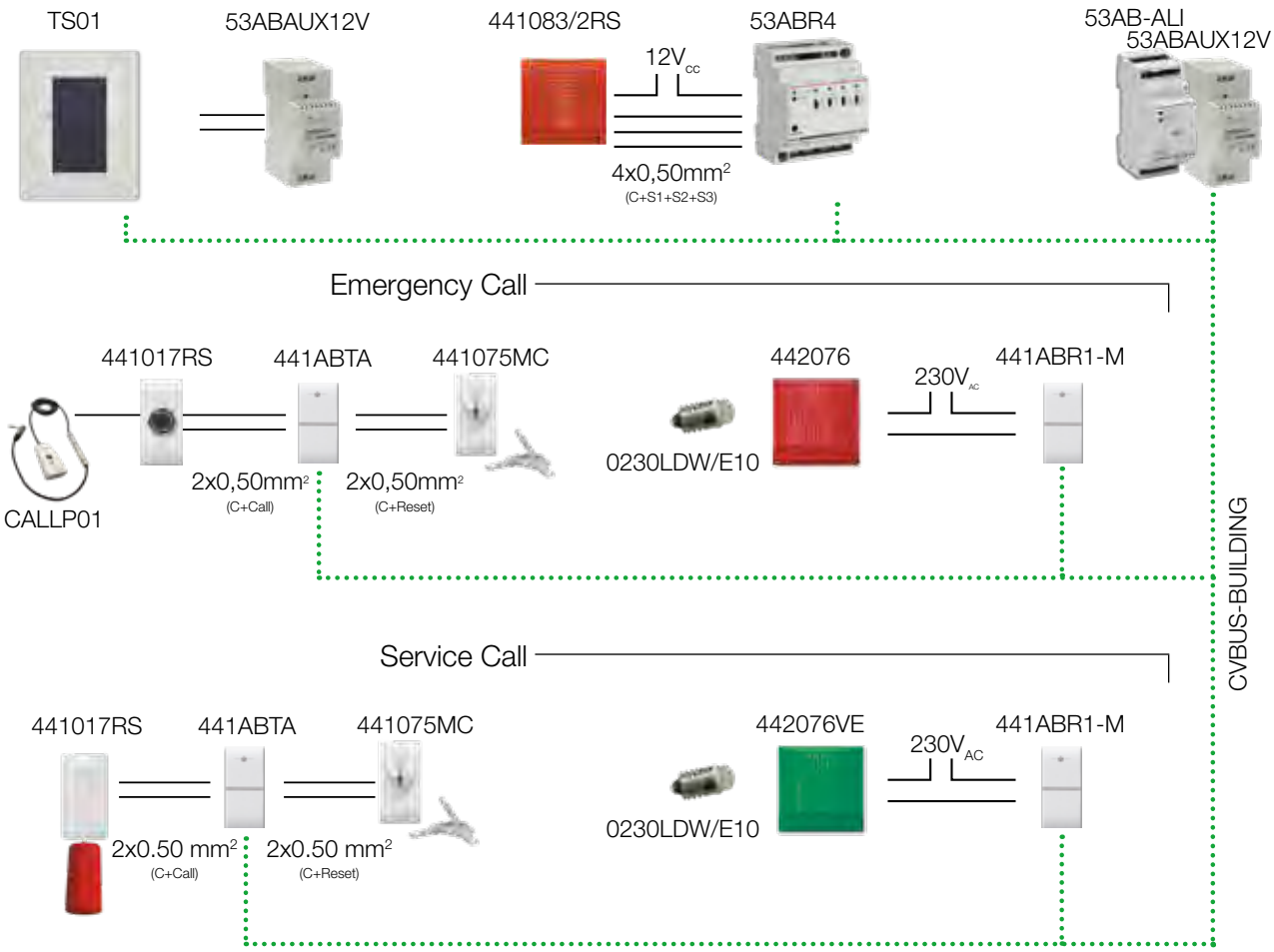
With the Central Supervisor's dedicated authorisation, a Department Supervisor can also replicate the signals of other departments, appropriately identifying them as belonging to the department of origin.

System diagram



The system provides the possibility to choose different types of ring tones, to adjust the sound intensity and to adjust the duration of the flashing.

Diagram of the individual Department



(★) Note: maximum distance 10 m

Supervision

- Real time monitoring of emergency/assistance calls
- User interface with graphic maps to identify the location of the call
- Record of events and list of calls
- Device failure signal and/or absence of communication between modules

Emergency Call

The guest makes an emergency call by pressing the button. The system activates the optical and acoustic signals in the corridor and the optical signal in reception corresponding to the caller's number. The three tone ring tone produces a flashing light signal and a special tone for emergencies.

Service Call

The guest makes an emergency call by pushing the button. The system activates the optical and acoustic signals in the corridor and the optical signal in reception corresponding to the caller's number is displayed on the home automation supervisor. The three tone ring tone produces a continuous optical signal and a special tone for service calls (different to the tone used for emergency calls. A green optical signal is also activated.

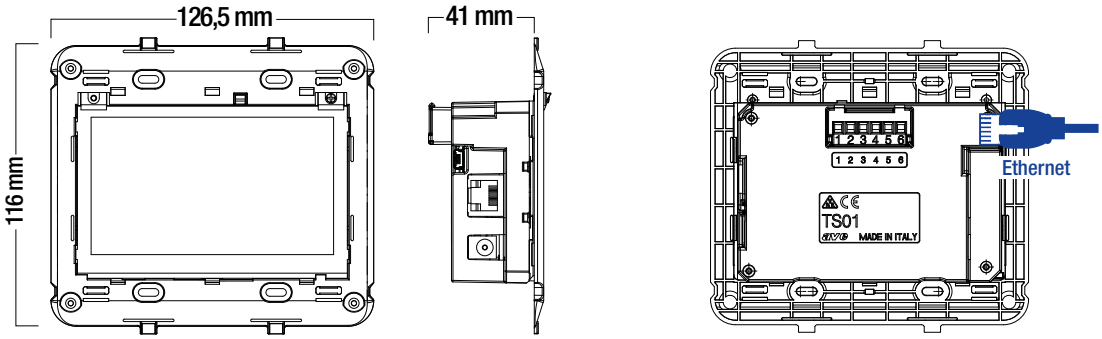
Reset

When the assistant is in the guest's room he/she resets the call using the button located in the room, cancelling activation of the optical and acoustic signals

DOMINAPLUS TOUCH SCREEN WITH 4,3"DISPLAY - cod. TS01

The TS01 device is a Touch Screen supervisor, which allows users to control their home automation system through a stylised graphical user interface featuring graphic icons and interactive menus. In addition to the Supervisor function, it integrates the function of ambient Thermostat by exploiting the possibility of being connected to an external temperature probe. The TS01 Touch Screen allows to manage the home automation system locally and remotely by appropriately setting up the Ethernet network, the home automation system, performing the functions of "Multi-Zone Chronothermostat", "Scenario Control Switch", "Time Scheduler", "Programmable Logic Management", "Lighting Control", "Shutter Control", "Anti-Intrusion Control" and "Load Supervision Control". It can also generate browser accessible Web pages, which graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.
The device can be installed either vertically or horizontally (the technical menu of the device contains the icon that allows to change the orientation of user graphics). The device is installed using a flush-mounted box BL02P or
cod. BL02CG (the dimensions are given below).
Regarding the electrical wiring, the device needs the connection to AVEbus and, depending on the functions, also an Ethernet connection (using the provided small RJ45 connector) and a connection to the external temperature probe 44..SO-NTC using a 2x0.50 mm2 cable (use ducts that are separated from the power and segments not exceeding 10 m).

Note: The device must be completed with plates "Vera 44", "Zama 44" and "Personal 44" for the box BL02P and BL02CG.



Technical details

- Module: 3+3 modules S44 (WxHxD) 116x126.5x41 mm
- Protection degree: IP30 installed in the respective flush-mounted box
- Power supply from SELV source:
  - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 300 mA
  - Absorption from Bus line 4.5 mA
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from +5°C to +35°C
- Maximum Relative Humidity: 90% at 30°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal 1: Positive BUS
- Terminal 2: Negative BUS, Negative power supply and ground references for the NTC sensor
- Terminal 3: RS485 (A) – Integration between systems
- Terminal 4: RS485 (B) – Integration between systems
- Terminal 5: Positive 12Vdc power supply
- Terminal 6: Input temperature sensor NTC 10K ß=3380K AVE 44..SO-NTC)
- ETH: LAN network connector (for space-saving reasons, the connector supplied as standard must be used)

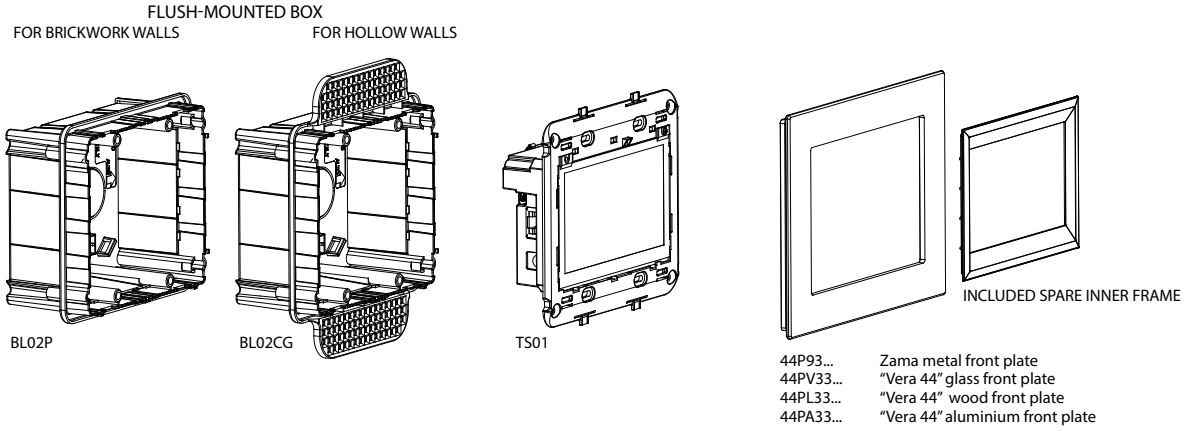
Warnings

DOMINAplus supervisors manage a maximum of 100 maps, 50 scenarios with a maximum of 300 devices. Consult the "Installation Provisions" at www.ave.it in the section TECHNICAL MANUALS. The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured. Using a dedicated power supply line (UPS) is recommended. Moreover, the user should regularly check for software updates to have the best performance and ensure correct function. Updates can be found through the technical assistance network.

TS01

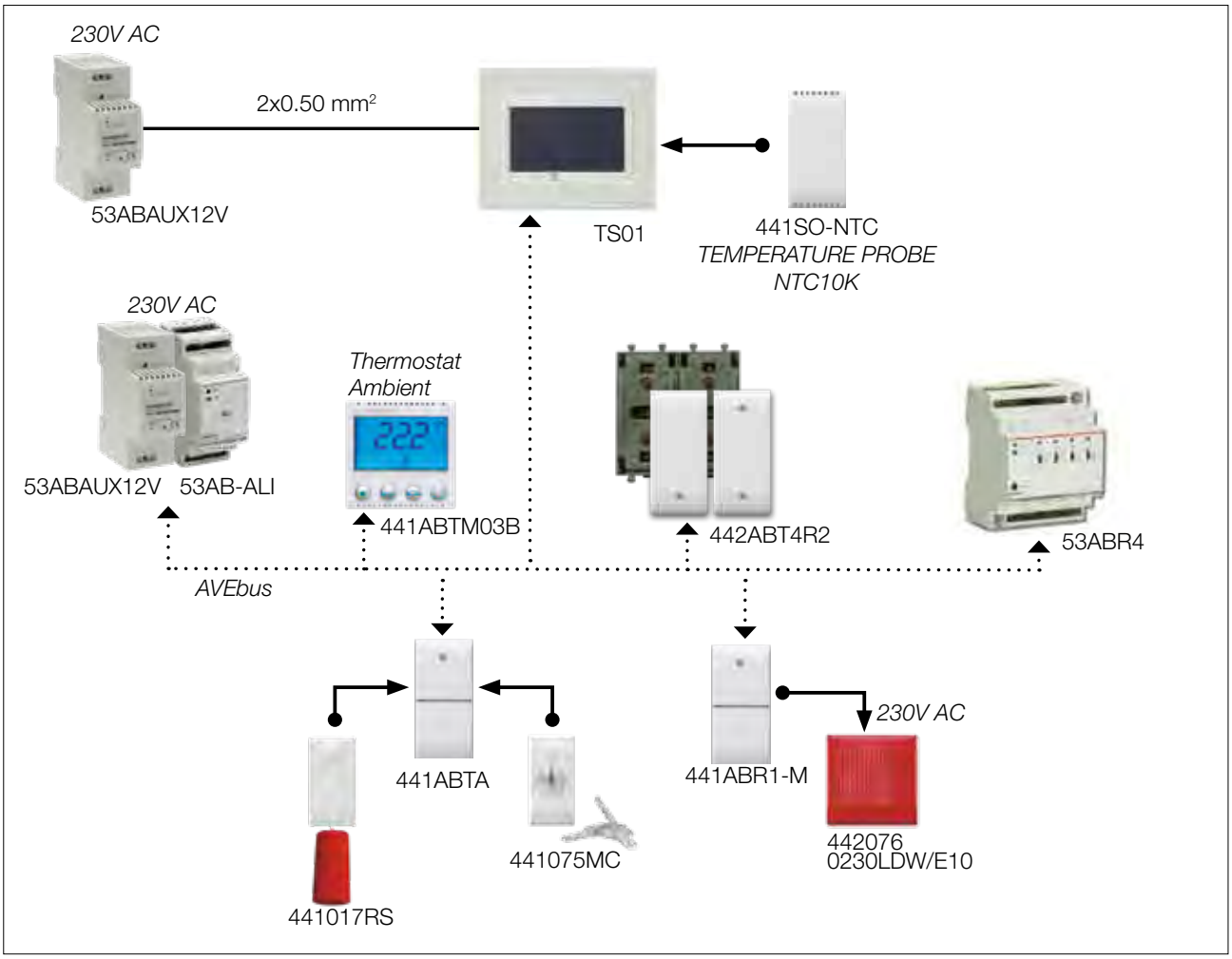
TS01
DOMINAplus Touch Screen with 4.3" colour display and user interface with icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Power supply: 12Vdc (Max. 0.5A)
- Operating Room Temperature: 0°C - 40°C
- Integrated home automation Web Server
- Combined with the temperature probe, it also works as a chronothermostat.

TECHNICAL INFORMATION



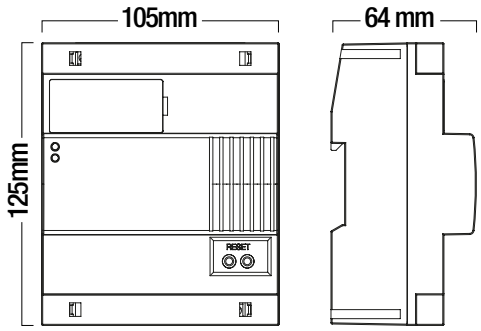
44P93...	Zama metal front plate
44PV33...	"Vera 44" glass front plate
44PL33...	"Vera 44" wood front plate
44PA33...	"Vera 44" aluminium front plate

FUNCTIONAL DIAGRAM



WEB SERVER HUB FOR TECHNOLOGICAL SYSTEMS - COD. 53WBS-HUB

The device 53WBS-HUB is a Web Server that acts as primary supervisor of other secondary supervisors. It can be used both in the Residential Home Automation system and in the Services and Hotel automation systems.
In the Home Automation system it allows, with a single access point, the general supervision of all supervisors in Server mode situated on the various AVEbus branches, implementing general monitoring of the Calling System. In this system, every area or department is independent as it is supervised by a Touch Screen cod. TS01 "server", while the entire building is supervised from a central point by using a Web browser that is connected to the technological Hub cod. 53WBS-HUB. The graphic Web interface generated by it displays events that occur inside the facility. The user can consult the history and combine one or more areas of the building so that the local supervisor of an area sends alerts of the calls of others that are not supervised at that moment.



The Web interface also allows access to the graphic interface of supervisors distributed in the facility in order to allow its remote management, thus exploiting all functions of each supervisor: "Multi-zone Chronothermostat", "Scenario Control Switch", "Time Scheduler", "Programmable Logic Management", "Lighting Control", "Shutter Control", "Anti-Intrusion Control" and "Load Supervision Control". The visible Web pages are the ones generated by the supervisors, which graphically depict the users' home automation system by dividing it into rooms and functions, thus allowing their supervision and control.

Technical details

- Module: 6 DIN modules (WxHxD) 105 x 125 x 60 mm
- Protection degree: IP30 installed in the respective electrical panel
- Power supply from SELV source:
  - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 250 mA MAX
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 30°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal [AVEbus AVE]: Positive BUS
- Terminal [AVEbus GND]: Negative BUS,
- Terminal [AUX +12]: Positive 12Vdc power supply
- Terminal [AUX GND]: Negative 12Vdc power supply
- ETH Connector LAN network

Warnings

The device is not connected to the bus AVEbus or ARMbus, and does not perform the typical functions of home automation supervisors.

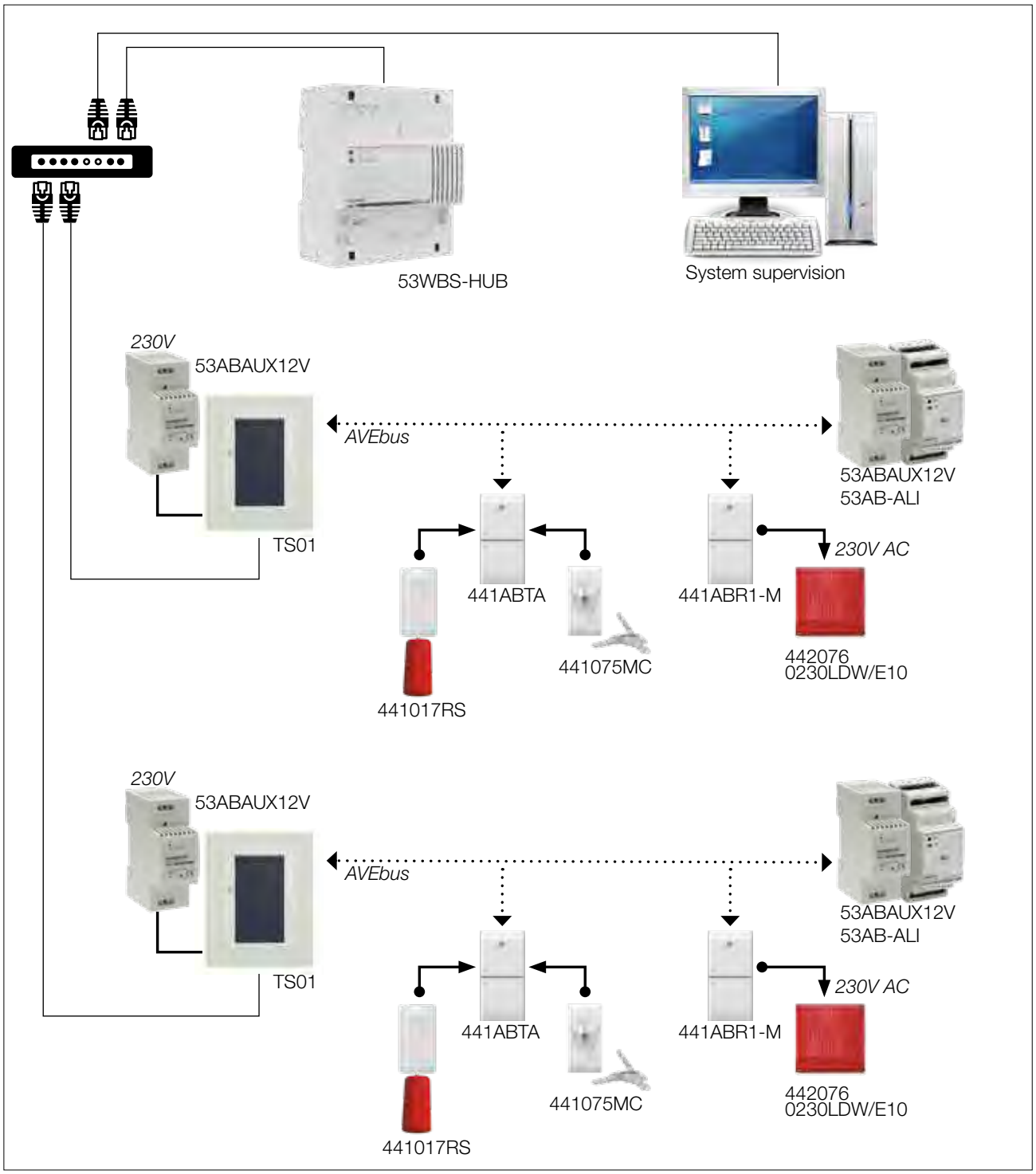
53WBS-HUB

53WBS-HUB

Web Server device with Hub function and Concentrator for special technological systems. It allows to centralise the information and to export the graphic client of the Touch Screens cod.TS01 to the WebApp, which can be used by devices that have a Web browser, thus allowing remote control of functions and supervision.

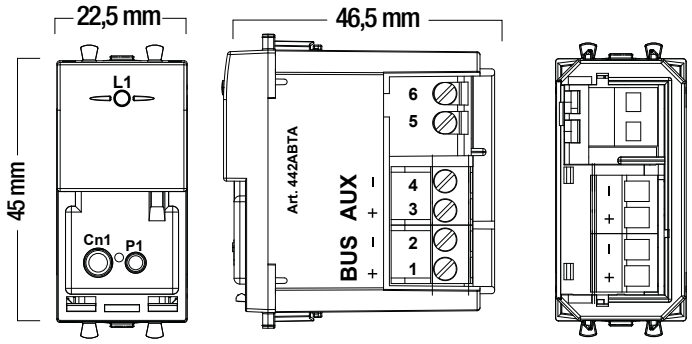
- Power supply: 12Vdc (Max. 12Vdc (Max. 250mA)
- Operating Room Temperature: 0°C - 40°C
- LAN Connection for other online devices.
- Made in monoblock for DIN installation
- 6 DIN modules

FUNCTIONAL DIAGRAM



TRANSMITTER FOR ALARM SIGNALS – COD. 44..ABTA

The 44..ABTA device is a 1-channel alarm transmitter with two inputs, one (IN input) is always active and the second one (RESET) can be used only for functions that require local recognition of an alarm, if any. This device monitors the IN input status and sends an alarm message when the status changes (for example a "bathroom call"), allowing to control a lighting actuator ..ABRx (for optical/luminous activation, if any).



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if installed in the respective flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 2.2 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 2.7 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power
- Terminal 5: input alarm
- Terminal 6: input alarm reset

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - OFF, normal function

Function Table

	Input N.O.		Input N.C.	
	Function 1:	BINARY INPUT	ND	
ALARM	Function 2:	without memory, sends the ALARM signal	Function 7:	without memory, sends the ALARM signal
	Function 3:	without memory, sends the RUN signal	Function 8:	without memory, sends the RUN signal
	Function 4:	without memory, sends the STOP signal	Function 9:	without memory, sends the STOP signal
	Function 5:	without memory, sends the STEP signal	Function 10:	without memory, sends the STEP signal
	Function 6:	without memory, sends the RUN + STOP signal	Function 11:	without memory, sends the RUN + STOP signal
ALARM	Function 12:	with memory, sends the ALARM signal	Function 17:	with memory, sends the ALARM signal
	Function 13:	with memory, sends the RUN signal	Function 18:	with memory, sends the RUN signal
	Function 14:	with memory, sends the STOP signal	Function 19:	with memory, sends the STOP signal
	Function 15:	with memory, sends the STEP signal	Function 20:	with memory, sends the STEP signal
	Function 16:	with memory, sends the RUN + STOP signal	Function 21:	with memory, sends the RUN + STOP signal

441ABTA

445ABTA

449ABTA

442ABTA

443ABTA

441075
441075MC

445075

441017RS

CALLP01

441CALLR01

☐ **441ABTA** ■ **445ABTA** ■ **449ABTA**
1-channel transmitter for alarm signals - Domus series - Tekla - Class - 1 module

■ **442ABTA** ■ **443ABTA**
1-channel transmitter for alarm signals - Life series - Allumia - 1 module

☐ **441075** ■ **445075** ■ **449075**
2P NO 10A button with key - random key encoding - supplied with 2 keys
key removable only in the open position - Domus series - Tekla - 1 module

■ **442075** ■ **443075**
2P NO 10A button with key - random key encoding - supplied with 2 keys
key removable only in the open position - Life series - Allumia - 1 module

☐ **441075MC**
2P NO 10A button with unified key - key encoding “511” - supplied with 2 keys - key removable only in the open position - 1 module

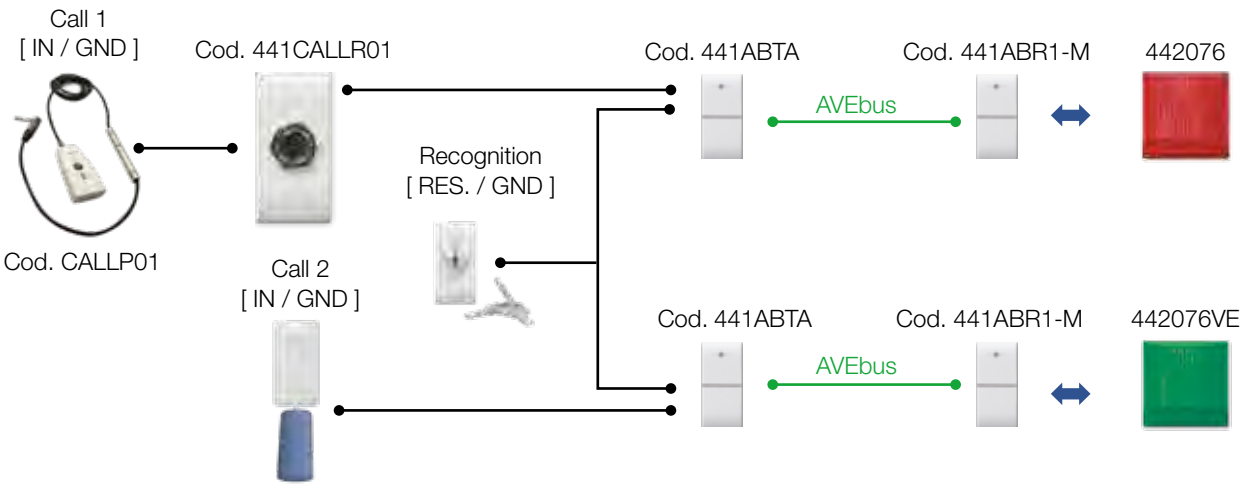
☐ **441017RS**
1P NO+NC 10A cord operated push-button - insulating material cord 1,5 m with red knob - 1 module

■ **442025RS/2**
1P NO+NC 10A large emergency lightable button - red - 2 modules

CALLP01
Mini-keyboard for call system: it is a call system device that generates a signal after pressing the red push button. It must be used with the relative connection module 441CALLR01. Voltage power supply 12Vdc, Consumption 7mA, IP40, NC contact output.

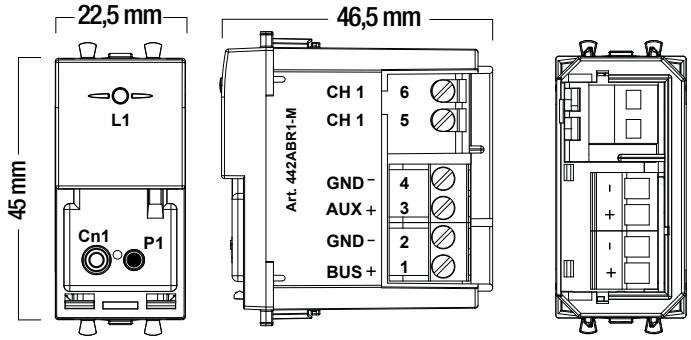
☐ **441CALLR01**
Socket for mini-keyboard CALLP01: it is a call connection module for call systems (CALLP01) that can be used in an AVEBUS call system. It is equipped with 3 free connection terminals.

HOME AUTOMATION CALL MODULE



1-CHANNEL LIGHTING ACTUATOR - cod. 44..ABR1-M

The 44..ABR1-M device is a 1-channel actuator that is able to control electric loads by means of volt free contacts. It has a status memory that can restore the output, upon restoration of the mains power.



Technical details

- Module: 1 System 44 module (22.5 w x 45 h x 46.5 d) mm
- Protection degree: IP41 if completed with front plate and installed in the corresponding flush-mounted box.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from -10°C to +50°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Auxiliary power supply
  - Rated voltage: 12Vac/dc
  - Allowed fluctuation: 10.5V - 14V
  - Absorption at 12Vdc: 3.4 mA MAX

- Absorption from the AVEbus line:
  - With AUX line: 0.3 C
  - Only AVEbus line: 4.6 C

Connections

- Terminal 1: positive BUS
- Terminal 2: GND
- Terminal 3: positive auxiliary power
- Terminal 4: negative auxiliary power
- Terminal 5: relay contact
- Terminal 6: relay contact

Characteristics of controllable electric load

- Ohmic load (cosφ1): 10A at 230Vac
- Incandescent load: 4A at 230Vac
- Inductive load (cosφ 0.6): 4A at 230Vac
- Power factor correction in fluorescent load: 1A at 230Vac

Description of the front

On the front there is an optical indicator for device function and programming status:

- Amber LED, indicates the status of the device
  - Fast flashing, device being programmed
  - Slow flashing, the relay is about to change status (actuation delay)
  - ON, relay contact of the receiver closed
  - OFF, relay contact of the receiver open

Function Table

	Parameter 1 = 0,1,2 (delay)	Parameter 1=3 (flashing)
Function 1:	Instantaneous	0.4 s
Function 2:	1 s	0.6 s
Function 3:	3 s	0.8 s
Function 4:	5 s	1 s
Function 5:	10 s	1.4 s
Function 6:	20 s	1.8 s
	...	
Function 13:	5 min	16 s
Function 14:	6 min	20 s
Function 15:	7 min	24 s
Function 16:	8 min	30 s


441ABR1-M


445ABR1-M


449ABR1-M


442ABR1-M


443ABR1-M


442076VE


442076


441083/2RS

□ 441ABR1-M **■ 445ABR1-M** **■ 449ABR1-M**
1-channel actuator with memory status upon restoration of the mains power - 10A resistive or 4A incandescent lamps - 4A COSφ 0.6 - Domus series - Tekla - Class - 1 module

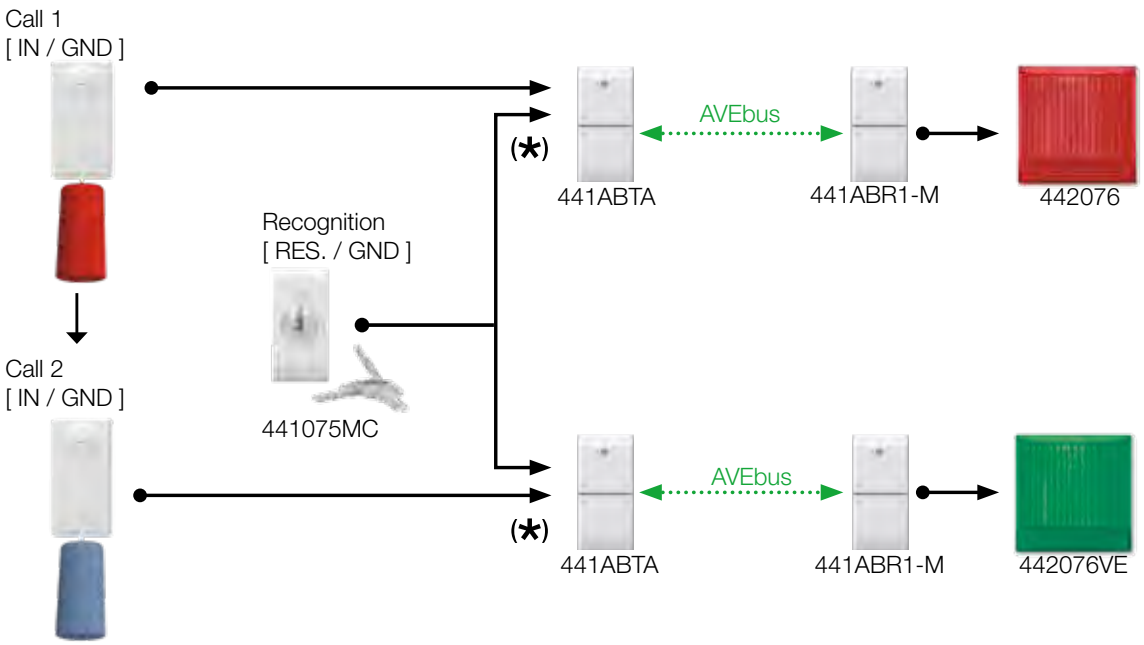
■ 442ABR1-M **■ 443ABR1-M**
1-channel actuator with memory status upon restoration of the mains power - 10A resistive or 4A incandescent lamps - 4A COSφ 0.6 - Life series - Allumia - 1 module

442076VE
Prominent indicator light (outside door) with green diffuser - for E10 10x28 mm 230V~ 3W max lamps - 2 modules

442076
Prominent indicator light (outside door) with red diffuser - for E10 10x28 mm 230V~ 3W max lamps - 2 modules

441083/2RS
12Vdc triple tone sounders for calling systems. Domus series 2 modules red colour - You can select among three different sounds - front adjustment for sound intensity - front LED

FUNCTIONAL DIAGRAM



(*) Note: maximum distance 10 m

photography:
Alessandro Mombelli

Ave material must be installed by qualified personnel, and the system must be tested by an expert, in compliance with the legislation in force.

The installer must leave his name and contact details to the client and, preferably, also leave the name and address of the Technical Assistance Service for the area.

Hotel **Automation**

RELIABILITY
The hotel system designed by AVE is not only aesthetically pleasing but also guarantees reliability. Each room can be monitored by the central computer installed at the reception. In case of failure of the central computer, all the devices continue working and, while repairs are pending, only remote monitoring of the rooms will not be available. The system is at its best when all the devices are working; however, each device will continue to work if the others fail. In addition, the island system in which each room works as a separate unit, despite being connected to the main network, prevents any failure from causing a general failure in the hotel.

TECHNOLOGY
All products designed by AVE for hotel management use the contactless Mifare®technology. For your own safety and for the safety of your customers, access cards are totally safe and cannot be cloned. Thanks to the possibility of integrating the card with an e-money service (not supplied by AVE), you will be able to offer your customers a range of totally new services through the entry card, which will also be used for payments.

ELEGANCE
The front plates are fully customisable and can be configured according to your requirements. Depending on the model, they can be marked with the hotel's logo, room number and any other indication for a further touch of elegance and a unique customised style. Front plates and devices are available in different materials and finishes.

INTEGRATION
Domina Hotel System by AVE can be integrated with the DOMINAplus residential automation system (touch screen, controls, actuators and alarms).
Furthermore, the dedicated software interface integrates it with the "Opera" payment system by Micros Fidelio and with the centralised VRV/VRF air conditioning system by "Daikin" and "Mitsubishi".

EFFICIENCY and ENERGY SAVING

Continuous monitoring from the reception will keep you informed of every event that occurs in the hotel, and will allow you to promptly take the necessary steps to limit all inefficiencies. With Domina Hotel you can also check and optimise energy consumption management for energy saving purposes. All this means more satisfied customers, greater efficiency and less running costs.

SCALABILITY

The Domina Hotel system by AVE is designed to meet all needs in terms of costs and performance. For small hotels the system offers simple and cheap solutions to meet simple requests. In larger hotels the system can meet increasing requirements, such as total online monitoring of rooms and of all other environments, even in very large hotels. And for those who want to expand… no problem, with a few updates Domina Hotel by AVE adapts to the growing structure, with no need to change the existing layout and offering the possibility to protect your investments.

COMFORT

The devices for hotel management designed by AVE are at the customer's disposal to offer maximum comfort during a stay. The thermostat, which is easy to operate and user friendly, can be used to adjust room temperature. The signal system makes it possible for the customer to decide if and when to be disturbed. The chambermaid will not ring at or open the door while the customer is in the room. The customer can use the remote control to activate all devices (loads) while sitting comfortably.

INTEGRATION WITH AUTOMATIC FIRE DETECTION SYSTEMS

Domina Hotel, Ave's hotel management system, contains supervision software that integrates the automatic Ave fire detection systems and provides displays of the alarm and failure signals issued by the related devices (sensors, detectors, etc.).

AVE applications allow the integrated management of the devices inside the hotel and are simple and easy-to-use.

Access Control Transponder

Available in a box with 3 and 3+3 modules, it matches the rest of the electrical plant in the stand alone version and in the online version

ELEGANCE

The front plates are fully customisable and can be configured according to your requirements. Depending on the model, they can be marked with the hotel's logo, room number and any other indication for a further touch of elegance and a unique customised style. Front plates and devices are available in different materials and finishes.

In addition to being an advanced hotel management system that is perfectly integrated with the System 44 wiring accessories, DOMINA Hotel marks an important evolution in the field of hotel management. DOMINA Hotel is able to provide energy saving, comfort, functional features and design. It is also integrated with the main home automation functions of the DOMINAplus range, which gives the system a broad range of flexible versatile functions to meet the requirements of the most demanding hotels in terms of installation ergonomics.

Functions

Lighting

Automatic management of the courtesy light and manual control of room lighting using DOMINAplus home automation controls and actuators.

Dimmer

Local and/or remote management of room lighting with light intensity control using DOMINAplus home automation controls and actuators

Automation

Local and/or remote management of motorised Shutters and Curtains by DOMINAplus home automation controls and actuators.

Scenarios

Management of room scenarios, which can be called up remotely from the supervision PC or manually by means of DOMINAplus home automation controls

Thermoregulation

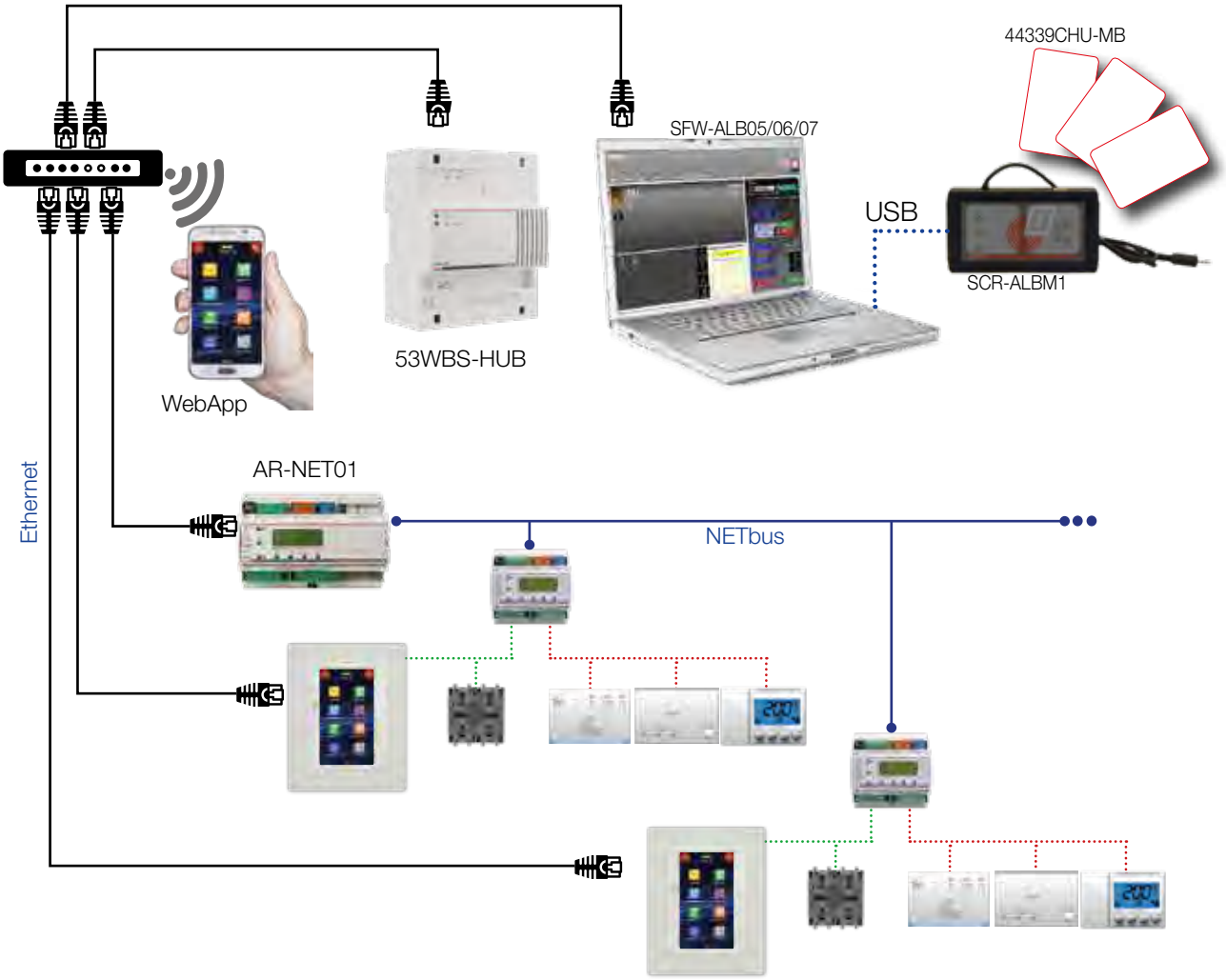
Four-pipe temperature control management with automatic management, depending on the temperature measured and on the presence of the client in the room, of zone valves by means of DOMINAplus home automation actuators

Technical alarms

ALARM

Management of automatic and manual technical alarms or status alerts by means of DOMINAplus home automation controls

Management via Touch Screen and Smartphone



Management via Touch Screen and Smartphone.

Access Control Transponder

It allows complete control of access to the room.

Available in a box with 3 and 3+3 modules, it matches the rest of the electrical plant, both in the stand alone version and in the version controlled remotely via the dedicated software.

Enhanced Safety

allows service activation (lighting, loads, etc.)
only when a valid card is inserted

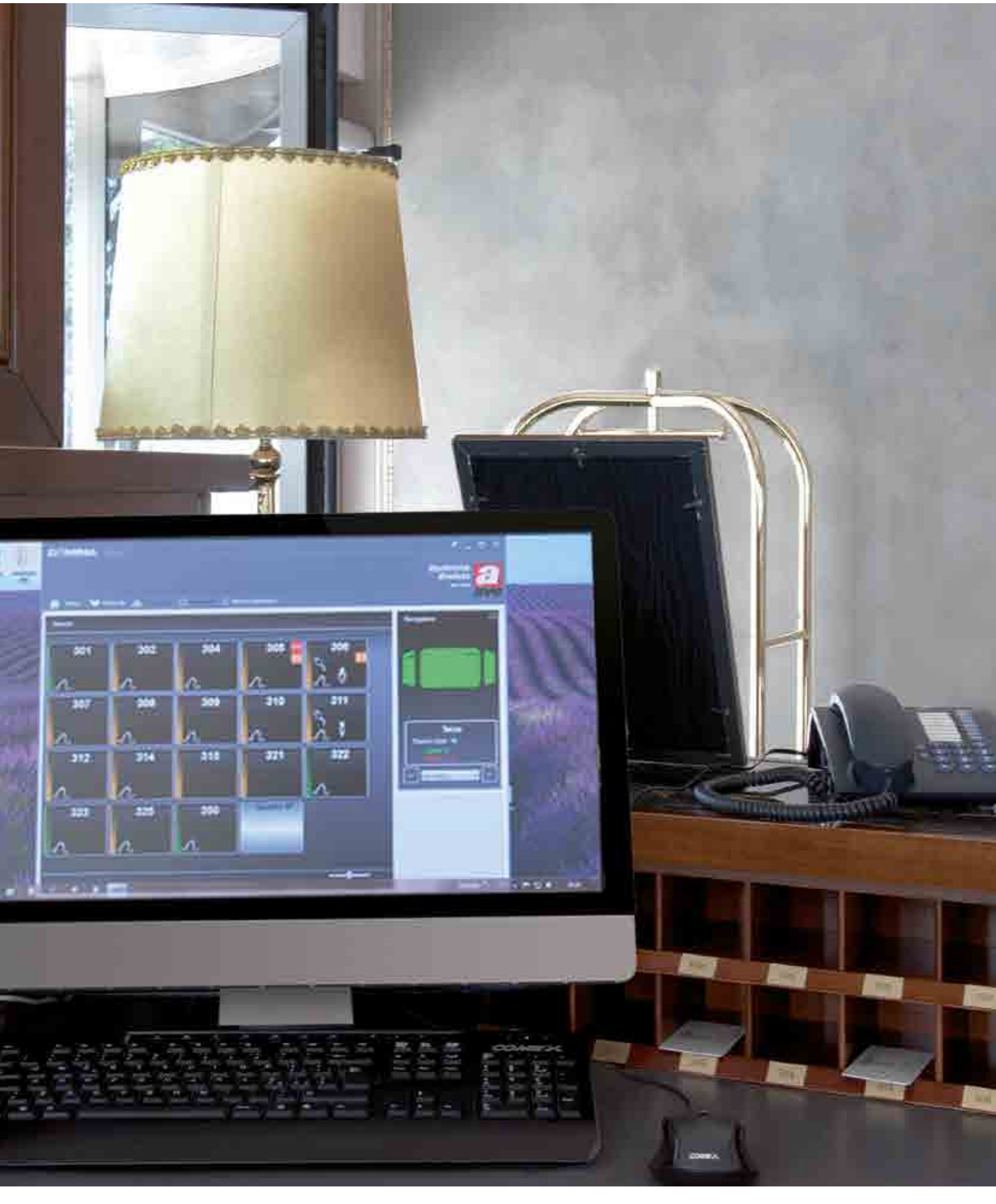
Precision

for automatic temperature control, based on the
temperature detected and on the guest's presence in the room

Energy Saving

in case of open door and window fittings or of rooms that are not booked/occupied
the thermostat blocks temperature control

Design integrated with conventional devices.



Total Control

Clear and rapid supervision of the entire facility,
with the utmost simplification of operations performed by personnel

Domus

The typical white colour of the Domus series perfectly merges into all furnishing settings. The switch always features clean and essential lines, ready to be completed with glass, technopolymer or metal front plates. The top of the range glass keypads with touch technology can combine up to six independent controls, with endless customisation options.

Tekla

The matt black technopolymer of elements in the Tekla series discretely enhances any room with its exclusive soft dark hue. Tekla is AVE's response to the most demanding Clients who are keen on details. The Tekla series can be fitted with technological solutions featuring conventional, touch or lever-based light controls.

Life

Born of an AVE patent, the Life series features innovative materials that yield a bright glossy black hue. Scratch and dust-resistance. Switch on the lights with a mere touch and leave no fingerprints. From metal to technopolymer, and glass: Life is complete with conventional front plates or with touch keypads that can also be installed in dedicated flush mounted boxes for a completely wall-lined final effect.

Allumia

Allumia is the modern concept of AVE technology. Wiring accessories focused on the future to enhance your home with unique modern features. Available in natural aluminium or anthracite grey, Allumia Touch plates match the innovative sliding front plates that cover power outlets, creating precious design features and enhancing safety.

Domusair®

Integrated plants

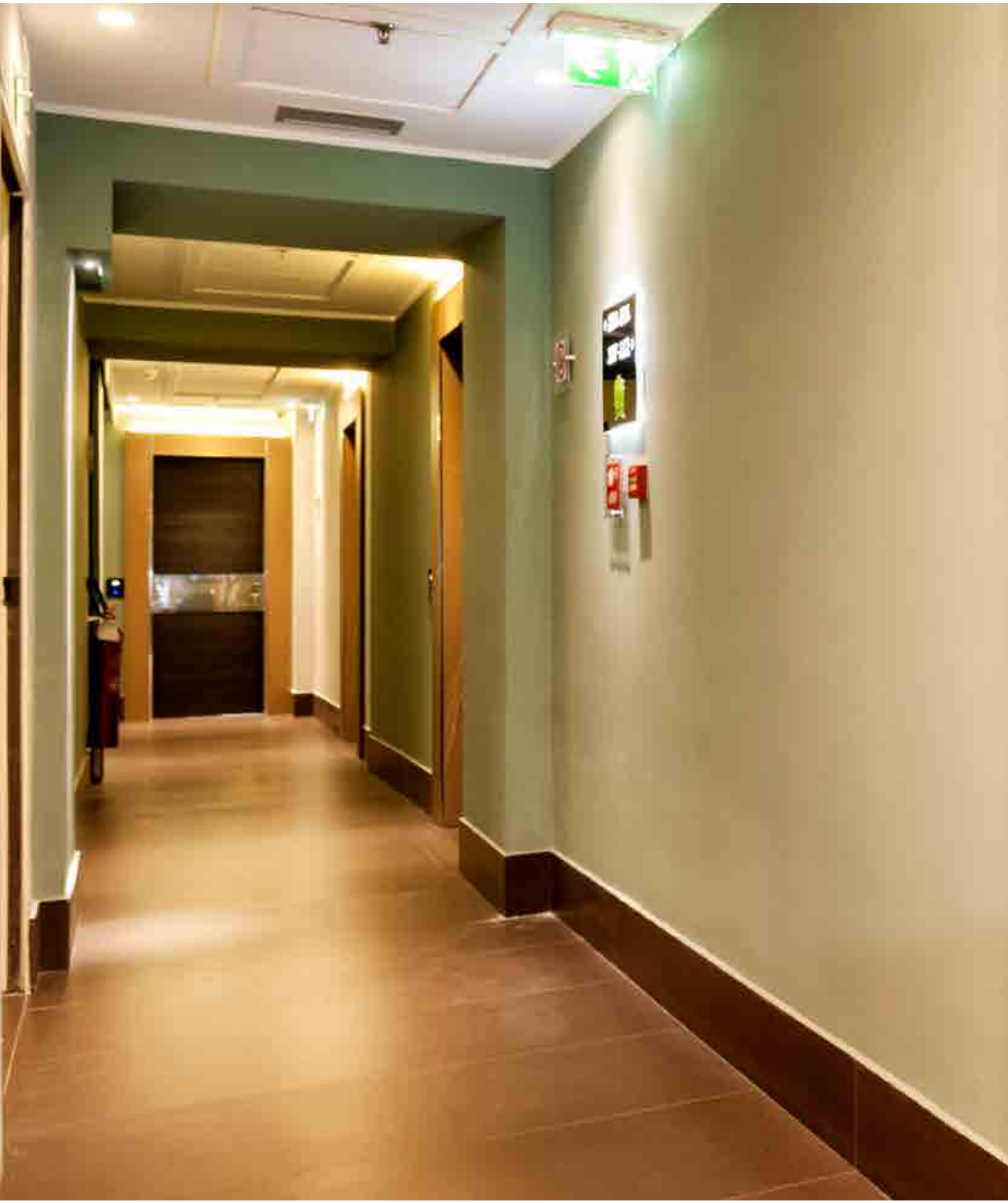
Clear and rapid supervision of the entire facility,
with the utmost simplification of operations performed by personnel

Air Conditioning

Interfaces with the leading air conditioner brands by using a Modbus protocol combined with temperature control, depending on the temperature detected and on the guest's presence in the room

Energy Saving

in case of open door and window fittings or of rooms that are not booked/occupied the thermostat blocks temperature control



smart domina
Fire Detection System IoT

Automatic fire detection system

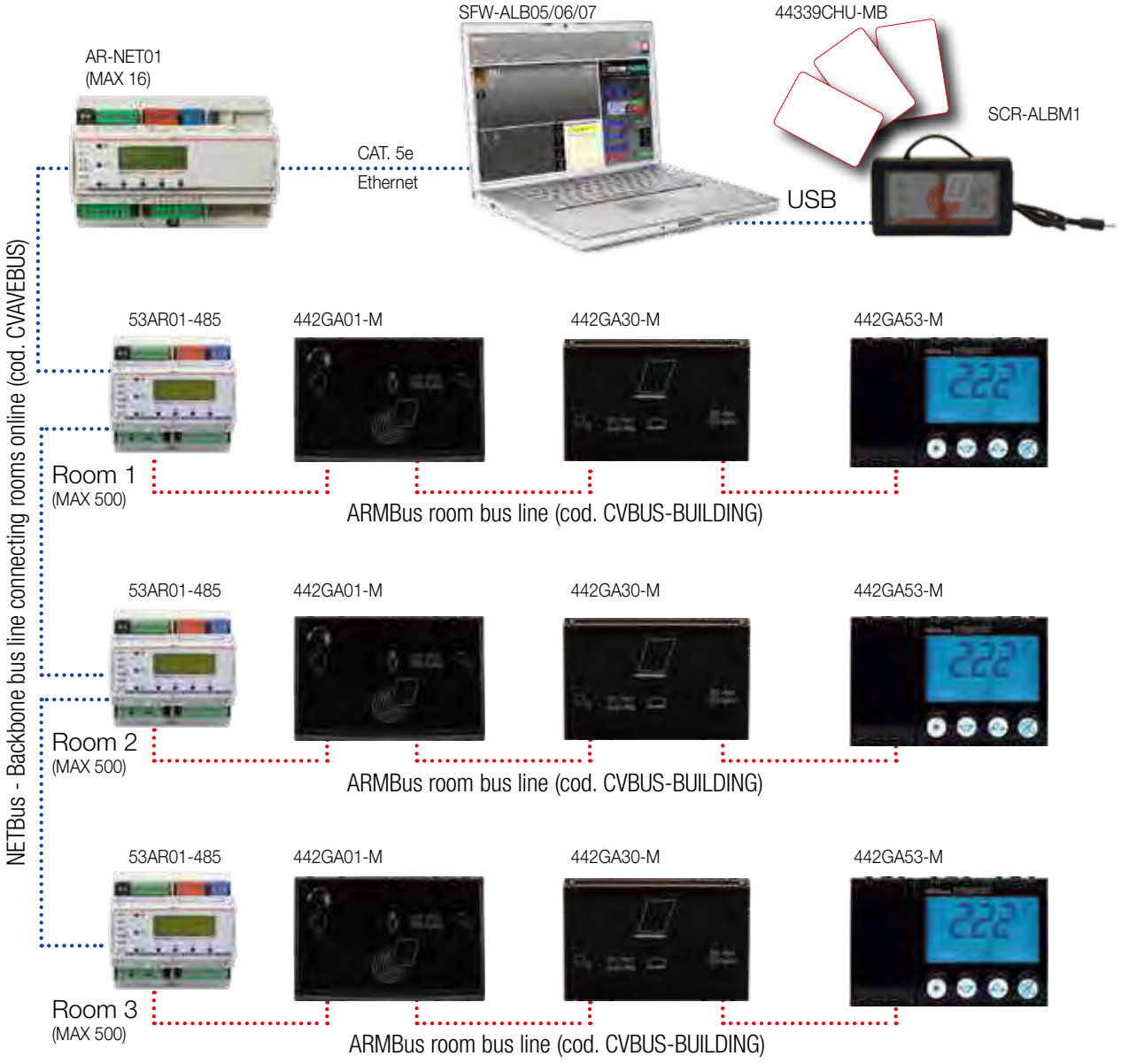
Clear and rapid supervision of the entire facility,
with the utmost simplification of operations performed by personnel

TECHNICAL CATALOGUE
SUMMARY TABLES OF THE SYSTEM
DOMINA HOTEL NETWORK SYSTEM

Summary table of the hotel system - MIFARE Technology

RANGES	External reader	Internal reader	Thermostat	Control unit	Interface	Programmer	Software	Card
MIFARE online	441GA01-M (Domus) 445GA01-M (Tekla) 449GA01-M (Class) 442GA01-M (Life) 443GA01-M (Allumia) 442GA02-M (AveTouch)	441GA30-M (Domus) 445GA30-M (Tekla) 449GA30-M (Class) 442GA30-M (Life) 443GA30-M (Allumia)	441GA53-M (Domus) 445GA53-M (Tekla) 449GA53-M (Class) 442GA53-M (Life) 443GA53-M (Allumia)	53AR01-485 (room control unit) 53AR02-485 (common areas control unit)	AR-NET01	SCR-ALBM1	SFW-ALB05 SFW-ALB06 SFW-ALB07	44339CHM-M (Master) 44339CHU-MB (User)

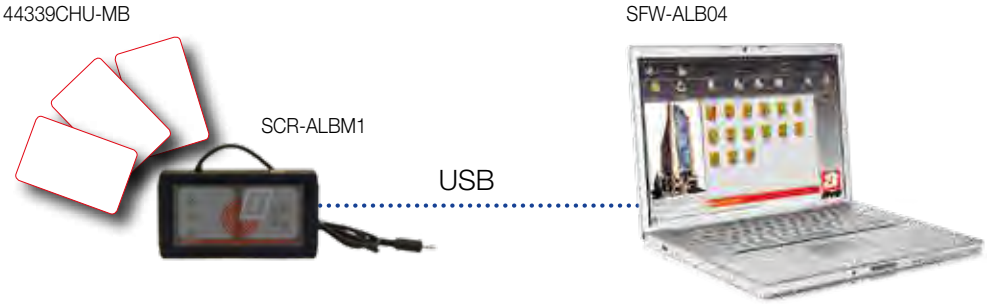
The DOMINA[Hotel] system controls 500 rooms, 16 common areas and 16 floors



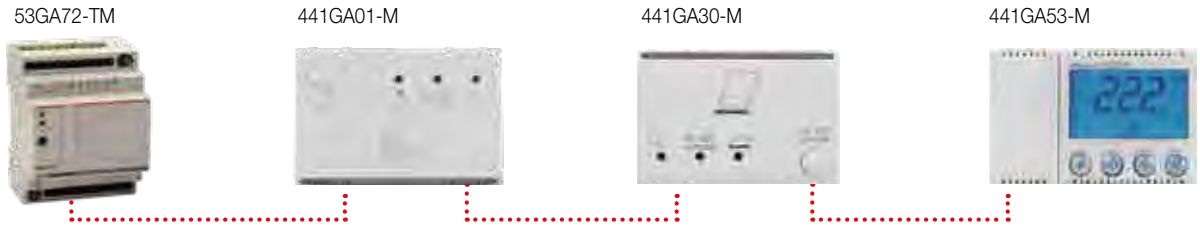
Note: we recommend a line dedicated to system power (UPS)

Summary table of the hotel system - MIFARE Technology

RANGES	External reader	Internal reader	Thermostat	Control unit	Interface	Programmer	Software	Card
MIFARE stand-alone	441GA01-M (Domus) 445GA01-M (Tekla) 449GA01-M (Class) 442GA01-M (Life) 443GA01-M (Allumia) 442GA02-M (AveTouch)	441GA30-M (Domus) 445GA30-M (Tekla) 449GA30-M (Class) 442GA30-M (Life) 443GA30-M (Allumia)	441GA53-M (Domus) 445GA53-M (Tekla) 449GA53-M (Class) 442GA53-M (Life) 443GA53-M (Allumia)	53GA72-TM	-	SCR-ALBM1	SFW-ALB04	44339CHM-M (Master) 44339CHU-MB (User)

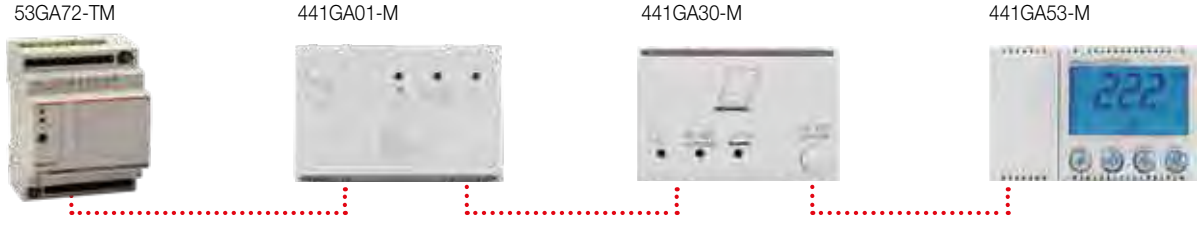


Room 1



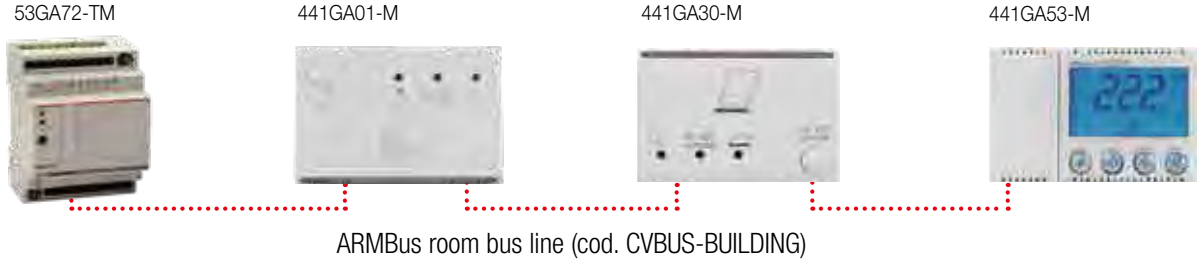
ARMBus room bus line (cod. CVBUS-BUILDING)

Room 2



ARMBus room bus line (cod. CVBUS-BUILDING)

Room 3

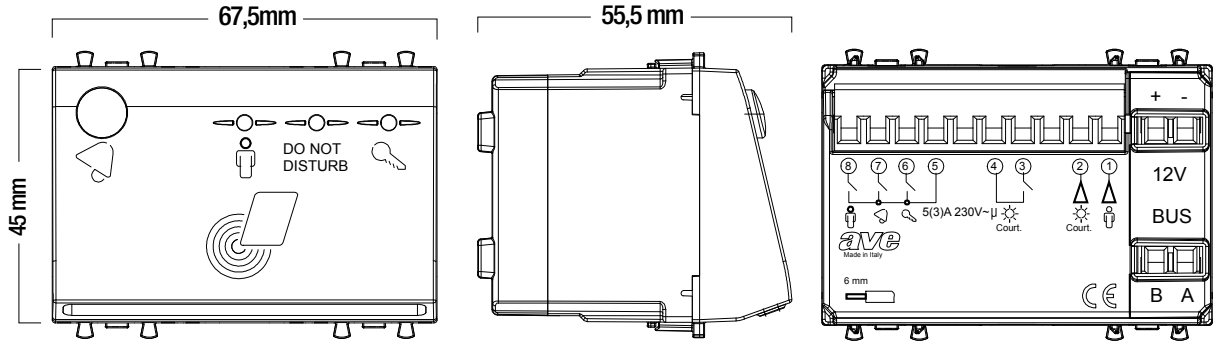


ARMBus room bus line (cod. CVBUS-BUILDING)

Note: we recommend a line dedicated to system power (UPS)

EXTERNAL READER ARMBus - Cod. 44..GA01-M

The device cod. 44..GA01-M is an external reader with MIFARE® technology that allows access control to the rooms and other areas of the hotel. It is able to operate in both Stand Alone and Online mode, depending on how it is configured and installed. MIFARE® technology allows to generate cards with a higher security standard that can also be integrated with advanced services (such as the possibility of integrating the cards provided by AVE with payment services provided by other companies) with top of the range reading performance. The device must be completed with a dedicated Touch front plate.



Devices can be configured for access to 4 different types of rooms:

- GUEST ROOMS: enable access to all enabled client cards, and to service cards in certain conditions (e.g., the chambermaid's card only works if the room is vacant).
- SERVICE ROOMS: enable access to hotel cards that belong to service personnel but not to clients.
- COMMON AREAS: enable access to all the cards of service personnel and of enabled clients.
- SCALED ACCESS: enable access to the cards of the enabled service personnel. In order to gain access, client cards must have sufficient residual credit, consisting of a number of accesses. With each access the device updates the card by removing one credit. (can be used in Stand Alone mode)

Technical details

• Module:	3 S44 modules (67.5 w x 45 h x 55.5 d) mm
• Max. protrusion above the components:	9 mm (plate line level) for Domus Touch and Life Touch series; while AveTouch cod. 442GA02-M is hidden under the plate surface.
• Protection degree:	IP40 if completed with front plate and installed in the corresponding flush-mounted frame.
• Reference Temp. and Rel. Humidity:	25°C RH 65%
• Temperature range Operating environment:	from 0°C to +40°C
• Maximum Relative Humidity:	90% at 35°C
• Max. Height:	2000 m a.s.l.
• Power supply:	- Rated voltage: 12Vdc ±25% - Absorption in stand-by (at +12Vdc): 80 mA. - Maximum absorption (at +12Vdc): 150mA.

Connections

• Terminal A:	"A" RS-485
• Terminal A:	"B" RS-485
• Terminal -:	GND System power 12Vdc (Common inputs)
• Terminal +:	Positive 12Vdc power supply
• Terminal 1:	Room Status Input
• Terminal 2:	Courtesy light input
• Terminal 3 and 4:	Courtesy light output
• Terminal 5:	Common for terminals 6, 7 and 8
• Terminal 5 and 6:	Electric lock output
• Terminal 5 and 7:	Bell consent output
• Terminal 5 and 8:	Guest Present Output

Characteristics of controllable electric load

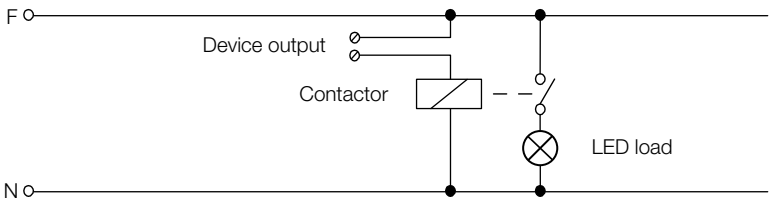
• Ohmic load (cosφ 1):	5A at 250Vac	**WARNING**:
• Inductive load (cosφ 0.4):	3A at 250Vac	**Not suitable to control LED lights**

441GA01-M

□ 441GA01-M **■ 445GA01-M** **■ 449GA01-M**
External Reader for Hotel Management - Domus series - Tekla - Class - 3 modules.
Device suitable to operate in both Stand Alone and Supervised "Online" mode.

■ 442GA01-M **■ 443GA01-M**
As above - Life series - Allumia - 3 modules

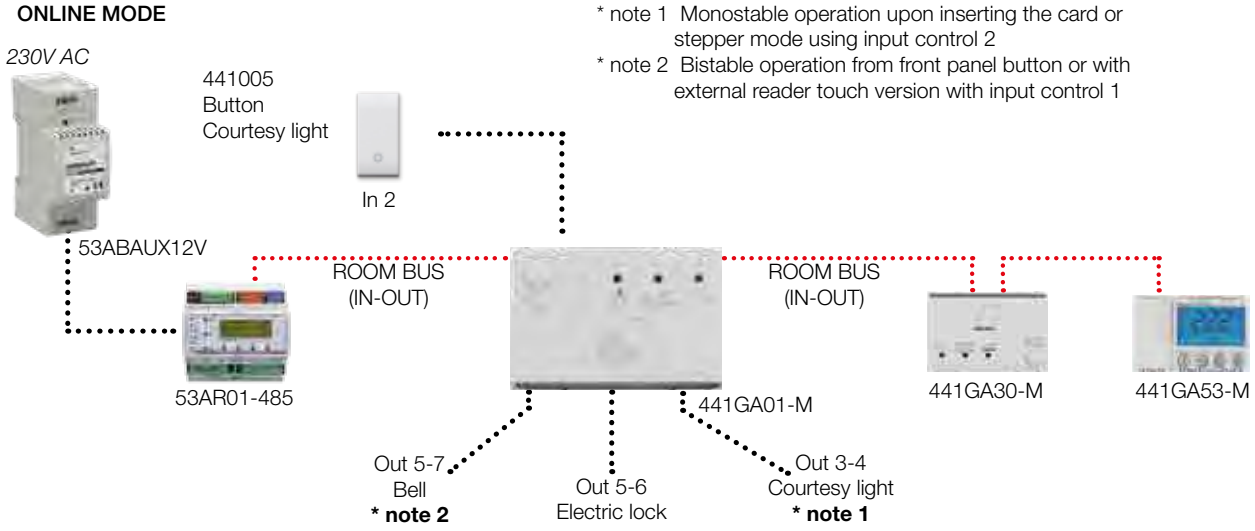
TECHNICAL INFORMATION



Note: If LED lights are used, an appropriate remote control switch must be installed between the output of the device and the load.

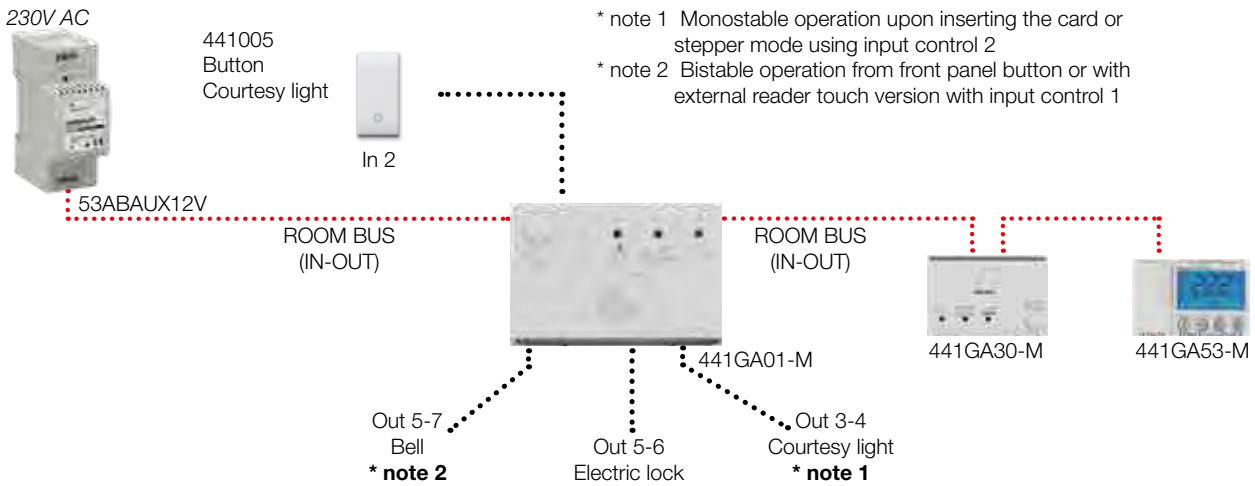
FUNCTIONAL DIAGRAM

ONLINE MODE



* note 1 Monostable operation upon inserting the card or stepper mode using input control 2
* note 2 Bistable operation from front panel button or with external reader touch version with input control 1

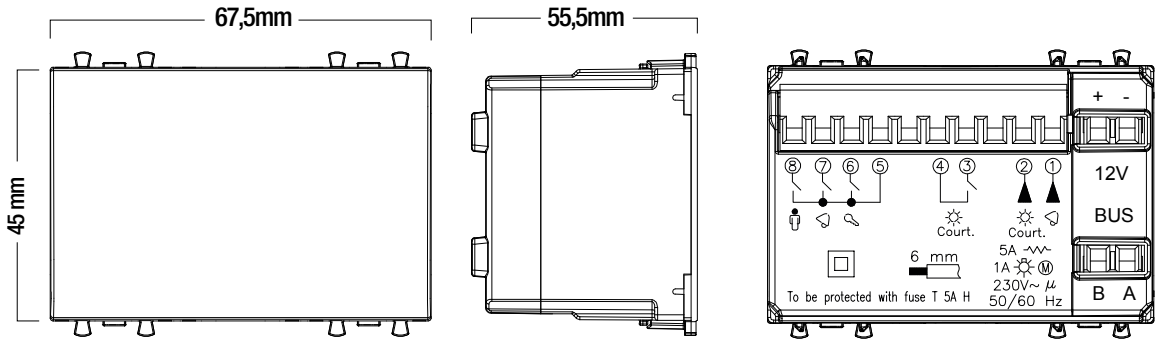
STAND ALONE MODE



* note 1 Monostable operation upon inserting the card or stepper mode using input control 2
* note 2 Bistable operation from front panel button or with external reader touch version with input control 1

EXTERNAL READER ARMBus TOUCH VERSION – cod. 442GA02-M

The device cod. 442GA02-M is an external reader in Touch version with MIFARE® technology that allows access control to the rooms and to other areas of the hotel. It is able to operate in both Stand Alone and Online mode, depending on how it is configured and installed. MIFARE® technology allows to generate cards with a higher security standard that can also be integrated with advanced services (such as the possibility of integrating the cards provided by AVE with payment services provided by other companies) with top of the range reading performance. The device must be completed with a dedicated Touch front plate.



The device can be configured for access to 4 different types of rooms:

- GUEST ROOMS: enable access to all enabled client cards, and to service cards in certain conditions (e.g., the chambermaid's card only works if the room is vacant).
- SERVICE ROOMS: enable access to hotel cards that belong to service personnel but not to clients.
- COMMON AREAS: enable access to all the cards of service personnel and of enabled clients.
- SCALED ACCESS: enable access to the cards of the enabled service personnel. In order to gain access, client cards must have sufficient residual credit, consisting of a number of accesses. With each access the device updates the card by removing one credit. (can be used in Stand Alone mode)

Technical details

• Module:	3 S44 modules (67.5 w x 45 h x 55.5 d) mm
• Max. protrusion above the components:	9 mm (plate line level) for Domus Touch and Life Touch series; while the AveTouch cod. 442GA02-M is hidden under the plate surface.
• Protection degree:	IP40 if completed with front plate and installed in the corresponding flush-mounted frame.
• Reference Temp. and Rel. Humidity:	25°C RH 65%
• Temperature range Operating environment:	from 0°C to +40°C
• Maximum Relative Humidity:	90% at 35°C
• Max. Height:	2000 m a.s.l.
• Power supply	- Rated voltage: 12Vdc ±25% - Absorption in stand-by (at +12Vdc): 80 mA. - Maximum absorption (at +12Vdc): 150mA.

Connections

• Terminal A:	"A" RS-485
• Terminal A:	"B" RS-485
• Terminal -:	GND System power 12Vdc (Common inputs)
• Terminal +:	Positive 12Vdc power supply
• Terminal 1:	Bell Button Input
• Terminal 2:	Courtesy light input
• Terminal 3 and 4:	Courtesy light output
• Terminal 5:	Common for terminals 6, 7 and 8
• Terminal 5 and 6:	Electric lock output
• Terminal 5 and 7:	Bell consent output
• Terminal 5 and 8:	Guest Present Output

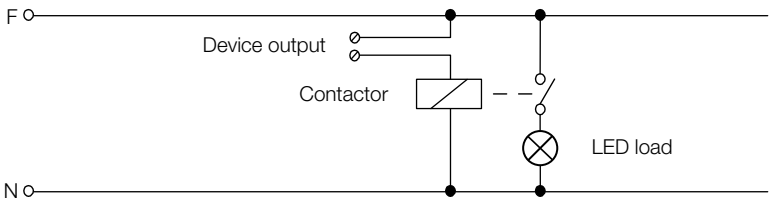
Characteristics of controllable electric load

• Ohmic load (cosφ1):	5A at 250Vac	**WARNING**:
• Inductive load (cosφ 0.4):	3A at 250Vac	**Not suitable to control LED lights**

442GA02-M

442GA02-M
External Reader for Hotel Management - AVE Touch Vip System - 3 modules.
Device suitable to operate in both Stand Alone and Supervised "Online" mode

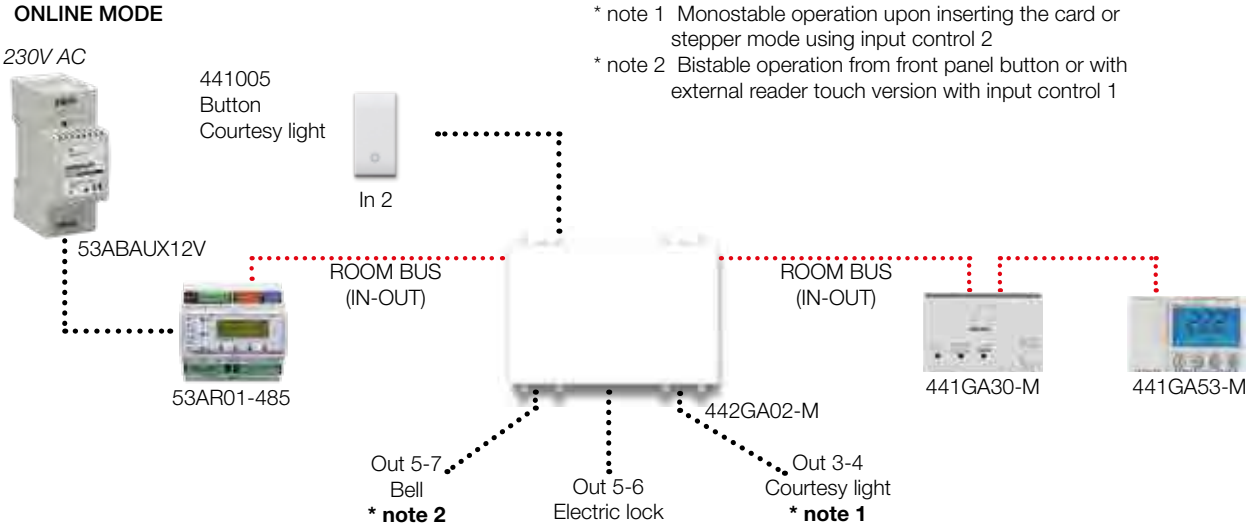
TECHNICAL INFORMATION



Note: If LED lights are used, an appropriate remote control switch must be installed between the output of the device and the load.

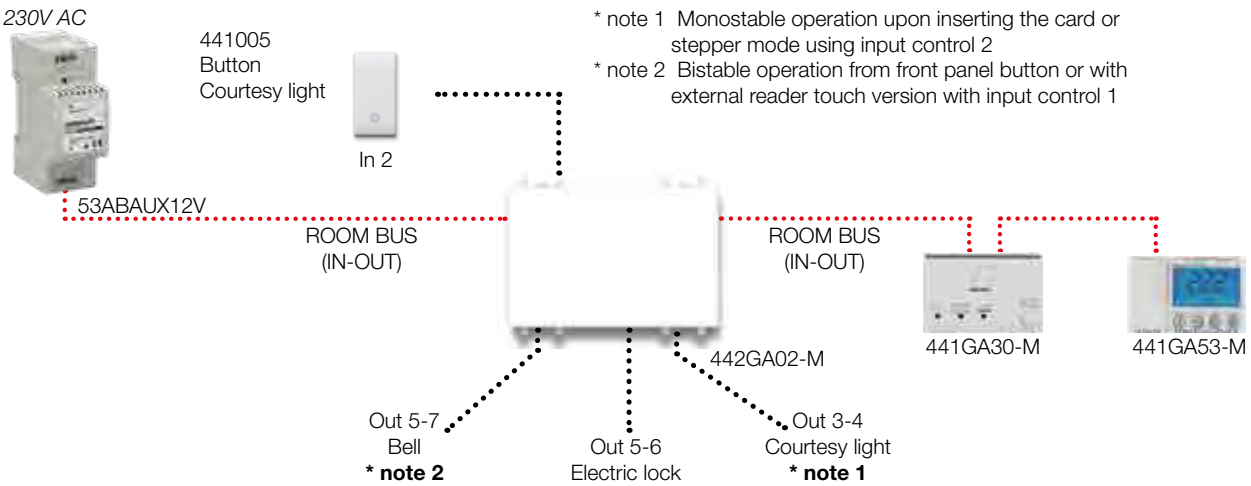
FUNCTIONAL DIAGRAM

ONLINE MODE



* note 1 Monostable operation upon inserting the card or stepper mode using input control 2
* note 2 Bistable operation from front panel button or with external reader touch version with input control 1

STAND ALONE MODE



* note 1 Monostable operation upon inserting the card or stepper mode using input control 2
* note 2 Bistable operation from front panel button or with external reader touch version with input control 1

Available fonts

Subway Ticker
1 2 3 4 5 6 7 8 9 0

Times Regular
1 2 3 4 5 6 7 8 9 0

Subway Ticker condensed
1 2 3 4 5 6 7 8 9 0

Times condensed
1 2 3 4 5 6 7 8 9 0

To request the customization of the front plates with codes ending in /XX, used in hotel facilities, it is necessary to follow a particular procedure described below.
The customizable formats are available both for glass and aluminium versions.
These plates can be customized in compliance with some of the constraints listed below:
a) logos / trademarks / symbols /texts etc. can be positioned exclusively within the dashed red area (unlighted area) and / or dashed green area (lighted area) as indicated in the figures below (3, 3 °, 3B, 3C);
b) any progressive numbering of hotel rooms can be made by choosing between the above fonts and dimensions.
Your order with customization request should be sent together with the graphic draft issued by AVE competent office and approved with the customer's signature and stamp. You should previously send to AVE competent office:
1. model and colour of the front plate to be customized;
2. * any logos / trademarks / symbols / texts should be sent in DXF format. If not available, use PDF or EPS formats. Indicate the position where they must be placed;
3. room numbers;
4. any other information useful for the realization of the draft

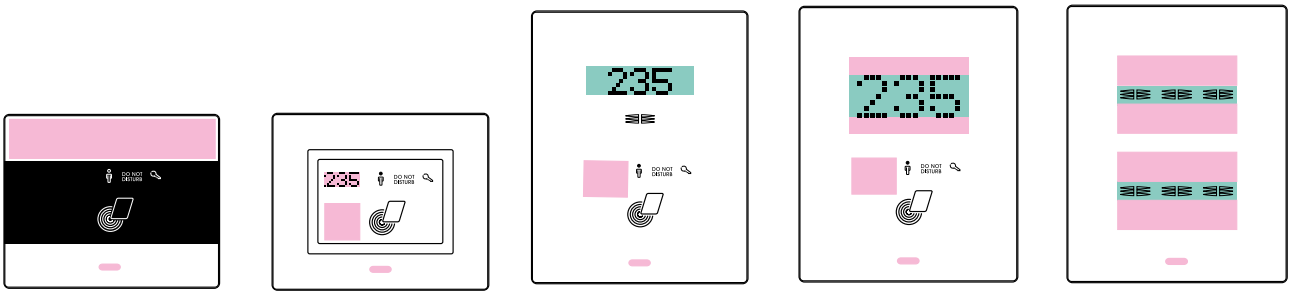
Costs
The cost for each front plate is the one indicated in the official International Price List in force with the addition of the first prototype fee of € 250 to be distributed on the total number of pieces covered by the order, as a contribution to the realization of the lasering layout.
*For logos customization, please check costs and feasibility with Ave export sales departmen

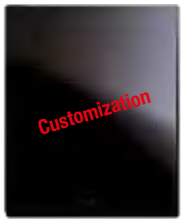
PRODUCTION LEAD TIME
30 working days from the draft approval (customer signature)

Laser zone

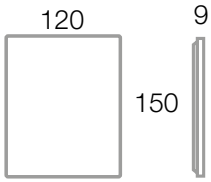
Not lightable laser zone

Lightable laser zone





44PVTC33NAL/XX



44PVTC33BL/XX
Clear White glass - 6(3+3) modules

44PVTC33GO/XX
Frosted silver grey glass - 6(3+3) modules

44PVTC33NAL/XX
Clear absolute black glass - 6(3+3) modules

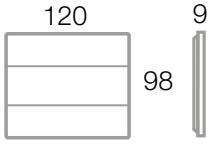
44PVTC33VO/XX
Frosted water green glass - 6(3+3) modules

44PATC33ALS/XX
Natural brushed aluminium - 6(3+3) modules

44PATC33ANS/XX
Anthracite brushed aluminium - 6(3+3) modules

"Ave Touch" aluminium front plates for rectangular 3 modules box (fixing centres 83,5 mm) - CUSTOMIZABLE

44PATC3ALS/XX



44PVTC33BL/XX
Natural brushed aluminium - 3 modules

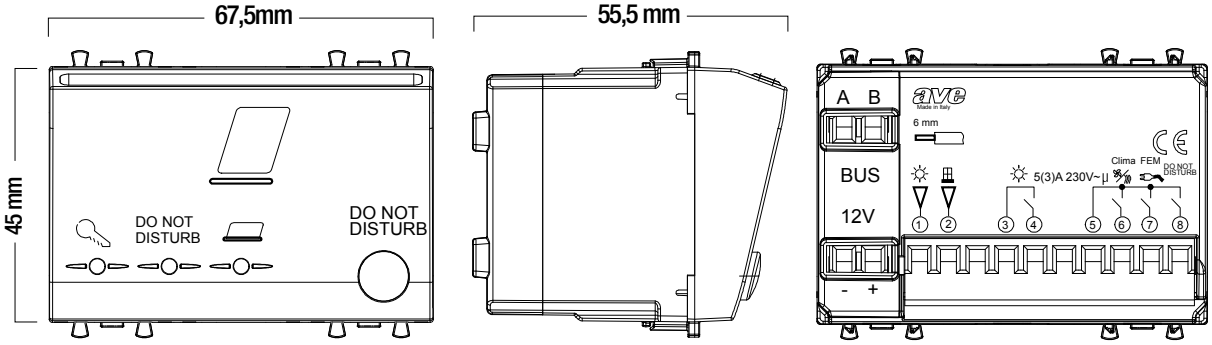
44PATC3ANS/XX
Anthracite brushed aluminium - 3 modules

44PATC3ALS-GA
Natural brushed aluminium - for access control 442GA02-M - 3 modules

44PATC3ANS-GA
Anthracite brushed aluminium- for access control 442GA02-M - 3 modules

INTERNAL READER ARMBus - cod. 44..GA30-M

The device cod. 44..GA30-M is a reader with card holder designed to be installed inside the room to allow the activation of room loads and services only when an enabled card is used. It can operate in both Stand Alone and Online mode, depending on how it is configured and installed. MIFARE® technology allows to generate cards with the highest security standards that can also be integrated with other advanced services (such as the possibility of integrating cards provided by AVE with payment services provided by other companies) with a top of the range reading performance. The reader has two inputs to determine the status of volt free contacts, which control the "Room Light" and "Air Conditioning Consent" output, respectively. There are also four volt free relay contacts to control "Room Light", "Air Conditioning Consent", "EMF line control" and "Do not disturb" indications.



Devices can be configured to detect presence in 4 different types of rooms:

- GUEST ROOMS: enable the presence of all enabled client cards and of all service cards.
- SERVICE ROOMS: enable the presence of hotel cards that belong to service personnel but not to clients.
- COMMON AREAS: enable presence of all the service personnel cards and of enabled client cards.
- AREAS BY PAYMENT: enable presence of the cards of service personnel and of enabled client cards. To activate the presence, the cards must have sufficient residual credit (number of accesses). At the start of each presence in the room the device updates the card by removing one credit.

Technical details

• Module:	3 S44 modules (67.5 w x 45 h x 55.5 d) mm
• Max. protrusion above the components:	9 mm (above the plate)
• Protection degree:	IP40 if completed with front plate and installed in the corresponding flush-mounted frame.
• Reference Temp. and Rel. Humidity:	25°C RH 65%
• Temperature range Operating environment:	from 0°C to +40°C
• Maximum Relative Humidity:	90% at 35°C
• Max. Height:	2000 m a.s.l.
• Power supply	- Rated voltage: 12Vdc ±25% - Absorption in stand-by (at +12Vdc): 80 mA. - Maximum absorption (at +12Vdc): 150mA.

Connections

• Terminal A:	"A" RS-485
• Terminal A:	"B" RS-485
• Terminal -:	GND System power 12Vdc (Common inputs)
• Terminal +:	Positive 12Vdc power supply
• Terminal 1:	Input Room Light
• Terminal 2:	Window Contact Input
• Terminal 3 and 4:	Room Light Output
• Terminal 5:	Common for terminals 6, 7 and 8
• Terminal 5 and 6:	Climate Consent Output
• Terminal 5 and 7:	Load Control Output (EMF)
• Terminal 5 and 8:	DO NOT DISTURB Output

Characteristics of controllable electric load

• Ohmic load (cosφ 1):	5A at 250Vac	**WARNING**:
• Inductive load (cosφ 0.4):	3A at 250Vac	**Not suitable to control LED lights**

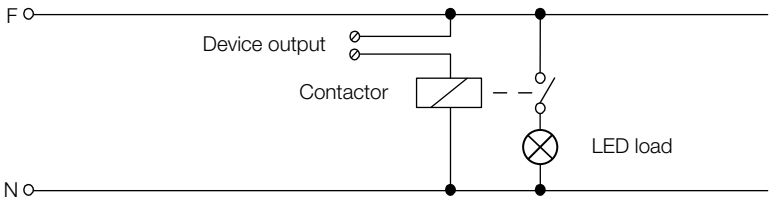
441GA30-M

□ 441GA30-M **■ 445GA30-M** **■ 449GA30-M**
Internal Reader for Hotel Management - Domus series - Tekla - Class - 3 modules
Device suitable to operate in both Stand Alone and Supervised "Online" mode.

■ 442GA30-M **■ 443GA30-M**
As above - Life series - Allumia - 3 modules.

Note: devices with MIFARE technology (cod. 44…GA01-M and cod. 44…GA30-M) cannot be combined with plates that have CROMO (CR) frames and with metal plates

TECHNICAL INFORMATION

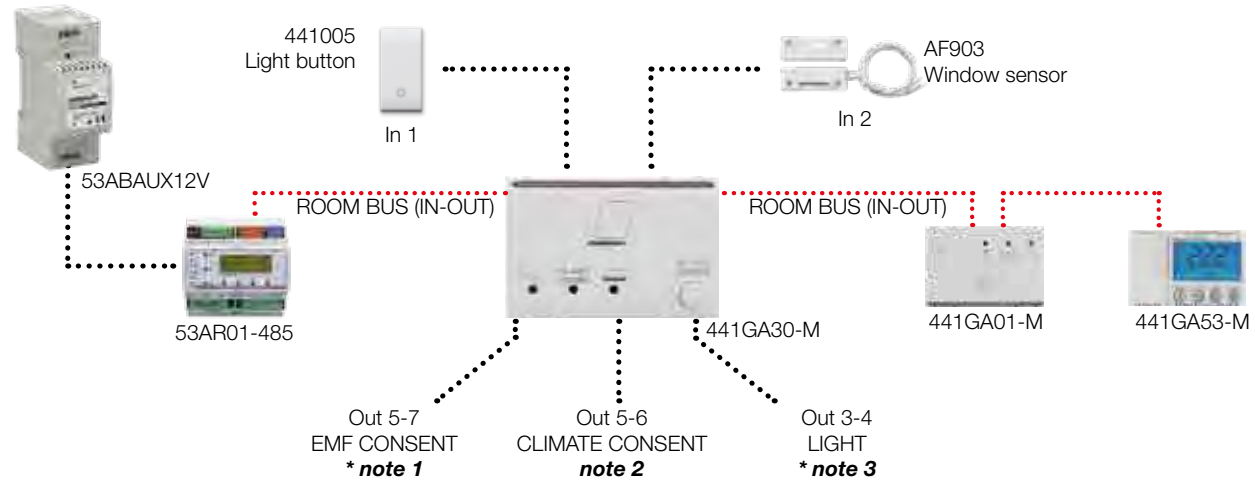


Note: If LED lights are used, an appropriate remote control switch must be installed between the output of the device and the load.

FUNCTIONAL DIAGRAM

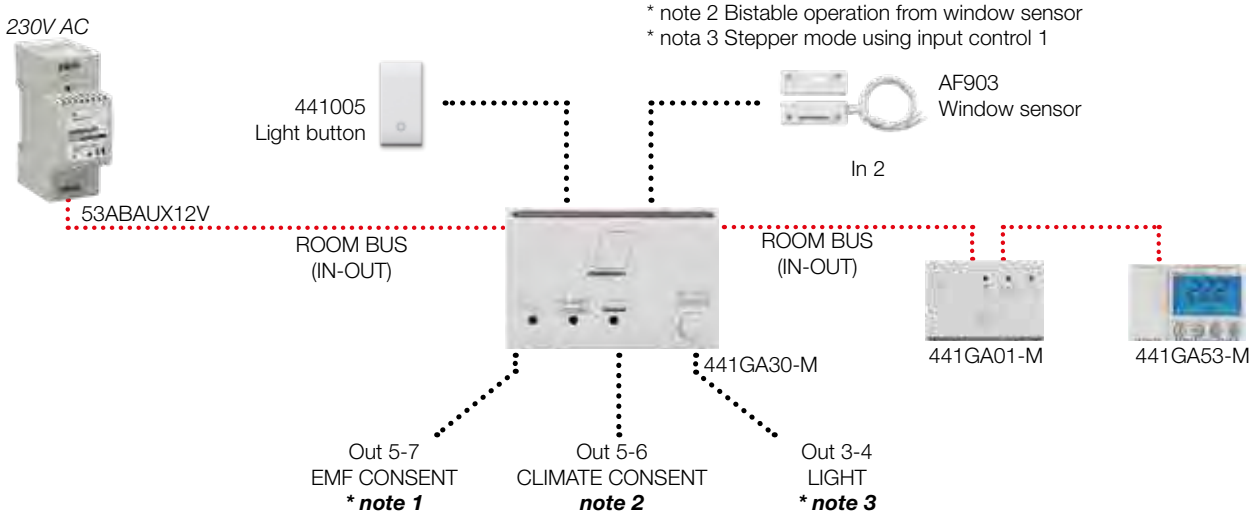
ONLINE MODE

* note 1 Monostable operation upon inserting the card
* note 2 Bistable operation from window sensor
* nota 3 Stepper mode using input control 1



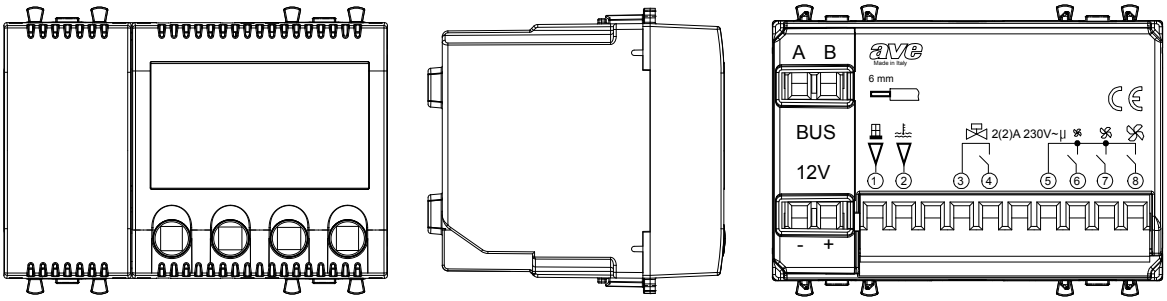
STAND ALONE MODE

* note 1 Monostable operation upon inserting the card
* note 2 Bistable operation from window sensor
* nota 3 Stepper mode using input control 1



AMBIENT THERMOSTAT – cod. 44..GA53-M

The device cod. 44..GA53-M is a thermostat to measure ambient temperature and to control the temperature of a hotel room or of other rooms in general. It is able to manage its outputs and inputs independently, and can also communicate with other devices, such as room control unit, external reader and internal reader. It can operate both in Stand Alone and Online mode according to the setting and installation. The device is provided with two auxiliary analogue inputs (+5Vdc) to detect resistive values (room/window and temperature/water status) and four volt free relay outputs to control the solenoid valve and fan coil speed.



Technical details

- Module: 3 S44 modules (67.5 w x 45 h x 55.5 d) mm
- Max. protrusion above the components: 6.5 mm (above the plate)
- Protection degree: IP40 if completed with front plate and installed in the corresponding flush-mounted frame.
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Power supply
  - Rated voltage: 12Vdc ±25%
  - Absorption in stand-by (at +12Vdc): 50mA.
  - Maximum absorption (at +12Vdc): 150mA.

Connections

- Terminal A: "A" RS-485
- Terminal A: "B" RS-485
- Terminal -: GND System power 12Vdc (Common inputs)
- Terminal +: Positive 12Vdc power supply
- Terminal 1: Window/room status input contact
- Terminal 2: Temperature probe input
- Terminal 3 and 4: Solenoid Valve Output
- Terminal 5: Common for terminals 6, 7 and 8
- Terminal 5 and 6: Fan Coil speed 1 output
- Terminal 5 and 7: Fan Coil speed 2 output
- Terminal 5 and 8: Fan Coil speed 3 output

Characteristics of controllable electric load

- Ohmic load (cosφ 1): 5A at 250Vac
- Inductive load (cosφ 0.4): 3A at 250Vac

Temperature measurement

- Measurement range: from 0°C to 40°C (Display in °C or °F)
- Regulation range: 30°C (from 5°C to 35°C)
- Reproducibility error: 0.2°C (max)
- Fidelity error: 0.3°C (max)
- Thermostat differential: from 0.2°C to 0.2°C to 2.5°C adjustable

441GA53-M

441SO-NTC

□ 441GA53-M ■ 445GA53-M ■ 449GA53-M
Ambient thermostat for Hotel Management - Domus series - Tekla - Class - 3 modules. Device suitable to operate in both Stand Alone and Supervised "Online" mode. It has relay outputs to control the solenoid valve and fan coil speed, and its analogue input detects the window status and/or the client's presence in the room. A second analogue input allows to measure the ambient temperature of a second temperature zone, whose solenoid valve is activated by the room control unit 53GA0x-485

■ 442GA53-M ■ 443GA53-M
As above - Life series - Allumia - 3 modules.

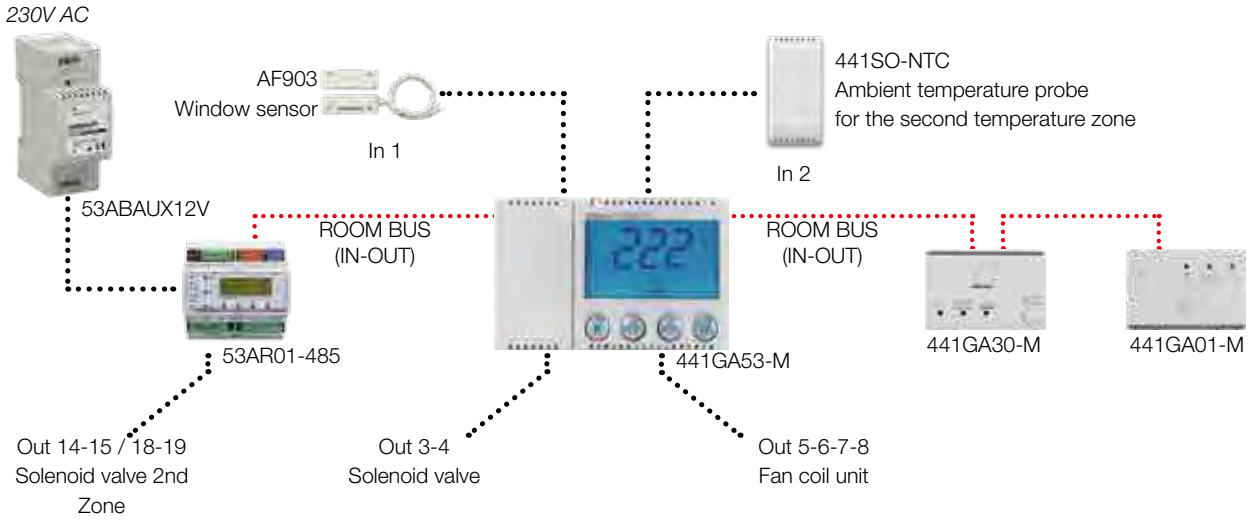
□ 441SO-NTC ■ 445SO-NTC ■ 449SO-NTC
Stand-out cover with NTC 10K type ambient temperature probe - Domus series - Tekla - Class 1 module

■ 442SO-NTC ■ 443SO-NTC
As above - Life series - Allumia - 1 module.

FUNCTIONAL DIAGRAM

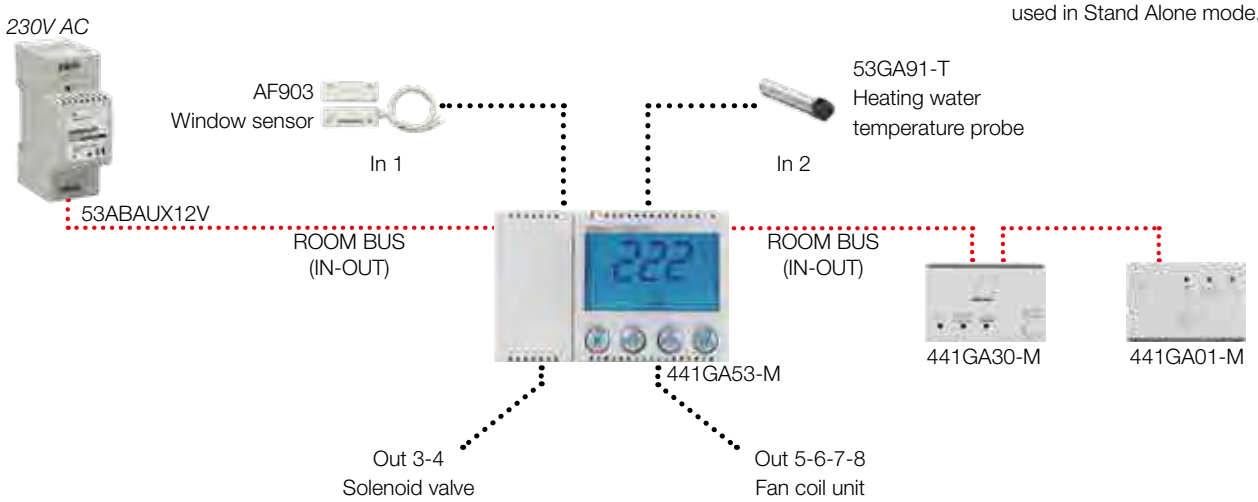
ONLINE MODE

* note The dual temperature zone mode exploits the 14-15 / 18-19 output of the room control unit cod. 53AR01-485



STAND ALONE MODE

* note For automatic recognition of the season, input 2 is only used in Stand Alone mode.



The device cod. SCR-ALBM1 is a MIFARE® card programmer that can communicate with the devices of the hotel series. It is provided with a USB interface (compatible with USB 1.1 and 2.0 specifications) for direct interfacing with a PC to programme the cards and/or all the devices of the MIFARE® hotel management system.
The device is used both in Stand Alone mode, whose card programming software is provided, and in the Online mode combined with the software cod. SFW-ALB05 or higher.

Electrical details

- System power voltage (DC): +5Vdc ±10% self-powered through USB port
- Absorption in stand-by (at +5Vdc): ≤ 50mA
- Maximum absorption (at +5Vdc): ≤ 100mA
- USB interface compatibility: USB 1.1/2.0

Weather conditions

- Reference temperature and relative humidity: 25°C RH 65%
- Operating temperature range: 0°C - +40°C
- Maximum Relative Humidity: 90% at +35°C
- Maximum Height: 2000 m a.s.l.

Mechanical details

- Module: 123 w x 30 h x 68 d mm
- Material: ABS (UL 94 HB)
- Colour: Black (Ral 9005)
- Protection degree: IP40
- PC Interface: USB 1.1/2.0 (Type B connector)

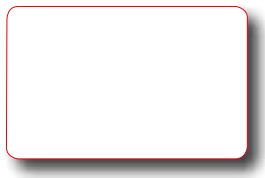
Operating modes
The SCR-ALBM1 card transponder programmer can be used simply as a device to programme cards used for MIFARE®hotel management, either as stand-alone or online, or, together with an additional software (for technicians and/or installers), as a programmer for all the modules created for hotel management. In fact, it can be used to update the management firmware and/or to edit the configuration parameters (resident in EEPROM) of the various devices of the MIFARE®hotel series.
It can also be used to monitor the traffic on the room bus (Sniffer) showing all the messages and/or control signals circulating through the bus.

Master Card 44339CHM-M
A Master card is used in the system to prepare and programme the cards. This Master card has its own unique code, the “Hotel Code”, which is transferred to the reader by the Master card itself when programming directly together with all the other necessary data and a “Sequential room code” automatically increased by the reader after the first configuration.
It is possible to install a number of systems subdivided into zones and/or subsystems. In this case it is necessary to have a Master card for each of the combinations (for example 3 zones and 2 subsystems = 6 Master cards). Note: The Master card (or cards) identifies the system and must be kept with care for any later configurations.
The system code received from the Master card (together with the code of the subsystem and zone code), is memorised by the reader and when the client card and/or service card is being programmed, it is transferred to all the cards programmed by the reader. If the SCR-ALBM1 programmer should fail or be absent, follow all the access card programming steps using the Master card, according to the procedures explained in the instructions of the readers.

User Card 44339CHU-MB
The user cards allow access to or use of a service. The following types of cards are available: CLIENT, CHAMBERMAID, MAINTENANCE TECHNICIAN, PASSEPARTOUT (SECURITY), SUPER-GUEST, SUB-MASTER, MASTER COPY, ERASER.
The online version also includes the following types: DIRECTOR, HOUSEKEEPER, RECEPTIONIST, BARMAN/FLOOR SERVICE, SUPPLIER, SERVICE USER.

SCR-ALBM1

44339CHM-M



44339CHU-MB

SCR-ALBM1
MIFARE card programmer - SFW-ALB04 software included

44339CHM-M
Master type MIFARE card - format: ISO7816

44339CHU-MB
MIFARE card user type white - format: ISO7816

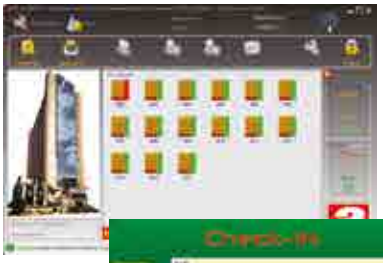
CVAVEBUS
Cable for AVEbus systems, compliant with EU Regulation 305/2011 - Coil 100 m
Technical details: 2x2x0.50 mm2 - Eca performance category
It allows the connection of all AVEbus devices. It comprises two twisted pairs

CVBUS-BUILDING
Cable for AVEbus systems, compliant with EU Regulation 305/2011 - Coil 200m
Technical details: 4x 0.50 mm2 - Cac performance category - s1b - d1- a1 (Risk Level MEDIUM) Allows to connect all AVEbus devices with four wires

53ABAUX12V
Mains voltage power supply with extended range for AVEbus and Touch Screen systems. Adjustable output voltage with potentiometer (12 to 14Vdc). Max current supplied: 2 A - 2 DIN modules

Note:
The minimum installation requisites for the application:
Windows 10 (edition with 32 or 64 bit); 4 GB RAM; 100 MB free memory on HDD; Graphics card with minimum resolution 1024x768 24bit (monitor 4:3); Graphics card with minimum resolution 1280x768 24bit (monitor 16:9); Network card 10/100 base-T; USB Port 2.0 and Reader CD/DVD ROM. Internet connection for remote assistance.

EXAMPLE PAGES

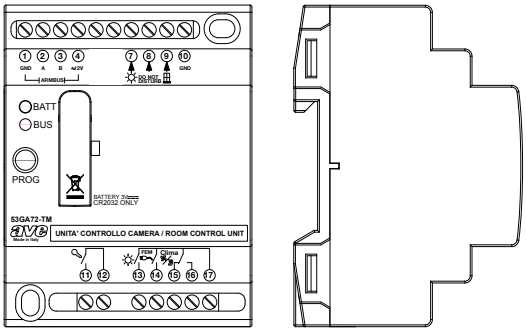


ROOM STATUS:
The AVE software for the stand alone system informs you at all times which rooms are booked and for how long. The room management system allows to have full control of the situation, thus avoiding unpleasant inconveniences to customers, and also to create client cards with an expiry date.

USER MANAGEMENT:
User management allows to keep an eye on the situation at all times and to generate access cards for the rooms to allow hotel staff to do their work without any hitches.
The chambermaids can, therefore, enter the rooms to tidy them, but only if the client is not there, to avoid unpleasant inconveniences.
The maintenance technician will have access to all the rooms without limitations except when the client is in the room, etc.

STAND ALONE CONTROL UNIT – COD. 53GA72-TM

The device cod. 53GA72-TM is a room control unit that completes the stand alone hotel range. It is able to manage its outputs and inputs independently, and can also communicate with the various slave devices of the same hotel series (external reader, internal reader and ambient thermostat). The room control unit has four auxiliary inputs to determine the status of volt free contacts and of four relay outputs. It also has an internal clock with lithium buffer battery, which makes it possible to completely manage a clock/calendar that might be required if you wish to use the card expiry function and/or nighttime saving function of the thermostat.
The control unit cod. 53GA72-TM memorises and makes available the last 50 door opening operations (date/time and unique card number), which can be "downloaded" using the SCR-ALBM1 programmer and stand alone SFW-ALB04 software.



Technical details

- Module: 4 DIN modules (69.5 w x 89.5 h x 65 d) mm
- Protection degree: IP40
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Power supply
  - Rated voltage: 12Vdc ±25%
  - Absorption in stand-by (at +12Vdc): 75mA.
  - Maximum absorption (at +12Vdc): 200mA.

Connections

- Terminal 1: GND System power 12Vdc (Common inputs)
- Terminal 2: "A" RS-485
- Terminal 3: "B" RS-485
- Terminal 4: Positive 12Vdc power supply
- Terminal 7: Input Room Light
- Terminal 8: DO NOT DISTURB input
- Terminal 9: Climate 2 consent input
- Terminal 10: GND Common for terminals 7, 8 and 9
- Terminal 11 and 12: Electric Lock Control Output
- Terminal 13 and 17: Room Light Control Output
- Terminal 14 and 17: Load Control Output (EMF)
- Terminal 15 and 17: Climate Enabling Control Output - contact NC
- Terminal 16 and 17: Climate Enabling Control Output - contact NO
- Terminal 17: Common for terminals 13,14,15 and 16

Characteristics of controllable electric load

- Ohmic load (cosφ 1): 5A at 250Vac
- Inductive load (cosφ 0.4): 3A at 250Vac

WARNING:
Not suitable to control LED lights

Description of the front

On the front there are two optical indicators of device function and status:

- Green LED (BATT): ON, power supply of the device. If it flashes this means the battery needs replacing or is missing.
- Red LED (BUS): ON, room bus communication.

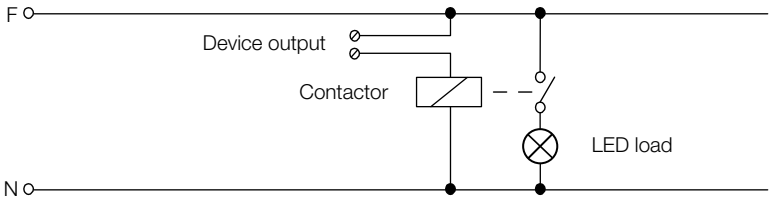
53GA72-TM

53ABAUX12V

53GA72-TM
Room control unit for stand-alone 125 kHz/MIFARE systems - 4 DIN modules

To be completed with DOMINA^{hotel} System peripheral units

TECHNICAL INFORMATION

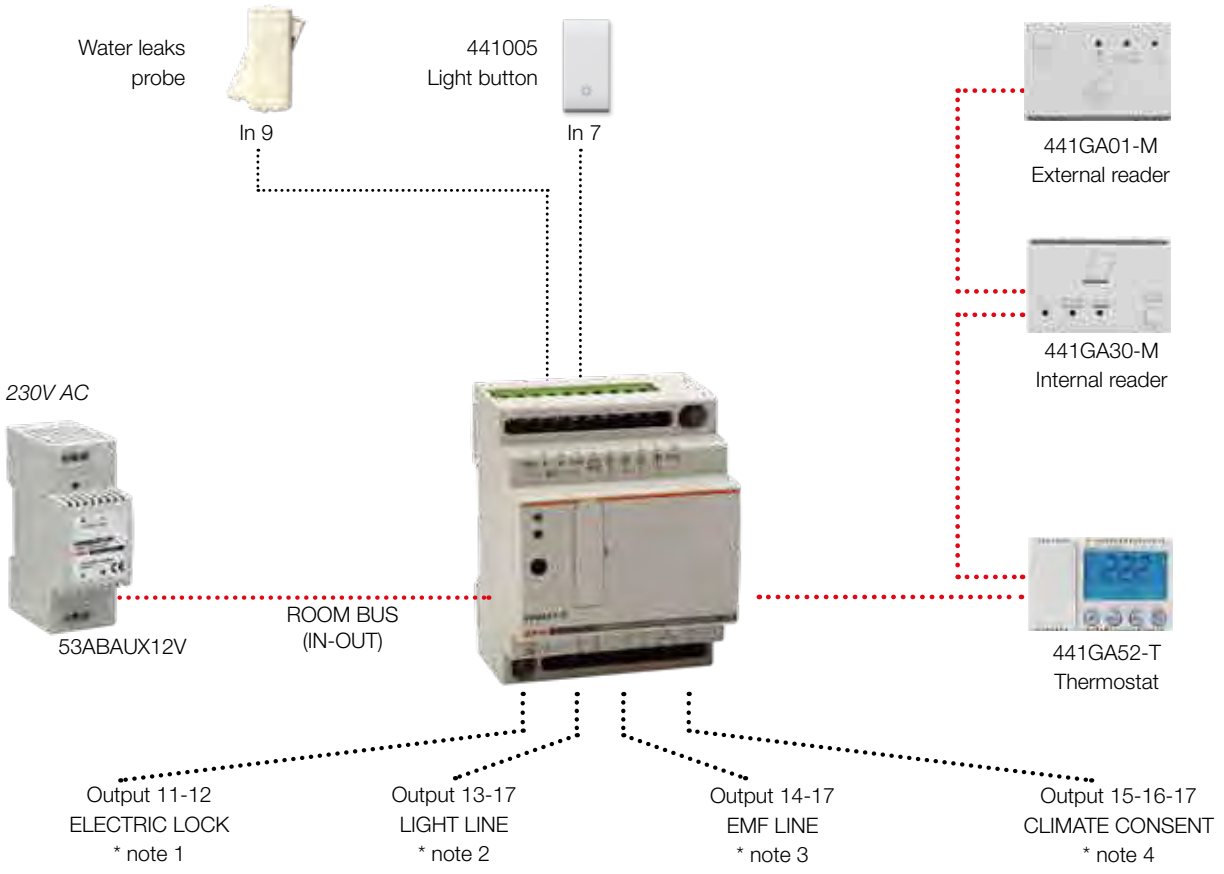


Note: If LED lights are used, an appropriate remote control switch must be installed between the output of the device and the load.

FUNCTIONAL DIAGRAM

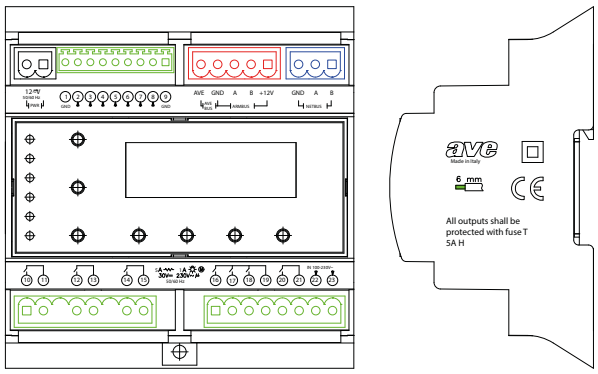
STAND ALONE MODE

* note 1 Replicates the output of the external reader
* note 2 Bistable operation using input control 7
* note 3 Active with the card inserted in the internal reader (connect the accessory remote control switch)
* note 4 Automatic operation connected with the consent of input 9



TECHNICAL CATALOGUE
DOMINA^hotel ONLINE SYSTEM
ONLINE ROOM CONTROL UNIT – COD. 53AR01-485

The device cod. 53AR01-485 is a room control unit for hotel management in Online mode. It can manage accesses (bookings/check-in/check-out), all functions related to temperature control, alarm management, transit management and all functions related to energy saving. It communicates with room devices by using two different buses: ARMBus for the connection with External / Internal readers, Thermostats; AVEbus for the connection with Residential Home Automation devices, allowing to use Control Devices and Actuators and other peripheral units. Moreover, it uses another bus (NETbus) to connect to the floor concentrator cod. AR-NET01, which is connected through the Ethernet to the supervision system's server.



Technical details

- Module: 6 DIN modules (106 w x 91h x 58.5 d) mm
- Protection degree: IP40
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Power supply
  - Rated voltage: 12Vdc ±25%
  - Absorption in stand-by (at +12Vdc): 150mA.
  - Maximum absorption (at +12Vdc): 400mA.

Connections

- Terminal 12V: Input not polarised for power supply
- Terminal 1: Input reference (GND)
- Terminal 2: Input 0-10V to connect the flood detection probe
- Terminal 3: Input DOOR OPENER
- Terminal 4: FIRE REPETITION input (based on the legislation in force)
- Terminal 5: Input DO NOT DISTURB BUTTON
- Terminal 6: Input DOOR CONTACT
- Terminal 7: Input BATHROOM EMERGENCY BUTTON
- Terminal 8: Input ROOM LIGHT
- Terminal 9: Input reference (GND)
- AVE Terminal: Positive AVEBus home automation bus
- Terminal GND: Reference ground for AVEBus and ARMBus
- Terminal A: Line A of the ARMBus room bus
- Terminal B: Line B of the ARMBus room bus
- Terminal +12V: Positive power supply of the ARMBus room bus
- Terminal GND: Reference ground for NETbus
- Terminal A: Line A of the NETBus supervision bus
- Terminal B: Line B of the NETBus supervision bus
- Terminal 10 and 11: LV (230Vac) and SELV (<50Vdc) output – ELECTRIC LOCK
- Terminal 12 and 13: LV (230Vac) and SELV (<50Vdc) output – WATER SOLENOID VALVE
- Terminal 14 and 15: LV (230Vac) and SELV (<50Vdc) output – DIRECT CONTROL
- Terminal 16 and 19: LV output contact pole (230Vac) – ROOM LIGHT
- Terminal 17 and 19: LV output contact pole (230Vac) – ALARM ACTIVE
- Terminal 18 and 19: LV output contact pole (230Vac) – DIRECT CONTROL
- Terminal 20 and 21: LV output (230Vac) to control the STEPPER RELAY of the room
- Terminal 22 and 23: LV input to detect the presence of the mains supply 115/230Vac.

Characteristics of controllable electric load

- Ohmic load (cosφ1): 5A at 250Vac
- Inductive load (cosφ 0.4): 3A at 250Vac

WARNING:
Not suitable to control LED lights

53AR01-485

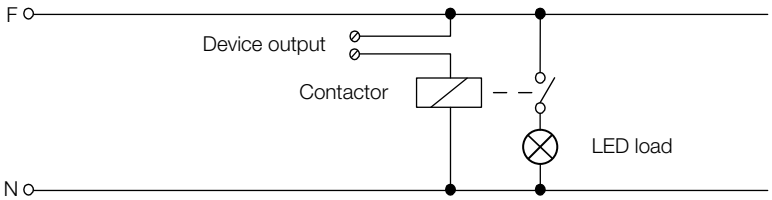
532RP-230NI

53AR01-485
Room control unit for online hotel management - 6 DIN modules

532RP-230NI
230Vac coil In 16A power circuit 250Vac 2NO – 1 module DIN

To be completed with DOMINA^{hotel} System peripheral units

TECHNICAL INFORMATION

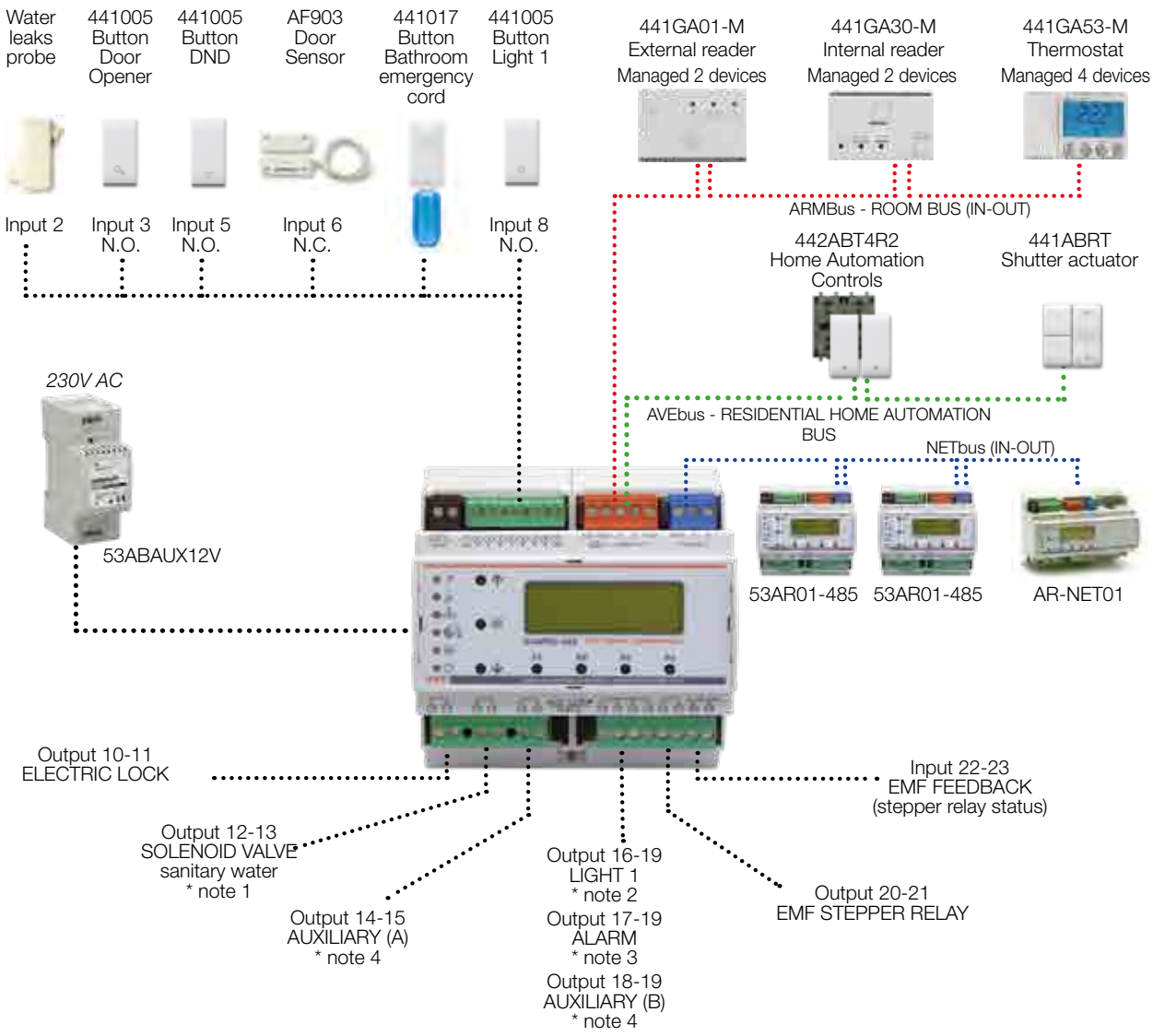


Note: If LED lights are used, an appropriate remote control switch must be installed between the output of the device and the load.

FUNCTIONAL DIAGRAM - ONLINE

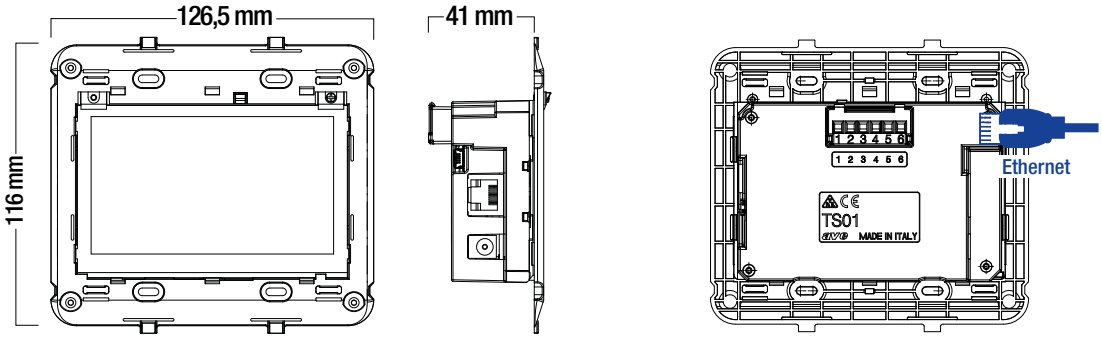
ONLINE MODE

* note 1 If a water leak is detected, the solenoid valve is (reset from PC)
* note 2 Stepper operation connected with input 8
* note 3 Bistable operation connected with input 7 cut off
* note 4 Bistable operation connected with PC control signal



TOUCH SCREEN FOR ROOM MANAGEMENT - cod. TS01

The TS01 device is a Touch Screen supervisor designed to manage the room automation system through a graphical user interface featuring icons and interactive menus. Besides supervising the various functions of the room, such as, for example, the Do Not Disturb sign rather than the request to Tidy the Room or Replenish the Minibar, it integrates the function of displaying the local Weather Forecast, Information about the Hotel Facility, such as, for example, the opening hours of the Restaurant and local Tourist Information.



The Touch Screen TS01 in Hotel Management mode, appropriately programmed and with the presence in the system of the device cod. 53WBS-HUB, allows to manage the room's automation system both locally and remotely by performing the functions of "Lighting Control", "Shutter Control" and "Access Control" both in the room and in the facility at large. It can generate browser accessible Web pages with dedicated login using the credentials generated during the Check-in phase, which graphically depict the functions of the room, thus allowing the guest to manage it easily from his Smartphone.

The device can be installed either vertically or horizontally (the technical menu of the device contains the icon that allows to change the orientation of user graphics). The device is installed using a flush-mounted box BL02P or cod. BL02CG (the dimensions are given below).

Regarding the electrical wiring, the device needs a 12Vdc power supply and the connection to AVEbus. Moreover, to access Tourist Information and Smartphone Management, an Ethernet connection is required (using the provided small RJ45 connector).

Note 1: The device must be completed with plates "Vera 44", "Zama 44" and "Personal 44" for the box BL02P and BL02CG.

Note 2: the "Thermostat" function of the TS01 cannot be used for hotel management.

Technical details

- Module: 3+3 modules S44 (WxHxD) 116x126.5x41 mm
- Protection degree: IP30 installed in the respective flush-mounted box
- Power supply from SELV source:
  - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 300 mA
  - Absorption from Bus line 4.5 mA
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from +5°C to +35°C
- Maximum Relative Humidity: 90% at 30°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal 1: Positive AVEbus
- Terminal 2: Negative AVEbus and Negative Power Supply
- Terminal 3: --
- Terminal 4: --
- Terminal 5: Positive 12Vdc power supply
- Terminal 6: --
- ETH: LAN network connector (for space-saving reasons, the connector supplied as standard must be used)

TS01

TS01
DOMINAplus Touch Screen with 4.3" colour display and user interface with icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Power supply: 12Vdc (Max. 0.5A)
- Operating Ambient Temperature: 0°C - 40°C
- Integrated home automation Web Server

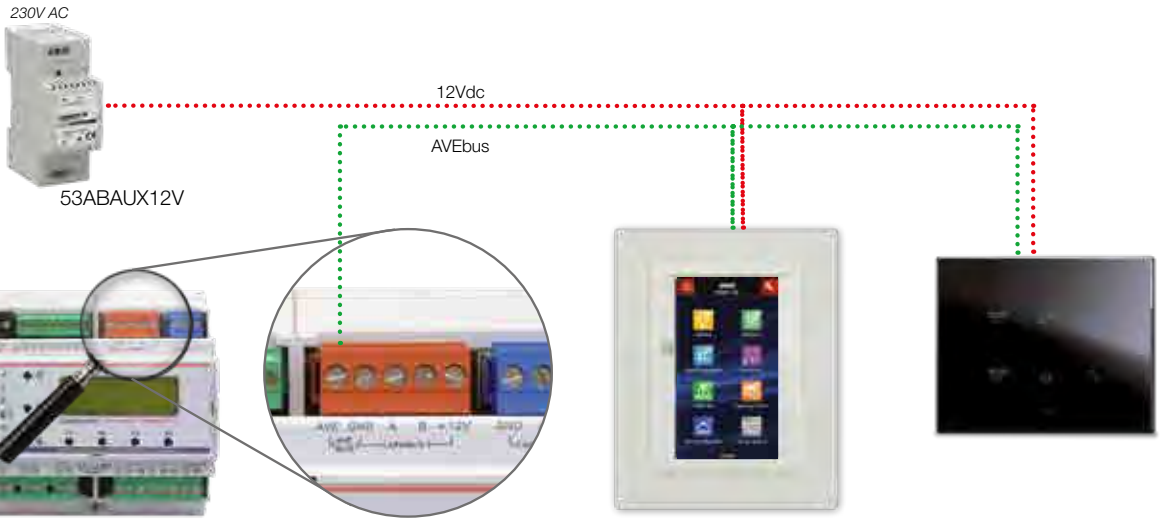
DISPLAY INFORMATION

TECHNICAL INFORMATION

The function of supervising the room with the Smartphone requires the presence of the device cod. 53WBS-HUB and the relative Ethernet connection with the Touch Screen of the camera cod. TS01.

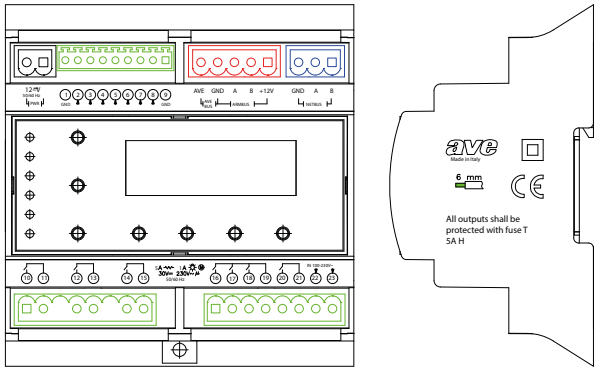
53WBS-HUB

FUNCTIONAL DIAGRAM



ONLINE COMMON AREAS CONTROL UNIT – cod. 53AR02-485

The device cod. 53AR01-485 is a common areas control unit for hotel management in Online mode. It can manage accesses (bookings/check-in/check-out), all functions related to temperature control, alarm management, transit management and all functions related to energy saving. It communicates with devices by using two different buses: ARMBus for the connection with External / Internal readers, Thermostats; AVEbus for the connection with Residential Home Automation devices, allowing to use Control Devices and Actuators and other peripheral units. Moreover, it uses another bus (NETbus) to connect to the floor concentrator cod. AR-NET01, which is connected through the Ethernet to the supervision system's server.



Technical details

- Module: 6 DIN modules (106 w x 91h x 58.5 d) mm
- Protection degree: IP40
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 35°C
- Max. Height: 2000 m a.s.l.
- Power supply
  - Rated voltage: 12Vdc ±25%
  - Absorption in stand-by (at +12Vdc): 150mA.
  - Maximum absorption (at +12Vdc): 400mA.

Connections

- Terminal 12V: Input not polarised for power supply
- Terminal 1: Input reference (GND)
- Terminal 2: Input 0-10V to connect the flood detection probe
- Terminal 3: Input DOOR OPENER
- Terminal 4: FIRE REPETITION input (based on the legislation in force)
- Terminal 5: Input DO NOT DISTURB BUTTON
- Terminal 6: Input DOOR CONTACT
- Terminal 7: Input BATHROOM EMERGENCY BUTTON
- Terminal 8: Input ROOM LIGHT
- Terminal 9: Input reference (GND)
- AVE Terminal: Positive AVEBus home automation bus
- Terminal GND: Reference ground for AVEBus and ARMBus
- Terminal A: Line A of the ARMBus room bus
- Terminal B: Line B of the ARMBus room bus
- Terminal +12V: Positive power supply of the ARMBus room bus
- Terminal GND: Reference ground for NETbus
- Terminal A: Line A of the NETBus supervision bus
- Terminal B: Line B of the NETBus supervision bus
- Terminal 10 and 11: LV (230Vac) and SELV (<50Vdc) output – ELECTRIC LOCK
- Terminal 12 and 13: LV (230Vac) and SELV (<50Vdc) output – WATER SOLENOID VALVE
- Terminal 14 and 15: LV (230Vac) and SELV (<50Vdc) output – DIRECT CONTROL
- Terminal 16 and 19: LV output contact pole (230Vac) – ROOM LIGHT
- Terminal 17 and 19: LV output contact pole (230Vac) – ALARM ACTIVE
- Terminal 18 and 19: LV output contact pole (230Vac) – DIRECT CONTROL
- Terminal 20 and 21: LV output (230Vac) to control the STEPPER RELAY of the room
- Terminal 22 and 23: LV input to detect the presence of the mains supply 115/230Vac.

Characteristics of controllable electric load

- Ohmic load (cosφ 1): 5A at 250Vac
- Inductive load (cosφ 0.4): 3A at 250Vac

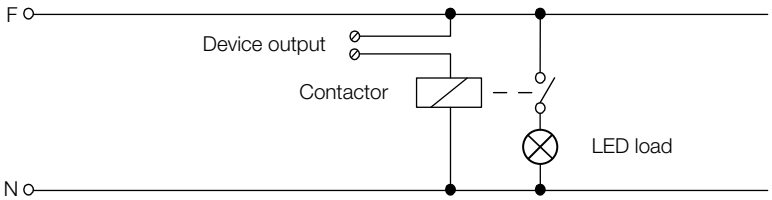
WARNING:
Not suitable to control LED lights

53AR02-485

53AR02-485
Common area control unit for online hotel management system - 6 DIN modules

To be completed with DOMINA^{hotel} System peripheral units

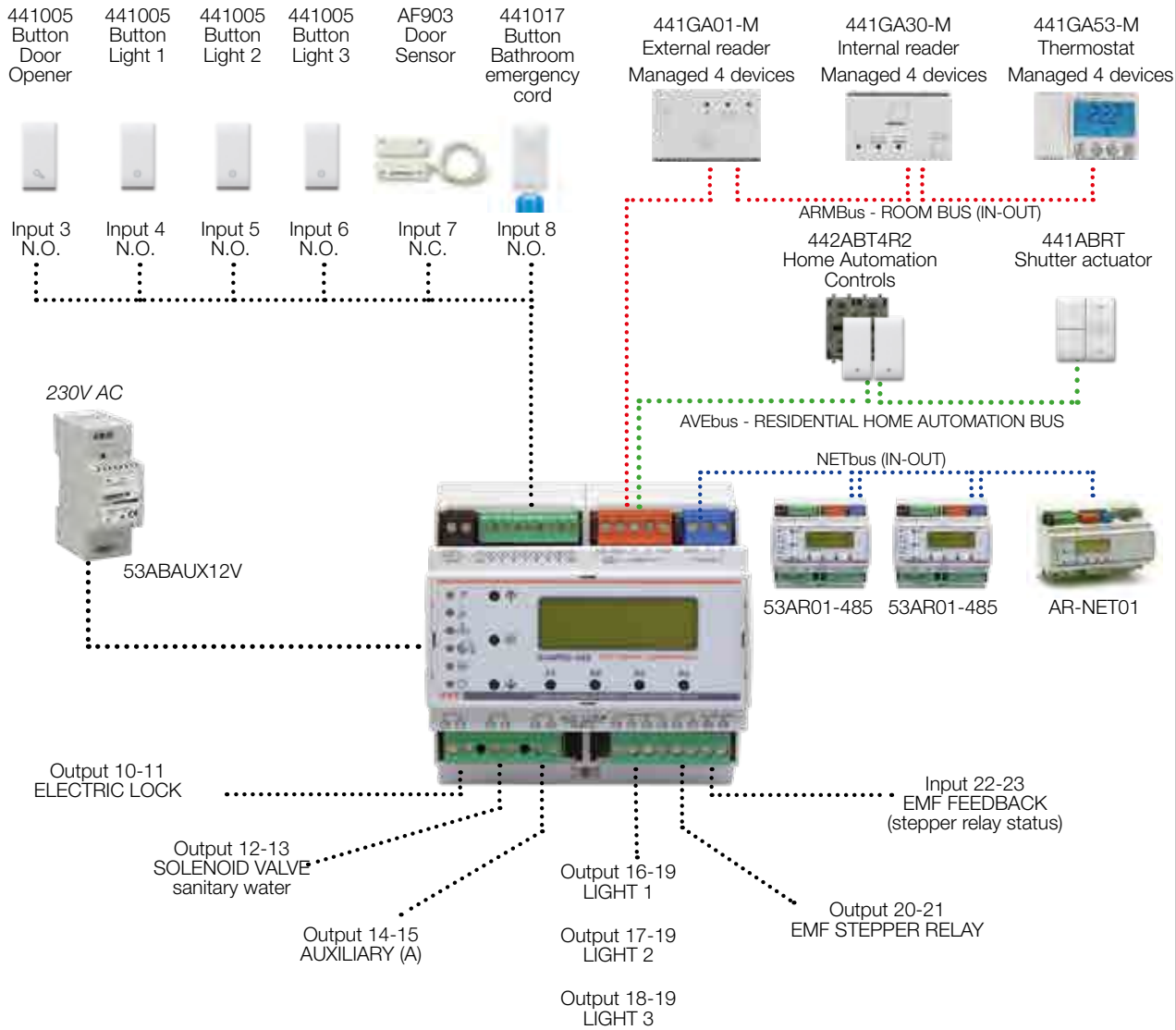
TECHNICAL INFORMATION



Note: If LED lights are used, an appropriate remote control switch must be installed between the output of the device and the load.

FUNCTIONAL DIAGRAM - ONLINE

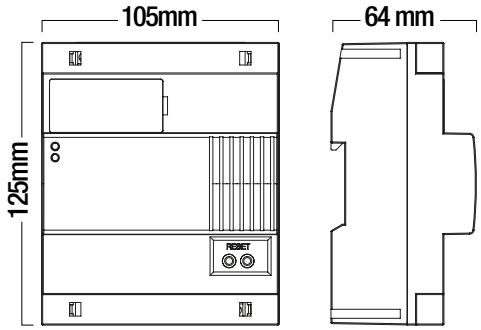
ONLINE MODE



WEB SERVER HUB FOR TECHNOLOGICAL SYSTEMS - ONLINE - Cod. 53WBS-HUB

The device 53WBS-HUB is a Web Server that acts as primary supervisor of other secondary supervisors. It can be used both in the Residential Home Automation system and in the Services and Hotel automation systems.
In the Hotel Automation system it allows to connect the server for Online Hotel Management and the camera Touch Screens, implementing the latter's functions. In fact, by accessing the Web portal generated by 53WBS-HUB, the hotel owner can post the local Tourist Information to update clients about events in the tourist area by directly consulting the camera Touch Screen.

Moreover, during the Check-in phase the hotel management software cod. SFW-ALB05 interacts with 53WBS-HUB to generate access credentials that will allow the guest to use the Touch Screen TS01 remotely by performing the functions of "Lighting Control", "Shutter Control" and "Access Control" both for the room and for the facility at large.



Technical details

- Module: 6 DIN modules (WxHxD) 105 x 125 x 60 mm
- Protection degree: IP30 installed in the respective electrical panel
- Power supply from SELV source: - Rated voltage: 12Vdc
  - Allowed fluctuation: 10.5Vdc - 14Vdc
  - Absorption at 12Vdc: 250 mA MAX
- Reference Temp. and Rel. Humidity: 25°C RH 65%
- Temperature range Operating environment: from 0°C to +40°C
- Maximum Relative Humidity: 90% at 30°C
- Max. Height: 2000 m a.s.l.

Connections

- Terminal [AVEbus AVE]: Positive BUS
- Terminal [AVEbus GND]: Negative BUS,
- Terminal [AUX +12]: Positive 12Vdc power supply
- Terminal [AUX GND]: Negative 12Vdc power supply
- ETH Connector LAN network

Warnings

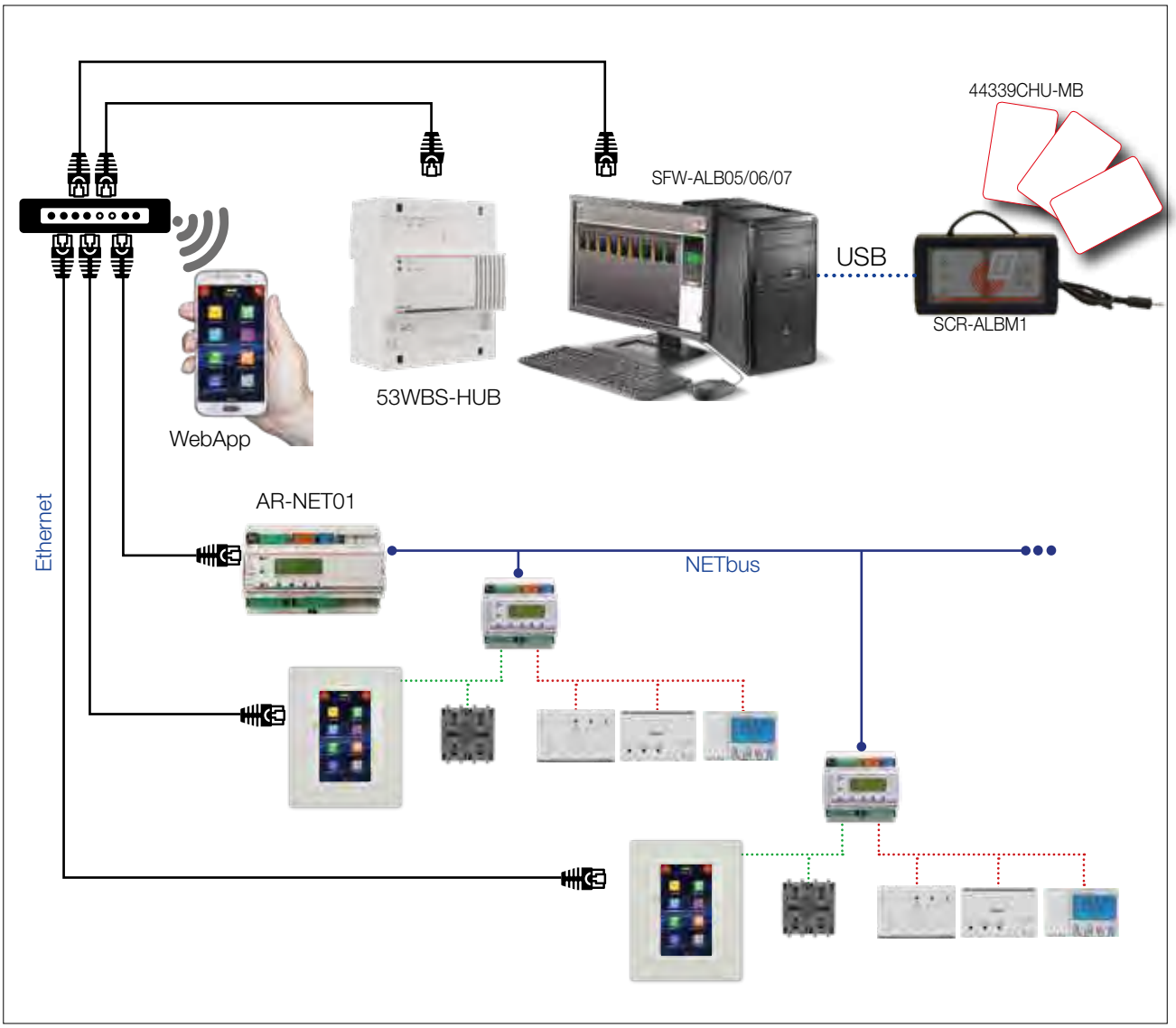
The device is not connected to the bus AVEbus or ARMbus, and does not perform the typical functions of home automation supervisors.

53WBS-HUB

53WBS-HUB
Web Server device with Hub function and Concentrator for special technological systems.
It allows to centralise the information and to export the graphic client of the Touch Screens cod.TS01 to the WebApp, which can be used by devices that have a Web browser, thus allowing remote control of functions and supervision.
- Power supply: • 12Vdc (Max. 250mA)
- Operating Room Temperature: 0°C - 40°C
- LAN Connection for other online devices.

Made in monoblock for DIN installation
- 6 DIN modules

FUNCTIONAL DIAGRAM



ONLINE INTERFACE UNIT and SUPERVISIONE SOFTWARE - cod. AR-NET01 and SFW-ALB0..

The device cod. AR-NET01 is a network interface between the NETbus backbone and the Ethernet network. It allows to link up various control units of the room and of common areas to the Server of the facility where the hotel management system's supervision software is installed.

Technical details

• Module:	9 DIN modules (159 w x 91h x 58.5 d) mm
• Protection degree:	IP40
• Reference Temp. and Rel. Humidity:	25°C RH 65%
• Temperature range Operating environment:	from 0°C to +40°C
• Maximum Relative Humidity:	90% at 35°C
• Max. Height:	2000 m a.s.l.
• Power supply	- Rated voltage: 12Vdc ±25% - Absorption in stand-by (at +12Vdc): 150mA. - Maximum absorption (at +12Vdc): 400mA.

Connections

• Terminal 12V:	Input not polarised for power supply
• Terminal GND:	Reference ground for NETbus
• Terminal A:	Line A of the NETBus supervision bus
• Terminal B:	Line B of the NETBus supervision bus
• Terminal B:	Line B of the NETBus supervision bus
• Terminal ETH:	Network connector RJ45

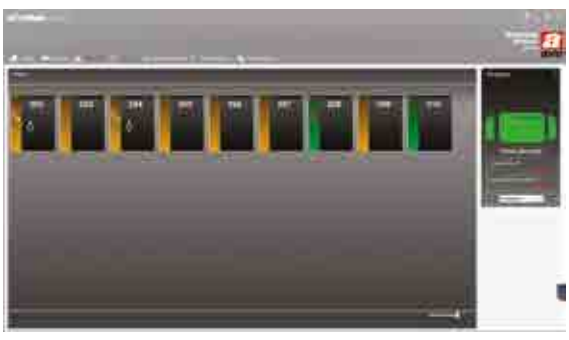
SFW-ALB05 /06 /07

The AVE hotel management software has been designed to ensure supervision and total control in real time of hotels in which the Domina Hotel online range is installed. The pages in which you navigate have been reduced to a minimum to make the software simpler and faster to use. This means that even new recruits require only a minimum of training and will be operative in a very short time. AVE software for Domina Hotel keeps everything always under control.

Room monitoring is represented with a card that has different colours in the side band to inform you of the room status (occupied, free, booked). The icons inside the card provide detailed information. All the essential information on the room status is provided without having to navigate through various pages. The transition from one floor to another is implemented via a simple navigation bar on the right. On the page dedicated to each room you can control each single component connected with the hotel network and check if it is working properly. Each function parameter can be modified by qualified personnel, from the temperature of the heating/cooling system to the status of the lights and shutters.

The software versions have been dimensioned for various hotel requirements:
- SFW-ALB05, for small hotels;
- SFW-ALB06, for medium hotels;
- SFW-ALB07, for large hotels;

Minimum Server requisites
The minimum installation requisites for the application:
Windows 10 (edition with 32 or 64 bit); 4 GB RAM; 100 MB free memory on HDD; Graphics card with minimum resolution 1024x768 24bit (monitor 4:3); Graphics card with minimum resolution 1280x768 24bit (monitor 16:9); Network card 10/100 base-T; USB Port 2.0 and Reader CD/DVD ROM. Internet connection for remote assistance.



AR-NET01

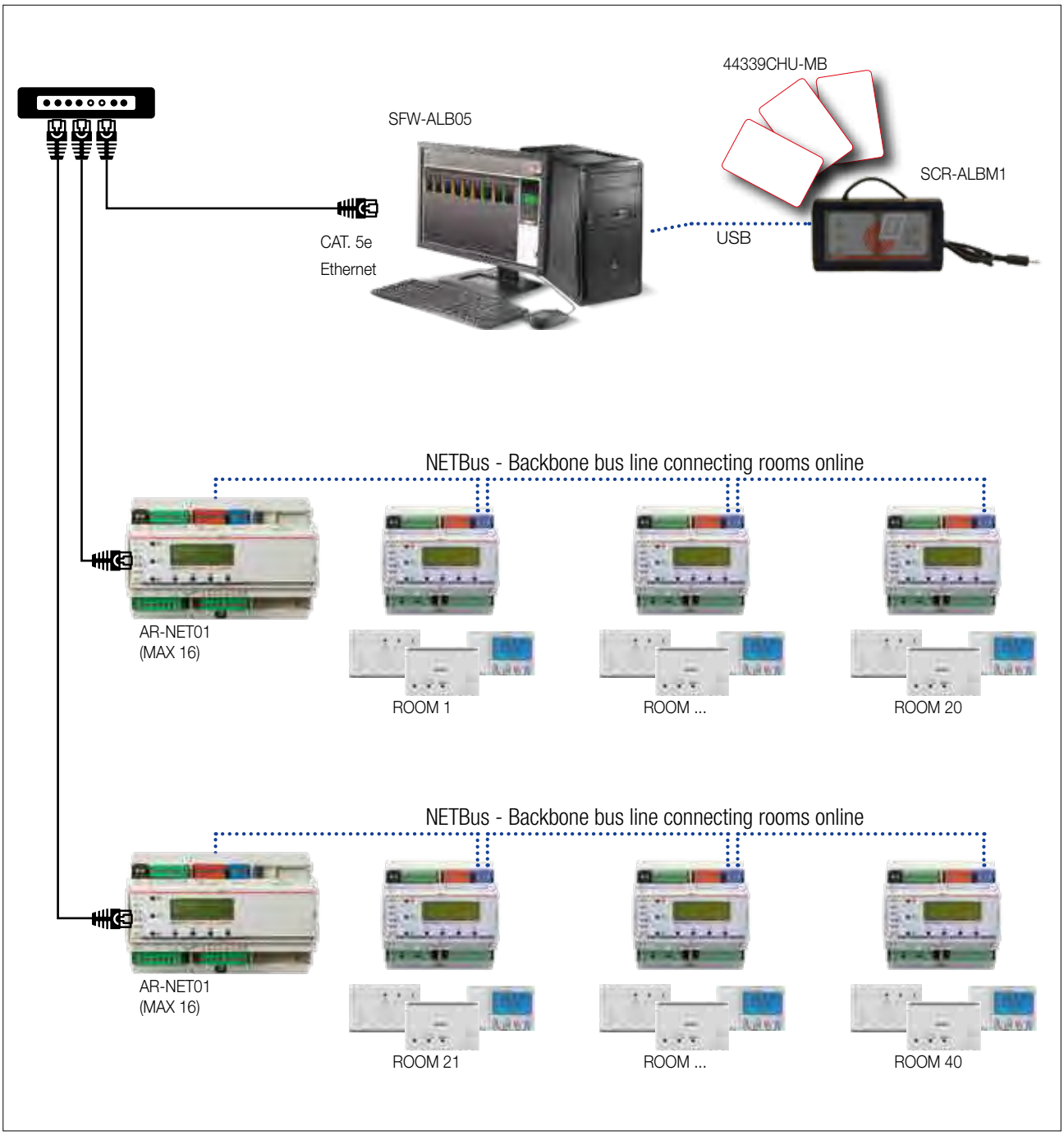
AR-NET01
Interface for online hotel management - 9 DIN modules

SFW-ALB05
Software for online hotel management (licence for 20 rooms)

SFW-ALB06
Software for online hotel management (licence for 50 rooms)

SFW-ALB07
Software for online hotel management (licence for more than 50 rooms)

FUNCTIONAL DIAGRAM



Summary table of DOMINA^{Hotel} Online system expansions with DOMINA^{plus}

Courtesy light		
Main External Reader (44xGA01-M Id. ARMBus 10)	**Output**	**Input**
Courtesy light - no. 1	Out 3-4	In. 2
Courtesy light - no. 1b	53ABR4 Id. 01	In. 2 - AVEbus Id. 01
Courtesy light - no. 2	53ABR4 Id.22	AVEbus Id. 22
Secondary External Reader (44xGA01-M Id. ARMBus 11)	**Output**	**Input**
Courtesy light - no. 1	Out 3-4	In. 2
Courtesy light - no. 1b	53ABR4 Id. 02	In. 2 - AVEbus Id. 02
Courtesy light - no. 2	53ABR4 Id. 23	AVEbus Id. 23
Room Light		
Room Control Unit (53AR01-485)	**Output**	**Input**
Light - no. 1	Out 16-19	In. 8 - AVEbus Id. 10
Expansion of Direct Control - DOMINAplus no. 2 - 17 (53ABR4)	AVEbus 30 - 3F	AVEbus 30 - 3F
Expansion of Direct Control - DOMINAplus no. 2 - 17 (441ABDI)	AVEbus 30 - 3F	AVEbus 30 - 3F
Expansion of Direct Control - no. C1	AVEbus 20	SFW-ALB05 Com.1
Expansion of Direct Control - no. C2	AVEbus 21	SFW-ALB05 Com.2
Expansion of Direct Control - no. C3	Out 14-15	SFW-ALB05 Com.3
Expansion of Direct Control - no. C6	Out 18-19	SFW-ALB05 Com.6
Main Internal Reader (44xGA30-M Id.. ARMBus 20)	**Output**	**Input**
Light - no. 1	Out 3-4	In. 1 - AVEbus Id. 15
Secondary Internal Reader (44xGA30-M Id. ARMBus 21)	**Output**	**Input**
Light - no. 1	Out 3-4	In. 1 - AVEbus Id. 16
Auxiliary Functions		
Room Control Unit (53AR01-485)	**Output**	**Input**
Electric lock	Out 10-11	In. 3 - AVEbus Id. 11
DOMINAplus Actuator (53ABR4)	**Output**	**Input**
Active auxiliary output during the Check-in status of the room	AVEbus 26	AVEbus 26
Active auxiliary output during the Check-out status of the room	AVEbus 27	AVEbus 27
Active auxiliary output for the Check-in status of the room	AVEbus 28	AVEbus 28
Active auxiliary output for the Check-out status of the room	AVEbus 29	AVEbus 29
Specific Room Functions		
Main Internal Reader (44xGA30-M Id.. ARMBus 20)	**Output**	**Input**
Do Not Disturb Sign	Out 5-8 LED (44xGA01-M)	Front button In. 5 (53AR01-485) AVEbus Id. 12
DOMINAplus Actuator (53ABR4)	**Output**	**Input**
Tidy Up Room Sign	AVEbus Id. 09	AVEbus Id. 08
Laundry Service Request Sign	AVEbus Id. 14	AVEbus Id. 13
Communication/Mail sign	AVEbus Id. 1A	
Automation of Door and Window Fittings		
DOMINAplus Actuator (44..ABRT01 - 442ABT4R2)	**Output**	**Input**
Output with Local Control for Shutters and Curtains - no. 1	AVEbus Id. 30	AVEbus Id. 30
Output with Local Control for Shutters and Curtains - no. ...	AVEbus Id. …	AVEbus Id. …
Output with Local Control for Shutters and Curtains - no. 16	AVEbus Id. 3F	AVEbus Id. 3F

442ABTC6

442ABTC1

442ABT4
442ABT4R2

442ABT2-1

441ABDI

441ABRT01

53ABR4

53AB-LIGHT

442ABTC1
1-channel AVE Touch transmitter - to be used with AVE Touch front plate - 1 module

442ABTC6
Multi Touch control device from 1 to 6 channels - 3 modules

☐ 441ABT6S **■ 445ABT6S** **■ 449ABT6S**
AVEbus control device with 6 "touch" Channels - Domus series - Tekla - Class - 3 modules
The device can be requested with customised front panel. Compatible with the plates: Vera 44, Technopolymer 44, Zama 44, Personal 44 and Young 44

■ 442ABT6S **■ 443ABT6S**
AVEbus control device with 6 "touch" Channels - Life series - Allumia - 3 modules
The device can be requested with customised front panel. Compatible with the plates: Vera 44, Technopolymer 44, Zama 44, Personal 44 and Young 44

442ABT2-1
Control device with 2 channels - to be completed with key - 1 module

442ABT4
Control device with 4 channels - to be completed with key - 2 modules

442ABT4R2
Control device with four channels and built-in multifunctional actuator - 10A resistive - 4A incandescent lights 4A COSφ 0.6 - 2 modules

☐ 441ABRT01 **■ 445ABRT01** **■ 449ABRT01**
Actuator for shutter motor with local control. It has two relays with interlocked contacts - 10A resistive - Domus series - Tekla - Class - 2 modules

■ 442ABRT01 **■ 443ABRT01**
Actuator for shutter motor with local control. It has two relays with interlocked contacts - 10A resistive - Life series- Allumia - 2 modules

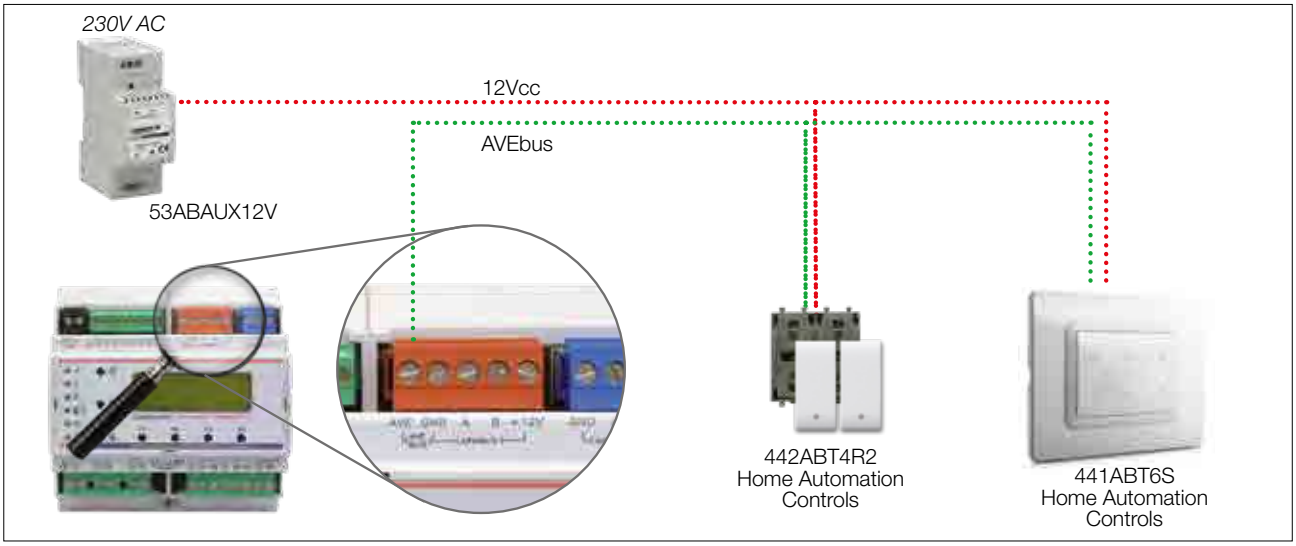
441ABDI
Dimmer actuator. Actuates "dimmer" type controls received from the transmitters. It can control a light regulator based on standard 1-10V - 10A resistive - Domus Touch series - 2 modules

53DIM010
Dimmer for 40-500W halogen and incandescent lamps, toroidal and ferromagnetic transformers from 40 to 300W 230Vac 50Hz - Adjustable with 10kΩ potentiometer (not provided) or with a 1-10Vdc signal from the actuator DOMINA 44..ABDI - 2 DIN modules

53ABR4
Actuator with 4 independent channels - 8A resistive and incandescent lamps 5A cosφ0.6 - 4 DIN modules

53AB-LIGHT
Two-way AVEbus interface device for lighting systems with DALI interface and DMX512 - 4 DIN modules

FUNCTIONAL DIAGRAM



Summary table of DOMINA^{Hotel} Online system expansions with DOMINA^{plus}

Room Temperature Control

Ambient Thermostat (44..GA53-M)	**Output**	**Input**
Summer / Winter Solenoid Output	Out 3-4	44..GA53-M (S. Local)
Fan Coil speed output	Out 3-6/7/8	44..GA53-M (S. Local)
DOMINAplus Actuator (ABRTM-PV - 44..ABRTM-PV - 53ABRTM-PV)	**Output**	**Input**
Winter Solenoid Valve Output - Temperature Zone no. 1	AVEbus Id. 10	44..GA53-M (Id.40)
Summer Solenoid Valve Output - Temperature Zone no. 1	AVEbus Id. 10	44..GA53-M (Id.40)
Winter Solenoid Valve Output - Temperature Zone no. 2 (External probe of 44..GA53-M)	AVEbus Id. 30	44..GA53-M (Id.40)
Summer Solenoid Valve Output - Temperature Zone no. 2 (External probe of 44..GA53-M)	AVEbus Id. 30	44..GA53-M (Id.40)
Winter Solenoid Valve Output - Temperature Zone no. 3	AVEbus Id. 50	44..GA53-M (Id.42)
Summer Solenoid Valve Output - Temperature Zone no. 3	AVEbus Id. 50	44..GA53-M (Id.42)
Winter Solenoid Valve Output - Temperature Zone no. 4 (External probe of 44..GA53-M)	AVEbus Id. 70	44..GA53-M (Id.42)
Summer Solenoid Valve Output - Temperature Zone no. 4 (External probe of 44..GA53-M)	AVEbus Id. 70	44..GA53-M (Id.42)
Winter Solenoid Valve Output - Temperature Zone no. 5	AVEbus Id. 90	44..GA53-M (Id.44)
Summer Solenoid Valve Output - Temperature Zone no. 5	AVEbus Id. 90	44..GA53-M (Id.44)
Winter Solenoid Valve Output - Temperature Zone no. 6 (External probe of 44..GA53-M)	AVEbus Id. B0	44..GA53-M (Id.44)
Summer Solenoid Valve Output - Temperature Zone no. 6 (External probe of 44..GA53-M)	AVEbus Id. B0	44..GA53-M (Id.44)
Winter Solenoid Valve Output - Temperature Zone no. 7	AVEbus Id. D0	44..GA53-M (Id.46)
Summer Solenoid Valve Output - Temperature Zone no. 7	AVEbus Id. D0	44..GA53-M (Id.46)
DOMINAplus Actuator (ABRTM-PV - 44..ABRTM-PV - 53ABRTM-PV)	**Output**	**Input**
General Hydraulic Solenoid Pump Output of the Room	AVEbus Id. F0	44..GA53-M (Id.40÷48)
DOMINAplus (53ABRTM-FC) Actuator	Output	Input
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 1	AVEbus Id. 20	44..GA53-M (Id.40)
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 2	AVEbus Id. 40	44..GA53-M (Id.41)
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 3	AVEbus Id. 60	44..GA53-M (Id.42)
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 4	AVEbus Id. 80	44..GA53-M (Id.43)
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 5	AVEbus Id. A0	44..GA53-M (Id.44)
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 6	AVEbus Id. C0	44..GA53-M (Id.45)
Summer / Winter Fan Coil Speed Output - Temperature Zone no. 7	AVEbus Id. D0	44..GA53-M (Id.46)
DOMINAplus Actuator (53ABR4)	**Output**	**Input**
Summer Season Contact Output	AVEbus Id. 05	SFW-ALB05 (Season)
Winter Season Contact Output	AVEbus Id. 06	SFW-ALB05 (Season)
Intermediate Season Contact Output	AVEbus Id. 07	SFW-ALB05 (Season)

53ABRTM-FC

53ABRTM-PV

ABRTM-PV
1-channel hidden actuator for valves and hydraulic solenoid pumps

☐ **441ABRTM-PV** ■ **445ABRTM-PV** ■ **449ABRTM-PV**
1-channel actuator for valves and hydraulic solenoid pumps - Domus series - Tekla - Class 1 module

■ **442ABRTM-PV** ■ **443ABRTM-PV**
1-channel actuator for valves and hydraulic solenoid pumps - Life series - Allumia
1 module

53ABRTM-PV
4-channel actuator for valves and hydraulic solenoid pumps - 1A - 2 DIN modules DIN

53ABRTM-FC
1-channel actuator for fancoils - 1A - 2 DIN modules DIN

53ABR4

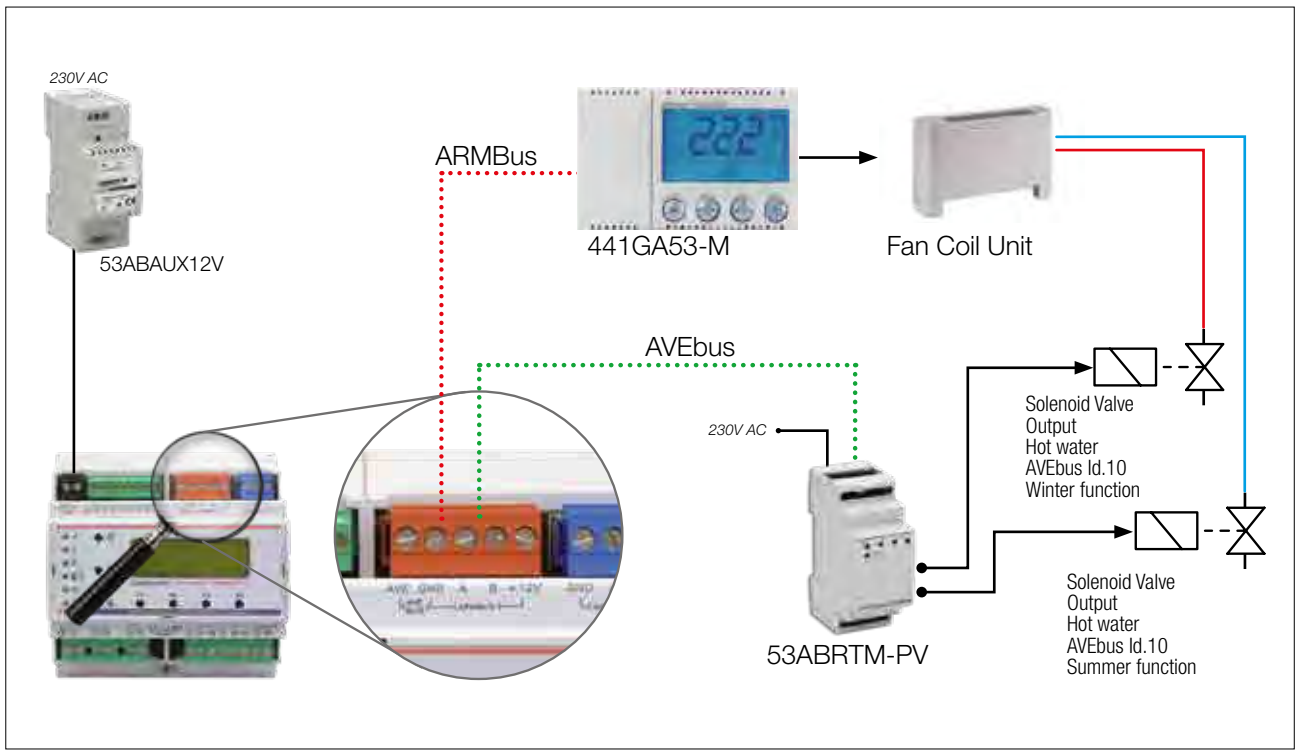
ABR01
1-channel hidden actuator - 2A resistive and incandescent lamps
2A COSφ 0,6 - dimensions (WxHxD) 54x41x18 mm

☐ **441ABR1-M** ■ **445ABR1-M** ■ **449ABR1-M**
1-channel actuator with memory status upon restoration of the mains power - 10A resistive or 4A incandescent lamps - 4A COSφ 0.6 - Domus series - Tekla - Class - 1 module

■ **442ABR1-M** ■ **443ABR1-M**
1-channel actuator with memory status upon restoration of the mains power - 10A resistive or 4A incandescent lamps - 4A COSφ 0.6 - Life series - Allumia - 1 module

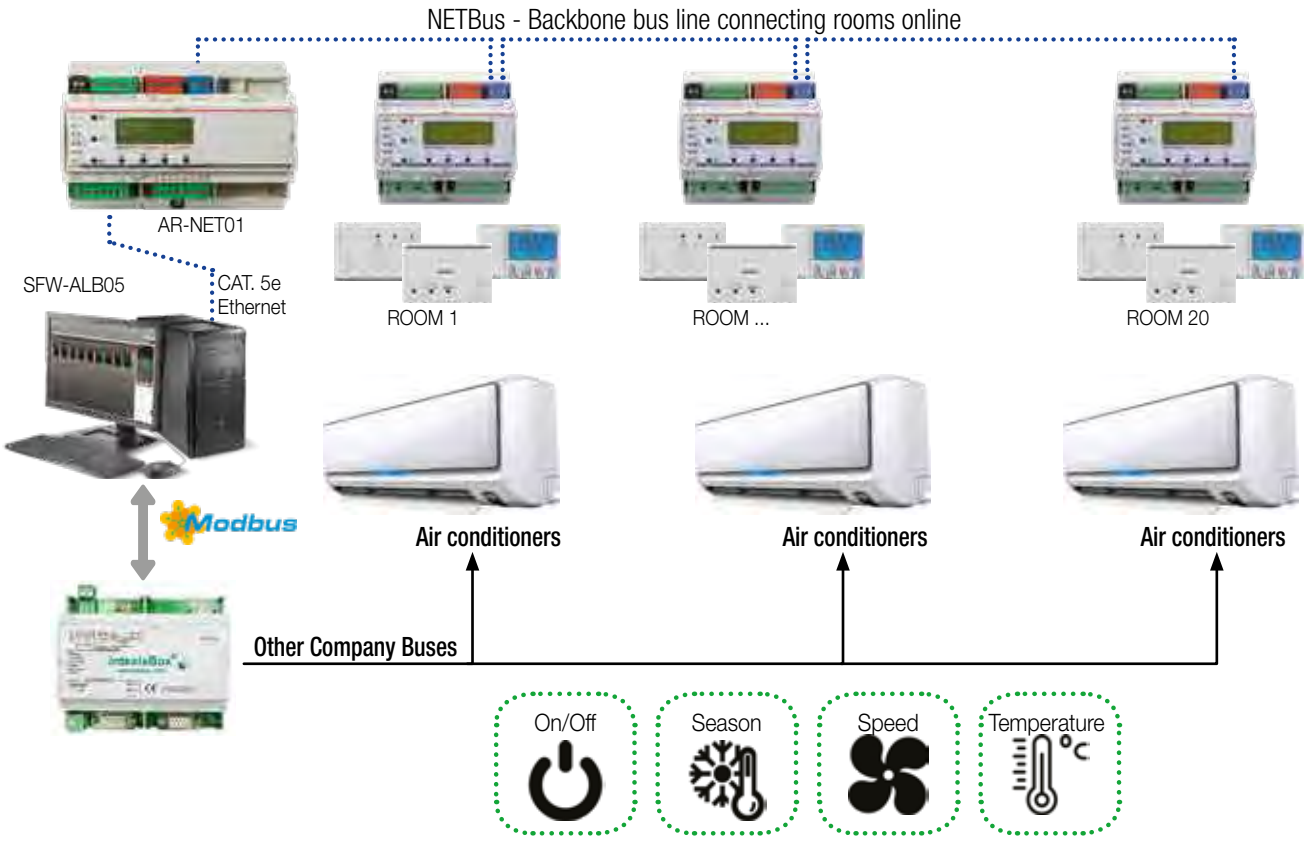
53ABR4
Actuator with 4 independent channels - 8A resistive and incandescent lamps - 5A cosφ 0.6 4 DIN modules

FUNCTIONAL DIAGRAM

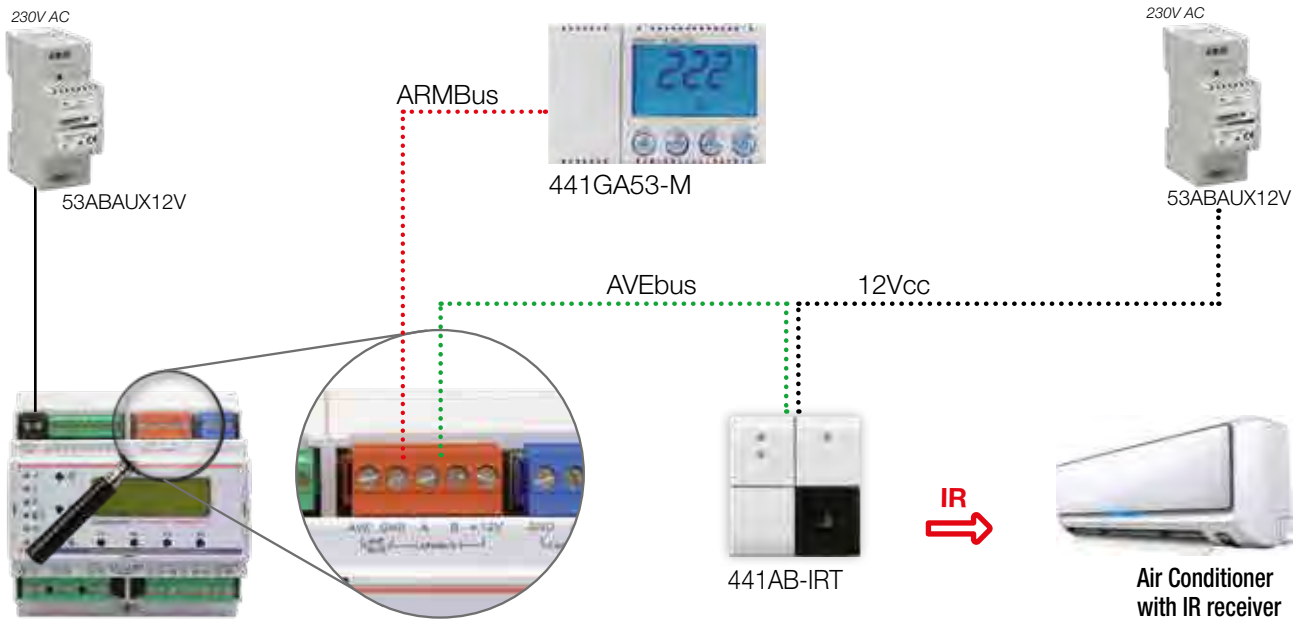


Integration with Modbus gateway for Air Conditioning control

The DOMINA^Hotel Online system interfaces with the leading brands used for central air conditioning by using the Modbus standard protocol.



Integration with IR Interface for Air Conditioning control



Warning:
The device must be installed opposite the domestic appliance to be managed; otherwise, the IR extension cable provided must be used with transmitting end attached to the IR receiver of the domestic appliance with dedicated double-sided sticky tape.

Air Conditioning - Control with Modbus Protocol

AR-NET01

53AR01-485
53AR02-485

441GA53-M

□ **441GA53-M** ■ **445GA53-M** ■ **449GA53-M**
Ambient thermostat for Hotel Management - Domus series - Tekla - Class - 3 modules. Device suitable to operate in both Stand Alone and Supervised "Online" mode. It has relay outputs to control the solenoid valve and fan coil speed, and its analogue input detects the window status and/or the client's presence in the room. A second analogue input allows to measure the ambient temperature of a second temperature zone, whose solenoid valve is activated by the room control unit 53GA0x-485

■ **442GA53-M** ■ **443GA53-M**
As above - Life series - Allumia - 3 modules.

53AR01-485
Room control unit for online hotel management - 6 DIN modules

53AR02-485
Common area control unit for online hotel management system - 6 DIN modules

AR-NET01
Interface for online hotel management - 9 DIN modules

SFW-ALB05
Software for online hotel management (licence for 20 rooms)

SFW-ALB06
Software for online hotel management (licence for 50 rooms)

SFW-ALB07
Software for online hotel management (licence for more than 50 rooms)

Air Conditioning - Control with cod. 44..AB-IRT

441AB-IRT

445AB-IRT

442AB-IRT

443AB-IRT

□ **441AB-IRT** ■ **445AB-IRT** ■ **449AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems - Domus series - Tekla - Class - 2 modules

■ **442AB-IRT** ■ **443AB-IRT**
Infra-red transmitter for interfacing with air conditioning systems Life series - Allumia 2 modules

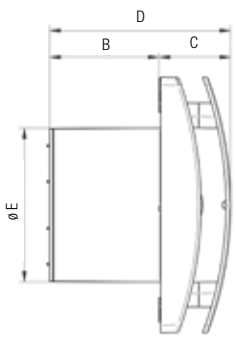
Low and Very Low Consumption

Silent

Long Life

Automatic Tabs

DIMENSIONS (MM)



Code	A	B	C	D	ØE
VND90 - VND90T	164	55	46	101	90
VND100 - VND100T - VND100HT	164	70	46	116	99
VND120 - VND120T - VND120HT	184	81	48	129	119
VND150 - VND150T - VND150HT	218	97	52	149	148
VND100B - VND100TB	164	70	46	116	99

"AXIAL" extraction fans - Control with Volt Free Contact Consent

VND90
VND90T

VND90
Axial extraction fan d90mm - front design - ball bearing motor (long life) - maximum capacity 55 m3/h - for installation in bathrooms, toilets and small living areas. Basic version.

VND90T
Axial extraction fan d90mm - front design - ball bearing motor (long life) - maximum capacity 55 m3/h - for installation in bathrooms, toilets and small living areas.
Timer version

VND100
VND100T
VND100HT

VND100
Axial extraction fan d100mm - front design - ball bearing motor (long life) - maximum capacity 83 m3/h - for installation in bathrooms, toilets and small living areas.
Basic version.

VND100T
Axial extraction fan d100mm - front design - ball bearing motor (long life) - maximum capacity 83 m3/h - for installation in bathrooms, toilets and small living areas.
Timer version

VND100HT
Axial extraction fan d100mm - front design - ball bearing motor (long life) - maximum capacity 83 m3/h - for installation in bathrooms, toilets and small living areas.
Humidistat & timer version.

VND120
VND120T
VND120HT

VND120
Axial extraction fan d120mm - front design - ball bearing motor (long life) - maximum capacity 140 m3/h - for installation in bathrooms, toilets and small/medium living areas.
Basic version.

VND120T
Axial extraction fan d120mm - front design - ball bearing motor (long life) - maximum capacity 140 m3/h - for installation in bathrooms, toilets and small/medium living areas.
Timer version.

VND120HT
Axial extraction fan d120mm - front design - ball bearing motor (long life) - maximum capacity 140 m3/h - for installation in bathrooms, toilets and small/medium living areas.
Humidistat & timer version.

VND150
VND150T
VND150HT

VND150
Axial extraction fan d150mm - front design - ball bearing motor (long life) - maximum capacity 253 m3/h - for installation in bathrooms, toilets and medium size living areas.
Basic version.

VND150T
Axial extraction fan Ø150 mm - front design - ball bearing motor
(long life) - maximum capacity 253 m3/h - for installation in bathrooms, toilets and medium living areas. Timer version.

VND150HT
Axial extraction fan Ø150 mm - front design - ball bearing motor
(long life) - maximum capacity 253 m3/h - for installation in bathrooms, toilets and medium living areas. Humidistat & timer version.

Axial fans IPX4 -"AXIAL"- with sleeve bearing motor

VND100B
VND100TB

VND100B
Axial fan Ø100mm - stylish front cover - sleeve bearing motor - max air flow 83 m3/h - for installation in bathrooms, toilets and small living areas.
Basic version.

VND100TB
Axial fan Ø100mm - stylish front cover - sleeve bearing motor - max air flow 83 m3/h - for installation in bathrooms, toilets and small living areas.
Timer version.

AC502
Addressed control unit with 2 loops:
- 240 devices for each loop
- 100 logic zones
- Loop current 500mA
- management by PC with USB or LAN connections
- CPR certification of the control unit and of all related peripheral units

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ACINT01
LAN interface for series “500” fire-prevention control units·

The automatic fire detection systems can be integrated with the DOMINA[hotel] hotel management system and with the DOMINA[plus] home automation systems produced by AVE.

AC501

AC502

ACINT01

AC500P

AC501
1-loop fire detection control unit with capacity for 240 devices.
100 logic zones, loop current: 500mA. Programming by USB port.
Dimensions (420 x 360 x 85 mm). To be completed with 2 AF912 batteries.

AC502
Double loop fire detection control unit. Possibility to connect 240 devices for each loop. 100 logic zones, loop current: 500mA. Programming by USB port. Dimensions (420 x 360 x 85 mm). To be completed with two AF912 batteries.

AC502EX2L
2-loop expansion board for AC502 control unit.

ACINT01
LAN interface for series “500” fire-prevention control units. Allows integration with “DOMINA hotel” hotel management and “DOMINA Plus” home automation systems.

AC500P
Programming unit for "500" series. It allows the programming of
all the "500" series peripheral units (modules, detectors, buttons, sirens).

AC500PRA
Active remote panel for control units A501 and AC502. If there is only one panel in a system use an AC500RS485 interface. If there are two or more panels in a system, a single AC500RS485 interface is sufficient.

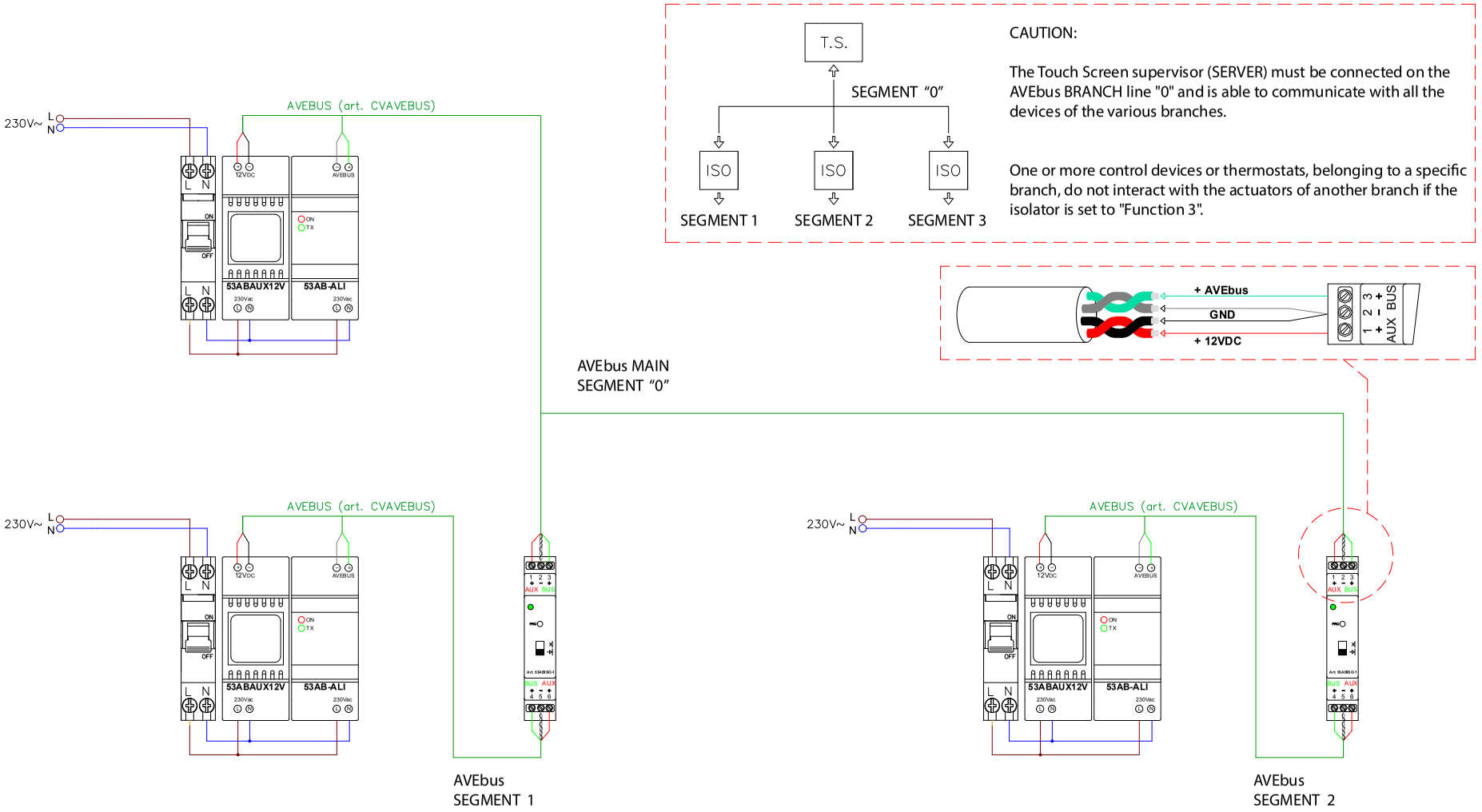
AC500RS485
RS485 interface for AC501 and AC502 control units. It allows the configuration of a RS485 network where it is allowed to:
• Connect a number of control units in a network. Each control unit requires an interface AC500RS485.
• Connect one or more remote panels.

Note: programme the devices with the programmer AC500P before installing them.

These Specifications offer the professional general guidelines for rapid access to the information required to know, design and install a home automation system implemented in a workmanlike way.
Please note that all devices and suitable systems for the creation of home automation systems must be used in compliance with standards CEI 64-8 VII edition 2012, and in compliance with Decree no. 37 of January 2008 relative to provisions regarding system installation activities inside buildings, with special reference to articles 6.1, 2.d and 2.f.
AVE S.p.A. products are intended for installation. Products and accessories must be installed by qualified personnel. The products must be installed and used for the intended use and in compliance with the standards applicable to the various types of plants, taking account of the instructions in the catalogue and instruction leaflets. However, before putting the products installed into service, the system must be tested by inspection personnel to ascertain that it is working, and in observance of the safety standards, as indicated by the legislation in force. AVE S.p.A. reserves the right to modify and improve its products shown in the catalogue and present in the price list without notice due to the constant process of adapting to changes in production, technology and standards. The product information sheet and other equivalent documentation can be obtained on request from the Technical Assistance Department of AVE SpA. Please visit the corporate website for updates and data confirmation (www.ave.it).

Extension of the AVEbus line

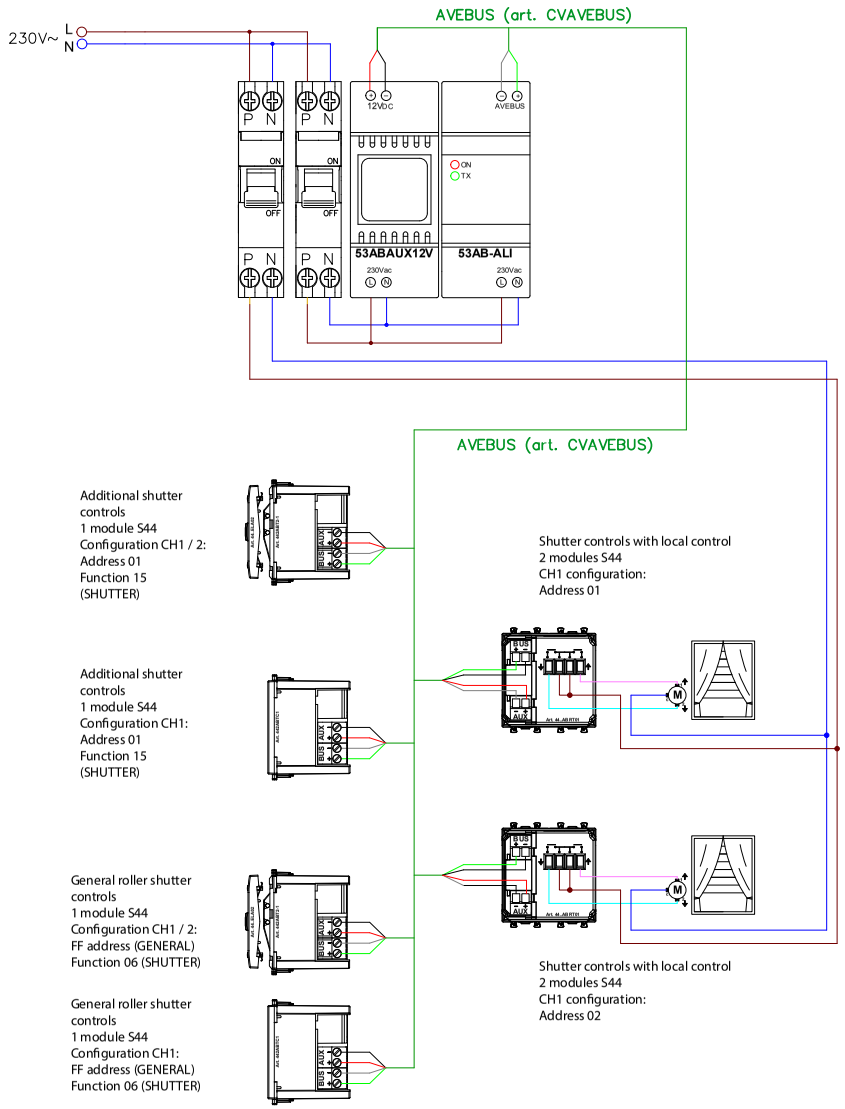
Example of connecting an AVEbus system to several branches using the line isolator art. 53ABISO-1



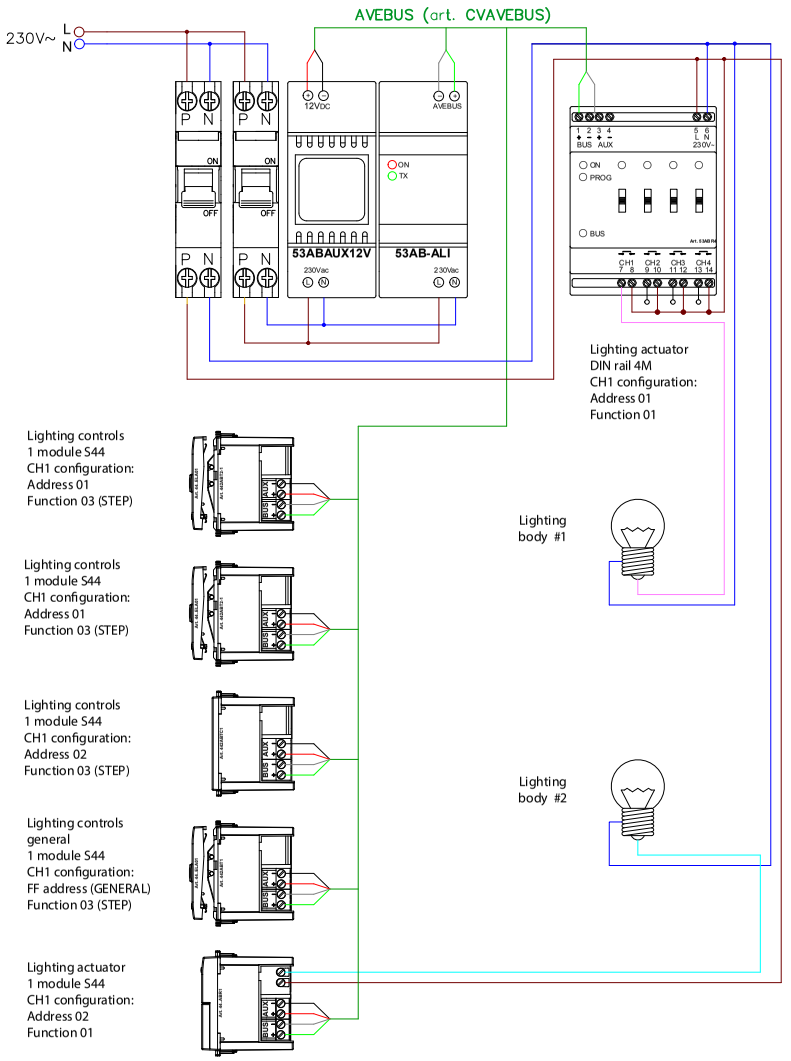
Shutter and lighting control commands and actuators

Example of connection of home automation transmitters and actuators for management and automation of lighting and shutters

Shutters function controls and actuators

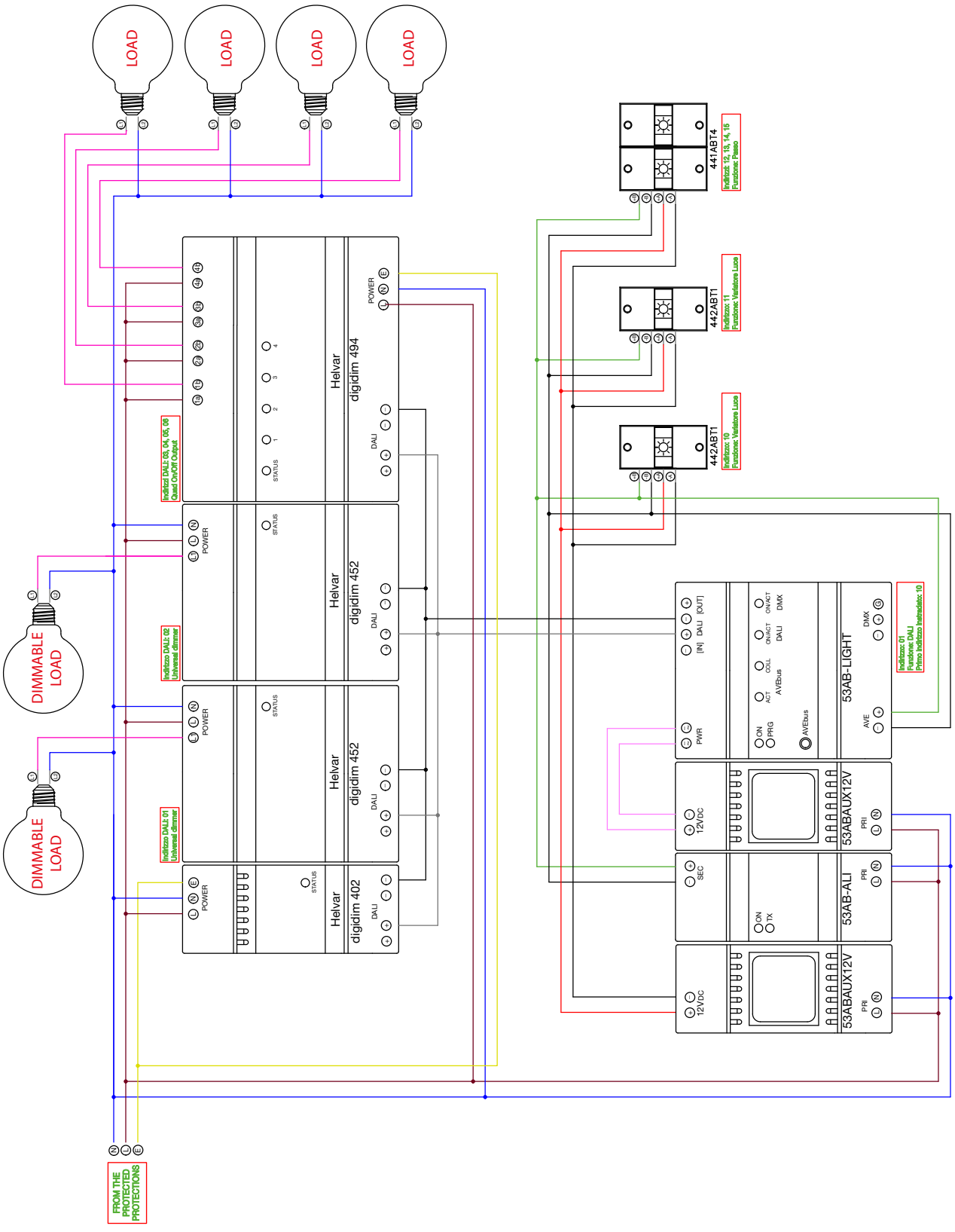


Controls and lighting function actuators



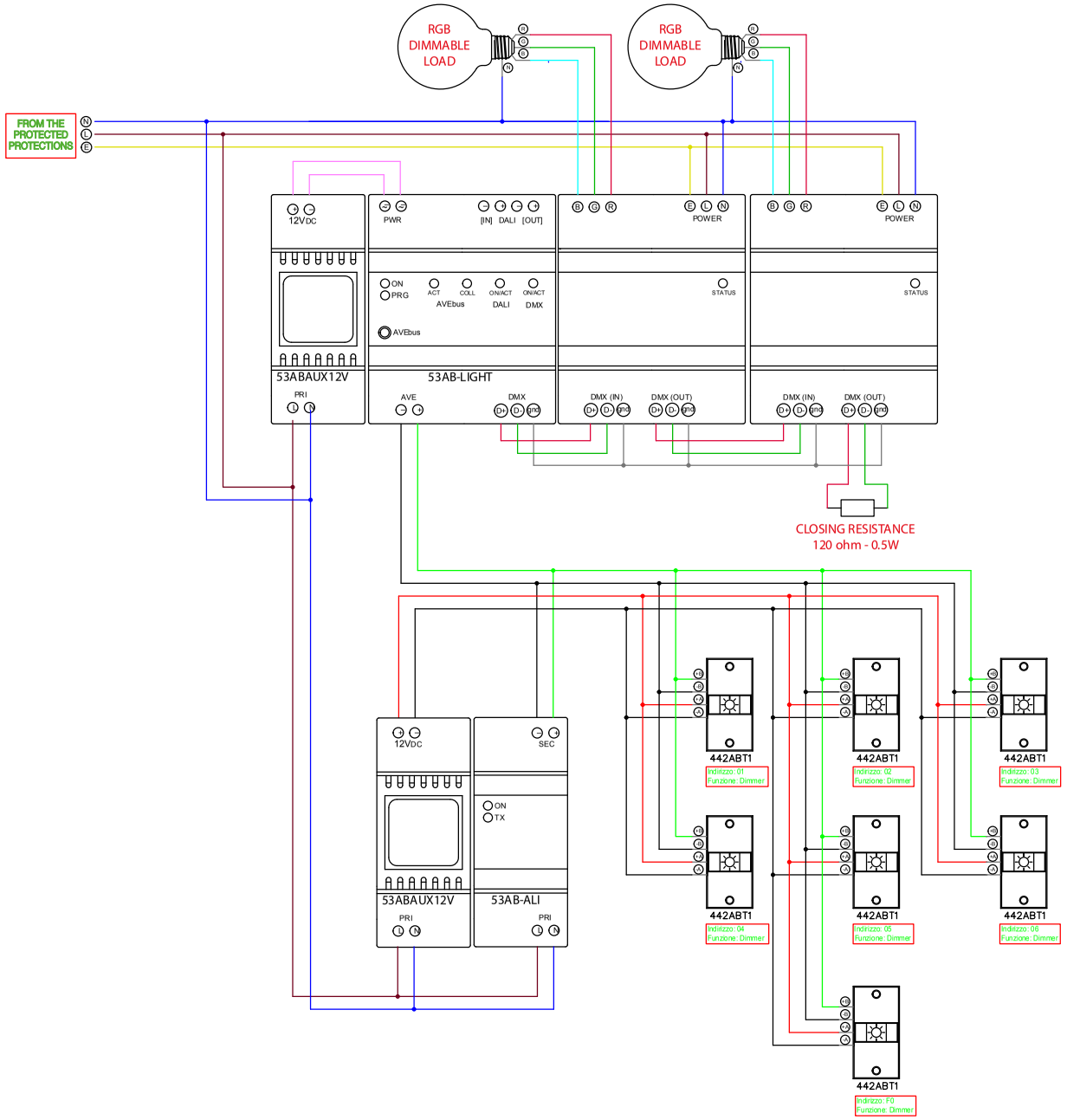
DALI / DMX lighting management

Example of connection of a DALI lighting management home automation system with 2 dimmable loads and 2 ON / OFF loads



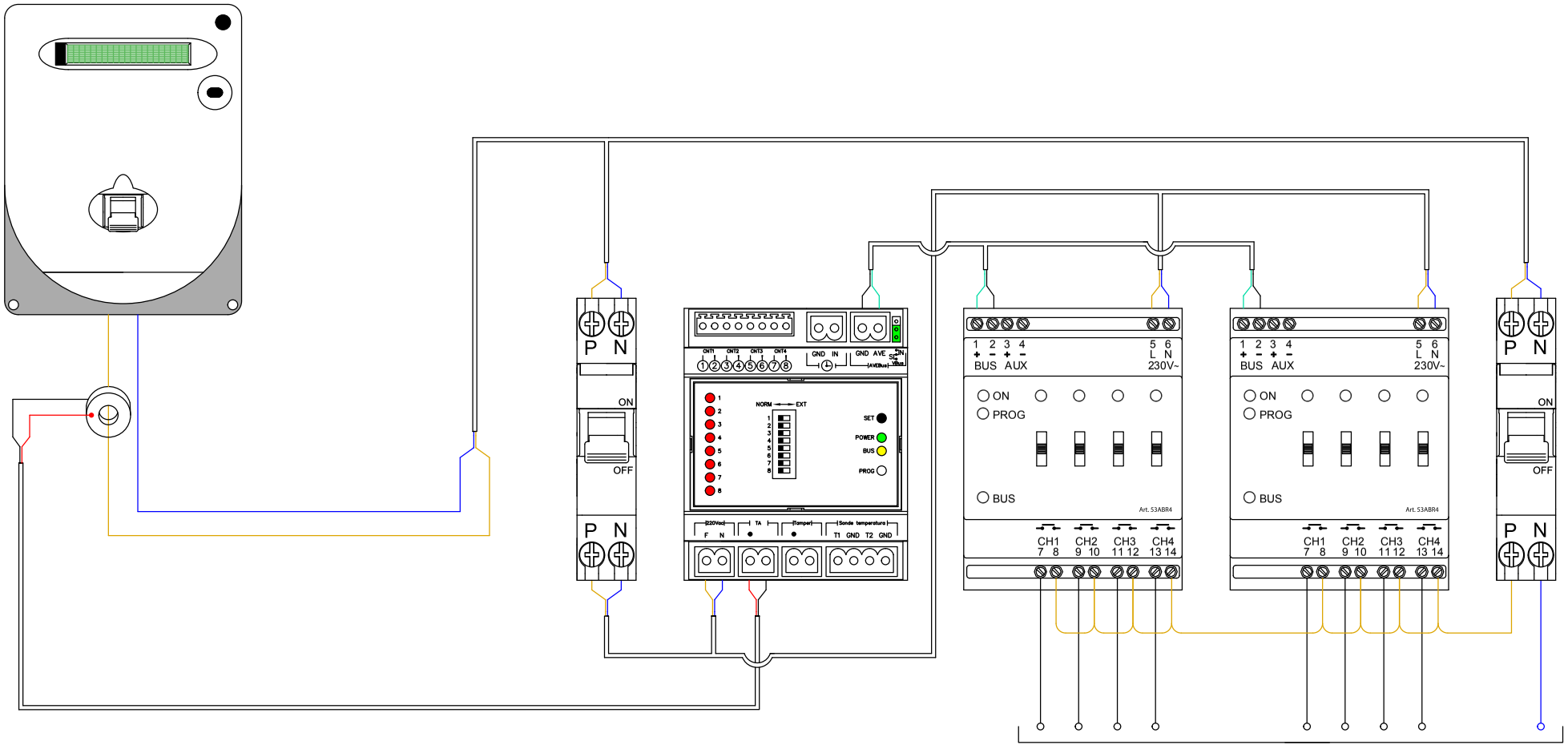
DALI / DMX lighting management

Example of connection of a DMX lighting management home automation system with 2 dimmable RGB loads controlled by single transmitters (RGB management) + general OFF command.



Home automation load control

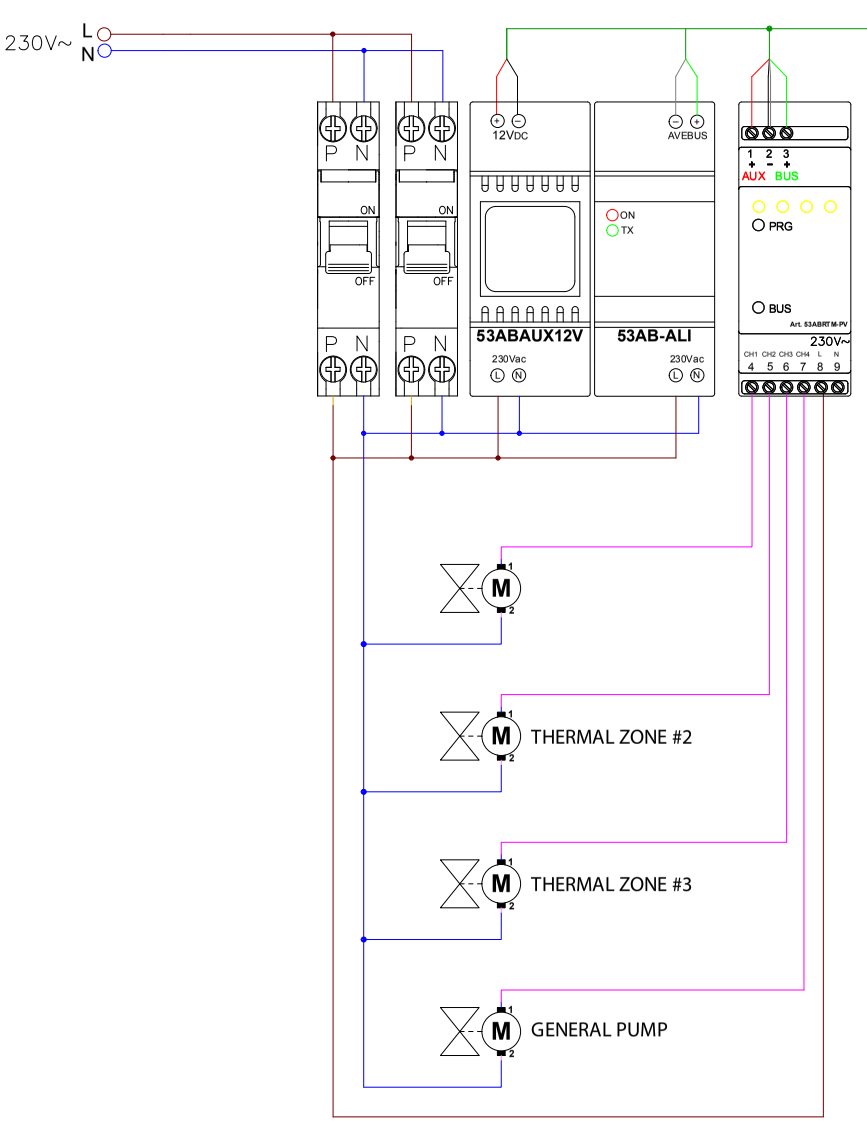
Example of connection of a home automation system with economizer device for energy management art. ECO-53AB



Line 230V ~ for electrically controlled loads.
Depending on the load, dimension any type N.A.

3 Zone Thermoregulation + General Pump

Example of connection of a 3-zone thermo-regulation domotic management system + general delivery pump

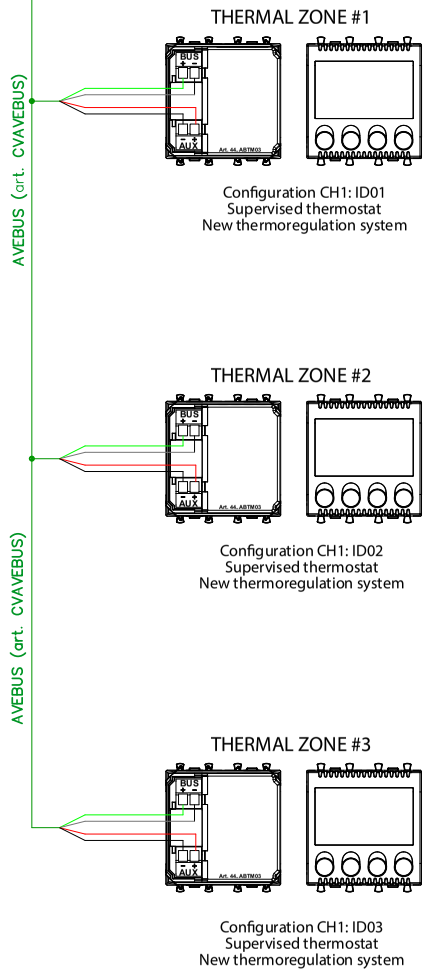


53ABRTM-PV configuration
CH1: ID01
Function 01
Parameter 1: Delay 1 sec.
Parameter 2: Last ID 01X01
Parameter 3: Valve Actuator
Parameter 4: Main Actuator

CH2: ID02
Function 01
Parameter 1: Delay 1 sec.
Parameter 2: Last ID 0X01
Parameter 3: Valve Actuator
Parameter 4: Main Actuator

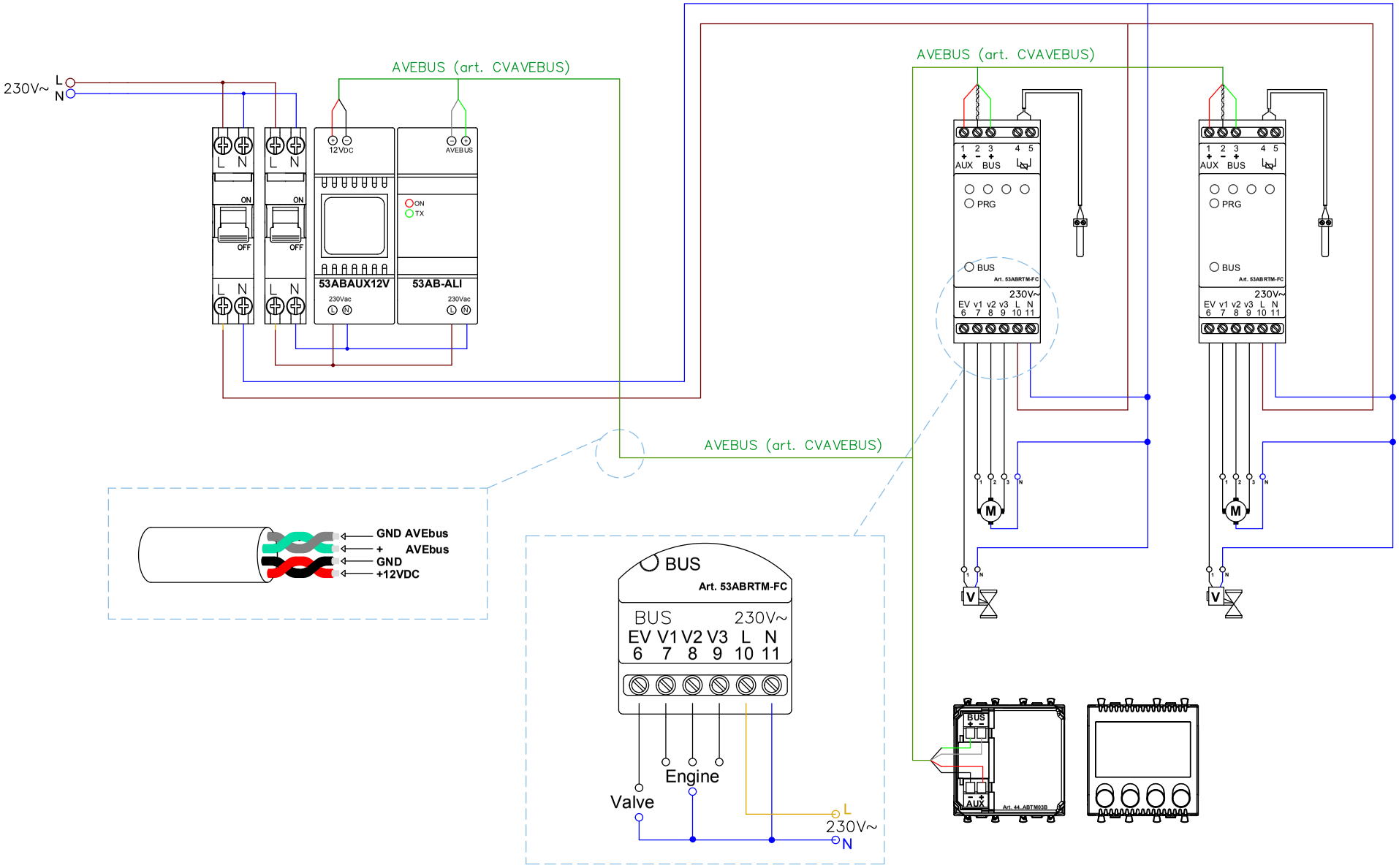
CH3: ID03
Function 01
Parameter 1: Delay 1 sec.
Parameter 2: Last ID 0X01
Parameter 3: Valve Actuator
Parameter 4: Main Actuator

CH4: ID01
Function 01
Parameter 1: Delay 1 sec.
Parameter 2: Last ID 0X03
Parameter 3: Pump Actuator
Parameter 4: Main Actuator



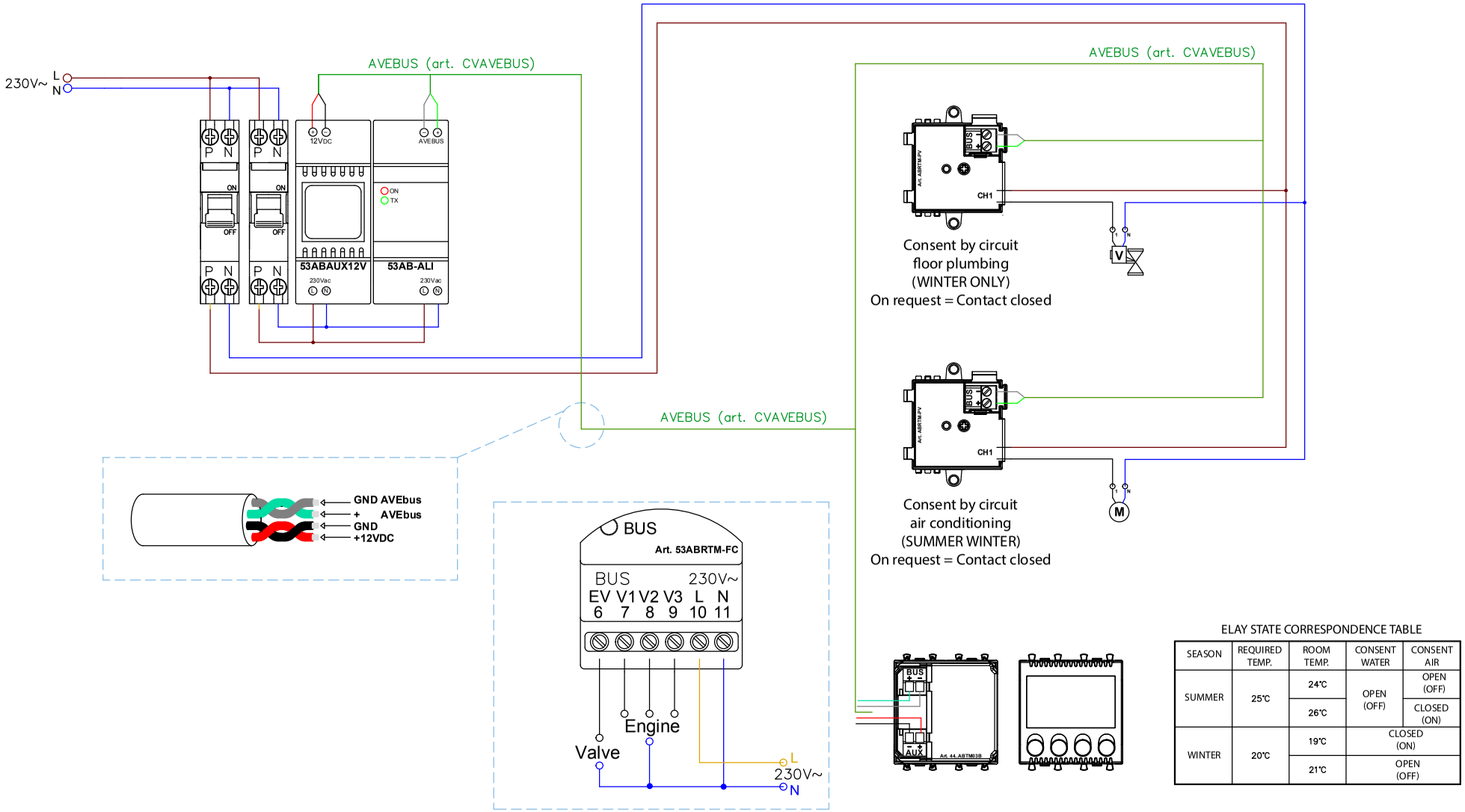
Thermoregulation with fan coils

Example of connection of a thermoregulation management home automation system with fan coils



Air - water thermoregulation

Example of connection of a home automation system with hydraulic temperature control + air conditioning consent

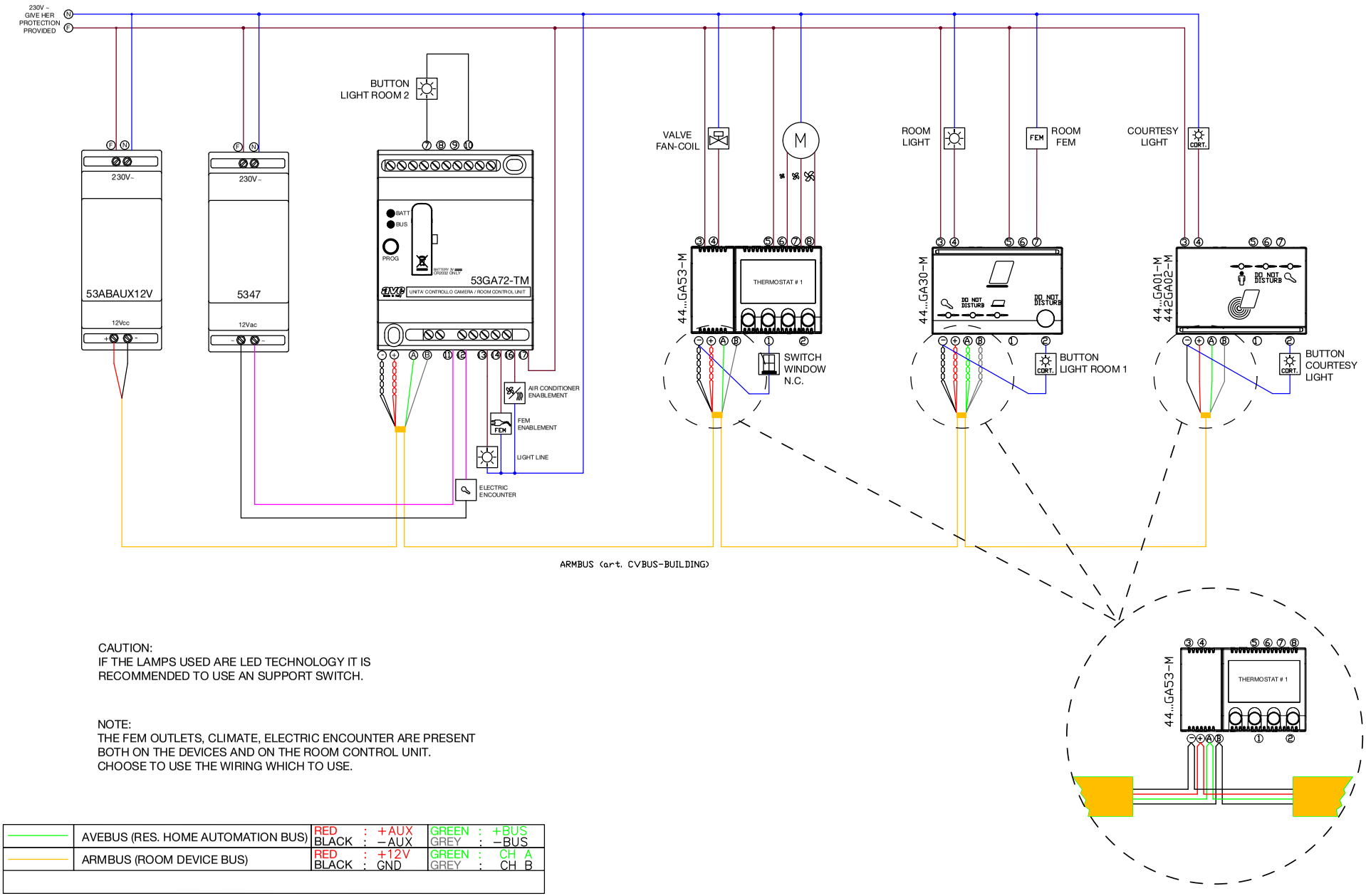


ELAY STATE CORRESPONDENCE TABLE

SEASON	REQUIRED TEMP.	ROOM TEMP.	CONSENT WATER	CONSENT AIR
SUMMER	25°C	24°C	OPEN (OFF)	OPEN (OFF)
		26°C		CLOSED (ON)
WINTER	20°C	19°C	CLOSED (ON)	
		21°C	OPEN (OFF)	

Stand-alone hotel management

Connection scheme of a system with room control unit, external reader, internal reader and thermostat



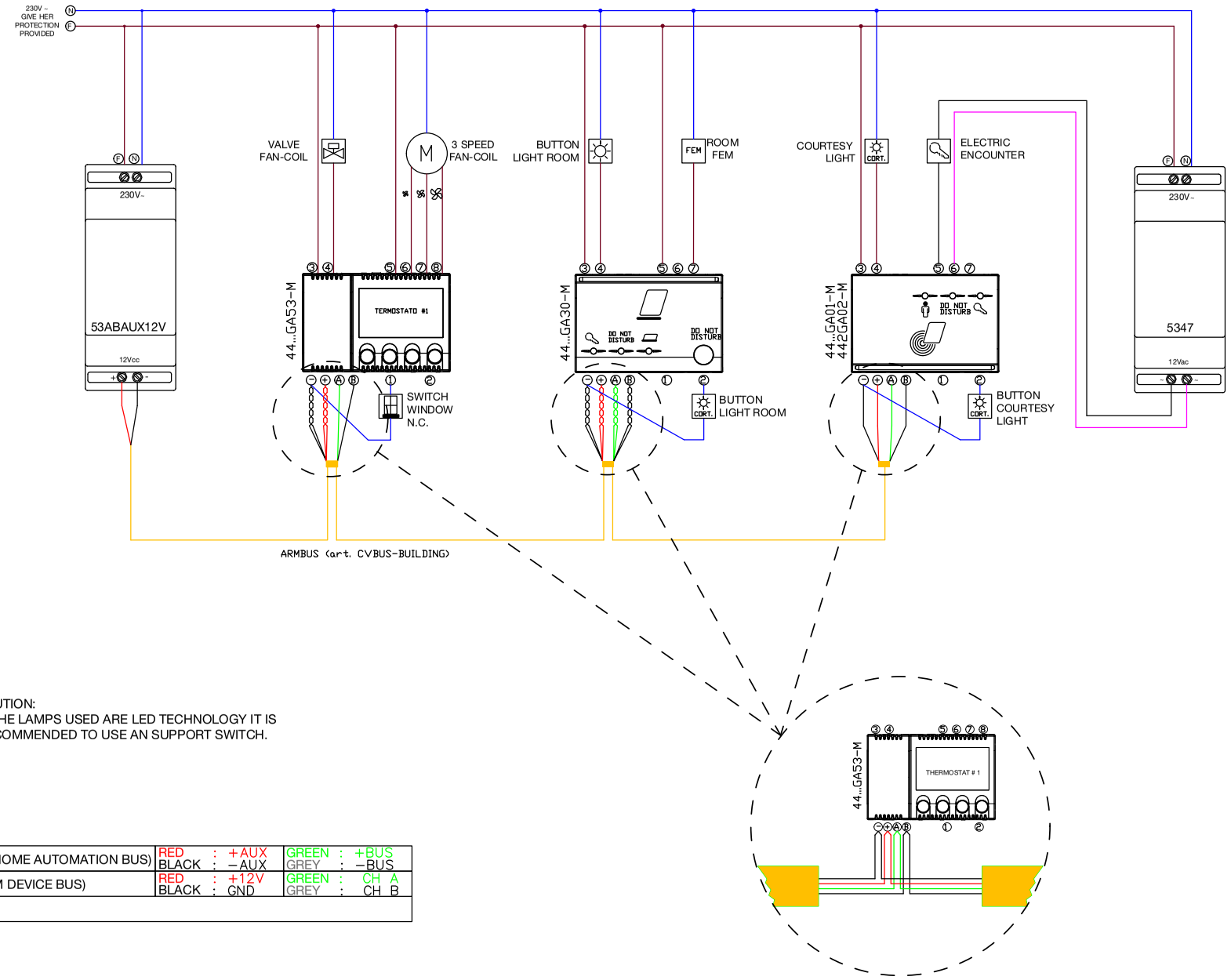
CAUTION:
IF THE LAMPS USED ARE LED TECHNOLOGY IT IS RECOMMENDED TO USE AN SUPPORT SWITCH.

NOTE:
THE FEM OUTLETS, CLIMATE, ELECTRIC ENCOUNTER ARE PRESENT BOTH ON THE DEVICES AND ON THE ROOM CONTROL UNIT.
CHOOSE TO USE THE WIRING WHICH TO USE.

AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX	GREEN : +BUS GREY : −BUS
ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND	GREEN : CH A GREY : CH B

Stand-alone hotel management

Connection scheme of a system without a room control unit

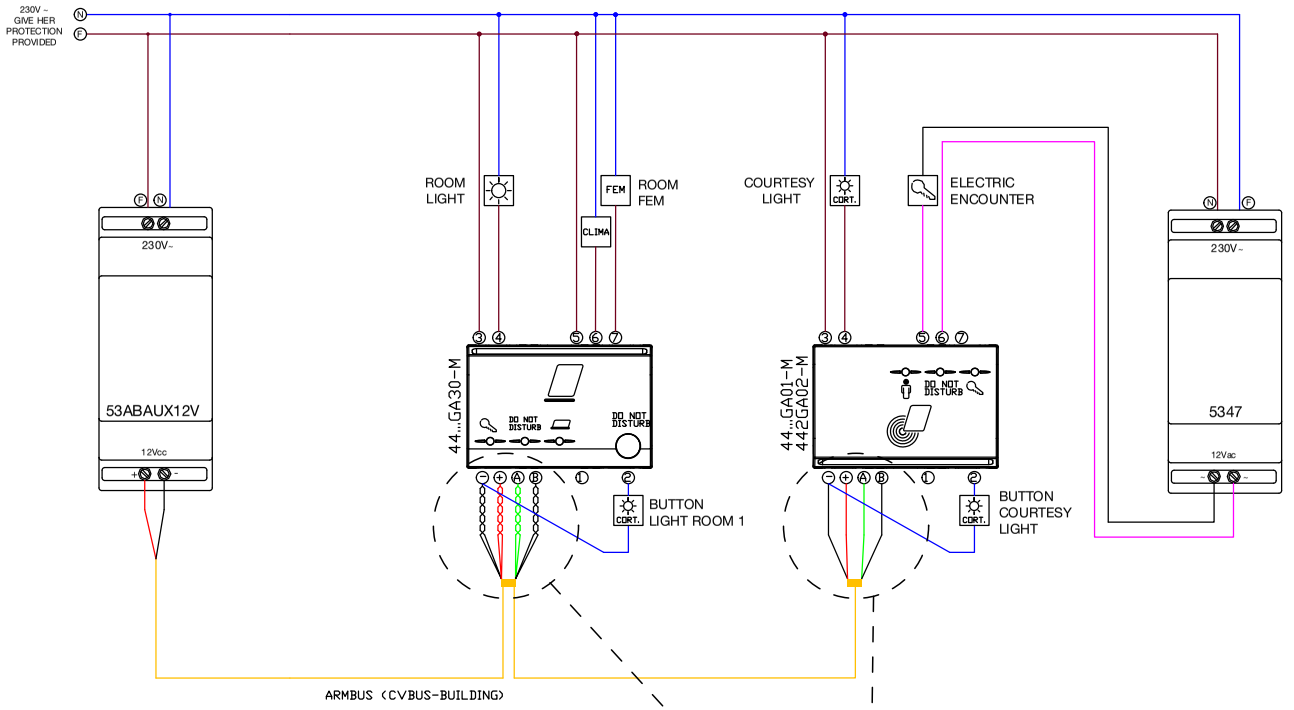


CAUTION:
IF THE LAMPS USED ARE LED TECHNOLOGY IT IS RECOMMENDED TO USE AN SUPPORT SWITCH.

	AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX		GREEN : +BUS GREY : −BUS	
	ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND		GREEN : CH A GREY : CH B	

Stand-alone hotel management

Connection scheme of a system with external reader + internal reader



CAUTION:
IF THE LAMPS USED ARE LED TECHNOLOGY IT IS RECOMMENDED TO USE AN SUPPORT SWITCH.

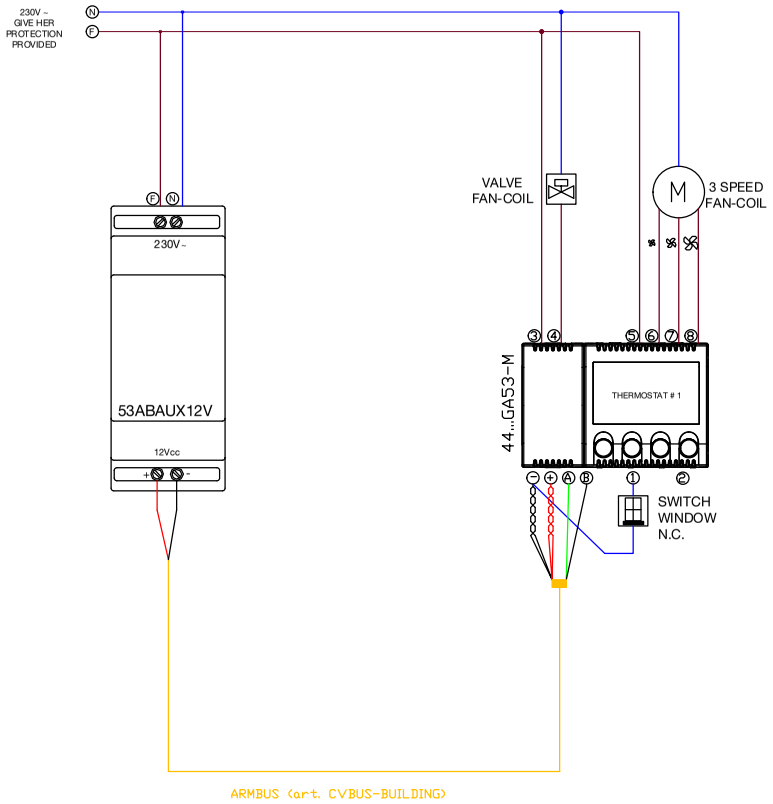
AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX	GREEN : +BUS GREY : −BUS
ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND	GREEN : CH A GREY : CH B
MAX RANGE CONTACTS OF THE RELAYS OF THE DEVICES = 5A RES. O 3A IND.		

Stand-alone hotel management

Connection diagram for temperature control without room control unit

ATTENTION IF THE LAMPS USED
THEY ARE LED TECHNOLOGY IS RECOMMENDED
USE A HANDSET CONTACTOR

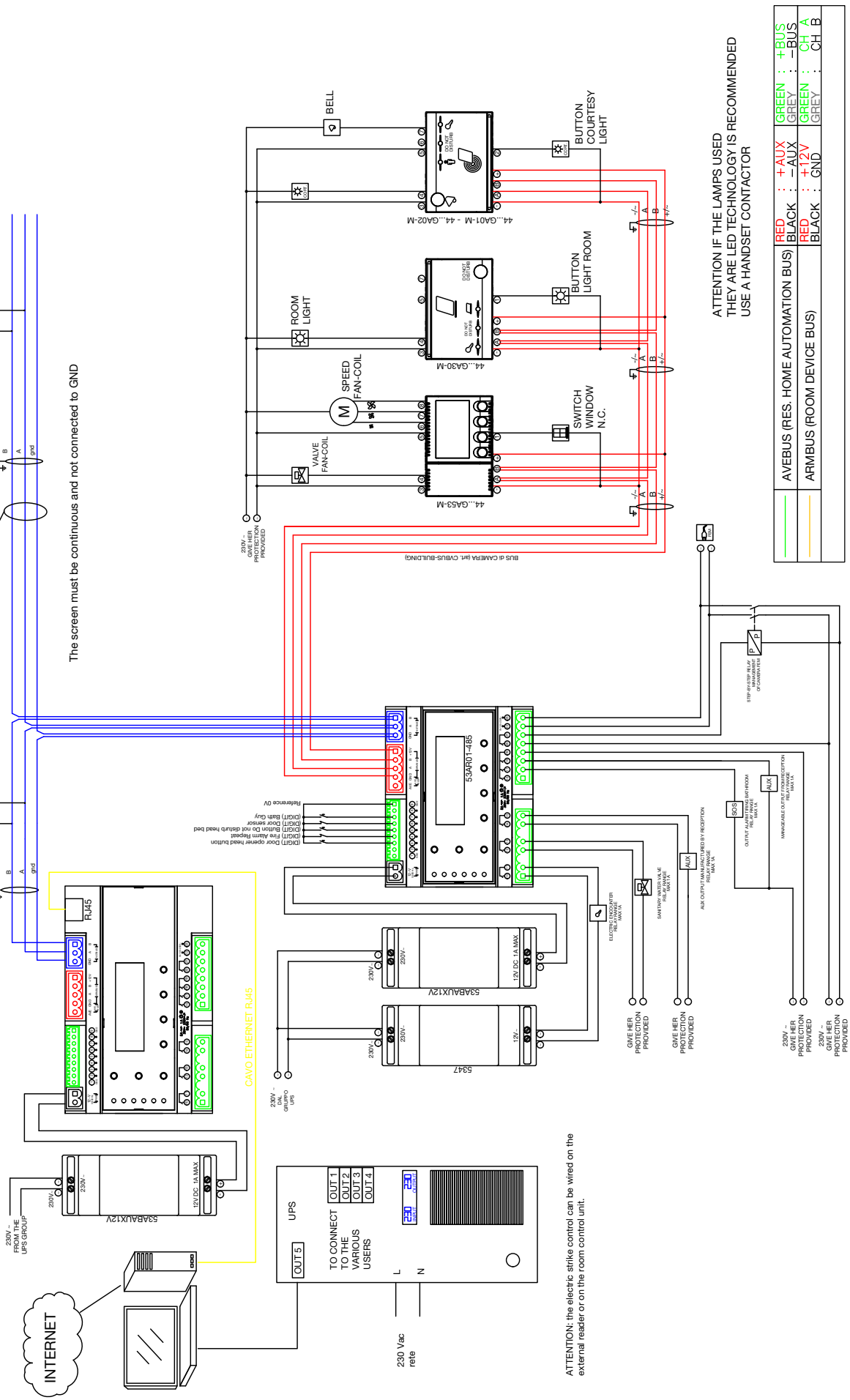
AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX	GREEN : +BUS GREY : −BUS
ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND	GREEN : CH A GREY : CH B
MAX RANGE CONTACTS OF THE RELAYS OF THE DEVICES = 5A RES. O 3A IND.		



TO ACCESS THE PARAMETERS OF THE THERMOSTAT PRESS THE TWO AT THE SAME TIME "ARROW" BUTTONS FOR 3 SECONDS TO ACCESS THE MENUS AND / OR CONFIRM PRESS THE "FAN" BUTTON.	
PARAMETER 1	SEASON
PARAMETER 2	TEMPERATURE MOD. COMFORT SUMMER
PARAMETER 3	TEMPERATURE MOD. SUMMER SAVINGS
PARAMETER 4	TEMPERATURE MOD. COMFORT WINTER
PARAMETER 5	TEMPERATURE MOD. WINTER SAVING
PARAMETER 6	HYSTERESIS
PARAMETER 7	DELTA TEMPERATURE
PARAMETER 8	THERMOSTAT OFFSET
PARAMETER 9	DEVICE ADDRESS

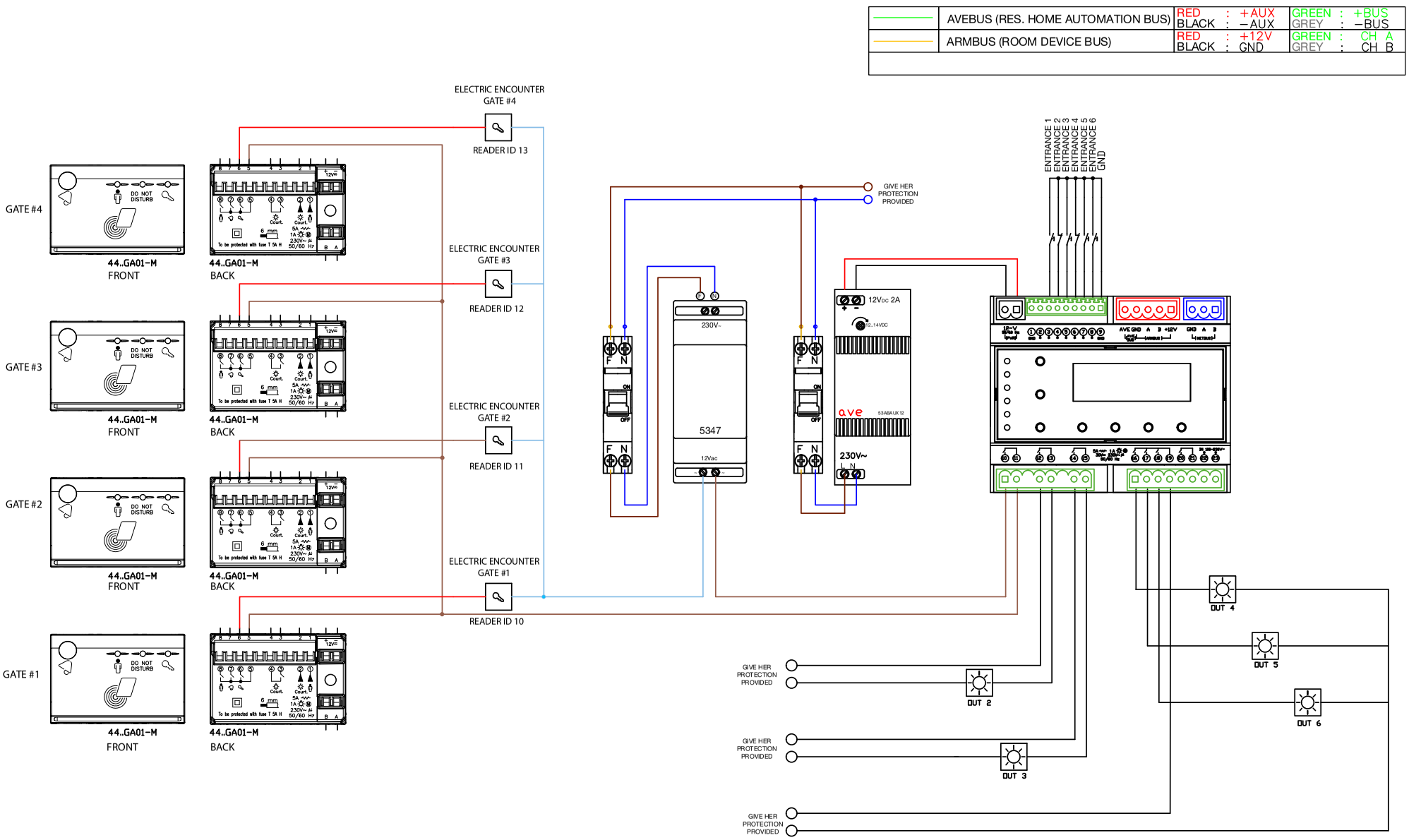
Online Hotel Management

Connection scheme of a network system with ethernet concentrator, room control unit, external reader, internal reader and thermostat



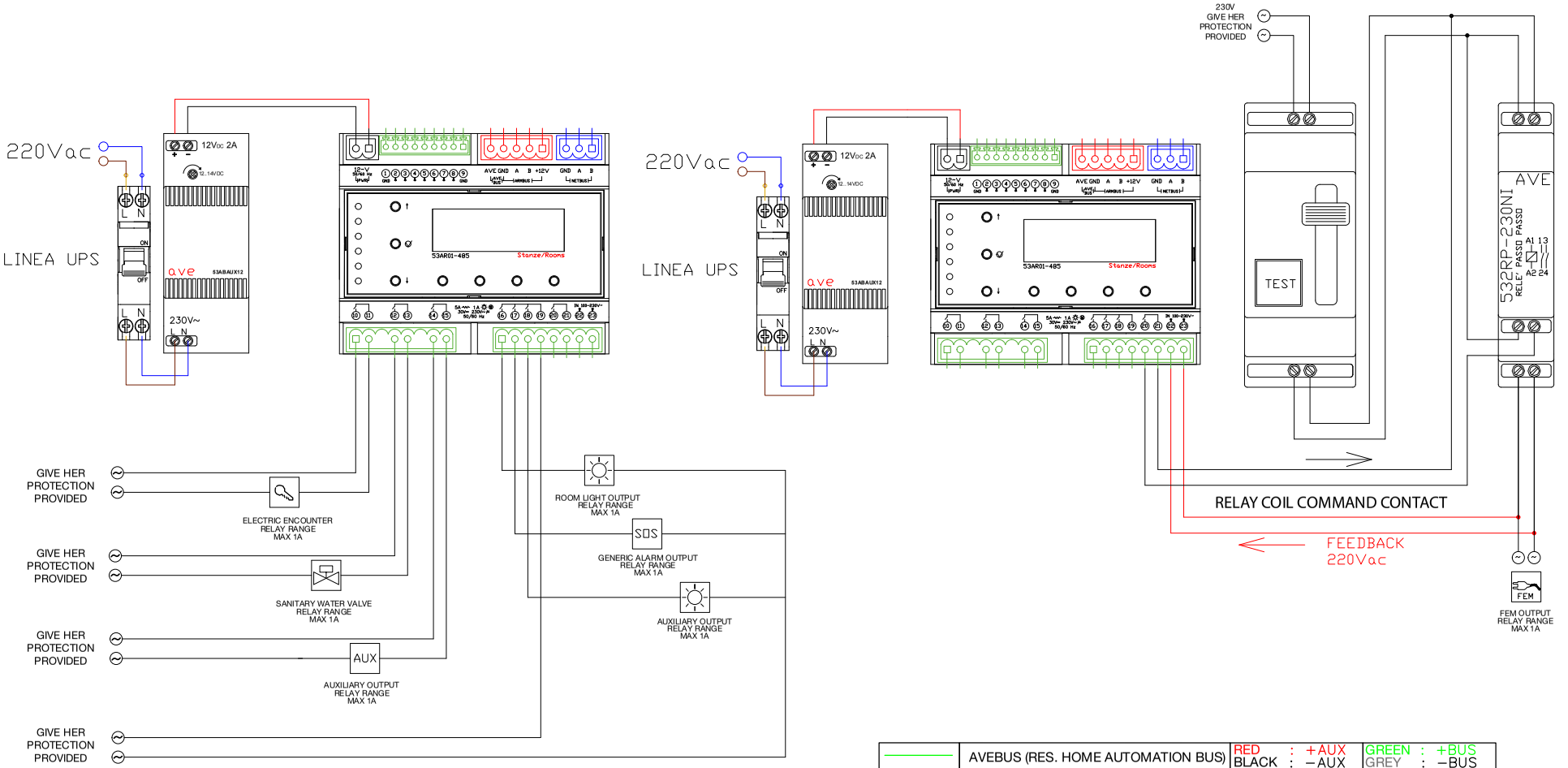
Online Hotel Management

Connection diagram for the management of common areas



Online Hotel Management

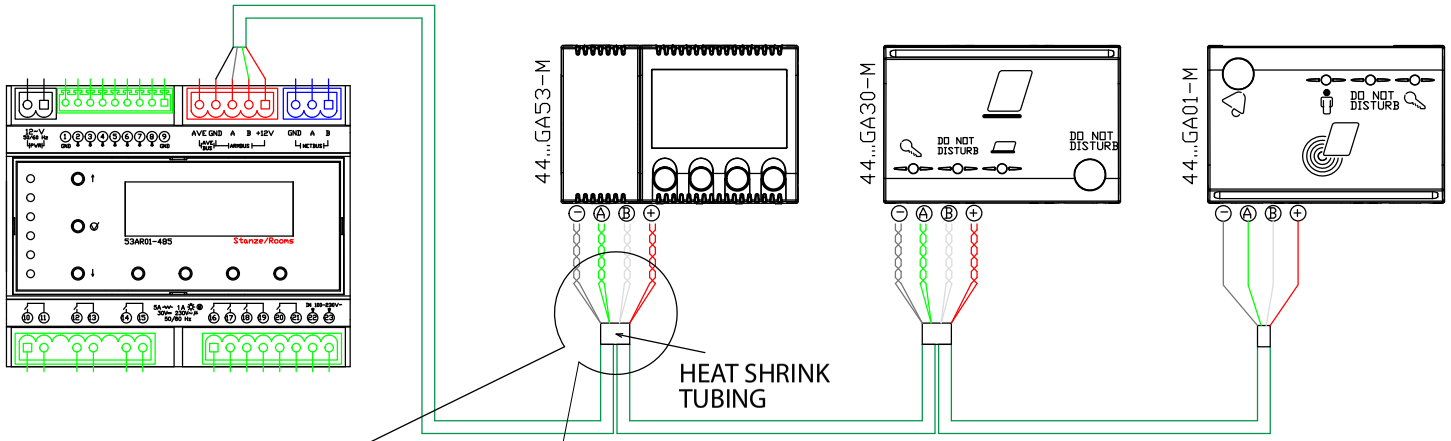
Network control unit 53AR01-485 - management of outputs and room relays

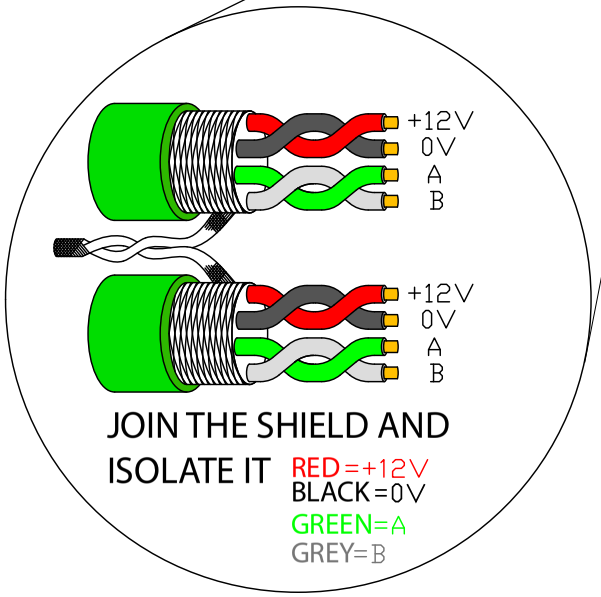


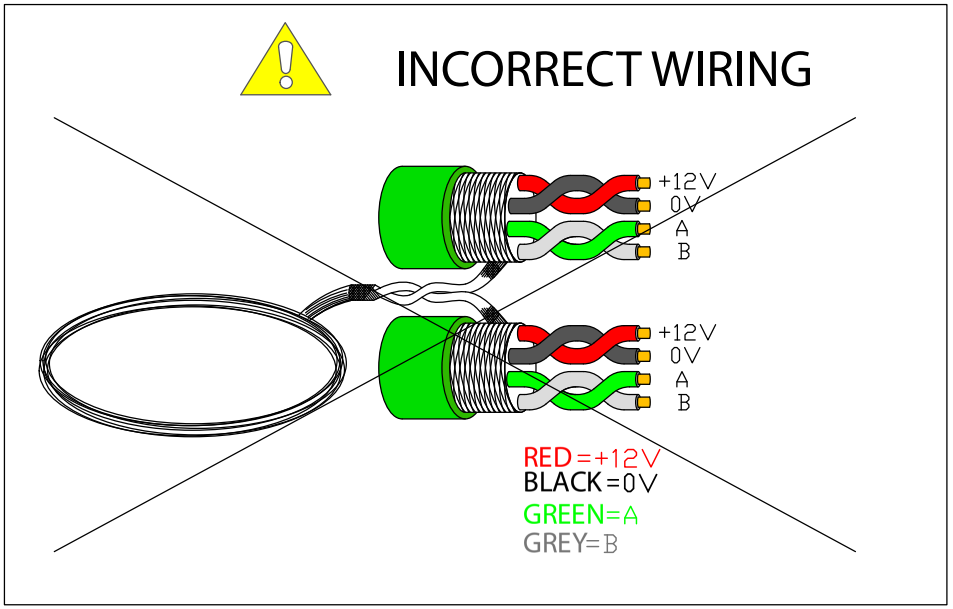
AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX	GREEN : +BUS GREY : −BUS
ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND	GREEN : CH A GREY : CH B

Online Hotel Management

Room ARMBus connection scheme

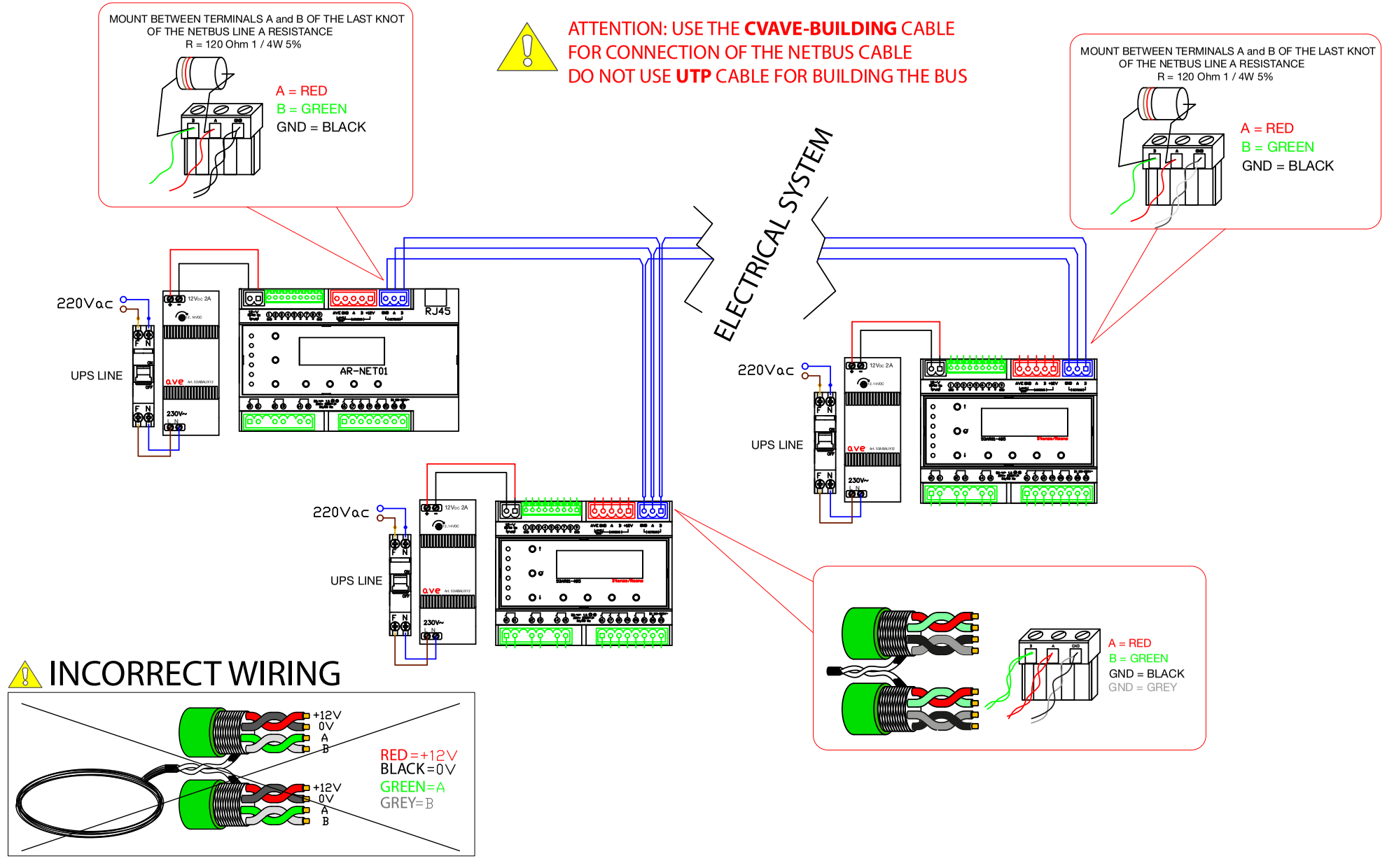






Online Hotel Management

NETBus connection scheme



Online Hotel Management

Connection scheme of Domotica lighting management devices

AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX	GREEN : +BUS GREY : −BUS
ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND	GREEN : CH A GREY : CH B

USE ONLY ADDRESSES FROM 30 TO 3F (MAX 16 LIGHT ADDRESSES)

ART. 44..ABT2 / 1
CONFIGURATION CH1: ID 30
CONFIGURATION CH1: ID 31
FUNCTION 12 (STEP)
PARAMETER 1: LED OFF
PARAMETER 2: ON / OFF

PAIR RED / BLACK
RED = + AUX
BLACK = - AUX
PAIR GREEN / BLACK
GREEN = + BUS
BLACK = - BUS

FROM ID 30 TO ID 3F

ART. 44..ABT2 / 1
CONFIGURATION CH1: ID 3E
CONFIGURATION CH1: ID 3F
FUNCTION 12 (STEP)
PARAMETER 1: LED OFF
PARAMETER 2: ON / OFF

PAIR RED / BLACK
RED = + AUX
BLACK = - AUX
PAIR GREEN / BLACK
GREEN = + BUS
BLACK = - BUS

art. CVBUS−BUILDING

art. CVBUS−BUILDING

GIVE HER PROTECTION PROVIDED

GIVE HER PROTECTION PROVIDED

art. CVBUS−BUILDING

53AR01−485

ART. 53ABR4 # 1
CONFIGURATION CH1: ID 30
FUNCTION 1 (INSTANT)
CONFIGURATION CH2: ID 31
FUNCTION 2 (INSTANT)
CONFIGURATION CH3: ID 32
FUNCTION 3 (INSTANT)
CONFIGURATION CH4: ID 33
FUNCTION 4 (INSTANT)

ART. 53ABR4 # 2
CONFIGURATION CH1: ID 34
FUNCTION 1 (INSTANT)
CONFIGURATION CH2: ID 35
FUNCTION 2 (INSTANT)
CONFIGURATION CH3: ID 36
FUNCTION 3 (INSTANT)
CONFIGURATION CH4: ID 37
FUNCTION 4 (INSTANT)

ART. 53ABR4 # 3
CONFIGURATION CH1: ID 38
FUNCTION 1 (INSTANT)
CONFIGURATION CH2: ID 39
FUNCTION 2 (INSTANT)
CONFIGURATION CH3: ID 3A
FUNCTION 3 (INSTANT)
CONFIGURATION CH4: ID 3B
FUNCTION 4 (INSTANT)

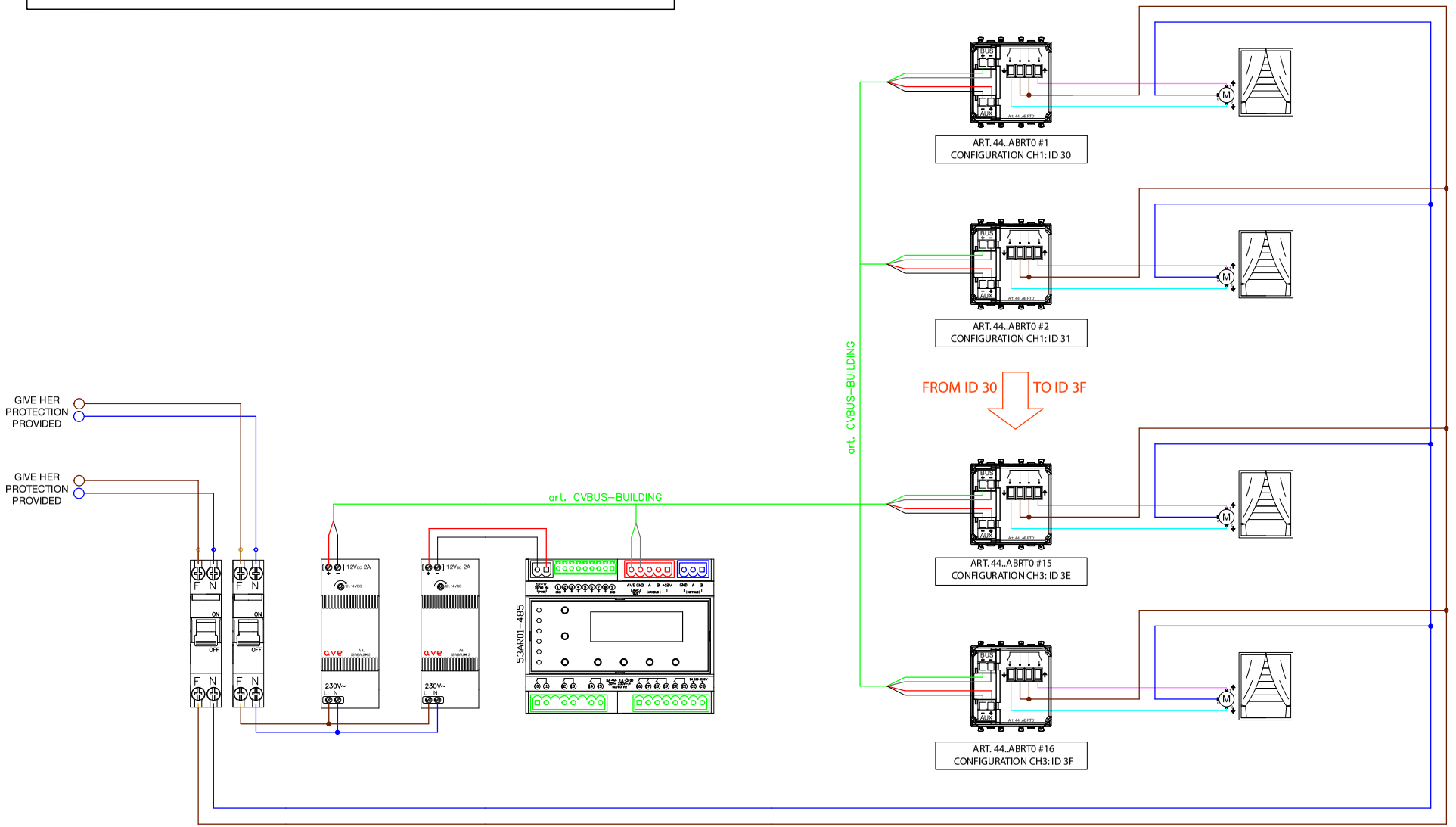
ART. 53ABR4 # 4
CONFIGURATION CH1: ID 3C
FUNCTION 1 (INSTANT)
CONFIGURATION CH2: ID 3D
FUNCTION 2 (INSTANT)
CONFIGURATION CH3: ID 3E
FUNCTION 3 (INSTANT)
CONFIGURATION CH4: ID 3F
FUNCTION 4 (INSTANT)

Online Hotel Management

Connection scheme for Home blinds

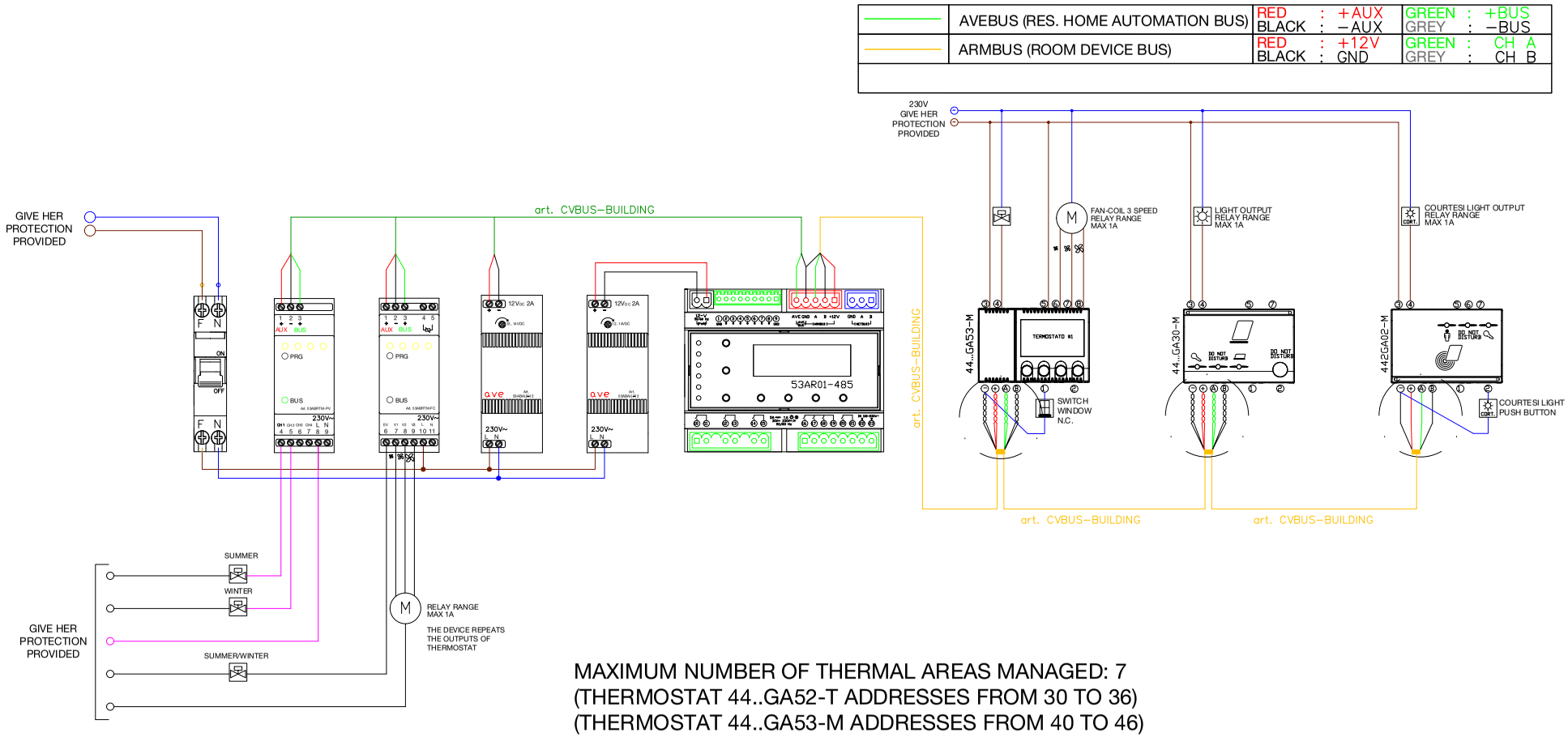
AVEBUS (RES. HOME AUTOMATION BUS)	RED : +AUX BLACK : −AUX	GREEN : +BUS GREY : −BUS
ARMBUS (ROOM DEVICE BUS)	RED : +12V BLACK : GND	GREEN : CH A GREY : CH B

USE ONLY ADDRESSES FROM 30 TO 3F (MAX 16 SHUTTER ADDRESSES)



Online Hotel Management

Connection diagram of a network room for repeating fan-coil outputs on home automation devices

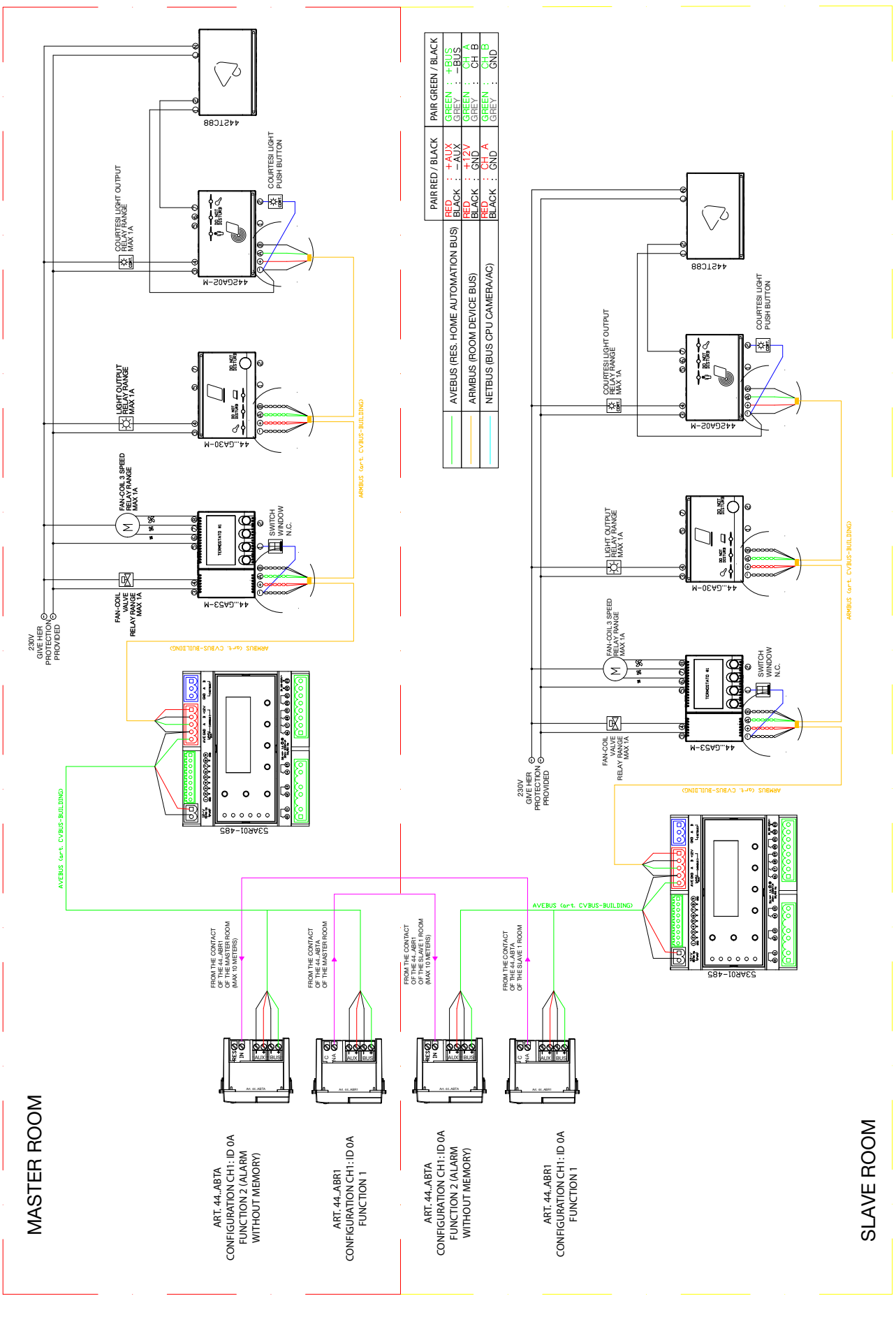


MAXIMUM NUMBER OF THERMAL AREAS MANAGED: 7
(THERMOSTAT 44..GA52-T ADDRESSES FROM 30 TO 36)
(THERMOSTAT 44..GA53-M ADDRESSES FROM 40 TO 46)

CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.1		CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.2		CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.3		CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.4	
ART. 53ABRTM-PV CONFIGURATION CH1: ID 10 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID 10 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID 20 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM	ART. 53ABRTM-PV CONFIGURATION CH1: ID 30 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID 30 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID 40 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM	ART. 53ABRTM-PV CONFIGURATION CH1: ID 50 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID 50 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID 60 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM	ART. 53ABRTM-PV CONFIGURATION CH1: ID 70 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID 70 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID 80 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM
CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.5		CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.6		CONFIGURAZIONE DISPOSITIVI PER LA ZONA TERMICA N.7			
ART. 53ABRTM-PV CONFIGURATION CH1: ID 90 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID 90 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID A0 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM	ART. 53ABRTM-PV CONFIGURATION CH1: ID B0 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID B0 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID C0 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM	ART. 53ABRTM-PV CONFIGURATION CH1: ID D0 FUNCTION 2 (SUMMER ONLY) CONFIGURATION CH2: ID D0 FUNCTION 3 (WINTER ONLY)	ART. 53ABRTM-PV CONFIGURATION CH1: ID E0 FUNCTION 01 (SUMMER / WINTER) SETTING PARAMETERS: 1 SUMMER (VENTILATION ...) 2 WINTER (VENTILATION ...) 3 MAIN 4 ENABLED SPEEDS: ALL (FROM 1 TO 3) 5 OPERATING MODE: OLD SYSTEM		

Online Hotel Management

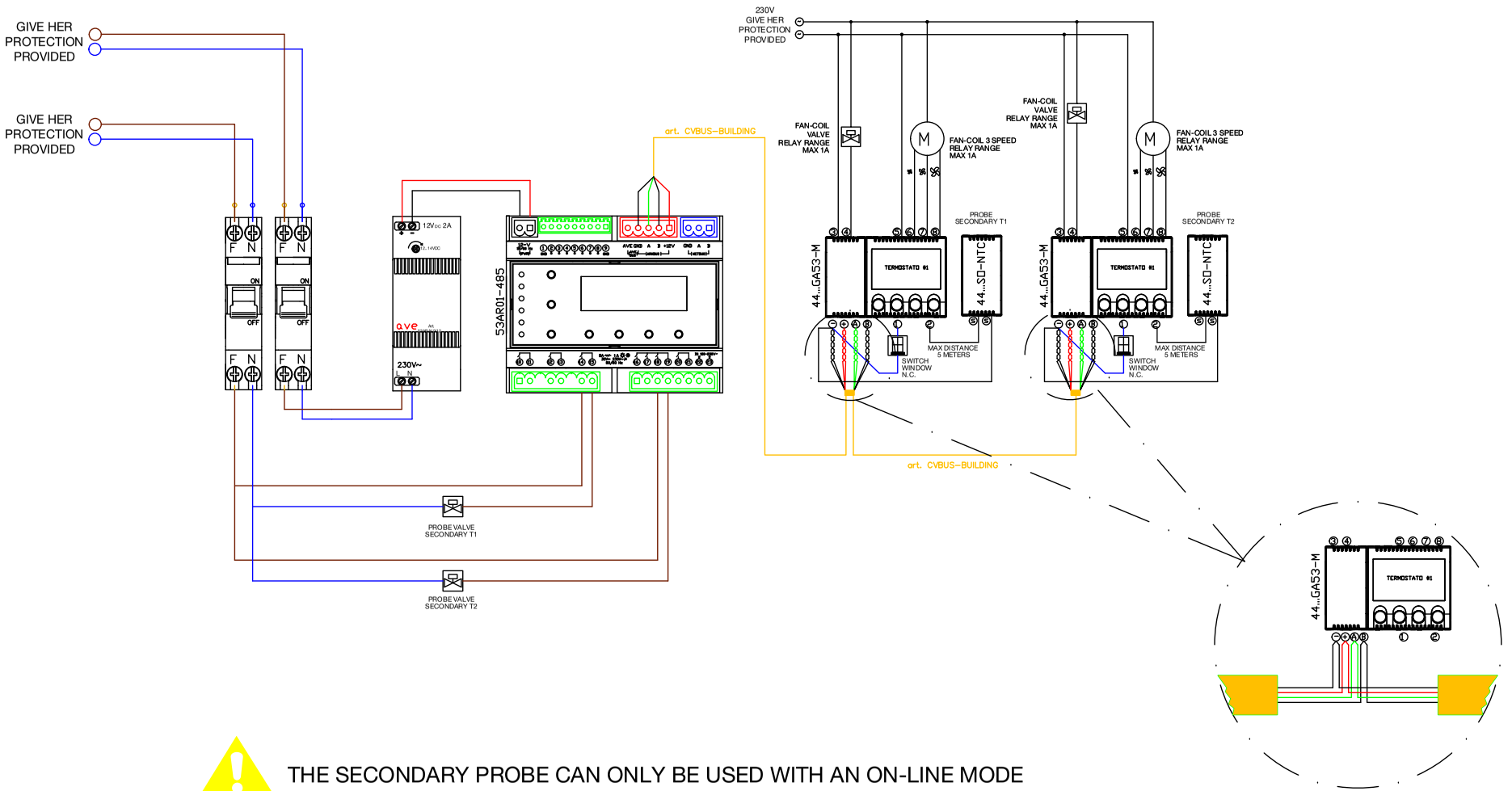
Connection diagram of a system for managing coupled chambers



Online Hotel Management

Connection diagram of a network room with double probe thermostat and valve management of the second thermal zone

	AVEBUS (RES. HOME AUTOMATION BUS)	RED BLACK	: +AUX : −AUX	GREEN GREY	: +BUS : −BUS
	ARMBUS (ROOM DEVICE BUS)	RED BLACK	: +12V : GND	GREEN GREY	: CH A : CH B



THE SECONDARY PROBE CAN ONLY BE USED WITH AN ON-LINE MODE

Voltage overload limitation and protection of people and their property are a legal and regulatory obligation, even before being a good rule for project design.
When the system is particularly sophisticated, as in the case of home automation, where delicate and, at times, vital processes and/or automatisms have to be regulated and controlled, protection against voltage overload, whether of atmospheric origin or from power lines entering the building, becomes an essential performance requirement for the system.
Standard CEI 64-8, as an addition to art. 443.2.2, proposes the figure below (Fig. 1) to identify voltage overload categories. Precisely, it divides the electrical system into four areas characterised by various voltage overload categories numbered from I to IV for which maintenance of the various impulse voltage levels is prescribed, depending on the nominal voltages and on the type of the electrical system.

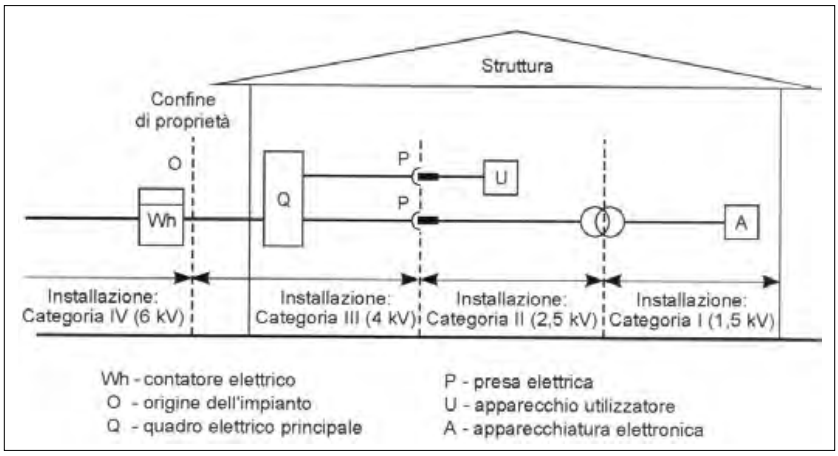
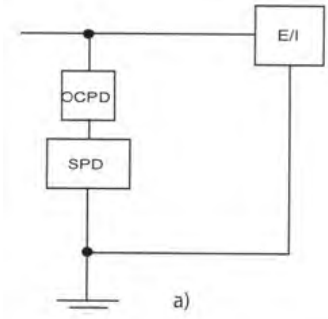
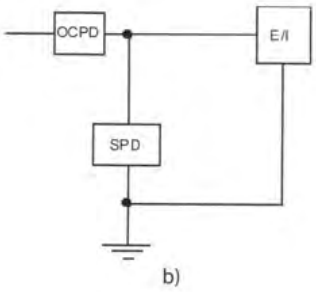


Fig. 1 – Division of the electrical system into four zones based on the voltage overload categories



a) priority to ensuring power supply continuity



b) priority to ensuring continuous protection

Key:

- OCPD: protective device against overcurrents required by the SPD manufacturer
- SPD: voltage overload limiting switch
- E/I: electric or system component that must be protected against voltage overload

Fig. 2 – SPD installation modes

Tipo di SPD	L+N/PE
Tensione nominale circuito alimentazione	230 Vca
N° di poli	1P+N
Tensione massima continuativa	320 Vca
Classe di prova IEC 61643-1+ A1(2001)	II
Tipo sec. CEI EN 61643-11/A11	T2
Corrente nominale scarica L/N/PE (8/20 µs) per polo	10kA
Corrente massima scarica L/N/PE (8/20 µs) per polo	20kA
Corrente ad impulso (10/350 µs)	1,50kV (L o N / PE)
Livello di protezione con In-Up	Max. < 6kV
Fusibile di protezione	I32A gG
Segnalazione ausiliaria di guasto	NA + NC in scambio

Voltage overload limiting switches (known as SPD: Surge Protection Device) must be installed in the various zones to limit the maximum voltage overload that can manifest in that zone. Specifically, Standard CEI EN 61643-11 defines three types of SPD:

• Type 1: the maximum discharge current occurs on a 10/350 µs wave. These voltage overload limiting switches must be installed at the input of the power supply line. They have to discharge important portions of the lightning current.

• Type 2: the test current has an 8/20 µs wave. These limiting switches are installed to discharge currents associated with induced voltage overloads and/or with non-significant portions of lightning current. They are installed at the access point of the power supply line to structures that are not directly exposed to lightning and to protect the internal circuits of structures subjected to direct lightning.

• Type 3: the wave is 1/50 µs in a short-circuited closed circuit. This type of limiting switches is intended for “fne” protection, that is when the devices are powered by circuits that are already protected upstream by SPD Type 1 or Type 2.

The protection of a home automation system in which the electronic components are important and sophisticated can only be implemented by arranging the various SPDs in three levels, installing each device between conductors on which voltage overload can manifest, with special care for electronic equipment and its dedicated protection with SPD type 3.

Standard CEI 64-8, in Enclosure 534, provides five diagrams for SPD insertion, based on the plant’s power supply system (TT, TN, IT). In the residential framework, where the power supply system is usually TT, the recommended insertion diagrams are provided in Figures 2a and 2b, depending on whether you wish to prioritise power supply continuity or protection.

General rules to be applied when installing a home automation system in a workmanlike way are basically defined by the current legislation and, in particular, by the following standards:

- CEI 64-8 VII Edition 2012: Electrical plants using rated voltage of no more than 1000V AC and 1500V DC;
- CEI 64-100/3:2011-2 : Residential Building - Guide to the preparation of infrastructures for electrical, electronic and communication plants - Part 3: single family homes, terrace houses and residences;
- EN 50090-9-1:2005 : Electronic systems for the home and buildings (HBES), Installation notes, General wiring for category 1 HBES systems on twisted pair wires;
- Guidelines CEI 205-14: Guide to design, install and test the plants (HBES);
- CEI CLC/TR 50090-9-2: Electronic systems for the home and buildings (HBES), Installation notes, inspection and installation tests (HBES). Summarising some basic points, the following expedients must be adopted to install a good electric/home automation system:
- the ducts (corrugated pipes) for the passage of wires of the mains (LV) and the home automation bus (SELV) must be independent and separate;
- in the junction boxes, if they are shared, the wires of the mains (LV) and the home automation bus (SELV) must be kept separate using dedicated partitions;
- in the case of underfloor heating, the ducts (both LV and SELV) must be laid under the heating pipes to avoid overheating of cables with the plant in operation;
- the ducts for electrical and home automation bus wiring must not, as far as possible, run parallel and, if they should meet, ensure that they cross over perpendicularly in order to minimise interference to the home automation bus;
- the home automation bus must be made with a cable consisting of two pairs of wires (cross-section 0.5 mm2) with overall sheath;
- do not connect the braided shield of the wire to the ground of the electrical plant but to the GND terminal of the bus power supply unit.

We recommend using the AVE cable designed for these projects, cod. CVAVEBUS or cod. CVBUSBUILDING.
Moreover, the home automation system must be preventively sized to ensure compliance with basic system requirements:
- the overall number of devices installed on the home automation bus must not be greater than the maximum load “C” defined as 300, if two bus power supply units cod. 53AB-ALI are used in parallel, or as 150 using a single bus power supply unit cod. 53AB-ALI;
- the overall number of devices installed on the home automation bus and the quantity of wiring must not be greater than the maximum capacity of the “Cap” bus defined, regardless of the number of bus power supply units, at 150nF;
- the maximum distance between the farthest device and the bus power supply unit must not be greater than 300 m.

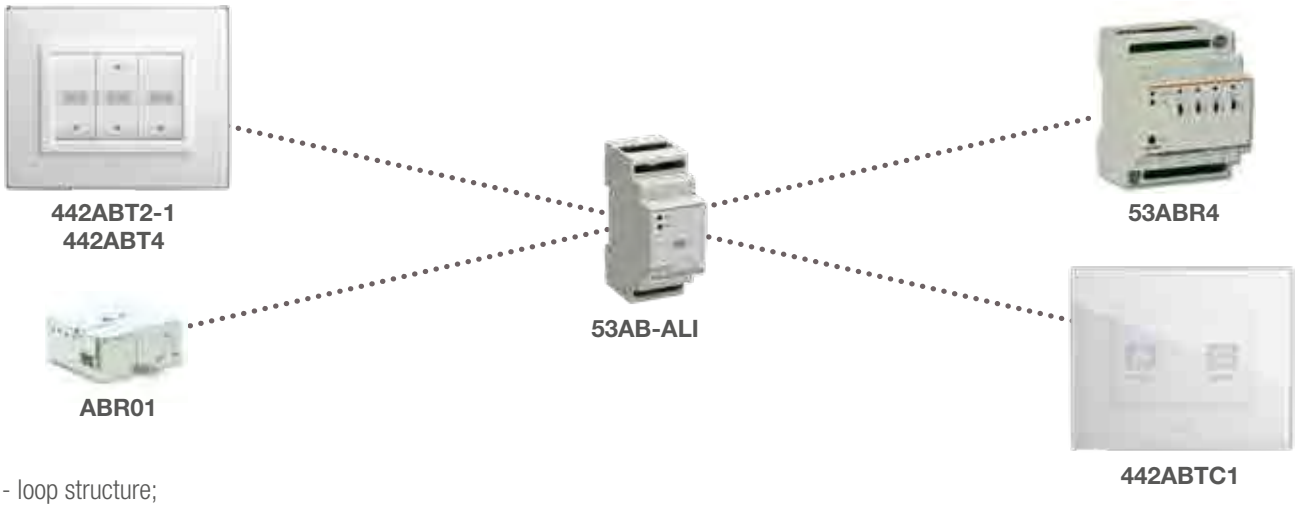
If compliance with this parameter cannot be ensured, even if the load limit “C” does not exceed the value 150, it is, anyhow, essential to insert the second bus power supply unit by physically positioning it to ensure that the maximum distance is not exceeded. Greater distances and a larger number of devices can by adopted by using line isolators.

For more information, refer to the sizing table in the product documents.

TYPE OF CONNECTIONS

- linear structure: there is only one open backbone network to which all elements are connected;

- star structure: each element is connected to a central point;



- loop structure;

Using the cable:

Using the cable cod. CVAVEBUS:

Green + Grey pair, used for AVEbus connection.

Red + Black pair, used for 12Vdc auxiliary power supply for devices.

REGULATIONS AND TIPS TO INSTALL HOME AUTOMATION SUPERVISORS - by the Department of Research and Development of AVE S.p.A.

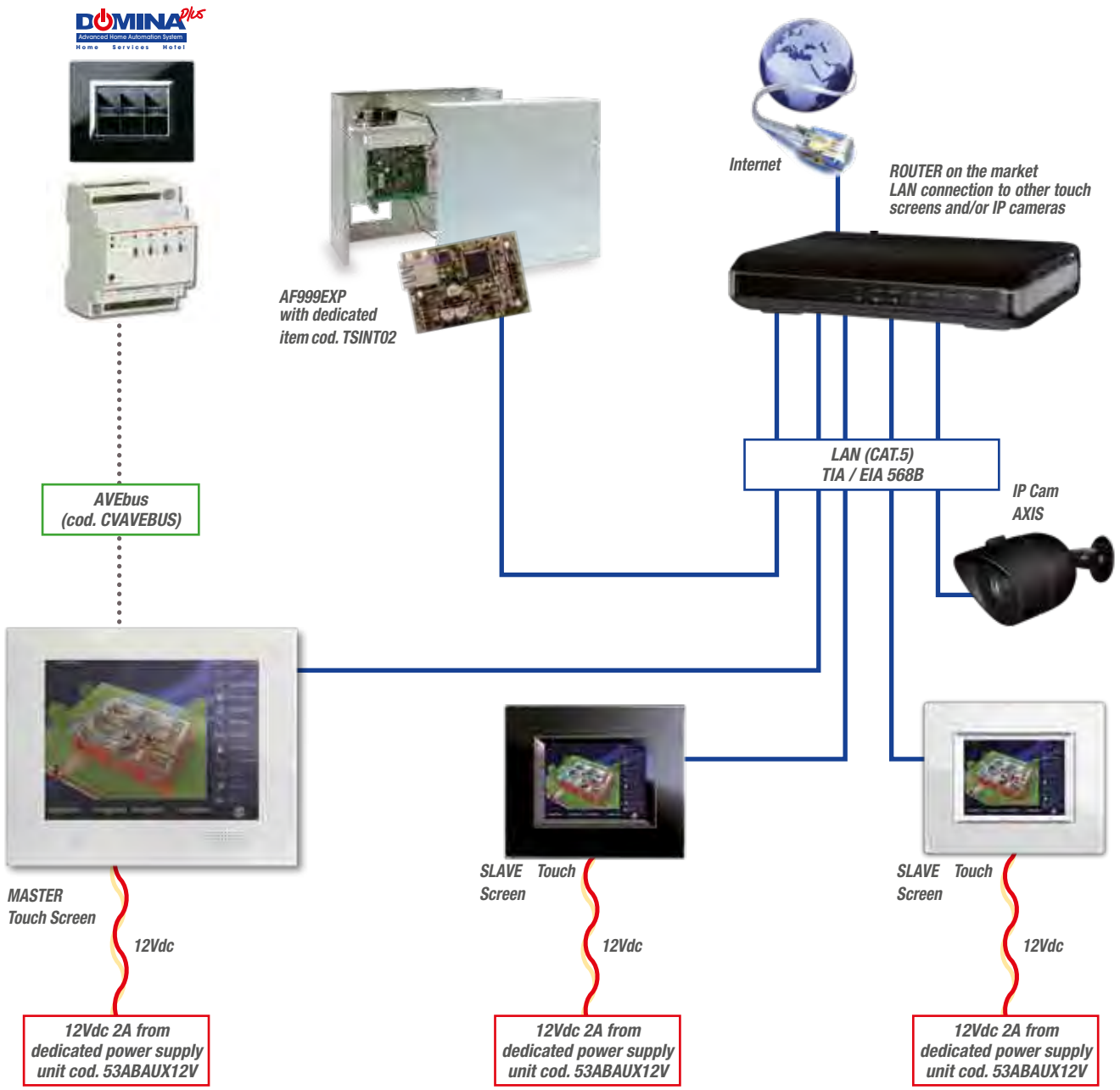
The home automation system with supervisors and graphic interface (Touch Screen Panels) allows to control all functions of the house from a single point. This makes the system accessible to everybody and extraordinarily easy to use: the touch of a finger will activate multiple functions, scenarios or simple commands at the same time.

The general rules to follow when installing a Touch Screen in a workmanlike way, in compliance with the current legislation, are given below:
- do not expose the device to direct sun light;
- the temperature of the wall where the device is installed must not be greater than 30°C and, therefore, the areas around the device (both sides of the wall) must be free of heat sources (fan coil units, radiators, chimneys, cooking stoves, etc.);
- the temperature of the room where the device is installed must be between 5°C and 30°C;
- for proper operation of the Touch Screen, corrugated pipes with diameter 32 mm must be installed to guarantee correct air circulation between the embedded box containing the device and the room where it is installed;
- the devices must be installed using, when envisaged, the special spacer frame supplied (an essential requisite for product warranty).

General wiring rules are given below:
- wiring of the device must be from downward;
- the AVEbus line must be connected using the certified AVE cable;
- the 12Vdc power supply, which is necessary for device function, must be connected via a dedicated power supply unit item 53ABAUX12V using a cable with proper section according to the distances and power absorption of the device (for more information, refer to the product documents);
- the use of a power supply dedicated line with UPS protection is recommended;
- the Touch Screens must be powered between 12 Vdc and 13 Vdc; this voltage must be adjusted before connecting the device when all devices are disconnected;
- the LAN network connection between the various devices must be created with cable and wiring according to Standard TIA / EIA 568B;
- the connection to the anti-intrusion control unit AF999EXP and AF949 (through interface item TSINT02) must be implemented with a LAN network.

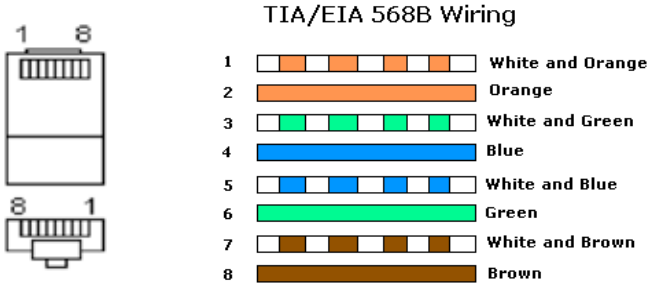
The remote assistance service is available throughout the product warranty provided that an Internet connection is ensured (refer to warranty notes and warnings on the commercial catalogue). To facilitate maintenance interventions and to reset the system, we also recommend preserving the copy of the initial configuration provided by the technician who started up the system.

TYPE OF CONNECTIONS



WARNING!
The Touch Screen power supply unit must strictly be between 12.00 Vdc and 13.00 Vdc.

Connessione



Note: AVE Spa reserves the right to update and/or change the content of this document without prior notice to the user. Please check for updates at www.ave.it.

General rules to be applied when installing a hotel automation system in a workmanlike way are basically defined by the current legislation and, in particular, by the following standards:
- CEI 64-8 VII Edition 2012: Electrical plants using rated voltage of no more than 1000V AC and 1500V DC;
- CEI 64-100/3:2011-2 : Residential Building - Guide to the preparation of infrastructures for electrical, electronic and communication plants - Part 3: single family homes, terrace houses and residences;
- EN 50090-9-1:2005 : Electronic systems for the home and buildings (HBES), Installation notes, General wiring for category 1 HBES systems on twisted pair wires;
- Guidelines CEI 205-14: Guide to design, install and test the plants (HBES);
- CEI CLC/TR 50090-9-2 : Electronic systems for the home and buildings (HBES), Installation notes, inspection and installation tests (HBES).

Summarising some basic points for the installation of a good plant, the following expedients must be adopted:
- the ducts (corrugated pipes) for the passage of wires of the mains (LV) and of the communication bus (SELV) must be independent and separate;
- in the junction boxes, if they are shared, the wires of the mains (LV) and of the communication bus (SELV) must be kept separate using dedicated partitions;
- in the case of underfloor heating, the ducts (both LV and SELV) must be laid under the heating pipes to avoid overheating of cables with the plant in operation;
- the ducts for electrical wiring and for the communication bus must not, as far as possible, run parallel and, if they should meet, ensure that they cross over perpendicularly in order to minimise interference to the home automation bus;
- the communication bus must be made with a cable consisting of two pairs of wires (cross-section 0.5 mm2) with overall sheath. A standard AVE cable must be used for these projects. - When installing the ARMbus line, a bus line connecting the room control unit to all peripheral units of the hotel management system (cod. 44..GA01-M, cod. 44..GA02-M, cod. 44..GA30-M, cod. 44..GA52-T and cod. 44..GA53-M), wiring must be of the In and Out type according to the following colours:

Room Bus

- Green wire (Green + Grey pair): to be connected to terminal “A” of the Green connector;
- Grey wire (Green + Grey pair): to be connected to terminal “B” of the Green connector;

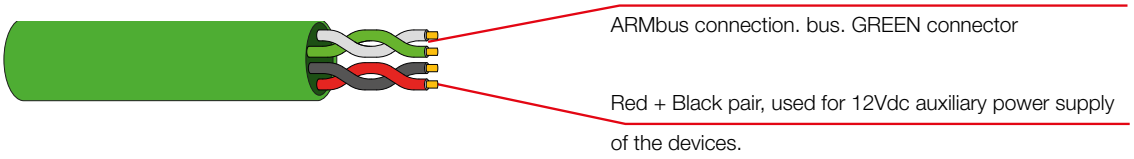
Power supply for devices

- Red wire (Red + Black pair): to be connected to the “+” terminal of the black connector;
- Black wire (Red + Black pair): to be connected to the “-” terminal of the Black connector;

- Do not tie knots, rings or wind coils with the braided shield of the wire in the vicinity of card readers;
- Do not connect the braided shield of the wire to the ground of the electrical plant but to the GND terminal of the control unit;
- On completion of the wiring, reposition the plastic protection of the retractable terminal of the devices and check that the strands cannot create short circuits with the bus and power connectors;

- When installing the NETbus line, the bus line that connects all the control units of the hotel management system (Blue connector present in items with cod. 53AR01-485, cod. 53AR02-485 and cod. AR-NET01), the wiring must be installed with an “In and Out” structure, following the colours as specified below:
- Green wire (Green + Grey pair): to be connected to terminal “A” of the blue connector;
- Grey wire (Green + Grey pair): to be connected to terminal “B” of the blue connector;
- Black wire (Red + Black pair): to be connected to terminal “GND” of the blue connector;
- Red wire (Red + Black pair): not used;

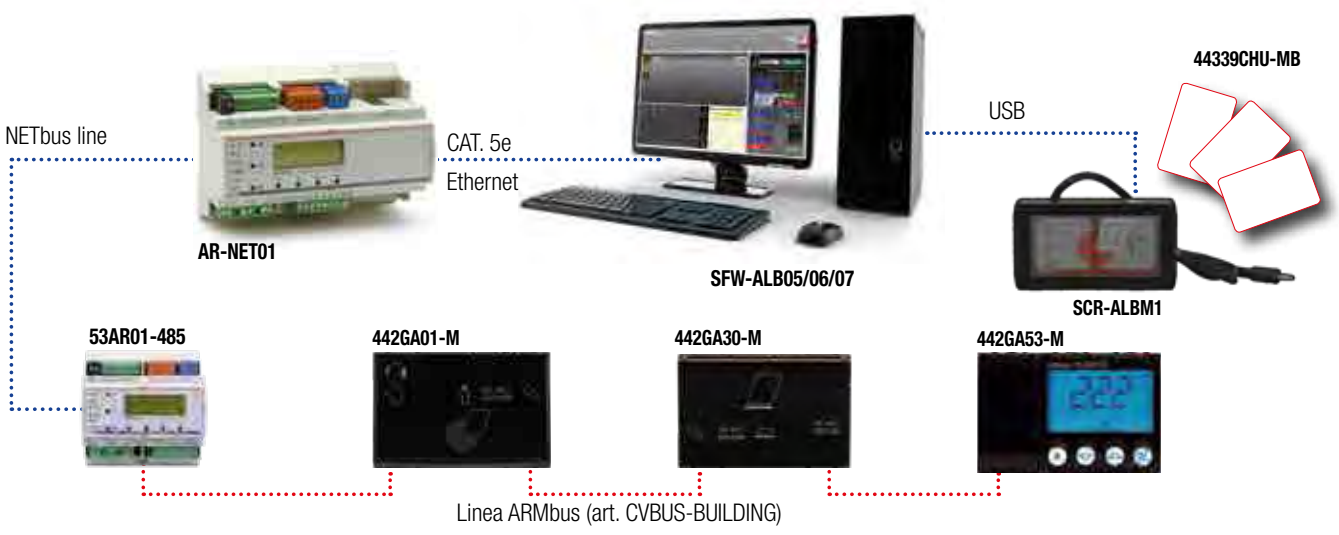
Using the cable for ARMbus:



Using the cable for NETbus:

- Do not connect the braided sheath of the electrical wiring to the ground;
- An end of line resistance R=120 ohm 1/4W must be inserted between terminals A and B (supplied with AR-NET01) on the blue connectors (NETbus) of the first device (typically the network interface item cod. AR-NET01) and the last of the bus line (typically cod. 53AR01-485 or cod. 53AR02-485);
- The PC used for supervision of the hotel management system must be dedicated only to this use and must be protected with an uninterrupted power supply;
- To use the additional remote assistance service (for subscription and cost contact the Ave sales network), the PC used for supervision must be connected to the Internet and have software installed for remote control;
- For connections between the supervision PC and the network interfaces AR-NET01 use a CAT cable. 5e

Example of network system



Luxury villa

Luxury villa

Residence L'angolo di Verona

B&B La Contessa

Aquatio Cave Luxury Hotel & SPA

Luxury villa

Luxury villa

Resort Stella Island

Hotel Boscolo

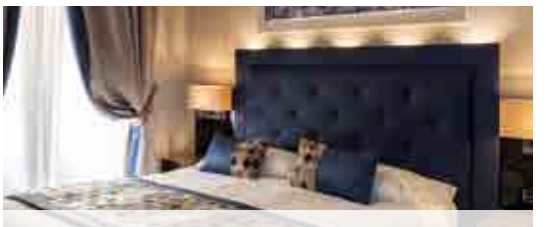
Yachting Azzurra

B&B L'Angolo di Verona

Hotel Contessa

Luxury villa

Autogemelli



Hotel Gioberti

Hotel Conchiglia

Luxury villa

Hotel Alla Rocca

Hotel Ripetta

Hotel Mykonos

Hotel Nettuno

Luxury villa

Luxury villa

Maso Bòtes

Luxury villa

Luxury villa

Maso S.Lucia

Skyline

Exibition

Luxury villa

Luxury villa

Garden 2000

Hote Villa Flori

Rinaldi

Hotel Torre Argentina

Luxury villa

Residence

Hotel Trovatore

Luxury villa

Rifugio Capanna

Hotel Ripa

Resort Stella Island

Yacht Club Dubai

Hotel Villa Flori

Maso Bòtes

Hotel Mykonos

Exibition Made

Luxury villa

Hotel Ripa

Luxury villa

Hotel 4 Stagioni

Hotel Conchiglia

Luxury villa

Rifugio Capanna

Exibition Simone Micheli

Columbus

Milleluci

Simone Micheli

Luxury villa

Luxury villa

GENERAL SALES CONDITIONS FOR EXPORT

This document sets the general sales conditions that regulate the relationship between AVE Spa and its own customers here below referred to as Buyer. These general sales conditions are also indicated on the AVE website www.ave.it.

Any questions not mentioned specifically in these conditions are regulated by normal procedures in the sector, standards in the ANIE agreements and the Italian Civil Code.

1) GENERAL INFORMATION

The Buyer is obligated to manage packaging with care and keep the material in an appropriate manner, in environments without humidity, and with a temperature not lower than - 5 °C and not higher than + 40 °C.

The Buyer is obligated to inform its own buyers of the conservation methods of the materials supplied by the company AVE S.p.A.

The Buyer is obligated to sell the material in the original packaging without damaging it or, if this is not the case, to transmit to its own buyers the instructions that accompany the products by the supplier AVE S.p.A. These instructions can be found also in catalogues, technical sheets, leaflets, inserts and on the company website (www.ave.it). The Buyer, in case of sales of AVE products in EU countries, is committed to ensure that the product instructions sheets in the AVE packaging, are available in the specific language of the destination country. Should they not be available, the Buyer undertakes to ask AVE for the integration of the instructions sheets to include the said required language and/or symbols necessary for the export of goods or the Buyer commits himself to provide for them.

If the Buyer opens the packaging before selling the products, it must make sure of the apparent integrity of the same products. In case of doubt, the products must not be sold.

AVE S.p.A. products are made to be installed. Products and accessories must be installed by qualified personnel. The products must be installed and used for their designated purpose and in conformity with the applicable standards for the various types of plants and also considering the catalogues specifications, the instruction sheets and the information published on the company website. Anyway, before using the installed products, it is necessary to have the entire plant tested by specialised personnel, to verify functionality and observance of the safety standards according to the laws in force.

AVE S.p.A. reserves the right to make changes and improvements to products illustrated in the catalogue and available in the price list, without giving prior notice, as a consequence of the constant updating process of production, technology and standards. On request, product sheets or other equivalent documentation is always available at the AVE S.p.A Technical Assistance Office. We recommend to consult the company website for updated information and confirmation of data (www.ave.it).

2) ORDERS

When submitting a purchase order (in any form), the Buyer accepts all the sales conditions in this document and waives its own general purchase conditions, unless there is a special agreement specifically accepted in writing by the supplier company AVE S.p.A. The purchase order is binding for the Buyer. The order is not binding for the supplier company AVE S.p.A., which is free to decide whether to accept it or not, by sending a written order confirmation within and not later than 5 working days. Cancellations of orders will not be accepted unless previously agreed on, in any case, AVE S.p.A. can ask for payment of any costs related to the said cancellation. . The price list includes the cost of the packaging in standard boxes. Quantities of each item ordered must conform to those indicated in the price list; if there are differences, AVE S.p.A. reserves the right to round the quantity up to comply with standard quantity requirements.

3) PRICES

The prices are those listed in the AVE S.p.A. price list that is valid at the time of delivery, without VAT. AVE S.p.A. reserves the right to change prices when the order is recorded to adjust costs.

4) RESPONSIBILITY, DELIVERY AND RISKS

AVE S.p.A. is exonerated from all responsibility for delays that do not depend on its own malice or negligence. Delivery terms, except if otherwise agreed, are indicative and not binding. If the execution of the order is obstructed by force majeure, irregular raw material supplies or other unforeseeable circumstances, delivery terms are understood to be extended and both parties shall agree on new terms.

Delivery is considered completed when the products are handed over to the forwarder and/or carrier.

From the moment the goods are handed over to the carrier and/or the forwarder, AVE S.p.A. is discharged from all risk and responsibility related to events of any nature that could happen during transport, and this is also valid for goods sold with carriage at AVE S.p.A. care.

The Buyer must verify, in its own interest, the quantity and conditions of the goods before accepting them and if there is a difference, the carrier must be informed of reserves by written communication. AVE S.p.A will reject any complaint about the number and status of the packages if the Buyer fails to express the same complaint in writing to the carrier at the time of goods acceptance, and if the said complaint is not sent to AVE S.p.A. within 8 (eight) days from receiving the goods.

5)WARNINGS, GUARANTEES AND COMPLAINTS

AVE guarantee on its own products is in conformity with the Civil Code and the Legislative Decree 6 September 2005 no. 206 (Consumers' Code). Given the above, AVE S.p.A. guarantees efficient function of its products against defects and quality deficiencies that can be blamed on the manufacturer for a period of 5 years for all its products, with the exception of Green division products of the catalogue in force when the order is placed (e.g., Safety Division - anti-intrusion series/systems, fire detection series/systems, technical alarm series/systems, sound diffusion series/systems, emergency devices and Domina Division - home automation series/systems and hotel management), whose guarantees comply with those established by the Civil Code and by Legislative Decree no. 206 of 6 September 2005 (Consumption Code). The 5-year guarantee is valid from the production time of the item evidenced by the indication of the productive lot on the said product or, in case of lack of the said information, from the date of product delivery by AVE S.p.A., attested by a valid purchase document (fiscal receipt, cash register receipt, or similar). Any claim about the 5-years guarantee must be done by writing within 1 month starting from the date when the defect or lack of quality is found.

The Buyer is not covered by the guarantee, except in case of malice or negligence of AVE S.p.A., if it fails to provide proof to have stored the goods according to instructions in point 1) or in case the goods should be already installed, if it fails to provide proof that the installation was done in compliance with current laws and the D.P.R. n. 224/88 and according to the current applicable technical regulations. In any case, AVE S.p.A. will not be held responsible for defects or faults that are not a result of its own work.

6) RETURNS

No returns of goods are permitted without previous written approval by AVE S.p.A. Ave S.p.A will consider only the requests made for goods which have been delivered 24 (twenty-four) months before the request itself. The goods also must be included in the price list of the supplying company AVE S.p.A. at the time of the request and the products must be packaged in the original packaging. Goods returned under guarantee: any requests to return products during the guarantee period for presumed defects or non conformities must be previously authorised by an AVE S.p.A. officer or agent. If the non conformity is proved and AVE S.p.A is responsible, the returned products will be replaced with equal or equivalent products. Goods returned for commercial reasons: except for what has been specified above, we will consider only written requests for products included in the current price list in good conditions and with undamaged packaging. Any agreed return will be subject to a valorisation that is inferior to the purchase price and an additional 10% minimum reduction will be applied for expenses due checking, testing and warehouse activities. In case of authorised returns, the goods must be returned carriage free to the warehouse of the supplier company: AVE S.p.A. Via Mazzini, 75 - 25086 REZZATO (BS).

7) PAYMENTS AND INTEREST

Payments of invoices must be made on time, in compliance with the established due dates and for the agreed amount. Delays in payment, full or partial, of invoices after the agreed due date will immediately cause the starting of interests calculation as indicated in the Legislative Decree 231 of 09/10/02. In case of payment default, full or partial, AVE S.p.A has the faculty to suspend supplies of materials and any payment of bonus or year-end discounts. If a "cash discount" was agreed on with a Buyer, it loses its validity if the invoices are not paid punctually and the Buyer is required to reimburse the discount.

8) PRIVACY

Pursuant to the personal data regulation, the Purchaser is hereby informed that his personal data will be processed by AVE S.p.A. (Data Controller) to correctly manage contractual relations and to fulfil certain legal provisions. Data processing is legally based on art. 6, sec. 1, lett. a (consent), lett. b (fulfilment of precontractual and contractual obligations), lett. c (fulfilment of legal obligations), lett. f (legitimate interest) EU Reg. 2016/679

PERSONAL DATA CATEGORIES: the personal data collected that will be processed are identification, biodata or commercial (such as, first name, last name, e-mail address, telephone and/or fax number). No sensitive or judiciary personal data shall be collected.

LEGITIMATE INTERESTS OF THE DATA CONTROLLER: it is necessary to process your personal data for the above purposes. Particularly, processing your data for IT safety purposes is AVE S.p.A.'s legitimate interest. Your data will be processed with appropriate manual, IT and telematic devices to guarantee the safety and confidentiality of your personal data, preventing its loss, illegal or incorrect use, and unauthorised access. Your data may only be accessed by persons appointed as Data Managers and persons appointed as AVE S.p.A.'s Data Processing Delegates and/or Officers.

DATA PROCESSING RECIPIENTS: your personal data will not be disseminated in any way, but may be shared with Data Managers, Data Processing Delegates or Data Processing Officers. Data may only be communicated to other subjects when required to fulfil legal obligations or to protect AVE S.p.A.'s contractual rights.

DATA STORAGE PERIOD: your personal data will be processed with manual, IT and telematic devices, and will be stored for the time required to carry out the above purposes, unless a longer period is either necessary or allowed by the law.

THE PARTY CONCERNED IS ENTITLED TO: 1) know, at any time, whether his personal data is subjected to processing or not and, if this is the case, to request and obtain access to his personal data and to information about the scope of data processing, the data categories processed, the addressees of the same, the data storage period; he is also entitled to receive information about the origin of the data and to receive a copy of the same (art. 15 EU Reg.); 2) request, at any time, the correction and/or integration of personal data (art.16 EU Reg.) or deletion of the same (art. 17 EU Reg.) or the limitation of data processing (art.18 EU Reg.); 3) request data portability (art. 20 EU Reg.); 4) object to data processing (art. 21 EU Reg.); 5) place a complaint with the competent control authority (Italian Data Protection Authority) if he deems that his personal data processing goes against the regulation in force.

Requests must be addressed in writing by mail to AVE S.p. A., Via Mazzini 75 25086 Rezzato (Brescia), to the Legal Representative or by e-mail to privacy@ave.it.

9) APPLICABLE LAW AND COMPETENT COURT

The rights and obligations of the parties are regulated by the Italian law. The Courts of Brescia has exclusive jurisdiction over every controversy.

The **AVE S.p.A.** has adopted this **Code of Ethics** with a view to **avoiding unethical conduct at any corporate level** such as might cause legal problems, jeopardise the Company's reputation and/or damage third parties or the environment.

Unethical **conducts** include, for example:
false statements, failure to comply with applicable laws and regulations in administrative, commercial or technical activities, corruption, collusion, bribes, extortion, nepotism, money laundering, misuse of internal information, fraud, discrimination, sexual abuse, occupational safety, environmental pollution.
In establishing work and supply relationships, AVE invites all customers, suppliers, collaborators and employees to approve this code of conduct and observe the principles herein.

By adopting this "Code of Ethics", **AVE S.p.A.** undertakes to operate in accordance with the principles of:

- **Reliability,** i.e. honesty, keeping of promises, integrity, transparency, trustworthiness, loyalty;
- **Respect,** i.e. respect for human rights;
- **Responsibility** at all corporate levels and in every administrative, commercial and/or technical activity;
- **Justice,** i.e. fairness, impartiality, observance of laws;
- **Care,** i.e. awareness of others, avoiding damage to people or to the environment.

COMPLIANCE WITH LEGAL AND CORPORATE OBLIGATIONS

AVE S.p.A. complies with:
- the obligations laid down by regulations relative to corporate, legal, administrative, accounting, fiscal aspects, as per documents deposited at the Corporate Administrative Management and, for the quality of the organisation and of products, in compliance with the regulations in force, including the use of the Quality Manual, legal obligations, regulations and Community Directives for the respect for privacy.

Regarding competence, the documents are seen and checked by the Board of Auditors in office and by the specifically appointed entities.
Relations with employees shall be governed by the applicable national collective bargaining agreement.
Staff is recruited based on technical and professional requirements, ensuring no discrimination in relation to gender, nationality, religion or race.
AVE's relations with customers are based on: mutual observance of current commercial and tax legislation; compliance with technical regulatory requirements for every activity or service carried out; absence of corporate offences, such as making false corporate communications, receiving, laundering and using money of unlawful origin, and engaging in fraudulent economic behaviour with customers or collaborators.

RELATIONS WITH SUPPLIERS

AVE S.p.A. demands loyalty and integrity from all its suppliers, as well as fair, non-binding business dealings, free of any form of corruption, including extortion, economic favours and any other form of compensation.
The supplier acknowledges the principle of freedom to choose an occupation. The supplier shall, under no circumstance, resort to forced or compulsory labour, i.e. work that is extracted by threat (withholding food or land or wages, physical violence, etc.) (ILO Conventions No. 29 and 105).
• The supplier is prohibited from employing children in violation of the provisions of the International Labour Organization Conventions (ILO Convention No. 138).
• The supplier undertakes to ensure that the total number of hours worked is equal to or less than the total established by national legislation or by the collective bargaining agreements of the country concerned.
• The supplier undertakes to ensure that breaks and days of holiday/leave correspond at least to the minimum conditions established by national legislation or by the applicable collective bargaining agreements.
AVE encourages suppliers to adopt an Environmental Management System (EMS) to ensure effective planning, operation and control of environmental aspects. This EMS shall satisfy the requirements of internationally recognised standards.

OCCUPATIONAL HEALTH AND SAFETY OF WORKERS AT THE WORKPLACE

For every activity or service carried out, the entire staff of AVE S.p.A. shall comply with Italian legislation and/or Directives on Occupational Health and Safety at the Workplace, adopting, where applicable and if possible, the following principles and criteria:
- Avoiding risks - "the risk evaluation regulation" Law Decree 81/2008 as amended is effective.
- • Evaluate risks that cannot be avoided;
- • Adapt the work to its employees, especially as regards the design of workplaces, the choice of equipment, and the establishment of work methods, in particular to alleviate monotonous and repetitive work and to reduce the effects on health due to such work;
- • Replace anything dangerous with non-hazardous or less hazardous alternatives;
- • Draw up a consistent prevention plan that covers technology, work organisation, working conditions, social relations and the influence of work environment factors on job performance;
- • Give workers appropriate instructions, also by means of training, controls and by sharing methods and objectives.

CONFIDENTIALITY

The entire staff of **AVE S.p.A.** shall comply with the ethical requirement of professional secrecy with regard to any information obtained while fulfilling its duties. Moreover, AVE expects suppliers and customers to maintain an adequate degree of confidentiality in all business dealings.
The privacy policy is effective and complied with.

REPORTING UNETHICAL BEHAVIOUR

In order to comply with and guarantee the above provisions, the Board of Directors of AVE S.p.A. requires that any employee, partner, customer or third party who should become aware of any failure to comply with the ethical requirements set forth herein, report said incident, in writing, to the CEO /General Management of AVE S.p.A., which will investigate the matter and take any necessary action.

AVE S.p.A.

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MEMBER OF:

For further information
visit the following websites

www.ave.it
www.avetouch.it

visit our new home automation website
www.domoticaplus.it
www.domoticahotel.com

AVE WARRANTY 5 YEARS

Elettricità Evoluta

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