

EN

SYSTEM MANUAL



Comelit Home Automation (SimpleHome)

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Passion. Technology. Design.

Warning

- This Comelit product has been designed and manufactured for use in the creation of security and automation systems in residential, commercial, industrial and public buildings.
- All activities connected to the installation of Comelit products must be carried out by qualified technical personnel, with careful observation of the indications provided in the manuals supplied with those products.
- Disconnect the power supply before carrying out any operations on the wiring.
- Use wires with a cross-section suited to the distances involved, observing the instructions provided in the system manual.
- We advise against running the system wires through the same duct as power cables (230V or higher).
- To ensure Comelit products are used safely: carefully observe the indications provided in the manuals / instruction sheets; make sure the system created using Comelit products has not been damaged.
- Comelit products do not require maintenance aside from routine cleaning, which should be carried out in accordance with the indications provided in the manuals / instruction sheets. Any repairs must be carried out: for the products themselves, exclusively by Comelit Group S.p.A.; for the systems, by qualified technical personnel.
- Comelit Group S.p.A. accepts no liability for any purpose other than the intended use, or for the failure to observe the indications and warnings contained in this manual. Comelit Group S.p.A. reserves the right to change the information provided in this manual at any time and without prior notice.

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INTRODUCTION

This document presents a short introduction to the philosophy behind the Comelit home automation system and provides a detailed description of the range of home automation products currently available.

SIMPLEHOME: DISTRIBUTED INTELLIGENCE AND PROPRIETARY PROTOCOL

Creating a distributed intelligence home automation system guarantees the following:

- limited system costs, even for small installations such as single/two-family apartments, because - as with centralised logic systems - it is not necessary to install a control panel;
- greater protection against potential system locking, due to the fact that if a module is locked (e.g. following a surge or flooding), only the services (loads or commands) served by that module will cease responding to commands, meaning that the rest of the system can continue to run as normal;
- use of normal cables (even electrical cord, where permitted by law), limiting costs and material management: SimpleHome actually uses three normal electrical wires sized in accordance with the length of the bus and the number of devices on the section. It should be noted, however, that shielding offers greater protection from disturbances caused by magnetic fields.

COMMUNICATION TYPE

All devices communicate directly between themselves without a supervision/control panel, and therefore the communication time does not vary as the system expands: it takes the same amount of time for two modules speak to each other whether the system consists of 2 or 200 modules.

No. of devices that can be managed	Max. reachable distance
255	with Comelit cable art. 20002101 2 km

Modules with inputs, when the status of one of these changes, send a single message which can be destined for:

- another module, to activate an output;
- a group, i.e. to an assembly of common outputs needing to be controlled simultaneously;
- to the system manager, if complex scenarios are required.

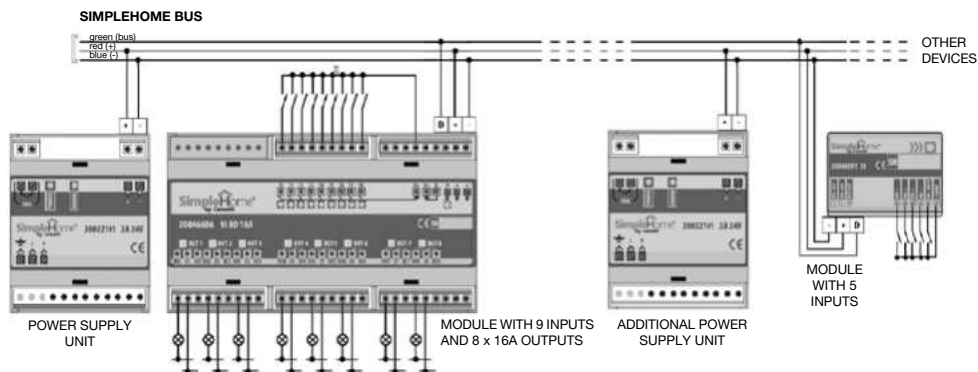
To clarify the concept of the *Group*, let us consider the following example: all outputs (distributed across several modules) controlling the lights on a floor or in a building belong to the same zone, and these can be controlled individually; alternatively, to switch them all off at once, simply use a single button connected to an input module which will send an off message to *Group 1* and therefore to all users belonging to it.

SIMPLEHOME: MULTIFUNCTIONAL MODULES, DISTRIBUTED POWER SUPPLY

The Comelit home automation system does not require modules dedicated to specific functions, such as rolling shutters or scenarios, as each bus device is multifunctional and can be programmed to carry out any task.

Moreover, some of the SimpleHome modules offer the option of on-board power outputs with the same number of digital inputs available, optimising system configuration and significantly reducing the total cost.

The system power supply is provided by 24 Vdc 2A DIN bar power supply units, which can be fitted in parallel and therefore distributed freely along the entire bus, meaning the bus sections can be significantly reduced (if the electric loads are suitably balanced) and guaranteeing (where necessary) a backup system which is easy to create.



To guarantee efficient operation of the SimpleHome system, it must be sized correctly. To do so, proceed as follows:

- 1) establish the number of power supply units required, on the basis of the number and type of devices installed;
- 2) establish the correct cable cross-sections for the Bus sections as well as the inputs (commands) and outputs (loads), on the basis of the number of power supply units used and how they are installed within the system.

Establishing the number of power supply units required:

Each device connected to the Comelit home automation system is powered directly by the 3-wire bus; a single home automation power supply unit is capable of supplying 2A continuously (2.2A peak). To guarantee efficient operation of a system, the number of power supply units required must be determined; to calculate this number, simply add the nominal absorption of the connected devices together.

The configurator available on the website pro.comelitgroup.com provides the information required to calculate the nominal absorption. (Downloads_Home automation_Home automation system configurator)

N.B. It is always wise to add a little in reserve (e.g. 30%) in order to guarantee system continuity in the event that one of the power supply units experiences a fault.

Establishing the required cross-sections:

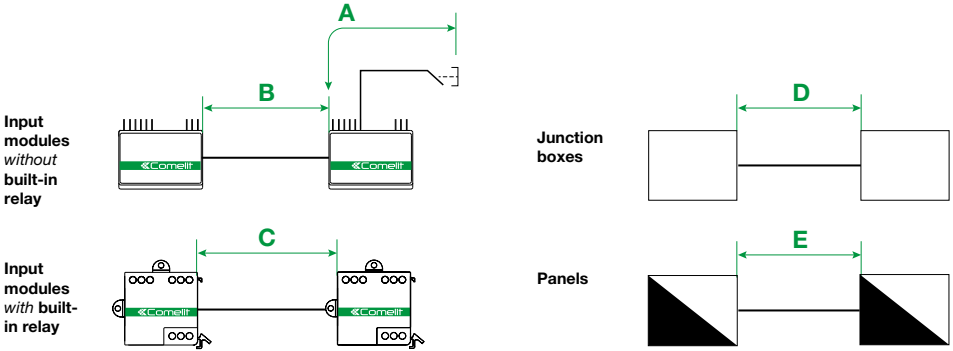
To reduce the cross-section of the bus backbones in use, we recommend that power supply units are distributed as close as possible to the device groups with the greatest power absorption instead of being concentrated in one area (especially for modules on DIN bars).

In fact, the nearer the power supply to the electrical nodes with the greatest absorption, the lower the current running along the bus backbone. According to Ohm's law ($V = R \times I$), the lower the current circulating, the lower the drop in voltage. In terms of voltage, to guarantee efficient operation of the SimpleHome system, the following rules should be observed:

- 1) power supply voltage of the devices on the bus = 24 Vdc +/- 5%
- 2) voltage, measured between the BUS DATA LINE wire and the BUS POWER SUPPLY NEGATIVE, should be greater than 4.7 V at every point in the system (5 V is the optimum value).

N.B. If a device on the bus fails to communicate, apart from the various tests, we recommend measuring the voltage between the BUS DATA LINE wire and the POWER SUPPLY NEGATIVE on the terminal board and making sure it is over 4.7 V. If it is not, we recommend installing a power supply unit near the device.

If the power supplies are distributed correctly, to establish the type of cable and cross-sections to be used, follow the instructions below:



OPERATING	CABLE	MIN. CROSS-SECTION	MAX. LENGTH
A	Power cord	0.22 mm ²	20 m
B		0.50 mm ²	/
* C, D, E		0.75 mm ²	/

* Preferably with screening at the negative of a single power supply unit (particularly in the presence of inductive loads such as motors or neon lamps).

DIGITAL AND ANALOGUE MODULES

Modules with inputs and outputs can be divided into two macrofamilies:

- digital modules: have inputs which read an open or closed status (ON/OFF or 1/0) and outputs which control an on or off status (ON/OFF);
- analogue modules: have inputs which read a scale of values (from 0 to 255) in 0-10 V voltage or in 4-20 mA current, such as temperature sensors for example, and outputs which assume a variable value from 0 to 10 V (e.g. light dimmer adjustment).

Another difference between the various modules is the container:

- flush-mounting modules: generally used to collect status information for buttons/switches and send it over the bus; they also have low-power outputs for checking local indicator lights or controlling local external relays;
- DIN rail modules: have relay power outputs for controlling electrical loads even at 230 Vac (lights, automations, etc.); they also have on-board inputs which are the same as those on flush-mounting modules.

Finally, DIN rail modules differ in terms of relay power (6A or 16A) and due to the fact that the 6A modules use relays with NO (normally open) contact and a common every 4 outputs, while 16A modules use voltage-free changeover contacts (each with its own common).

MODULE IDENTIFICATION

The first thing that should be done is to assign a serial number other than the default "1" to each module using the SimpleProg configuration software, which is available to download free of charge from the website pro.comelitgroup.com



- The bus cannot be connected to several modules with the same serial number.
- We do *not* recommend using serial number "1" in system configuration, so that you can always add a new module later on, as explained in the chapter relating to configuration software.

DIGITAL AND ANALOGUE INPUT OPERATING PRINCIPLE

To fully understand the system, it is vital to grasp what happens when a button is pressed or released (digital input closed or opened); every time there is a change to an input, the corresponding module sends a message over the bus which, as mentioned previously, can be destined for various recipients:

- a module and one or more of the outputs on it
- a group
- the system manager

If the recipient is a module, its serial number and one or more of the outputs involved should be indicated, while if it is a group, its identification number should be indicated. Finally, if the recipient is a system manager, nothing else has to be indicated, as it is always open to bus communication and will receive the command originating from the module, applying for example a programmed scenario.

The type of command transmitted by a module can be classified as follows:

- **NORMAL**: the output(s) receive the message and, if it is compatible with their profile, are activated, otherwise their status does not change;
- **SET or RESET**: the recipient output(s) are forced into action, regardless of how they are programmed, so if a RESET command is sent, the output(s) are de-energised.

Analogue inputs, on the other hand, can perform the following functions:

- **ONLY ON DEMAND**: the module constantly reads and logs the input value (converted into a scale from 0 to 255), only sending it when requested (by a system manager, for example);
- **SEND STATUS AUTOMATICALLY**: the module constantly reads and logs the input value (converted into a scale from 0 to 255), sending it at regular intervals as specified;
- **AUTOMATIC ACTIVATION ON SETPOINTS**: if this function is used, up to 8 setpoints can be selected, meaning that when the measured value exceeds or falls below these values a message is sent to a module/output, a group or the system manager, as if it were a digital module;
- **BCD ROOM THERMOSTAT**: this function is suitable for temperature sensor (20046708) connection, for the correct reading of the value in degrees Centigrade. At each pre-set time interval, the module checks the difference between the measured value (with a resolution of 0.1°C) and the selected setpoint (summer/winter, day/night/room empty) and sends the activation or deactivation command to a module/output.

DIGITAL AND ANALOGUE OUTPUT OPERATING PRINCIPLE

Each digital output has a function associated with it. When an output receives a "Normal" message from an input, it carries out the programmed function; otherwise, if it receives a forced command (SET or RESET), it carries out that command regardless of the function for which it was configured. Being multifunctional modules, different types of output are available on a programming level.

DIGITAL OUTPUT TYPES

MONOSTABLE	When the output receives an active input status (e.g. button pressed) it is activated, when it receives an inactive input status it is deactivated (e.g. doorbell or bathroom pull-cord).
STEP BY SETP	When the output receives an active input status (e.g. button pressed), it changes its own status in turn. If it receives an inactive input status, it does not make any changes (e.g. lights). This type of output can only be controlled by buttons.
INVERTER	When the output receives a message from the input, regardless of whether it is an input active or inactive message, it changes status (e.g. lights). N.B. This type of output allows use of the bistable function if the command originates from switches, diverters or inverters already present in the system instead of from buttons.
TIMED	When the output receives an input active status, it is in turn activated, starting a timer; when the set time has elapsed, it is deactivated automatically. If it receives an inactive input status, it does not make any changes (e.g. timed stair lights or boxes). N.B. This type of output can only be controlled by buttons.

DIGITAL OUTPUT TYPES

ROLLER BLIND	When the dedicated output receives an active input status (e.g. down command), it is activated for a set period of time and is then deactivated. If the other associated output (up) is activated, on the other hand (e.g. you ask a shutter to close while it is being opened), the up output is deactivated but the down output is not activated (the equivalent of electro-mechanical locking functions used in traditional systems). In this case you will have to press the down button again to activate the corresponding output. N.B. This type of output can only be controlled by buttons.
SHOW STATE	This type of output is used to represent the output status (e.g. light) on an indicator light, controlled by the input with the corresponding number and belonging to the same module (e.g. if input 2 on module 1 controls output 3 on module 5, this means the Show State output 2 on module 1, will mirror the activation status of output 3 on module 5).
SOLENOID VALVE	The solenoid valve output is controlled by the temperature modules, to activate or deactivate the heating or air conditioning, but if an Alarm input on the same module is open (e.g. window left open), the solenoid valve output is opened (e.g. heating stopped) and commands originating from the temperature modules are no longer accepted until the Alarm input has been closed again.
ROOM POWER	Used in hotel management: allows activation of room services after consent is obtained from the system manager and the activation card is inserted in the room.

Analogue outputs, on the other hand, have the following functions:

- **FROM ANALOGUE INPUT:** the output is set with the value read from the corresponding input (analogue) on the same module;
- **FROM INPUT ON ANALOGUE MODULE:** the output is set with the value read from an input (analogue) belonging to another module;
- **DIMMER:** allows adjustment, for example, of the brightness of a lamp; when it receives an active input status from a digital module (button pressed) and then an inactive status within the next 2 seconds, it behaves exactly like a bistable output, positioning itself on the most recent brightness setting when activated or turning itself OFF when deactivated; if, on the other hand, it does not receive the inactive status from the input within 2 seconds, it continues to vary the brightness value between 0 and 255 and back again, until the button connected to the input controlling it is released.

SYSTEM MANAGERS

Comelit home automation modules possess their own intelligence and therefore do not need a control panel; however, if the user needs a graphics interface to view the status of his/her on system and adjust its operation as necessary, various supervision instruments can be used.

Several system managers can be used to control the same system; the system managers make it possible to interact with the home automation system, the IP and 2-wire video entry system, the alarm control panel and video surveillance/CCTV.

The Comelit home automation system can be controlled and monitored, both locally and remotely, via the Comelit App (in conjunction with Comelit Hub module 20003150) and web pages (in conjunction with Serial Bridge module 20003101); the systems can also be controlled using the main voice assistants.

DEVICES

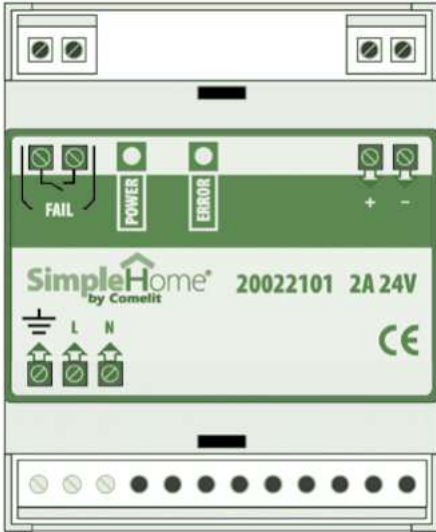
The devices used to construct the SimpleHome system are described below.


ART. 20022101 - SWITCHING POWER SUPPLY UNIT FOR SIMPLEHOME SYSTEM 24 Vdc 2A ON DIN RAIL

Supplies power at 24 Vdc with current up to 2A via the BUS: several power supply units can be connected in parallel and distributed at various points of the system, to supply the energy required for correct operation of the connected devices.

Technical characteristics

Power supply voltage	180-270 Vac 50/60 Hz
Output voltage	24 Vdc \pm 5%
Output current	2A max.
Parallel connection	yes
Protection	- against reverse polarity; - fuse on input circuit, protecting against overloads and short circuits, with automatic reset function
Indicator contacts	1 voltage-free (FAIL), normally closed when the power supply unit is running, open to indicate faults
Display elements	1 POWER LED 1 connection error LED
Positioning	on DIN rail
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Weight	240 g (not including packaging)
Approvals	CE
Dimensions	71 x 90 x 58 mm (4 DIN modules)
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation



CONNECTION TERMINALS	
Terminal	Function
-	Bus power supply negative
+	+ 24 Vdc bus power supply
FAIL	NC contact (power supply failure indication)
	Earth
L	Power supply phase (230 Vac)
N	Power supply neutral (230 Vac)
Earth terminal connection may cause disturbance on the communication bus	

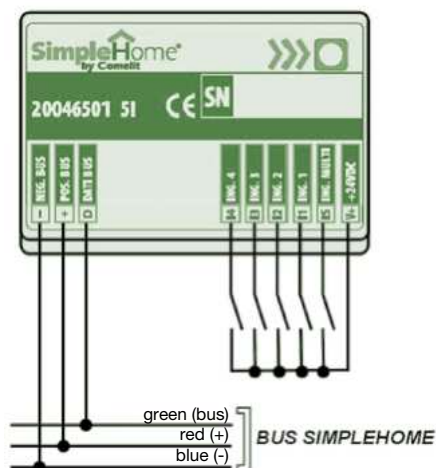
Specifications are subject to change without notice.

ART. 20046501 - SIMPLEHOME FLUSH-MOUNTED MODULE WITH 5 DIGITAL INPUTS (5I)

The module with 5 digital inputs allows the connection of up to 5 contacts (buttons, switches, diverters, inverters, general sensors...) for controlling the outputs on the SimpleHome system module. The compact interface can be installed in traditional "3-module" boxes (concealed behind the electromechanical modules in the civil series) or in junction boxes. The module with 5 digital inputs is powered directly by the bus.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	min. 5 mA, max. 22 mA
Inputs	4+1, optically coupled digital type
Max. input cable length	25 m
Protection	against reverse polarity
Indications	1 indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection
Terminals	removable for BUS connection
Positioning	in flush-mounted boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	24 g (not including packaging)
Dimensions	41x29x9 mm



CONNECTION TERMINALS

Term.	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	Bus data line
I4	Input 4
I3	Input 3
I2	Input 2
I1	Input 1
IS	Multiple command (scenario)
V+	+24 Vdc support

N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

Specifications are subject to change without notice.

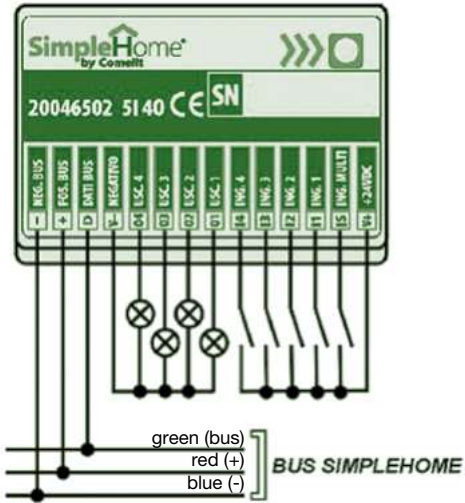
ART. 20046502 - SIMPLEHOME MODULE WITH 5 DIGITAL INPUTS AND 4 TRANSISTOR OUTPUTS, FLUSH-MOUNTED (5I4O)

The module with 5 digital inputs / 4 transistor outputs allows the connection of up to 5 contacts (buttons, switches, diverters, inverters, general sensors...) for controlling the outputs on the SimpleHome system module. and 4 transistor outputs for direct connection of the 24 V indicator LEDs in cc or a relay with a maximum activation current of 50 mA. The compact interface can be installed in traditional "3-module" boxes (concealed behind the electromechanical modules in the civil series) or in junction boxes.

The module with 5 digital inputs is powered directly by the bus.

Technical characteristics	
Power supply voltage	24 Vdc \pm 5%
Absorption	min. 5 mA, max. 22 mA
Inputs	4+1, optically coupled digital type
Outputs	4 transistor 24 Vdc 50 mA max. per output
Max. input cable length	25 m
Protection	against reverse polarity
Indications	1 indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection
Lack and restoring of power supply	Output status memory
Terminals	removable for BUS connection
Positioning	in flush-mounted boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	24 g (not including packaging)
Dimensions	41x29x9 mm

Specifications are subject to change without notice.



CONNECTION TERMINALS	
Term.	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	Bus data line
V-	Support negative (outputs)
O4	Output 4
O3	Output 3
O2	Output 2
O1	Output 1
I4	Input 4
I3	Input 3
I2	Input 2
I1	Input 1
IS	Multiple command (scenario)
V+	+24 Vdc support (inputs)

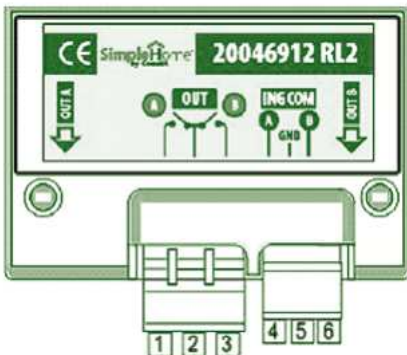
N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

ART. 20046912 – SIMPLEHOME FLUSH-MOUNTED INTERFACE MODULE WITH 2 RELAYS (RL2)

Interface with two 6A resistive relays ($\cos\phi=1$) for connection to bus modules with open-collector outputs, for example those controlling a rolling shutter motor. The outputs on the device are not suitable for controlling particularly heavy loads or halogen and fluorescent lamps. When controlling these load types, a support relay must be used at each output.

Technical characteristics

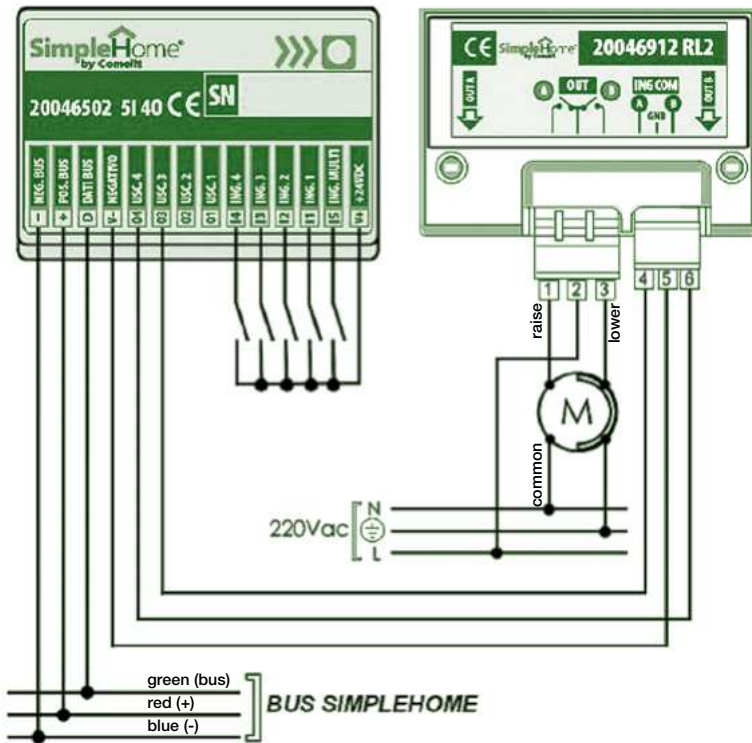
Power supply voltage	24 Vdc \pm 5%
Absorption	18 mA
Inputs	2 for interfacing with two open collector outputs for input/output modules on bus
Outputs	2 relay 230 Vac, resistive 6A ($\cos\phi = 1$)
Protection	against reverse polarity
Indications	2 output status indicator LEDs
Terminals	removable
Positioning	in flush-mounted boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Accessories included	CT current transformer
Weight	42 g (not including packaging)
Dimensions	41x29x9 mm



CONNECTION TERMINALS

Term.	Function
1	Relay output 6A
2	Common
3	Relay output 6A
4	Relay control + 24 Vdc
5	Relay control common
6	Relay control + 24 Vdc

Connection example for module with 5 inputs / 4 transistor outputs used to control an automated rolling shutter



Specifications are subject to change without notice.

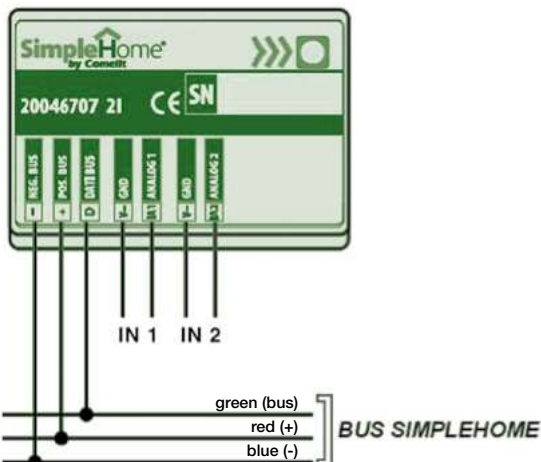
ART. 20046707 – SIMPLEHOME FLUSH-MOUNTED MODULE WITH 2 x 0-10 V ANALOGUE INPUTS (2I)

Flush-mounted interface for automation system with two 0-10 V analogue inputs.

Allows interfacing between the home automation system and analogue inputs, such as those originating from temperature sensors or voltage/current transformers.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	5 mA
Inputs	2 analogue, 0-10 V
Max. input cable length	2 m
Protection	against reverse polarity
Indications	1 bus status indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection
Terminals	removable for BUS connection
Positioning	in flush-mounted boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	24 g (not including packaging)
Dimensions	41x29x9 mm

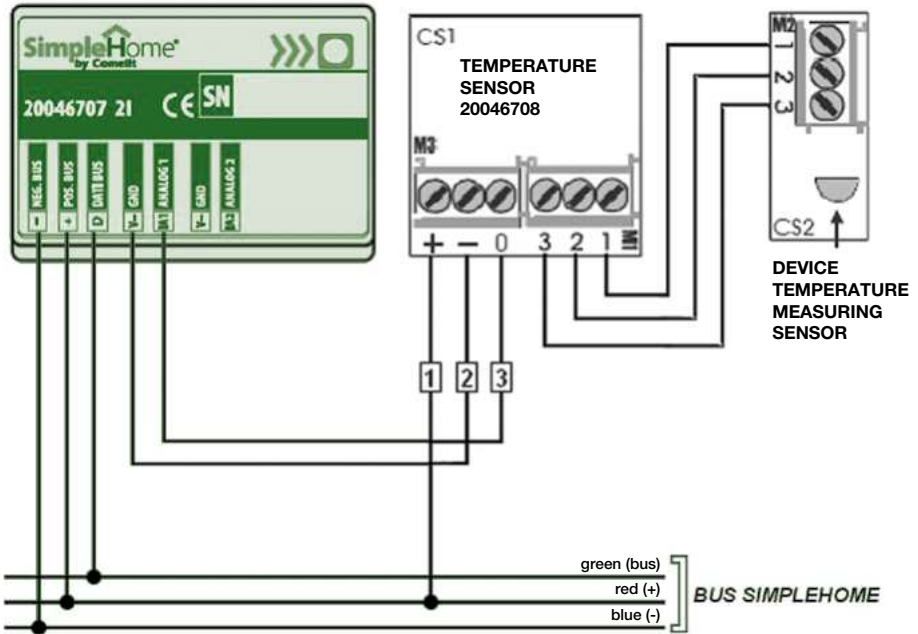


CONNECTION TERMINALS

Term.	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
V-	GND
IA1	Input 1 (0-10 V)
V-	GND
IA2	Input 2 (0-10 V)

N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

Temperature sensor 20046708 connection example



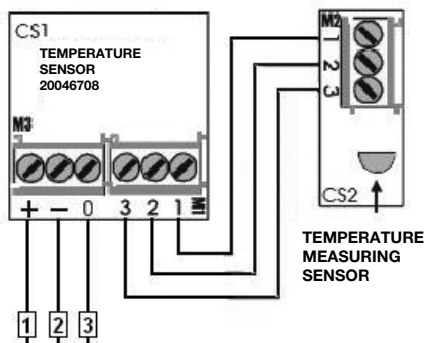
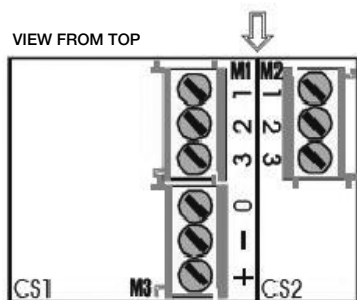
ART. 20046708 - SIMPLEHOME TEMPERATURE SENSOR MODULE WITH 0-10 V OUTPUT, FLUSH-MOUNTED (TEMP)

Temperature sensor with standard 0-10 V output for connection to the flush-mounted module with 2 x 0-10 V analogue inputs (20046707). The dimensions are designed so that the product can be fitted in the most common civil series, for example inside a button blank.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Output voltage	0-10 Vdc
Absorption	5 mA
Sensor range	-20°C to +45°C
8-bit reading resolution	1.00°C
9-bit reading resolution	0.50°C
10-bit reading resolution	0.25°C
Positioning	in flush-mounted boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	10 g (not including packaging)
Dimensions	19x32x11 mm

TO PREVENT THERMAL INFLUENCE OF THE COMPONENTS ON THE ELECTRONICS CARD, KEEP THE MEASURING ELEMENT SEPARATE, IN LINE WITH THE "PRE-CUT" PART



CONNECTION TERMINALS

Term.	Function
1	+24 Vdc power supply
2	Power supply negative
3	0-10 Vdc output

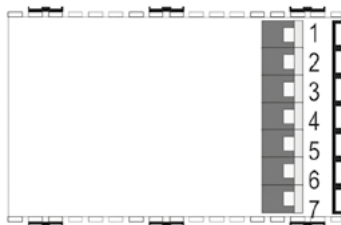
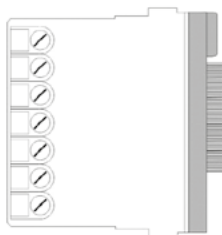
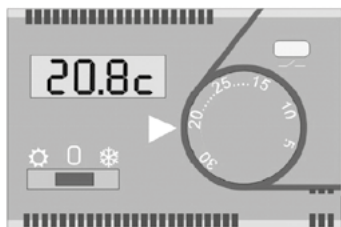
Specifications are subject to change without notice.

ART. 20046709 - SIMPLEHOME FLUSH-MOUNTED LCD THERMOSTAT MODULE

Room thermostat with LCD display, offering the option of connection to the SimpleHome system for supervisor control. It allows temperature adjustment between 5 and 30°C by means of a knob, and the temperature can be viewed via the LCD display. The device sends a data package containing the measured temperature value over the bus at regular intervals and, immediately afterwards, measures the room temperature. Then, depending on the setpoint values, it updates the local relay and sends a remote output activation or deactivation command over the bus.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	min. 5.5 mA, max. 20 mA
Sensor range	+5°C to +30°C
Positioning	In flush-mounted boxes compatible with the most common civil series
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Dimensions	3 flush-mounted modules from the most common civil series



TEMPERATURE MODULE

Term.	Function
1	Local relay intended for controlling a local pump/valve (NC-C-NO)
2	
3	
4	Temperature reduction (active if closed at negative)
5	BUS data line
6	+24 Vdc power supply
7	Power supply negative

FRONT PANEL INDICATIONS AND COMMANDS

Time	Local relay status (if activated, steady red) or transit status of signals over bus (flashing, red or green).
LCD	Display temperature measured within the room.
DIVERTER SLIDER	Set operating mode: - SUMMER - WINTER - OFF
KNOB	Set room temperature (between 5 and 30°C).

OPERATING MODES

MODE SUPERVISOR	The supervisor sets the period (Day, Night, Empty), the temperature setpoints and the operating mode (Summer, Winter). The user will be able to adjust the temperature within the limits set by the supervisor.
USER MODE	The user can set the setpoint using the adjustment knob, regardless of the setpoint selected via the supervisor. The selected setpoint will be the most recent received.

The mode is selected by changing the position of the first of the dip switches underneath the front panel (lever this off at the sides to remove it) alongside the diverter slider:

USER MODE:



SUPERVISOR MODE:



In both modes, the temperature reduction input closure ensures that the setpoint taken into account corresponds to the Night period.

Depending on the civil series installed, modify the universal subframe supplied in accordance with the following instructions:

Subframe 1



For entrance panels:
BTICINO Living International
BTICINO Light
BTICINO Light Tech (SILVER LIGHT TECH finish front panel and knob optional)

Note for the installer: with Living International, Light and Light Tech BTICINO series entrance panels, if the relevant BTICINO subframes are already on the flush-mounted box, the thermostat can be fitted directly to them.

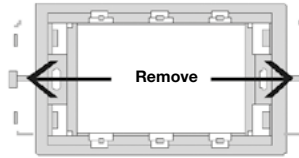


For entrance panels:
LEGRAND Vela

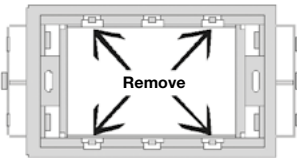
Subframe 2



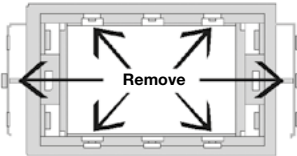
For entrance panels:
VIMAR Plana



For entrance panels:
VIMAR Eikon



For entrance panels:
VIMAR Idea (requires installation of side parapets)
VIMAR Idea Rondò (requires installation of side parapets)



For entrance panels:
GEWISS Playbus (requires installation of side parapets)
GEWISS Playbus Young (requires installation of side parapets)



For entrance panels:
SIEMENS Delta Futura Graphit (requires installation of side parapets)
SIEMENS Delta Futura Geo (requires installation of side parapets)

The module also offers the following functions:

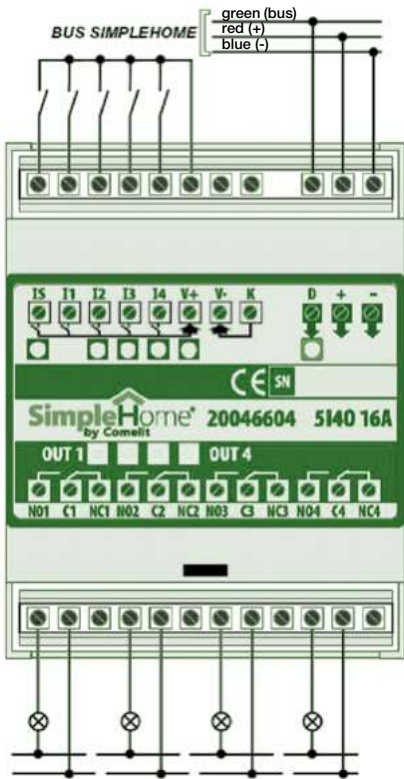
- a. Remote valve: in addition to the relay on board the thermostat, an external relay on one of the modules on the Din bar of the home automation bus can be used to control a remote electrovalve. To enable this function, check the "Remote valve control" box (for summer or winter) in the configuration program and enter the number of the module on which the relay is located. In this case, the relay must be number 1 on that module. This relay follows the operation of the relay on board the thermostat.
- b. Multi-speed: if multi-speeds are used (e.g. with a fan coil unit), the boxes "Speed" 1,2,3 must be checked (partial selection is also possible, e.g. 1 or 1 and 2). The corresponding relays are numbers 2, 3 and 4 on the same number module as used to control the remote valve (for summer and/or winter). During configuration, it is possible to enter the moment, in tenths of a degree, at which the next or previous speed level cuts in (e.g. if Speed 1-2 = 20 (default), the selected setpoint is 20° and the temperature detected is 19°; speed level 1 is enabled. If the temperature detected was 17°, speed level 2 would be enabled. If Speed 1-3 = 50 (default) and the temperature detected was 14°, speed level 3 would be enabled).
- c. Analysis interval: it is possible to indicate the time interval between one temperature setpoint check and the next. After checking, the thermostat sends the temperature reading over the network, in addition to any activation or deactivation commands for the electrovalves and speed levels. This is set by default to 60 seconds. A shorter interval could, if several thermostats are present, disturb data communication.
- d. Delta: defines the interval in tenths of a degree between an activation/deactivation command and a deactivation/activation command (e.g. if the setpoint is 20° and the delta 5 tenths of a degree, in winter the boiler will switch off at 20° and switch back on at 19.5°). This is set by default to 4 tenths of a degree.
- e. Correction: if the temperature reading taken in the room by another instrument is slightly different to that displayed by the thermostat due to the installation position of the latter, a correction coefficient, measured in tenths of a degree (this can also be negative), can be applied and added to the actual temperature reading. This is set by default to 0.
- f. Winter/Summer selector: if using a climate control unit with an input for changing its operation between heating and cooling modes, this input can be controlled by the output indicated in the configuration program. The output switches when the user, via the selector on the front panel or the supervisor, sets the thermostat to winter or summer mode.

ART. 20046604 - SIMPLEHOME MODULE WITH 5 OPTICALLY COUPLED INPUTS AND 4 X 16A RELAY OUTPUTS ON DIN RAIL (5I4O16A)

Module on bus has 4 inputs + 1 scenario input, as well as 4 relay outputs with switching contact with independent common capable of controlling resistive electrical loads up to 16A. For non-resistive loads, it is best to use a support contactor at each output.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	min. 5 mA, max. 140 mA
Inputs	4+1, optically coupled digital type
Outputs	4 relay 230 Vac, resistive 16 A ($\cos\varphi = 1$)
Max. input cable length	25 m
Protection	against reverse polarity
Indications	1 bus status indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection 5 input status indicator LEDs 4 output status indicator LEDs
Lack and restoring of power supply	Output status memory
Terminals	removable for BUS connection
Positioning	On DIN rail or in junction boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	195 g (not including packaging)
Dimensions	71x90x58 mm (4 DIN modules)



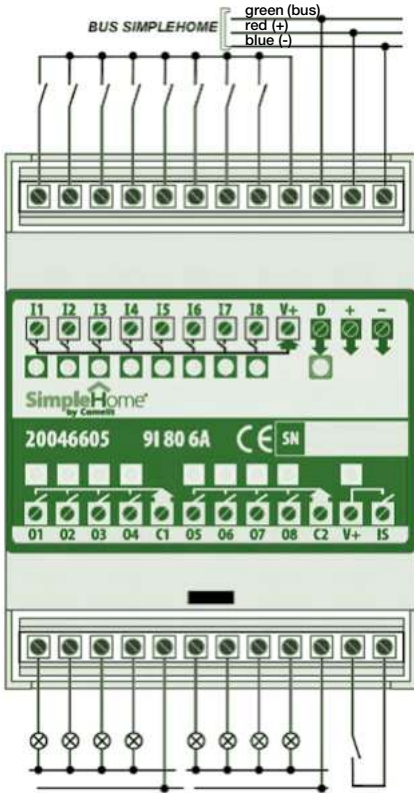
N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

CONNECTION TERMINALS	
Term.	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
K	Common
V-	Support negative
V+	+24 Vdc support
I4	Input 4
I3	Input 3
I2	Input 2
I1	Input 1
IS	Multiple command (scenario)
NO1	Output 1 – NO contact
C1	Output 1 – Common
NC1	Output 1 – NC contact
NO2	Output 2 – NO contact
C2	Output 2 – Common
NC2	Output 2 – NC contact
NO3	Output 3 – NO contact
C3	Output 3 – Common
NC3	Output 3 – NC contact
NO4	Output 4 – NO contact
C4	Output 4 – Common
NC4	Output 4 – NC contact

ART. 20046605 - SIMPLEHOME MODULE WITH 9 OPTICALLY COUPLED INPUTS AND 8 X 6A RELAY OUTPUTS ON DIN RAIL (91806A)

Module on bus has 8 inputs + 1 scenario input, as well as 8 relay outputs with NO contact with capable of controlling resistive electrical loads up to 6A. The outputs on the device are not suitable for controlling particularly heavy loads or halogen and fluorescent lamps. When controlling these loads, a support contactor must be used at each output.

Technical characteristics	
Power supply voltage	24 Vdc \pm 5%
Absorption	min. 8mA, max. 167 mA
Inputs	8+1, optically coupled digital type
Outputs	8 relay 230 Vac, resistive 6A ($\cos\varphi = 1$)
Max. input cable length	25 m
Protection	against reverse polarity
Indications	1 bus status indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection 9 input status indicator LEDs 8 output status indicator LEDs
Lack and restoring of power supply	Output status memory
Terminals	removable for BUS connection
Positioning	On DIN rail or in junction boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	180 g (not including packaging)
Dimensions	71x90x58 mm (4 DIN modules)



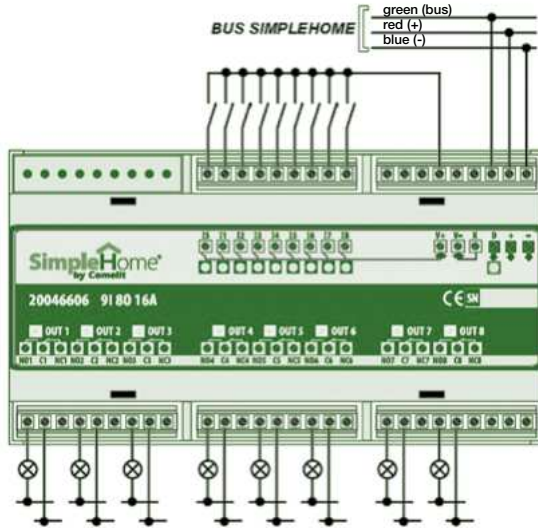
N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

CONNECTION TERMINALS	
Term.	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
V+	+24 Vdc support
I8	Input 8
I7	Input 7
I6	Input 6
I5	Input 5
I4	Input 4
I3	Input 3
I2	Input 2
I1	Input 1
O1	Output 1 – NO contact
O2	Output 2 – NO contact
O3	Output 3 – NO contact
O4	Output 4 – NO contact
C1	Output common 1-2-3-4
O5	Output 5 – NO contact
O6	Output 6 – NO contact
O7	Output 7 – NO contact
O8	Output 8 – NO contact
C2	Output common 5-6-7-8
V+	+24 Vdc support
IS	Multiple command (scenario)

ART. 20046606 - SIMPLEHOME MODULE WITH 9 OPTICALLY COUPLED INPUTS AND 8 X 16A RELAY OUTPUTS ON DIN RAIL (9I8O16A)

Module on bus has 8 inputs + 1 scenario input, as well as 8 relay outputs with switching contact with independent common capable of controlling resistive electrical loads up to 16A. For non-resistive loads, it is best to use a support contactor at each output.

Technical characteristics	
Power supply voltage	24 Vdc \pm 5%
Absorption	min. 8mA, max. 220 mA
Inputs	8+1, optically coupled digital type
Outputs	8 relay 230 Vac, resistive 16A ($\cos\varphi = 1$)
Max. input cable length	25 m
Protection	against reverse polarity
Indications	1 bus status indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection 9 input status indicator LEDs 8 output status indicator LEDs
Lack and restoring of power supply	output status memory
Terminals	removable for BUS connection
Positioning	on DIN rail or in junction boxes
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	380 g (not including packaging)
Dimensions	160x90x58 mm (9 DIN modules)



DIGITAL MODULE

Term.	Function	Term.	Function	Term.	Function
-	BUS power supply negative	I1	Input 1	NC4	Output 4 – NC contact
+	BUS power supply +24 Vdc	IS	Multiple command (scenario)	NO5	Output 5 – NO contact
D	BUS data line	NO1	Output 1 – NO contact	C5	Output 5 – Common
K	Common	C1	Output 1 – Common	NC5	Output 5 – NC contact
V-	Support negative	NC1	Output 1 – NC contact	NO6	Output 6 – NO contact
V+	+24 Vdc support	NO2	Output 2 – NO contact	C6	Output 6 – Common
I8	Input 8	C2	Output 2 – Common	NC6	Output 6 – NC contact
I7	Input 7	NC2	Output 2 – NC contact	NO7	Output 7 – NO contact
I6	Input 6	NO3	Output 3 – NO contact	C7	Output 7 – Common
I5	Input 5	C3	Output 3 – Common	NC7	Output 7 – NC contact
I4	Input 4	NC3	Output 3 – NC contact	NO8	Output 8 – NO contact
I3	Input 3	NO4	Output 4 – NO contact	C8	Output 8 – Common
I2	Input 2	C4	Output 4 – Common	NC8	Output 8 – NC contact

N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

Specifications are subject to change without notice.

ART. 20046810 - SIMPLEHOME MODULE WITH 2 ANALOGUE INPUTS AND 2 ANALOGUE OUTPUTS ON DIN RAIL (2I2O)

Interface on DIN rail for SimpleHome system, with two inputs and two 0-10 V analogue outputs. Allows interfacing between the automation system and analogue inputs, such as light sensors or voltage/current transformers, as well as the management of electronic adjustment devices such as lighting ballasts or dimmers. It is not suitable for the connection of the temperature sensor with 0-10 V output (20046708).

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	min. 5 mA, max. 30 mA
Inputs	2 analogue, 0-10 V
Maximum input cable length	5 m
Outputs	2 analogue, 0-10 V with max. current 100 mA
Protection	against reverse polarity
Indications	1 bus status indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect connection of the device
Terminals	removable
Positioning	on DIN rail or in junction boxes
Lack and restoring of power supply	output status memory
Applicable standards	electromagnetic compatibility: EN 50081-1 (interference emission) and EN50082-2 (resistance to interference)
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	130 g (not including packaging)
Dimensions	53x90x58 mm (3 DIN modules)



CONNECTION TERMINALS	
Term.	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
IA2	Input 2 (0-10 V)
V-	GND
+10	+10 Vdc support at input 2
IA1	Input 1 (0-10 V)
V-	GND
+10	+10 Vdc support at input 1
OA1	Output 1 (0-10 V)
V-	Output 1 support negative
OA2	Output 2 (0-10 V)
V-	Output 2 support negative

N.B. The module must be programmed via the BUS line, using the SimpleHome/RS232 interface (20022611) and the SimpleProg programming software.

ART. 20046851 – SIMPLEHOME MODULE - 1 DIMMER OUTPUT 300W

Dimmer module Art. 20046851 controls the brightness of loads up to 300W, by means of a bus. The module is equipped with a digital input that can be used only for connecting a button for controlling the local dimmer (switch on/off and hold the button down to adjust the brightness).

Using other inputs connected to the BUS, for example modules Art. 20046501, the dimmer module output can be managed differently. The inputs can be programmed with the following functions:

- **Select a pre-set brightness level:** *when you press the button connected to this input, the brightness is automatically set to the value indicated by the programming software.*
- **Adjust the brightness using two buttons:** *this function involves the use of two inputs - one is programmed to switch the light off or to reduce its brightness if held down, and the other is programmed to switch the light on or to increase its brightness if held down.*
- **Local dimmer control:** *in the same way as for the digital input on the dimmer, you can also programme the input of another module so that a single press switches the light on/off, and holding the button down adjusts the brightness.*

The dimmer can also be set with the Presence detection function. This uses a motion sensor connected to the input of a digital module to increase the brightness of the light if the sensor detects the presence of a person in the room, and to reduce the brightness or switch the light off if there is no-one in the room.

CONTROLLED LOAD TYPE

- **230VAC halogen lamps: 35 - 300W**
- **12V halogen lamps with electronic transformer: 35 - 300W**
- **Dimmable compact fluorescent lamps (CFL): 10 - 300W**
- **Dimmable 230VAC LED lamps: 10 - 200W**

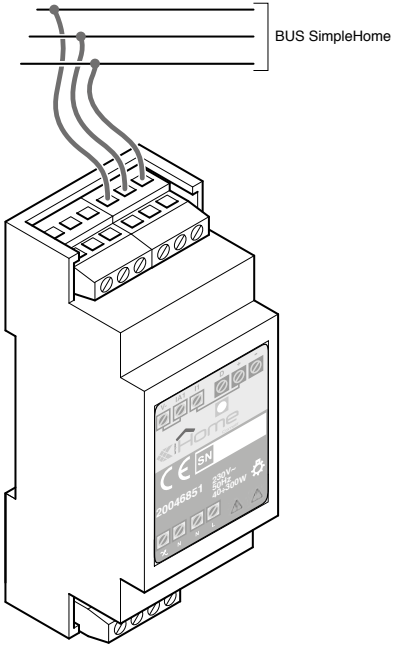
For each module, connect only lamps of the same type

TECHNICAL CHARACTERISTICS

Power supply voltage	24VDC \pm 5% *
Consumption	15 to 25 mA
Inputs	1 digital input can be used only for connecting a button for controlling the local dimmer, and not for the presence detection sensor
Indications	1 LED (yellow) for indicating bus status: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection.
Positioning	On a DIN rail on a dedicated control panel or in junction boxes **
Approvals	CE
Operating temperature	0° to 40°C INDOOR USE
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	70g
Dimensions	35x90x58 mm (2 DIN modules)

* Use Comelit power supply unit ART. 20022101 or other limited power source

** With access allowed only for support or servicing by qualified personnel



CONNECTION TERMINALS

Terminal	Function
-	BUS power supply negative
+	+24VDC BUS power supply Common for digital input I1
D	BUS data line
I1	24V digital input
IA1 / V-	For future uses
⌘ N ⚠ ⚠	Dimmable output terminals *
L N ⚠ ⚠	Input voltage 240 +10%VAC max **

** Warning: hazardous voltages may be present even when the device is not powered up

ART. 20046821 - LOAD MANAGEMENT MODULE

The SimpleHome module 20046821 can be used to measure the power absorbed or produced over a single-phase system with a voltage of 230 Vac. By installing this module in the SimpleHome system and connecting it to the BUS, it will be possible to view the power value measured by the module on one of the supervisors (e.g. Planux Manager, Serial Bridge, Minitouch, etc.). In addition to simply recording measurements, a list of loads can be set for the disconnection of digital outputs on the SimpleHome modules (connected, for example, to controlled sockets) if the recorded consumption value exceeds the limit set during programming. This application is useful for ensuring the energy supplier's thermal switch is not triggered. The outputs are disconnected in accordance with the specified order. After a certain period of time (which can be programmed), the module will attempt to reactivate the outputs in reverse order. An absorption value can be set for each of the loads entered on the control, so that reconnection only occurs at the very moment in which the power entered for that load is available on the system.

A SimpleHome system output can be set so that when the load control intervenes, the output is activated to signal excessive consumption and indicate any downtime caused by the disconnection of the outputs. It is also possible to set an instant disconnection setpoint on the module; when this is exceeded the module will deactivate all specified outputs instead of disconnecting each output one-by-one with the relevant control.

The module can be used to store information for the metering of recorded energy, and functions as a log. The total sum of the recorded power values can be viewed by entering several devices on a single system. For this function to work, a compatible supervisor must be fitted to the system.

Operation example:

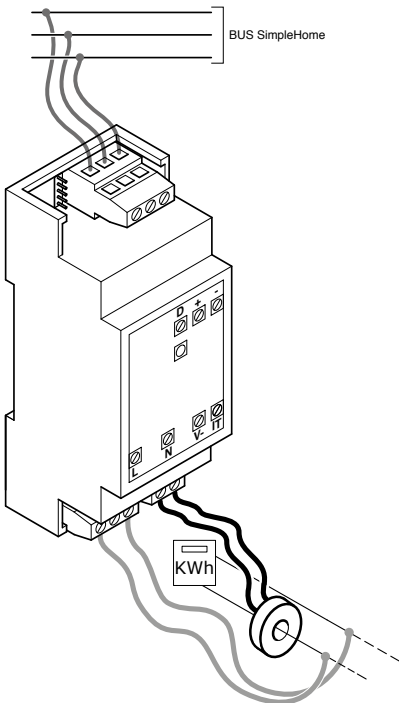
Timed disconnection limit: 3500 W. Instant disconnection limit: 4000 W. Load 1: consumption 800 W, disconnection time 5 minutes. Load 2: consumption 1500 W, disconnection time 5 minutes. When 3500 W is exceeded, the module will begin by disconnecting load 1,

followed by load 2. When the set disconnection time has elapsed, the module will attempt to reactivate the load disconnected most recently. If in that instant the module reads a value of 2500 W it will not reactivate load 2, which has a consumption of 1500 W, to avoid exceeding the set disconnection limit (3500 W); it will, however, reactivate load 1 as the consumption of this load will not cause the limit to be exceeded. The module will then only reactivate load 2 when sufficient power is available on the system.

Tolerance and delta values must be taken into account, as they may cause the readings to vary by approximately 100 W.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	35 mA
Max. CT input cable length	2 m
Inputs	1 for connection of the CT current transformer (supplied), ideal for single-phase lines up to 10 kW 1 for line voltage (230 Vac)
Indications	1 bus status LED: when flashing, indicates data transmission via bus
Terminals	removable
Positioning	On DIN rail or in junction boxes
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Accessories included	CT current transformer
Weight	70 g, not including CT and packaging
Dimensions	35x90x58 mm (3 DIN modules)



CONNECTION TERMINALS

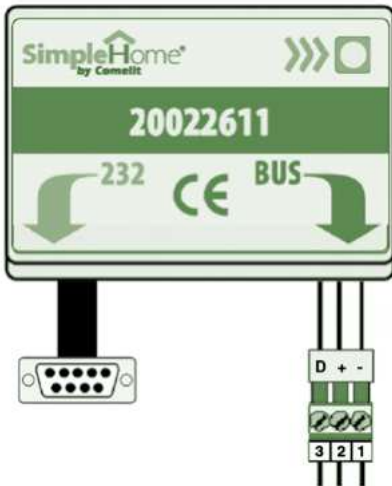
Terminal	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
V- IT	Input for non-polarised toroid connection
L N	Line voltage connection

ART. 20022611 - SIMPLEHOME/RS232 INTERFACE

Serial interface for SimpleHome system programming; to use it, plug the 9-pin connector into the serial port (RS232) on the PC or another programming device and connect the 3 bus wires to the numbered terminal, observing the correspondence indicated in the table below.

SimpleProg software is required to program SimpleHome automation devices.

Technical characteristics	
Power supply voltage	24 Vdc \pm 5%
Absorption	20 mA
Serial side transmission speed	19200 bps
BUS side transmission speed	2,400 bps
Serial side connector	9-pin, for connection to RS232 serial port
BUS side connector	removable terminal board
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Indications	1 indicator LED: when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection
Dimensions	41 x 30 x 9mm
Weight	60 g (module + connectors)



INTERFACE MODULE	
Time	- Flashing: indicates data transmission over the bus - Lit steadily: indicates lack of power supply negative or incorrect connection of the device
232	RS232 connector
BUS	SimpleHome bus terminal board

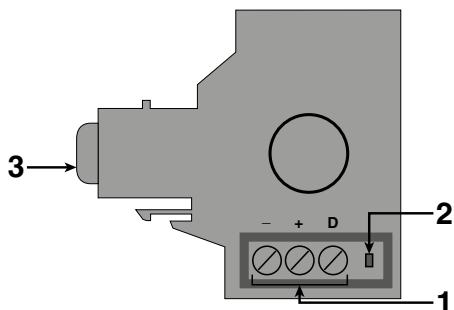
CONNECTION TERMINALS		
1	-	BUS power supply negative
2	+	BUS power supply +24 Vdc
3	D	BUS data line

ART. 20004100 - TEMPERATURE SENSOR

Sensor operation

Once connected to the SimpleHome system, the temperature sensor is controlled by the supervisor. The device regularly transmits a data package (containing the recorded temperature value) via the bus. The temperature sensor, depending on the setpoint, is updated and transmits a remote output activation or deactivation command via the bus.

Temperature sensor Art. 20004100



- 1 Terminal block for system connection:
+ - Power supply +24 Vdc.
D Home automation BUS line.
- 2 LED indicating traffic on home automation BUS.
- 3 LED indicating output activation (controlled by programming software).

MAIN FEATURES

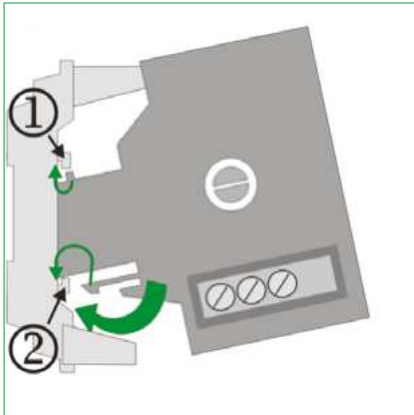
MAIN FEATURES	
Power supply	24 Vdc +/- 5%
Current absorbed (max.)	5 mA
Size (HxWxD)	48 mm x 19.3 mm x 58 mm
Sensor range	+5°C / +30°C
Operating temperature	0°C / +55°C
Weight	25 g
Fixing for box 503	YES



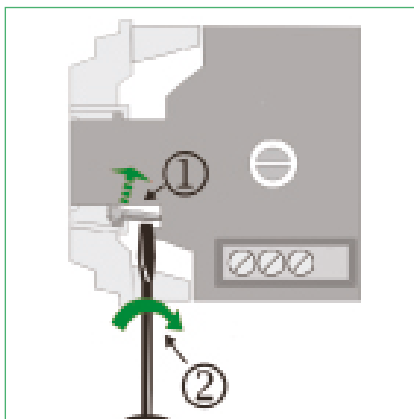
Activator installation requires the adapter for civil series RJ45, Keystone attachment (not supplied).

Sensor mounting

Fastening



Unfastening

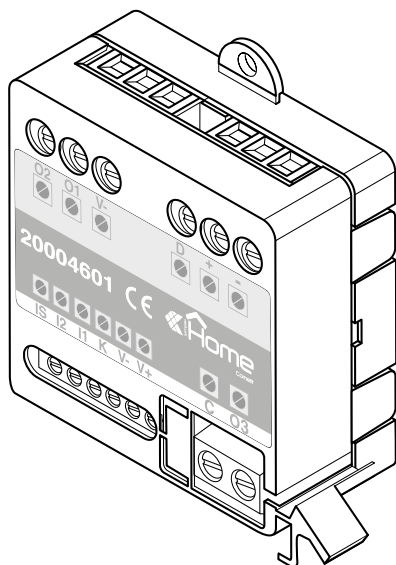


ART. 20004601 – MODULE WITH 3 INPUTS AND 3 OUTPUTS (3I3O)

SimpleHome module Art. 20004601 has 3 inputs (voltage-free contacts, E.G. buttons, sensors, etc...) and 3 outputs, 2 of which require connection of an external relay (E.G. Art. 20004603) while the other controls an on-board 16A relay (this can be programmed as a NO. NC. output using suitable programming software). Module Art. 20004601 allows flush mounting in residential series boxes or on DIN rails.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	MAX. 115 mA
Outputs	<ul style="list-style-type: none"> • 1 16A relay output (230 Vac), resistive loads • 2 transistor outputs +24 Vdc with output active, Max. 50 mA
Indications	<ul style="list-style-type: none"> • 1 LEDs (red) indicating relay active • 1 LED (yellow) indicating bus status: <ul style="list-style-type: none"> - when flashing, indicates data transmission over the bus, when lit - steadily, indicates lack of power supply negative or incorrect connection of the device
Positioning	On DIN rail or in flush-mounted boxes
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	70 g (not including packaging)
Dimensions	58x53x18 mm (1 DIN module)



CONNECTION TERMINALS

Terminal	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
V-	Common for outputs O1 and O2
O1 / O2	Transistor outputs (+24 Vdc with output active)
O3 / C	On-board 16A relay output
V+	reference +24 Vdc for inputs
V- / K	Leave shorted for input reference at +24 Vdc
I1	Input 1
I2	Input 2
IS	Scenario input

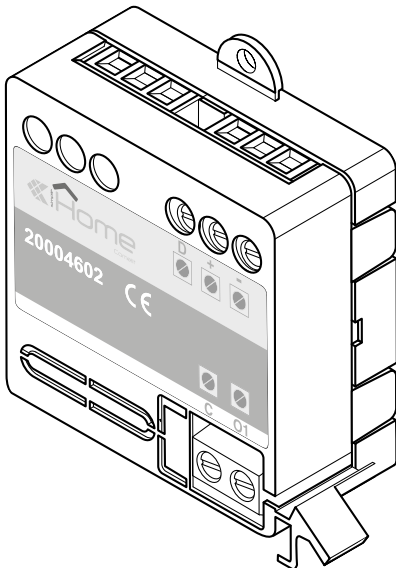
ART. 20004602 – MODULE WITH 1 OUTPUT

SimpleHome module Art. 20004602 has 1 output, which controls an on-board 16A relay (can be programmed as a NO, NC, output using suitable programming software).

Module Art. 20004602 allows flush mounting in residential series boxes or on DIN rails.

Technical characteristics

Power supply voltage	24 Vdc \pm 5%
Absorption	MAX. 20 mA
Outputs	• 1 16A relay output (230 Vac), resistive loads
Indications	<ul style="list-style-type: none"> • 1 LEDs (red) indicating relay active • 1 LED (yellow) indicating bus status: <ul style="list-style-type: none"> - flashing indicates data transmission over the bus - lit steadily indicates lack of power supply negative or incorrect connection of the device
Positioning	On DIN rail or in flush-mounted boxes
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	70 g (not including packaging)
Dimensions	58x53x18 mm (1 DIN module)



CONNECTION TERMINALS

Terminal	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
O1 / C	On-board 16A relay output

ART. 20004603 – MODULE WITH 2 RELAYS

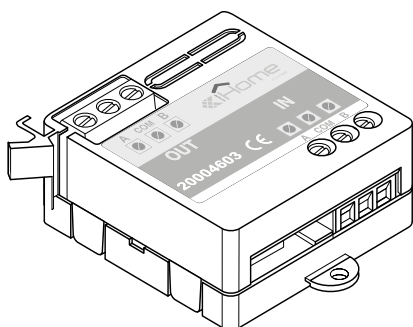
SimpleHome module Art. 20004603 has two 10A relay outputs which are activated from +24 Vdc transistor outputs found, for example, on modules 20004601 or 20046502.

Module Art. 20004603 allows flush mounting in residential series boxes or on DIN rails.

N.B. the module cannot be connected directly to the SimpleHome BUS

Technical characteristics

Relay activation voltage	+24 Vdc
Relay activation current	14 mA per relay
Absorption	MAX. 30 mA
Outputs	• 2 10A N.O. relay outputs (230 Vac), resistive loads
Indications	• 2 LEDs (red) indicating relay active
Positioning	On DIN rail or in flush-mounted boxes
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	70 g (not including packaging)
Dimensions	58x53x18 mm (1 DIN module)



CONNECTION TERMINALS

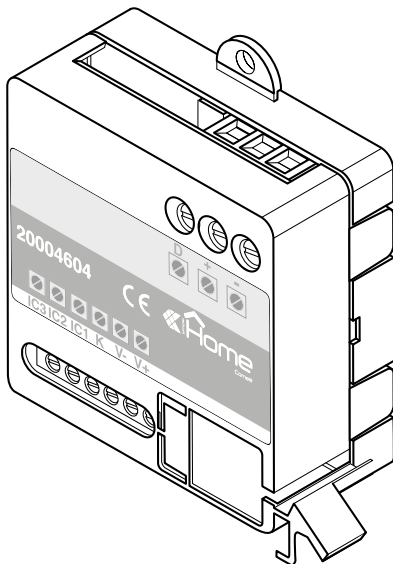
	Terminal	Function
IN	A	Input 1 +24 Vdc
	COM	Input common
	B	Input 2 +24 Vdc
OUT	A	Relay output 1
	COM	Output common
	B	Relay output 2

ART. 20004604 – MODULE WITH PULSE METER

SimpleHome module Art. 20004604 has 3 pulse-type inputs to which meters with a pulse output can be connected. The data gathered by module Art. 20004604 is processed by compatible supervisors in the SimpleHome series, to provide statistical data for the measured values. The module must be programmed using the SimpleHome system programming software.

Technical characteristics

Absorption	MAX. 15 mA
Minimum pulse duration	20 ms
Inputs	3 pulse-type
Indications	1 bus status indicator LED (yellow): when flashing, indicates data transmission via bus, when lit steadily indicates lack of power supply negative or incorrect device connection
Positioning	On DIN rail or in flush-mounted boxes
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	70 g (not including packaging)
Dimensions	58x53x18 mm (1 DIN module)



CONNECTION TERMINALS

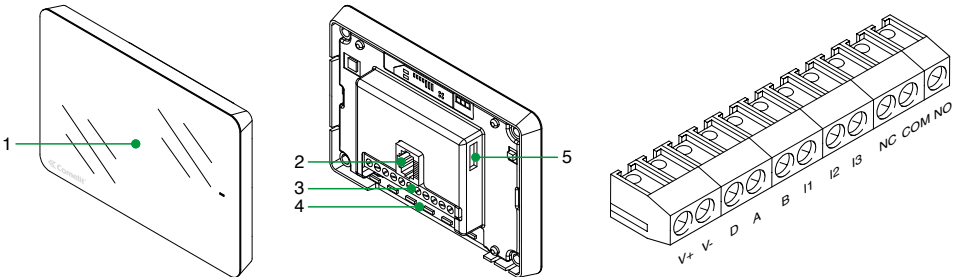
Terminal	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
V+	reference +24 Vdc for inputs
V- / K	Leave shorted for input reference at +24 Vdc
IC1 / IC2 / IC3	Pulse inputs

ART. 20003001 – MINITOUCH TIMER-THERMOSTAT

3.5" MiniTouch with timer-thermostat function. To be connected to the SimpleHome bus. Allows control, monitoring and scheduling of all climate zones within the system (sensors, thermostats, Minitouch)

Technical characteristics

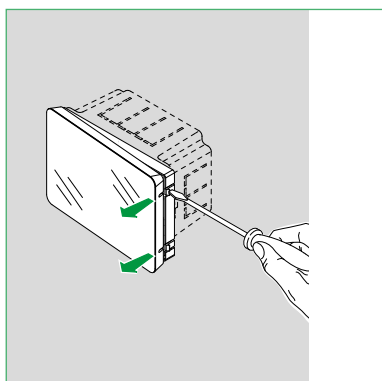
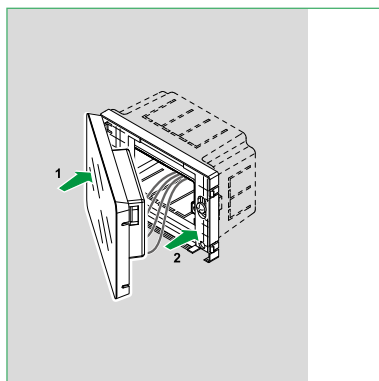
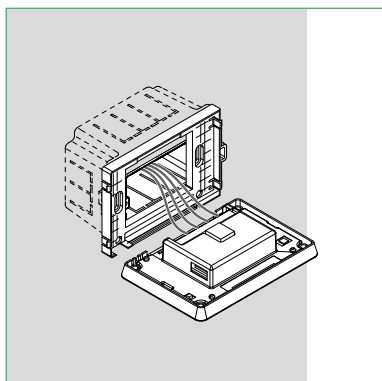
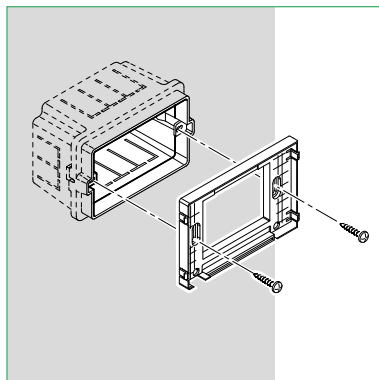
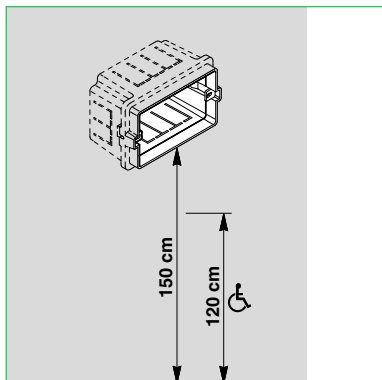
Colour	Black
Smart Light	RGB LED illumination
Display	3.5" (7 cm) colour touch screen with 320x240 pixel resolution
Viewing angle (right / left / high / low)	50° / 50° / 45° / 50°
Micro SD card slot	YES (used for loading the home automation system configuration)
Power supply	• 12 Vdc / 24 Vdc
Current absorption	355 mA @ 13.8 Vdc 175 mA @ 25 Vdc
Size (HxWxD)	85 x 123 x 28.6 mm
O.C. outputs	YES (500 mA MAX.)
Relay output	• 30 Vdc / 5 A • 250 Vac / 10 A
Operating temperature	-15° / +55°C
Weight	150 g
On-board thermostat	YES
Mounting of box 503 - 503E or similar	YES
Ethernet port	YES (for future uses)



- 1: 3.5" touch screen.
- 2: Ethernet connector (for future uses).
- 3: Terminal block for connection.
- 4: Smart light.
- 5: Micro SD card slot.

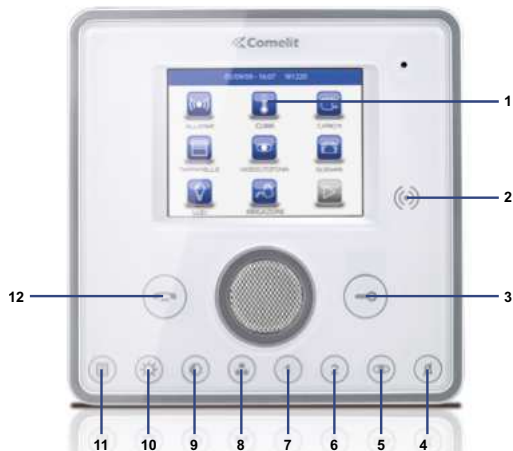
- V+ V-**: Power supply terminals
- D**: SimpleHome bus data terminal
- A B**: Not used
- NC COM NO**: Thermostat relay voltage-free contacts
- I1 I2 I3**: Open Collector outputs for multi-speed Fan-coil connection.

Minitouch timer-thermostat mounting

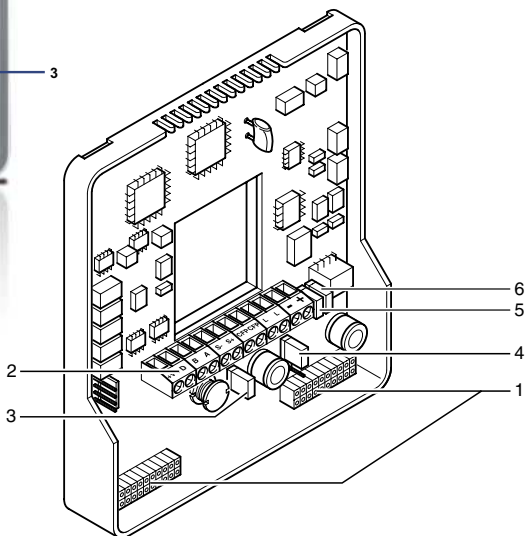


PLANUX MANAGER MONITOR ART. 20034801W/B + PLANUX MANAGER BRACKET ART. 6214C

3.5" touch screen colour monitor. Full-duplex video door entry function, audio adjustment, customisable ringtones. To be connected to the SimpleHome BUS for automation system management, e.g. lights, loads, shutters, climate, scenarios or irrigation, and to the SimpleSafe System for anti-intrusion system viewing and control.

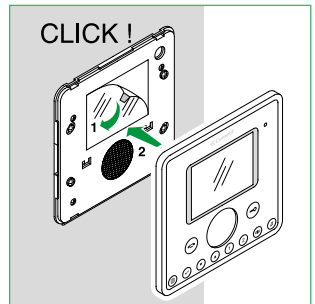
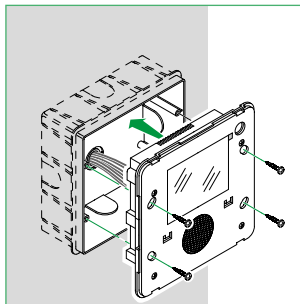
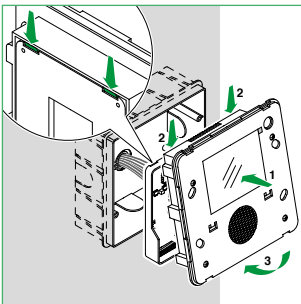
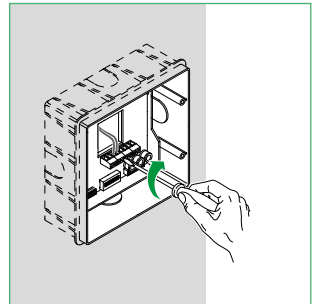
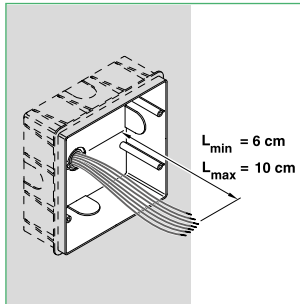
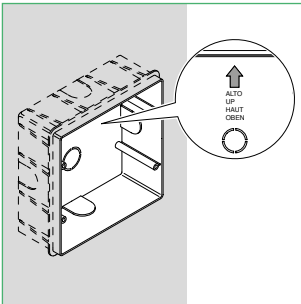
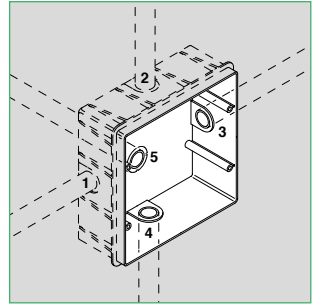
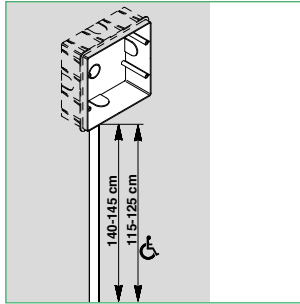
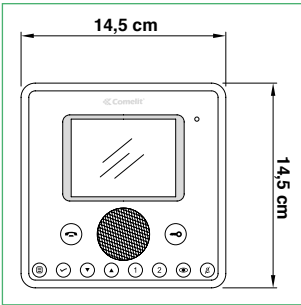


1. Touch screen
2. Key sensor
3. Door lock key
4. Privacy / Doctor key (programmable)
5. Self-ignition key (programmable)
6. Programmable key 2
7. Programmable key 1
8. Colour key
9. Contrast key
10. Brightness key
11. Menu key
12. Audio key



1. **CN4 CN5** Monitor-bracket connectors.
2. Terminal block for system connection:
S- S+ Terminals for call repetition device.
CFP CFP Floor door call input.
L L Door entry monitor Bus line connection terminals.
- + Terminals for bracket and monitor power supply.
A B Bus for communication with the Simple Safe S series and Vedo series alarm system.
D (TC/THC) Simple Home home automation Bus.
+VS Not used.
3. **CV5** Jumper for video closure.
4. **JP10** DO NOT ADJUST.
5. **CV6** DO NOT REMOVE.
6. **CV8** Termination 485.

Planux Manager mounting

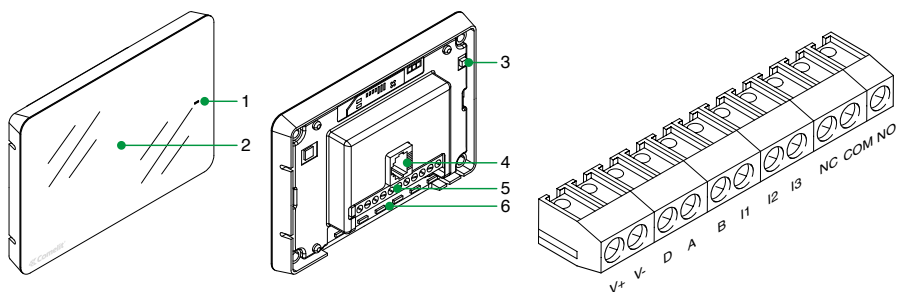


MINITOUCH MONITOR ART. 20034607

3.5" MiniTouch with supervisor function. To be connected to the SimpleHome BUS for automation system management, controlling lights, loads, shutters, climate, scenarios or irrigation, and to the SimpleSafe System for anti-intrusion system viewing and control.

Technical characteristics

Colour	Black
Magic Light	RGB LED illumination
Display	3.5" (7 cm) colour touch screen with 320x240 pixel resolution
Viewing angle (right / left / high / low)	50° / 50° / 45° / 50°
Micro SD card slot	YES (for future uses)
Power supply	• 13.8 Vdc / 25 Vdc
Current absorption	355 mA @ 13.8 Vdc 175 mA @ 25 Vdc
Size (HxWxD)	85 x 123 x 28.6 mm
O.C. outputs	YES (500 mA MAX.)
Relay output	• 30 Vdc / 5 A • 250 Vac / 10 A
Operating temperature	-15° / +55°C
Weight	150 g
On-board thermostat	YES
On-board RFID reader	YES
Mounting of box 503 - 503E or similar	YES
Ethernet port	YES (for future uses)

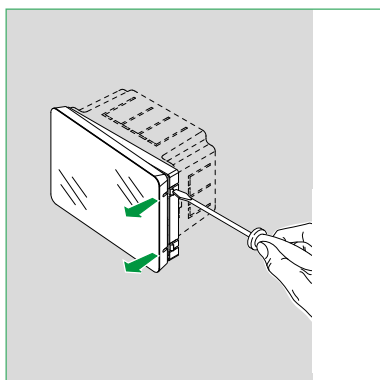
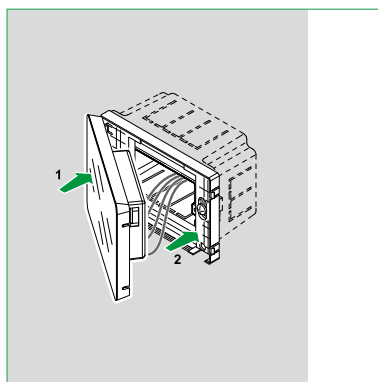
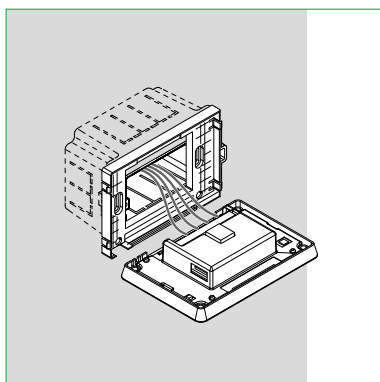
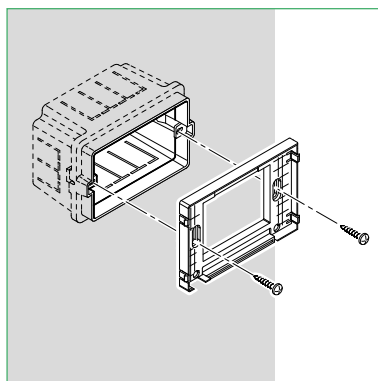
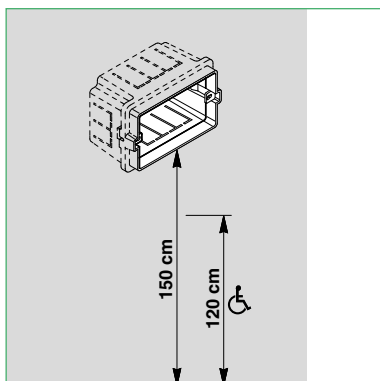


- 1 RFID reader.
- 2 3.5" touch screen.
- 3 Tamper.
- 4 Ethernet connector (for future use).
- 5 Terminal block for connection.
- 6 Magic light.

V+ V-
D
A B
NC COM NO
11 12 13

Power supply terminals
 SimpleHome bus data terminal
 485 terminals for alarm control panel
 Thermostat relay voltage-free contacts
 Open Collector outputs for multi-speed Fan-coil connection.

Minitouch mounting



The Serial Bridge module makes it possible to communicate with the SimpleHome home automation BUS and the SimpleSafe anti-intrusion system.

It can be used as follows:

- weekly schedule programmer: sends commands to outputs, zones, scenarios and thermostats within the system.
- link in/out management: links an alarm control panel event (area status or input status) to an event for transmission over the home automation BUS (modules, zones, scenarios, etc...).
- rule management: programs 3-element rules with AND/OR functions between inputs, outputs or security/home automation timer in order to generate an event.
- scenario management: can program scenarios which include procedures for transmission to the SimpleSafe security system and/or the SimpleHome home automation system.

User setup and management must take place via the WEB interface.

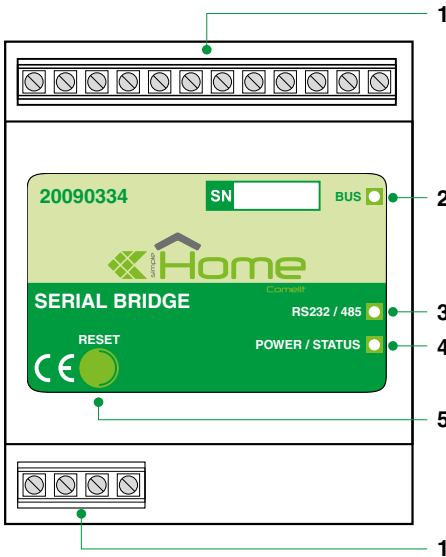
Technical characteristics

The Serial Bridge is a Web Server device which, by means of a PC browser, tablet, smartphone, etc. is able to do the following without the installation of any additional programs:

Display/Control	8 areas of a compatible alarm control unit.
	48 lights over BUS.
	24 sockets over BUS.
	24 timed outputs or shutter.
	24 analogue inputs, which may be: <ul style="list-style-type: none"> • 20046707 modules configured as thermostat with temperature sensor connected. • thermostats and temperature sensors on the BUS.
Display	the status of the first 80 wired inputs of a compatible control unit.
	the status of the first 48 radio inputs of a compatible control unit.
	8 load modules by consumption/production.
Control	the 16 scenarios set on the device.

From the Serial Bridge it is possible to configure:

up to 32 timers.
up to 32 commands sent over the link between the alarm control unit and the SimpleSafe BUS.
up to 32 rules with 3 elements each.
up to 32 scenario commands with 20 elements each.



1 Connection terminals:

- + : 12/24 Vdc power supply from home automation BUS or alarm control unit.

D: Simplehome BUS data terminal.

NC - NO - C: Voltage-free relay contacts.

I2: Status input 2.

K: Common status input.

I1: Status input 1.

5: Alarm control unit GND RS232.

3: Alarm control unit RX RS232.

2: Alarm control unit TX RS232.

+12 -12: Alarm serial port power supply terminals.

485 A/L+ - B/L -: Alarm supervisor connection terminals.

2 LED indicating data transmission over home automation BUS.

3 LED indicating data transmission to control units.

4 LED indicating operation:

- slow flashing: normal operation.
- quick flashing: Bootloader status.

5 Reset button.



CAUTION!! If the device is connected to the home automation BUS power supply or the alarm control unit power supply, the - terminal must be connected to the -12 terminal to balance the reference negatives.

SERIAL BRIDGE WITH SD CARD AND WEB SERVER FUNCTION ART. 20003101

The Serial Bridge module makes it possible to communicate with the SimpleHome home automation BUS and with S-Series and VEDO anti-intrusion systems.

It can be used as follows:

- **Weekly schedule programming:** sends commands to outputs, zones, scenarios and thermostats within the system.
- **WEB Server** for system management via any browser (PC, smartphone, tablet).
- **Rule management:** programs rules with up to 3 elements with AND/OR functions between inputs, outputs or security/home automation timer in order to generate an event for transmission over the home automation BUS or to the security system.
- **Scenario management:** programs scenarios which include procedures to be sent to the SimpleHome automation system and/or the S-Series or VEDO security system.

User setup and management must take place via the WEB interface.

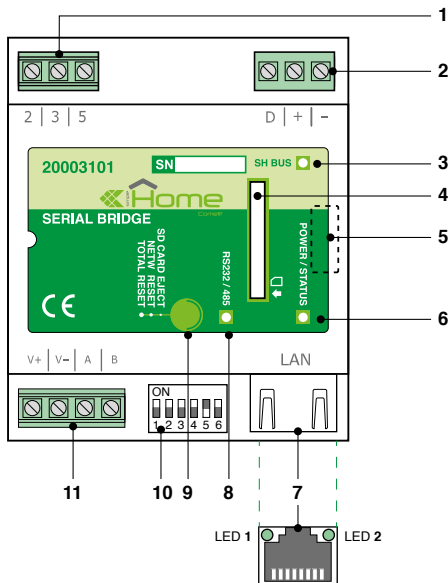
DEVICE FEATURES

The Serial Bridge is a Web Server device which, by means of a PC browser, tablet, smartphone, etc. is able to do the following without the installation of any additional programs:

1. Display/control areas of a compatible VEDO or S-Series alarm control unit.
2. Display the status of the first 80 wired inputs and the first 48 radio inputs of a compatible S-Series control panel.
3. Display the status of all zones (wired and radio) of a compatible VEDO control panel.
4. Display/control 400 elements (lights, sockets, timed outputs, analogue inputs, thermostats, scenarios...) with a maximum of 50 rooms, 50 RGB lights and 40 thermostats.

From the Serial Bridge it is possible to configure:

1. up to 32 timers
2. up to 32 rules with 3 elements each
3. up to 32 scenario commands with 20 elements each



Description of the Serial Bridge

1. Connection terminals:
 - | 2 | TX RS232 S series alarm control unit.
 - | 3 | RX RS232 S series alarm control unit.
 - | 5 | GND RS232 S series alarm control unit.
2. Connection terminals:
 - | D | SimpleHome BUS data terminal.
 - | + | - | 12/24 Vdc power supply from home automation BUS or alarm control unit.
3. **LED** indicating data transmission over home automation BUS:
 - YELLOW data transmission over BUS.
 - RED error on BUS.
4. Slot for SD card.
5. USB input (underneath front cover) for PC connection and SimpleHome system programming.
6. **LED** indicating operation:
 - Slow flashing: normal operation.
 - Quick flashing: no SD card.
7. Ethernet port:
 - LED 1 lit: connection active.
 - LED 2 flashing: data transfer in progress.
8. **LED** indicating data transmission to alarm control units.
9. Reset button.
10. Dip switches:
 - 1-2-3 For future uses.
 - 4 485 terminator.
 - 5 Earth union (default = ON).
 - 6 For power supply to safe part with SimpleHome input.
11. Anti-intrusion BUS connection terminal:
 - | V+ | 485/232 power supply positive.
 - | V- | 485/232 power supply negative.
 - | A | Anti-intrusion data BUS signal A.
 - | B | Anti-intrusion data BUS signal B.



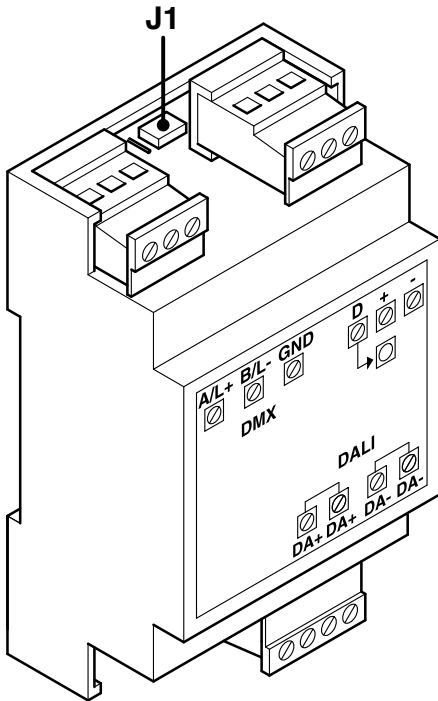
CAUTION: Depending on the type of system, set dip switches 4, 5 and 6 as illustrated in the wiring diagrams provided in the technical manual for the product, available on the website www.comelitgroup.com. Always remember to insert (by means of dip switch 4) an end-of-line resistor between A and B of the 485 connection to the two ends of the main BUS line.

DALI/DMX MODULE ART. 20004600

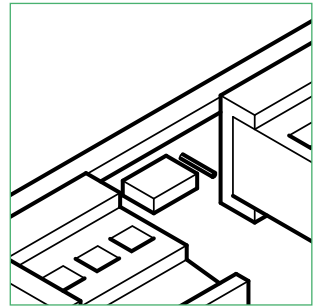
The DALI/DMX module art. 20004600 converts Simplehome system commands to commands on the DALI or DMX communication BUS.

Commands sent to DMX power supply units can switch the connected light source on / off, dim it or adjust its colour (if using RGB lights).

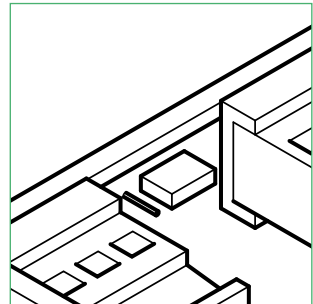
Commands sent to the DALI interface offer individual DALI power supply unit control via buttons or supervisors.



DALI function



DMX function



Technical characteristics	
Power supply voltage	24 Vdc \pm 5%
Absorption	MIN. 5 mA / MAX. 40 mA
Indications	1 bus status LED: when flashing, indicates data transmission via bus.
Terminals	Removable
Positioning	On DIN rail or in junction boxes
Approvals	CE
Operating temperature	0° to 50°C
Storage temperature	-10° to +70°C
Relative air humidity	5 to 95% with no condensation
Weight	50 g (not including packaging)
Dimensions	53x90x58 mm (3 DIN modules)

CONNECTION TERMINALS	
Terminal	Function
-	BUS power supply negative
+	BUS power supply +24 Vdc
D	BUS data line
DA+ DA-	DALI BUS
A/L+ B/L- GND	DMX BUS
Jumper J1	DALI / DMX function selector

SIMPLEPROG, THE COMELIT HOME AUTOMATION SYSTEM CONFIGURATION SOFTWARE

In order to work, the Comelit home automation system must be configured using a PC and SimpleProg software which is available to download free of charge from the website pro.comelitgroup.com



For further information regarding system installation, programming and configuration, please refer to the user manual available in the "Downloads" section of the website pro.comelitgroup.com

CERTIFIED MANAGEMENT SYSTEMS



www.comelitgroup.com

Via Don Arrigoni, 5 - 24020 Rovetta (BG) - Italy

