Connected wiring accessories series with **WiFi mesh**

AVE PATENT N° 257 EU MODEL

DESIGN:
L. MERLETTI

Ave material must be installed by qualified people and the plant must be tested by an expert; according to the current standards

The installer takes care to leave his name and address to the customer and preferably also the name and address of the local technical support center

HOME AUTOMATION

HOTEL MANAGEMENT

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ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

Connected Wiring Accessories series with WiFi mesh

SYSTEM ARCHITECTURE

Architecture
Ave's new connected solution: A network of devices with new generation Wi-Fi Mesh technology that guarantees reliability and safety. The installation is optimized: the devices communicate directly with each other as each device can be the gateway to the system. Configuration is simplified: the application guides the user step by step. Control is immediate: thanks to the wi-fi direct mode, it is possible to activate the system even without a router and Internet connection.

General characteristics of a Wi-Fi mesh system
The devices of a DOMINA Smart IoT connected system allow you to add home automation functions to a traditional system through a Wi-Fi channel in mesh mode, without the need for wiring a bus and without the need to install home automation supervisors.
The term mesh means a different use of the Wi-Fi channel than the traditional one for two main reasons:
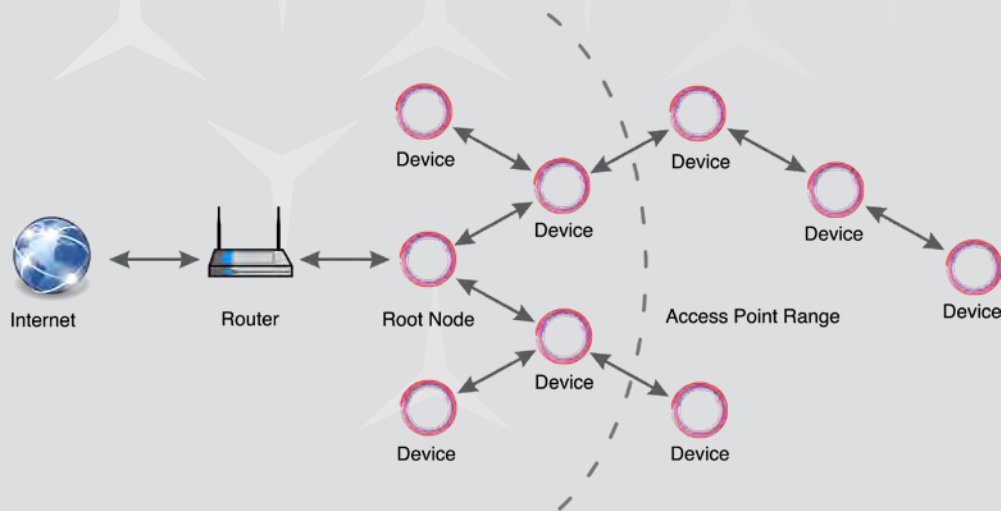
• the devices can propagate the signal among themselves even arriving very far from the Wi-Fi router. While in traditional Wi-Fi networks the Wi-Fi router is a star center that must be reachable by all connected devices, in the case of Mesh Wi-Fi networks the signal is instead propagated by the devices that act as a "repeater" of the signal itself. . In this way, greater distances than the range of the central router can be reached.

• an addressing system between the nodes based on MAC address and not on TCP / IP is used. Each device in the mesh network communicates with the other devices directly through an addressing based on MAC address and not using IP addressing.

There is a node (and only one) within the network that is chosen to manage both TCP / IP and MESH communication based on MAC address: this node is called Root Node (RN) and is the node that acts as a "bridge "To the home router where the classic Wi-Fi client devices (PC and smartphone) are present.

In the AVE DOMINA Smart IoT system the main feature is that of not having to have a dedicated gateway for the connection between the TCP / IP network and the mesh network. Each device can in fact be configured as a Root Node. Being connected to the TCP / IP Wi-Fi network, the Root Node is able, through the home router, to connect to the Internet and allow remote control of the system.

If you do not have a home router, you can use one of the network devices as an Access Point (AP) to access the system's functions; in this case the Access Point device creates a "bridge" with the Root Node (and this mesh to the nodes) through a TCP / IP connection, but is unable to connect to the Internet (cloud) or to a home automation supervisor (AVEbus wired devices).

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Specific features of the AVE IoT Wi-Fi mesh system
• The maximum number of IoT devices in a plant is 50.
• The root node is chosen by the installer from among the devices that make up the system and is always fixed.
• In an already configured system, only one device can be added at a time.
• During the configuration phase, the MESH_ID parameter is set automatically. The MESH_ID parameter is therefore not editable by the installer.
• The devices are characterized by having an AVEbus address and an AVEBus UID. The AVEbus addresses and UIDs of the devices within a system are unique (devices with the same AVEbus address are not allowed).
• The mesh system can be configured to be combined with an existing Wi-Fi router (system with router) or by using a device as Access Point of the system itself (system without router).
• In the case of configuration with a home router, it is possible to connect the root node device to the AVECloud service to be able to control the devices remotely via APP or via voice command (with Google Home and Amazon Alexa).

The AveCloud application
The AveCloud application allows you to configure the system in an easy and intuitive way. The wizard guides the user step by step through the operations. The first action to be carried out is therefore to download the Ave Cloud application. The application is free and available: for Android devices on the Google Play Store and for iOS devices on the App Store. Once downloaded, you can easily add a new Wireless IOT system.

Meaning of the front LEDs
Before deepening the programming steps, it is useful to summarize briefly below the meaning of the front single-color LEDs and pressing the PRG button according to the various situations in which the device may be configured:

• fast flashing LED: the device is in the factory parameter reset conditions and is not associated with any system; by holding down the PRG button for 2 seconds, with subsequent release, you pass to the next state.
• slow flashing LED (1 flash per second): the device is looking for WiFi networks with AVE_IoT SSID that may already be present. If another network is found, the device remains in this state waiting for the AVE_IoT SSID to become free; if instead the SSID is free, it goes to the next state;
• 1 pulse flashing led: the device is in Access Point mode and is generating a WiFi network with SSID AVE_IoT and password aveiot58.
• 2-pulse flashing LED: the device is in root node mode, connected to another device in Access Point mode. To enter this mode, it is necessary to start from the reset conditions to the factory parameters and keep the PRG button pressed for 8 seconds, with subsequent release;
• 3-pulse flashing LED: the device is a node in network configuration mode that has connected to a root node (also in configuration mode).

The PRG button
During the configuration phase, the wizard will ask you to press the front button on the device in this way it will be possible to configure first the access-point and then the root node of the system. The function of the PRG button (programming function) is present on each device. In particular:

• IoT light switch body - Press the front button used to control the load;
• IoT shutter switch body - Simultaneous pressing of the two front buttons;
• Step-by-step relay and IoT controlled socket - Press the front button integrated in the luminous gem;
• IoT loads control - Press the front button "PRG";
• IoT multitouch devices - Press the button located on the side of the device;

The reset procedure is performed by pressing the PRG button for 15 seconds if the device has been powered for less than 60 minutes.

WIFI mesh
Advanced Smart Technology

For grid creation among devices. The Wi-Fi Mesh system are highly beneficial because you can always extend the grid range. The term "mesh" defines the way the connection is made. The devices build a dynamic "mesh" based on the quality of the signal they receive and monitor. This allows a continuous evolution of the system that guarantees maximum performance of the entire grid.

What also distinguishes Mesh Wi-fi from other solutions is that there is no deterioration in the quality of the connection. Mesh-based systems are slowly replacing other solutions because they are based on a high-quality and highly secure connection.

IEEE 802.11 standard Wi Fi.

It allows dual management in both Wi-Fi® DIRECT mode and Home Router mode.

Wi-Fi® DIRECT mode. A device of your choice within the system is identified as a Wi-Fi® Access-Point. By independently generating the Wi-Fi® grid, it enables local dialogue with the AVE Cloud application.

DOMESTIC ROUTER mode. A device of your choice in the system is identified as the Root-Node. Connecting to the Wi-Fi® grid (generated by the home router) allows supervision, both local and remote, via the AVE Cloud application and popular cloud-connected Voice Assistants

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No gateway required

Every IoT device is smart and can be the potential gateway to the system. In the example below, the two way switch has been configured as a Root-Node, given the technology present on the device it, therefore, also fulfils the function of a system gateway. A single device, therefore, provides both standard Wi-Fi and Wi-Fi mesh communication.

GATEWAY +
TWO WAY SWITCH

WiFi standard

DOMESTIC
ROUTER

WiFi mesh

Correct device positioning

During configuration, you are asked to enable the Wi-Fi® ACCESS-POINT mode in a wireless device of your choice. This allows the AVE Cloud application to connect to the system. If there are other DOMINA smart wireless IoT devices present, it is essential that the device in this mode is not the one closest to the DOMESTIC ROUTER. The closest device must instead be the one that will be configured as ROOT-NODE. The system allows the creation of systems consisting of up to 50 WIFI mesh devices. <u>For correct communication and distribution of the mesh network, it is advisable not to place the devices only on the perimeter of the house.</u> It is always important to think of a homogeneous distribution inside the building.

DOMESTIC ROUTER   ROOT NODE (RN)   ACCESS POINT (AP)

TECHNICAL CATALOGUE
Connected Wiring Accessories series with WiFi mesh

44..074-W - IoT LIGHT OR SOCKETS RELAY - 1MOD. S.44

The 44..074-W relay is a 2.4GHz wireless electronic control device with a 16A 230Vac 50Hz relay output, IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 domina smart mesh network systems. It is powered by 230 Vac and includes a front panel which matches the AVE S.44 - 1-module home series.

The electronic relay from the DOMINA smart wireless IoT range allows you to control an electrical device connected to it, both locally and remotely. Local control can be managed both via the front button built into the LED and via a wired control (by connecting an external button to the dedicated terminal). Remote control can be managed via a wireless connection using the AVE Cloud app and the DOMINA smart IoT AVEbus home automation system including supervisor.
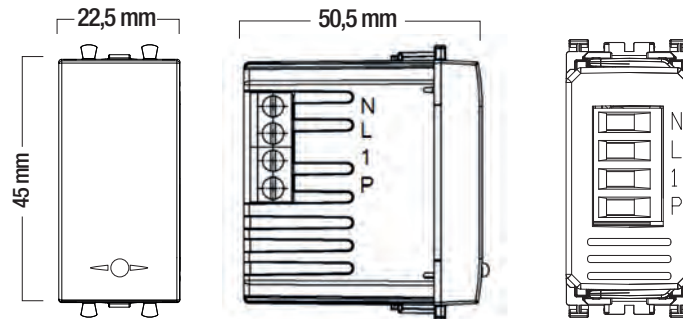
The device does not require a communication gateway and can, therefore, be managed in two ways:

• Wi-Fi® DIRECT mode. A device of your choice within the system is identified as a Wi-Fi® Access-Point. By independently generating the Wi-Fi® grid, it enables local dialogue with the AVE Cloud application;

• DOMESTIC ROUTER mode. A device of your choice in the system is identified as the Root-Node. Connecting to the Wi-Fi® grid (generated by the home router) allows supervision, both local and remote, via the AVE Cloud application and popular cloud-connected Voice Assistants.

The device has a relay output that can be set as: on-off outlet, timed outlet, step relay, staircase light. The front indicator light, in addition to signalling the status, also acts as a button for controlling (short press) and recalling any combined scene (press and hold). The timing, load shedding threshold and tolerance time parameters can also be set. In the event of a power grid outage, the load status will be the one saved immediately before the cut-off when power is restored.

IMPORTANT: the electronic relay must be powered with the same Line (L) and Neutral (N) that powers the load (see diagram). The minimum load detected must be greater than or equal to 12W. If an inductive load is connected, we recommend installing an RC filter (snubber) to be connected near the load.

Technical features

Compatible with all System44 items, installation into boxes with Ø59mm
- Dimension   1mod.S44 (22,5 x 45 x 50,5) mm
- Protection degree: IP20. If installed in dedicated boxes: IP40
- Weight: 38g

Frontal blue LED is visible for an optical signalization with adjustable intensity:
- ON continuous when relay is closed (load enabled)
- OFF when relay is disconnected (load disabled)
- Flashing long, short blinking or pulsing (fading effect) to indicates the device's functioning mode
- Integrated push button with frontal led

4 terminals of 15A 250V
- Isolator: 6 mm
- Screw: head for slotted screwdriver 3 x 1 mm
- Tightening torque: 0,5 Nm
- Capacity: Flexible wires 0,14 ÷ 2,5 mm2 (26 ÷ 13 AWG)
-     Stiff wires 0,14 ÷ 4 mm2 (26 ÷ 11 AWG)
- Entrance: 2,5 mm x 3 mm
- Terminal L: Linea
- Terminal N: Neutral
- Terminal 1:   Relay output
- Terminal P: Input for external push button

IMPORTANT: to get the right signalization of the load status is necessary a minimum consumption of 12W

Controlled load				
230 V~	16 A	10 A	10 A	10 A

WIFI mesh
Tecnologia Smart Evoluta

domina smart
Home Automation IoT

ave®

441074-W **445074-W** **449074-W**
2.4GHz wireless electronic control relay with 16A 230Vac 50Hz output - IoT technology on standard Wi-Fi® to create the domina smart IoT and IEEE 802.11 mesh networking systems - 230 Vac power supply - including front panel - Domus - Tekla - Class series - 1 module
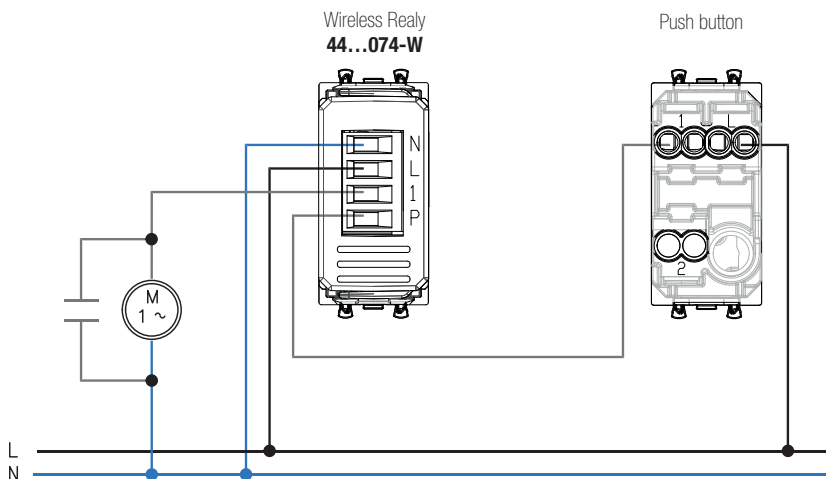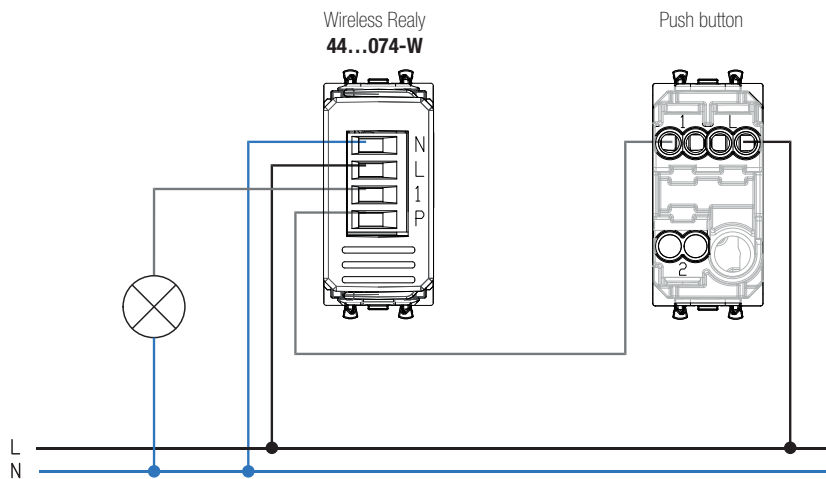
442074-W **443074-W**
2.4GHz wireless electronic control relay with 16A 230Vac 50Hz output - IoT technology on standard Wi-Fi® to create the domina smart IoT and IEEE 802.11 mesh networking systems - 230 Vac power supply - including front panel - Life - Allumia series- 1 module

441074-W 445074-W 449074-W

442074-W 443074-W

TECHNICAL INFO

Wireless Realy
44…074-W

Push button

Wireless Realy
44…074-W

Push button

The mechanism of two-way electronic switch of the range Domina Smart Wireless IoT with a relay output 230Vac can control incandescent lamps of 500W, LED lamps up to 100W, electronic transformers of up to 250VA, fluorescent lamps of 120W. furthermore, the device can be managed locally or remotely with the double technology IoT on standard WiFi® for the realization of mesh domina smart IoT and IEEE 802.11. the frontal local button allows the control of the load and to recall a scene with the long pressing. The device is characterized by the presence of a BLUE LED with adjustable intensity/brightness, power range from 100 to 240Vac. The device must be completed with a frontal interchangeable key of 1module S44 (44xTGP-W).
The two-way electronic switch of the range Domina smart wireless IoT allows the control of the load by means of the frontal button, through
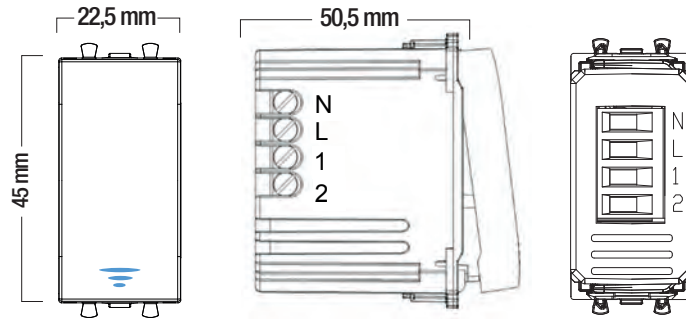
wireless connection and through a home automation system DOMINA smart IoT Avebus completed with supervisor.
The device does not require any communication gateway, it has the possibility to be controlled:
    • In Wi-Fi® DIRECT mode, in which a device of your choice within the system is identified as a Wi-Fi® Access-Point, which by generating the Wi-Fi® network itself allows local dialogue with the AVE Cloud application;
    • In DOMESTIC ROUTER mode, in which a device chosen (by the programmer) within the system is identified as a Root-Node, by connecting to the Wi-Fi® network generated by the home router allows local and remote supervision, using AVE Cloud application and the most common Voice Assistants connected to the cloud;
The device is equipped with a relay output to perform the function of a two-way switch; frontal button for controlling the connected load (by short press) and recalling the linked scene (by long press).
It automatically opens the relay for thermal protection and the switching occurs on zero crossing. The device can be connected to 1way, two-way or inverted switching lines already existing making "connected" the load function. In the event of a power failure, the load is restored in the status before the interruption;
IMPORTANT: the electronic relay should be powered from the same line (L) and beutral (N) of the load (check diagram). The load should exceed a power of 5W for the correct detection. For inductive loads it recommended to install a filter RC (snubber) to the load.

Technical features

Compatible with all System44 items, installation into boxes with Ø59mm		
• Dimension	1mod.S44 (22,5 x 45 x 50,5) mm	
• Protection degree:	IP20. If installed in dedicated boxes: IP40	
• Weight:	38g	
• Frontal LED:	Blu led with adjustable intensity for individuation in darkness and indication of the configuration status (blinking)	
• Frontal button		
4 terminals of 15A 240V		
• Isolator:	6 mm	
• Screw:	head for slotted screwdriver 3 x 1 mm	
• Tightening torque:	0,5 Nm	
• Capacity:	Flexible wires 0,14 ÷ 2,5 mm2 (26 ÷ 13 AWG)	
	Stiff wires 0,14 ÷ 4 mm2 (26 ÷ 11 AWG)	
• Entrance:	2,5 mm x 3 mm	
• Terminal L:	Linea	
• Terminal N:	Neutral	
• Terminal 1:	Relay output (Line interruption)	
• Terminal 2:	Relay output (Line interruption)	

IMPORTANT: To have the correct signaling of the load status, a minimum absorption of 5 W.

Controlled load				
100 V~	250 W	50 W	65 W	125 VA
240 V~	500 W	100 W	120 W	250 VA

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WIRING DIAGRAMS
AND PRESCRIPTIONS

442002ST-W

2.4GHz wireless electronic two way switch with 230Vac 50Hz relay output for 500 W incandescent bulbs, 100 W LED bulbs, 250 VA electronic transformers, 120 W fluorescent bulbs - IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 domina smart mesh network systems - 230 Vac power supply - to be completed with interchangeable buttons 1 module code 44...TGP-W.

442002ST-W   441TGP-W   445TGP-W   449TGP-W

442TGP-W   443TGP-W

□ **441TGP-W**   ■ **445TGP-W**   ■ **449TGP-W**
Interchangeable rocker for wireless electronic two-way switch - Domus, Tekla, Class - 1 module

■ **442TGP-W**   ■ **443TGP-W**
TInterchangeable rocker for wireless electronic two-way switch - Life, Allumia - 1 module

TECHNICAL INFO

Wireless Two-way switch
442002ST-W

Two-way switch

N L 1 2

L
N

Wireless Two-way switch
442002ST-W

Two-way switch

N L 1 2

L
N
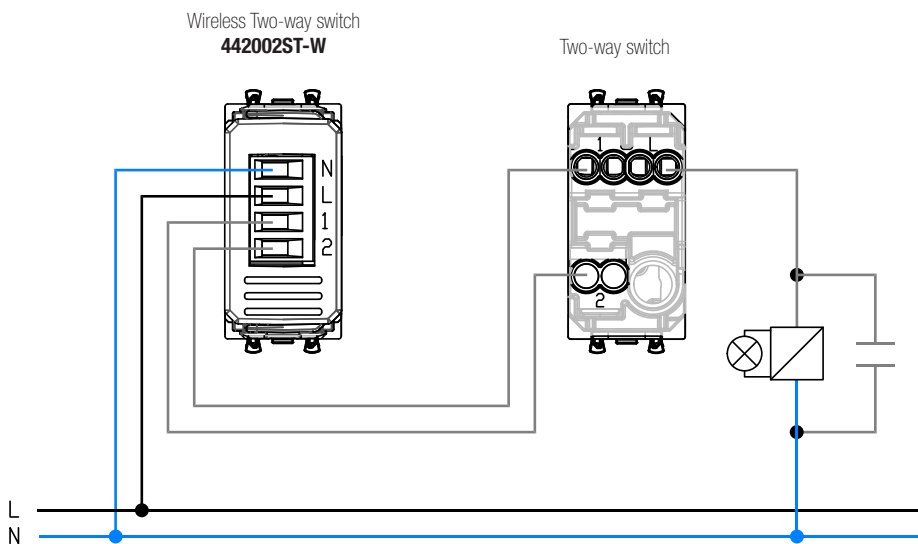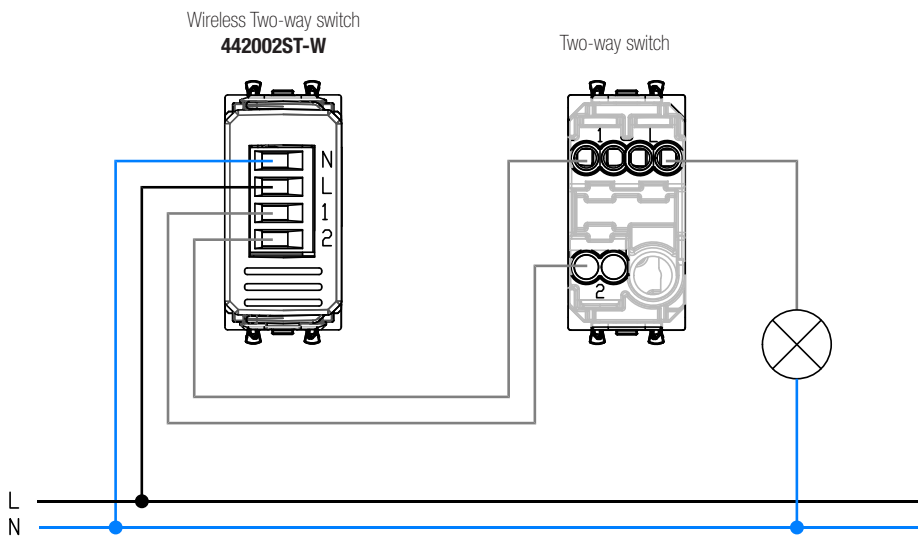
Electronic rolling blind switch mechanism of the DOMINA smart wireless IoT range for 1 roller shutter with slats orientation relay output for motor cosφ 0.65 2A 100-240 Vac 50/60 Hz locally or remotely controlled, double IoT technology on Wi-Fi® mesh standard IoT Domina smart systems and IEEE 802.11, double front button for actuator control, preferred position recall function, identification in the dark with adjustable intensity BLUE LED, 100-240 Vac power supply, to be completed with two half buttons interchangeable 1 module cod. 44… TGC-W.
The electronic rolling blind switch of the DOMINA smart wireless IoT range allows you to control the shutter with orientation of the slats via the double front button via a wireless connection and through the system AVEbus DOMINA smart IoT home automation with a supervisor.
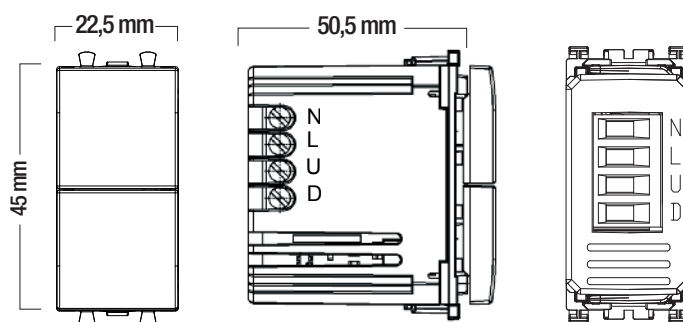
The device does not require any communication gateway, it has the possibility to be controlled:
• In Wi-Fi® DIRECT mode, in which a device of your choice within the system is identified as a Wi-Fi® Access-Point, which by generating the Wi-Fi® network itself allows local dialogue with AVE Cloud application;
• In DOMESTIC ROUTER mode, in which a device chosen (by the programmer) within the system is identified as a Root-Node, by connecting to the Wi-Fi® network generated by the home router allows local and remote supervision, using AVE Cloud application and the most common Voice Assistants connected to the cloud

The device is equipped with 2 monostable output relays with interlock function. In the event of a power failure, the 2 relays remain open. The double front buttons control the connected rolling shutter as follow:
- Short press: the higher button raises the shutter and the lower key lowers it until the end of line.
- Long press: it makes the rolling shutter moving in the desired direction if it is stopped, if it is in movement the long press stopped it and if it is closed the slats rotate;
- Double press of both buttons: recall of the preferred position (storage via AVE Cloud App).
IMPORTANT: the electronic relay must be powered with the same Line L and Neutral N that power the load (see diagram).For inductive loads it recommended to install a filter RC (snubber) to the load

Technical features

Compatible with all System44 items, installation into boxes with Ø59mm
• Dimension	1mod.S44 (22,5 x 45 x 50,5) mm	
• Protection degree:	IP20. If installed in dedicated boxes: IP40	
• Weight:	38g	

Blue signaling LED with adjustable intensity for identification in the dark and signaling of the configuration status (flashing).
• Double front button

4 terminals of 16A 250V
• Isolator:	6 mm
• Screw:	head for slotted screwdriver 3 x 1 mm
• Tightening torque:	0,5 Nm
• Capacity:	Flexible wires 0,14 ÷ 2,5 mm2 (26 ÷ 13 AWG)
	Stiff wires 0,14 ÷ 4 mm2 (26 ÷ 11 AWG)
• Entrance:	2,5 mm x 3 mm
• Terminal L:	Linea
• Terminal N:	Neutral
• Terminal U:	Line interrupted - Up (UP)
• Terminal D:	Line interrupted - Down (DOWN)

Controlled load	
100 V~	2A cosφ 0.65
240 V~	2A cosφ 0.65

WIFI mesh
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domina smart
Home Automation IoT

442053ST-W **441TGC-W** **445TGC-W** **449TGC-W**

442TGC-W **443TGC-W**

442053ST-W
2.4GHz wireless electronic rolling blind switch for 1 standard roller shutter or with slat tilting - changeover relay output for motor cosφ 0.65 2° 230 Vac 50 Hz - IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 smart domina mesh network systems - 230 Vac power supply - to be completed with two interchangeable half-buttons - 1 module

☐ **441TGC-W** ■ **445TGC-W** ■ **449TGC-W**
Interchangeable rocker with arrows for wireless electronic rolling blind switch
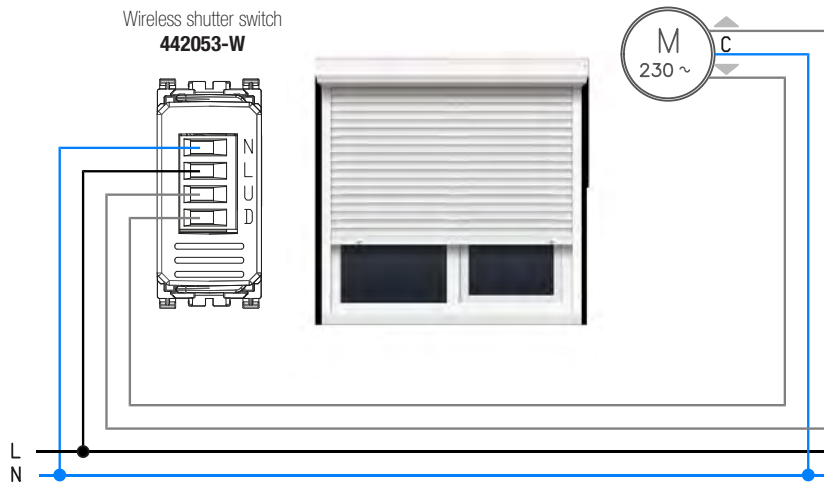Domus, Tekla, Class - 1 module

■ **442TGC-W** ■ **443TGC-W**
Interchangeable rocker with arrows for wireless electronic rolling blind switch
Life, Allumia - 1 module

TECHNICAL INFO

Wireless shutter switch
442053-W

Wireless shutter switch
442053-W
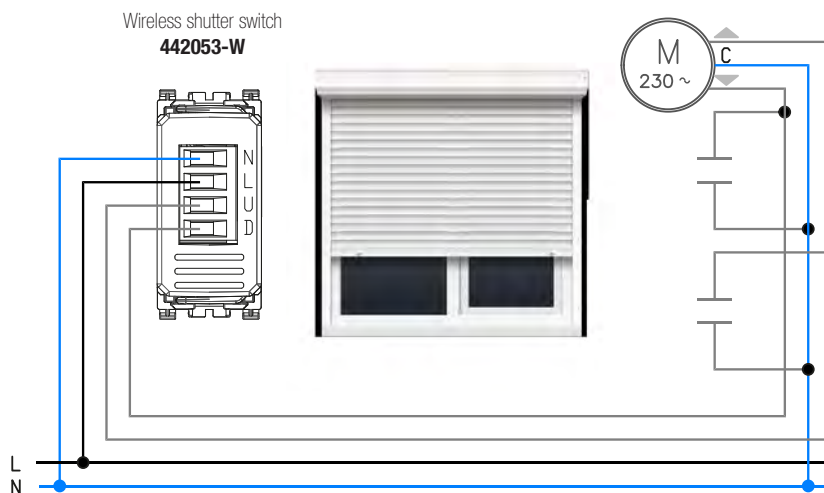
53ECO11-W is a device for monitoring power consumption, monitoring self-production by means of photovoltaic panels and controlling electrical loads within a residential context with single-phase users (230Vac/50Hz) and power used not exceeding 10kW.

The device envisages the connection of two TA current transformers, one to measure the power and the energy taken from and/or delivered to the grid (exchange TA) and a second transformer to measure the power and energy produced by the self-production photovoltaic system (production TA).
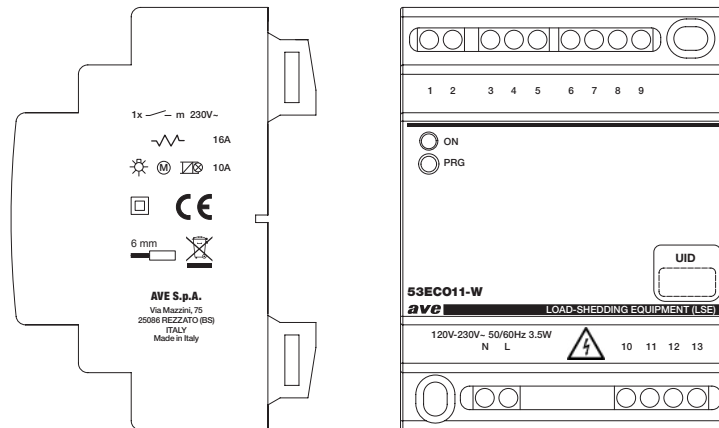
Based on the parameter programming, the device can optimise the excess energy produced by the photovoltaic system.

The device is also able to control the power consumption of the home, keeping the power taken from the grid within the set threshold (contractual power of the user) by controlling the "loads" by means of home automation / IoT actuators: the device connects and/or disconnects the loads following the set order of priority to keep the maximum power used (set during the configuration phase) within the set limits, taking into account the power of each load and the power that can still be taken from the meter. In this way, the device prevents user overload (if several high-consumption appliances are switched on at the same time), thus avoiding the intervention of the thermal protection of the meter.

Technical specifications

The specifications are described with reference to fig.1:

• Container:	4 DIN modules
• Dimensions:	(70 x 89 x 66) mm
• Degree of protection:	IP20 (IP 30D in the special containers)
• Colour of container:	grey RAL 7016
• Fixing:	on EN 50022 DIN rail or directly on the panel, using the special holes for screws (Ø 4mm max)
• Operating position:	vertical
• Terminal boards:	16A-250V
• ON signalling LED:	There is a yellow optical signalling light on the front.
• PRG programming button	
• Insulation stripping:	6 mm
• Screw:	slotted screwdriver head 3 x 1 mm
• Tightening torque:	0.5 Nm
• Capacity:	flex wire 0.14 ÷ 2.5 mm2 (26 ÷ 13 AWG) rigid wire 0.14 ÷ 4 mm2 (26 ÷ 11 AWG)
• Opening:	2.5 mm x 4 mm
• Terminal N:	Neutral
• Terminal L:	Line
• Terminals 1 and 2:	Clean contact output for Storage Tank control
• Terminal 3:	Temperature Probe Connection for Storage Tank
• Terminal 4:	PWM for Storage Tank control
• Terminal 5:	GND -common for terminals 3 and 4-
• Terminals 6 and 7:	Clean contact input: Storage Tank management consent.
• Terminals 8 and 9:	Clean contact input: Storage Tank management consent.
• Terminals 10 and 11:	Exchange TA connection (pay attention to the direction indicated on the wiring diagram and to the arrow on the TA. Terminal 10 white - Terminal 11 black)
• Terminals 12 and 13:	Production TA connection (pay attention to the direction indicated on the wiring diagram and to the arrow on the TA. Terminal 12 white - Terminal 13 black)

Technical Details

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WIRING DIAGRAMS
AND PRESCRIPTIONS

53ECO11-W

Device for monitoring power consumption, monitoring self-production by means of photovoltaic panels and controlling electrical loads within a residential context with single-phase users (230Vac/50Hz) and power used not exceeding 10kW. - IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 domina smart mesh network systems - 230 Vac power supply - 4 DIN modules
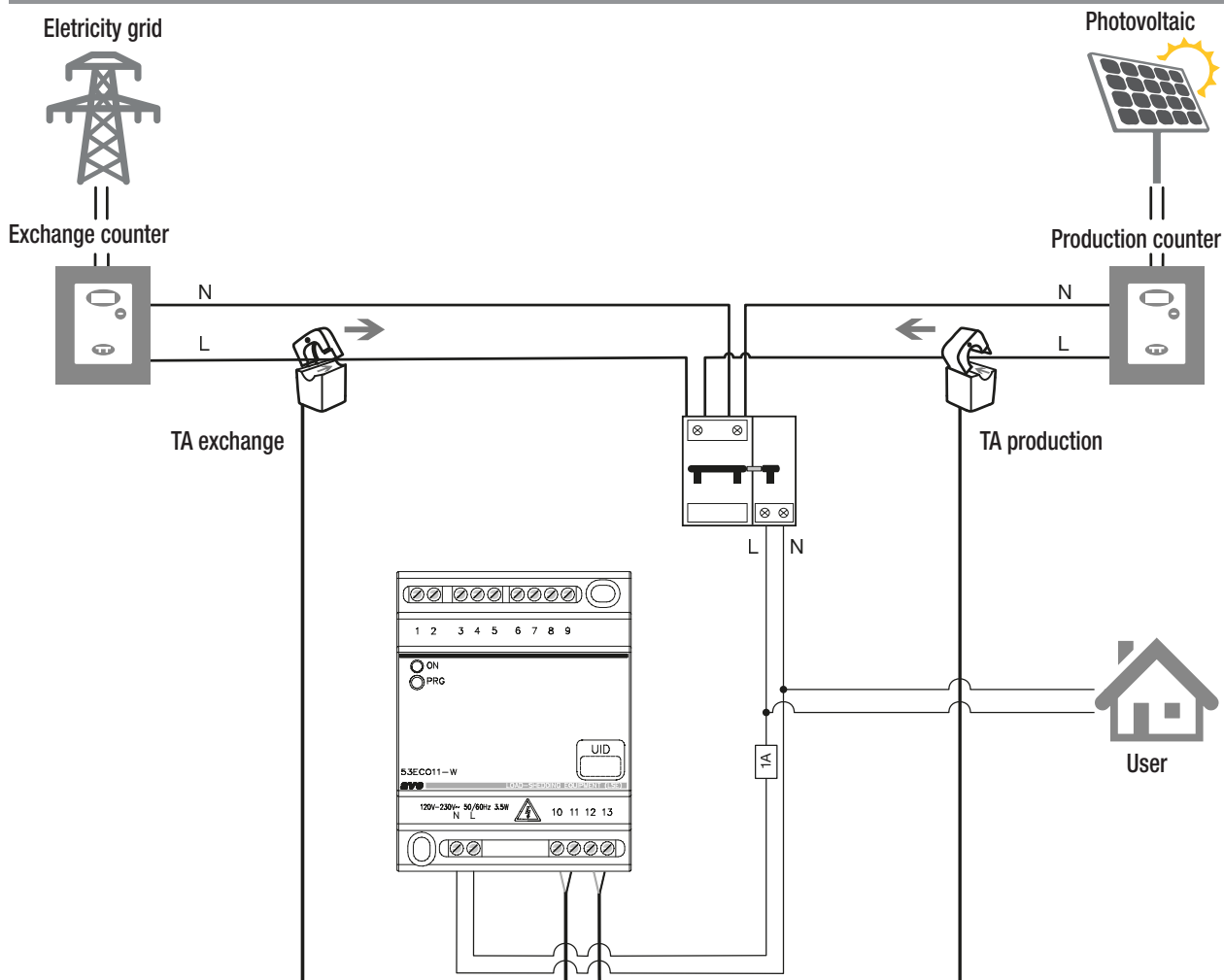
53ECOR16A-W

Device with actuator function and power consumption meter - 16A 230Vac 50Hz relay output - IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 domina smart mesh network systems - 230 Vac power supply - 2 DIN modules

53ECO11-W

53ECOR16A-W

TECHNICAL INFO

LOAD				
230 V~	16 A	10 A	10 A	10 A

EXEMPLE OF USE

Eletricity grid

Photovoltaic

Exchange counter

Production counter

N

N

L

L

TA exchange

TA production

L   N

1 2   3 4 5   6 7 8 9

ON

PRG

UID

53ECO11-W

120V-230V~ 50/60Hz 3.5W

N   L

10 11 12 13

1A

User

TECHNICAL CATALOGUE
Connected Wiring Accessories series with WiFi mesh

442TC16-W - IoT MULTI-TOUCH CONTROL - 3 MOD. S.44

The 442TC16-W multi-touch control block is a 2.4GHz wireless electronic device. It is a multi-function appliance with IoT technology on standard Wi-Fi®to create IoT and IEEE 802.11 domina smart mesh network systems. 230 Vac power supply, to be completed with touch plates.
The electronic multi-touch control from the DOMINA smart wireless IoT range has: two local IoT relays (L1; L2) that act in pairs to control a two way switch or roller shutter control (the two relays have an AVEbus address). Two contact closure relays (L3; L4 - relays with no addresses) which close when there is pressure on the keypad and open when the appropriate configured keys are released. An input (P) for an external pulse command to switch relays L1; L2 if they are configured as two way switches.
The front area of the device is divided into 9 sensitive zones, divided into 3 columns of 3 zones each. The central zone, or the two high+low zones, or no zone can be activated for each column. You can, therefore, have from a minimum of one (at least one zone must be defined) active sensitive zone up to a maximum of 6 zones.
During programming, you can choose which zones to activate and which functions to assign by configuring the columns:
   • one column is used to control the local relay pair and can be configured with the central touch button for two way switch control or with the up/down touch buttons for shutter control;
     • the other two columns can be used to control:
       either the local relay with no address with central touch button only;
       or remote activations by sending radio frames to the two way switches or IoT outlets with the column set with central touch or up/down button or both buttons with different commands.
There is also a mode in which none of the columns are connected to the local IoT load with an address, in which case the touch keypad becomes a pure control element.
The device does not require a communication gateway and can, therefore, be managed in two ways:
   • Wi-Fi® DIRECT mode. A device of your choice within the system is identified as a Wi-Fi® Access-Point. By independently generating the Wi-Fi® grid, it enables local dialogue with the AVE Cloud application;
   • DOMESTIC ROUTER mode. A device of your choice in the system is identified as the Root-Node. Connecting to the Wi-Fi® grid (generated by the home router) allows supervision, both local and remote, via the AVE Cloud application and popular cloud-connected Voice Assistants.

IMPORTANT: the electronic device must be powered with the same Line (L) and Neutral (N) that powers the load (see diagram). The load must be greater than 5W for correct detection. If an inductive load is connected, we recommend installing an RC filter (snubber) to be connected near the load.

Technical specifications
Compatible with all elements of System 44.
• Container:	3-module S44 (67 l x 45 h x 40 d) mm	
• Degree of protection:	IP20. When installed in the appropriate containers: IP40	
• Weight:	90 g	

Optical signals (LEDs) are visible on the front in the enabled areas: both the intensity and the colour can be set during programming (blue, amber or purple). When the touch is recognized, the LED emits a more intense light.
Front touch buttons. Side button for programming (the button must be pressed using a slotted screwdriver)
8-pole 16A 250V~ terminal block
• Insulation stripping:	6 mm
• Screw:	slotted screwdriver head 3 x 1 mm
• Tightening torque:	0.5 Nm
• Capacity:	flex wire 0.14 ÷ 2.5 mm2 (26 ÷ 13 AWG)
	rigid wire 0.14 ÷ 4 mm2 (26 ÷ 11 AWG)
• Opening:	2.5 mm x 3 mm
• Terminal L1:	Line to IoT Device interrupted (Roller shutter Div/UP)
• Terminal L2:	Line to IoT Device interrupted (Roller shutter Div/Down)
• Terminal L3:	Line to First Local Stand Alone Button interrupted
• Terminal L4:	Line to Second Local Stand Alone Button interrupted
• Terminals P:	Button input for remote operation
• Terminal L:	Line
• Terminal N:	Neutral

Technical Details

WIFI mesh
Tecnologia Smart Evoluta

domina smart
Home Automation IoT

ave

25

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

442TC16-W

442TC16-W
Multi-function 2.4GHz wireless electronic multi-touch device with IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 mesh network systems - 230 Vax power supply - to be completed with AVE Touch plates - 3 modules.
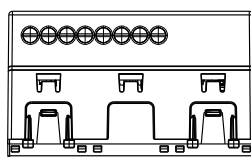
TECHNICAL INFO

Wireless Multi-touch
control
442TC16-W

Two way switches

IoT
L1 L2 L3 L4 P L N

Wireless Multi-touch
control
442TC16-W

IoT
L1 L2 L3 L4 P L N

PRG
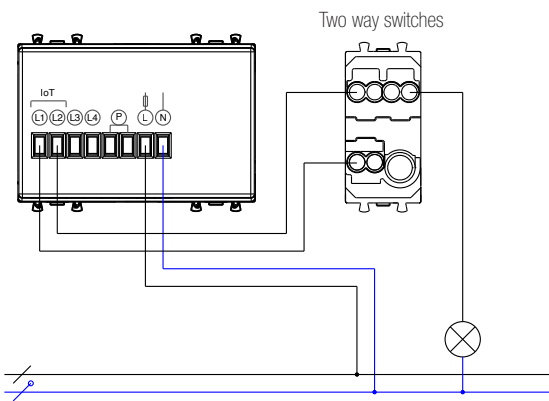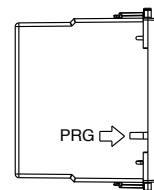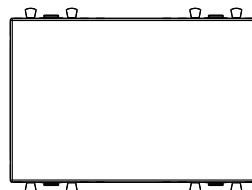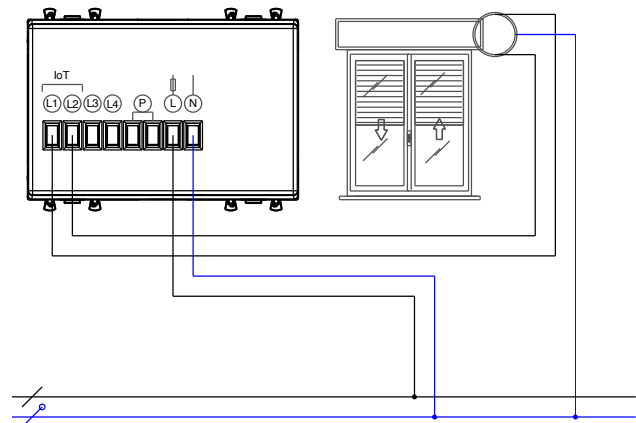
To be completed with system 44 front plates:
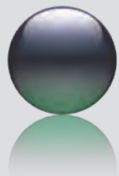
METAL
44PSMTC3...
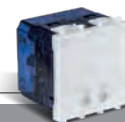
GLASS
44PVTC16..

ALUMINIUM
44PATC16...

TECHNICAL CATALOGUE
Connected Wiring Accessories series with WiFi mesh

442TC14-W - IoT MULTI-TOUCH CONTROL - 2 MOD. S.44

The 442TC16-W multi-touch control block is a 2.4GHz wireless electronic device. It is a multi-function appliance with IoT technology on standard Wi-Fi®to create IoT and IEEE 802.11 domina smart mesh network systems. 230 Vac power supply, to be completed with touch plates.

The electronic multi-touch control from the DOMINA smart wireless IoT range has: two local IoT relays (L1; L2) that act in pairs to control a two way switch or roller shutter control (the two relays have an AVEbus address). One contact closure relay (L3- relay with no addresses) which close when there is pressure on the keypad and open when the appropriate configured keys are released. An input (P) for an external pulse command to switch relays L1; L2 if they are configured as two way switches.

The front area of the device is divided into 9 sensitive zones, divided into 3 columns of 3 zones each. The central zone, or the two high+low zones, or no zone can be activated for each column. You can, therefore, have from a minimum of one (at least one zone must be defined) active sensitive zone up to a maximum of 4 zones.

During programming, you can choose which zones to activate and which functions to assign by configuring the columns:
   • one column is used to control the local relay pair and can be configured with the central touch button for two way switch control or with the up/down touch buttons for shutter control;
   • the other two columns can be used to control:
     either the local relay with no address with central touch button only;
     or remote activations by sending radio frames to the two way switches or IoT outlets with the column set with central touch or up/down button or both buttons with different commands.

There is also a mode in which none of the columns are connected to the local IoT load with an address, in which case the touch keypad becomes a pure control element.

The device does not require a communication gateway and can, therefore, be managed in two ways:
   • Wi-Fi® DIRECT mode. A device of your choice within the system is identified as a Wi-Fi® Access-Point. By independently generating the Wi-Fi® grid, it enables local dialogue with the AVE Cloud application;
   • DOMESTIC ROUTER mode. A device of your choice in the system is identified as the Root-Node. Connecting to the Wi-Fi® grid (generated by the home router) allows supervision, both local and remote, via the AVE Cloud application and popular cloud-connected Voice Assistants.

IMPORTANT: the electronic device must be powered with the same Line (L) and Neutral (N) that powers the load (see diagram). The load must be greater than 5W for correct detection. If an inductive load is connected, we recommend installing an RC filter (snubber) to be connected near the load.

Technical specifications

Compatible with all elements of System 44.

• Container:	2-module S44 (45 l x 45 h x 40 d) mm
• Degree of protection:	IP20. When installed in the appropriate containers: IP40
• Weight:	60 g

Optical signals (LEDs) are visible on the front in the enabled areas: both the intensity and the colour can be set during programming (blue, amber or purple). When the touch is recognized, the LED emits a more intense light.

Front touch buttons. Side button for programming (the button must be pressed using a slotted screwdriver)

6-pole 16A 240V~ terminal block

• Insulation stripping:	6 mm
• Screw:	slotted screwdriver head 3 x 1 mm
• Tightening torque:	0.5 Nm
• Capacity:	flex wire 0.14 ÷ 2.5 mm2 (26 ÷ 13 AWG)
	rigid wire 0.14 ÷ 4 mm2 (26 ÷ 11 AWG)
• Opening:	2.5 mm x 3 mm
• Terminal L1:	Line to IoT Device interrupted (Roller shutter Div/UP)
• Terminal L2:	Line to IoT Device interrupted (Roller shutter Div/Down)
• Terminal L3:	Line to First Local Stand Alone Button interrupted
• Terminals P:	Button input for remote operation
• Terminal L:	Line
• Terminal N:	Neutral

442TC14-W

442TC14-W
Multi-function 2.4GHz wireless electronic multi-touch device with IoT technology on standard Wi-Fi® to create IoT and IEEE 802.11 mesh network systems - 230 Vax power supply - to be completed with AVE Touch plates - 2 modules.
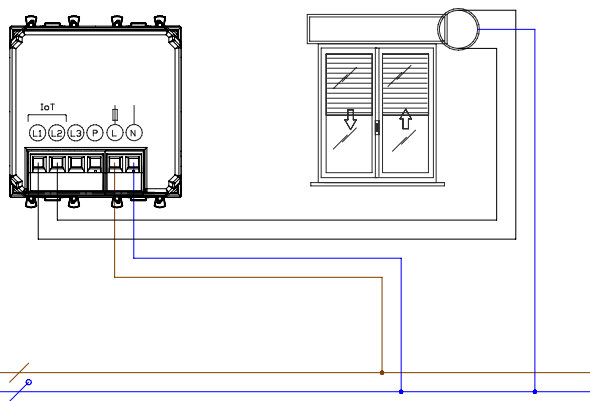
TECHNICAL INFO

Wireless Multi-touch control
442TC14-W

Wireless Multi-touch control
442TC14-W

To be completed with system 44 front plates:

METAL
44PSMTC3...

GLASS
44PVTC16..

ALUMINIUM
44PATC16...

AVE Bus
professional home automation system

Ave material must be installed by qualified people and the plant must be tested by an expert; according to the current standards

The installer takes care to leave his name and address to the customer and preferably also the name and address of the local technical support centre

IP Videointercom

Sound diffusion

Compatibility with FREENET MK3

For availability of the integrated system with the sound diffusion, please contact our technical assistance

Home automation Touch controls.

Systems Interaction for System Integrator

Control devices

Connected wiring accessories series with WiFi mesh

Motion Sensors

Thermoregulation

HOME AUTOMATION

IP Camera

Antintrusion

Centralized Air Conditioning

DAIKIN* *HITACHI** *MITSUBISHI ELECTRIC**

For availability of the integrated system with the vmc and air conditioning, please contact our technical assistance

DALI Lighting interface

Home automation supervision both locally and remotely through Ave cloud

ave Cloud
HOME SUPERVISION

Consumption Control

IR controls (air condtioning, stereo, Hi-Fi, etc...)
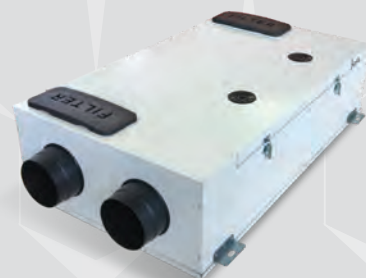
CMV Control

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.

HOME AUTOMATION

TS-SMART10ALS

53AB-ALI   **53AB-AUX**

Power supply

53AB-WBS
Web Server

TS-SMART7ANS

442ABTC6   **442ABTC1**   **442ABT4**   **442ABT2-1**

Multi-functions control devices

Multi-functions control interface

ABIN06   **ABIN02**   **441AB68**   **53ABAN02**

53ABR8   **441ABR1-M**   **442ABT4R2**   **441ABDI**

Actuation devices (lights, dimmer or shutters)

Devices for thermoregulation/ air conditioning

441ABTM03B   **441ABTMH-SO**   **53ABRTM-FC**   **53ABRTM-PV**

	TS05N-V	TS04X-V	TS01	
	Colour 15" display (4:3)	Colour 12" display (4:3)	Colour 4,3" display (16:9)	
	Representation of the environments with graphic maps		Environment representation through menus and icons	
	Local supervision through android and iOs applications, and/or through web pages. Remote supervision through ave cloud (IoT)		Local supervision through android and iOs applications, and/or through web pages. Remote supervision through ave cloud (IoT)	
	Videointercom compatibility SIP VoIP standard (Without authentication on SIP server - peer to peer)		N.D.	
	Local view compatible with H264 cameras and Motion JPEG (RTSP)		N.D	
	Compatible with Anti-intrusion central unit AF949PLUS or AF999PLUS (TSINT02) - AF927PLUS (Wi-Fi)			

Annex

Display

Iot, Cloud and Supervision

Videointercom

HOME AUTOMATION

53AB-WBS	TS10...-V	TS-SMART10... NEW	TS-SMART7... NEW
Web Server	Colour 10" display (16:9)	Colour 7" or 10" display (16:9)	
Environment representation through icons, graphical photo maps and menu on mobile devices	Environment representation through photo maps (combined with Web Server 53AB-WBS or a different home automation Supervisor)		
Local supervision through android and iOs applications, and/or through web pages. Remote supervision through ave cloud (IoT)	Remote call answering Video intercom systems via the dedicated AVE Intercom app for devices with IoS and Android operating system	Remote call answering Video intercom systems via the dedicated AVE V44 remote app for devices with IoS and Android operating system	
N.D.	domina smart Video Intercom System IoT	V44 VIDEOPHONIA SMART	
N.D	Local view compatible with H264 cameras		
Compatible with anti-intrusion central unit AF949PLUS or AF999PLUS (TSINT02) AF927PLUS (Wi-Fi) or AF927PLUSTC (Wi-Fi)	Compatible with anti-intrusion central unit AF927PLUS (Wi-Fi) or AF927PLUSTC (Wi-Fi)		

Video-camera

Antintrusion

STANDARD

- ☀ LIGHTING
- ▤ AUTOMATION

ADVANCED
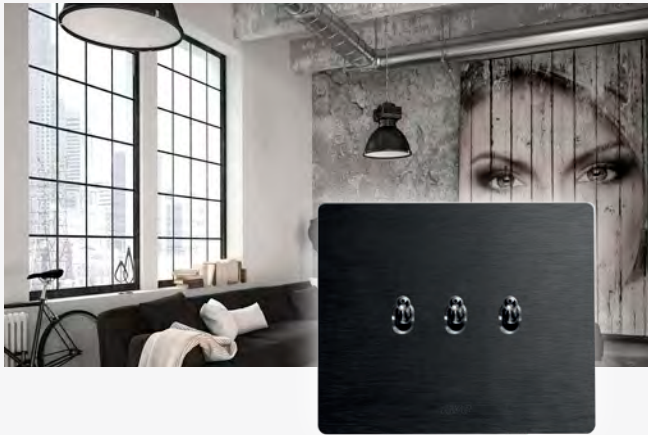
- ☀ LIGHTING
- ▤ AUTOMATION
- 🌡 TEMPERATURE CONTROL
- 📞 SUPERVISION

HIGH PERFORMANCE

- ☀ LIGHTING
- ▤ AUTOMATION
- 🌡 TEMPERATURE CONTROL
- 📞 SUPERVISION
- 🛡 ANTI-INTRUSION ALARM SYSTEM

HOME AUTOMATION

The DOMINA^{pro} 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.

ABIN06

53ABR8

44PSMTC3GTK

DOMINA^{pro} 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 DOMINA^{pro} 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.

DOMINA^{pro} 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 DOMINA^{pro} 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 DOMINA^{pro} 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.
DOMINA^{pro} 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.

HOME AUTOMATION

Mini Touch Screen 4.3" with outdoor temperature probe

In addition to the Supervisor function of the entire home automation system, DOMINA^{pro} 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.

445ABTM03B

Probe, thermostat and room hygrostat

Measures room temperature, controls the actuators and window status, ensuring comfort but also energy saving.

445ABTMH-SO

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
445ABRTM-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 DOMINA^{pro} system with leading air conditioner brands.

442AB-IRT

CONTROLLED MECHANICAL VENTILATION AND FORCED EXTRACTION

The integration of DOMINA^{pro} 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.
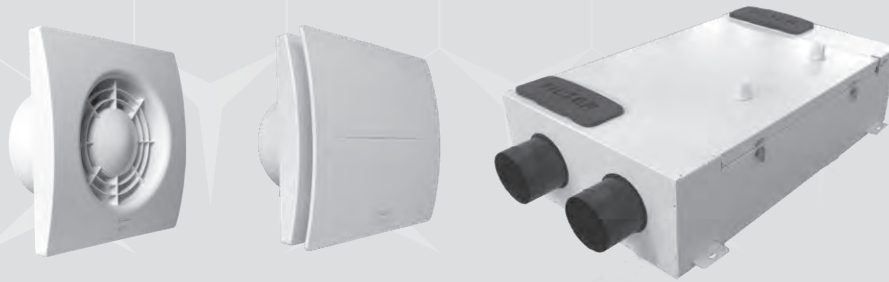
Benefits

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 website:
www.ave.it

HOME AUTOMATION

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 DOMINA[pro] 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.

Centralised CMV

Evironmental Control

Detector of CO2

Fans

Decentralised CMV

DOMINA^{PRO} 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

•	Capacitive 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

DOMINA^{pro} 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.

Technical Details

TS05N-V

TS05N-V
DOMINApro 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.
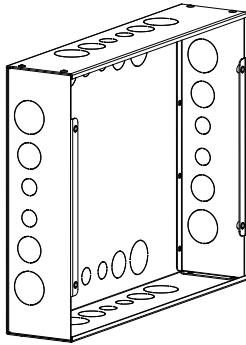
TS05NBOX
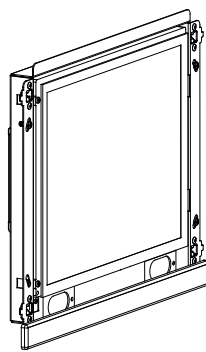flush-mounted box for brickwork and plasterboard walls, 376x325x80 mm (W H D)
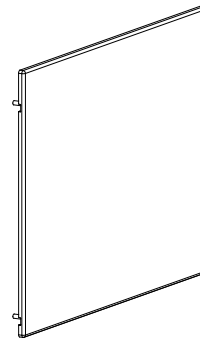
TECHNICAL INFORMATION

FLUSH-MOUNTED BOX

TS05NBOX

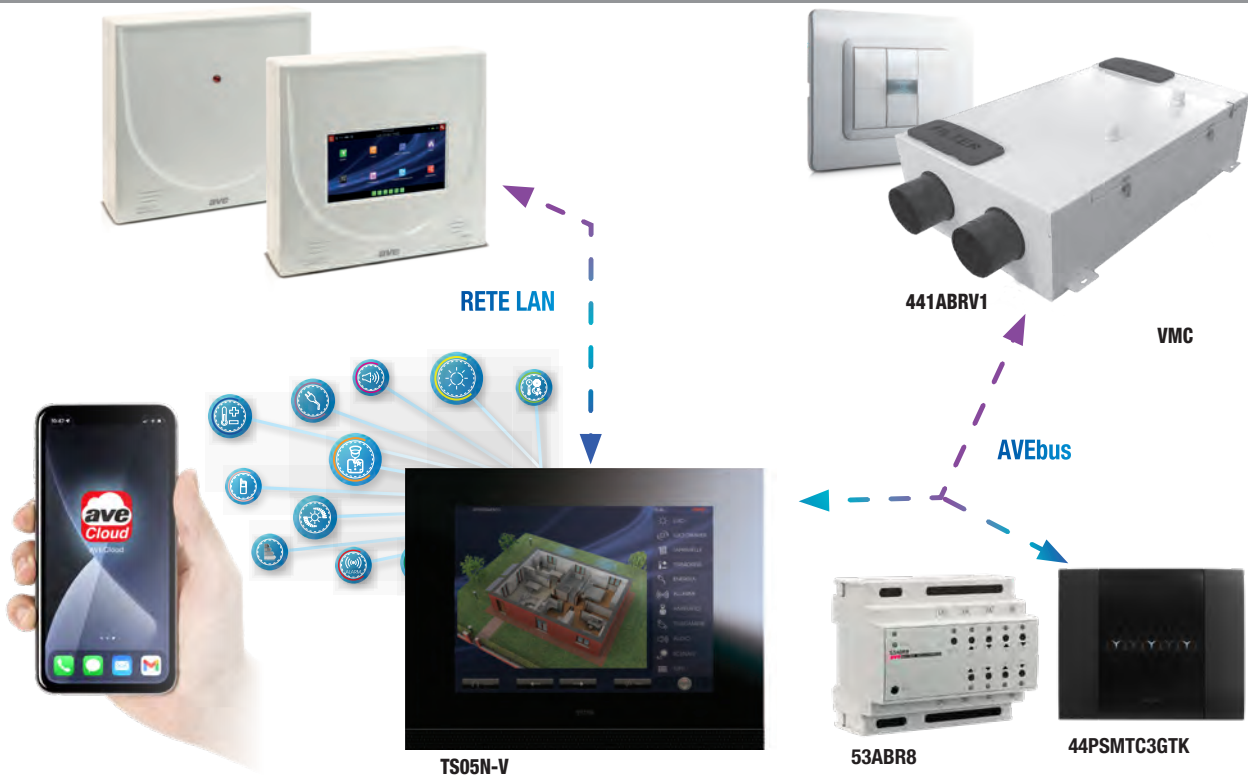TS05N-V

LIFE COLOUR FRONT PLATE IS INCLUDED

EXAMPLE OF USE

RETE LAN

441ABRV1

VMC

AVEbus

TS05N-V

53ABR8

44PSMTC3GTK

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
DOMINA^{pro} 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.

Home Automation

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS AND PRESCRIPTIONS

TS04X-V

TS04X-V
DOMINA^pro 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
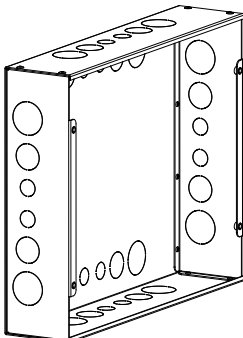
TS04XBOX
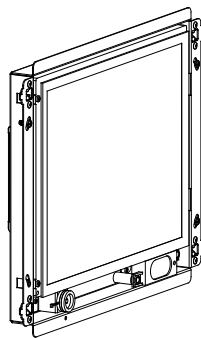
TS04X-V
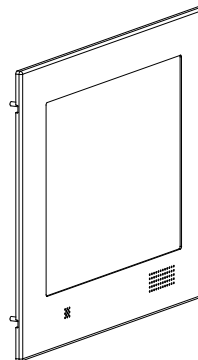
DOMUS COLOUR FRONT PLATE IS INCLUDED

EXAMPLE OF USE

RETE LAN

441ABRV1

VMC

AVEbus

TS04X-V

53ABR8

44PSMTC3GTK
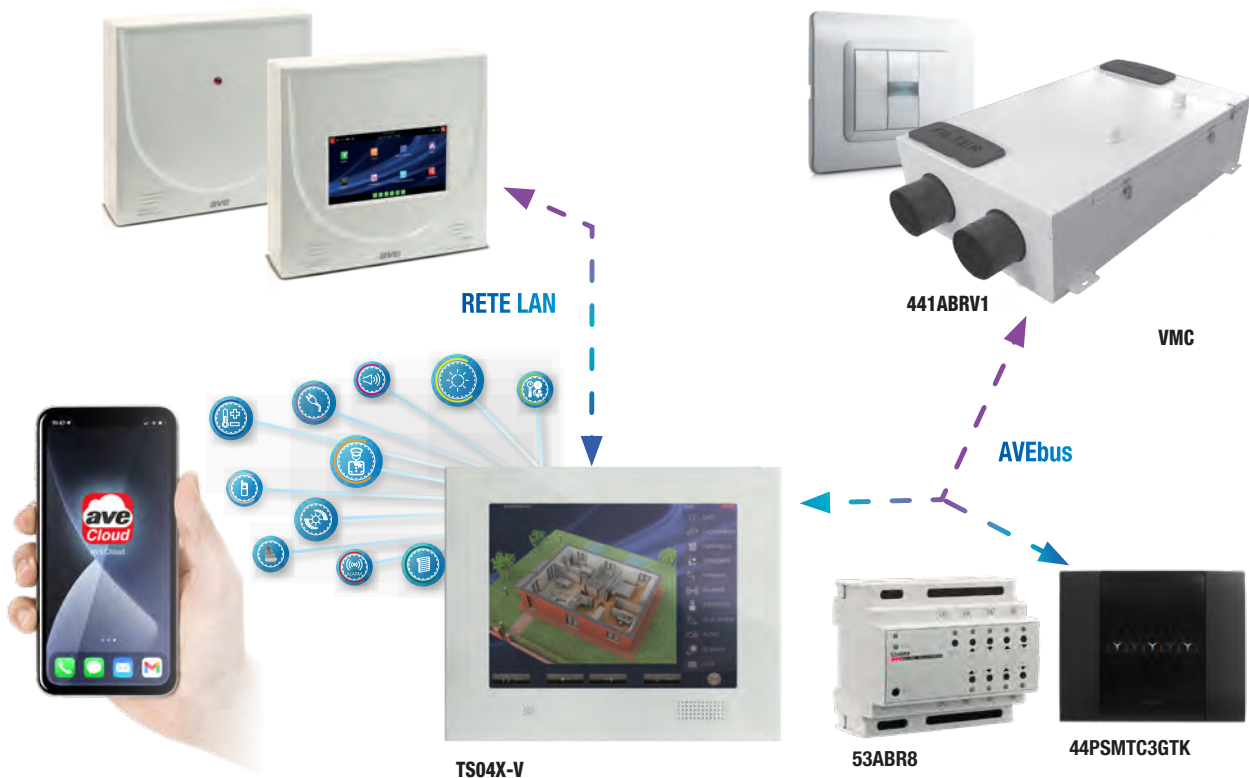
DOMINA^{PRO} TOUCH SCREEN WITH 7" DISPLAY - COD. TS-SMART7..

The 7" Android supervisor monitor allows the use of a single device to manage several systems from a single terminal: Home automation, Burglar alarm, video intercom. It is possible to manage all home automation system functions (lights, shutters, heat regulation, etc.), burglar alarm system functions (arming, disarming, partial setting, checking zone status and alarm signals), receive calls from the video intercom system and manage relays on the outdoor stations.
It is also possible to view images from IP cameras with the same device.
The device also allows the remote answering of video intercom calls via an APP available for iOS and Android operating systems.

220 mm

140 mm

27 mm

Installation Example

SCREWS
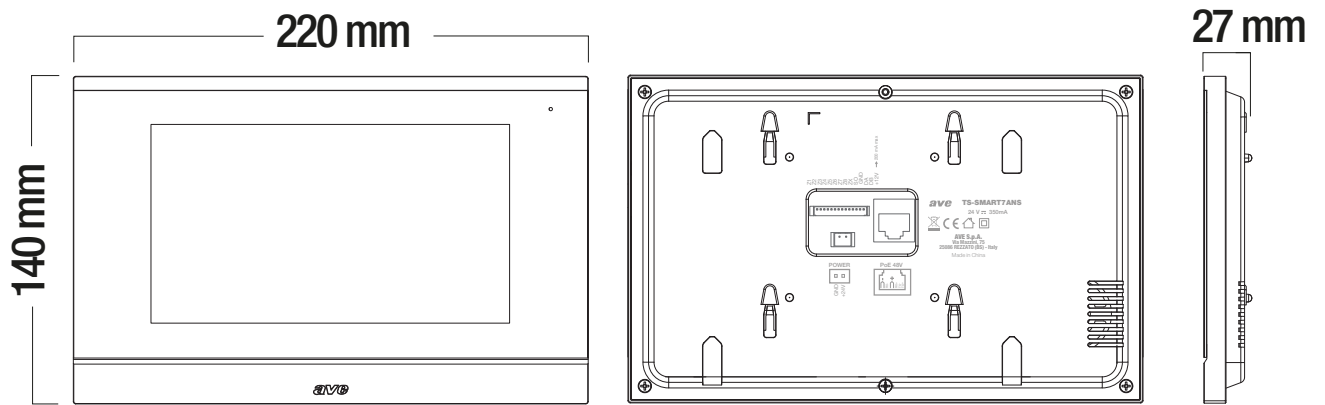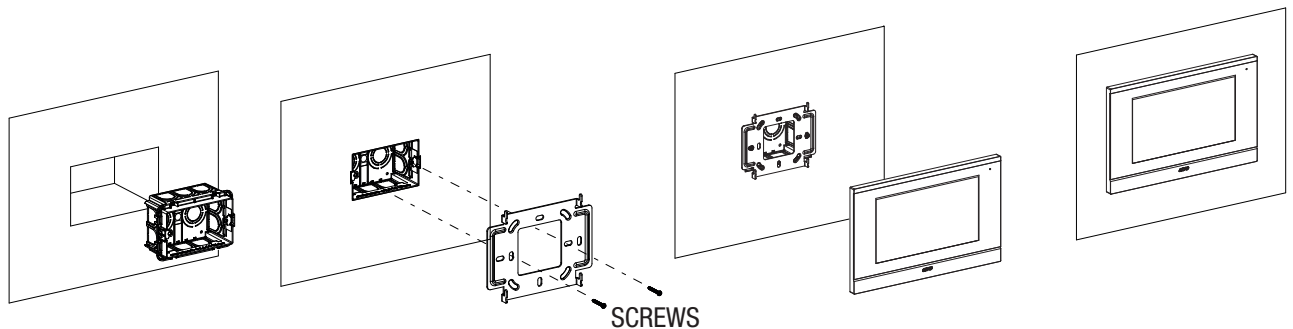
TS-SMART7ALS

TS-SMART7ALS

TS-SMART7ANS

TS-SMART7ALS

Monitor with 7" colour touchscreen display in 16:9 format. Structure made of glass and aluminium. Input for floor button doorbell, ring mute function, unanswered call log, image capture of incoming call. Door open alarm. "Doctor's studio" function with input display. Wall-mounted installation on 3-module box installed horizontally using the bracket supplied with the device.
Power supply via 24VDC switching or 48VDC PoE switch.
Allows you to view and control:
• Domina SMART Home automation (via article 53AB-WBS)
•Related civil series devices (through article 53AB-WBS)
•Direct burglar alarm control units AF927PLUS - AF927PLUSTC
•V44 SMART video intercom system
•IP cameras (request a list of compatible cameras from your local technical sales representative or Inteam technical support) The device enables remote answering of an incoming video intercom call via the AVE V44 REMOTE APP available for iOS and Android operating systems. Natural satin finish aluminium colour. Dimensions 220x140x27 mm.

TS-SMART7ANS
As above in satin burnished aluminium colour.

DEVICE NOT COMPATIBLE WITH THE IP DOMINA SMART VIDEO INTERCOM SYSTEM

EXAMPLE OF USE

TS-SMART7ANS

441ABRV1

VMC

RETE LAN

AVEbus

53ABR8

44PSMTC3GTK

TECHNICAL CATALOGUE
DOMINA^pro SUPERVISION DEVICES

DOMINA^PRO TOUCH SCREEN WITH 10" DISPLAY - COD. TS-SMART10..

48

The 10" Android supervisor monitor allows the use of a single device to manage several systems from a single terminal: Home automation, Burglar alarm, video intercom.

The TS-SMART10xx is also a home automation supervisor for KNX installations with bus connection terminals on board.

It is possible to manage all home automation system functions (lights, shutters, heat regulation, etc.), burglar alarm system functions (arming, disarming, partial setting, checking zone status and alarm signals), receive calls from the video intercom system and manage relays on the outdoor stations.

It is also possible to view images from IP cameras with the same device.

The device has a LED bar the colour of which can be changed by the user; the same bar is used, in association with the audible alarm, to inform the user of an alarm from the AF927PLUS or AF927PLUSTC burglar alarm control unit.

The device also allows the remote answering of video intercom calls via an APP available for iOS and Android operating systems.

240 mm

48 mm

187 mm

Installation Example

SCREWS

Home Automation
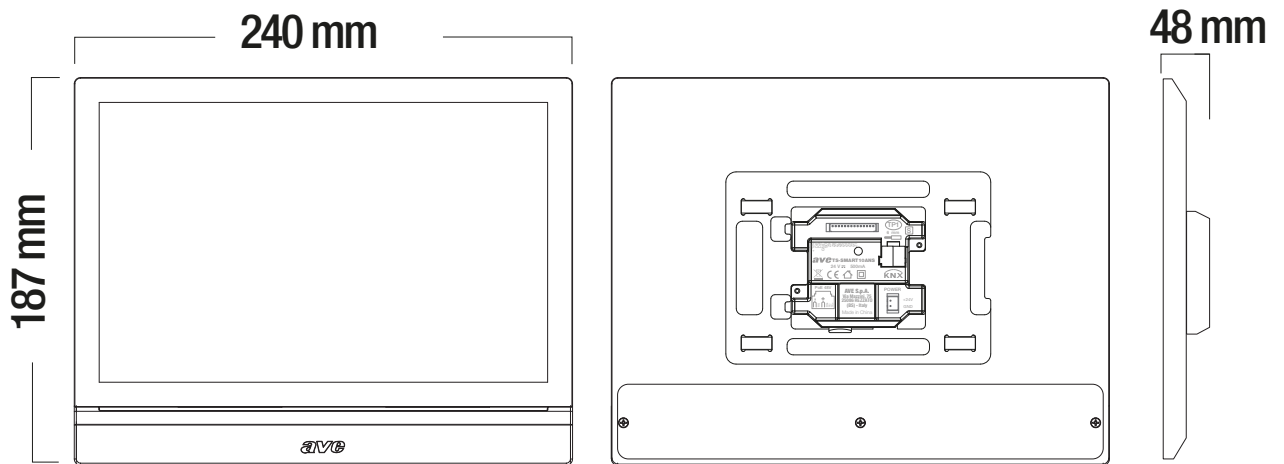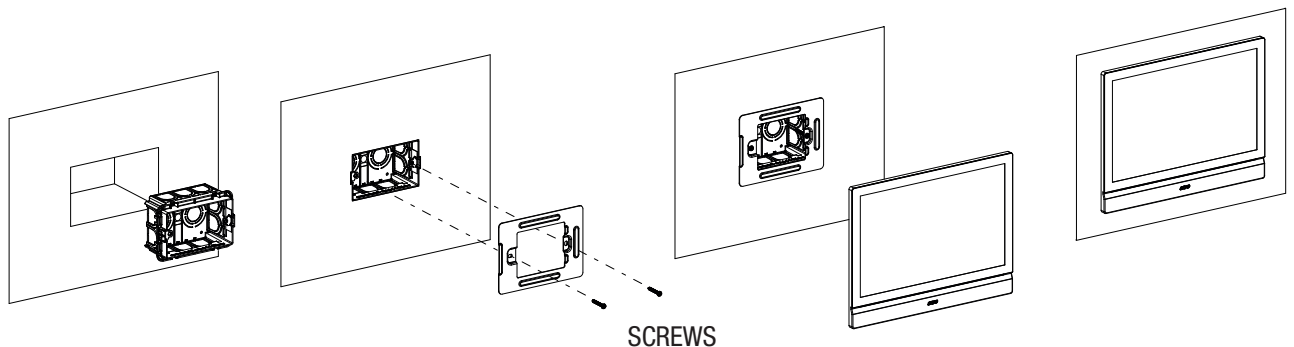
TS-SMART10ALS

TS-SMART10ANS

TS-SMART10ALS
Monitor with 10" colour touchscreen display in 16:9 format. Structure made of glass and aluminium. Power supply via 24VDC switching or 48VDC PoE switch.
Input for floor button doorbell, ring mute function, unanswered call log, image capture of incoming call. Door open alarm. "Doctor's studio" function with input display. Fitted with LED strip for ambient light with user-selectable colours. Recessed installation in 3-module box installed horizontally using the bracket supplied with the device.
Allows you to view and control:
• Domina SMART Home automation (via article 53AB-WBS)
• Related civil series devices (through article 53AB-WBS)
• Direct burglar alarm control units AF927PLUS - AF927PLUSTC
• V44 SMART video intercom system
• IP cameras (request a list of compatible cameras from your local technical sales representative or Inteam technical support)
• Compatible with KNX protocol
The device enables remote answering of an incoming video intercom call via the AVE V44 REMOTE APP available for iOS and Android operating systems. Natural satin finish aluminium colour. Dimensions 240x187x50 mm.

TS-SMART10ANS
As above in satin burnished aluminium colour.

DEVICE NOT COMPATIBLE WITH THE IP DOMINA SMART VIDEO INTERCOM SYSTEM

| IP | KNX | PoE | 10" TOUCH |

FOR AVAILABILITY OF THE INTEGRATED SYSTEM WITH KNX, PLEASE CONTACT OUR TECHNICAL ASSISTANCE

EXAMPLE OF USE

TS-SMART10ANS

441ABRV1

VMC

RETE LAN

AVEbus

53ABR8

44PSMTC3GTK

DOMINA^PRO 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.

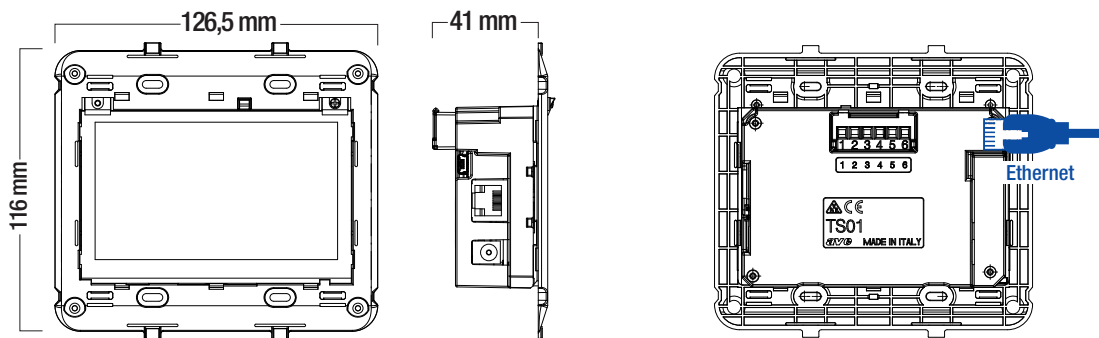The device can be installed either vertically or horizontally (the technical menu of the device contains the icon that allows to change the orientation of user graphics). The device is installed using a flush-mounted box BL02P or

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

DOMINA^pro 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.

Home Automation

domina Pro
Professional Home Automation

ave®

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HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS AND PRESCRIPTIONS

TS01
DOMINApro 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.

TS01

AVE Cloud WORKS WITH · works with the Google Assistant · JUST ASK alexa · Download on the App Store · GET IT ON Google Play · ViVALDi · TUTONDO · CRESTRON · Modbus

TECHNICAL INFORMATION

FLUSH-MOUNTED BOX
FOR BRICKWORK WALLS   FOR HOLLOW WALLS

INCLUDED SPARE INNER FRAME

BL02P   BL02CG   TS01

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

AVE BUS   AUX +12V
GND   NTC

1 2 3 4 5 6

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

EXAMPLE OF USE

RETE LAN

441ABRV1

VMC

AVEbus

ave Cloud

TS01

DISTANZA MAX 10MT

441SO-NTC
AMBIENT TEMPERATURE PROBE TYPE NTC 10K

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

DOMINApro 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.

domina Pro
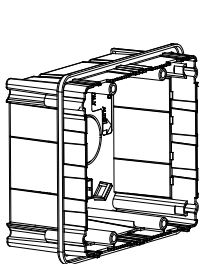Professional Home Automation

ave®

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

53AB-WBS

WORKS WITH AVE Cloud | works with the Google Assistant | JUST ASK alexa | Download on the App Store | GET IT ON Google Play | ViVALDi | TUTONDO | CRESTRON | Modbus

TECHNICAL INFORMATION

⚠️ **Warning:**
Device power must be from a dedicated line using the power supply unit cod. 53AB-AUX.
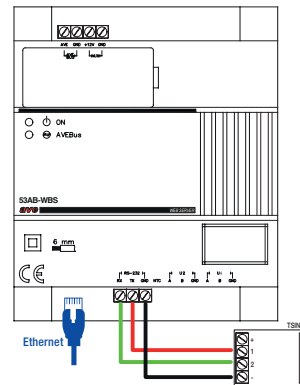
53AB-WBS

Ethernet

TSINT01

EXAMPLE OF USE

TS-SMART10ANS

441ABRV1

VMC

RETE LAN

AVEbus

53ABR8

44PSMTC3GTK

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.
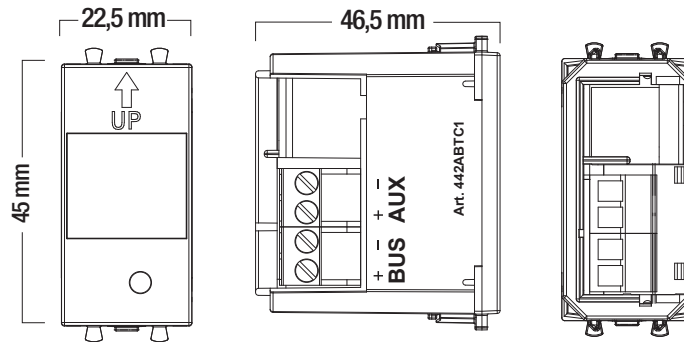
Technical details

•	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)

Home Automation

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

442ABTC1

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... | 44PSMTC3... | 44PVTC03... | 44PATC3... | 44PJTC3... |

Home Automation

Hotel Management

Video intercom

Anti Intrusion

Wiring diagrams and Prescriptions

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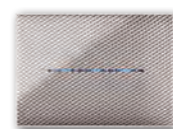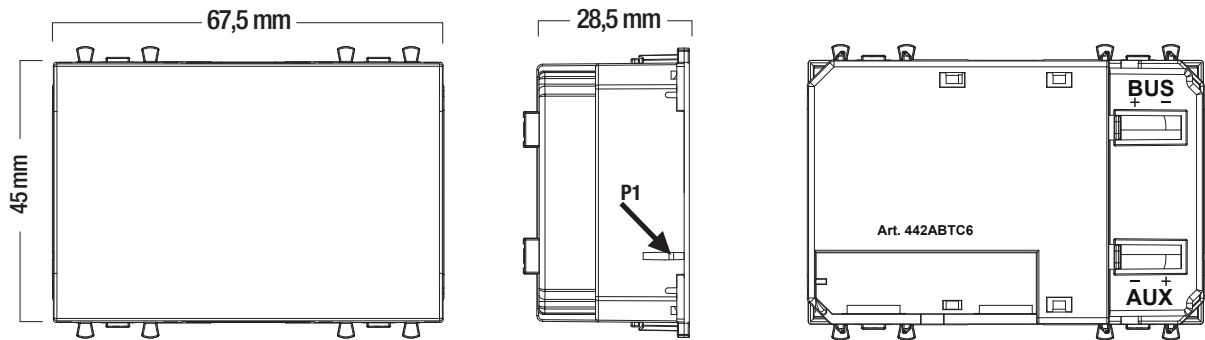
The 442ABTC6 device is a 6-channel bus control with Ave Touch technology that can control all the actuator devices of the AVEbus family by simply touching the front plate. It can be set as a control device with 1 to 6 AVEbus channels, each of which can be assigned to an indipendent home automation function.

67,5 mm   28,5 mm

45 mm

P1

BUS
+ –

Art. 442ABTC6

AUX
– +

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

442ABTC6

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".
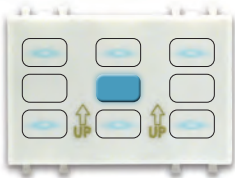
1 Touch control
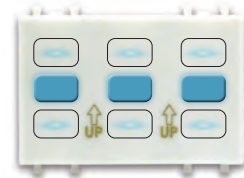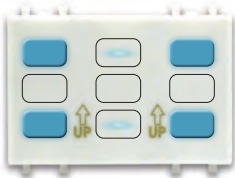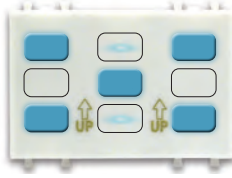
2 Touch controls
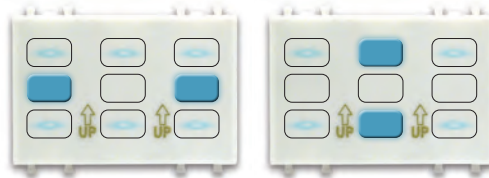
3 Touch controls

4 Touch controls

5 Touch controls

6 Touch controls
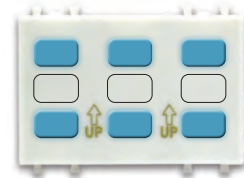
COMPATIBLE WITH SYSTEM 44 PLATES

| 44PSMTC3... | 44PVTC02... | 44PVTC03... | 44PVTC16... | 44PATC3... | 44PATC16... | 44PJTC3... |
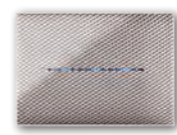
The device 44..ABT6S is a 6-channel bus control with 2 Touch" technology that is capable of controlling all the actuator devices in the AVEbus family. It can be set as a control device with 2 to 6 AVEbus channels, each of which can be assigned a home automation function that is independent from the other channels.

67,5 mm   36,2 mm

45 mm

P1

BUS
+ –

Art. 442ABT6S

AUX
– +
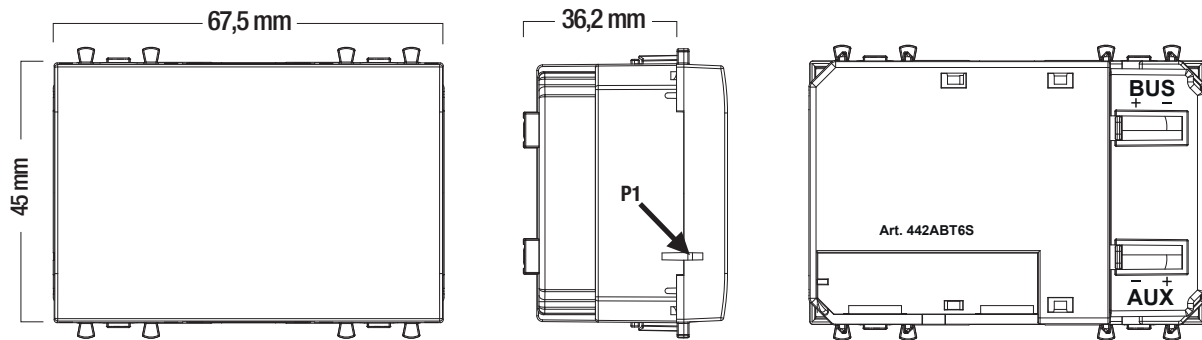
Technical details

•	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)

Home Automation

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Professional Home Automation

ave®

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HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

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WIRING DIAGRAMS AND PRESCRIPTIONS

441ABT6S

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

445ABT6S

■ **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

442ABT6S

443ABT6S

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

ALARM

Arch. LORENZO ROSSI

COMPATIBLE WITH SYSTEM 44 PLATES

44PV3... 44PL3... 44PA3... 44P93... 44PJ03... 44P03... 44PY03...

Technical Details

Applications with a 444ABT2...

444ABT2...
Toggle control device

44P...N01...
"New Style" front plate for rectangular box

444ABT2... + 44P...N01...

Applications with two 444ABT2...

444ABT2...
Toggle control device

44P...N02...
"New Style" front plate for rectangular box

444ABT2... + 44P...N02...

Applications with three 444ABT2...
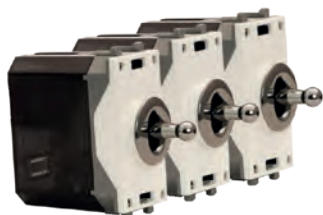
444ABT2...
Toggle control device

44P...N03...
"New Style" front plate for rectangular box

444ABT2... + 44P...N03...

Home Automation

444ABT2B
Toggle control device with 2 channels - toggle white colour - supplied with no. 1 plastic white ring - 1 module

444ABT2CR
Toggle control device with 2 channels - toggle chrome colour - supplied with no. 1 plastic chrome ring - 1 module

444ABT2OT
Toggle control device with 2 channels - toggle brass colour - supplied with no. 1 brass ring - 1 module

444ABT2B   444ABT2CR   444ABT2OT

FRONT COVER INCLUDED FOR INSTALLATION WITH STANDARD FRONT PLATE

To be completed with NEW STYLE 44 front plates for round and square box

To be used with

Available boxes

44P...NT21...   44P...NT22...

44A02
44A02SG
44A02VT

2501   2501P   2502   251CG

Brickwork walls   *Hollow walls*

To be completed with NEW STYLE 44 front plates for 3 modules box (fixing centre 83,5 mm)

To be used with   **Available boxes**

44P...N01...

44P...N02...

44P...N03...

44A03

2503MG   253CGPR   253X4CG
253X4   253CG

Brickwork walls   *Hollow walls*

To be completed with NEW STYLE 44 front plates for 4 modules box (fixing centre 108,5 mm)

To be used with   **Available boxes**

44P...N04...

44A04

2504   254CGPR   253X4CG
253X4   254CG

Brickwork walls   *Hollow walls*

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).
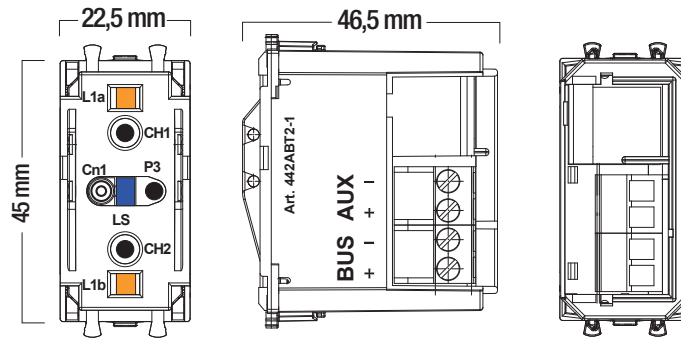
Technical details

•	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)

Home Automation

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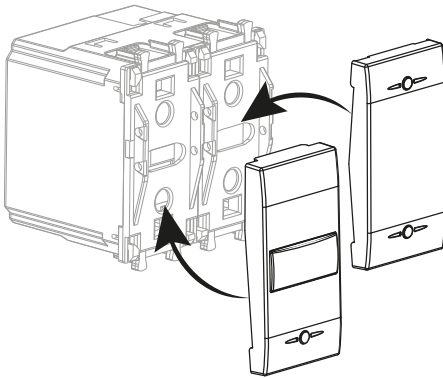
Example of key cover (44..ELA01, 44...ELA01-C, 44..ELA02 or 44..ELA02-C)

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.

TECHNICAL CATALOGUE
DOMINApro control devices

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)

Home Automation

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".

441ELA02-C

441ELA02-C

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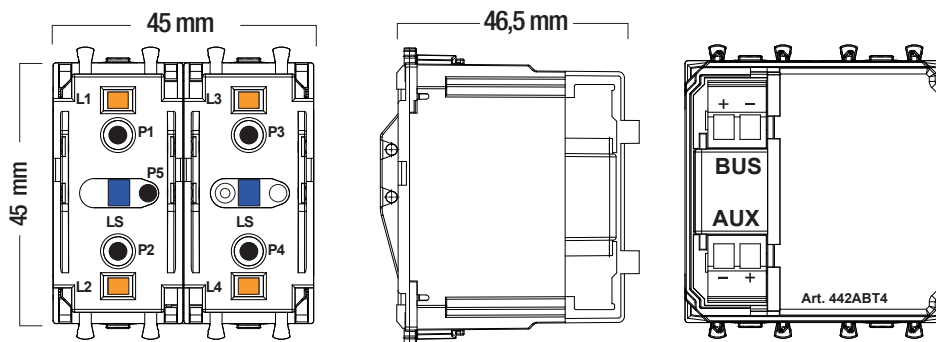
4-CHANNEL CONTROL DEVICE WITH 2 CHANNEL ACTUATOR - cod. 442ABT4R2

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.

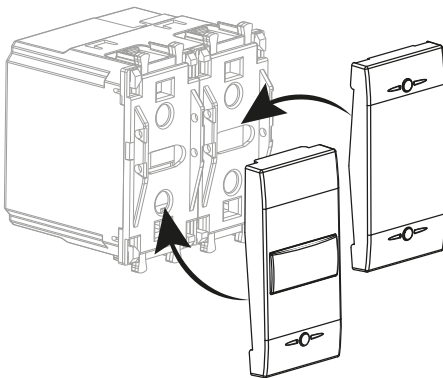|					
☀	Function 1:	START	Function 10:	START	(with signal of the status of the associated receiver)
	Function 2:	STOP	Function 11:	STOP	(with signal of the status of the associated receiver)
	Function 3:	STEP	Function 12:	STEP	(with signal of the status of the associated receiver)
	Function 4:	START + 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
4-channel control device with built-in 2 channel multifunction actuator - 10A resistives - 4A incandescent lamps 4A COSφ 0.6 - 2 modules

442ABT4R2

⚠️ **Warning:**
If LED lamps are used, the user must check that the inrush current stated by the manufacturer is below 80A ("inrush current").
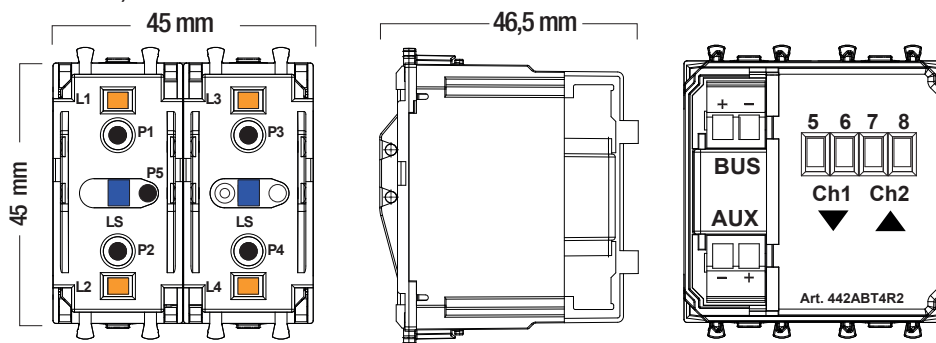
FRONT PANEL CONTROLS SET UP

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

441ELA02-C
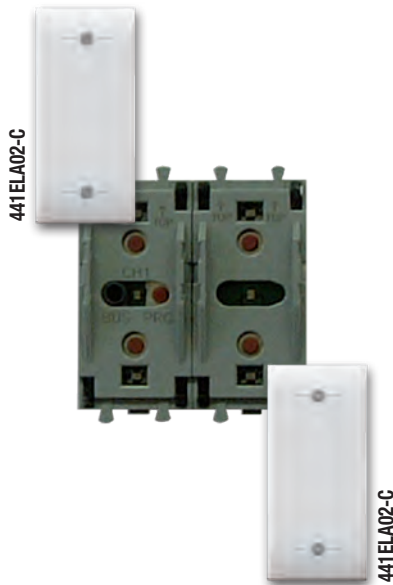
4 tiling controls

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).
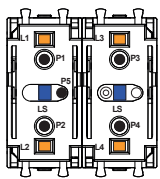
Lighting actuator mode
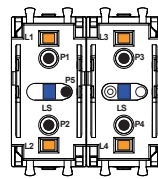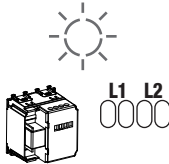
Control device mode
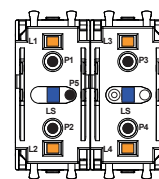
Shutter actuator mode
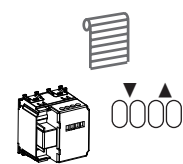
Function Table (Lighting actuator device)

	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

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

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.
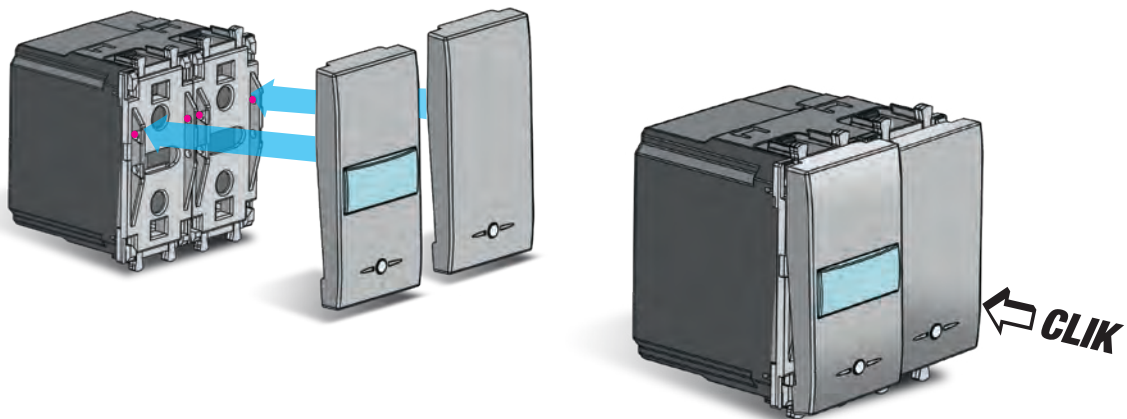
Dual-function keys

- 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.

Home Automation

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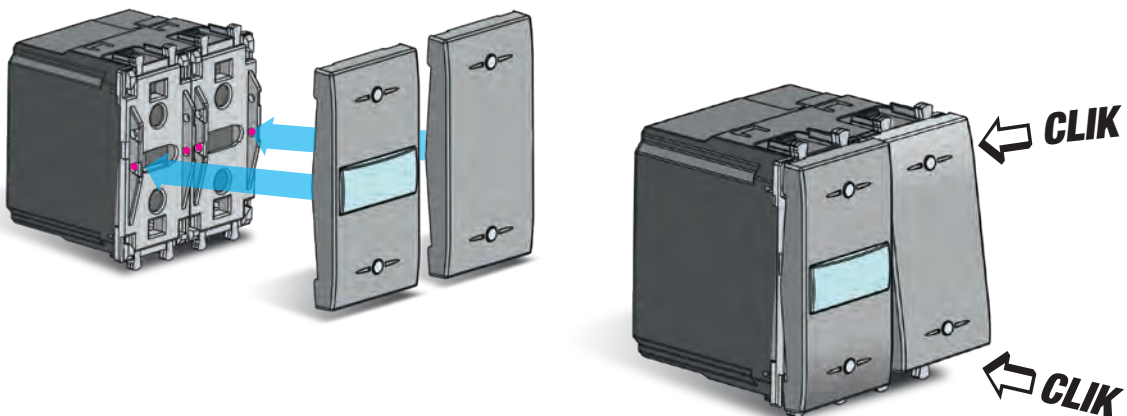
441ELA01-C **445ELA01-C** **449ELA01-C**
Smooth key with single function for transmitters - Domus, Tekla and Class series - 1 module

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

441ELA01-C   445ELA01-C   449ELA01-C

442ELA01-C   443ELA01-C

441ELA02-C   445ELA02-C   449ELA02-C

442ELA02-C   443ELA02-C

Lightable "key" with one/two functions

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

441ELA01   445ELA01   449ELA01

442ELA01   443ELA01

441ELA02   445ELA02   449ELA02

442ELA02   443ELA02

APPLICATION SEQUENCE OF IDENTIFICATION LABELS

1
Click
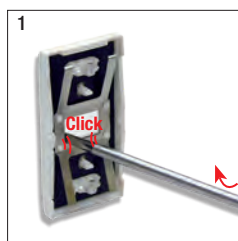
Remove the central
transparent plate

2
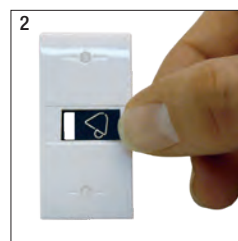
Insert the front of the
symbol label supplied
with the key

3
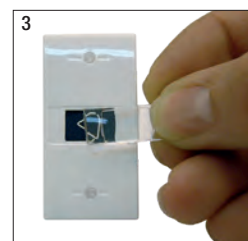
Insert the transparent
plate frontally

TECHNICAL CATALOGUE
DOMINAᵖʳᵒ control devices

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
	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)
Parameter 1	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

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Professional Home Automation

ave

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

ABIN02

TECHNICAL INFORMATION

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

Input contacts
push button / switch

Input
contacts
push
button / switch

BUS
CH2
CH1

MAX 10m

EXAMPLE OF USE

230V AC

Control devices

Lamp 1   Lamp 3

Lamp 1   Lamp 2

Lamp 2   Lamp 4

Lamp 3   Lamp 4

441005   441005

441005   441005

53AB-ALI   53AB-AUX

N L

53ABR4

ABIN02

ABIN02

AVEbus

ABIN06 is an interface for 6 potential-free contact inputs and 3 LED outputs. The connection cables with plugs, approx. 15 cm long, makes it possible to connect conventional push-buttons, potential-free contacts (for inputs) or LEDs (for outputs). The polling voltage for the contacts and power supply voltage for the LEDs are available on the device. The interface is set in a flush-mounted box behind the push-button, or connected to the DIN rail of a junction box or electrical panel, or to any suitable support, using the two side tabs with holes for the screws. Connection to the AVE bus is made via the removable connection terminal block. Each of the 6 inputs can be freely configured (see function table) while the 3 LED outputs are functionally linked to one of the three input groups: LED A to channels CH1-CH2, LED B to channels CH3-CH4 and LED C to channels CH5-CH6.

Technical features

• Dimensions:	(52 l x 44 h x 18 p) mm	
	(39 l mm, removing elements A and D)	
• Protection rating:	IP30	
• Operating temperature:	-10 ÷ +50 °C (for indoor use)	
• Power supply:	BUS	
• Absorption from AVEbus line:	Without auxiliary power supply: 3.3 C	
	With auxiliary power supply: 0.1 C	
• Auxiliary power supply:		
- Rated voltage:	12Vca/cc	
- Admissible variation:	10.5V ÷ 14V	
- Absorption @ 12Vdc:	25 mA MAX (three active LED outputs)	
- Absorption @ 12Vac:	32 mA MAX (three active LED outputs)	
• Configuration:	from AVE Cloud App - EasyConfig	
• Front LED:	amber for signalling configuration status (flashing)	
• Terminal blocks:		
- BUS + and –:	Removable AVEbus terminal block	
- AUX + and –:	Removable auxiliary power terminal block	
- Multiple-wire connector: See table		

TABLE MULTIPLE-WIRE CONNECTOR

• Brown wire:	Ch. 1	• Pink wire:	Ch. 2	• Red wire:	Ch. 3
• White wire:	Ch. 4	• Orange wire:	Ch. 5	• Grey wire:	Ch. 6
• Black wire:	GND				
• Green wire:	LED A (CH1 + CH2)				
• Yellow wire:	LED B (CH3 + CH4)				
• Blue wire:	LED C (CH5 + CH6)				
• Black wire:	GND				

CONNECTIONS
Connection to the bus is made directly from the bus terminal blocks on the front of the device. The inputs and outputs are connected using conductor wires, approx. 15 cm long, following the connection wiring diagram printed on the product. The conductors can be extended up to a maximum of 20 m using shielded, twisted cable.
WARNING: The conductors that are not used must be insulated so as to prevent incorrect wiring. This equipment contains only SELV circuits which must be kept separate from circuits with hazardous voltages.

Operation
The device has six inputs divided into three groups of two inputs each: CH1-CH2, CH3-CH4, CH5-CH6. Each of these groups can serve to interface two control inputs or one alarm input; in the latter case, the first channel of each group (1,3,5) is the alarm input while the second (2,4,6) is the input for local reset of its respective alarm. The black GND wire is common to all inputs. The device also has three outputs that can connect external LED signals. Each output is matched, respectively, to one of the three input groups: LED A with CH1 - CH2, LED B with CH3 - CH4 and LED C with CH5 - CH6.
Each input group can be configured as: command input (functions 1 to 9), status input (function 10) or alarm input (functions 11 to 15) followed by the reset input, if any. Configuring the group as:
- command inputs, the LED displays the status of the receiver associated with the first of the two channels (CH1, CH3, CH5); if the receiver is binary ON/OFF, the LED indicates whether the relay is energised or not; if the receiver is a dimmer, the LED only indicates whether the light is on (at any intensity) or off. Finally, if the receiver is of the 'shutter' type, the LED indicates whether the shutter is open, closed or moving;
- status input, the LED output is disabled;
- alarm input, by flashing, the LED shows the alarm status of the first input in the group. If the alarm memory function is used, the status of the LED remains until it is reset locally.

ABIN06
Multifunction contacts interface with 6 channels + 3 Led outputs - AVEbus
flush mounting at the back of the device - dimensions (LxHxD) 52x44x18 mm

ABIN06

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HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

TECHNICAL INFORMATION

BUS +
BUS -
AUX +
AUX -

ABIN06

- GND
▷ Led C
▷ Led B
▷ Led A
- GND
◁ 6
◁ 5
◁ 4
◁ 3
◁ 2
◁ 1

P1

L1

D

A

A

D
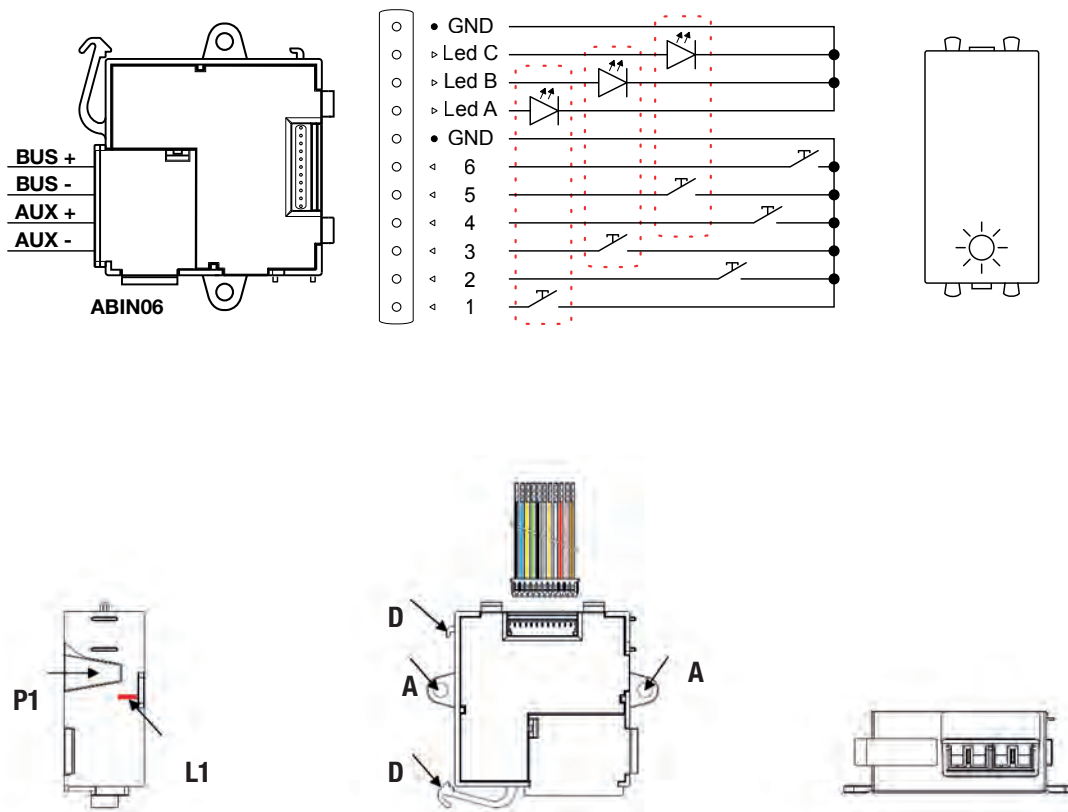
P1 - Configuration button
L1 - Configuration LED
A - Side fixing flaps with screws
D - Hooks for DIN bar
M - BUS removable terminal block

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

Home Automation

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HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

441AB68   445AB68   449AB68

□ 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

442AB68   443AB68

VOLUMETRIC COVERAGE AND FUNCTIONAL DIAGRAM
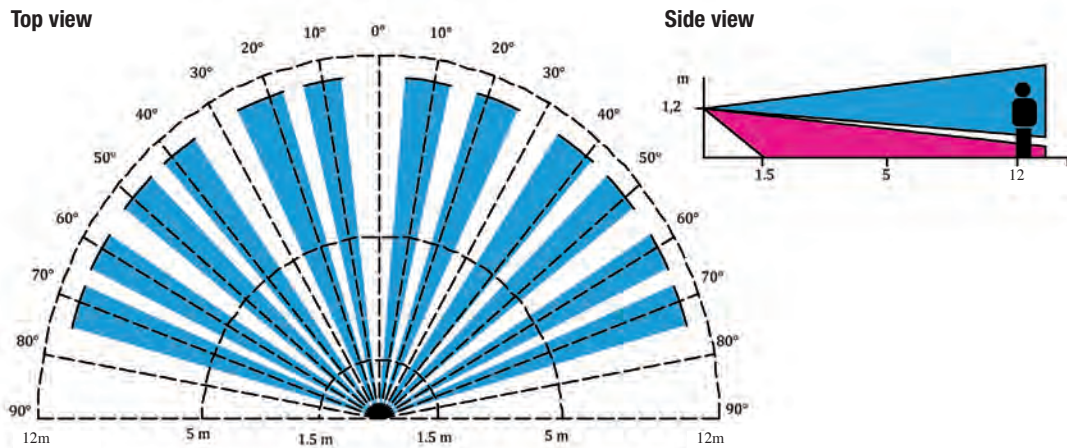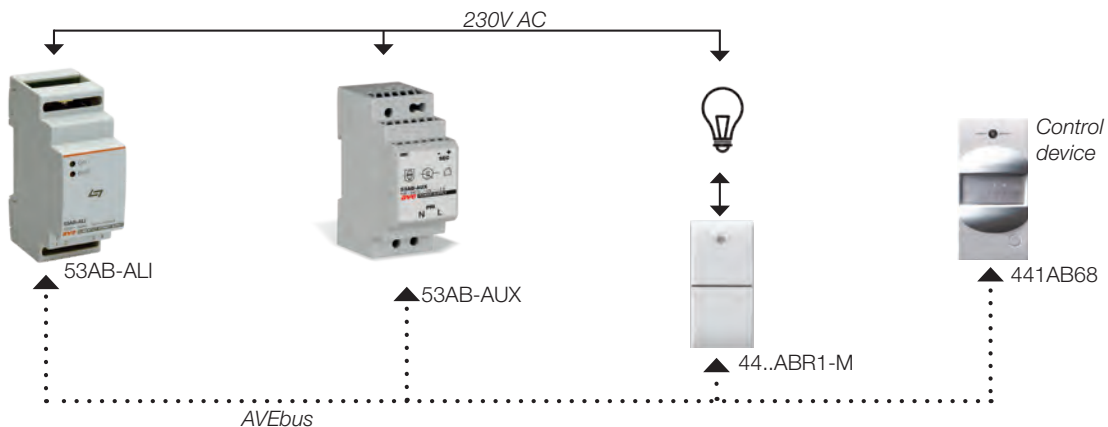
Top view

Side view

EXAMPLE OF USE

230V AC

▲ 53AB-ALI   ▲ 53AB-AUX

▲ 44..ABR1-M

Control device

▲ 441AB68

AVEbus

Cod. 44..AB-IR is an interface between the DOMINA^{pro} 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.
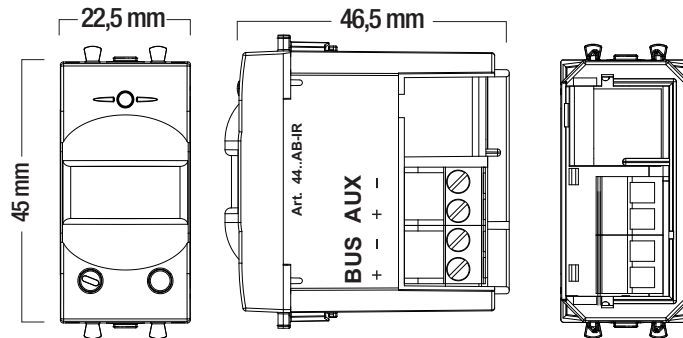
The device allows:
- Switching on/off the lights,
- Adjusting light intensity of the dimmer,
- Total opening and closing of motorised window and door fittings,
- opening and closing of motorised window and door fittings in "Person Present" mode,
- Switching on/off and BOOST mode of the CMV system appropriately interfaced with cod. 441ABRV1.
- Moreover, the device allows to see the execution of scenarios present in the DOMINA^{pro} 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 3: Positive SELV auxiliary power supply
•	Terminal 2: GND (BUS)		•	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)

Home Automation

441AB-IR   **445AB-IR**   **449AB-IR**

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)

⚠ **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.

442AB-IR   **443AB-IR**

EXAMPLE OF USE

230V AC

Control device

53AB-ALI

53AB-AUX

441AB-IR

44..ABR1-M

AVEbus
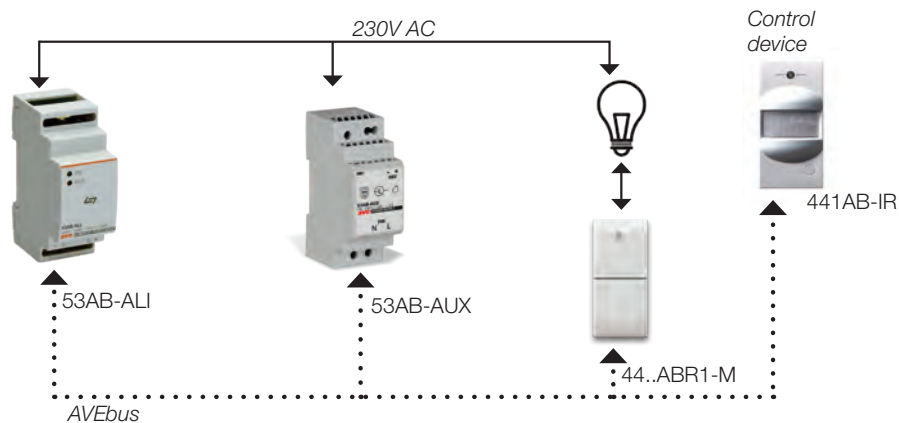
TECHNICAL CATALOGUE
DOMINApro ACTUATOR DEVICES

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

Technical Details

Home Automation

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

230V AC

53AB-ALI   53AB-AUX

Control device

442ABT2-1

ABR01

AVEbus

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

Technical Details

Home Automation

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS AND PRESCRIPTIONS

□ **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 COSφ0.6 - Life series - Allumia - 1 module

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

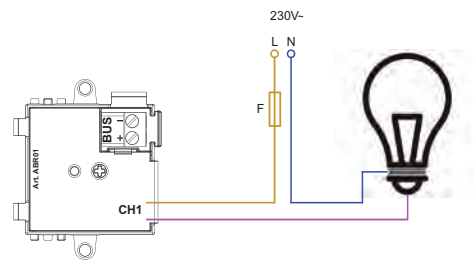**441ABR1-M   445ABR1-M   449ABR1-M**
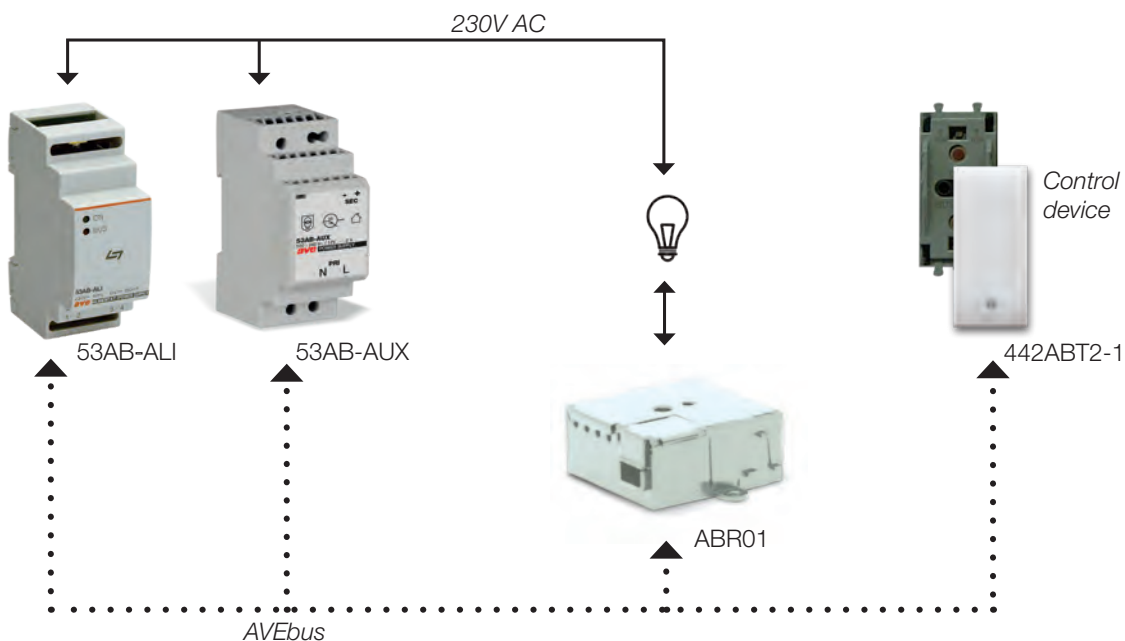
442ABR1-M   443ABR1-M

TECHNICAL INFORMATION

Device with status memory.
It allows restoration of load status as it was prior to power failure
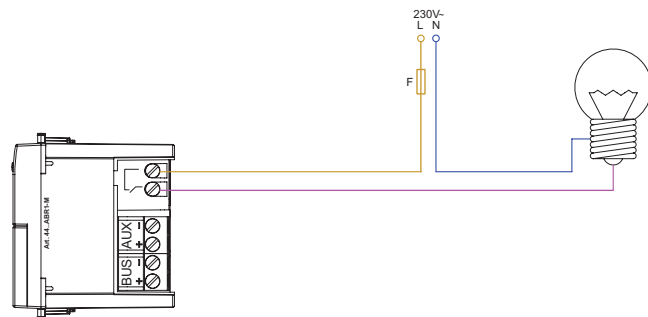
EXAMPLE OF USE
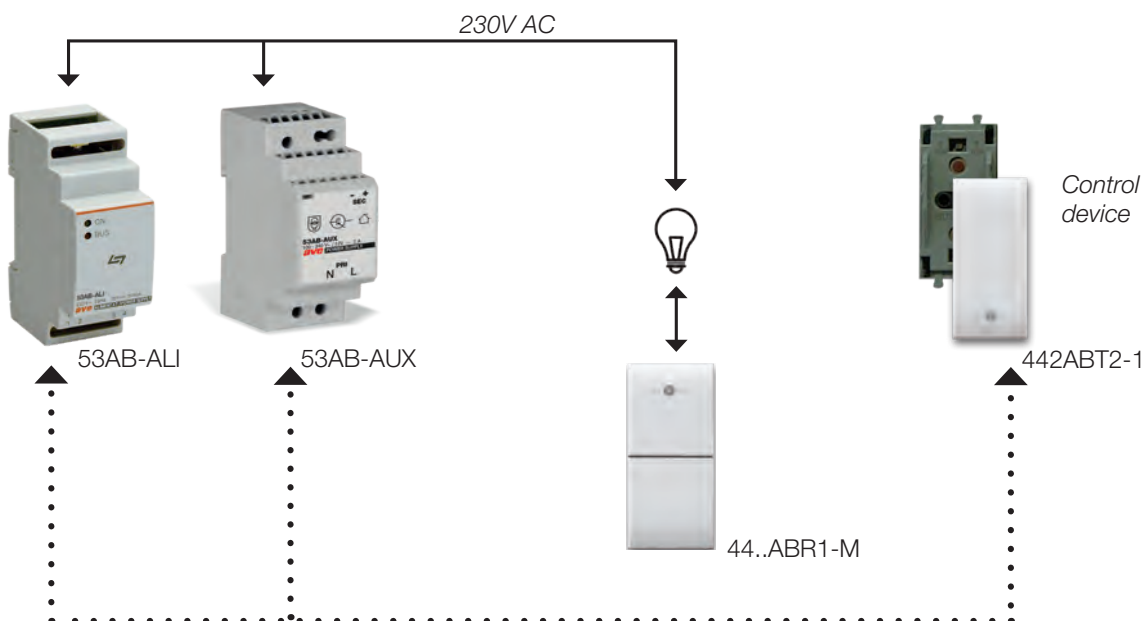
230V AC

53AB-ALI

53AB-AUX

44..ABR1-M

Control device

442ABT2-1

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.
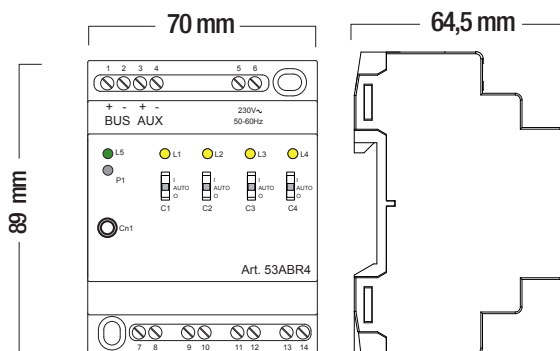
Technical details

•	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
•	Capacitive load 140μF:	5A at 230Vac

Connections

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

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

Home Automation

53ABR4

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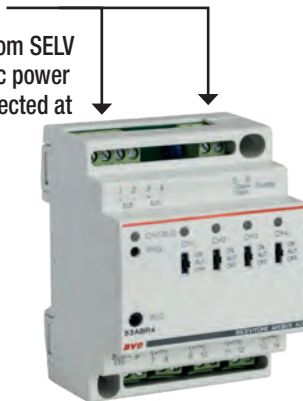
Note:
the micro-two-way switches placed on the front, if in the ON or OFF position, manually force the output, while in the AUTO position the output follows the controls received from the bus.
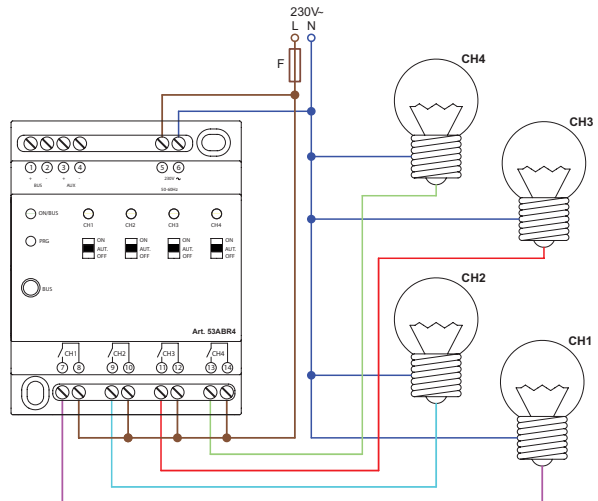
EXAMPLE OF USE

230V AC

Lamp 1
Lamp 2
Lamp 3
Lamp 4

53AB-ALI   53AB-AUX

53ABR4

AVEbus

Control devices

Lamp 1
442ABT2-1

Lamp 2
442ABT2-1

Lamp 3
442ABT2-1

Lamp 4
442ABT2-1

The 53ABR8 is an AVEbus multifunction actuator with 8 potential-free contact relays with a capacity of 10 A 250 VAC, divided into four sub-devices, each with two freely-programmable relays to manage two lights (or stairway lights) and/or a shutter, even with sunshade slat orientation. Outputs can be forced manually using the front control buttons fit with status LEDs; installation on DIN guide (60715 TH35) and occupying 6 x 17.5 mm modules.

Technical features

• Dimensions:	6 DIN modules (107 l x 89.5 h x 64 d) mm
• Protection rating:	IP30D (in appropriate containers)
• Operating temperature:	-10 to +50 °C (for indoor use)
• Power supply:	BUS (requires AUX line)
• Absorption AVEbus line:	0.7 C
• Auxiliary power supply:	
- Rated voltage:	12 Vac/dc
- Permitted variation:	10.5V – 14V
- Absorption @ 12Vdc:	25 mA (stand-by), 350 mA MAX
- Absorption @ 12Vac:	32 mA (stand-by), 450 mA MAX
• Configuration:	from AVE Cloud App - EasyConfig or SFW-BSA
• Front LED:	green: slow flashing during normal operation, fast flashing during configuration; amber: steady on during relay switching, with short pause to identify manual forcing, and slow flashing during configuration of relevant channel.
• Terminal blocks:	
- BUS + and –:	Removable AVEbus terminal block
- AUX + and –:	Removable power terminal block
- xA, xB :	Relay terminal A or B of channels 1 to 4

Controllable loads

• resistive loads (cosφ 1): 10 A 230 Vac;
• incandescent lamps: 10 A 230 Vac;
• fluorescent lamps: 0.5 A 230 Vac;
• energy-saving lamps: 100 W 230 Vac;
• LED lamp: 100 W 230 Vac;
• electronic transformers: 4 A 230 Vac;
• motors (cosφ 0.6): 4 A 230 Vac.

Installation procedures
• The 8 relay outputs are separated by a 250 VAC basic insulation and not by double insulation; therefore, do not, for example, connect a SELV circuit to an output adjacent to another one hooked up to the 230 VAC power supply.
• Upstream, all relay output supply circuits must be protected against overcurrents by a device or fuse with rated breaking capacity of 1500 A or by a type C circuit breaker, with rated current that does not exceed 16 A.
Note: The rated load and its protection are given assuming that all relays run at maximum load. The maximum capacity of each relay is 10 A; however, safe device connection requires a maximum of two non-contiguous relays be used for this capacity. This, in turn, requires that the remaining relays be downgraded to 8 A.

Manual operation
Pressing the button for a given relay causes that relay to switch manually and this is indicated as the pertinent LED goes on. In "Light" mode, it is equivalent to forcing the output into manual mode in which commands from the bus are ignored until automatic operation is restored by either pressing AUTO or rebooting the device. In shutter mode, forcing remains in effect for as long as the button is pressed.

Operation
The device has eight inputs divided into three groups of two inputs each: CH1 A/B, CH2 A/B, CH3 A/B and CH4 A/B. Each of these groups can serve as actuator for Light or Stairway Light, Shutter or Shutter with sunshade slat orientation. In Light mode, the two relays are equivalent to two separate logic channels: Ch.xA and Ch.xB; instead, in shutter mode, the two relays belong to the same logic channel Ch.x A/B, where A is the up contact and B the down contact (with interlock).

HOME AUTOMATION

HOTEL MANAGEMENT

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ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

53ABR8

53ABR8
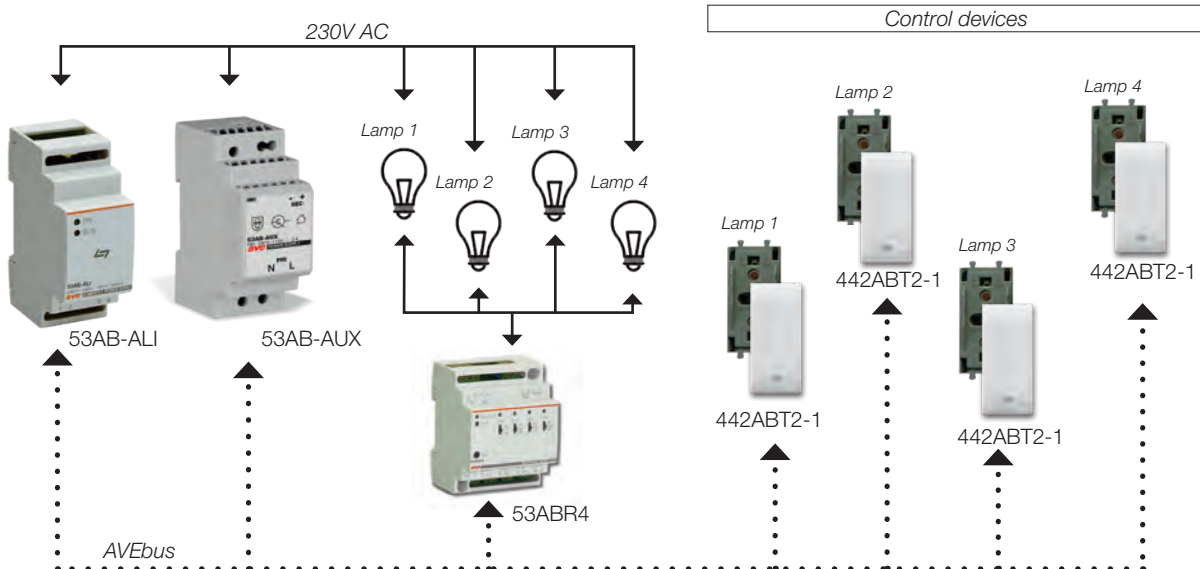Multifunction actuator for the management of 8 lights or 4 rolling shutters - manual forcing of the outputs by means of front control buttons with relative status identification LED - potential free contact outputs - 10A resistive - 8 channels - AVEbus - 6 Mod. DIN
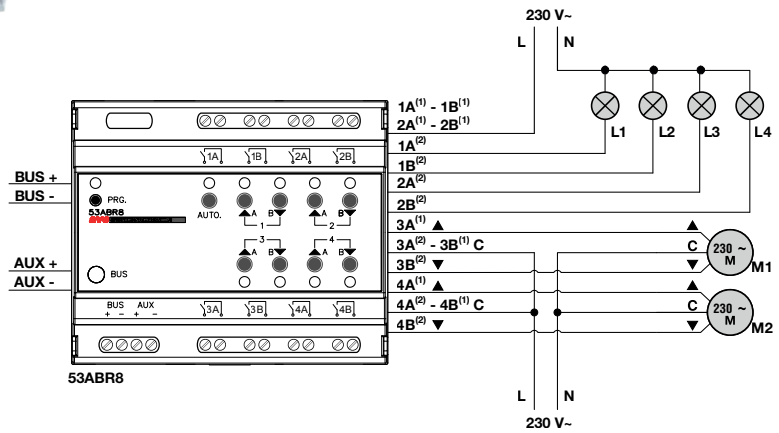
TECHNICAL INFORMATION

53ABR8

EXAMPLE OF USE

Control devices

230V AC

Lamp 1

Lamp 2

Lamp 3

Lamp 4

Shutter 1

Shutter 2

Shutter

442ABT4

53AB-ALI

53AB-AUX

53ABR8

Litingh

442ABT4
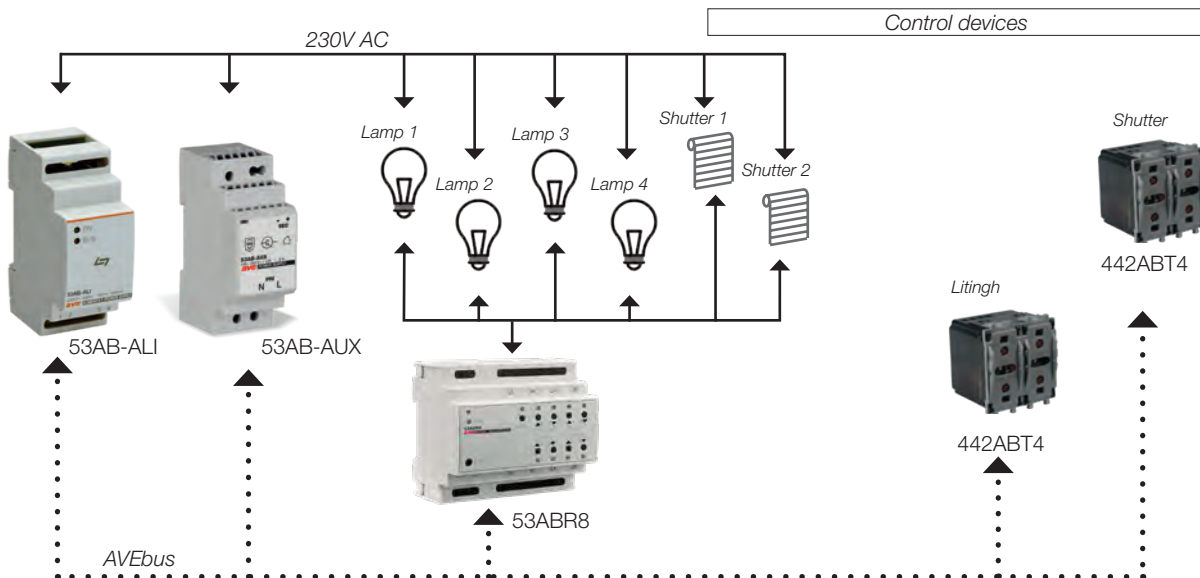
AVEbus

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 5:	positive 1-10V analogue output
•	Terminal 2:	GND	• Terminal 6:	negative 1-10V analogue output
•	Terminal 3:	positive auxiliary power supply	• Terminal 7:	relay contact
•	Terminal 4:	negative auxiliary power	• 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 4 : L Line	• Terminal 7: 1-10V adjustment negative input
• Terminal 2 - 3: N Line 230V~	• Terminal 5 - 6 : Jumper input	• Terminal 8: 1-10V adjustment positive input

Home Automation

Home Automation

Hotel Management

Video intercom

Anti Intrusion

Wiring diagrams and Prescriptions

□ **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

441ABDI   **442ABDI**

53DIM010

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

230V AC

53AB-ALI   53AB-AUX

53DIM010

SIGNAL 1-10V

*Control device
2-function key*

442ABT2-1

44..ABDI

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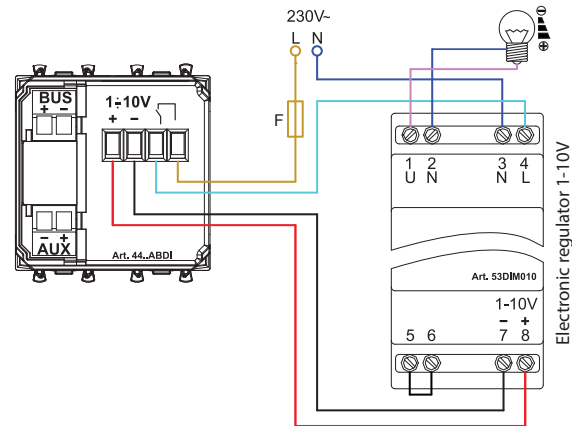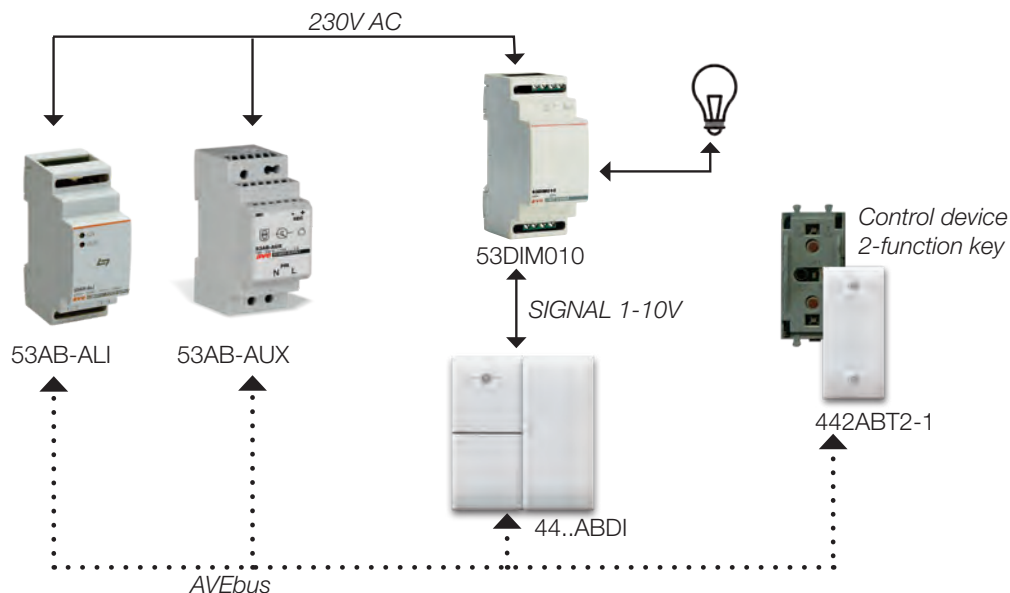
Note:
Instead of the common lamp, the device is able to control LED strips by simply installing an electronic controller for LED and/or LED RGB, instead of item cod. 53DIM010. For information about the compatibility of these controllers, please contact AVE's sales network or Technical Assistance Service

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.
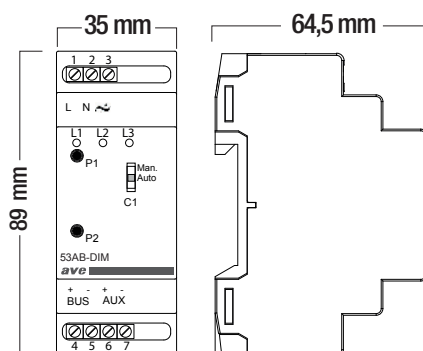
Technical details

•	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 4:	Positive BUS
•	Terminal 2:	N Mains neutrum Vac	• Terminal 5 :	GND
•	Terminal 3:	Dimmer output Vac	• 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

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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

53AB-DIM

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]
▨⊗	⊏c	Forbidden		10	200₁₎	Forbidden		5	100₁₎	[W]
	⊏l	10	360₁₎	Forbidden		5	180₁₎	Forbidden		
▥⊗		10	360₂₎	Forbidden		5	180₂₎	Forbidden		[VA]
⚡	⊏c	Forbidden		3	150₃₎	Forbidden		1.5	80₃₎	[W]
	⊏l	3	100₃₎	Forbidden		1.5	50₃₎	Forbidden		
🔋	⊏lc	3	200₄₎	3	200₄₎	1.5	100₄₎	1.5	100₄₎	

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

EXAMPLE OF USE
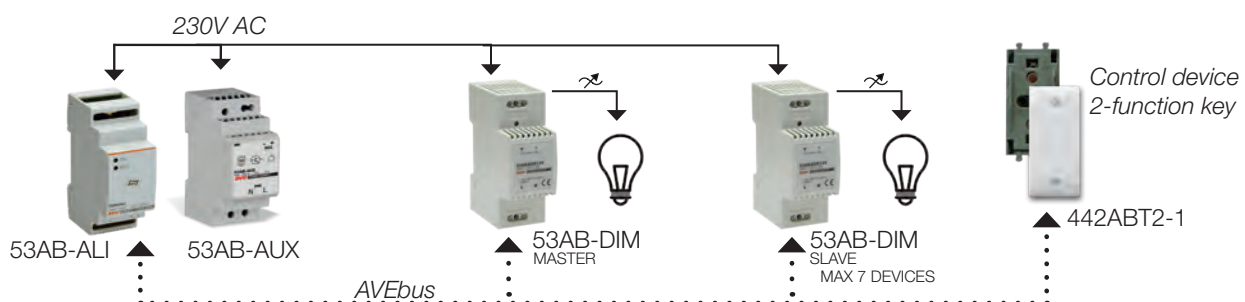
230V AC

Control device 2-function key

53AB-ALI ▲   53AB-AUX   53AB-DIM MASTER   53AB-DIM SLAVE MAX 7 DEVICES   ▲ 442ABT2-1

AVEbus

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

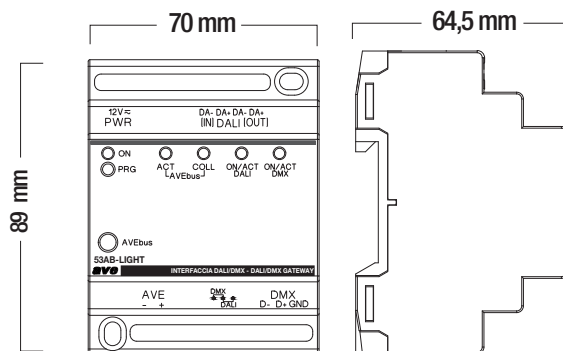|		
•	Module:	4 DIN modules (68.5 w x 89 h x 64.5 d) mm
•	Protection degree:	IP 30D in DIN boxes
•	Reference Temperature and Relative Humidity:	25°C RH 65%
•	Temperature range Operating environment:	from -10°C to +50°C
•	Maximum Relative Humidity:	90% at 35°C
•	Max. Height:	2000 m a.s.l.
•	Auxiliary 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

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS
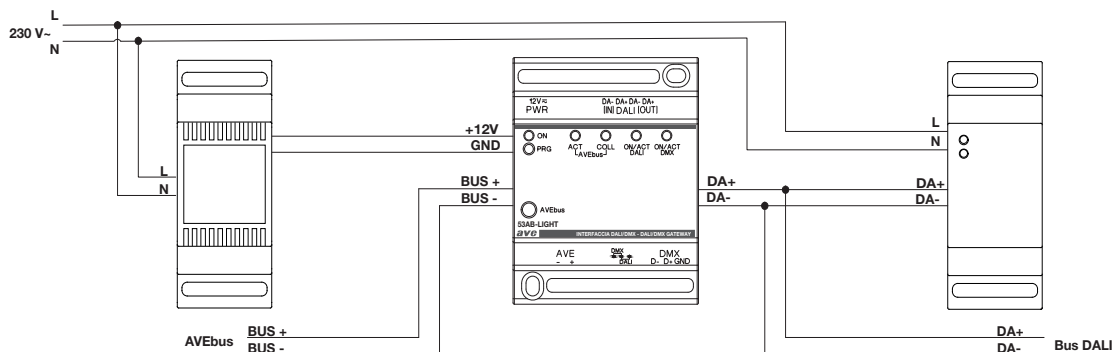
53AB-LIGHT

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 53AB-AUX.

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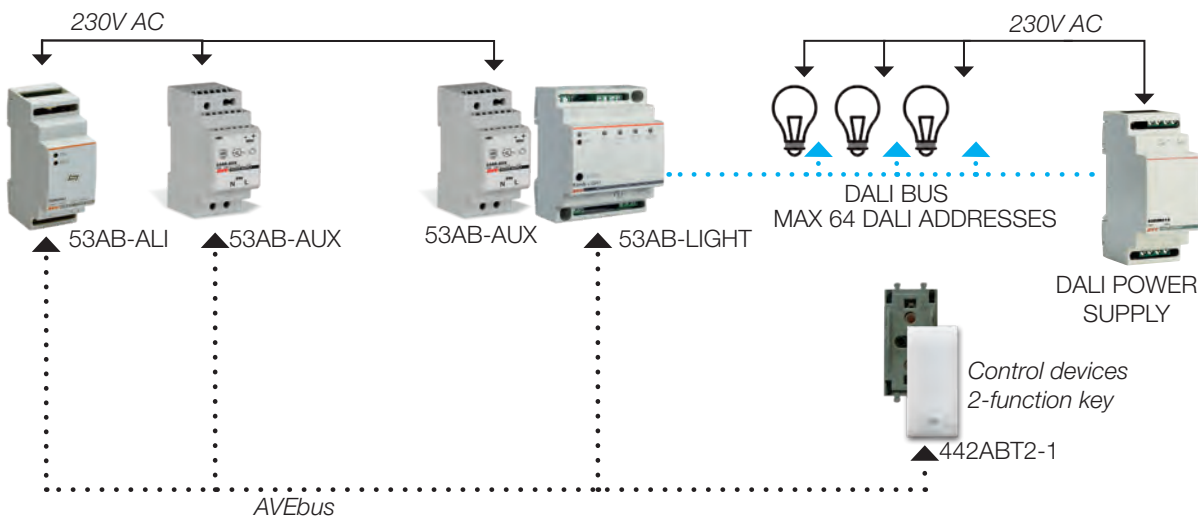Stepper control: On / Off / Increase / Reduce
- DALI addresses from 1 to 64

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

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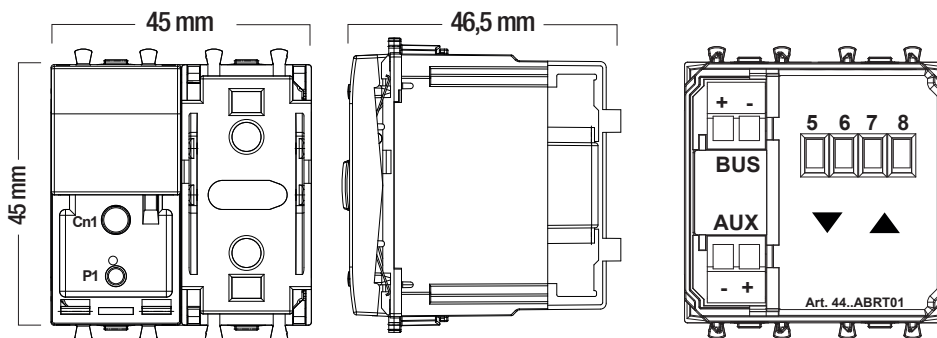- DALI addresses from 1 to 16

EXAMPLE OF USE

230V AC

230V AC

53AB-ALI   53AB-AUX

53AB-AUX   53AB-LIGHT

DALI BUS
MAX 64 DALI ADDRESSES

DALI POWER
SUPPLY

*Control devices
2-function key*

442ABT2-1

AVEbus

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			Function	
	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

449ABRT01 442ABRT01 443ABRT01

□ **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

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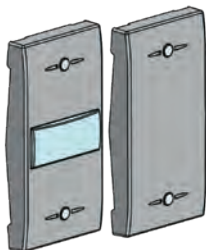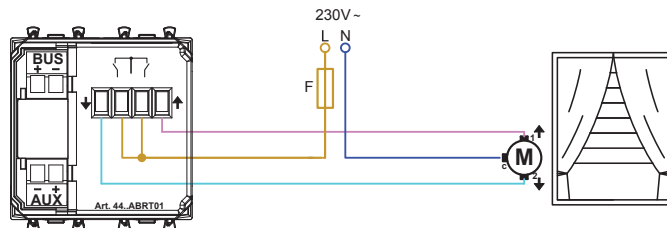
The type of shutter movement changes depending on the order received:

• **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

230V AC

53AB-ALI   53AB-AUX

SHUTTER

44..ABRT01

Additional control device 2-function key

442ABT2-1

AVEbus

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

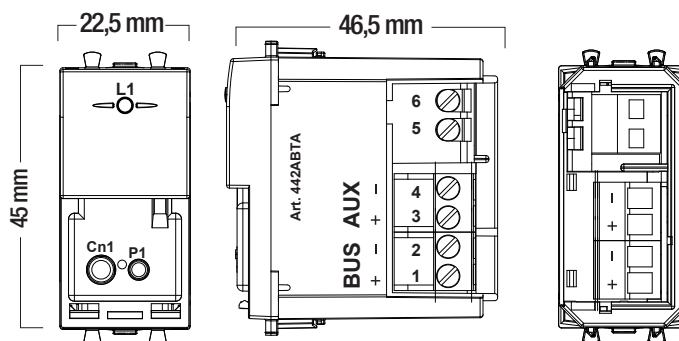|		
•	Terminal 1:	positive BUS
•	Terminal 2:	GND
•	Terminal 3:	positive auxiliary power
•	Terminal 4:	negative auxiliary power
•	Terminal 5:	input alarm
•	Terminal 6:	input alarm reset

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

Technical Details

Home Automation

95

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

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

441ABTA **445ABTA** **449ABTA**

442ABTA **443ABTA**

TECHNICAL INFORMATION

Warning:
To interface any contacts use twisted shielded wires.

push button
for RESET

contact
from detector

MAX 10m

Art. 44.ABTA

RES
IN
AUX
BUS
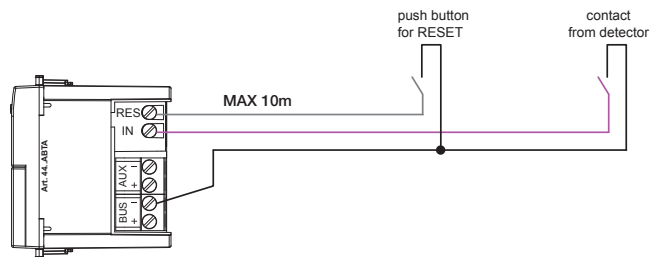
COMPATIBLE WITH PROBES AND/OR SENSORS

RG1-G / RG1-M
GAS detector

RG1/CO2
Carbon dioxide detector

AF44..062
Movement detector

441079
Electronic hygrostat (humidostat) with knob

FUNCTIONAL DIAGRAM
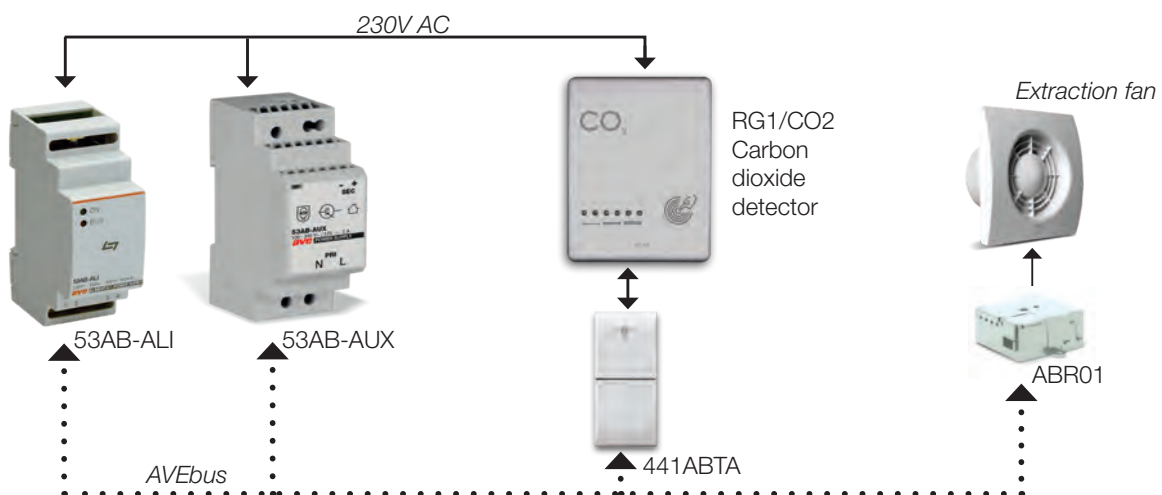
230V AC

Extraction fan

RG1/CO2
Carbon dioxide detector

53AB-ALI

53AB-AUX

ABR01

AVEbus

441ABTA

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 DOMINApro 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

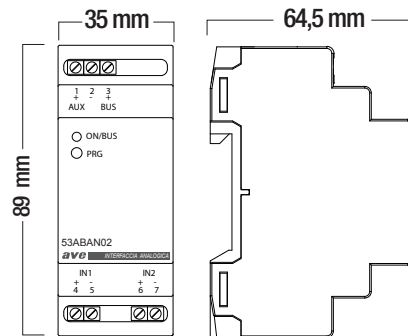|		
•	Module:	2 DIN modules (35 w x 89 h x 64.5 d) mm
•	Protection degree:	IP30D with dedicated terminal covers provided
•	Auxiliary power supply from SELV source:	12Vdc
•	Allowed fluctuation:	10.5Vdc - 14Vdc
•	Absorption at 12Vdc:	30mA (analog input)
		- 35mA (Pt100 input)
		- 25mA (digital input)
•	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 4:	Positive analog input 1
•	Terminal 2: GND	•	Terminal 5:	Reference ground for input 1
•	Terminal 3: Positive BUS	•	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 DOMINApro 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
Interface with 2 analog inputs (0-10V, 4-20mA, PT100 and NTC) for probes and sensors
2 DIN

53ABAN02

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 pro temperature control). The DOMINA[pro] 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).

Input 1   Input 2
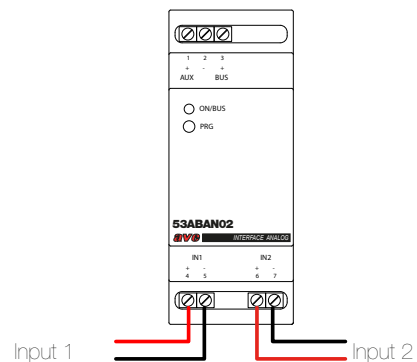
COMPATIBLE WITH PROBES AND/OR SENSORS

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

230V AC

53AB-ALI   53AB-AUX

ANEMOMETER   ▲ 441ABRT01
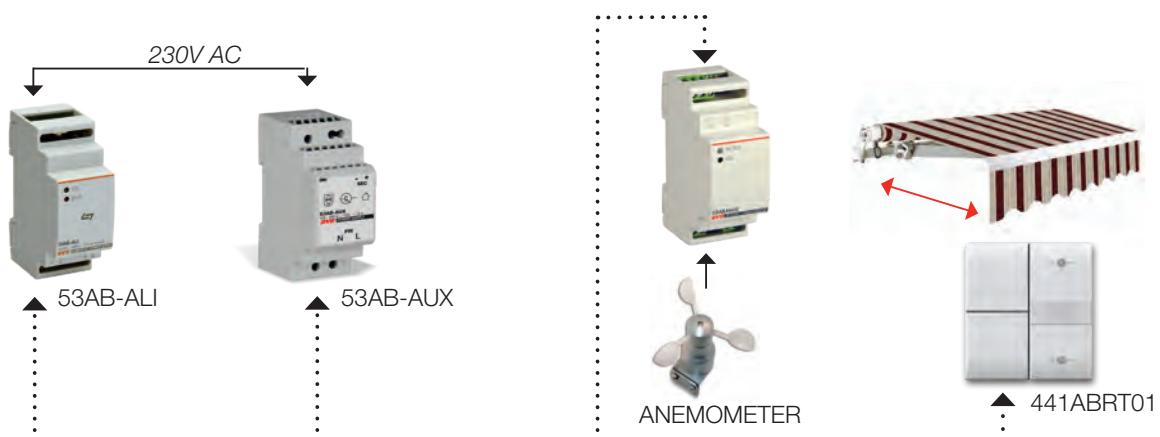
The 44..ABTM03B is an ambient thermostat connected to the AVEbus automation bus. The device can be installed combined with a temperature control actuator when time programming is not required. In this case there is an independent "only thermostat" type function. If, instead, time programming is required (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

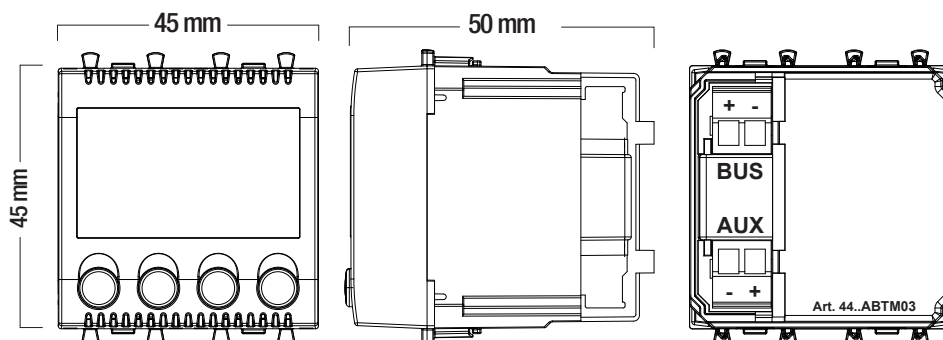|		
•	Module:	2 modules System 44 (45 w x 45 h x 50 d) mm
•	Protection degree:	IP40 if installed in the respective flush-mounted box.
•	Reference Temp. and Rel. Humidity:	25°C RH 65%
•	Temperature range Operating environment:	from -10°C to +50°C
•	Maximum Relative Humidity:	90% at 35°C
•	Max. Height:	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 DOMINA^pro 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.

Home Automation

441ABTM03B

445ABTM03B

449ABTM03B

442ABTM03B

443ABTM03B
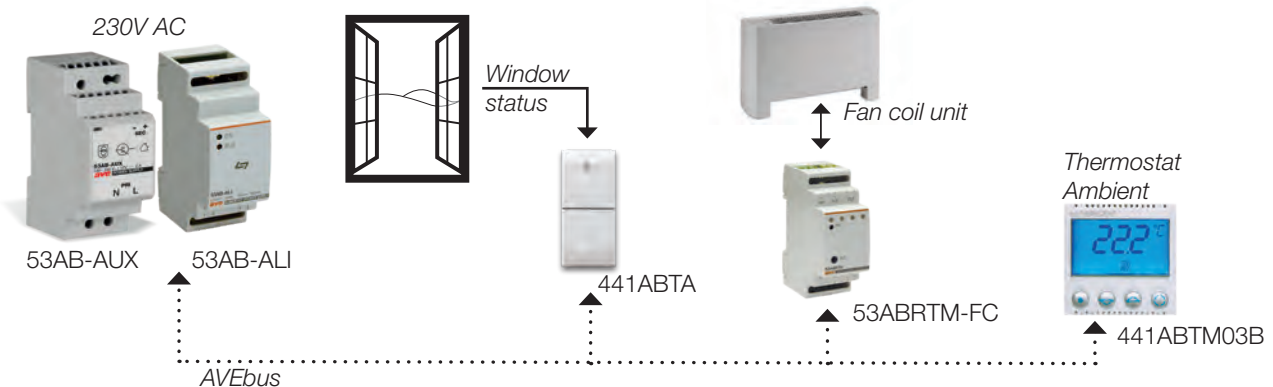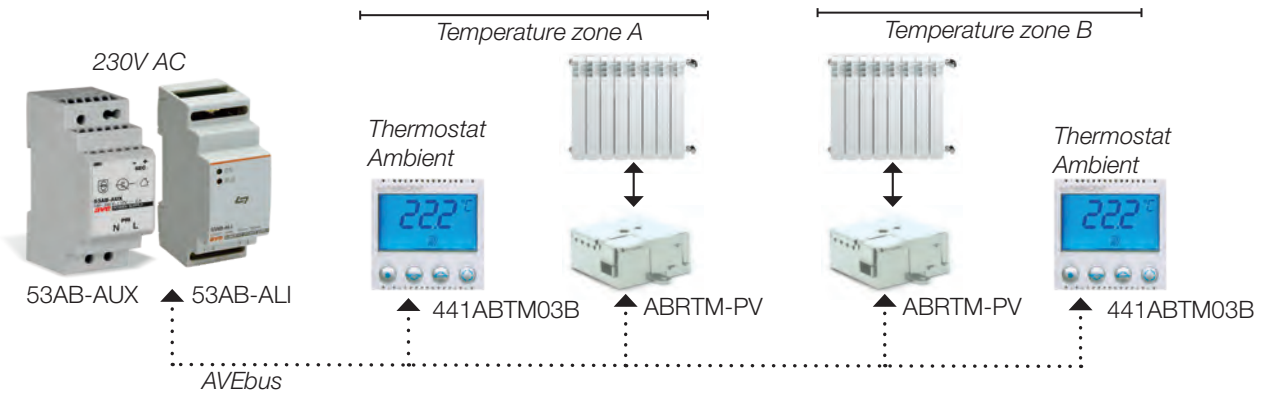
☐ **441ABTM03B**   ◼ **445ABTM03B**   ◼ **449ABTM03B**

Thermostat with display - Domus series - Tekla - Class - 2 modules

◼ **442ABTM03B**   ◼ **443ABTM03B**

Thermostat with display - Life series - Allumia - 2 modules

FUNCTIONAL DIAGRAM

230V AC

53AB-AUX   ▲ 53AB-ALI

AVEbus

Temperature zone A

Thermostat Ambient

▲ 441ABTM03B   ▲ ABRTM-PV

Temperature zone B

Thermostat Ambient

▲ ABRTM-PV   ▲ 441ABTM03B

230V AC

53AB-AUX   53AB-ALI

AVEbus

Window status

▲ 441ABTA

Fan coil unit

▲ 53ABRTM-FC

Thermostat Ambient

▲ 441ABTM03B

The 44..AB-IRT is a device for the transmission of IR controls that allows integration between the DOMINApro 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.
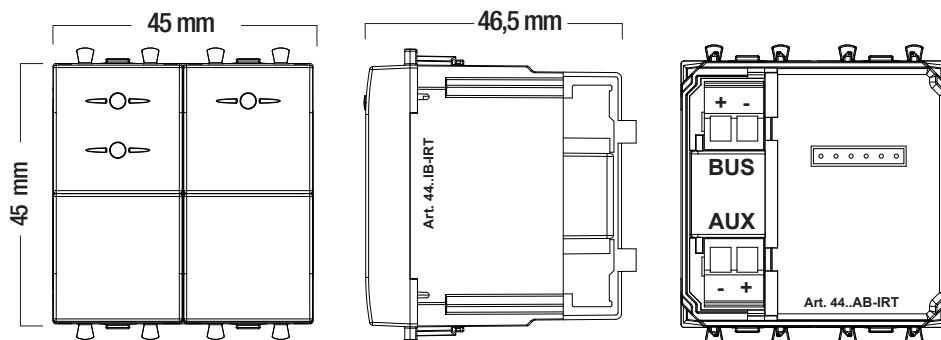
Technical details

•	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
•	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
•	Absorption from the AVEbus line:	- With AUX line: 0.12 C
		- Only AVEbus line: n.d.

Connections

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

Technical Details

Home Automation

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

441AB-IRT

445AB-IRT

449AB-IRT

442AB-IRT

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
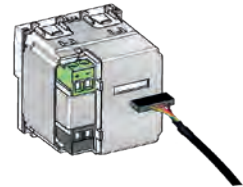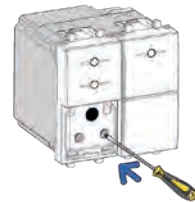
FUNCTIONAL DIAGRAM

230V AC

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

53AB-ALI

53AB-AUX

22.2°C

441ABTM03B

441AB-IRT

AVEbus
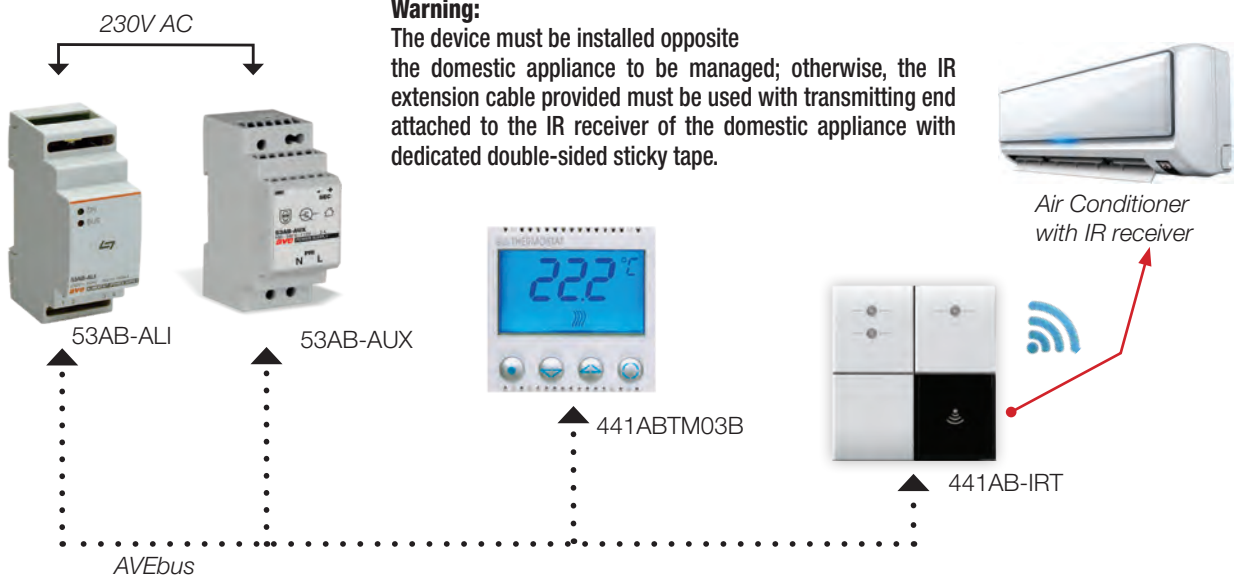
TECHNICAL CATALOGUE
DOMINAᵖʳᵒ DEVICES FOR TEMPERATURE CONTROL AND AIR CONDITIONING

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

102

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: n.d.

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

Home Automation

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

ABRTM-PV

HOME AUTOMATION
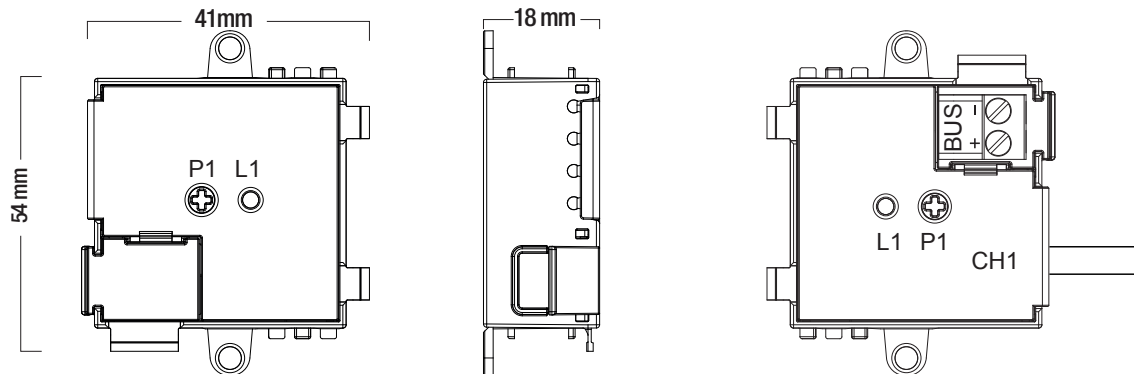
HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

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
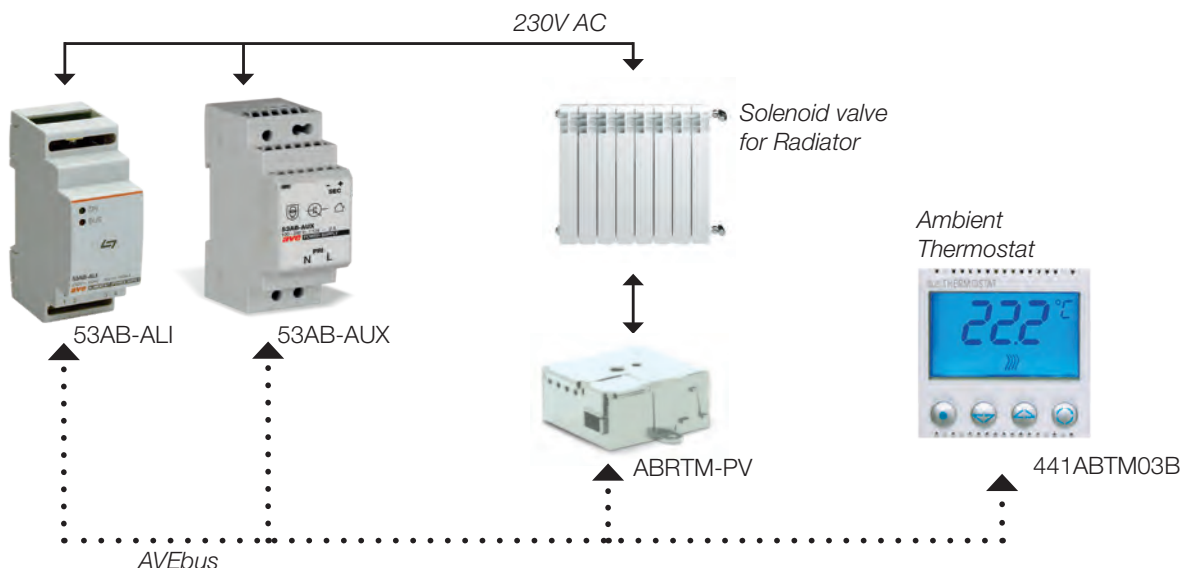
230V AC

53AB-ALI   53AB-AUX

Solenoid valve for Radiator

Ambient Thermostat

ABRTM-PV   441ABTM03B

AVEbus

TECHNICAL CATALOGUE
DOMINA^pro DEVICES FOR TEMPERATURE CONTROL AND AIR CONDITIONING
1-CHANNEL TEMPERATURE CONTROL ACTUATOR - cod. 44..ABRTM-PV

104

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

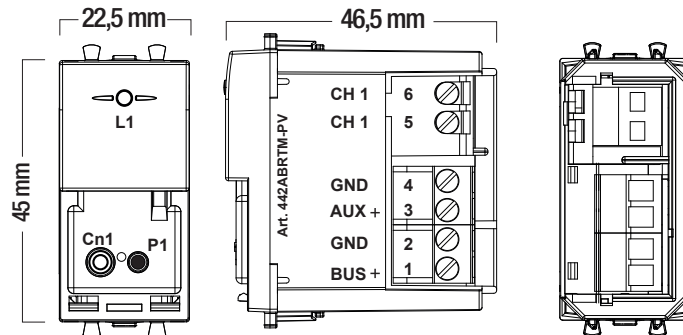|		
•	Module:	1 System 44 module (22.5 w x 45 h x 46.5 d) mm
•	Protection degree:	IP41 if installed in the respective flush-mounted box.
•	Reference Temp. and Rel. Humidity:	25°C RH 65%
•	Temperature range Operating environment:	from -10°C to +50°C
•	Maximum Relative Humidity:	90% at 35°C
•	Max. Height:	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

Technical Details

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

230V AC

53AB-ALI   53AB-AUX

Solenoid valve for Radiator

Ambient Thermostat

441ABRTM-PV

441ABTM03B

AVEbus

TECHNICAL CATALOGUE
DOMINApro DEVICES FOR TEMPERATURE CONTROL AND AIR CONDITIONING
4-CHANNEL TEMPERATURE CONTROL ACTUATOR - cod. 53ABRTM-PV

106

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
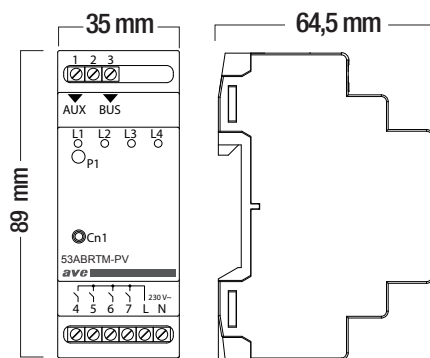
•	Module:	2 DIN modules (WxHxD) 35 x 89 x 64.5 mm	
•	Protection degree:	IP30D in DIN boxes	
•	Auxiliary power supply from SELV source:	- Rated voltage:	12Vdc
		- Allowed fluctuation:	10.5 - 14Vdc
		- Absorption at 12Vdc:	65mA (MAX)
•	Power supply from the 230Vac line:	- Rated voltage:	230Vac
		- Allowed 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.	
•	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 4: CH1 contact output
•	Terminal 2:	GND (BUS and AUX)	•	Terminal 5: CH2 contact output
•	Terminal 3:	Positive BUS	•	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

Technical Details

Home Automation

HOME AUTOMATION

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VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS
AND PRESCRIPTIONS

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.

53ABRTM-PV

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
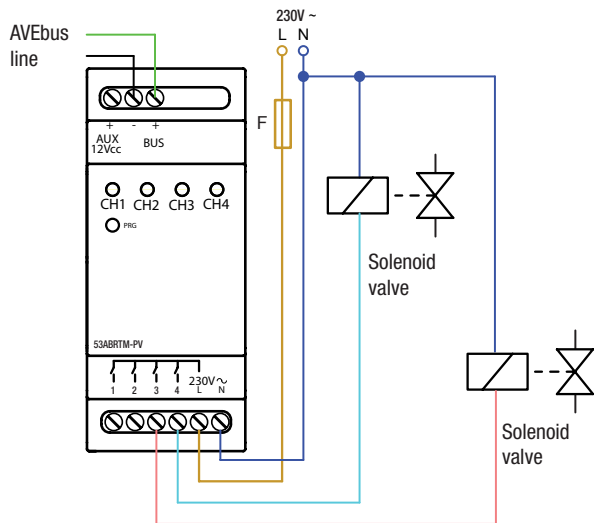
Actuation of solenoid valves 12-24-48Vac/dc
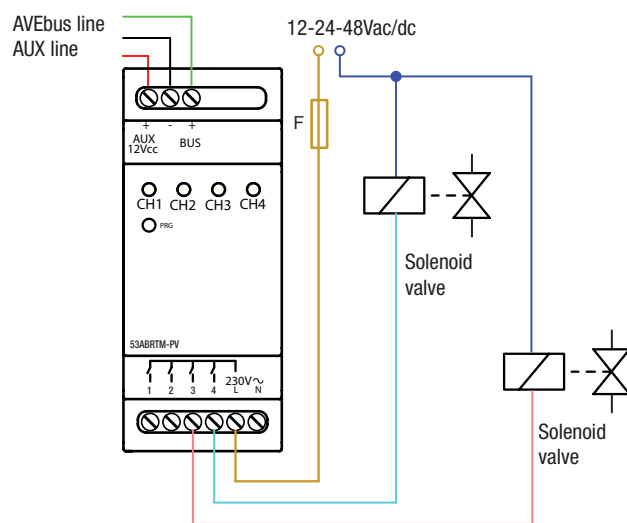
FUNCTIONAL DIAGRAM
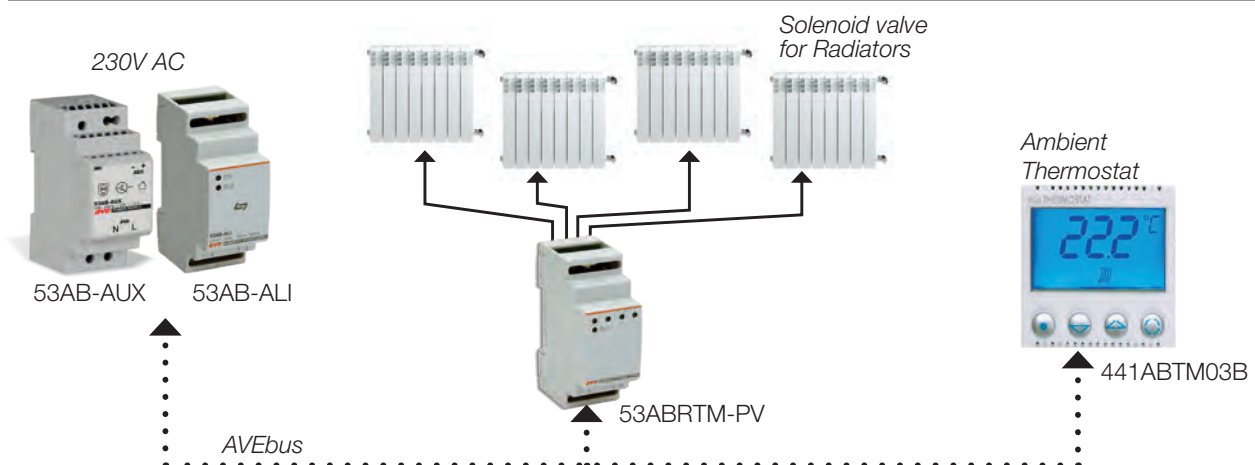
The 53ABRTM-FC device is a temperature control actuator for fan coil units. It has four relay outputs to control the solenoid valve and the three speeds of the fan coil unit. It allows to bind the actuation of the speed function of the temperature of the fluid circulating inside the radiator in order 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

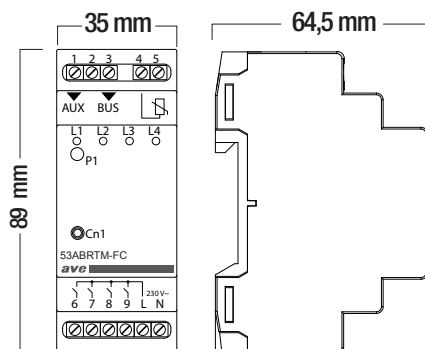|			
•	Module:	2 DIN modules (WxHxD) 35 x 89 x 64.5 mm	
•	Protection degree:	IP30D in DIN boxes	
•	Auxiliary power supply from SELV source:	- Rated voltage:	12Vdc
		- Allowed fluctuation:	10.5 - 14Vdc
		- Absorption at 12Vdc:	34mA (MAX)
•	Power supply from the 230Vac line:	- Rated voltage:	230Vac
		- 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 6: Solenoid valve contact output
•	Terminal 2:	GND (BUS and AUX)	•	Terminal 7: Speed 1 contact output
•	Terminal 3:	BUS positive	•	Terminal 8: Speed 2 contact output
			•	Terminal 9: Speed 3 contact output
•	Terminal 4:	NTC water probe	•	Terminal L: Power supply line 230 V~ and Common of the outputs
•	Terminal 5:	NTC water probe	•	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			1	Only speed 1 can be enabled
	Function 2:	Summer only operation	Parameter 4		2	Speeds 1 and 2 can be enabled
	Function 3:	Winter only operation			3	Speeds 1, 2 and 3 can be enabled
	0	Summer temperature probe disabled		0	Winter temperature probe disabled
Parameter 1	1	Fan operating in summer with Temp. probe < 13°C	Parameter 1 2	1	Fan operating in winter with Temp. probe > 31°C
	...	...		...	...
	11	Fan operating in summer with Temp. probe < 23°C		11	Fan operating in winter with Temp. probe > 41°C

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WIRING DIAGRAMS
AND PRESCRIPTIONS

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.

53ABRTM-FC

TECHNICAL INFORMATION

SYSTEMS WITH 2 TUBES
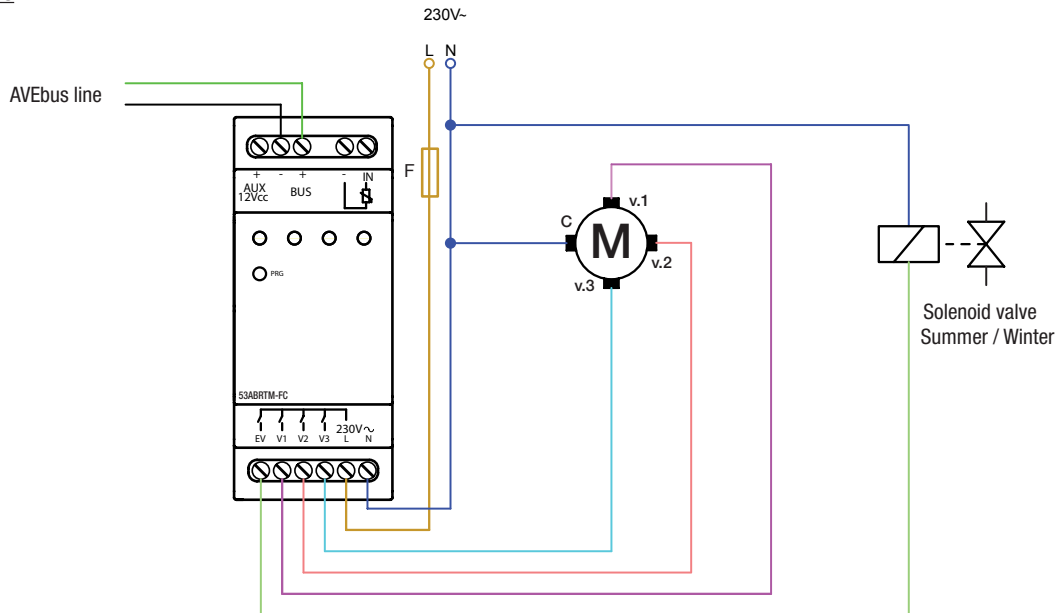
SYSTEMS WITH 4 TUBES
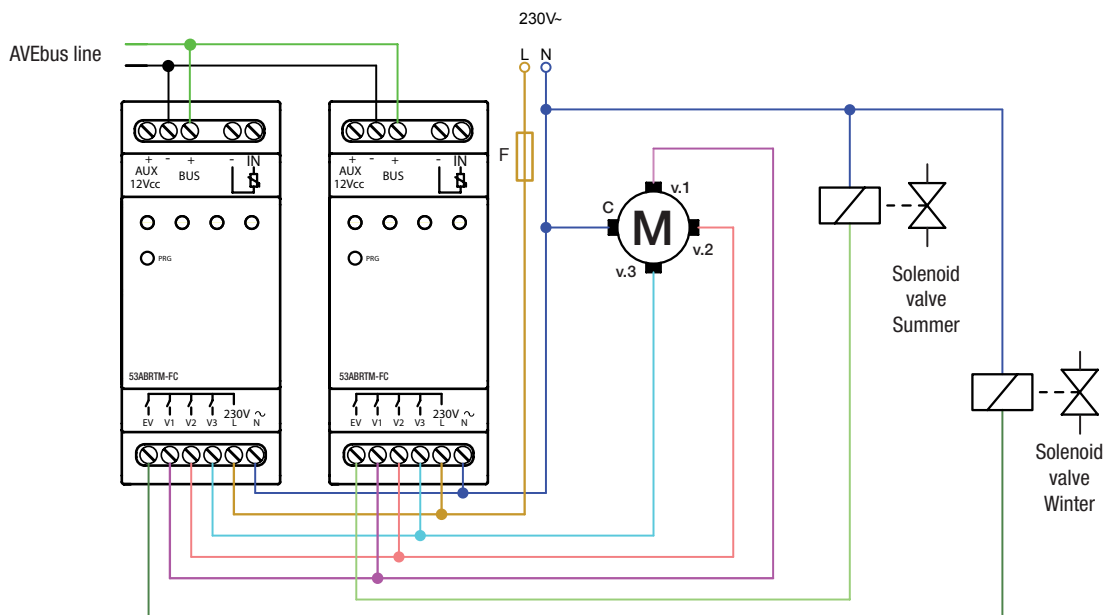
44..ABTMH-SO

53AB-WBS

Temperature zone A

Temperature zone B

Window status

Window status

441ABTMH-SO

441ABTMH-SO

53AB-AUX   53AB-ALI

AVEbus

ABRTM-PV

ABRTM-PV

Dehumidifier

53ABRTH

Home Automation

441ABTM-SO   445ABTM-SO   449ABTM-SO

442ABTM-SO   443ABTM-SO

☐ **441ABTM-SO**   ■ **445ABTM-SO**   ■ **449ABTM-SO**
AVEbus Probe - Room thermostat - Domus - Tekla - Class - series - 1 module

■ **442ABTM-SO**   ■ **443ABTM-SO**
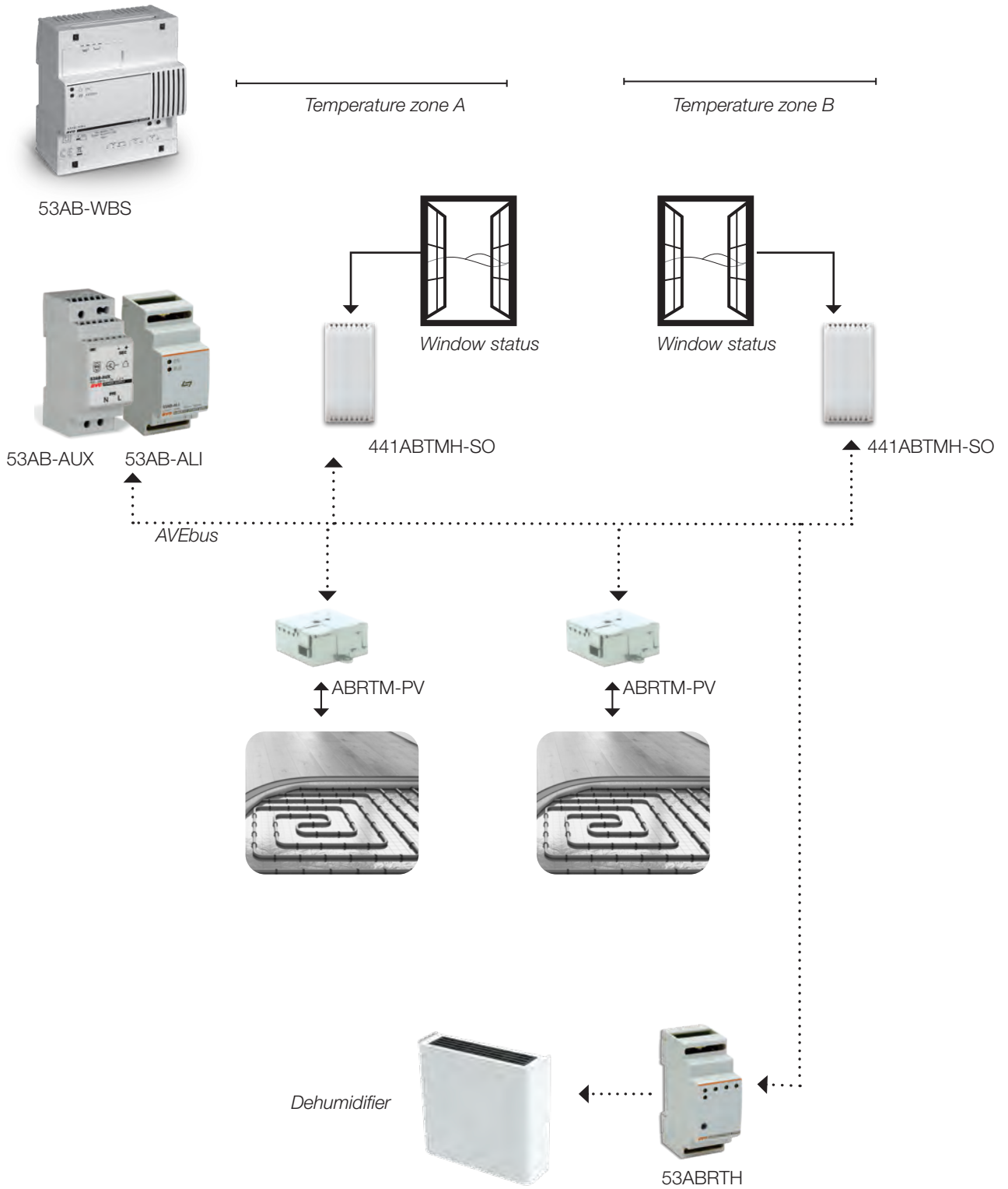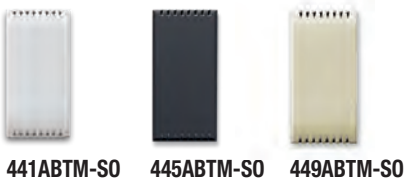AVEbus Probe - Room thermostat - Life - Allumia series - 1 module

Sonda - Termostato - Igrostato ambiente

441ABTMH-SO   445ABTMH-SO   449ABTMH-SO

442ABTMH-SO   443ABTMH-SO

☐ **441ABTMH-SO**   ■ **445ABTMH-SO**   ■ **449ABTMH-SO**
AVEbus Probe - Thermostat - Room hygrostat - Domus - Tekla - Class - series - 1 module

■ **442ABTMH-SO**   ■ **443ABTMH-SO**
AVEbus Probe - Thermostat - Room hygrostat - serie - Life - Allumia series - 1 module

Attuatore per deumidificatore

53ABRTH

53ABRTH
AVEbus device - two configurable relay outputs - 1 channel - 2 DIN modules

Attuatore arresto pompa con reset locale

441ABRTHP

☐ **441ABRTHP**   ■ **445ABRTHP**   ■ **449ABRTHP**
AVEbus Pump stop actuator with local reset - Domus - Tekla - Class series - 1 module

■ **442ABRTHP**   ■ **443ABRTHP**
AVEbus Pump stop actuator with local reset - Life - Allumia series - 1 module

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

53AB-AUX

The 53AB-AUX device is the switching power supply unit of the AVEBus system that is dedicated to the auxiliary power of the peripheral units.

Technical details

•	Module:	2 DIN modules (35 x 90 x 58.5) mm
•	Protection degree:	IP40 in DIN enclosures
•	Power supply from the 230Vac line:	- Rated voltage: 230Vac
		- Allowed fluctuation: 100Vac ÷ 240Vac
•	Power supply frequency:	47 - 63 Hz
•	Output voltage:	12 Vdc
•	Rated voltage:	2000 mA
•	Operating Ambient Temperature Range:	from -30°C to +50°C
•	Maximum Relative Humidity:	90% at 35°C
•	Max. Height:	2000 m a.s.l.

Connections

•	Terminal L-N:	Power supply from the 230Vac line
•	Terminal +V - -V:	AUX line

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WIRING DIAGRAMS
AND PRESCRIPTIONS

53AB-ALI
53AB-AUX

BSA-USB

CVAVEBUS
CVBUS-BUILDING

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

53ABISO-1
Logical line isolator - 1 DIN

53AB-AUX
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

53BSA232
AVEbus-RS232 interface - 3 DIN modules

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 B2ca-S1a-d0 - a1 (HIGH Risk Level)
Allows to connect all AVEbus devices, comprising four wires.

FUNCTIONAL DIAGRAM

442ABT2-1   53AB-ALI   53ABR4

AVEbus

300 m cod. CVAVEBUS / CVBUS-BUILDING   *300 m cod. CVAVEBUS / CVBUS-BUILDING*

442ABT2-1   53AB-ALI   53AB-ALI   53ABR4

AVEbus

300 m   *300 m*   *300 m*
cod. CVAVEBUS / CVBUS-BUILDING   *cod. CVAVEBUS / CVBUS-BUILDING*   *cod. CVAVEBUS / CVBUS-BUILDING*

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
•	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
•	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

	Primary bus segment [1]		Secondary bus segment [2]
•	Terminal 1: positive auxiliary of the branch	•	Terminal 4: Positive BUS of the branch [2]
•	Terminal 2: GND of the branch [1]	•	Terminal 5: GND of the branch [2]
•	Terminal 3: Positive BUS of the branch [1]	•	Terminal 6: Positive auxiliary of the branch [2]

Warning: Terminals 2 and 5 are isolated:

Function Table

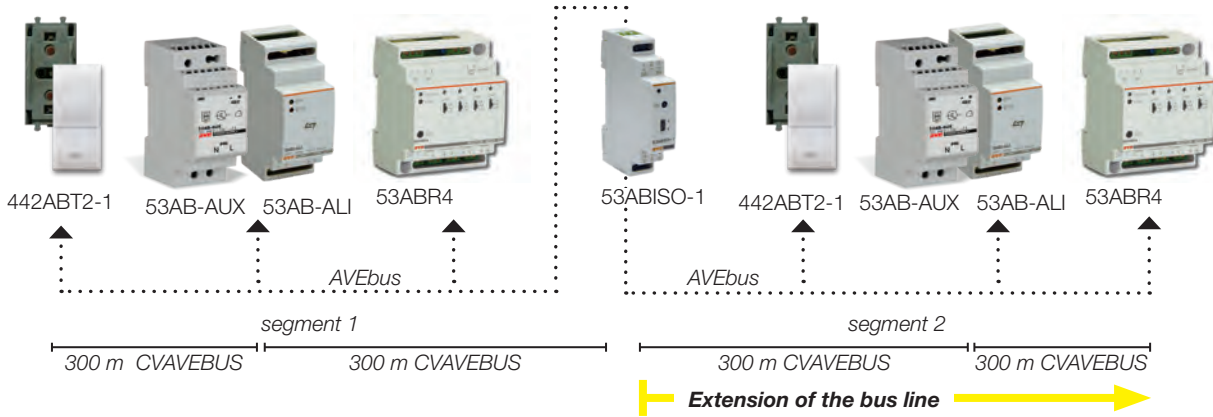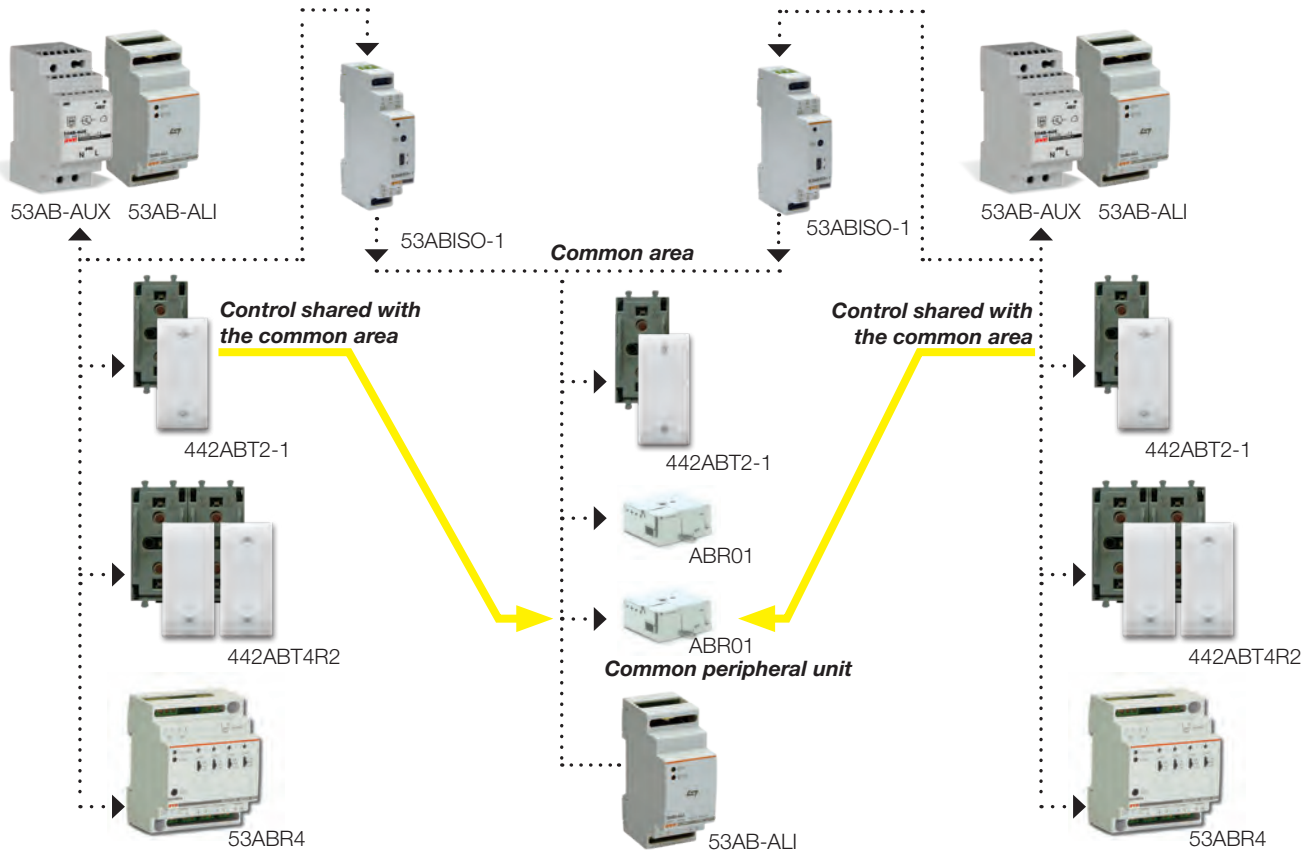|	Function 1:	Electric isolator and line repeater		...
	Function 2:	Logical level sectioner with filter	Parameter 1	**Black list:** all AVEbus frames pass except for those of devices stored in the memory.
	Function 3:	Router for the extension of addresses		**White list:** only AVEbus frames of devices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

Diagram

Home Automation
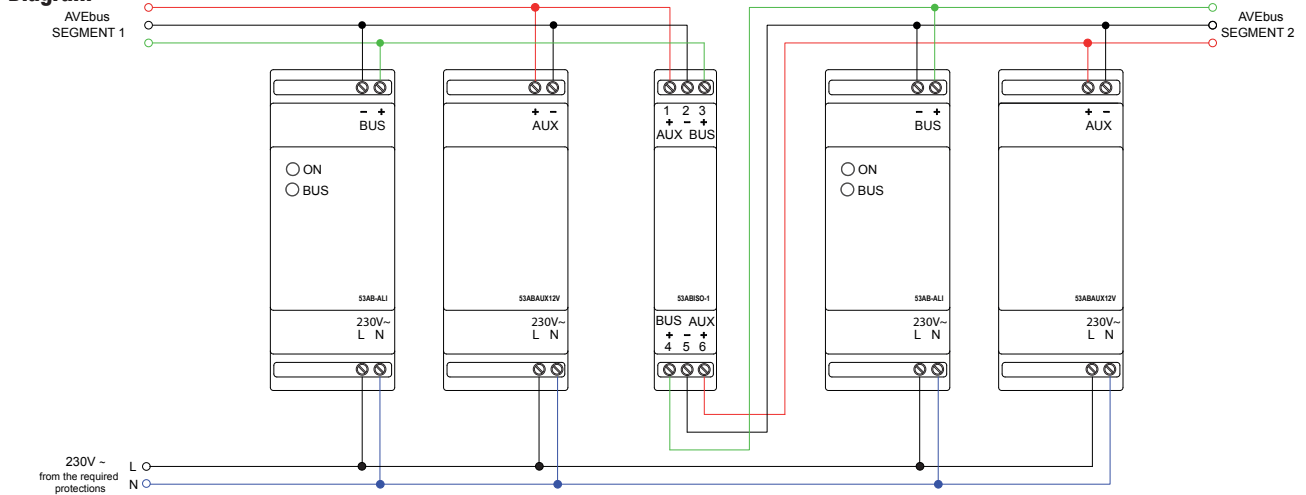
53ABISO-1
Logical line isolator - 1 DIN

53ABISO-1

FUNCTIONAL DIAGRAM

EXTENSION OF THE AVEbus LINE (operation in Isolator or Repeater mode)

442ABT2-1   53AB-AUX   53AB-ALI   53ABR4   53ABISO-1   442ABT2-1   53AB-AUX   53AB-ALI   53ABR4

AVEbus   *AVEbus*

segment 1   *segment 2*

300 m CVAVEBUS   *300 m CVAVEBUS*   *300 m CVAVEBUS*   *300 m CVAVEBUS*

Extension of the bus line

COMMON PERIPHERAL UNITS BETWEEN THE ISOLATED LINES (operation in Logical level sectioner mode)

53AB-AUX   53AB-ALI   53ABISO-1   *Common area*   53ABISO-1   53AB-AUX   53AB-ALI

Control shared with the common area   *Control shared with the common area*

442ABT2-1   442ABT2-1   442ABT2-1

ABR01

442ABT4R2   ABR01   442ABT4R2

Common peripheral unit

53ABR4   53AB-ALI   53ABR4

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

| TS05N-V | TS04X-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 pro 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.
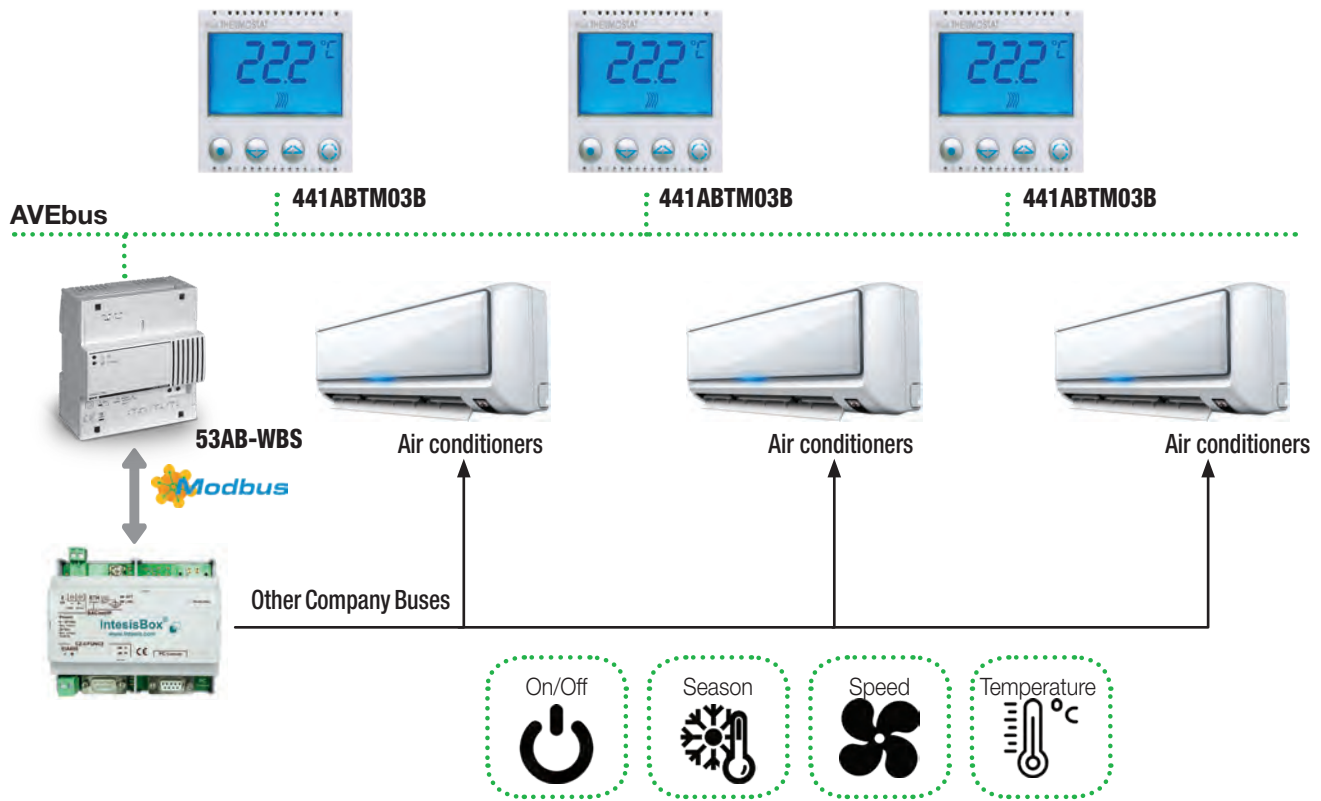

53AB-WBS

System Integration

AIR CONDITIONING

Integration with Modbus gateway for Air Conditioning control

AVEbus

441ABTM03B　　　**441ABTM03B**　　　**441ABTM03B**

53AB-WBS

Air conditioners　　　Air conditioners　　　Air conditioners

Modbus

Other Company Buses

On/Off　　　Season　　　Speed　　　Temperature °C

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

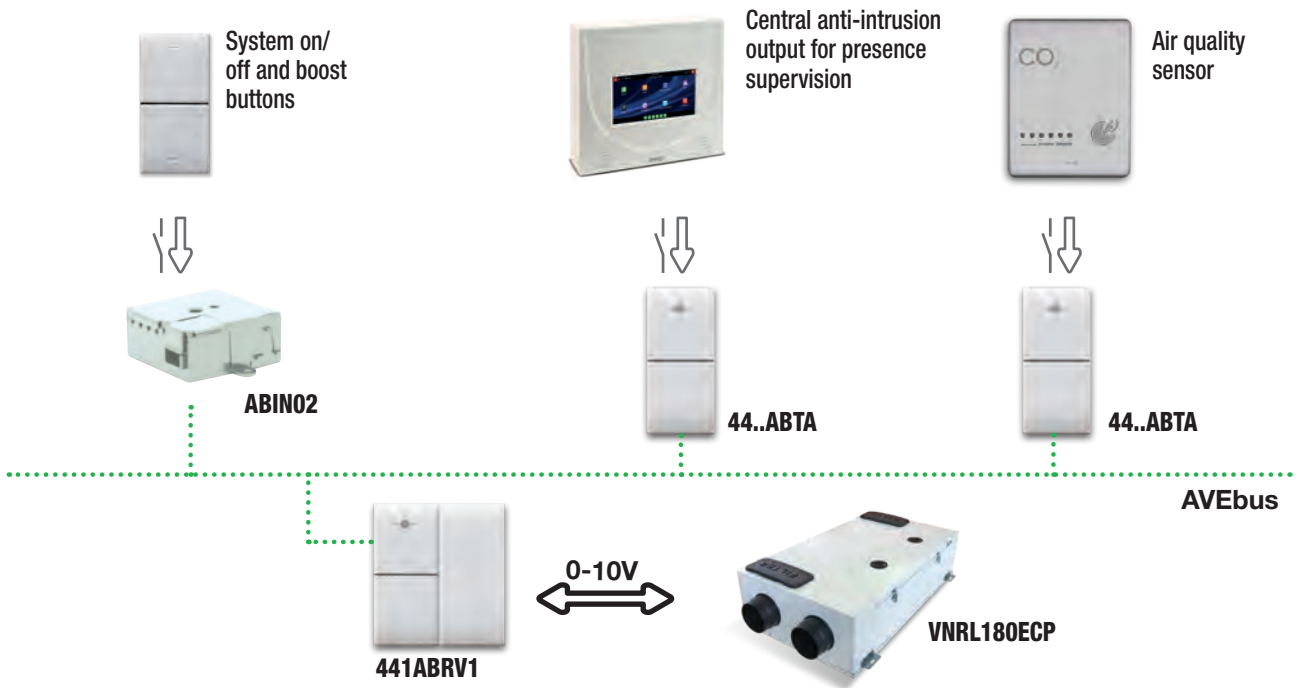### Integration with IR Interface for Air Conditioning control

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.

441ABTM03B

AVEbus

IR
•))))))))

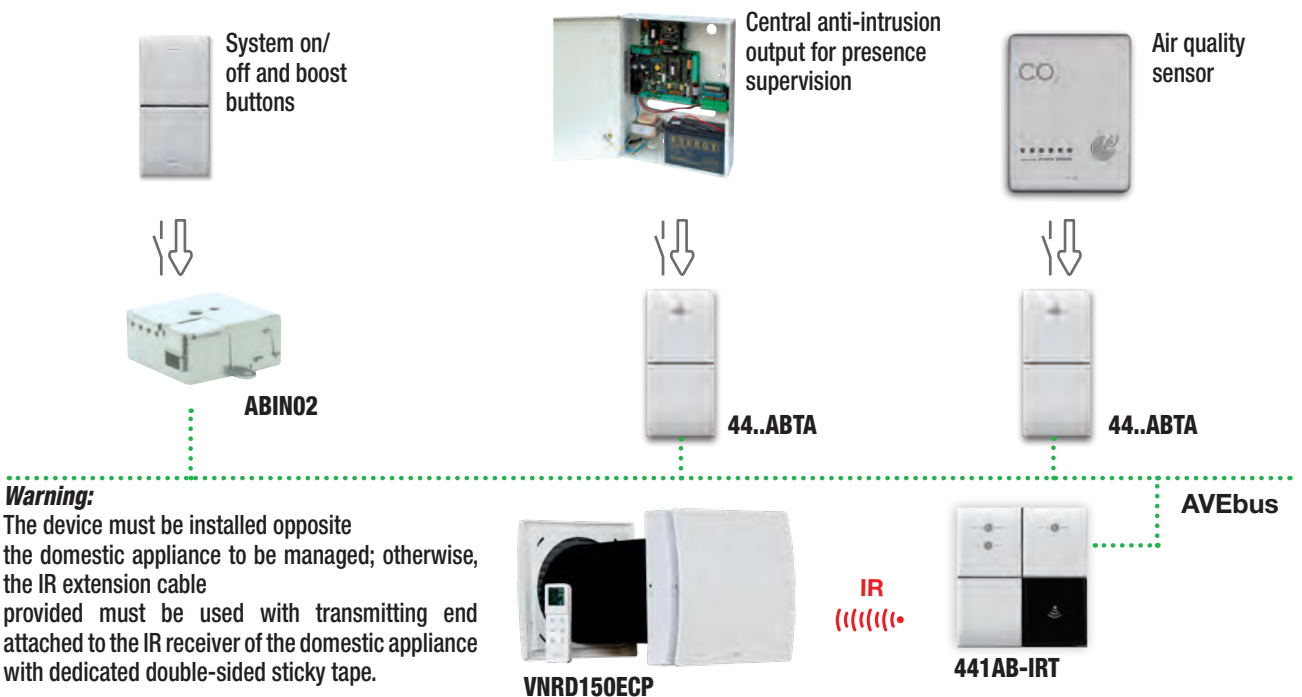**441AB-IRT**　　　Air Conditioner with IR receiver
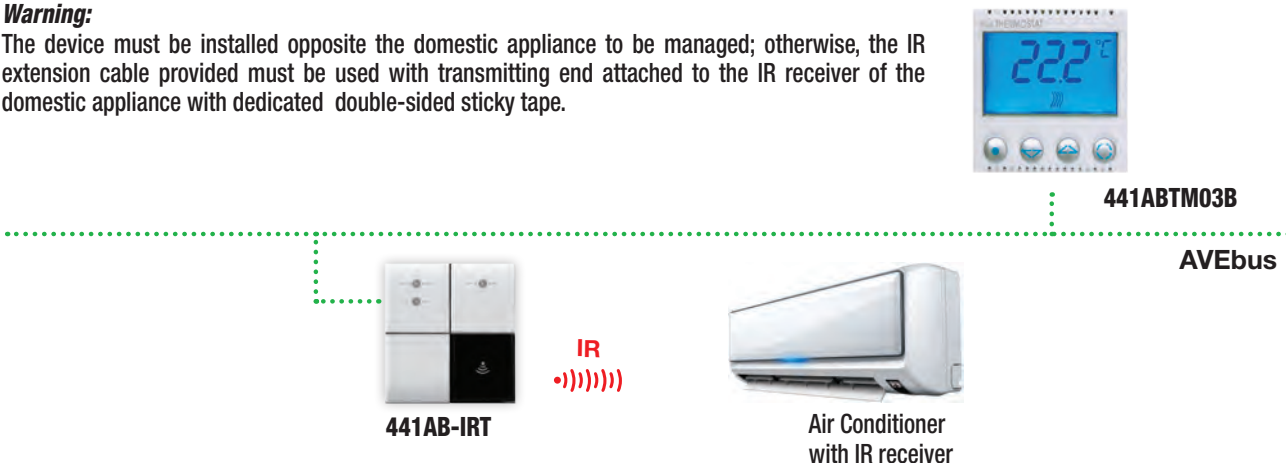
Through integration with the new range of AVE DomusAir products, by using CMV (controlled mechanical ventilation), continuous change of air with double flow can be guaranteed with heat recovery, thus allowing to constantly maintain excellent internal air quality, extracting components that are harmful 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

System on/ off and boost buttons

Central anti-intrusion output for presence supervision

Air quality sensor

ABINO2

44..ABTA

44..ABTA

AVEbus

441ABRV1

0-10V

VNRL180ECP

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

System on/ off and boost buttons

Central anti-intrusion output for presence supervision

Air quality sensor

ABINO2

44..ABTA

44..ABTA

AVEbus

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.

VNRD150ECP

IR

441AB-IRT

Technical Details

Home Automation

CENTRAL CMV WITH HEAT RECOVERY - CONTROL WITH COD. 441ABRV1

441ABRV1
442ABT2-1

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

441ABTA **445ABTA**

■ **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

VNRL180ECPN
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
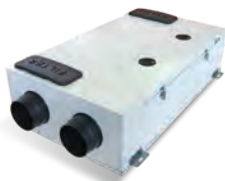
442ABTA **443ABTA**

VNRL180ECPN

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

☐ **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

441AB-IRT **445AB-IRT**

VNRD150ECP
Decentralised heat recovery unit with single alternate flow Ø158 mm - internal stylish front cover - provided with infrared remote control - up to 82% thermal efficiency - EC brushless motor for energy saving, provided with ball bearing (long life) - maximum rate 60 m3/h - multi-speed, for continuous running - for areas up to 45 m2- for installation in noble premises like bedrooms and living rooms - Plus version - SOLITAIR
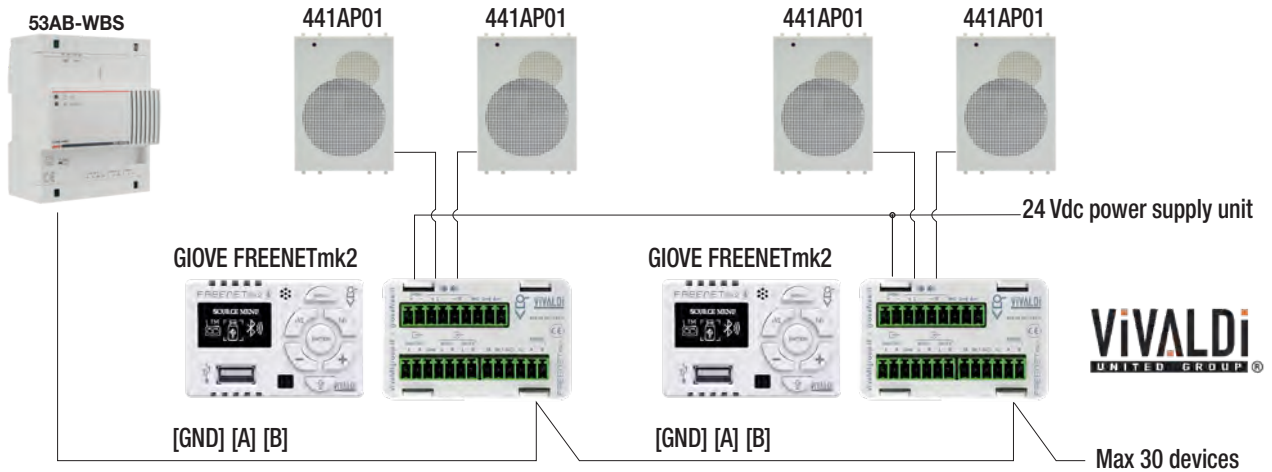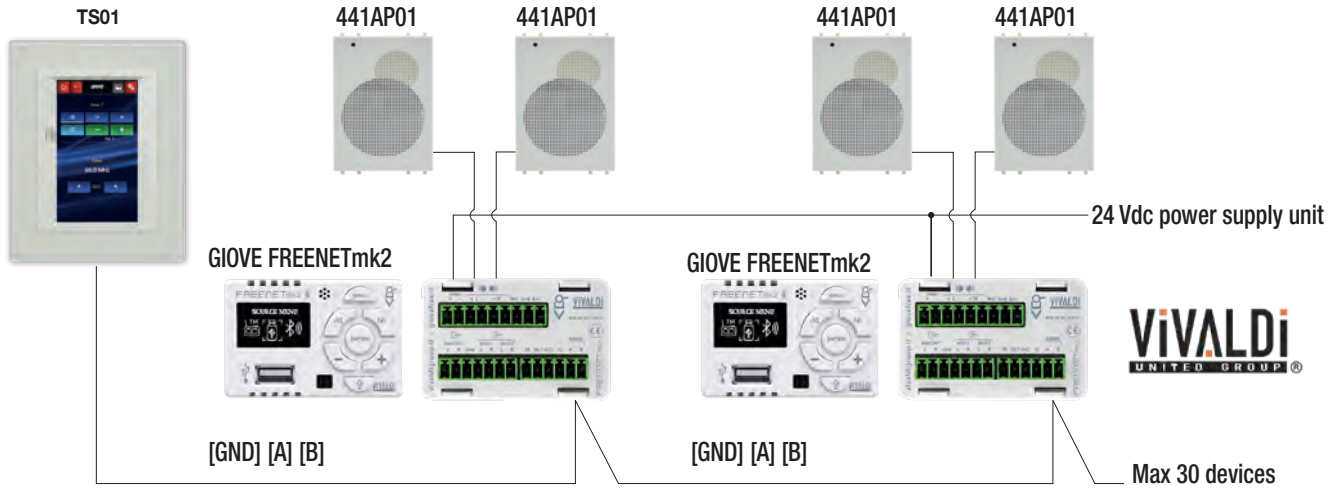
VNRD150ECP

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS AND PRESCRIPTIONS

Integration with Vivaldi sound devices

TS01   441AP01   441AP01   441AP01   441AP01

GIOVE FREENETmk2   GIOVE FREENETmk2

24 Vdc power supply unit

[GND] [A] [B]   [GND] [A] [B]

Max 30 devices

53AB-WBS   441AP01   441AP01   441AP01   441AP01

GIOVE FREENETmk2   GIOVE FREENETmk2

24 Vdc power supply unit

[GND] [A] [B]   [GND] [A] [B]

Max 30 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
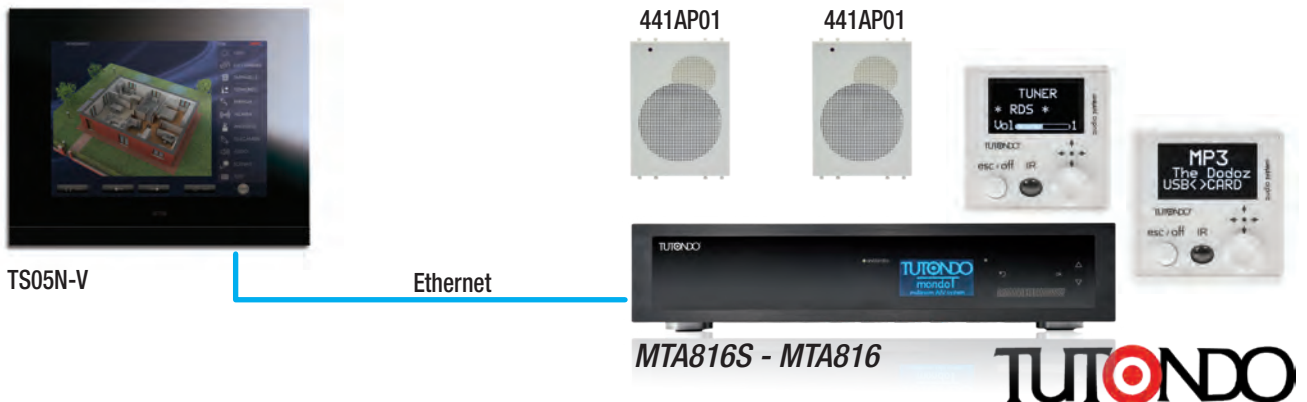
441AP01   441AP01

TS05N-V   Ethernet

MTA816S - MTA816

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.

ANTI-INTRUSION ALARM SYSTEM
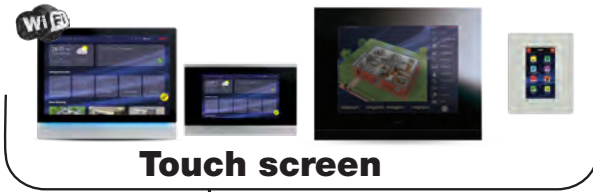
Wired and/or wireless sirens

RADIO

FILO WIRED

Touch screen

WiFi

WiFi

Wired bus expansions

FILO WIRED

Remote control

ave Cloud

WiFi

Wireless detectors

RADIO

Anti-Intrusion Control units

Remote control

RADIO

Radio keypad

Radio signal repeater

RADIO

FILO WIRED

Wired detectors

FILO WIRED

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.
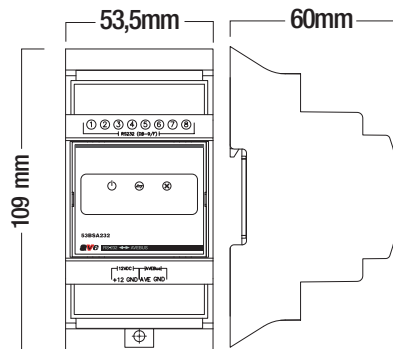
Technical details

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

Home Automation

53BSA232

53BSA232
AVEbus-RS232 interface - 3 DIN modules

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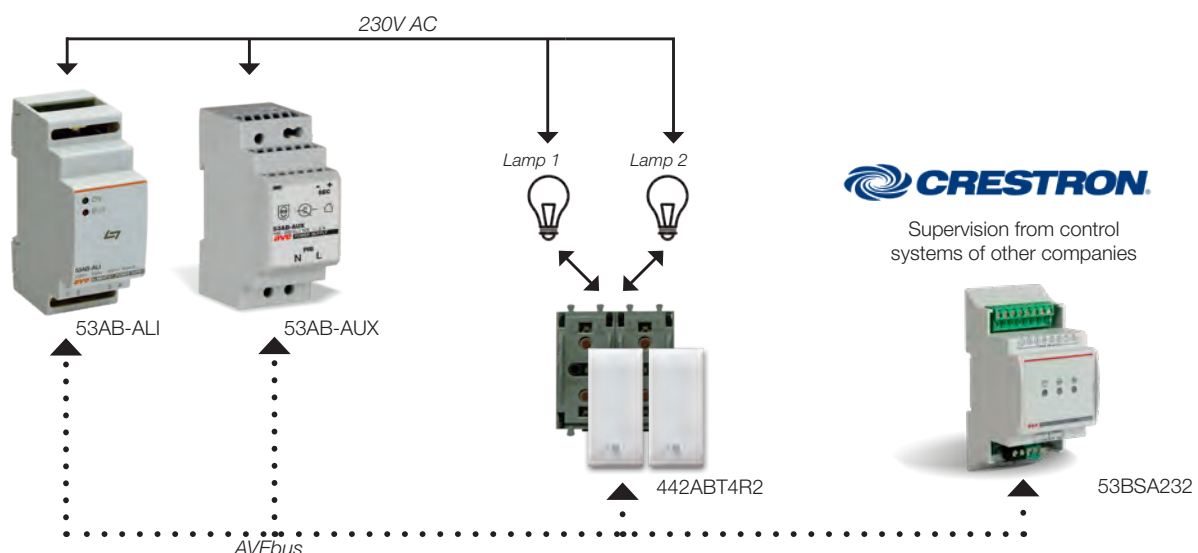
• *BaudRate 4800 • DataBits 8 • DiscardNull False • DtrEnable True • Handshake None • Parity Odd • RtsEnable True • StopBits One*

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

230V AC

Lamp 1   Lamp 2

Supervision from control systems of other companies

53AB-ALI   53AB-AUX

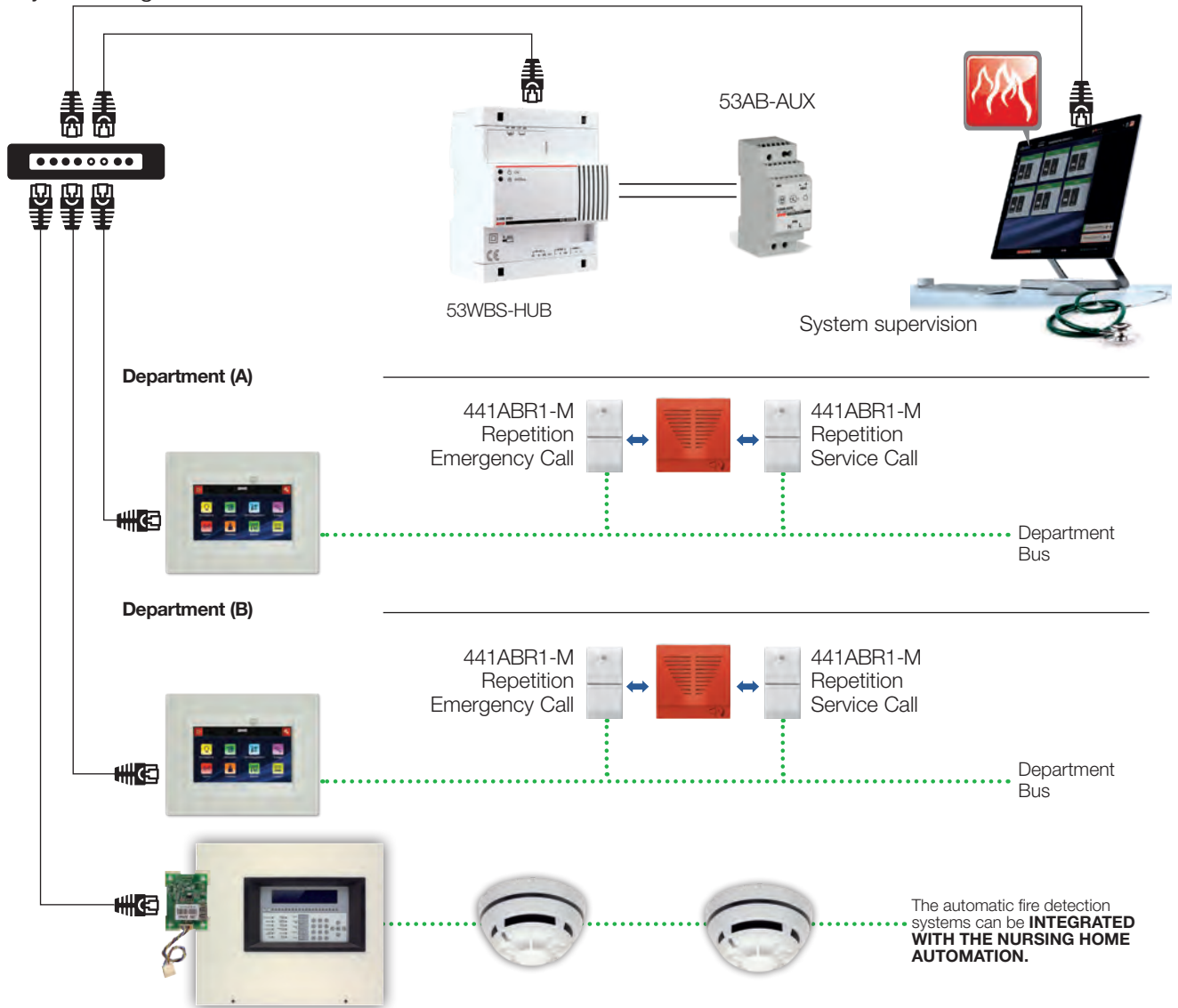442ABT4R2   53BSA232

AVEbus

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.
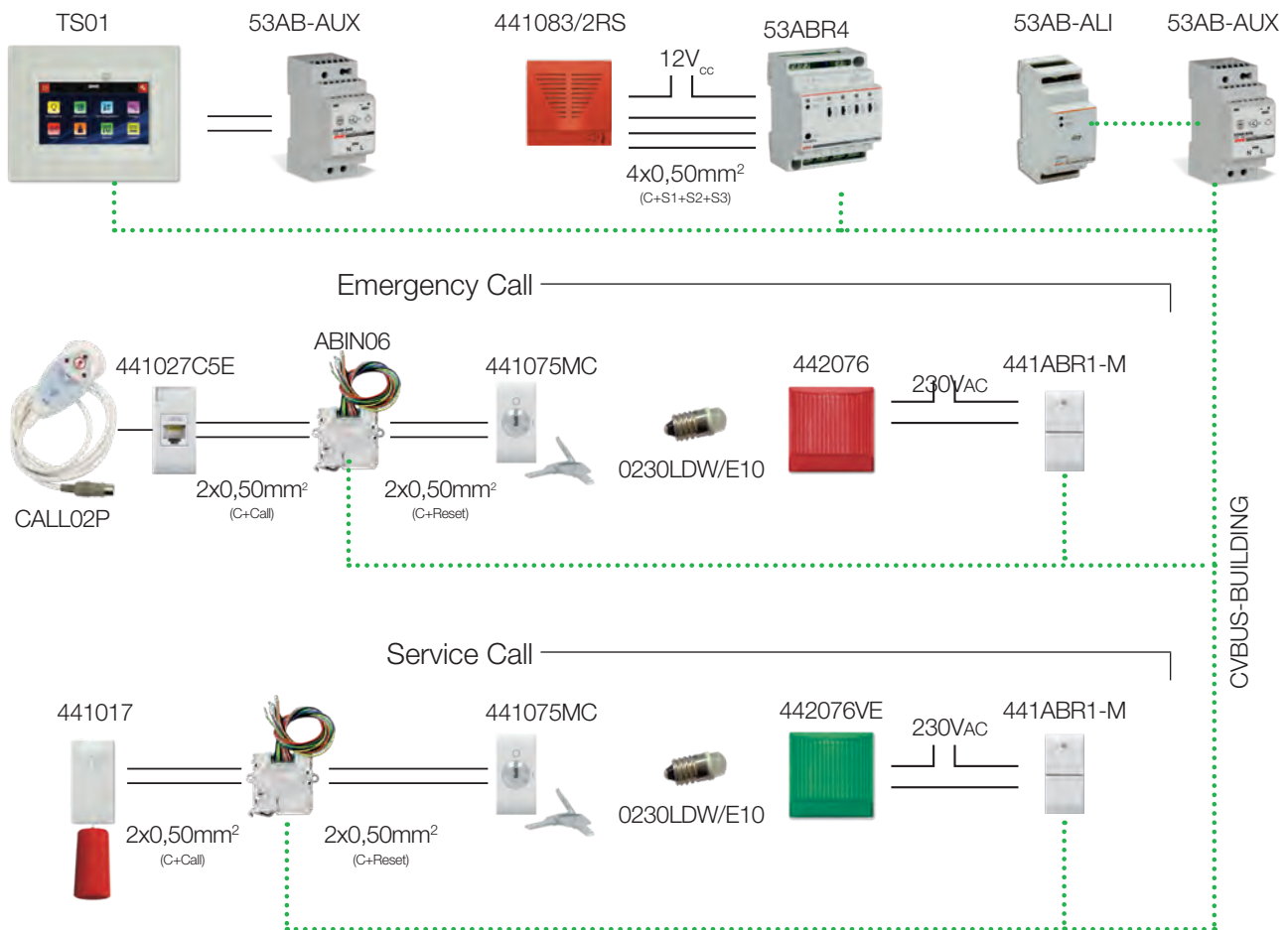
System diagram

53AB-AUX

53WBS-HUB

System supervision

Department (A)

441ABR1-M
Repetition
Emergency Call

441ABR1-M
Repetition
Service Call

Department Bus

Department (B)

441ABR1-M
Repetition
Emergency Call

441ABR1-M
Repetition
Service Call

Department Bus

The automatic fire detection systems can be **INTEGRATED WITH THE NURSING HOME AUTOMATION.**

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.

Technical Details

HOME AUTOMATION FOR EMERGENCY CALL SYSTEM

domina Pro
Professional Home Automation

ave

Diagram of the individual Department

| TS01 | 53AB-AUX | 441083/2RS | 53ABR4 | 53AB-ALI | 53AB-AUX |

12V$_{cc}$

4x0,50mm^2
(C+S1+S2+S3)

Emergency Call

| 441027C5E | ABIN06 | 441075MC | 442076 | 441ABR1-M |

CALL02P

2x0,50mm^2
(C+Call)

2x0,50mm^2
(C+Reset)

0230LDW/E10

230V$_{AC}$

CVBUS-BUILDING

Service Call

| 441017 | | 441075MC | 442076VE | 441ABR1-M |

2x0,50mm^2
(C+Call)

2x0,50mm^2
(C+Reset)

0230LDW/E10

230V$_{AC}$

(✲) **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

TECHNICAL CATALOGUE
DOMINAᵖʳᵒ SUPERVISION DEVICES

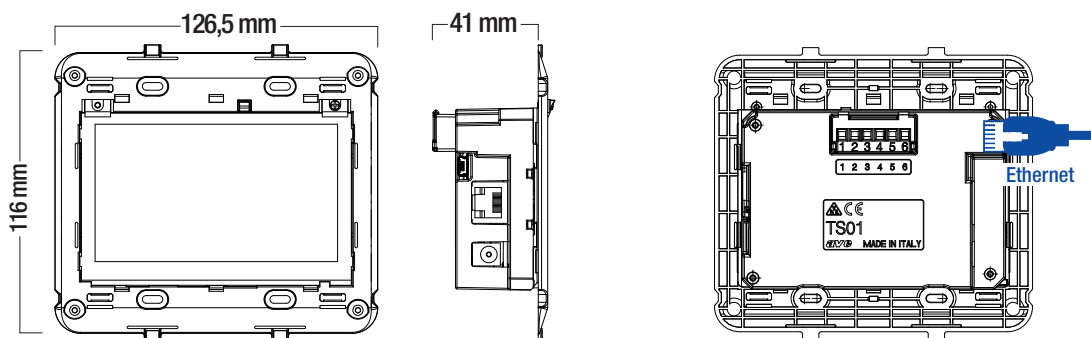### DOMINAᴾᴿᴼ TOUCH SCREEN WITH 4,3"DISPLAY - cod. TS01

126

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

DOMINAᵖʳᵒ 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.

Technical Details

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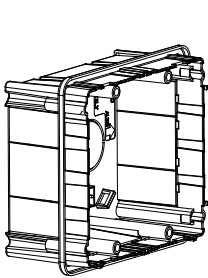
TS01
DOMINA^{pro} Touch Screen with 4.3" colour display and user interface with
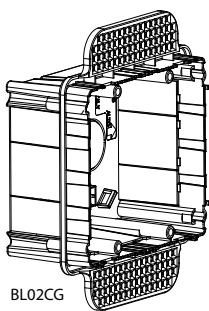icon layout. Vertical or horizontal installation depending on the position of the box BL02...
- Power supply: 12Vdc (Max. 0.5A)
- Operating Room Temperature: 0°C - 40°C
- Integrated home automation Web Server
- Combined with the temperature probe, it also works as a chronothermostat.

TS01

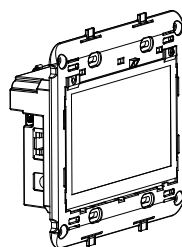## TECHNICAL INFORMATION

FLUSH-MOUNTED BOX
FOR BRICKWORK WALLS   FOR HOLLOW WALLS
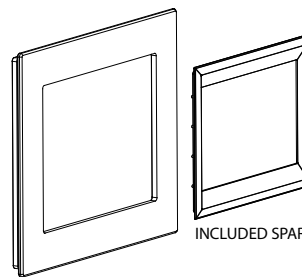

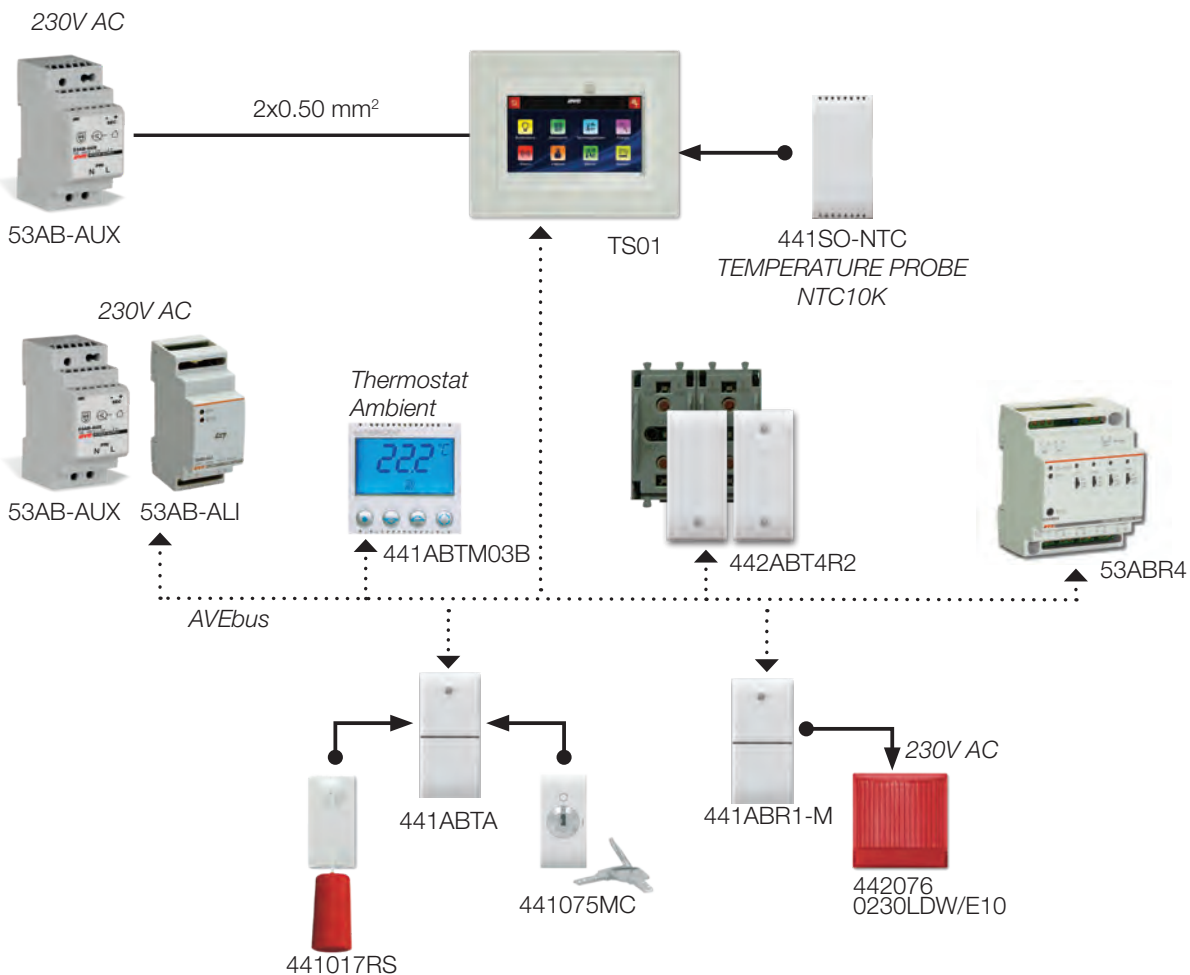BL02P   BL02CG   TS01   INCLUDED SPARE INNER FRAME

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

230V AC

2x0.50 mm²

53AB-AUX   TS01   441SO-NTC
TEMPERATURE PROBE
NTC10K

230V AC

Thermostat Ambient

53AB-AUX   53AB-ALI   441ABTM03B   442ABT4R2   53ABR4

AVEbus

441ABTA   441ABR1-M   *230V AC*

441017RS   441075MC   442076
0230LDW/E10

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.
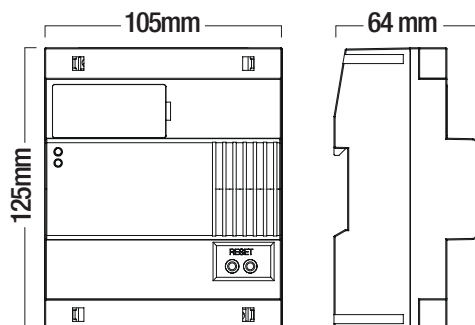
The Web interface also allows access to the graphic interface of supervisors distributed in the facility in order to allow its remote management, thus exploiting all functions of each supervisor: "Multi-zone Chronothermostat", "Scenario Control Switch", "Time Scheduler", "Programmable Logic Management", "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.
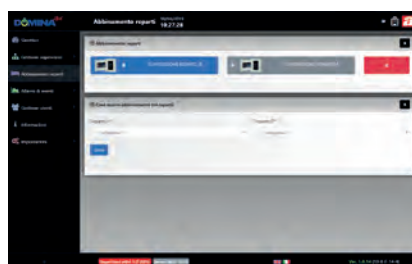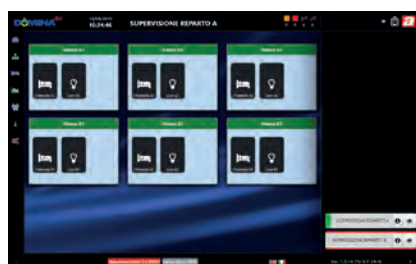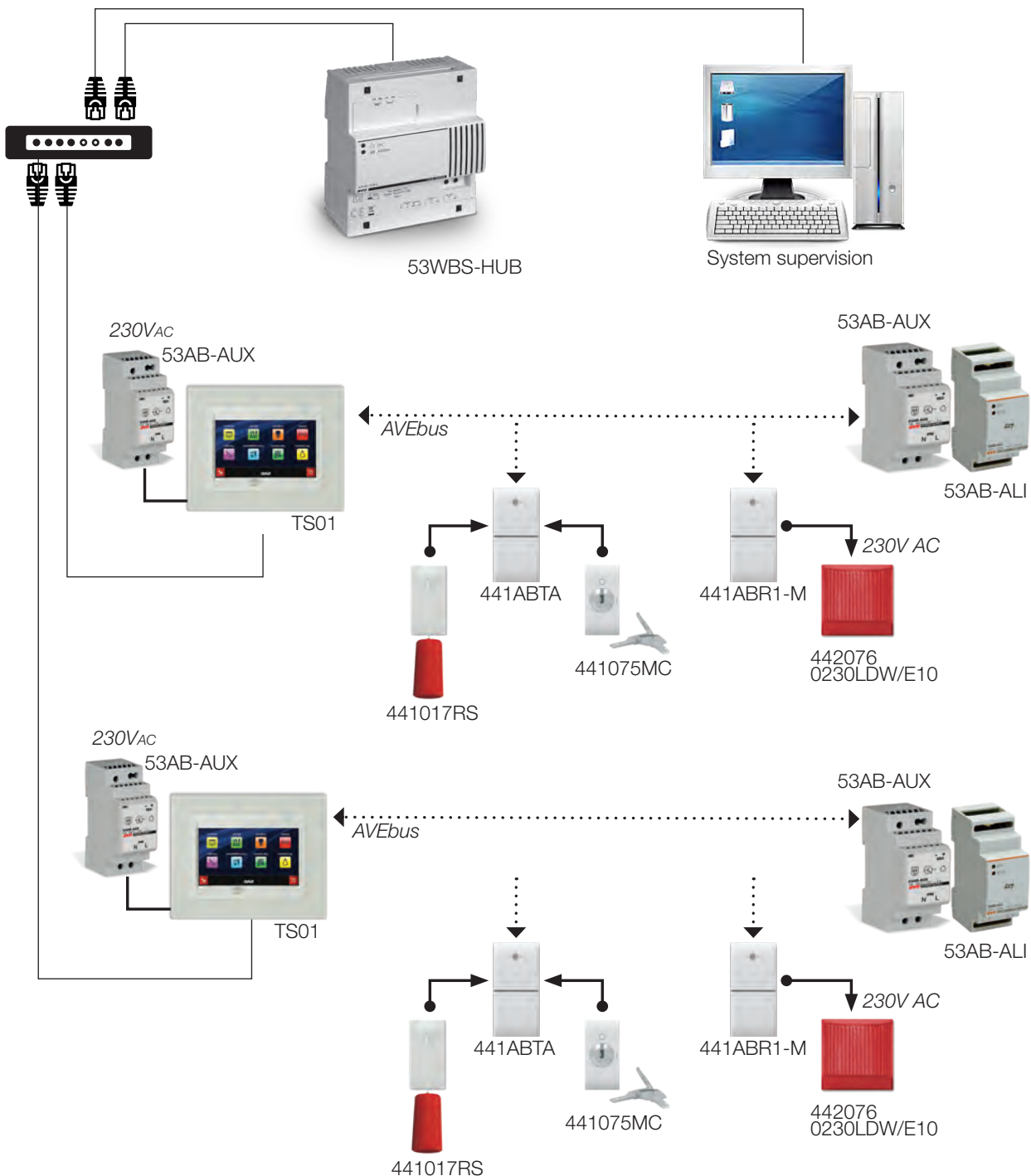
HOME AUTOMATION FOR EMERGENCY CALL SYSTEM

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

53WBS-HUB

FUNCTIONAL DIAGRAM

53WBS-HUB

System supervision

53AB-AUX

230VAC
53AB-AUX

TS01

AVEbus

441ABTA

441075MC

441017RS

53AB-AUX

53AB-ALI

441ABR1-M

230V AC

442076
0230LDW/E10

230VAC
53AB-AUX

TS01

AVEbus

441ABTA

441075MC

441017RS

53AB-AUX

53AB-ALI

441ABR1-M

230V AC

442076
0230LDW/E10

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS AND PRESCRIPTIONS

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	

HOME AUTOMATION FOR EMERGENCY CALL SYSTEM

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

441ABTA 445ABTA 449ABTA
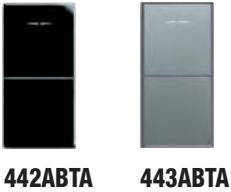
442ABTA **443ABTA**
1-channel transmitter for alarm signals - Life series - Allumia - 1 module

442ABTA 443ABTA

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

**441075
441075MC**   **445075**

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

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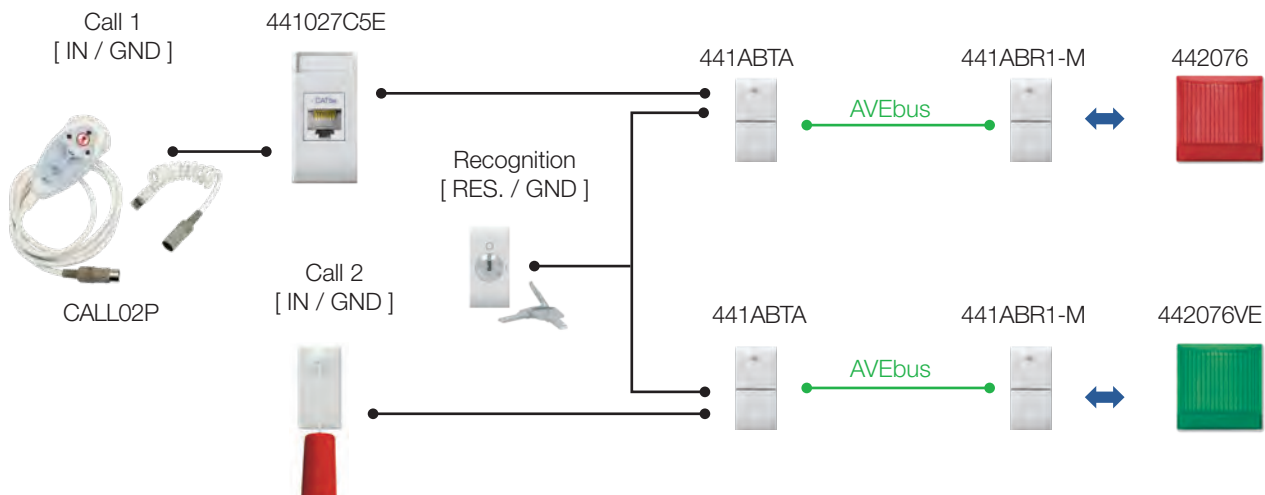1P NO+NC 10A large emergency lightable button - red - 2 modules

CALL02P
Keypad with two buttons that can be used for call management and activation of a light device. The device has a 2m long connection cable (headed with a 7-pole male DIN connector) and is supplied with an extension cable with "tear-proof" function with 7-pole DIN female connection and RJ45 "flying" connector. Equipped with Braille coding (call button area) and three red LEDs for product identification in the dark. 12Vdc power supply; Outgoing contacts: call n.c . - n.1 button n.o.

441017RS   **CALL02P**

CALL03P
Keypad with three buttons that can be used for call management and activation of a light device. The device has a 2m long connection cable (headed with a 7-pole male DIN connector) and is supplied with an extension cable with "tear-proof" function with 7-pole DIN female connection and RJ45 "flying" connector. Equipped with Braille coding (call button area) and three red LEDs for product identification in the dark. 12Vdc power supply; Outgoing contacts: call n.c . - n.2 n.o. buttons
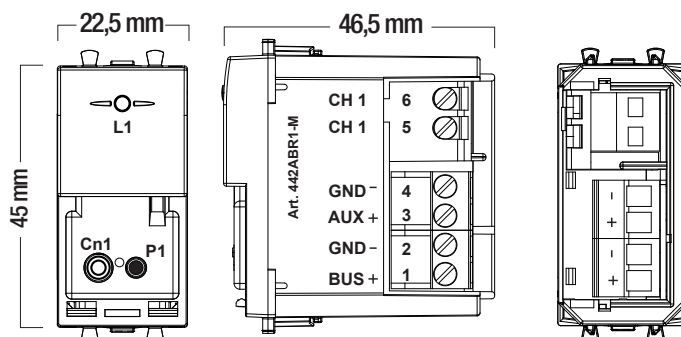
CALL03P

HOME AUTOMATION CALL MODULE

Call 1
[IN / GND]

441027C5E

441ABTA   441ABR1-M   442076

AVEbus

Recognition
[RES. / GND]

CALL02P

Call 2
[IN / GND]

441ABTA   441ABR1-M   442076VE

AVEbus

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

HOME AUTOMATION FOR EMERGENCY CALL SYSTEM

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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

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

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

442076VE   **442076**

441083/2RS

HOME AUTOMATION

HOTEL MANAGEMENT

VIDEO INTERCOM

ANTI INTRUSION

WIRING DIAGRAMS AND PRESCRIPTIONS

FUNCTIONAL DIAGRAM

Call 1 [IN / GND]

Call 2 [IN / GND]

Recognition [RES. / GND]

441075MC

441ABTA   AVEbus   441ABR1-M   442076

441ABTA   AVEbus   441ABR1-M   442076VE

(∗)

(∗)**Note: maximum distance 10 m**