By-alarm
burglar alarm system.
Security is increased.

VIMAR group
e n e r g i a   p o s i t i v a

VIMAR

Professional like you, easy to install and highly flexible.

From today, thanks to **By-alarm**, the new Vimar burglar alarm system, protecting spaces against intrusion and developing a solution that mirrors your customers' real protection needs is easy and intuitive. Stand-alone and expandable with a wide range of devices, the system can also be integrated with By-me home automation, for continuous, diffused and intelligent control. Simple and quick to install, the quality of the system is guaranteed by its CEI EN 50131 (grade 2) certification, the fact it is entirely Made in Italy.

CERTIFIED
SAFETY

STANDARD
CEI EN 50131
grade 2

MADE in
ITALY

A new advanced intrusion detection alarm system with wide-ranging benefits.

Great **installation flexibility**.

The new By-alarm burglar alarm system manages up to 24 or 64 zones, is installed as a stand-alone system with great ease via a wired connection and can also be extended in radio frequency, making it the ideal solution for any installation need.

- **UP TO 24 OR 64 ZONES**
- **WIRED CONNECTION**
- **RADIO FREQUENCY CONNECTION**

Professionalism guaranteed.

A professional system offering advanced performance, guaranteed by the reliability that only true **Made in Italy** production can offer and by its certification according to **Standard CEI EN 50131 - grade 2**.

Certified quality.

Fruit of the continuous investment in R&D, By-alarm stands out for it very high technological quality that has allowed us to obtain Italian certification **IMQ - Security systems**, confirming its total reliability.

Simple configuration via PC and keypad.

To offer maximum versatility and to help professionals in their daily work, the system can be configured quickly and intuitively using the dedicated **By-alarm Manager** software or directly via the digital keypad.

Expandability
at any time.

The system can be expanded with a Bus cable and/or with radio frequency on a highly reliable innovation protocol, based on Spread Spectrum technology characterised by low consumption and high levels of immunity to disturbances and interference.

Integration with the home automation system.

By-alarm can be integrated with the By-me home automation system via a protected IP connection that also allows for remote control. The system can also be integrated with the wide range of NVR/DVR making up the CCTV offer.

Remote
management.

The system can be monitored using a smartphone or tablet with secure GSM and IP connections and can be linked to surveillance bodies using SIA and CONTACT-ID protocols.
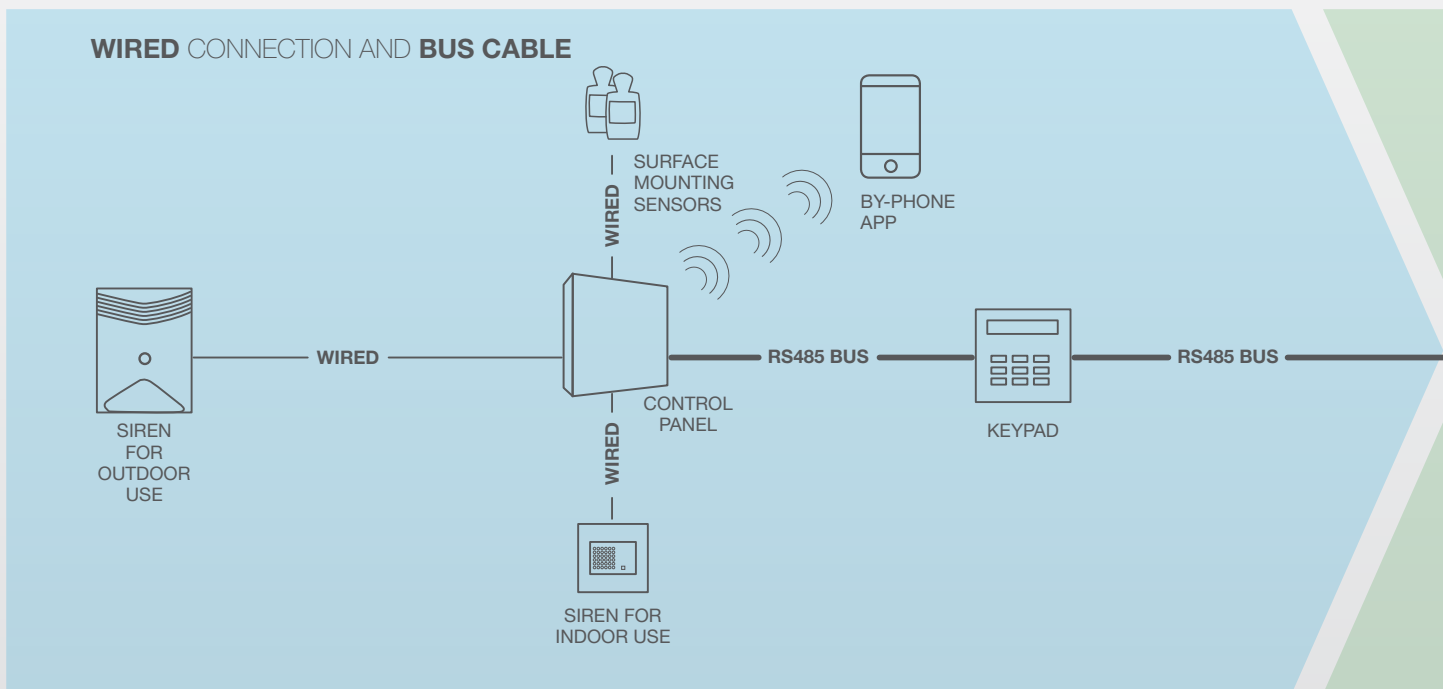
Aesthetic
coordination.

The flush mounting devices with which to expand the By-alarm burglar alarm system are available for **Eikon, Arké, Idea** (using mounting frame 16723) and **Plana** series offering perfect aesthetic coordination with any interior design style.
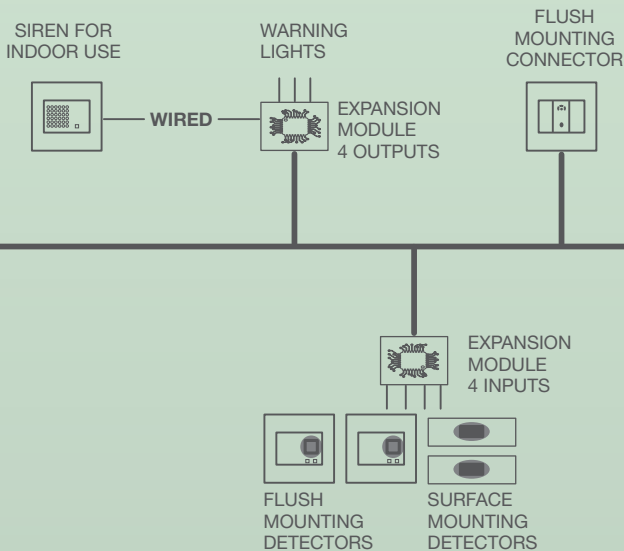
A **stand-alone** solution, simple and connected.

A simple but high-performance solution able to effectively identify and signal any breaking and entering or undesirable presence. It is very easy to install using a wired connection and RS485 Bus cable and can be remotely controlled via GSM using a smartphone and the free By-phone app.
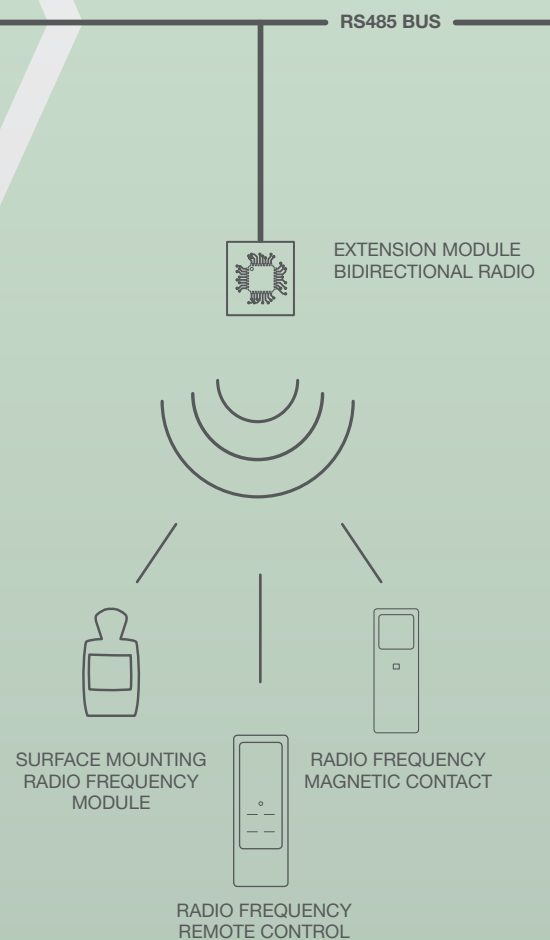
WIRED CONNECTION AND BUS CABLE

SURFACE MOUNTING SENSORS

WIRED

BY-PHONE APP

WIRED

SIREN FOR OUTDOOR USE

CONTROL PANEL

RS485 BUS

KEYPAD

RS485 BUS

WIRED

SIREN FOR INDOOR USE

Expandable according to requirements with a **bus** cable and/or in **radio frequency**.

The stand-alone solution can be extended to other areas of the building depending on installation needs.
Simply extend the RS485 Bus cable and/or connect it to a bidirectional radio extension module that allows for the radio frequency control, on a highly reliable protocol, of a series of specially prepared alarm devices. In this way it is possible to alarm other zones without carrying out building work.

EXTENSION VIA **BUS CABLE**

AND/OR EXTENSION VIA **RADIO FREQUENCY**

SIREN FOR
INDOOR USE

WARNING
LIGHTS

FLUSH
MOUNTING
CONNECTOR

WIRED

EXPANSION
MODULE
4 OUTPUTS

RS485 BUS

EXPANSION
MODULE
4 INPUTS

FLUSH
MOUNTING
DETECTORS

SURFACE
MOUNTING
DETECTORS

EXTENSION MODULE
BIDIRECTIONAL RADIO

SURFACE MOUNTING
RADIO FREQUENCY
MODULE

RADIO FREQUENCY
MAGNETIC CONTACT

RADIO FREQUENCY
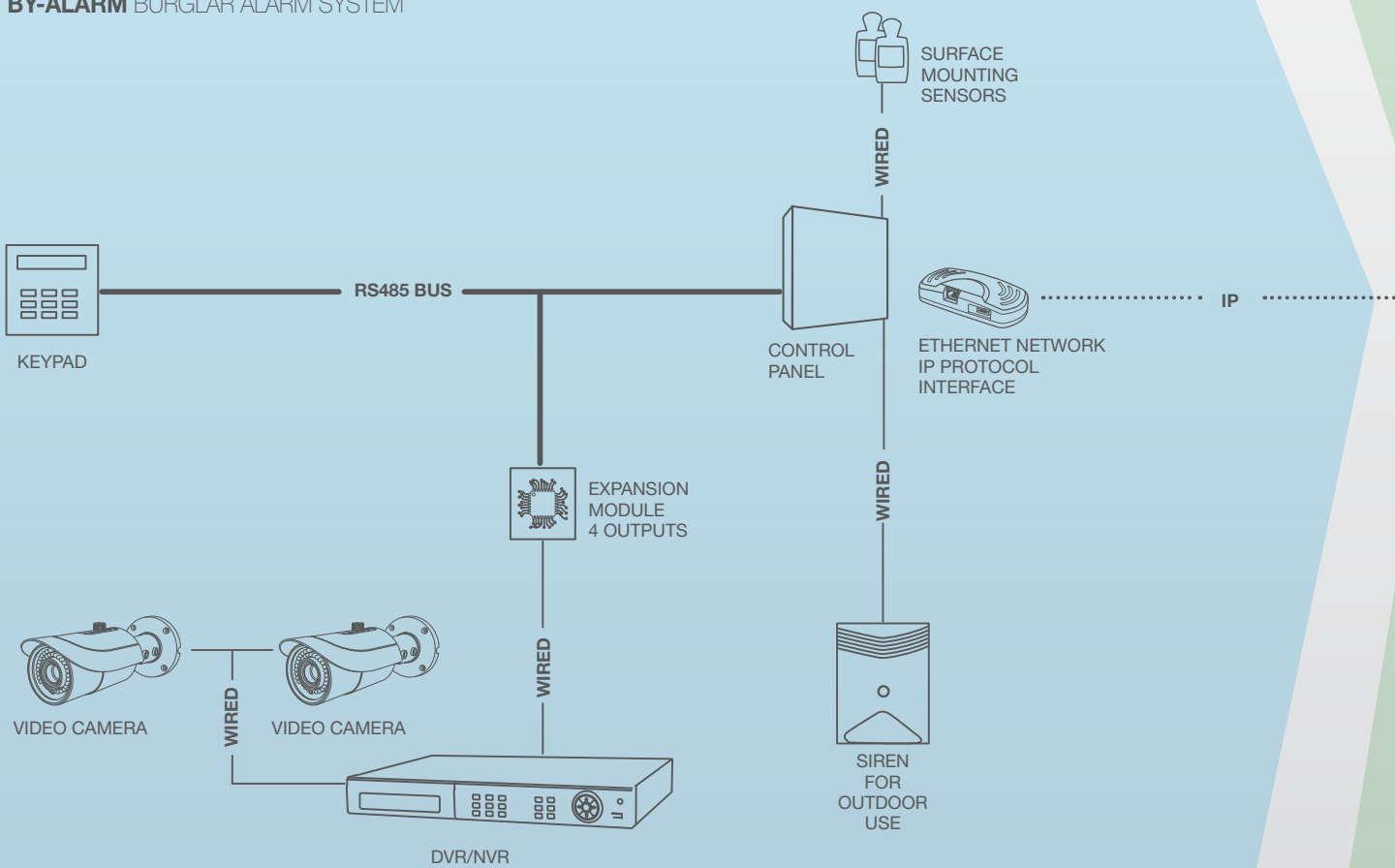REMOTE CONTROL

VIMAR

Intuitive configuration

In order to facilitate the work of those professionals installing it, the burglar alarm system can be configured using the intuitive **By-alarm Manager** software or quickly and easily using the keypad.

5

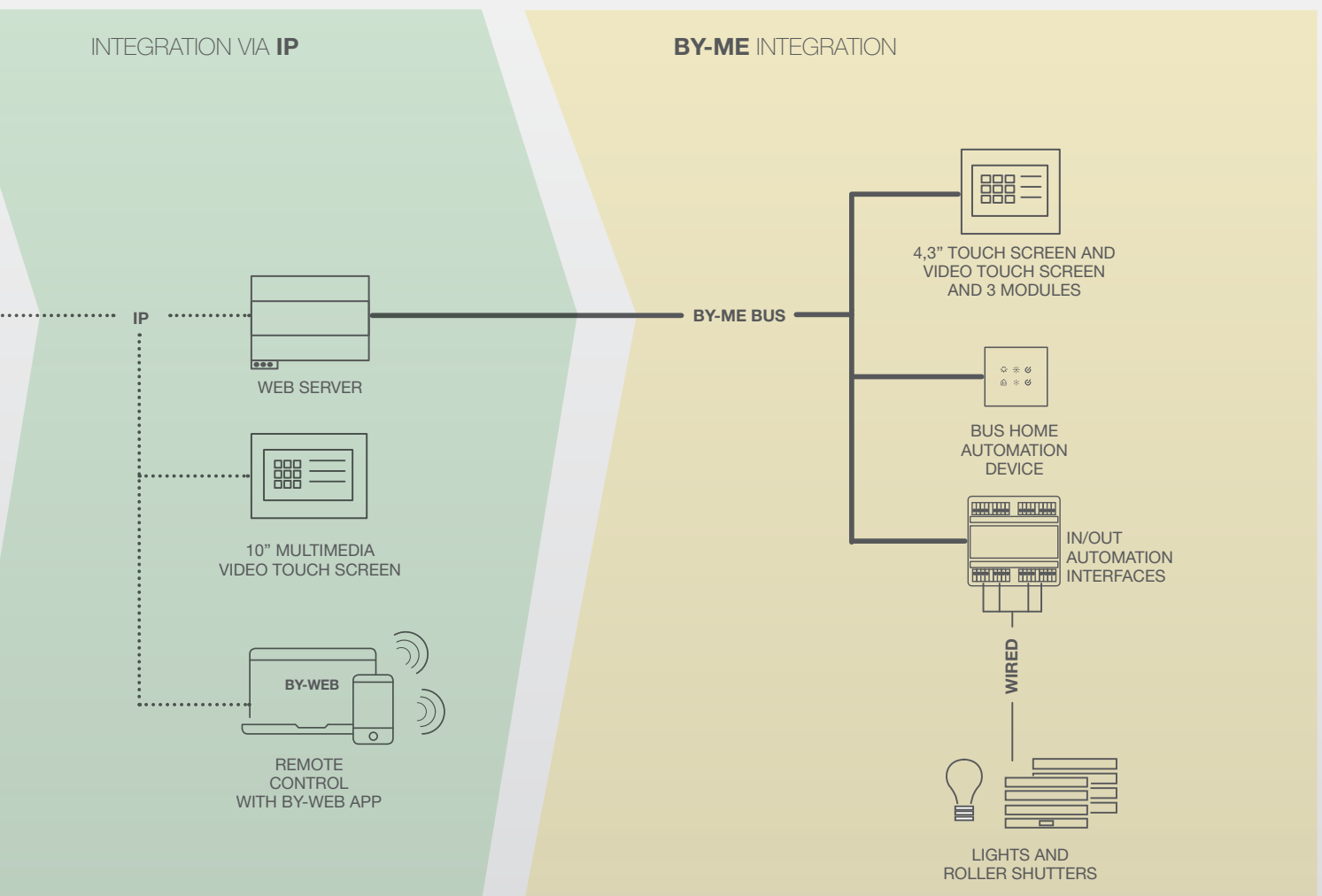# An advanced solution, easily linked to a CCTV system.

By-alarm can be easily and quickly connected to a video surveillance system. Just use a RS485 Bus cable to connect the expansion modules and then, using a wired connection, connect the DVR/NVR that manages video cameras of any technology (IP, AHD and analogue, HD-SDI).

BY-ALARM BURGLAR ALARM SYSTEM

SURFACE
MOUNTING
SENSORS

WIRED

KEYPAD

RS485 BUS

CONTROL
PANEL

ETHERNET NETWORK
IP PROTOCOL
INTERFACE

IP

EXPANSION
MODULE
4 OUTPUTS

WIRED

VIDEO CAMERA

WIRED

VIDEO CAMERA

WIRED

DVR/NVR

WIRED

SIREN
FOR
OUTDOOR
USE

An intelligent solution, it can be integrated with the By-me home automation system via an IP connection. For total control, even remotely.

It can also be fully integrated with the By-me home automation system by installing an IP module that ensures a secure connection. This gives life to a complete system, the functions of which can be controlled using the touchscreen or remotely, using a smartphone or tablet.

INTEGRATION VIA **IP**

BY-ME INTEGRATION

IP

WEB SERVER

10" MULTIMEDIA
VIDEO TOUCH SCREEN

BY-WEB

REMOTE
CONTROL
WITH BY-WEB APP

BY-ME BUS

4,3" TOUCH SCREEN AND
VIDEO TOUCH SCREEN
AND 3 MODULES

BUS HOME
AUTOMATION
DEVICE

IN/OUT
AUTOMATION
INTERFACES

WIRED

LIGHTS AND
ROLLER SHUTTERS

Free By-web app.

Allows for complete management of the whole system, monitored and managed via video touchscreen, PC, smartphone or tablet.

VIMAR

Aesthetic coordination to suit the style of any building.

All the By-alarm system devices, such as sensors, internal sirens and connectors, have been designed to offer the maximum in terms of aesthetics and functionality, ensuring a stylistic approach that is the perfect balance between continuity and attention to detail. In addition, all flush mounting devices are available for Eikon, Arké, Idea (using mounting frame 16723) and Plana series. Numerous combinations in terms of designs, materials and colours.

EIKON

Elegance, excellence: this world is Eikon. With this, every concept of luxury is expressed with four lines that differ in their design, dimensions, finishings, functions, created to manage energy in a superlative manner.

ARKÉ

Designed in the present and conceived for the future, Arké is the solution for today's needs: a simple, contemporary and durable object offering functions that simplify routine daily actions in a tangible and intelligent manner.

PLANA

Formal precision adds natural value to each space, adopting intelligent and intuitive technologies.
An essential design is unveiled with a range of colours and materials that can be combined in every way.

idea

An extremely refined modern classic that offers you the greatest freedom of design choice: more than two hundred functions to manage every room in the home, five hundred colours and four different materials. To manage energy under the sign of exclusive elegance.

Fields of application.

Born to protect spaces against intrusion and to develop an efficient and secure service, the By-alarm intrusion detection alarm system satisfies real protection needs, whether domestic or business (particularly small commercial concerns or offices).

residential   commercial use   office

BY-ALARM BURGLAR ALARM SYSTEM

VIMAR

SELECTION GUIDE

GENERAL FEATURES

TYPE OF SYSTEM

SYSTEM COMPONENTS

DEVICES

RADIO FREQUENCY DEVICES

INSTALLATION EXAMPLES
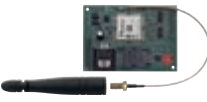
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BY-ALARM BURGLAR ALARM SYSTEM

Selection guide

VIMAR

Devices

Description	Code	Description	Code	Description	Code
System components		**Modules**		**Interfaces**	
Control panel, supply voltage 230 V~ 50 Hz, surface mounting	**01700-▲01700.DE -** for 24 zones **01703-▲01703.DE -** for 64 zones	GSM Dual Band GSM/GPRS 900/1800 MHz **transmitter/receiver**	01706	**Ethernet (LAN) network interface**	01712
Control panel, supply voltage 120 V~ 60 Hz, surface mounting	**01700.120 -** for 24 zones **01703.120 -** for 64 zones	**PSTN communicator** for control panel	01708	**Interfaces and cables**	01725
Keypad, supply voltage 12 Vdc, surface mounting	01705 - ▲01705.DE	**4-input expansion module**	01709	**Insulate interface for signal regeneration**	01711
Siren for outdoor use	01715	**4-output expansion module**	01710		
Siren for outdoor use with dummy function	01716	**Voice synthesis module** for control panel	01713.EN		
Additional power supply supply voltage 230 V~	01717	**Tear-proof box** for expansion modules	01714		
Additional power supply supply voltage 120 V~	01717.120				
Aerial omnidirectional high GSM gain	01707				

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM
Selection guide

VIMAR

Devices

Description	Code					
For flush mounting	**Eikon**			**Arké**		**Plana**
Connector/partiliser	20478 grey	20478.B white	20478.N Next	19478 grey	19478.B white	14478 white · 14478.SL Silver
Transponder key		01718	▲ 01718.G	▲ 01718.Y		
Dual tecnology presence detector - 2 modules	20479 grey	20479.B white	20479.N Next	19479 grey	19479.B white	14479 white · 14479.SL Silver
Siren for indoor use	20496 grey	20496.B white	20496.N Next	19496 grey	19496.B white	14496 white · 14496.SL Silver

Description	Code	Description	Code	Description	Code
For surface mounting					
Dual technology PET immune detector	01720	Dual technology tent detector, IP54, for outdoor use to protect entrances and windows	01723	Magnetic contact in a metal enclosure for visual installation	01823
Dual technology detector with anti-masking and anti-crawl	01721	Magnetic contact	01820	Electromechanical cord-operator contact	01825
Water detector for protection against flooding, floor mounting	01724	Magnetic contact	01821	Electromechanical inertial contact	01826
Dual technology tent detector to protect entrances and windows	01722	Magnetic contact in metal	01822		

Radio frequency devices

Description	Code	Description	Code
Detector with magnetic contact for doors and windows	01727	Interface 868 MHz	01729
Passive infrared motion detector	01728	Remote control	01730

Cables

Description	Code
Cable 2x0.22 mm^2	01732
Cable 2x0.50 mm^2 + 2x0.22 mm^2	01733
Cable 2x0.50 mm^2 + 4x0.22 mm^2	01734
Cable 2x0.50 mm^2 + 6x0.22 mm^2	01735

BY-ALARM BURGLAR ALARM SYSTEM

General features

By-alarm is the Vimar burglar alarm system designed to protect the home against intrusion from the outside. The system manages up to 24 or 64 zones divided in 8 areas set with 3 different profiles (ON = total; INT/PAR = 2 partializations), is installed as a stand-alone system with great ease via a wired connection and Bus cable and can also be extended in radio frequency with a wide range of flush and surface mounting devices.

Simple and quick to install, its quality is guaranteed by **CEI EN 50131 (grade 2) certification** and the Italian certificate **IMQ – SISTEMI di sicurezza** (except for 01729 RF interface and 01712 Ethernet interface). In addition, By-alarm can be integrated with the By-me home automation system via a protected IP connection and with a wide range of NVR/DVR making up the CCTV offer.

Advantages

By-alarm is a **professional** system offering excellent performance, guaranteed by the reliability of its Made in Italy production, certified according to Standard CEI EN 50131 (grade 2) and IMQ, and allowing:

- **simple configuration using a PC and keypad**: with the utmost versatility, the system can be configured quickly and intuitively from a PC using the dedicated **By-alarm Manager** software or directly via the digital keypad art. 01705;
- **expandability at any time**: using a Bus cable and/or with radio frequency on a highly reliable innovative protocol, based on Spread Spectrum technology and characterised by low consumption and high levels of immunity to disturbances and interference;
- **remote management**: using a smartphone and tablet and secure GSM and IP connections. The system can be linked to surveillance bodies using SIA and CONTACT-ID protocols;
- **integration with the By-me home automation system**: using a protected IP connection and the web server, the system can be controlled via the touch screen or remotely/on-site with a smartphone or tablet by using the By-web app.
- **aesthetic coordination**: By-alarm flush mounting devices are available for the Eikon, Arké, Idea (using mounting frame 16723) and Plana series.

System diagram

The By-alarm system is composed of a 24 zone (art. 01700) or 64 zone (art. 01703) control panel, to which the wired sensors and sirens for indoor and outdoor use are connected; the keypad, flush mounting connectors, input/output modules and interface in radio frequency are connected to the RS485 Bus cable coming from the control panel. The input expansion modules are connected to the flush and/or surface mounting detectors and wired sensors.

The **system is star wired** to the control panel that, for the wired inputs, acts as a star centre.

The **control panel** is equipped with:

- 8 wired inputs (zones 1-8) to directly connect the sensors and/or magnetic contacts.
  The inputs can be expanded up to 24 or 64 using expansion modules 01709 and 01729;
- one RS485 Bus for control panel 01700 and two RS485 Bus for control panel 01703 to which you can connect:
  - keypad (art. 01705);
  - 4-input expansion module (art. 01709);
  - 4-output expansion module (art. 01710);
  - Bus insulator/repeater (art. 01711);
  - flush mounting connector (art. 20478,19478, 14478);
  - interface in radio frequency (art. 01729);
- connection interfaces to install additional modules:
  - GSM Dual Band transmitter/receiver module (art. 01706);
  - PSTN communicator (art. 01708);
  - voice synthesis module (art. 01713.EN);
  - interface to Ethernet network (art. 01712).

Installation example

RADIO FREQUENCY DEVICES

01730 Remote control

01727 RF Contact

01728 RF detector

8 INPUTS FOR WIRED SENSORS

01729 Radio frequency interface

01720 Detector

01723 Detector

max 100 m

max 100 m

01700 Control panel

01705 Keypad

max 100 m

max 100 m

01715 External siren

19496.B Siren for indoor use

max 1000 m with linear wiring (in/out)
max 600 m with star wiring (in/out)

01710 Module OUTPUT expansion units

01709 Module input expansion units

19478.B Connector/Shutter

01718 Key to transponder

max 100 m

RS485 bus

Wired connection for alarms/tamper/masking

Power supply 12 Vdc

Electric lock

19386.B Control light

max 100 m

01720 Detector

max 100 m

01721 Detector

max 100 m

INSTALLATION TOPOLOGY

CONTROL PANEL

LINEAR: up to 1000 m
(sum of all parts of the laid Bus cables)

CONTROL PANEL

STAR: up to 600 m
(sum of all parts of the laid Bus cables)

BY-ALARM BURGLAR ALARM SYSTEM

General features

The control panel is equipped with two relays:
- **Relay 1** is typically used to control the self-powered siren for outdoor use and, where present, the siren for indoor use.
- **Relay 2** can be freely programmed depending on the particular case. It is usually associated with the system connection/disconnection status.

Configuration of the control panel is carried out using the keypad (art. 01705) or with the **By-alarm Manager software**.

System logic

The zones to be monitored must be defined according to determined areas for complete, secure coverage.

The **area** is a collection of system zones and the control panel can managed up to 4 or 8 different areas. Within each area there are **3 connection modes** (shutterings): **ON**, **INT** and **PAR**.

The system allows a given area to be connected using either the ON, INT or PAR mode; once an area is connected using one of these modes, it can only be disconnected.

For example, with a system composed of zones with external sensors (eg. Volumetric garden sensors), zones with perimetral sensors (eg. Window/blind contacts) and zones with internal volumetric sensors (eg. Dual technology sensors), a single area is defined with the three connection modes:
- **ON** = activation of all zones (**total integration**);
- **INT** = activation of zones with external and perimetral sensors;
- *PAR* = activation of zones with external and perimetral sensor and activation of volumetric sensors in a determined zone.

Example: when you exit the home, you set the area to the ON mode (total connection), when you are home and want to protect the outside area you set the area to the INT mode (external and perimetral sensors) and at night you set the PAR mode so that you can move freely around the night zone while the external, perimetral and volumetric sensors in the day zone are all activated. In each case, when the area is connected using any mode, it can only be disconnected.

User management: each user is recognised by the system through a 4 to 6 figure PIN set during the installation phase. You can accurately define the operations that can be carried out by each user (for example connection/disconnection ON/INT/PAR) and the areas in which actions can be performed. A zone can belong to more than one area. The possibility to create several areas, by defining the integration method (flexible with respect to the zones) and the timely management of user rights, makes for an extremely flexible system.

Several areas can in fact be used to:
- manage parts of the system separately using one single control panel; you can configure 2 areas with different zones and define the users who can control any given area;
- increase the connection modes: more than one area can be defined with the same zones (or zone subsets) and with different connection modes.

Interfacing with the By-me system

The By-alarm intrusion detection alarm system can be integrated with the By-me home automation system, thanks to communication between the intrusion detection control panel (art. 01700) and the Web Server (art. 01945 o 01946) via the Ethernet network interface (art. 01712) that used an extremely secure encrypted communication protocol.

The Web Server also acts as a gateway to the By-me system and allows the installer to access the system remotely via a secure communications channel, using the **By-alarm Manager software** (remote connection with PC only via the Web Server, otherwise you must use the standard interface art. 01725).

The **integration functions** between the two systems are:
- control and management of the By-alarm system via the Web Server (art. 01945 e 01946), touch screen (21511.1, 21554, 21553.2) and home automation module (art. 01965) of the Arké video entry phone (art. 19558), to see the system status (connection/disconnection of the areas based on the rights of the user PIN entered and see events/alarms, etc.);
- light control: using the dual technology sensors, you can control the By-me light sets when the relative zones are disconnected (configuration on Web Server);
- use of window sensors to send the stand-by command to the By-me thermostats (configuration on Web Server).
- activation of a By-me scenario on the identification of an event (connection, disconnection, alarms, etc.) in the burglar alarm system (configuration on Web Server).
- use of the By-me logic unit (art. 01468) to create logic programs linked to the status of areas (total or partial connection, alarm).

On-site and remote maintenance

Connection to the Web Server allows for maintenance operations to be carried out both on-site and remotely using the **By-alarm Manager** software that can be downloaded free of charge from the site (www.vimar.com). This operation must be activated by the user via the Web Server menu in order for the installer to maintain full control over system programming/maintenance.

PC with
By-alarm Manager
software

01725 Interface cables

Connection to Web Server
via browser

Tablet and
smartphone
with By-web app

Internet

RS485

LAN

by-me
home automation

Some diagrams of the **By-alarm Manager software**   01700 Control panel   01712 Ethernet interface   01945 Web Server   21554 Video touchscreen

BY-ALARM BURGLAR ALARM SYSTEM
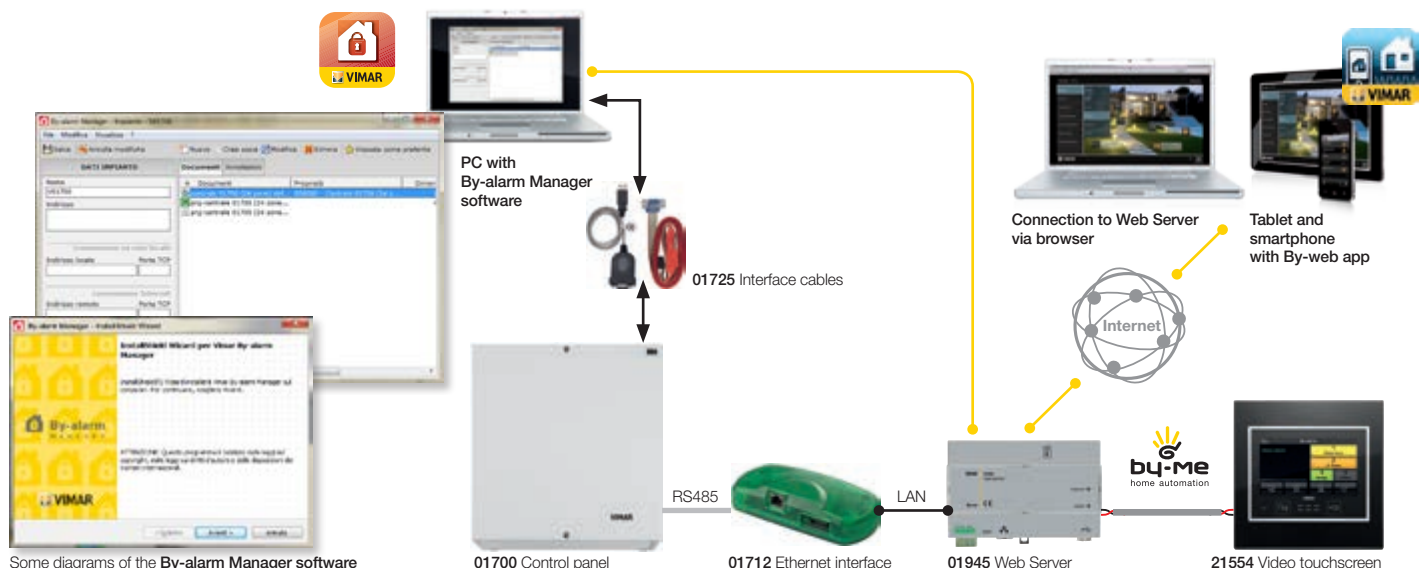
General features

System components

Control panel: available as a 24 or 64 zone version, ready for connection to a digital telephone dialler (art. 01708), to connect the voice synthesis module (art. 01713.EN) and GSM module (art. 01706).

Keypad: with backlit display (art. 01705) allowing the user to communicate easily and directly with regard to all management functions and system configuration.

Siren: For outdoor use or surface mounting (art. 01715) or flush mounting coordinated with the Eikon, Arké and Plana series (art. 20496, 19496, 14496).

Additional power supply (art. 01717): to power system devices, it contributes if there is a lack of network power, allowing the system to run autonomously for 12 hrs if it has an internal battery; it is the same size as the control panel and is surface mounting.

Modules: expansion modules can be installed in the control panel or in the tear-proof surface mounting box (art. 01714), and are of type:

- **GSM Dual Band GSM/GPRS 900/1800 MHz transmitter/ receiver:** (art. 01706) automatically sends all communications regarding alarms, malfunctions or anomalies identified by the control panel to any phone number via the GSM network.
- **PSTN communicator:** (art. 01708) allows you to send any alarm or anomaly communication over the phone line. It can be programmed directly via the keypad or through the phone line with an interactive connection.
- **voice synthesis:** (art. 01713.EN) for the automatic sending of communications, alarms, malfunctions or anomalies to any phone number via pre-recorded messages already entered in the control panel.
  It allows for the control panel to be consulted via telephone, in order to see the status of the lines and alarms, switch on/off the control panel (if activated), exclude or reconnect zones, control and modify the phone numbers set, activate/deactivate the active outputs and activate the main controls.
- **Expansion to 4 configurable** inputs (art. 01709) for contact without potential, wired for blinds and passive detectors of non-piezoelectric shock.
- **Expansion to 4 outputs** that can be configured in the ways foreseen by the control panel to which it is connected (art. 01710).

Interface to the Ethernet network (art. 01712): allows for the control panel (01700, 01703) to be connected to the Ethernet network with a TCP/IP protocol **only in combination with the Vimar Web Server** (art. 01945, 01946).
The control panels, located on the local or geographic network, are thus managed by the **By-alarm Manager software** for all diagnostic and maintenance operations.

Insulated interface for signal regeneration (art. 01711): regenerates the Bus signal over 1000 m with linear wiring and over 600 m with star wiring, and galvanically insulates two RS485 Bus sections of the By-alarm system.
Used for installations that use underground Bus cable sections outside the building or those with ground loop problems.

Interfaces and cables (art. 01725): Via the RS232-USB converter, they allow for direct connection of control panel (art. 01700, 01703) to the PC USB port for a direct, interactive connection to the intrusion detection alarm system and for **complete configuration using the By-alarm Manager service**.

Surface mounting control panel

Keypad

Siren for outdoor use

Eikon flush mounting siren

BY-ALARM BURGLAR ALARM SYSTEM
General features

Flush mounting devices

Flush mounting devices in the By-alarm system are coordinated with the Eikon, Arké and Plana series:

Connector/splitter (art. 20478, 19478, 14478): Activates/deactivates the system (completely or the partially associated zones) after recognising the code issued by the **transponder keys** (art. 01718), that do not require maintenance or batteries and that have a unique code, individual to each key.

Motion detector (art. 20479, 19479, 14479): incorporates a microwave sensor and an infrared sensor and is able to signal people or animals passing through its area of coverage. The dual technology enables making the sensor insensitive to the most common causes of false alarms.

Surface mounting devices

Detectors and contacts with wired connection:

Dual technology passive infrared and microwave detectors: ideal for installations in places where there are pets; the detector offers a variety of functions including anti-masking, autoset, and memory type alarm.
Thanks to 2 identification modes with 2 levels of sensitivity, it allows you to select that which best suits the site to be protected, optimising detection ability and reducing false signals to a minimum:
- detector with **PET mode** (art. 01720);
- detector with **BLIND mode** (art. 01721);
- tent detector to protect entrances and window fixtures (art. 01722);
- IP54 tent detector to protect entrances and window fixtures (art. 01723);
- water detector for protection against flooding (art. 01724);

Sensors for doors and windows: allows for the opening of any doors and/or windows within the rooms to be monitored:
- magnetic contact for flush mounting (art. 01820);
- magnetic contact in metal for flush mounting (art. 01821);
- magnetic contact for visual installation (art. 01822);
- magnetic contact in a metal enclosure for visual installation (art. 01823);
- electromechanical wire contact to protect blinds and shutters (art. 01825);
- electromechanical inertial contact to protect windows and doors (01826).

Radio frequency devices

Used to extend the alarm system without the need for wiring or building work:
- **detector with magnetic contact for doors and windows** (art. 01727): a bidirectional radio device with a HALL-effect sensor and 2 terminal block inputs for connection to two external sensors, activated via an external magnet powered with a 3 V lithium battery;
- **passive infrared motion detector** (art. 01728): a bidirectional radio device powered with a 3 V lithium battery, with a terminal block input for connection to an external sensor.
- **868 MHz radio frequency interface** (art. 01729): allows for the integration of detectors and **remote controls into the system (art. 01730)**, and allows for the number of inputs in the control panel to be extended with a RS485 serial link.

Eikon connector/splitter and transponder key

Eikon dual technology flush mounting motion detector

Dual technology surface mounting motion detector

Magnetic contact in radio frequency

Remote control

80 m² flat with By-alarm burglar alarm system.

The example shows a By-alarm burglar alarm system in a flat of 80 m², which allows:
- manage the entire system from the surface mounting control panel 01700 (up to 24 zones) installed in the technical room, to which all of the system devices are connected;
- the programming, activation/deactivation and partialising of the system using the backlit keypad 01705 installed in the input;
- the movement detector in the living room and hallway with its dual technology detectors 01721 that, thanks to 2 detection modes with 2 levels of sensitivity, optimise detection ability and prevent false signals;
- control of doors and windows in the living room, kitchen and bedroom thanks to magnetic contacts installed in the door/window fixtures.

The same type of system can be created using the control panel 01703, expandable up to 64 zones and with wired sensors, sirens for indoor and outdoor use, connectors, keypads and expansion modules, whether wired or in radio frequency.

Siren for outdoor use

Surface mounting control panel

Keypad

Dual technology detector

Window contact

Devices included in By-alarm system			
Code	Description	Qty	Absorption (mA)
Detector and magnetic contacts			
01721	By-alarm surface mounting anti-crawl detector	2	80
01820	SAI-BUS flush mounting magnetic contact	4	-
System components			
01705	By-alarm keypad with display	1	105
01715	By-alarm siren for outdoor use	1	30 (stand-by) or 60
			Total power supplied with a 7 Ah battery for powering the system (mA)
01700	By-alarm 24 zone 230 V~ control panel	1	500

BY-ALARM BURGLAR ALARM SYSTEM

Types of system

Typical system: 80 m^2 flat with By-alarm burglar alarm system.

COURTYARD

ENTRANCE

01715 External siren

01820 Window sensor

01820 Window sensor

01705
Keypad

RS485

LIVING ROOM

TECHNICAL ROOM

01721
Detector

01703 Control panel

LAUNDRY

COURTYARD

KITCHEN

01820 Window sensor

BATHROOM

01721
Detector

ROOM 2

	RS485 bus
	Wired connection for alarms/tamper/masking
	Power supply 12 Vdc

01820 Window sensor

ROOM 1
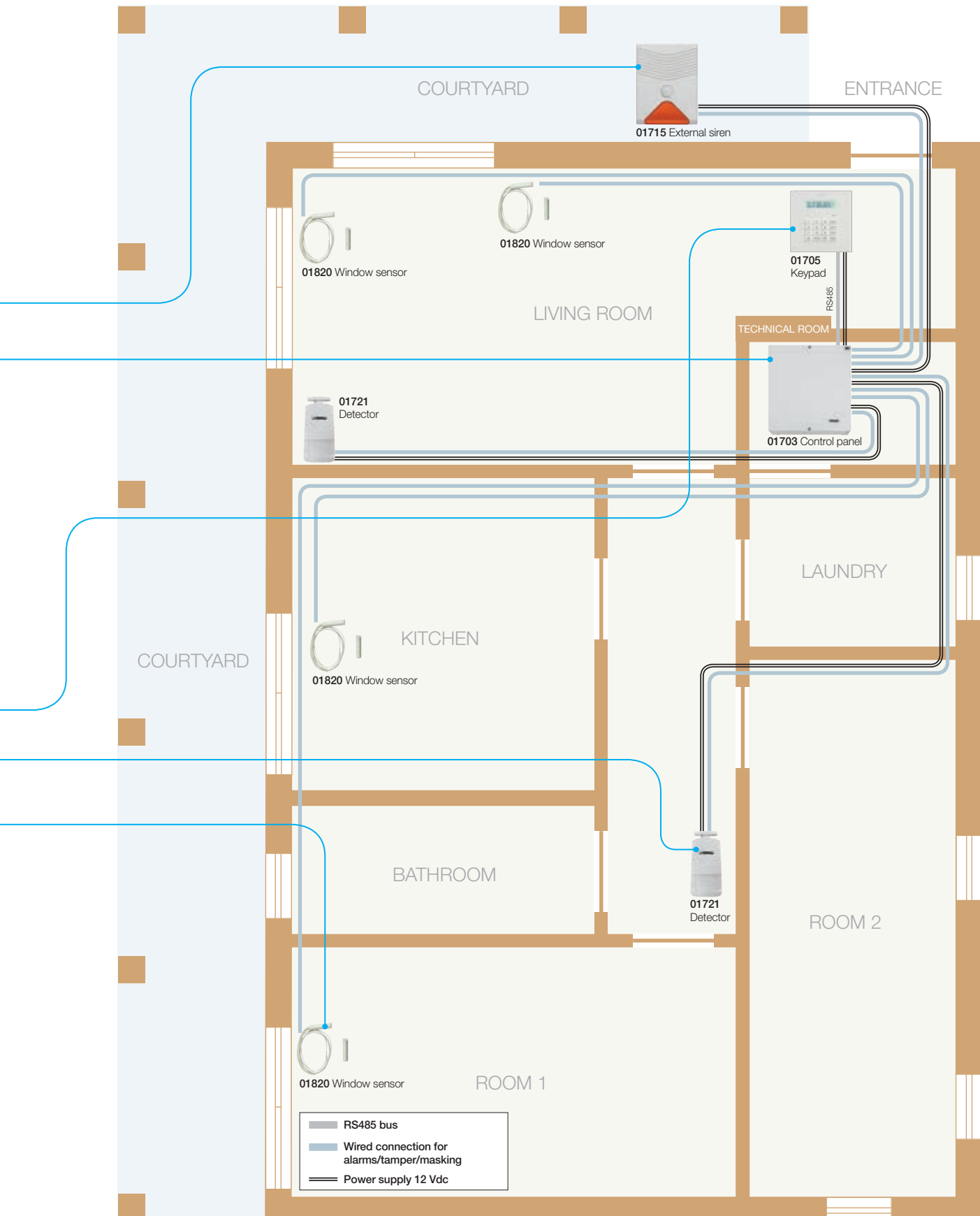
Example of system in an apartment measuring 80 m^2.

24 zone control panel

The microprocessor control panel is equipped with 8 input lines, expandable to 24 zones and can be managed with the keypad art. 01705 and with connector 20478, 19478, -14478; it is suitable for connection with **PSTN communicator** 01708 and with **voice synthesis module** 01713.EN and **GSM Dual Band transmitter/receiver module** 01706. The backlit display allows the user to communicate easily and directly with regard to all system management functions.

Programming can be carried out directly via the control panel using keypad 01705 or on the PC using the **By-alarm Manager software** with a bidirectional connection via IP through the By-me Web Server (01945, 01946), or via USB connection, using the interface 01725 (converter RS232-USB).

Wiring

In terms of wiring, use **halogen-free shielded cables** suitable for installation with Category 1 power cables (U0 = 400 V). The Vimar connection cable codes to use for the transmission RS485 Bus and wired connection of the devices are as follows:

Usable cables

Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,22	3,40	15	01732
2x0.50 + 2x0,22	4,60	29	01733
2x0.50 + 4x0,22	5,00	35	01734
2x0.50 + 6x0,22	5,40	37	01735

- the cable shield should only be connected to the edge of the control panel or additional power supply and connected to the negative terminal of the supply voltage.
  The cables are suitable for laying with network voltage power cables; in accordance with standard CEI EN 50131 (grade 2), **it is recommended that connection cables are laid in a dedicated channel** while avoiding the laying of cable in parallel with the power cables and, particularly, of inverters and loads such as pumps, burners, ballasts, motors etc. especially in the case of long distances;
- **the wiring of the sensors/contacts to the inputs**, whether directly on the control panel or on the expansion modules, **should not exceed 100 m**. It is not recommended to connect several contacts in series as it becomes difficult to distinguish whether a contact is open or tampered with. This recommendation is even more important for the sensors because, as well as managing alarm indication, these also indicate any tampering or anti-masking (double or triple balance of inputs) and this cannot happen if the devices are connected in series to the same input;
- the **wiring** of the RS485 Bus can be carried out **with free topology** and it is therefore possible to make all the relevant derivations; it is recommended that you make a direct connection wherever possible;
- the **maximum wiring** length allowed is equal to **1000 m** in the case of linear wiring (in/out) or **600 m** in the case of star wiring (the sum of all the Bus sections laid out);
- the insulator/repeater module art. 01711 allows you to:
  - expand the RS485 Bus to obtain a further 1000 m of cable for linear wiring (in/out) or 600 m for star wiring;
  - decouple the masses.

By-alarm tutorial:
product configuration
with keypad

Technical data

Input lines	• 8, expandable to **24**, with single, double or triple balance (with sensor masking recognition) • 1 tamper-proof protection line
Areas	Inputs that can be associated with 8 AREAS of belonging for the management of 8 different systems
Keypad	• up to 4 connected to the RS485 Bus • direct signalling via LED of the power supply status, system status and circuit test
Connectors:	4 connectors 20478-19478-14478 connected to the RS485 Bus
Outputs	2 alarm relays that can be programmed separately, of which one has two positive safety exchanges
Input modules	• input module 01709 with 4 input lines of single, double or triple balance (with signal masking recognition) • module 01729 with 8/16 zones of single or double balance with management of sensor control, programmable using the same modes as the standard zones
Output modules	Output module 01710, 4 outputs with free exchange relay with programmable voltage (3 A 24 V)
Macro	20 macro instructions with 10 commands each, activated by: - zone displacement and alarm, system event - programmable time switch - user RFA function
Codes	• 50 User Codes with programmable function limitation • 50 Emergency Codes • 1 Installation Code
Activation	• 3 activation modes for each Area (ON, INT, and PAR) • the possibility of external activations with proximity reader in 3 modes for each Area • via User Remote management, guided by voice menu or by text with the By-phone app. • via hourly/weekly programmable time switch in the 3 modes for each Area
Clock	• weekly clock with 32 daily operations and exclusion management • possibility of switching on and off, code and keypad restriction, macro activation • time and status activation of active outputs

Telephone	• 16 phone numbers for communication with protocols:
	  - **SIA** for communications with standard SIA receivers
	  - **SIA** for communications with standard CONTACT receivers
	• voice synthesis module **01713.EN** with voice protocol for automatic communication, allowing for all alarm and control panel functions to be sent to private Users
	• GSM Dual band transmitter/receiver module**01706** that allows for all alarm and control panel functions to be sent via the GSM network in all protocols and via text message

Programming	• using the keypad with simplified menus and error management • using a computer with an **interactive connection**using the By-alarm Manager system (Windows operating systems)
Power supply unit	13.8 Vdc 1.5 A effective total with indication of an insufficient level of battery power and lack of network voltage
Battery that can be housed	12 Vdc 7 Ah or 12 Vdc 18 Ah flammability class UL94-HB
Environmental conditions	-10 °C to +40 °C
Housing	Dimensions: 322x350x115 mm - Weight: 3.5 kg
Degree of safety	2 (EN 50131-3, EN 50131-6)
Ambient class	II (EN 50131-3, EN 50131-6)

01700-01700.DE - Conformity to Standards

EN 50131-3, EN 50131-6
LV directive. EMC directive
Standards EN 60950-1, EN 50130-4, EN 61000-6-3

01700.120 - Conformity to Standards

LV directive, EMC directive,
Standards EN 60950-1, EN 50130-4, EN 61000-6-3

By-alarm tutorial:
product configuration
with software

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

System components

24-zone control panel

01700	Programmable control panel that can be managed via on-screen keyboard, power supply 230 V~ 50 Hz, 8 local inputs expandable to 24 via the expansion modules, 1 power supply output 13,8 Vdc 1,5 A expandable with additional power supply unit, 1 alarm relay output, 1 change-over relay output 3 A 24 V~ expandable with another 24 via expansion modules, complete with metal enclosure, surface mounting
▲ **01700.DE**	As above, in German language
01700.120	Programmable control panel that can be managed via on-screen keyboard, power supply 120 V~ 60 Hz, 8 local inputs expandable to 24 via the expansion modules, 1 power supply output 13,8 Vdc 1,5 A expandable with additional power supply unit, 1 alarm relay output, 1 change-over relay output 3 A 24 V~ expandable with another 24 via expansion modules, complete with metal enclosure, surface mounting
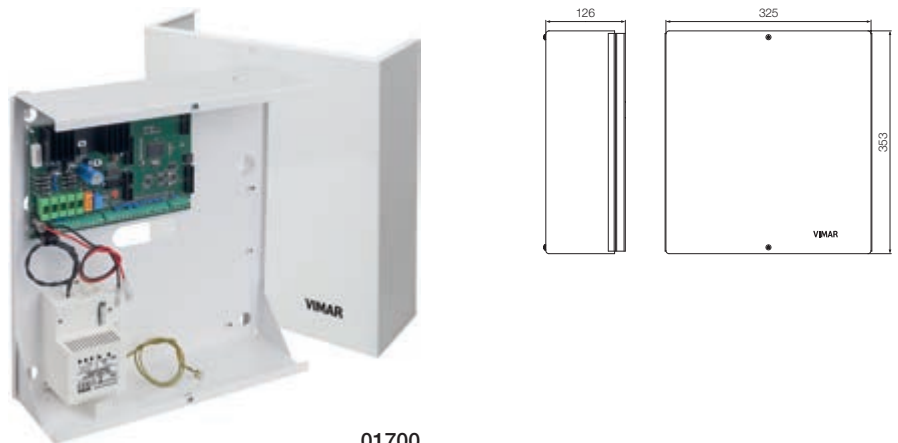
01700
▲ **01700.DE**
01700.120

Connections

A: Self-powering battery terminals.

B: Tamper-proof line.

C: Output RELAY 1. Positive safety relays, with double exchange, with 1 A capacity each. A voltage free exchange is provided at the output where C is the common, NC is the normally closed exchange and NO is the normally open one; the other one is provided already polarized for connecting the self-powered sirens and the optional non-self-powered internal sirens.

   -/+ : power supply for recharging the batteries of the self-powered sirens; the positive is protected by the 3.15A 250 V fuse F3.

   +S ext : command positive for the self-powered sirens; it constantly provides a positive which fails in the event of an alarm and is protected by the 3.15 A 250 V fuse F4.

   +S int: power supply positive for the optional non-self-powered sirens; it provides a positive in the event of an alarm and is protected by the 3.15 A 250 V fuse F4.

D: Output RELAY 2. Non-positive safety relay, with exchange with 1A capacity. The voltage-free exchange is provided at the output where C is the common, NC is the normally closed exchange and NO is the normally open one.

E: Input lines configurable individually or with double or triple balancing; there are also the 12 Vdc power supply outputs for any detectors.

F: RS485 Bus line.

CN1 CN2: Connectors for GSM transmitter/receiver module 01706.

CN3: Connector for configuration interface 01725 or for Ethernet (LAN) network interface for remote supervision/control over IP 01712 combined with the web server 01945-01946.

CN4: Connector for voice synthesis module 01713.EN.

CN5: Connector for PSTN communicator 01708.

S1: Tear-proof cut-off.

S2: Opening cut-off.

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM

System components

64-zone control panel

The microprocessor control panel is equipped with 8 input lines, expandable to 64 zones and can be managed with the keypad art. 01705 and with connector 20478,-19478, -14478; it is suitable for connection with **PSTN communicator** 01708 and with **voice synthesis module** 01713.EN and **GSM Dual Band transmitter/receiver module** 01706. The backlit display allows the user to communicate easily and directly with regard to all system management functions.

Programming can be carried out directly via the control panel using keypad 01705 or on the PC using the **By-alarm Manager software** with a bidirectional connection via IP through the By-me Web Server (01945, 01946), or via USB connection, using the interface 01725 (converter RS232-USB).

Wiring

In terms of wiring, use **halogen-free shielded** cables suitable for installation with Category 1 power cables (U0 = 400 V). The VIMAR connection cable codes to use for the transmission RS485 Bus and wired connection of the devices are as follows:

Usable cables

Type (No. of cores x mm²)	Ø average external (± 0.5 mm)	Average weight (Kg x Km)	Code
2x0.22	3.40	15	**01732**
2x0.50 + 2x0.22	4.60	29	**01733**
2x0.50 + 4x0.22	5.00	35	**01734**
2x0.50 + 6x0.22	5.40	37	**01735**

- the cable shield should only be connected to the edge of the control panel or additional power supply and connected to the negative terminal of the supply voltage.
  The cables are suitable for laying with network voltage power cables; in accordance with standard CEI EN 50131 (grade 2), **it is recommended that connection cables are laid in a dedicated channel** while avoiding the laying of cable in parallel with the power cables and, particularly, of inverters and loads such as pumps, burners, ballasts, motors etc. especially in the case of long distances;
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- the **wiring** of the RS485 Bus can be carried out **with free topology** and it is therefore possible to make all the relevant derivations; it is recommended that you make a direct connection wherever possible;
- the **maximum wiring** length allowed is equal to **1000 m** in the case of linear wiring (in/out) or **600 m** in the case of star wiring (the sum of all the Bus sections laid out);
- the insulator/repeater module art. 01711 allows you to:
  - expand the RS485 Bus to obtain a further 1000 m of cable for linear wiring (in/out) or 600 m for star wiring;
  - decouple the masses.

Technical data

Input lines	• 8, expandable to **64**, with single, double or triple balance (with sensor masking recognition) • 1 tamper-proof protection line
Areas	Inputs that can be associated with 8 AREAS of belonging for the management of 8 different systems
Keypad	• up to 8 connected to the RS485 Bus • direct signalling via LED of the power supply status, system status and circuit test
Connectors:	8 connectors 20478-19478-14478 connected to the RS485 Bus
Outputs	2 alarm relays that can be programmed separately, of which one has two positive safety exchanges
Input modules	• input module 01709 with 4 input lines of single, double or triple balance (with signal masking recognition) • module 01729 with 8/16 zones of single or double balance with management of sensor control, programmable using the same modes as the standard zones
Output modules	Output module 01710, 4 outputs with free exchange relay with programmable voltage (3 A 24 V)
Macro	20 macro instructions with 10 commands each, activated by: - zone displacement and alarm, system event - programmable time switch - user RFA function
Codes	• 50 User Codes with programmable function limitation • 50 Emergency Codes • 1 Installation Code
Activation	• 3 activation modes for each Area (ON, INT, and PAR) • the possibility of external activations with proximity reader in 3 modes for each Area • via User Remote management, guided by voice menu or by text with the By-phone app. • via hourly/weekly programmable time switch in the 3 modes for each Area
Clock	• weekly clock with 32 daily operations and exclusion management • possibility of switching on and off, code and keypad restriction, macro activation • time and status activation of active outputs

Telephone	• 16 phone numbers for communication with protocols:
	  - **SIA** for communications with standard SIA receivers
	  - **SIA** for communications with standard CONTACT receivers
	• voice synthesis module **01713.EN** with voice protocol for automatic communication, allowing for all alarm and control panel functions to be sent to private Users
	• GSM Dual band transmitter/receiver module **01706** that allows for all alarm and control panel functions to be sent via the GSM network in all protocols and via text message

Programming	• using the keypad with simplified menus and error management • using a computer with an **interactive connection** using the By-alarm Manager system (Windows operating systems)
Power supply unit	13.8 Vdc 1.5 A effective total with indication of an insufficient level of battery power and lack of network voltage
Battery that can be housed	12 Vdc 7 Ah or 12 Vdc 18 Ah flammability class UL94-HB
Environmental conditions	-10 °C to +40 °C
Housing	Dimensions: 322x350x115 mm - Weight: 3.5 kg
Degree of safety	2 (EN 50131-3, EN 50131-6)
Ambient class	II (EN 50131-3, EN 50131-6)

01703-01703.DE - Conformity to Standards

EN 50131-3, EN 50131-6
LV directive. EMC directive
Standards EN 60950-1, EN 50130-4, EN 61000-6-3

01703.120 - Conformity to Standards

LV directive, EMC directive,
Standards EN 60950-1, EN 50130-4, EN 61000-6-3

By-alarm tutorial:
product configuration
with keypad

By-alarm tutorial:
product configuration
with software

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

System components

64-zone control panel

01703	Programmable control panel that can be managed via on-screen keyboard, power supply 230 V~ 50 Hz, 8 local inputs expandable to 64 via the expansion modules, 1 power supply output 13,8 Vdc 1,5 A expandable with additional power supply unit, 1 alarm relay output, 1 change-over relay output 3 A 24 V~ expandable with another 64 via expansion modules, complete with metal enclosure, surface mounting
▲ **01703.DE**	As above, in German language
01703.120	Programmable control panel that can be managed via on-screen keyboard, power supply 120 V~ 60 Hz, 8 local inputs expandable to 64 via the expansion modules, 1 power supply output 13,8 Vdc 1,5 A expandable with additional power supply unit, 1 alarm relay output, 1 change-over relay output 3 A 24 V~ expandable with another 64 via expansion modules, complete with metal enclosure, surface mounting
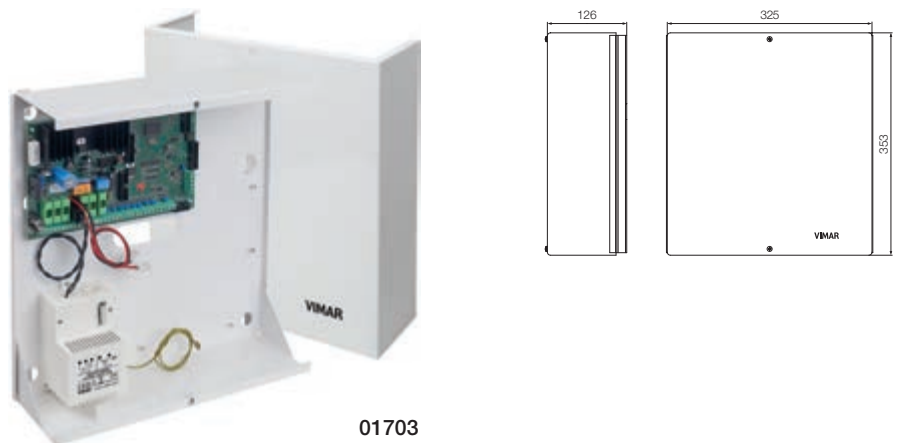
01703
▲ 01703.DE
01703.120

Connections

A: Self-powering battery terminals.
B: Tamper-proof line.
C: Output RELAY 1. Positive safety relays, with double exchange, with 1A capacity each. A voltage free exchange is provided at the output where C is the common, NC is the normally closed exchange and NO is the normally open one; the other one is provided already polarized for connecting the self-powered sirens and the optional non-self-powered internal sirens.
   -/+ : power supply for recharging the batteries of the self-powered sirens; the positive is protected by the 3.15A 250V fuse F3.
   +S ext: command positive for the self-powered sirens; it constantly provides a positive which fails in the event of an alarm and is protected by the 3.15 A 250 V fuse F4.
   +S int: power supply positive for the optional non-self-powered sirens; it provides a positive in the event of an alarm and is protected by the 3.15A 250 V fuse F4.

D: Output RELAY 2. Non-positive safety relay, with exchange with 1 A capacity. The voltage-free exchange is provided at the output where C is the common, NC is the normally closed exchange and NO is the normally open one.
E: Input lines configurable individually or with double or triple balancing; there are also the 12 Vdc power supply outputs for any detectors.
F: RS485 bus line 1.
G: RS485 bus line 2.
CN1 CN2: Connectors for GSM transmitter/receiver module 01706.
CN3: Connector for configuration interface 01725 or for Ethernet (LAN) network interface for remote supervision/control over IP 01712 combined with the web server 01945-01946.
CN4: Connector for PSTN communicator 01708.
CN5: Connector for voice synthesis module 01713.EN.
S1: Tear-proof cut-off.
S2: Opening cut-off.
S3: Disconnection.

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM
System components

Keypad
By-alarm keypad with backlit LCD display with 32 characters over two lines showing the system status; a guided menu allows for simple, usable navigation. The alphanumeric keys allow for quick and safe typing while the navigation keys are used to scroll down the menus, easily completing even complex functions.

Main characteristics
- RS485 Bus connection: up to 1000 m total (with linear wiring in/out), or 600 m total (with star wiring);
- conductors: min. (2 x 0,50 mm^2 + 2 x 0,22 mm^2) shielded;
- for 12 V power supply 0,50 mm^2 conductors must be used and for the A and B signals, 0,22 mm^2 conductors; the shield must be connected to the negative with regard to the control panel;
- the keypads must be connected in parallel to the same conductors, respecting the labels on the control panel terminals and the keypads themselves, or rather:
  + with **+**
  - with **-**
  A with **A**
  B with **B**

Connections

Control panel terminals
01700 or 01703

Usable cable			
Type (No. of cores x mm^2)	Ø average external (± 0.5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 2x0,22	4,60	29	01733

Conformity to Standards
Standard EN 50131-3,
EMC directive,
Standards EN 50130-4, EN 61000-6-3.

Technical data	
Power supply	12 Vdc ± 20%
Absorption and backlighting switched off	16 mA
Absorption and backlighting switched on	105 mA
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10°C to +40°C (indoor use)

▲ New article

Keypad

01705	Keypad, with LED-backlit display, 12 Vdc power supply, surface mounting
▲ **01705.DE**	As above, in German language

01705
▲ 01705.DE

The side view diagrams provide the overall dimensions and flush depth in mm

Siren for outdoor use

Equipped with polycarbonate enclosure resistant to the harshest atmospheric conditions, the siren for outdoor use enables acoustic (audible at a distance) and visual signalling of all alarm conditions. The siren is self-powered, is controlled by a microprocessor and is equipped with a built-in indicator lamp (blinking flash).

Main characteristics

- electronic circuit: tropicalised;
- protection rating: IP44;
- degree of safety: 2 (EN 50131-4);
- ambient class: IV (EN 50131-4);
- dimensions: 203x268.6x73.75 mm;
- additional protection with tropicalised steel cover;
- moving coil exponential horn with high acoustic efficiency;
- proximity detection system that activates when hands are placed on the upper part of the siren casing; this activates the flash and the switching of the relay in series to the T T terminals, causing the Tamper line to open;
- 2 types of programmable sound and acoustic signal length;
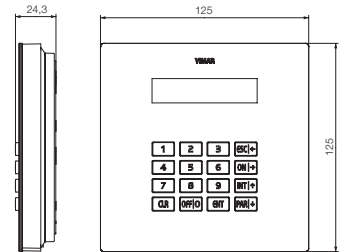- universal activation command (programmable with positive missing or negative missing);
- sending of battery anomaly signal to the Open Collector. The circuit is equipped with a system to monitor the voltage and control battery short circuit;
- size of battery to be housed: 178x60x35 mm.

Conformity to Standards

EN 50131-4;
EMC directive;
Standards EN 50130-4, EN 61000-6-3.

01715 - Internal view and connections

Tamper
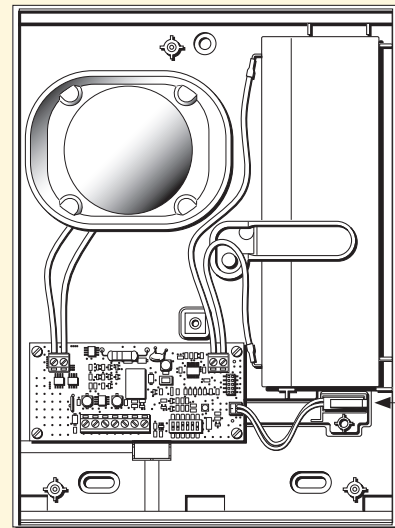
+ -:	Power input for the siren and recharge of the auto-powered battery. The input is protected again polarity inversion and short circuit by the F1 restorable fuse. In case of a short circuit, the fuse enters a state of high impedance until the overload is removed.
CM:	Positive or negative command input. If this terminal misses positive or negative the siren starts to sound and flash (the configuration type is set with the dip-switch).
BT:	O.C. sending of battery anomaly signal; supplies a negative of 30 mA when the battery drops below 10.5 V.
T:	Contact outputs usually closed, relating to the anti-tampering series determined by the opening of the enclosure, the removal of the siren from the surface or the activation of the anti-approach.
SH:	Connection of the shield placed inside the front of the siren to identify proximity; the green-yellow cable supplied is connected to this terminal.
CN2:	Connector for the anti-tamper connection.
- BATT+:	Battery connection 12 Vdc 2,2 Ah. The battery input is protected by the F2 restorable fuse. In case of a short circuit to the battery Fastons, the fuse enters a state of high impedance and remains in this state until the overload is removed.
PB1:	Reset button.

01715 - Technical data

Power supply	13.8 Vdc ± 5% SELV
Absorption	- 1.5 A in an alarm state - 30 mA on stand-by
Input while charging battery	60 mA
Battery that can be housed	12 Vdc 2.2 Ah flammability class UL94-HB
Sound pressure level	102 dB at 1 m
Sound frequency	1300 Hz/2800 Hz
Operating temperature	-25°C to +55°C (outdoor use)
Inputs	
Power supply	+, -
Positive or negative command input	CM
Outputs	
battery anomaly indication	BT
tamper-proof outputs	T

Siren for outdoor use for dummy function

By-alarm siren for outdoor use for dummy function.

Main characteristics

- surface mounting;
- dimensions: 203x268.6x73.75 mm.

Conformity to Standards

EN 50131-2-4;
EMC directive;
Standards EN 50130-4, EN 61000-6-3.

▲ New article

Siren for outdoor use

01715 Siren for outdoor use, self-powered and self-protected, 2 selectable sound frequencies, proximity alert circuit, LED alarm signalling, 13,8 Vdc power supply, surface mounting. Buffer battery not supplied

01715

203   73,75   268,6
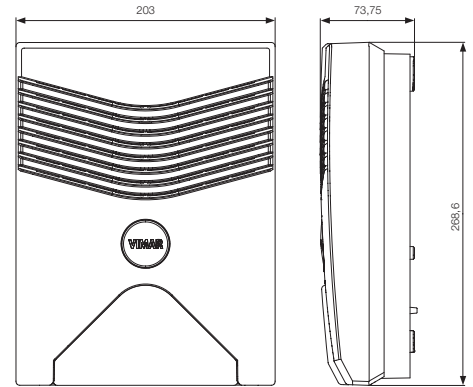
Siren for outdoor use with dummy function

01716 Siren for outdoor use with dummy function, surface mounting

01716

203   73,75   268,6

SYSTEM COMPONENTS

Additional power supply

By-alarm additional power supply 50/60 Hz 1,5 A, metal enclosure with battery compartment, surface mounting.
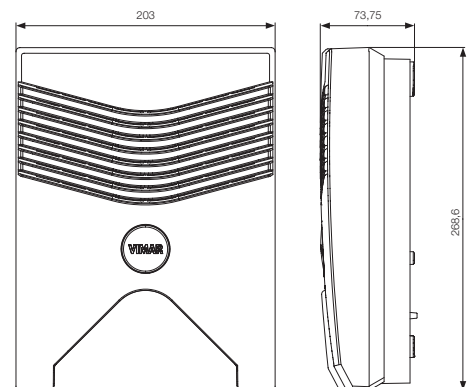
Main characteristics

- **Batteries:** 12 V batteries of a hermetic lead type must be used, with a minimum flammability rating of V2; cables for battery connection are suitable for faston insertion. For screw connections, the faston must be cut and they must be fixed to the edge of the grommet terminal cables.
  WARNING: risk of explosion if the battery is replaced with one of incorrect type.
- **Fuses:**
  - **F1:** F 3,15 A - 250 V, is positioned directly on the network voltage terminals at the entry to the transformer and protects the input from low voltage alternating current;
  - **F2:** T 3,15 A - 250 V, protects the positive power supply output;
  - **F3:** T 3,15 A - 250 V, protects against battery polarity inversion.

Conformity to Standards

EN 50131-6.
LV directive. EMC directive.
Standards EN 60950-1, EN 50130-4-1, EN 61000-6-3.

Connections

A: terminals to connect transformer position under the circuit board;
B: terminals to connect battery;
C: Terminals for powering devices;
D: unused terminals.

01717-01717.120 - Current to be used

The current to use for external loads depends on the characteristics of the battery used to auto-power the control panel.

Current available with Internal battery of 7.2 Ah	Current available for system supply voltage	1200 mA
	Current for recharging battery	277 mA
Current available with Internal battery of 18 Ah	Current available for system supply voltage	650 mA
	Current for recharging battery	847 mA

01717 - Technical data

Power supply	230 V~ (+10% / -15%) 50 Hz
Stabilised voltage	rated 13,8 V - (± 2%)
Rated current	1,5 A total
Ripple at 230 V~ -15%	10 mV at maximum load
Self-test	dynamic and programmable
Degree of safety	2 (EN 50131-6)
Ambient class	II (EN 50131-6)
Operating temperature	-10°C to +40°C (indoor use)
Housing	Dimensions: 345x435x125 mm

01717.120 - Technical data

Power supply	120 V~ (+10% / -10%) 60 Hz
Stabilised voltage	rated 13,8 V - (± 2%)
Rated current	1,5 A total
Ripple at 120 V~ -10%	350 mV at maximum load
Self-test	dynamic and programmable
Degree of safety	2 (EN 50131-6)
Ambient class	II (EN 50131-6)
Operating temperature	-10°C to +40°C (indoor use)
Housing	Dimensions: 345x435x125 mm

▲ New article

Additional power supply

01717	Additional power supply unit 230 V~ 50/60 Hz 1,5 A, metal enclosure with battery compartment, surface mounting
01717.120	Additional power supply unit 120 V~ 50/60 Hz 1,5 A, metal enclosure with battery compartment, surface mounting

01717
01717.120

The side view diagrams provide the overall dimensions and flush depth in mm
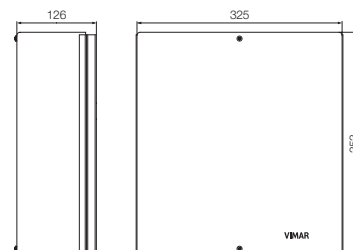
GSM transmitter/receiver module - Dual Band GSM/GPRS

Module for By-alarm control panels 01700 and 01703 that allows for the sending of digital messages with Contact ID protocol, voice messages, text messages, the possibility for the user to remotely manage the system with a GSM phone or mobile phone using text messages and vocally with the voice guide, By-alarm command integration (By-phone app).

The device automatically sends all alarm, malfunction or anomaly communications to any phone number via the GSM network, using the following communication methods:

• **Standard Contact ID protocol** for digital signalling with reception and surveillance centres;

• **text messages** to mobile phones. The messages already entered in the module allow for the signalling of any event regarding the control panel;

• if the voice synthesis module is also installed in the control panel, the GSM module can also signal all events vocally.

The GSM module also allows the user to activate the **RFA-SMS function** with which to carry out remote management of the

control panel using simple text messages.

To assure compliance with EN 50131-10 and EN 50136-2 standards, the periodic communication must take place every 25 hours. To this end, program the SELF-TEST PERIOD parameter (Controls/Power Supply menu of the keypad 01705) to a value of 25 and then select the phone numbers for receiving the communication.

01706 - Technical data	
Module	Dual Band GSM/GPRS 900/1800 MHz
Absorption	60 mA on stand-by, 350 mA on call
Degree of safety	2 (EN 50131-10)
Ambient class	II (EN 50131-10)
ATS Category	SP2 or DP1 (EN 50136-2)
Operating temperature	-10°C to +40°C (indoor use)

Conformity to Standards

Standards EN 50131-3, EN 50131-10.
R&TTE directive. Standards EN 60950-1, EN 50130-4, EN 61000-6-3, EN 50136-2, EN 301 489-7, EN 301 511.

Omnidirectional high gain GSM Dual Band aerial

Omnidirectional high gain GSM Dual Band aerial for GSM Dual Band transmitter/receiver module art. 01706 with 5 m long cable.

PSTM communicator

The device is composed of an electronic circuit to be installed in the By-alarm control panels 01700 and 01703 to which it is connected with a flat cable connector (supplied); in this way it is possible to send any alarm or anomaly communication over the phone line. The communicator can be programmed directly via the control panel keypad or through the phone line with an interactive connection.

Available communication protocols include:

• **standard SIA** for communication with reception devices;

• **Contact ID** for communication with reception devices.

To assure compliance with EN 50131-10 and EN 50136-2 standards, the periodic communication must take place every 25 hours. To this end, program the SELF-TEST PERIOD parameter (Controls/Power Supply menu of the keypad 01705) to a value of 25 and then select the phone numbers for receiving the communication.

01708 - Technical data	
Absorption	70 mA
Degree of safety	2 (EN 50131-6)
Ambient class	II (EN 50131-6)
Operating temperature	-10°C to +40°C (indoor use)

01708 - Connections

Control panel   01708 communicator

Telephone line

Conformity to Standards

Standard EN 50131-3. EMC directive.
Standards EN 50130-4, EN 61000-6-3.

Voice synthesis module

Voice synthesis module for By-alarm control panels 01700 and 01703 that allows for the automatic sending of all alarm, malfunction or anomaly signals to any phone number, via pre-recorded messages already entered in the control panel. In addition, the device allows the user to consult the control

panel via telephone; it's therefore possible to see the status of the lines and alarms, switch on/off the control panel (if activated), exclude or reconnect zones, control and modify the phone numbers set, activate/deactivate the active outputs and activate the main controls.

01713.EN - Technical data	
Absorption	10 mA
Degree of safety	2 (EN 50131-6)
Ambient class	II (EN 50131-6)
Operating temperature	-10°C to +40°C (indoor use)

Conformity to Standards

Standard EN 50131-3.
EMC directive. Standards EN 50130-4, EN 61000-6-3.

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

System components

GSM transmitter/receiver module - Dual Band GSM/GPRS

01706 GSM Dual Band GSM/GPRS 900/1800 MHz transmitter/receiver module for By-alarm control panel, sending digital messages with Contact ID protocol, voice mail, SMS text messages, the possibility of user telemanagement by telephone or GSM mobile phone using SMS text messages and by voice with vocal guidance, burglar alarm system control integration (By-phone APP)

01706

Omnidirectional high gain GSM Dual Band aerial

01707 GSM Dual Band high-gain omnidirectional aerial for By-alarm Dual Band GSM transmitter/receiver module, cable length 5 m

01707 - Installation example

161

340

87 50
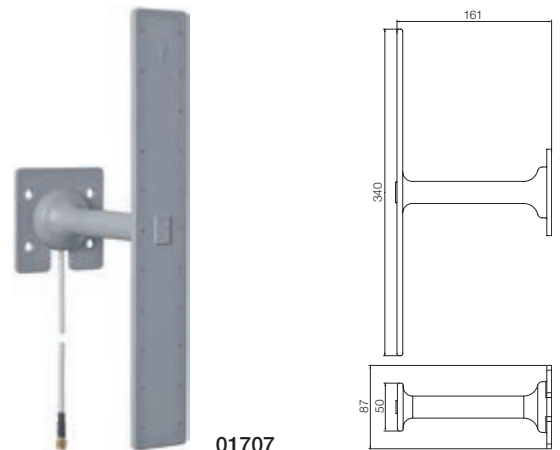
01707

PSTN communicator

01708 PSTN communicator for By-alarm control panel, SIA, CONTACT ID protocols, for complete telemanagement

01708

Voice synthesis module

01713.EN Voice synthesis module for By-alarm control panel, automatic sendig of messages, alarms, malfunctions or anomalies, via pre-recorded messages and alrerady entered in the control panel, possibility the control of the functions by the users, in English language

01713.EN

SYSTEM COMPONENTS

System components

4-input expansion module

By-alarm expansion module with 4 configurable inputs for sensors without potential, wired for blinds and passive non-piezoelectric shock detectors.

Main characteristics

- connections: 4 conductors for connection to the RS485 Bus;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V) like cable art. 01733 (2x0,50 mm^2+ 2x0,22 mm^2);
- the system to be conformed to certificate EN 50131 standard, it is necessary to install the module inside the control panel (with anti-tamper and tearproof mode) or inside the additional power supply unit 01717 or in the tearproof box 01714;
- dimensions: 76x47 mm.

01709 - Technical data	
Power supply	12 V ± 20%
Absorption	18 mA max
Input lines	4 with single, double and triple balance
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10°C to +40°C (indoor use)

Usable cable			
Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 2x0,22	4,60	29	01733

Conformity to Standards

Standard EN 50131-3. EMC directive.
Standards EN 50130-4, EN 61000-6-3.

4-output expansion module

By-alarm expansion module with 4 configurable outputs to change-over relay in exchange 3 A 24 V~. The outputs can be programmed in all modes allowed by the control panel to which they are connected.

Main characteristics

- outputs: 4 relays with voltage-free exchanges, programmable in all the modes allowed by the control panel;
- connections: 4 conductors for connection to the RS485 Bus;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V) such as art. 01733 (2x0,50 mm^2+ 2x0,22 mm^2);
- the system to be conformed to certificate EN 50131 standard, it is necessary to install the module inside the control panel (with anti-tamper and tearproof mode) or inside the additional power supply unit 01717 or in the tearproof box 01714;
- dimensions: 76x62 mm.

Conformity to Standards

Standard EN 50131-3. EMC directive.
Standards EN 50130-4, EN 61000-6-3.

01710 - Connections

Control unit 01700 or 01703

01710 - Technical data	
Power supply	12 V ± 20%
Absorption	83 mA max
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10°C to +40°C (indoor use)

Usable cable			
Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 2x0,22	4,60	29	01733

Tear-proof surface mounting box for expansion modules

The tear-proof mounting box, created in plastic material, protects against any opening and/or its removal from the surface, to ensure that the IMQ certification rating is maintained (safety systems of the entire system); it can contain the following devices:
- 4 input expansion module 01709;
- 4 output expansion module 01710;
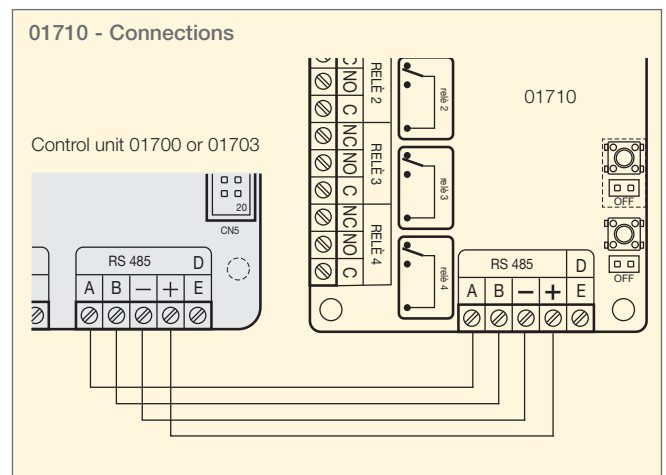- By-alarm insulated interface for signal regeneration 01711.

Main characteristics

- dimensions: 145x110x40 mm;
- fixing: surface mounting with holes to also suit junction box T3.

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

System components

4-input expansion module

01709   Configurable 4-input expansion module for potential-free contacts, cord for roller shutter, passive non-piezoelectric shock detectors

01709

4-output expansion module

01710   Configurable 4-output expansion module with 3 A 125 V~ change-over relay
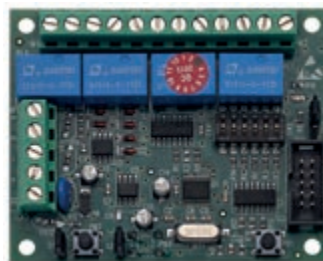
01710

Tear-proof surface mounting box for expansion modules

01714   Tear-proof box for expansion modules for inputs, outputs and By-alarm isolator / repeater, tamper against tearing off, surface mounting

42,5   144   110

01714

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM

System components

Insulated interface for regeneration of the signal

By-alarm insulated interface for Bus signal regeneration over 1000 m; should be used when it is necessary to galvanically insulate two RS485 Bus sections of the By-alarm system.

Main characteristics
• two series of terminals (5 + 5) on the uninsulated side: these are input terminals for the A, B data signals, for powering the uninsulated side and for control signal DE;
• a series of 5 terminals on the insulated side:
  - ISO_A and ISO_B are the insulated data signals;
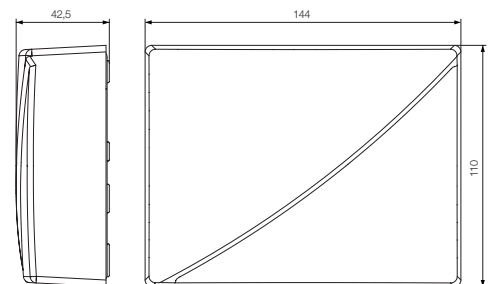 - ISO+ e ISO- to connect the power on the insulated side;
  - ISO_DE is the insulated control signal.
• the system to be conformed to certificate EN 50131 standard, it is necessary to install the module inside the control panel (with anti-tamper and tearproof mode) or inside the additional power supply unit 01717 or in the tearproof box 01714;

Conformity to Standards
Standard EN 50131-3. EMC directive.
Standards EN 50130-4, EN 61000-6-3.

01711 - Connections
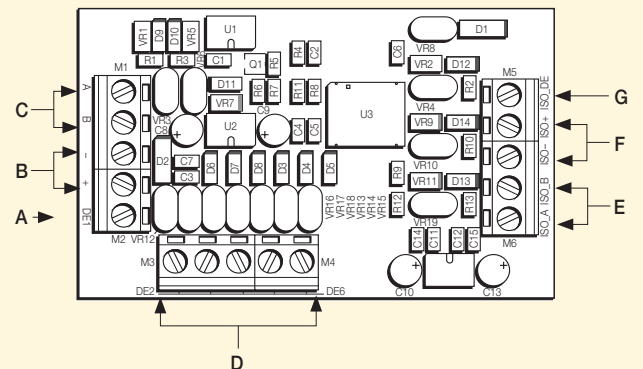
A: Control signal terminal DE1 (uninsulated side)
B: Power terminals for By-alarm interface 01711 (uninsulated side)
C: A and B signal input terminals (uninsulated side)
D: Control signal terminals DE2-DE6 (uninsulated side)
E: Insulated A and B signal input terminals
F: Power terminals on insulated bus side
G: Insulated control signal terminal DE

01711 - Technical data

Power supply	12 V ± 20%
Absorption	25 mA
Insulation	2500 Vrms
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10°C to +40°C (indoor use)

Interface to the Ethernet (LAN) network

The device allows connection of the control panels 01700 and 01703 to the Ethernet data network in TCP/IP protocol **only in combination with the Vimar web server art. 01945, 01946**: by connecting the interface to the Web Server, and connecting to the IP network with the PC that has **By-alarm Manager software** installed, it will be possible to manage the system with regard to all diagnostic and maintenance operations. Thanks to the Web Server, the user can also view and control the system remotely or on site using a smartphone or tablet with the free By-web app.

Main characteristics
• powered directly by the control panel to which it is connected;
• absorption: 190 mA;
• direct connection on the control panel with a 10-pin connector;
• connection to the LAN network via a standard Ethernet plug;
• LED communication control diagnostics and data flow;

Interfaces and cable

Interfaces and cables for the complete configuration of the By-alarm system by the installer. The devices, via the RS232-USB converter, allow for direct connection of control panels 01700 and 01703 to the computer's USB port for a direct, interactive connection to the intrusion detection alarm system and for **complete configuration using the By-alarm Manager service**.

Main characteristics
• direct connection on the control panel with a 10-pin connector;
• connection to the PC with a DB 9 9-pin connector or USB converter;

"Connection to the control panel" diagram of By-alarm Manager

• dimensions: 150x70x30 mm;
• operating temperature: -10°C to +50°C (indoor use);

Conformity to Standards
EMC directive. Standards EN 50130-4, EN 61000-6-3.

• rapid acquisition and transfer of the entire configuration;
• configuration modification by sending single blocks of programming while keeping the connection active;
• direct control of the statuses of all connected equipment and the possibility to send any command for the interactive control of the entire system.

Conformity to Standards
Standards EN 61000-6-1, EN 61000-6-3.

▲ New article

System components

Insulated interface for regeneration of the signal

01711   Insulated interface for Bus signal regeneration over 1000 m

01711

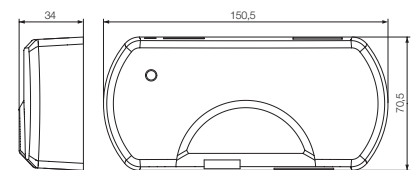### Interface to the Ethernet (LAN) network

01712   Interface to the Ethernet network (LAN) for remote supervision/control via IP

Rear view

34   150,5   70,5

01712

Interfaces and cable

01725   Interfaces and cables that enable the installer to configure the By-alarm system completely

01725

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM
Devices

VIMAR

Connector/splitter
The connector is the device that turns the system on and off (completely or the associated partitioned zones) after recognising the code emitted by the transponder keys. It can be installed in any space and the **transponder key art. 01718**, which needs no maintenance or batteries, is a device the size of a keyring, equipped with a unique code, different for each key (1000 billion possible combinations). The connector has four LEDS that show the type of operations carried out on the system (activation, deactivation, etc.), a buzzer that emits acoustic signals corresponding with said operations and a courtesy LED that highlights, even in the dark, the reading point over which the key must be held.

Main characteristics
• RS485 Bus connection: up to 1000 m total (with linear wiring in/out), or 600 m total (with star wiring);
• conductors: min. (2 x 0,50 mm^2 + 2 x 0,22 mm^2) screened;
• for 12 V power supply 0.50 mm^2 conductors must be used and for the A and B sensors, 0.22 mm^2 conductors; the shield must be connected to the negative with regard to the control panel;
  Note: the DE terminal should not be connected.
• the connectors must be connected, all in parallel to each other, to the RS485 Bus line of the control panel while respecting the labelling on the terminals, or rather **A** with **A** and **B** with **B**.

Usable cable			
Type (No. of cores x mm^2)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 2x0,22	4,60	29	01733

Operation
The connector warns of an approaching transponder key and, having identified the user, it verifies the power status, shows the circuit test status (GREEN LED) and system power status with one of the LEDS positioned around the same green LED. A courtesy light highlights, even in the dark, the reading point over which the key must be held. The colour of the courtesy LED depends on the civil series installed (amber for Eikon, blue for Arkè, green for Plana).

Activating the system (ON, INT, PAR)
Positioning the transponder key over the reading point leads to the sequential lighting up of the three LEDS associated with the three ON, INT and PAR statuses; when the LED corresponding to the desired power mode lights up, move the key away to confirm the switching-on of the control panel. If correctly configured, the LEDS will automatically switch off after approximately 2 seconds.

Deactivating the system
When the system is active, positioning the transponder key on the reading point switches off the LED corresponding with the power mode; as a result the control panel will enter a switched-off state. Once the system is switched off, move the key away from the reading point.

Conformity to Standards
Standard EN 50131-3.
EMC directive. Standards EN 50130-4, EN 61000-6-3.

20478 - Front and side view
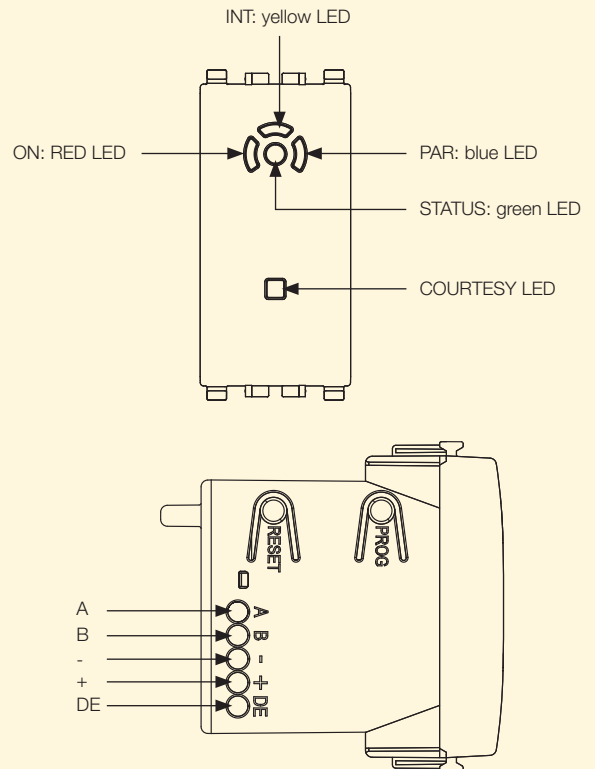
A, B: terminals for connection to the RS485 Bus line
-, +: power input 12 V
DE: spare terminal

20478 - Technical data	
Power supply	12 Vdc ± 20%
Absorption with LEDs switched off	20 mA
Absorption with LEDs switched on	42 mA
RFI immunity	0.1 / 500 MHz 3 V/m
Device type	A (EN 50131-3)
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10°C to +40°C (indoor use)

20478 - Connections

▲ New article
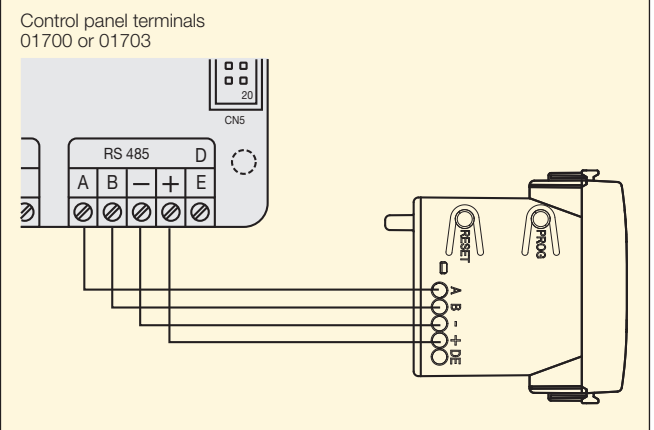
BY-ALARM BURGLAR ALARM SYSTEM
Devices

Connector/splitter

Connector/splitter, 4 LEDs for system control and management, 1 LED for location in the dark

EIKON

20478	20478.B	20478.N
grey	white	Next

50,9
41,4

ARKÉ

19478	19478.B
grey	white

50,9
40,7

PLANA

14478	14478.SL
white	Silver

50,9
40,4
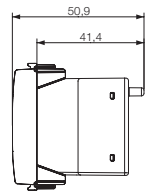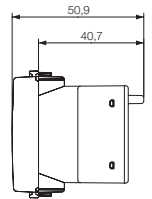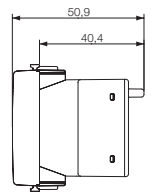
Transponder key

01718	Transponder key for By-alarm connector
▲ 01718.G	As above, green
▲ 01718.Y	As above, yellow

01718	▲ 01718.G	▲ 01718.Y

19,8   13,7
62,9
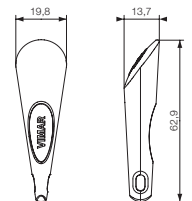
Dual technology presence detector

The detector incorporates a microwave sensor and an infrared sensor and is able to signal people or animals passing through its area of coverage. The dual technology enables making the sensor insensitive to the most common causes of false alarms. The detector functions in "AND" mode, this means that, when either sensor detects motion in the area of coverage it remains on pre-alarm awaiting confirmation from the other sensor as well. Once this condition occurs the device sends the signal to the control unit.

Main characteristics

- type of protection: protects against opening with built-in anti-tamper device;
- identification of masking (uncertified);
- adjustment of the sensitivity of the microwave and infrared sensors;
- possibility to activate/deactivate the LED warning lights;
- possibility to exclude the microwave sensor if the system is disconnected;
- possibility to use the device as a stair light detector with dawn sensor threshold;
- can be used with By-alarm 24 zone (art. 01700) or 64 zone (art. 01703) control panels;
- configuration flexibility that allows the system to work with third-party alarm systems;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V);
- the length of the connections must not exceed 100 m;
- installation: flush mounting with 2 module mounting frame or surface mounting (with mounting frame art. 00802: installation not certified to IMQ-security systems).

Usable cable

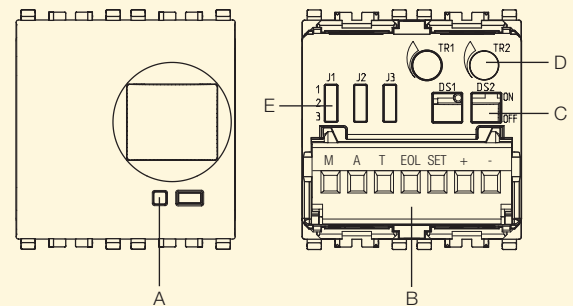| Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 4x0,22	5,00	35	01734

Conformity to Standards

EN 50131-2-4.
EMC directive.
Standards EN 50130-4, EN 61000-6-3.

20479 - Front view and connections

- **A**: RED LED signalling motion
- **B**: Extractable input/output connector
  - *Inputs:*
  - **-**: Power supply negative input
  - **+**: Power supply positive input
  - **SET**: System status input (connected/disconnected)
  - *Outputs:*
  - **EOL**: Majority of balance signals
  - **T**: Tampering
  - **A**: Alarm identifying a presence
  - **M**: Masking
- **C**: Dip-switch DS1 DS2
- **D**: Potentiometer TR1 TR2
- **E**: Jumper J1, J2, J3 for inclusion/exclusion balance resistance

20479 - Technical data

Supply voltage	12 Vdc SELV ±25%
Absorption at 12 V	28 mA max, 15 mA on stand-by
Microwave	24,125 GHz at 16 dbm
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10 °C to +40 °C

20479 - Areas of volumetric coverage

1. Flush mounted installation at 1,2 m

Vertical plane

Horizontal plane
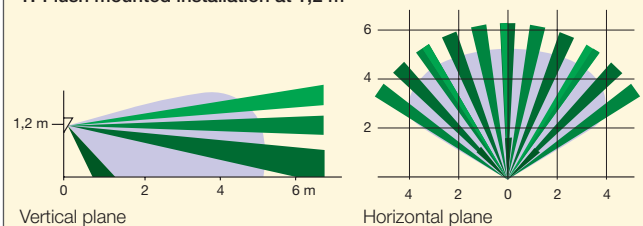
2. Installation with mounting frame art. 00802 at height of 2,1 m and detector facing the lowest elevation angle (installation not certified to IMQ-security systems)

Vertical plane

Horizontal plane

Detection area: ■ Infrared ☐ Microwave

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM
Devices
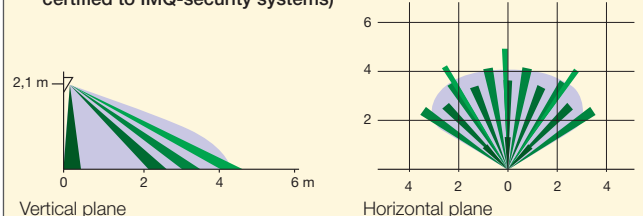
Dual technology presence detector
Passive infrared and microwave presence detector – 2 modules

EIKON

20479
grey

20479.B
white

20479.N
Next

43,5
26,5
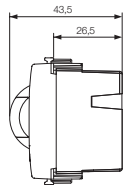
ARKÉ

19479
grey

19479.B
white

43,5
26,2

PLANA

14479
white

14479.SL
Silver

43,5
25,5

DEVICES

BY-ALARM BURGLAR ALARM SYSTEM
Devices
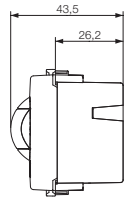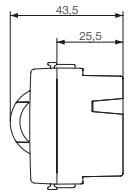
Orientable support

For dual technology 2-module presence detectors.

Main characteristics

- allows flush mounting installation (with an adapter) in rectangular or round boxes ø 60 mm and surface mounting installation (with a frame);
- the mounting frames can be arranged as shown in the figure alongside;
- the installation of 20479, 19479 and 14479 detectors with 00802 mounting support is not conform to EN 50131 standard.

00802... - mounting frame orientation

Vertical orientation   Vertical orientation

Adapter for flush mounting

00805..., 00802... - Installation

00805...

00802...

Frame for surface mounting

00800..., 00802... - Installation

00800...

00802...

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM
Devices
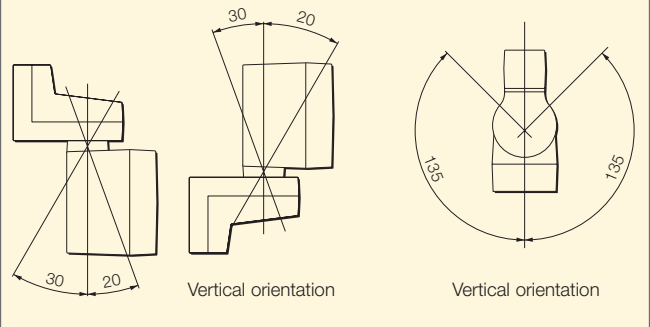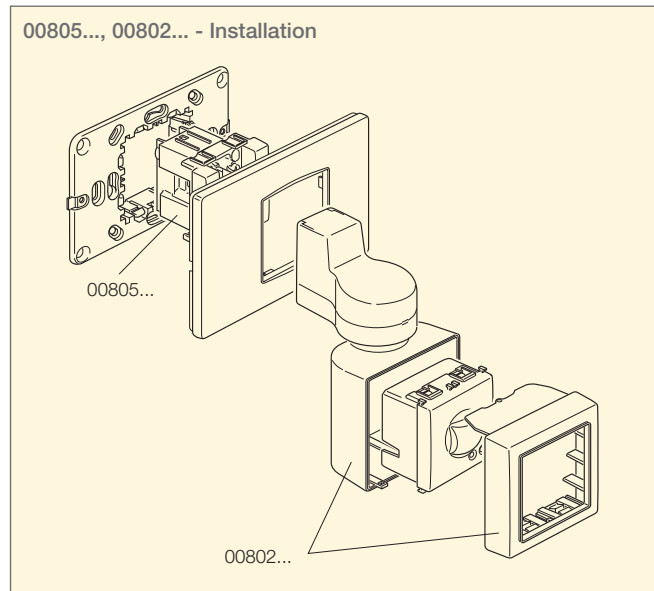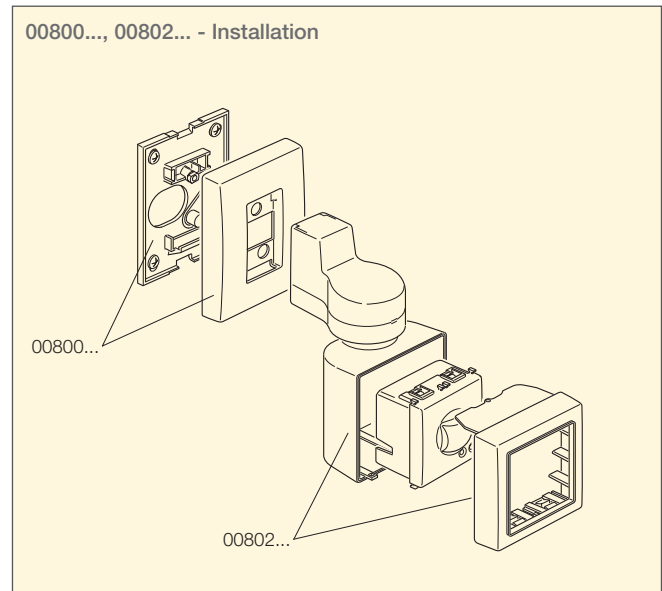
Orientable support

Orientable support - 2 modules

**EIKON,
ARKÉ,
PLANA**

00802.14
grey

00802
white

00802.20
Silver

85,6

114
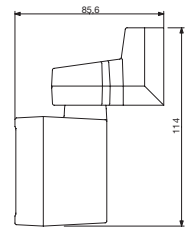
Adapter for flush mounting

Adapter for orientable support flush mounting

**EIKON,
ARKÉ,
PLANA**

00805.14
grey

00805
white

00805.20
Silver

46

36,5
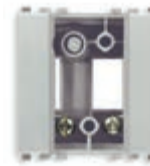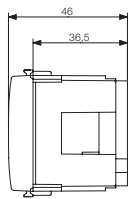
Frame for surface mounting

Frame for orientable support surface mounting

**EIKON,
ARKÉ,
PLANA**

00800.14
grey

00800
white

00800.20
Silver

14,5

79,5

The side view diagrams provide the overall dimensions and flush depth in mm
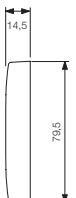
BY-ALARM BURGLAR ALARM SYSTEM
Devices

Siren for indoor use
The siren for indoor use is a remote powered device that supplies an acoustic signal that can be heard at a distance.

Main characteristics
- Type of protection: against opening and removal with built-in anti-tamper device;
- possibility of configuring two different types of sound as the alarm signal;
- possibility to activate/deactivate acoustic signalling, activation/deactivation of the relative group it belongs to;
- to be used with the 24 or 64 zone control panel (art. 01700, 01700.110, 01703, 01703.110), or it can be configured to allow for operation with third-party alarm systems;
- LED indicator;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V) art. 01734 (2x0,50 mm^2 + 4x0,22 mm^2);
- the length of the connections must not exceed 100 m;
- protection rating: IP40;
- flush mounted installation.

Usable cable

Type (No. of cores x mm^2)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 4x0,22	5,00	35	01734

Conformity to Standards
EN 50131-2-4;
EMC directive;
Standards EN 50130-4, EN 61000-6-3.

20496 - Front view and connections
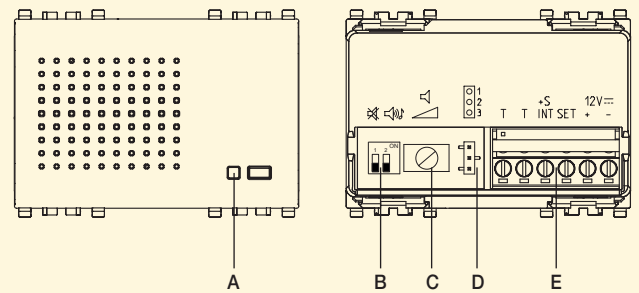
- **A:** Red LED alarm signal
- **B:** Dip-switch for activating/deactivating the system connection/disconnection tone and selecting the type of alarm sound
- **C:** Trimmer for adjusting the volume of the connection/disconnection tone
- **D:** Jumper J1, J2, J3 for balance exclusion resistance
- **E:** Extractable input/output connector

20496 - Technical data

Supply voltage	12 Vdc SELV +25% ÷ -10% limited to max 0.6 A
Absorption at 12 V	- 18 mA on standby - 110 mA during acoustic alarm indication
Sound indication level at 1 m (Internal sound indicators)	> 77 dB (A)
Degree of safety	2 (EN 50131-3)
Ambient class	II (EN 50131-3)
Operating temperature	-10°C to +40°C (indoor use)
Inputs	
Power supply	+, -
Alarm	INT
System status (connected/disconnected)	SET
Outputs	
2 for Tamper	T

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

Devices

VIMAR

Siren for indoor use

Siren for indoor use, 2 selectable ringtones, on/off beep volume setting, alarm signalling with red LED - 3 modules

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EIKON

20496
grey

20496.B
white

20496.N
Next

46,5
37
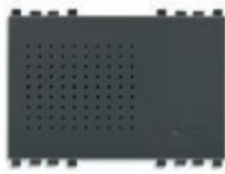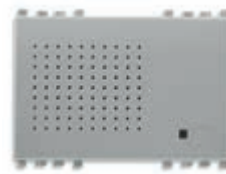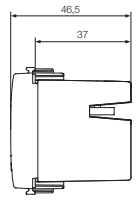
ARKÉ

19496
grey

19496.B
white

47,9
36,5

PLANA

14496
white

14496.SL
Silver

46,5
36

DEVICES

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM

Devices

Dual technology detectors

Dual technology passive infrared and microwave detectors. The devices are equipped with **PET mode (art. 01720)** and **Blind MODE (art. 01721)**; these are ideal for installations in places where there are pets; the detector offers a variety of functions including anti-masking, autoset, and memory type alarm. The advantage of these detectors is to have two different modes of detection on two levels of sensitivity; this lets you choose the most suitable one for the site to be protected thereby obtaining the best ratio between maximum detection capacity and minimum possibility of false alarms.

Main characteristics

- dual technology detector: infrared and microwave;
- anti-masking;
- PET detection mode for art. 01720: is ideal for installations in places where there are pets. This mode is not IMQ–security systems certified;
- BLIND detection mode for art. 01721;
- selectable detection sensitivity;
- timed alarm memory;
- INTERACTIVE OFF LED;
- remote WALK TEST;
- anti-flicker;
- pulse emission microstrip microwave;
- Fresnel lens 22 beams on 1 plane;
- coverage of 90° for 15 m at an installation height of 2.1 m;
- 16 selectable end-of-line resistors;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V);
- the length of the connections must not exceed 100 m;
- corner surface installation with joint (adjustment 90° horizontal, 30° vertical).

Conformity to Standards

EN 50131-2-4. R&TTE directive. Standards EN 50130-4, EN 61000-6-3, EN 300 440-2 and EN 301 489-3.

01720, 01721 - Connections
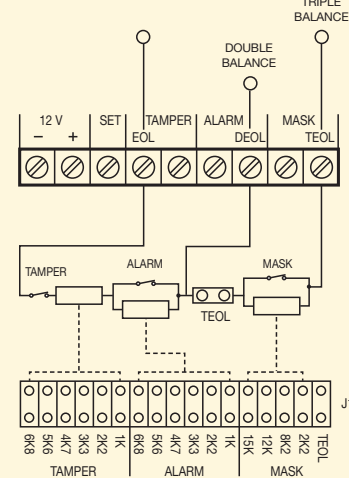
-12 +:	Power supply input
SET:	System status input that with +12 V recognizes the system switched off
EOL:	Common output for end of line
TAMPER:	NC Tamper output. Removing the front panel opens the contact
ALARM:	NC alarm output. An alarm opens the contact
DEOL:	Double balance output
MASK:	NC anti-masking output. A masking alarm opens the contact
TEOL:	Triple balance output

01720, 01721 - Technical data

supply voltage	12 Vdc ± 30%
absorption	- 40 mA max - 30 mA on stand-by
Microwave	strip 8 dBm 10.525 GHz
RFI immunity	0.1 / 500 MHz 3 V/m
Alarm time	3 s
Solid state relay	100 mA / 24 V
Cover tamper	100 mA / 30 V
Ambient humidity	95%
Degree of safety	2 (EN 50131-2-4)
Ambient class	II (EN 50131-2-4)
operating temperature	- 10 °C to +55 °C

Usable cable

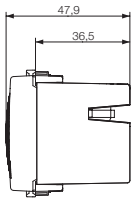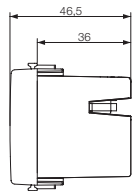| Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0.50 + 4x0.22	5.00	35	**01734**

01720 - Areas of volumetric coverage

Horizontal plane

Vertical plane

Detection area: Infrared Microwave

01721 - Areas of volumetric coverage

Vertical plane

Horizontal plane

Detection area: Infrared Microwave

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

Devices

Dual technology detector

01720   Detector, passive infrared and microwave dual technology, anti-masking detection, PET immune, surface mounting
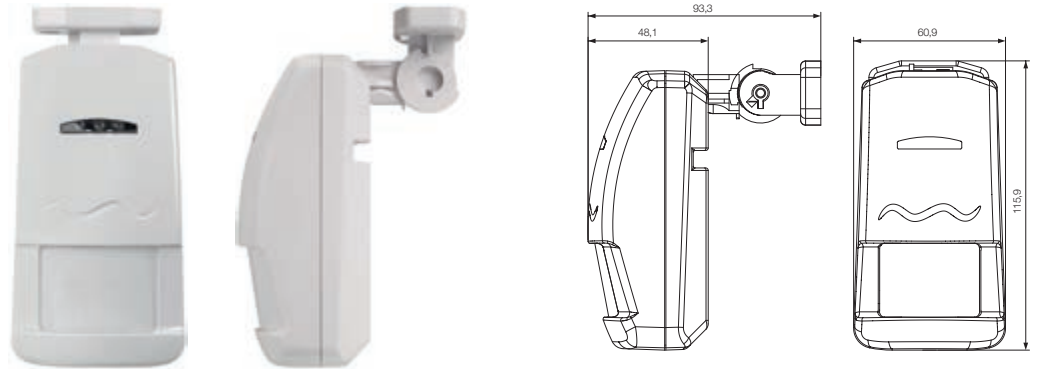
01720

Dual technology detector

01721   Detector, passive infrared and microwave dual technology, with anti-masking and anti-crawl detection, surface mounting
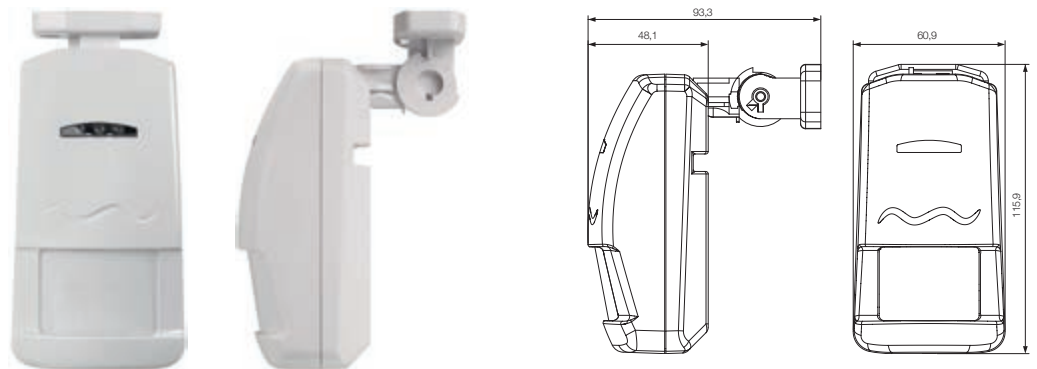
01721

DEVICES

01720, 01721 - Installation

Surface mounting

OR

Mounting with junction

OR

The side view diagrams provide the overall dimensions and flush depth in mm
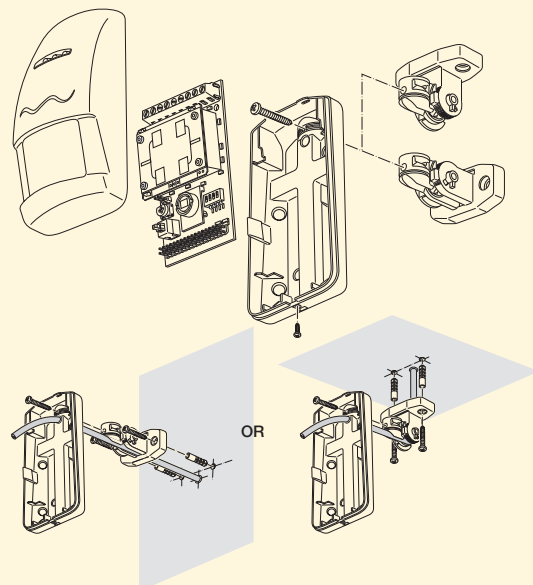
Devices

Dual technology tent detector

Dual technology tent detector with an angle of opening of 140° for 15° to protect entrances and openings such as doors, windows, covered terraces, corridors and French doors.

Main characteristics

- adjustable range;
- selectable detection sensitivity;
- Microstrip microwave 10.525 GHz;
- anti-flicker circuit;
- remote LED viewing;
- installation height up to 4 m;
- sealed optics;
- coverage: 140°x15° for 4 m;
- end of line impedance (DEOL) can be selected on board 13 values;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V);
- the length of the connections must not exceed 100 m;
- surface mounting.

01722 - Technical data

Supply voltage	12 Vdc ± 30%
Absorption	- 40 mA max
Microwave	strip 8 dBm 10.525 GHz
RFI immunity	0.1 / 500 MHz 3 V/m
Alarm time	3 s
Ambient humidity	95%
Degree of safety	2 (EN 50131-2-4)
Ambient class	II (EN 50131-2-4)
Operating temperature	- 10 °C to +55 °C

Usable cable

Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0.50 + 4x0.22	5.00	35	01734

Conformity to Standards

Standard EN 50131-2-4. R&TTE directive.
Standards EN 50130-4, EN 61000-6-3, EN 300 440-2 and EN 301 489-3.
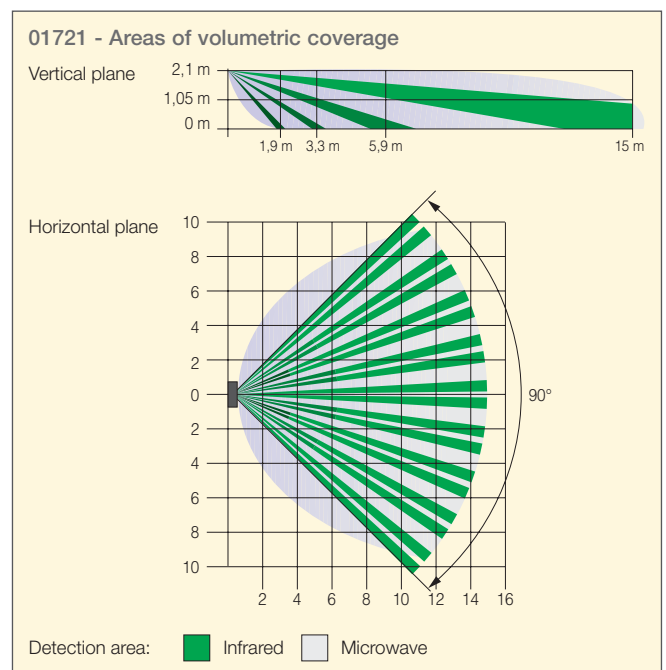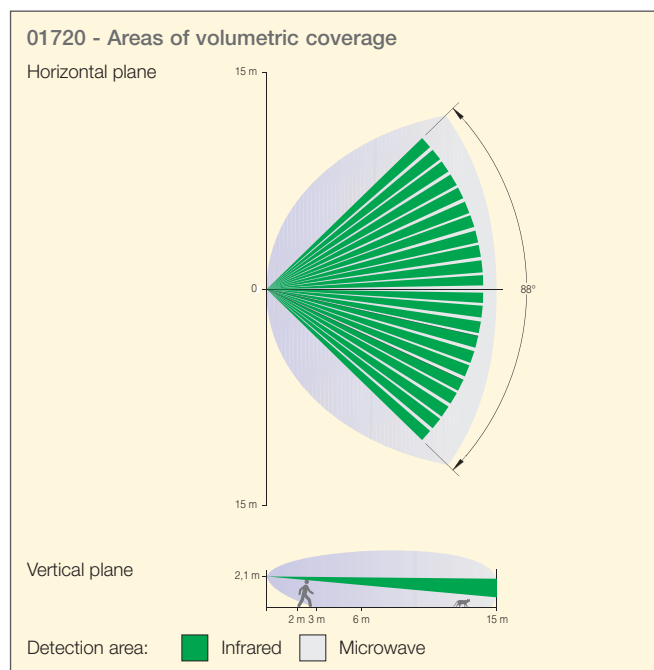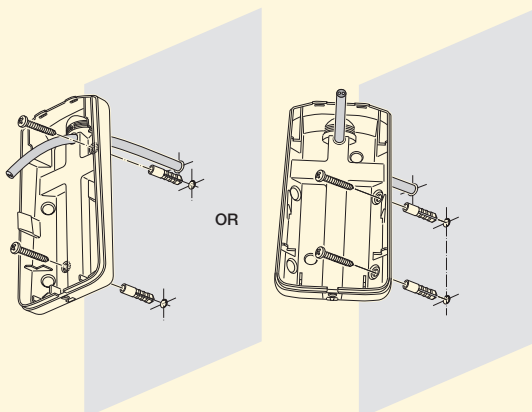
01722 - Connections
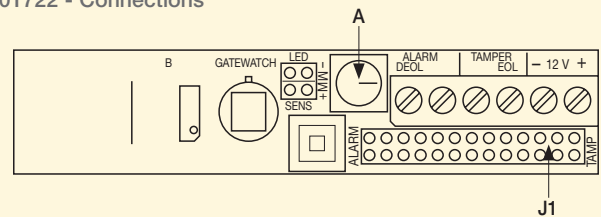
A:	Microwave range adjustment trimmer
+12 V:	Power supply input
EOL:	Common output for end of line balance
TAMPER:	NC Tamper output. Removing the front panel opens the contact
ALARM:	NC alarm output. An alarm opens the contact
DEOL:	Double balance output
J1:	Jumpers for selecting balance resistors
LED:	Jumpers for setting LED VIEWING
SENS:	Jumpers for setting sensitivity

01722 - Coverage diagrams

Surface mounting
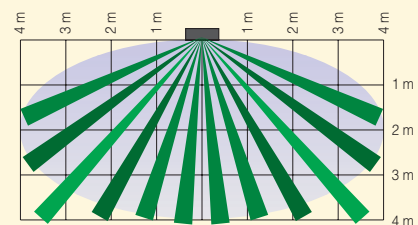
Example of coverage for a 2x1 m window

Detection area: ■ Infrared ■ Microwave

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM
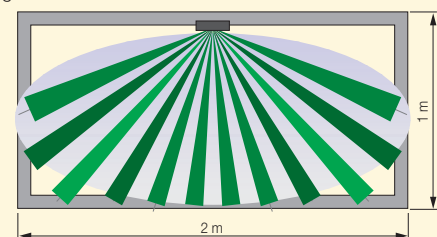
Devices

Dual technology tent detector

01722 By-alarm tent detector, with dual technology, to protect entrances and openings such as doors, windows, covered terraces, corridors and French doors, surface mounting

01722

The side view diagrams provide the overall dimensions and flush depth in mm
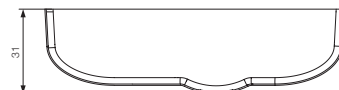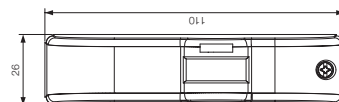
Devices

Dual technology IP54 tent detector

The dual technology sensor incorporates a microwave sensor and an infrared sensor and is able to signal people or animals passing through its area of coverage. The dual technology enables making the sensor insensitive to the most common causes of false alarms. The device functions in "AND" mode, this means that, when either sensor detects motion in the area of coverage it remains on pre-alarm awaiting confirmation from the other sensor too. Once this condition occurs the device sends the signal to the control unit.

Main characteristics

- SmartMask function with anti-masking circuit;
- Two levels of sensitivity selecting entrance open/entrance closed;
- 16 end-of-line resistors can be selected for Double balance DEOL/Triple balance TEOL;
- detection range adjustment from 6 to 12 m;
- can be installed up to a height of 3 m;
- microwave anti-collision circuit;
- Pet Immune can be selected;
- INTERACTIVE Off LED;
- protection rating: IP54;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V);
- the length of the connections must not exceed 100 m;
- for surface mounting

Usable cable			
Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0.50 + 4x0.22	5.00	35	01734

| 01723 - Technical data	
Supply voltage	12 Vdc ± 30%
Absorption	- 70 mA max - 60 mA on stand-by
Microwave	strip 8 dBm 24.1 GHz
RFI immunity	0.1 / 500 MHz 3 V/m
Alarm time	3 s
Solid state relay	100 mA / 24 V
Cover tamper	100 mA / 30 V
Ambient humidity	95%
Degree of safety	2 (EN 50131-2-4)
Ambient class	II (EN 50131-2-4)
Operating temperature	- 10 °C to +55 °C

Conformity to Standards

Standard EN 50131-2-4. Directive R&TTE, Standards EN 50130-4, EN 61000-6-3, EN 300 440-2 and EN 301 489-3

Water detector

The water detector is used to identify the presence of water in order to protect the spaces in which it is installed from flooding (for example laundrettes, boiler rooms, offices, labs, etc.).

01724 - Technical data	
Power supply	12 Vdc rated, 5 - 16 Vdc SELV
Absorption	3.5 mA rated, 5mA (max)
Relay contacts rating	16 Vdc, 50 mA (max)
Cable length	1.5 m
Operating temperature	0°C to +60°C (indoor use)

Main characteristics

- protection rating: IP67;
- dimensions: 51.7x16x12 mm.

Conformity to Standards

Standards EN 50130-4, EN 61000-6-3.

01723 - Connections
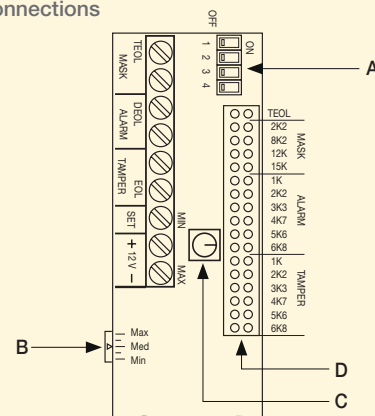
A:	DIP-switch for setting functions
B:	Slide selector for infrared range adjustment
C:	Microwave range adjustment trimmer
D:	Jumpers for selecting balance resistors
TEOL:	Triple balance output
MASK:	NC anti-masking output. A masking alarm opens the contact
DEOL:	Double balance output
ALARM:	NC alarm output. An alarm opens the contact
TAMPER:	NC Tamper output. Removing the front panel opens the contact
EOL:	Common output for end of line
SET:	System status input that with +12 V recognizes the system switched off
+12 V:	Power supply input

01723 - Coverage diagrams

View from above on corridor installation
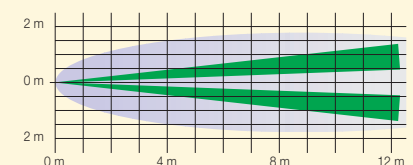
View from above with mounting frame
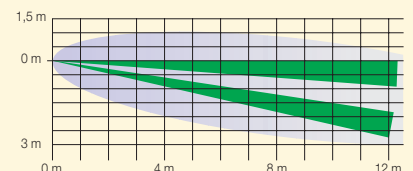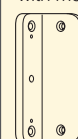
Side view
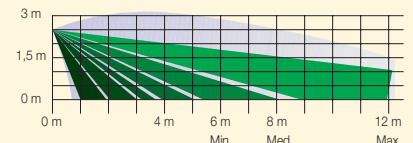
Detection area: ■ Infrared ☐ Microwave

01724 - Front view and connections

Green Yellow   Green Yellow

Normal condition   Detection (will open after 10")
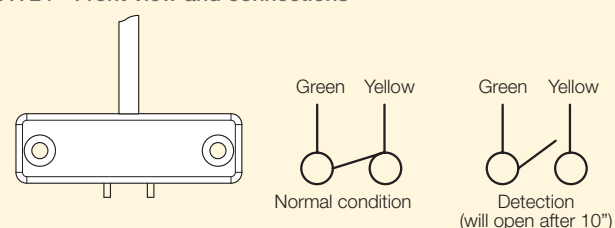
Red cable: positive power supply
Black cable: negative power supply
Green and yellow cable: relay contact

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

Devices

Dual technology IP54 tent detector

01723   IP54 tent detector for outdoor use, with dual technology, to protect entrances and openings such as doors, windows, covered terraces, corridors and French doors, surface mounting

Mounting with rainproof cover

Mounting with bowl

01723

103   71,5   155,7
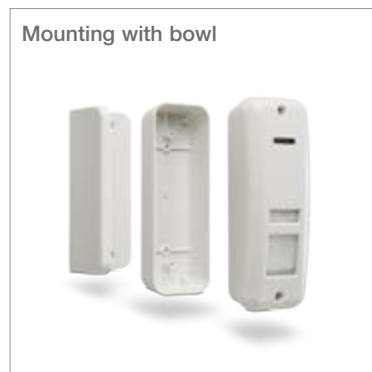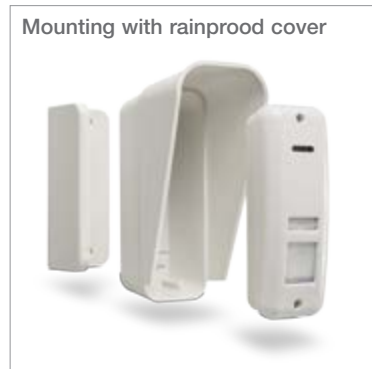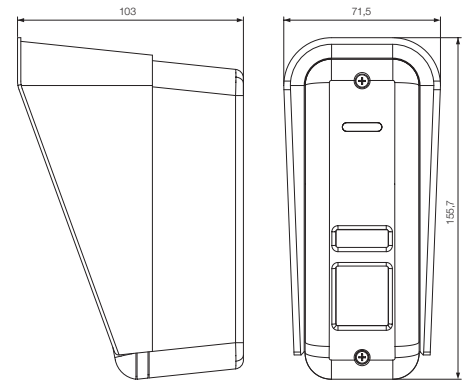
Water detector

01724   Water detector for protection against flooding, floor mounting

01724

12   52   16   19,25

DEVICES

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM
Devices
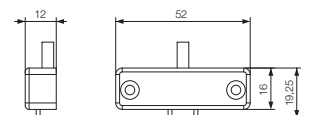
Magnetic contact for flush mounting
The contact, flush mounting, identifies the opening of any doors and/or windows inside the building.

Metal flush mounting magnetic contact
The contact, flush mounting, identifies the opening of any metal doors and windows inside the building.

Magnetic contact for visual installation
The contact, visual, identifies the opening of any doors and/or windows inside the building.

Magnetic contact in a metal container
The contact, that can be walked over, is particularly suitable for monitoring the opening of large doors or garage doors.

Detector with wired contact
The detector installed in the protected rooms identifies any attempt to raise the rolling shutters or blinds.

Impact detector
The detector installed in the protected rooms checks for any vibration of windows and glazed openings. The sensitivity of the vibration can be set in the impact sensor.

01820 - Example installation

contatti magnetici
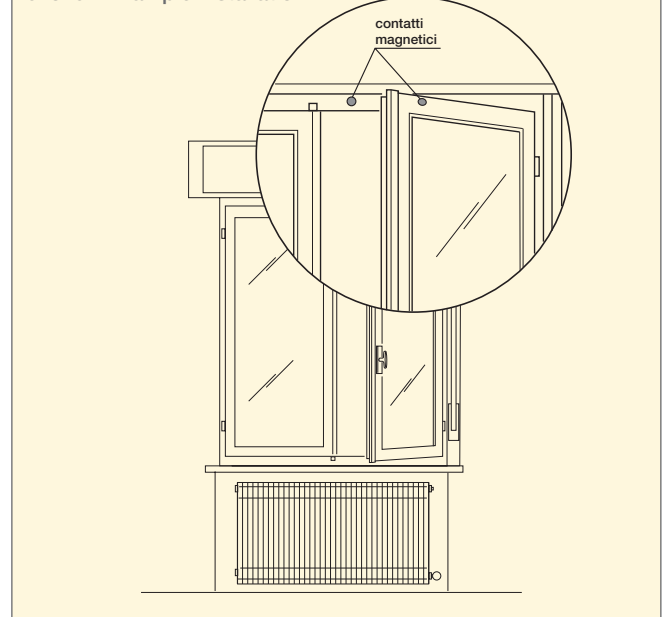
01825 - Example installation

01826 - Example installation

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM
Devices
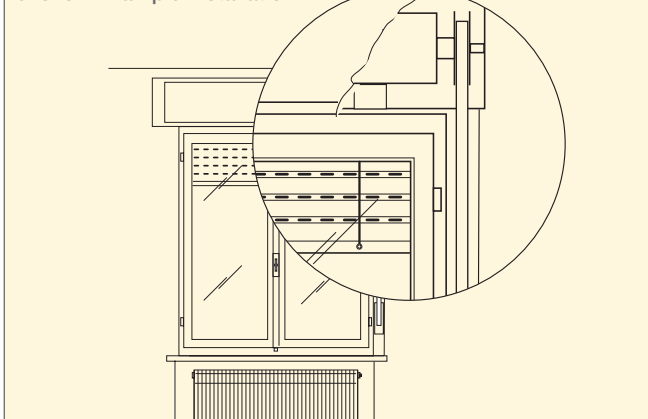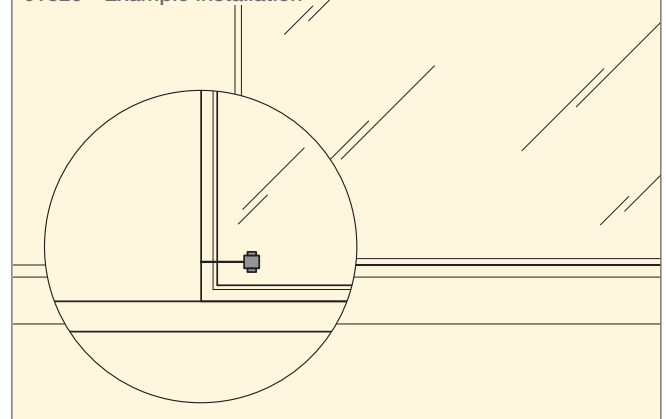
Magnetic contacts

01820	Magnetic contact for flush mounting
01821	Metal magnetic contact for flush mounting

01820

01821

Magnetic contacts

01822	Magnetic contact for visual surface mounting
01823	Metal magnetic contact for visual surface mounting

01822

01823

Electromechanical contacts

01825	Electromechanical cord-operated contact for roller blind and gate protection
01826	Electromechanical detector with impact sensor for window and glazed frame protection

01825

01826

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM
Devices

Copper cables

Cables for security systems, screened with Al/PET strip, halogen-free.

Scope

Cables used for intrusion detection alarm system connections in homes and businesses.

A fixed position is foreseen for indoor spaces (also damp) and a temporary position outdoors. They can be installed on walkways, pipes, trunking and similar systems.

Possible positioning with energy cables with 450/750V or 0,6/1 kV marking used for systems with rated voltage to earth (Uo) up to 400 V. **Underground positioning is not permitted**.

Main characteristics

- conductors: annealed red copper cl.5;
- insulating: LSZH mix;
- separator: PET strip;
- drainage: annealed red copper;
- shield: Al/PET strip;
- sheath: LSZH mix of M1 quality;
- sheath colour: white RAL 9010;
- halogen-free: (< 0.5 mg/g - 0.5%);
- testing voltage: 2000 V;
- maximum operating temperature: 70°C;
- short-circuit temperature: 160°C;
- minimum resting temperature: 0°C;
- radius of curvature: ø x 8.

Cables - Technical data			
Type (No. of cores x mm²)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0.22	3,40	15	01732
2x0.50 + 2x0,22	4,60	29	01733
2x0.50 + 4x0,22	5,00	35	01734
2x0.50 + 6x0,22	5,40	37	01735

▲ New article

Cable - 2x0,22 mm²

01732	Cable for By-alarm system, halogen-free 2x0.22 mm2, suitable for installation with Category 1 power cables (U0 = 400 V), white - 100 m

01732

Cable - 2x0,50 mm² + 2x0,22 mm²

01733	Cable for By-alarm system, halogen-free 2 x 0.50 mm2 + 2 x 0.22 mm2, suitable for installation with Category 1 power cables (U0 = 400 V), white - 100 m

01733

Cable - 2x0,50 mm² + 4x0,22 mm²

01734	Cable for By-alarm system, halogen-free 2 x 0.50 mm2 + 4 x 0.22 mm2, suitable for installation with Category 1 power cables (U0 = 400 V), white - 100 m

01734

Cable - 2x0,50 mm² + 6x0,22 mm²

01735	Cable for By-alarm system, halogen-free 2 x 0.50 mm2 + 6 x 0.22 mm2, suitable for installation with Category 1 power cables (U0 = 400 V), white - 100 m

01735

The side view diagrams provide the overall dimensions and flush depth in mm

Detector with magnetic contact for doors and windows

The detector with magnetic contact is a bidirectional radio device equipped with a HALL-effect sensor that can be activated with an external magnet. There are also 2 terminal block inputs for connection with two external sensors, of which one (IN2 terminal) can be configured to receive signals coming from switch-alarms or mechanical inertia. The magnetic contact need no wired connection and is powered with a 3 V CR2 model of lithium battery.

Main characteristics

- dead battery warning: on radio interface 01729 and on the control panel;
- LED:
  - yellow LED for menu navigation
  - green LED for data reception
  - red LED for data transmission
- possible usage:
  - on board HALL-effect sensor;
  - 1 external contact;
  - 1 external contact for blinds or inertia;
- dimensions: 95x29x24 mm.

01727 - Technical data	
Power supply	3V CR2 lithium battery included
Transmission frequency	868 MHz
Receiver class	2 duty cycle <1% class
Average battery life	4 years
Operating temperature	- 10 °C to +40 °C
Inputs	
External magnetic contacts	IN1, IN2

Conformity to Standards

R&TTE directive. Standards EN 60950-1, EN 50130-4, EN 61000-6-3, EN 301 489-3, EN 300 220-2, EN 62479.

Passive infrared motion detector

The passive infrared motion detector is a bidirectional radio device. On board there is a terminal block input for connection to an external sensor (IN terminal) that can be configured to receive signals that are usually closed (NC) or usually open (NO). The contact needs no wired connection and is powered with a 3 V CR123 model of lithium battery.

Main characteristics

- dead battery warning: on radio interface 01729 and on the control panel;
- LED:
  - yellow LED for menu navigation and walktest
  - green LED for data reception
  - red LED for data transmission
- possible usage: 1 external contact;
- dimensions: 110x60x46 mm.

Conformity to Standards

R&TTE directive.
Standards EN 60950-1, EN 50130-4, EN 61000-6-3, EN 301 489-3, EN 300 220-2, EN 62479.

01728 - Technical data	
Power supply	3V CR123 lithium battery included
Transmission frequency	868 MHz
Average battery life	4 years
Receiver class	2 duty cycle <1% class
Operating temperature	- 10 °C to +40 °C
Inputs	
External magnetic contact	IN1
Common negative input	-

01728 - Coverage diagrams

Horizontal plane

The coverage diagram refers to an installation height of 2.1 m.

15 m

0 — 98°

15 m

Vertical plane

2,1 m

0 m

1,9 m   3,3 m   5,9 m   15 m

Detection area: Infrared   Microwave

▲ New article

BY-ALARM BURGLAR ALARM SYSTEM

Radio frequency devices

VIMAR

Detector with magnetic contact for doors and windows

01727 Detector with magnetic contact for doors and windows, 868 MHz radio frequency connection, 1 auxiliary magnetic contact input, 1 roller shutters contact input, powered by 1 alkaline 3 V CR2 battery (supplied)
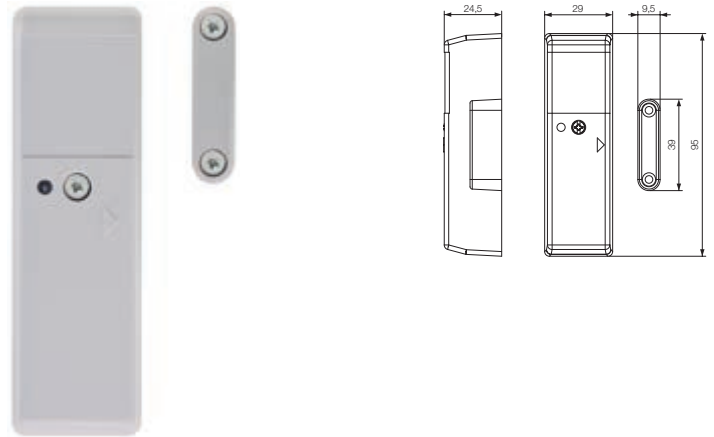
01727

Passive infrared motion detector

01728 Passive infrared presence detector, 868 MHz radio frequency connection, 1 input for external magnetic contact, powered by one 3 V CR123 battery (supplied)

01728

Radio frequency interface 868 MHz

The radio interface, through which the detectors and remote controls in radio frequency are integrated with the system, is a device that allows for the expansion of the number of control panel zones with a connection to a RS485 Bus cable. The control panel manages the radio interface in the same way as wired device art. 01709, thus allowing for simultaneous use of wired expansions and radio expansions.

Main characteristics

- connection: RS485 bus;
- conductors: min. (2 x 0,50 mm^2 + 2 x 0,22 mm^2) screened;
- radio input lines: 8 or 16 with single or double balance, programmable in all modes foreseen by the control panel;
- maximum number of manageable remote controls: 16;
- use halogen-free shielded cables suitable for installation with Category 1 power cables (U0 = 400 V) such as art. 01734 (2x0,50mm^2 + 4x0,22mm^2).
- for 12 V power supply 0,50 mm^2 conductors must be used and for the A and B signals, 0,22 mm^2 conductors; the shield must be connected to the negative with regard to the control panel.
- the interface must be connected in parallel to the same conductors, respecting the labels on the control panel terminals and the interface itself, or rather:

  + with **+**

  - with **-**

  A with **A**

  B with **B**
- dimensions: 145x110x40 mm.

01729 - Connection diagram

Central terminals 01700 or 01703.

01729 - Technical data

Power supply	12 V ± 20%
Absorption	- 40 mA max with LEDs switched off - 80 mA max with LEDs switched on
Radio range	1000 m in open air
Receiver class	2 duty cycle <1% class
Operating temperature	- 10 °C to +40 °C

Usable cable

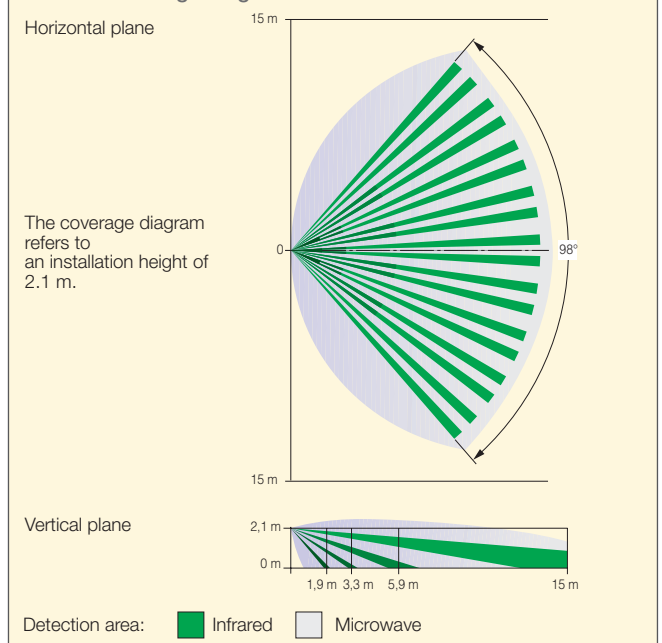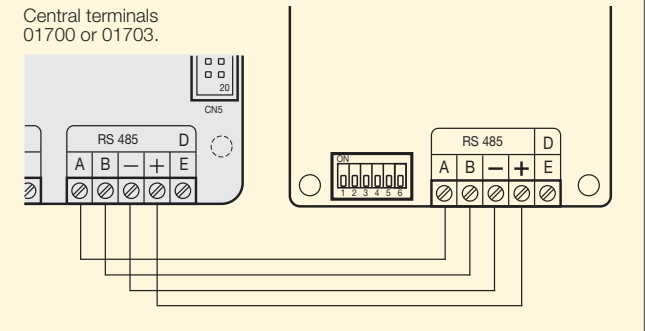| Type (No. of cores x mm^2)	Ø average external (± 0,5 mm)	Average weight (Kg x Km)	Code
2x0,50 + 4x0,22	5,00	35	01734

Conformity to Standards
R&TTE directive.
Standards EN 60950-1, EN 50130-4, EN 61000-6-3, EN 301 489-3, EN 300 220-2, EN 62479.

Remote control

The remote control is a bidirectional radio device used to manage control panels 01700 and 01703. Thanks to bidirectional technology, it immediately displays the system status or execution of commands given. The 4 keys, clearly marked, can be freely programmed and used to switch on and off the alarm, activate and deactivate the active outputs and to carry out many other control panel functions. The remote control is equipped with a multicoloured LED that, as it switches on during the various phases of usage, ensure intuitive viewing of the various system status.

Main characteristics

- the remote control is powered by a 3V CR2032 model of lithium button battery;
- for better duration, use batteries with an expiry date that is 5 years ahead of the replacement date;
- dimensions: 31,35x86,4x15,2 mm.

Conformity to Standards
R&TTE directive.
Standards EN 60950-1, EN 50130-4, EN 61000-6-3, EN 301 489-3, EN 300 220-2, EN 62479.

01730 - Battery replacement

To proceed with battery replacement, simply open the remote control container, removing the screws and then replace the battery, paying attention to correct insertion, with positive facing upwards.

▲ New article
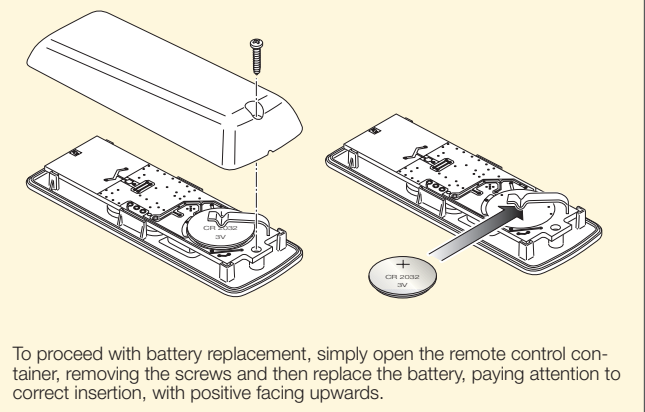
BY-ALARM BURGLAR ALARM SYSTEM

Radio frequency devices

Radio frequency interface 868 MHz

01729   Two-way 868 MHz radio frequency interface for wireless expansion of the system, complete with tear-proof surface mounting box

01729

42,5   144   110
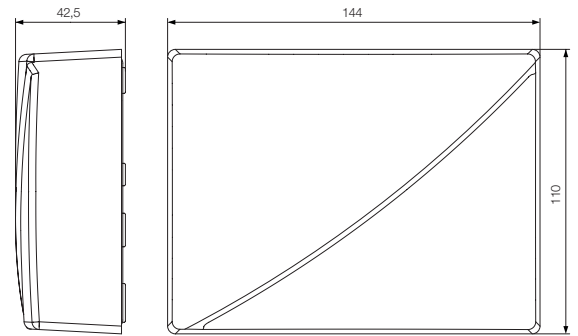
Remote control

01730   Remote control with two-way 868 MHz radio frequency connection, powered by 1 3 V CR2032 battery (supplied)

01730

31,35   15,2   86,4

RADIO FREQUENCY DEVICES

The side view diagrams provide the overall dimensions and flush depth in mm

BY-ALARM BURGLAR ALARM SYSTEM

Installation examples

VIMAR

By-alarm system with input and output expansion modules

The example shows a system built with:

- **control panel** (01703) expandable up to 64 zones;
- **backlit keypad** (01705) to program/manage the system;
- **the siren for outdoor use** (01715) for surface mounting;
- two **dual technology detectors** (01721) and 4 magnetic contacts (01821) to control the windows
- **Input expansion module** (01709) to which two dual technology detectors (01720 e 01721) and two magnetic contacts for doors or windows are connected (01820 and 01821);
- **Output expansion module** (01710) to which a pilot light

(19386) is connected, signalling the alarm status coordinated with the Arké series and the electrical lock of the front door.

All of the IR and microwave dual technology detectors are connected to each other for the exclusion of the microwave function with a disconnected system, and to the siren for indoor use (19496) that will signal, with two difference acoustic signals, system connection/disconnection.

Lastly, connected to the RS485 Bus are the flush mounting connector/splitter (19478), which can be activated with a transponder key (01718) and the siren for indoor use (19496).

max 100 m
01820 Window sensor
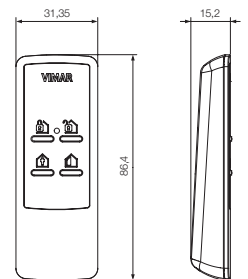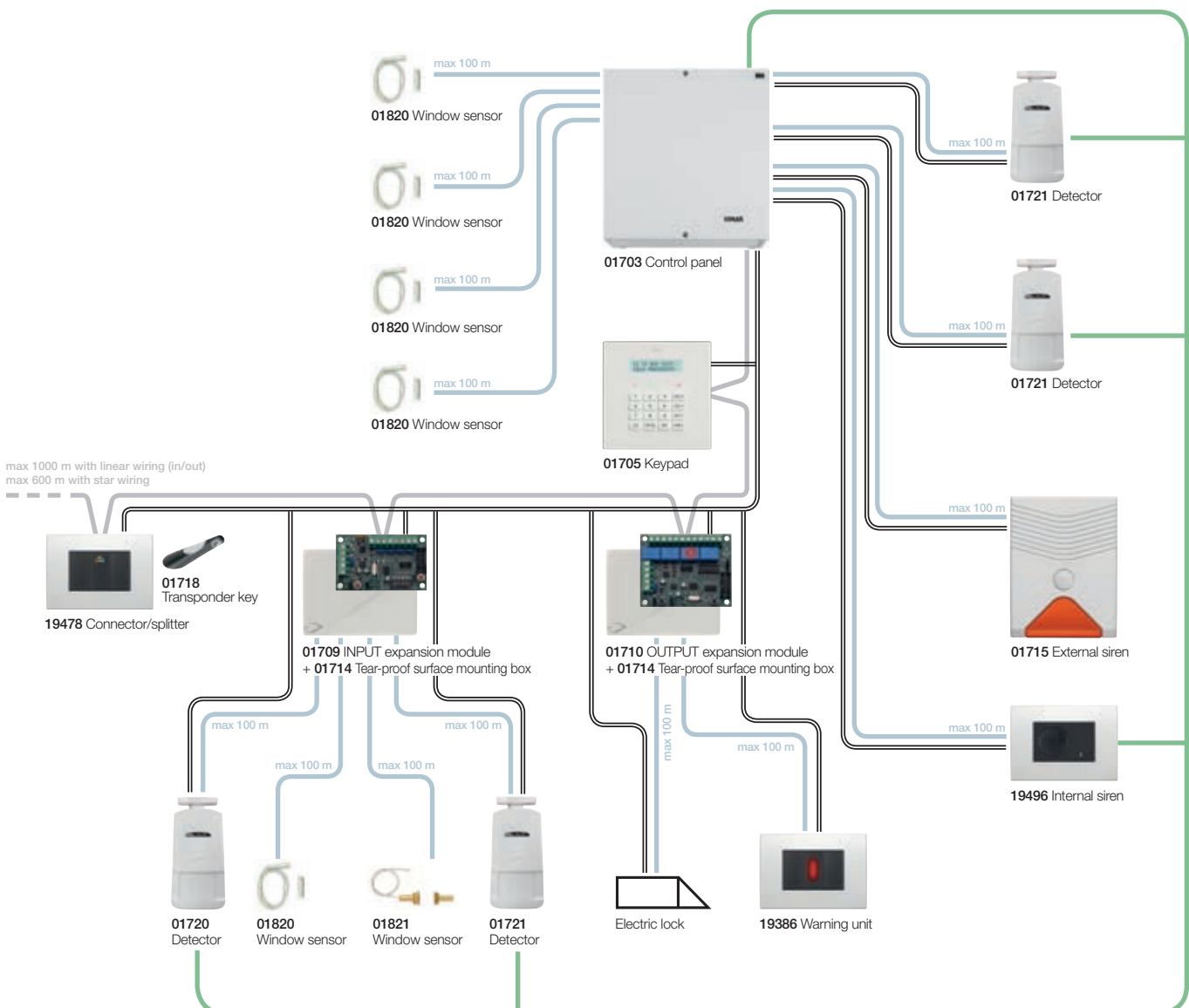
max 100 m
01820 Window sensor

max 100 m
01820 Window sensor

max 100 m
01820 Window sensor

01703 Control panel

max 100 m
01721 Detector

max 100 m
01721 Detector

01705 Keypad

max 1000 m with linear wiring (in/out)
max 600 m with star wiring

01718 Transponder key

19478 Connector/splitter

01709 INPUT expansion module
+ **01714** Tear-proof surface mounting box

01710 OUTPUT expansion module
+ **01714** Tear-proof surface mounting box

max 100 m
01715 External siren

max 100 m   max 100 m

max 100 m   max 100 m

max 100 m
max 100 m

max 100 m
19496 Internal siren

01720 Detector
01820 Window sensor
01821 Window sensor
01721 Detector
Electric lock
19386 Warning unit

▬▬ RS485 Bus

▬▬ Wired connection for alarms/tamper/masking

▬▬ System status connection (the control panel notifies whether the system is connected/disconnected)

══ Power supply 12 Vdc

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BY-ALARM BURGLAR ALARM SYSTEM
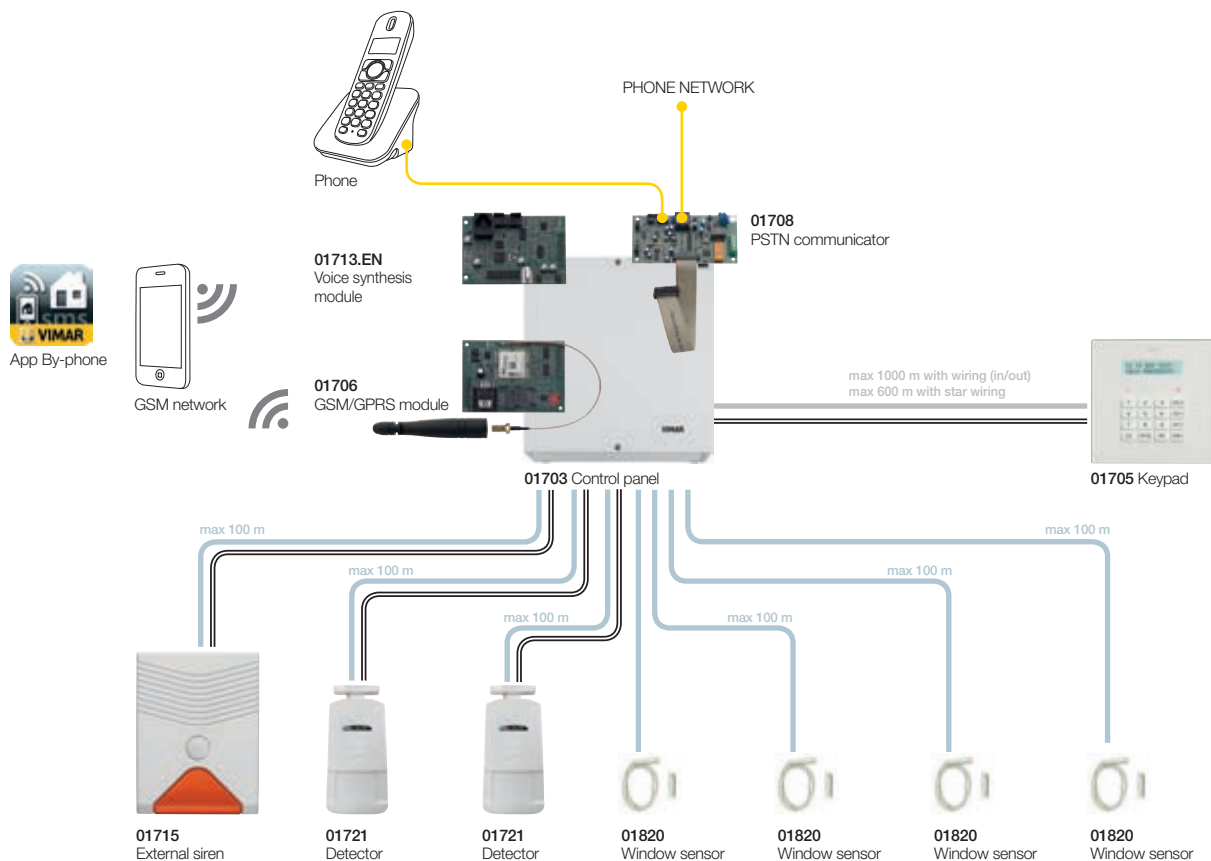
Installation examples

⬛ **VIMAR**

By-alarm system with remote communication modules

The example shows a system built with:
- **control panel** (01703) expandable up to 64 zones;
- **backlit keypad** (01705) to program/manage the system;
- **the siren for outdoor use** (01715) for surface mounting;
- two **dual technology detectors** (01721) and 4 magnetic contacts (01821) to control the windows
- **PSTN communicator module** (01708) to send any alarm or anomaly communication via the phone line;
- **voice synthesis module** (01713.EN) to automatically send

communications, alarms, malfunctions or anomalies to any phone number via pre-recorded messages already entered in the control panel and to authorise users to use the command function;
- **GSM Dual band GSM/GPRS transmitter/receiver module (**01706) that allows for the sending of digital messages with Contact ID protocol, voice messages or texts to mobile phones and the management of the system via smartphone with the By-phone app.

PHONE NETWORK

Phone

01713.EN Voice synthesis module

01708 PSTN communicator

App By-phone

GSM network

01706 GSM/GPRS module

max 1000 m with wiring (in/out)
max 600 m with star wiring

01703 Control panel

01705 Keypad

max 100 m

| **01715** External siren | **01721** Detector | **01721** Detector | **01820** Window sensor | **01820** Window sensor | **01820** Window sensor | **01820** Window sensor |

⬛ **RS485 Bus**

⬛ **Wired connection for alarms/tamper/masking**

Power supply 12 Vdc

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

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INSTALLATION EXAMPLES

BY-ALARM BURGLAR ALARM SYSTEM

Installation examples

By-alarm system with radio frequency expansion

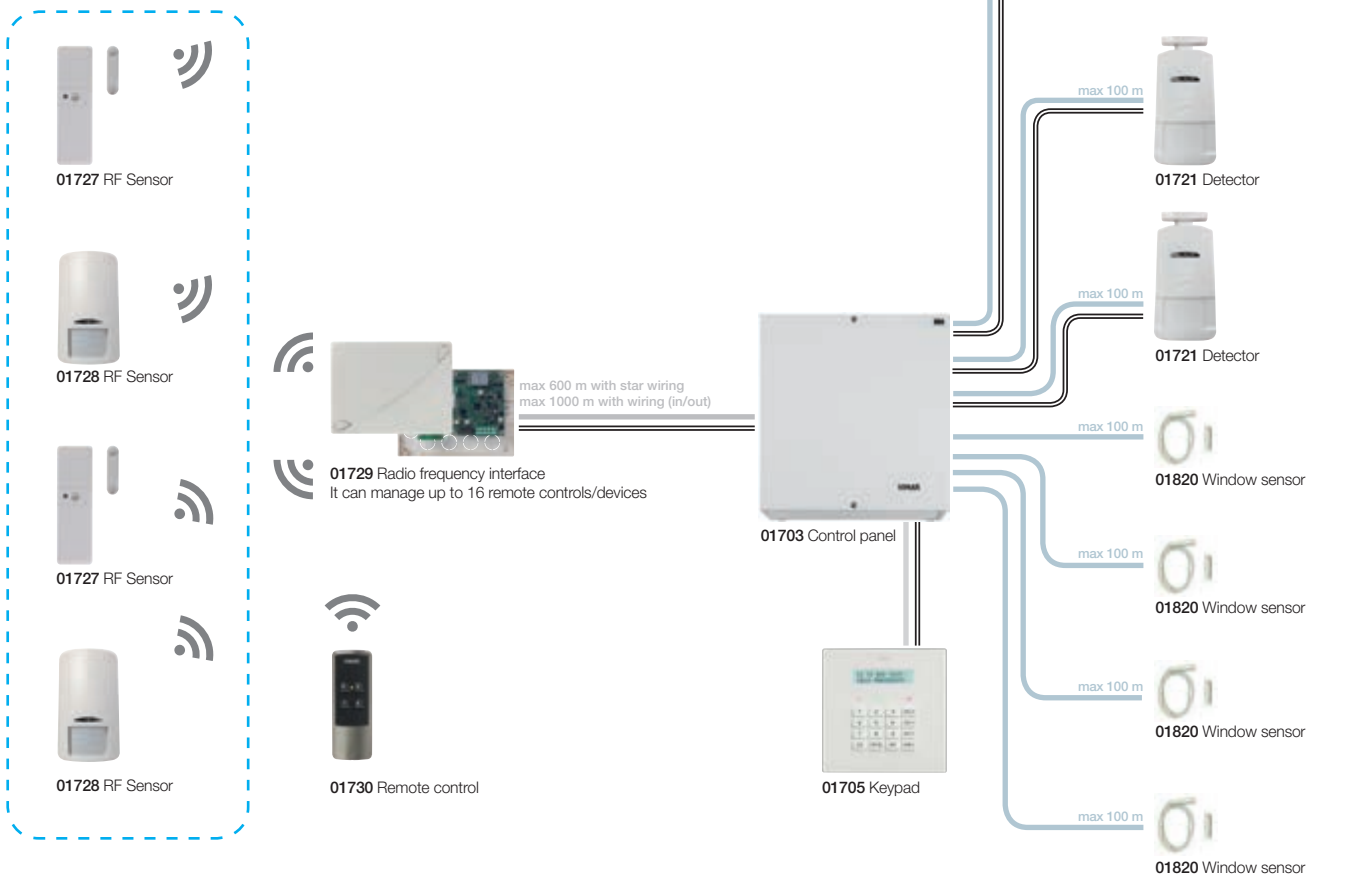The example shows a system built with:
- **control panel** (01703) expandable up to 64 zones;
- **backlit keypad** (01705) to program/manage the system;
- **the siren for outdoor use** (01715) for surface mounting;
- two **dual technology detectors** (01721) and 4 magnetic contacts (01821) to control the windows;
- **interface in radio frequency** (01729) through which the

detectors (01728) and **magnetic contacts for doors and windows** (01727) are integrated with the system.
The interface allows for expansion of the number of control panel zones through connection to a RS485 Bus cable. In addition, the control panel can be managed using the bidirectional remote control (01730).

RADIO FREQUENCY DEVICES:
8 or 16 radio input lines with single or double balance, programmable in all modes foreseen by the control panel

01727 RF Sensor

01728 RF Sensor

01727 RF Sensor

01728 RF Sensor

01729 Radio frequency interface
It can manage up to 16 remote controls/devices

max 600 m with star wiring
max 1000 m with wiring (in/out)

01730 Remote control

01703 Control panel

01705 Keypad

max 100 m

01715 Siren for outdoor use

max 100 m

01721 Detector

max 100 m

01721 Detector

max 100 m

01820 Window sensor

max 100 m

01820 Window sensor

max 100 m

01820 Window sensor

max 100 m

01820 Window sensor

RS485 Bus

Wired connection for alarms/tamper/masking

Power supply 12 Vdc

60

BY-ALARM BURGLAR ALARM SYSTEM
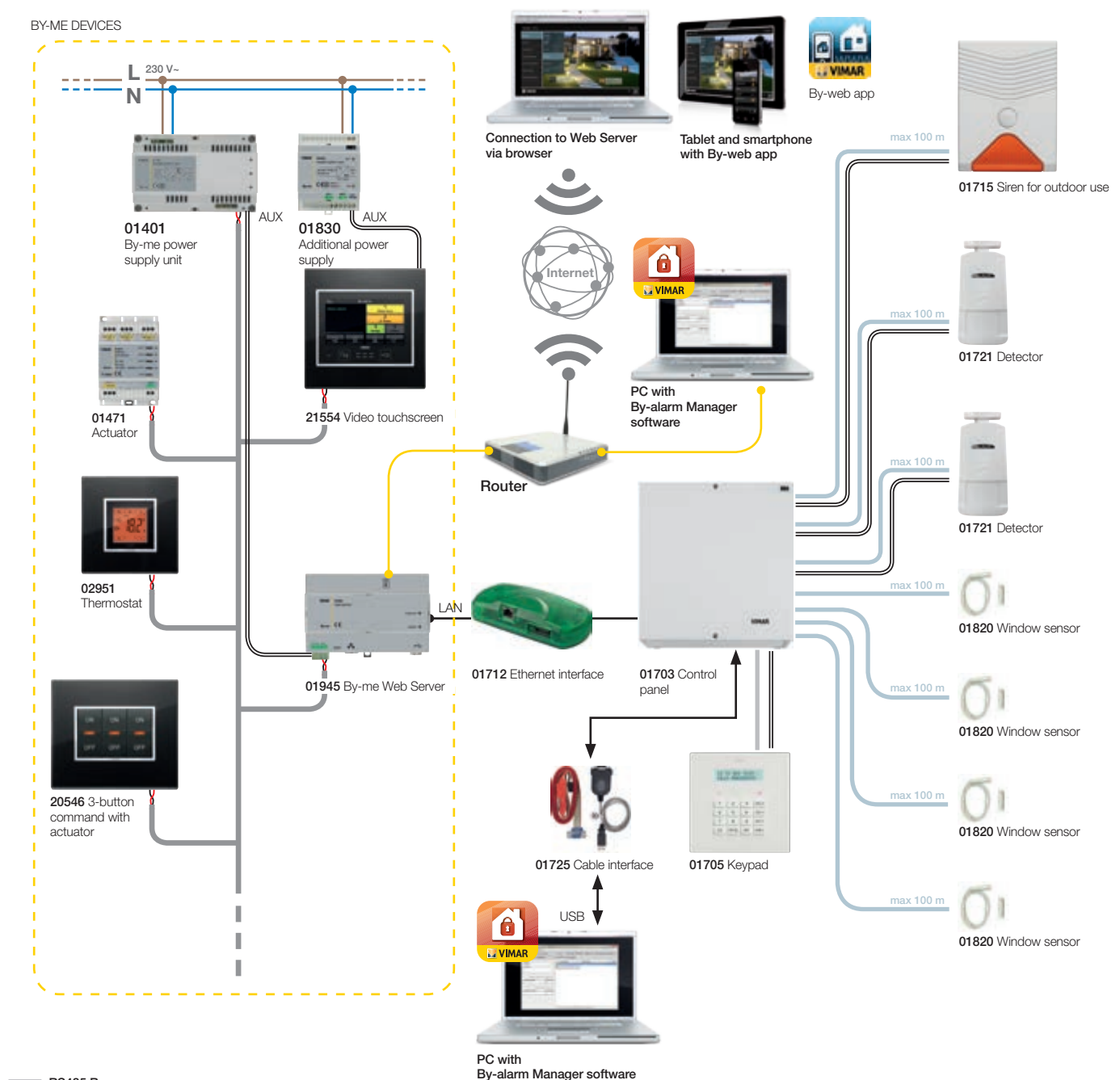
Installation examples

VIMAR

By-alarm system with the By-me home automation system

The example shows a system built with:
- **control panel** (01703) expandable up to 64 zones;
- **backlit keypad** (01705) to program/manage the system;
- **the siren for outdoor use** (01715) for surface mounting;

two **dual technology detectors** (01721) and 4 magnetic contacts (01821) to control the windows;
- the addition of an **Ethernet (LAN) interface** (01712) that allows for the control panel to be connected to the Ethernet data network with a TCP/IP protocol in combination with the Web Server (01945).

In this way it is possible to communicate via IP with the By-alarm system from the PC on which the By-alarm Manager software is installed. Alternatively, the PC can be directly connected to the control panel with a USB connection using interface 01725 (converter RS232-USB).

The Web Server allows for the By-alarm system to be managed using touch screen devices connected to the By-me Bus or, either remotely or on-site, using mobile devices (smartphones and tablets) with the By-web app.

BY-ME DEVICES

L 230 V~
N

01401 By-me power supply unit

01830 Additional power supply

01471 Actuator

21554 Video touchscreen

02951 Thermostat

01945 By-me Web Server

01712 Ethernet interface

20546 3-button command with actuator

01725 Cable interface

01705 Keypad

01703 Control panel

Connection to Web Server via browser

Tablet and smartphone with By-web app

By-web app

Internet

Router

PC with By-alarm Manager software

PC with By-alarm Manager software

USB

01715 Siren for outdoor use

01721 Detector

01721 Detector

01820 Window sensor

01820 Window sensor

01820 Window sensor

01820 Window sensor

max 100 m

	RS485 Bus
	Wired connection for alarms/tamper/masking
	By-me Bus
	IP Connection
	Power supply 12 Vdc

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

INSTALLATION EXAMPLES
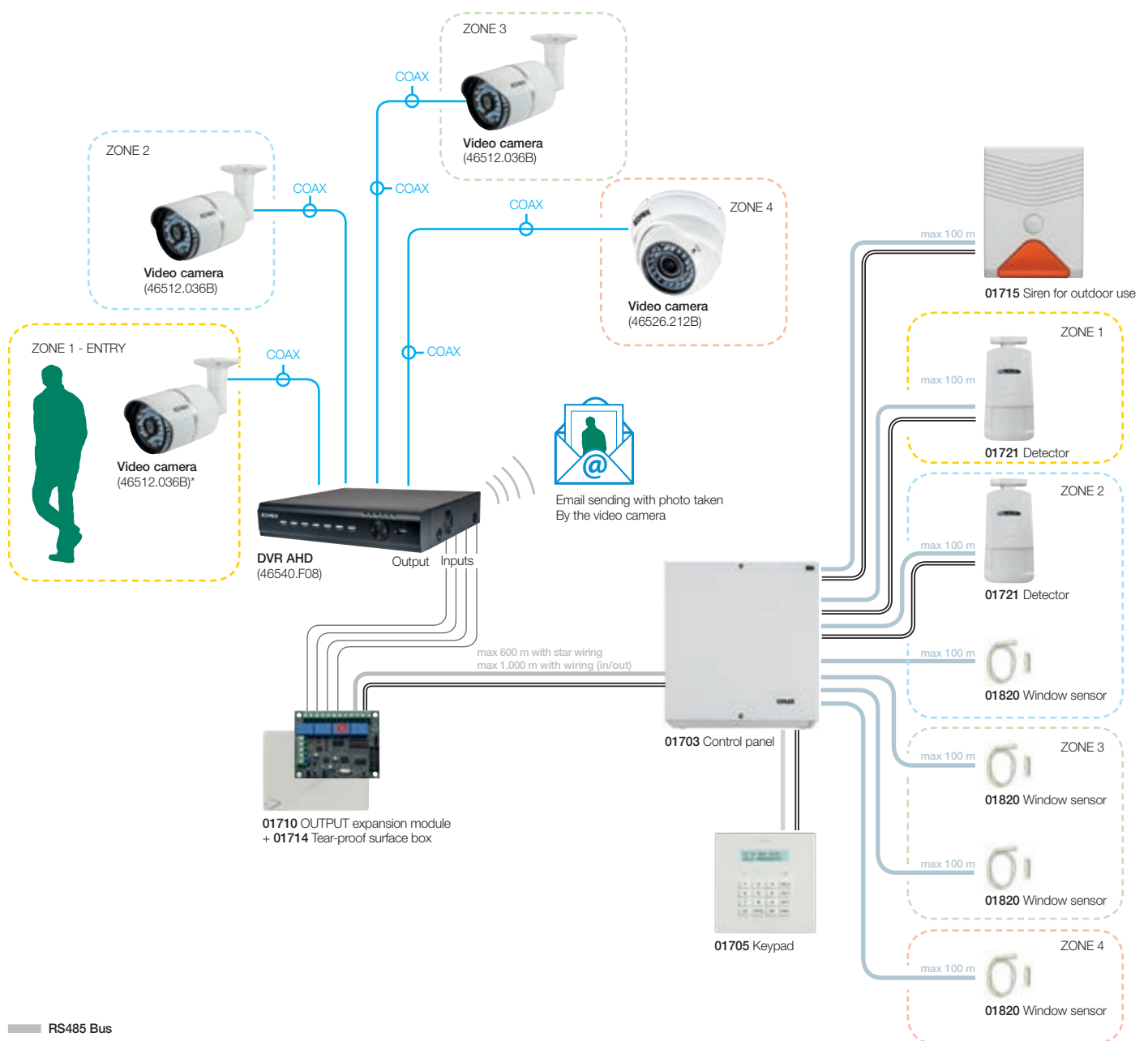
BY-ALARM BURGLAR ALARM SYSTEM

Installation examples

VIMAR

By-alarm system integrated in the CCTV system

The example shows a system built with:
- **control panel** (01703) expandable up to 64 zones;
- **backlit keypad** (01705) to program/manage the system;
- **the siren for outdoor use** (01715) for surface mounting;
- two **dual technology detectors** (01721) and 4 magnetic contacts (01821) to control the windows;
- the addition of an **output expansion module** (01710) and **input expansion module** (01709) to which the DVR AHD (46540.F08) of the CCTV system is connected.

With this configuration, when the By-alarm system identifies, for example, an intrusion in zone 2, it sends a signal via the output to which the DVR is connected and activates recording by the video cameras installed in zone 2. The DVR simultaneously send an email with the photo taken by the video camera to a pre-set address.

ZONE 3
COAX
Video camera (46512.036B)

ZONE 2
COAX   COAX
Video camera (46512.036B)

ZONE 4
COAX
Video camera (46526.212B)

ZONE 1 - ENTRY
COAX
Video camera (46512.036B)*

DVR AHD (46540.F08)   Output   Inputs

Email sending with photo taken
By the video camera

max 100 m

01715 Siren for outdoor use

ZONE 1
max 100 m
01721 Detector

ZONE 2
max 100 m
01721 Detector

max 100 m
01820 Window sensor

max 600 m with star wiring
max 1.000 m with wiring (in/out)

01703 Control panel

ZONE 3
max 100 m
01820 Window sensor

01710 OUTPUT expansion module
+ **01714** Tear-proof surface box

max 100 m
01820 Window sensor

01705 Keypad

ZONE 4
max 100 m
01820 Window sensor

▬ RS485 Bus

▬ Wired connection for alarms/tamper/masking

═ Power supply 12 Vdc

━ Coaxial cable

━ Wired DVR connections/Expansion modules

BY-ALARM BURGLAR ALARM SYSTEM
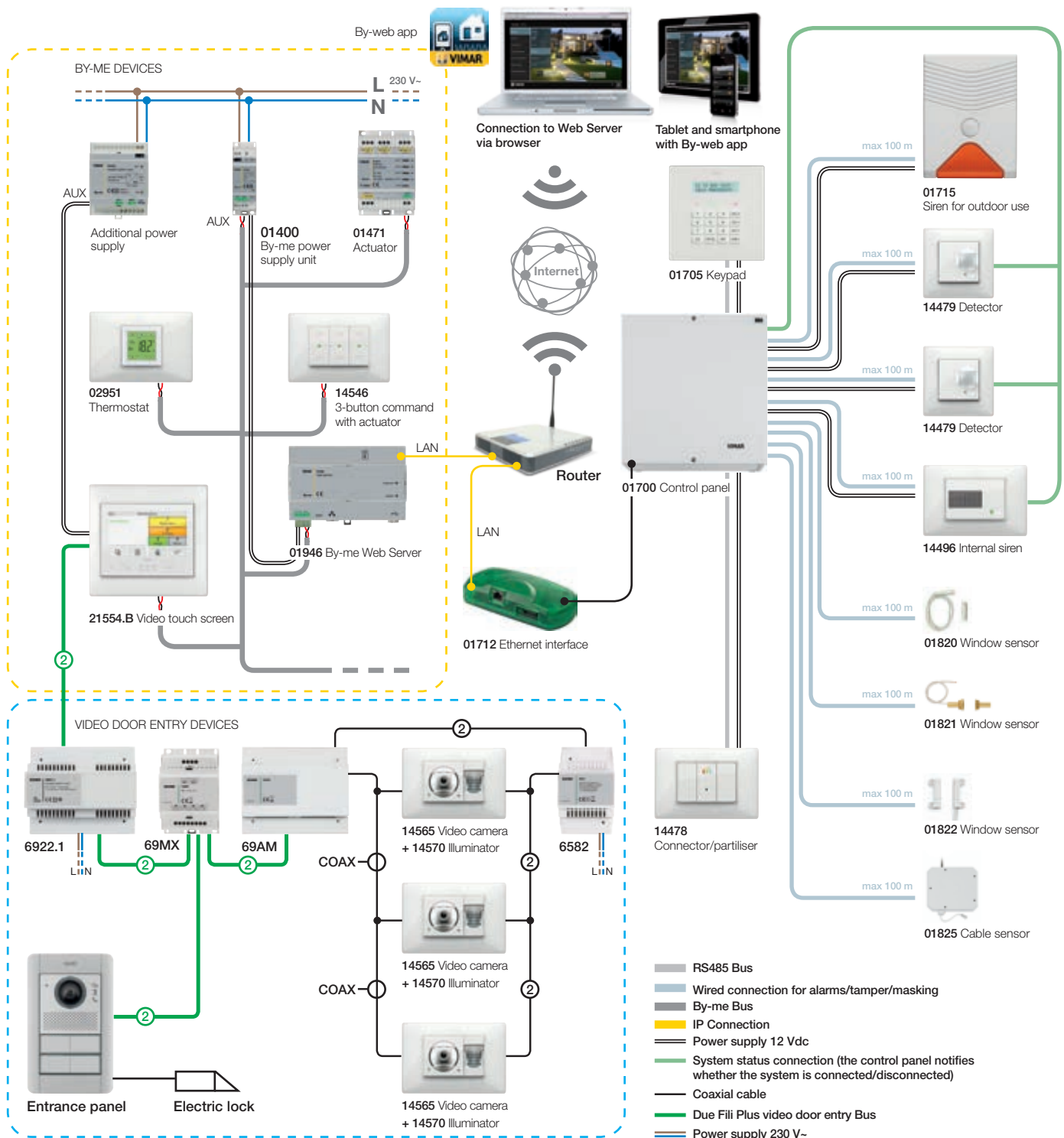
Installation examples

By-alarm system with the By-me home automation system and Due Fili Plus video door entry

The example shows a system composed of: By-alarm control panel (01700), double technology flush mounting presence detectors (14479) coordinated with Plana series, keypad with display (01705), activator/partiliaser (14478) with transponder key (01718), windows and doors magnetic contacts (01820, 01821, 01822, 01825) and outdoor surface and flush mounting sirens (01715 or 14496).

With the Ethernet (LAN) interface (01712), it is possible the connection between the network with the TCP/IP protocol and the Web server Light (01946) and integrate the burglar alarm system to the By-me home automation and the Due Fili Plus video door entry systems.

With the Full Flat video touch screen (21554.B) it is possible to control burglar alarm and home automation systems and the flush mounting cameras (14565). The double technology IR and microwaves presence detectors (14479) are connected each other in order to deactivate the microwaves when the system is OFF and to the indoor siren (14496) in order to signal, with two different signalisation, the activation/deactivation of the system.

By-web app

BY-ME DEVICES

L 230 V~
N

AUX

Additional power supply

AUX

01400 By-me power supply unit

01471 Actuator

02951 Thermostat

14546 3-button command with actuator

21554.B Video touch screen

01946 By-me Web Server

LAN

Router

LAN

01712 Ethernet interface

Connection to Web Server via browser

Tablet and smartphone with By-web app

Internet

01705 Keypad

01700 Control panel

max 100 m — **01715** Siren for outdoor use

max 100 m — **14479** Detector

max 100 m — **14479** Detector

max 100 m — **14496** Internal siren

max 100 m — **01820** Window sensor

max 100 m — **01821** Window sensor

max 100 m — **01822** Window sensor

max 100 m — **01825** Cable sensor

VIDEO DOOR ENTRY DEVICES

6922.1 | **69MX** | **69AM** | COAX | **14565** Video camera + 14570 Illuminator | **6582**
L N | | | COAX | **14565** Video camera + 14570 Illuminator |
| | | | **14565** Video camera + 14570 Illuminator | L N

Entrance panel   **Electric lock**

14478 Connector/partiliser

Legend:
- RS485 Bus
- Wired connection for alarms/tamper/masking
- By-me Bus
- IP Connection
- Power supply 12 Vdc
- System status connection (the control panel notifies whether the system is connected/disconnected)
- Coaxial cable
- Due Fili Plus video door entry Bus
- Power supply 230 V~

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

▲ New article