

NG-TRX[®] series

The most advanced intrusion detection
two-way wireless technology





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NG-TRX[®] is the innovative EL.MO. **high performance technology** for new generation of wireless Villeggio[®] intrusion detection control units. The new hardware and software features ensure very high performances in the security field.

The **two-way communication** is the key point. Thanks to a protocol protected by an advanced cryptographic algorithm for communications security, the control unit and the devices (distance between them **up to 2 km** in open field) exchange messages/ commands and feedback on effective receiving on **three frequencies**.

The smart functions make NG-TRX[®] the ideal solution for a complete protection.



2 KM RANGE

Thanks to the innovative NG-TRX® technology, which guarantees a 2 km working range, you may create wireless intrusion detection systems which are extremely flexible and offer great potential. Concrete walls or several floors are no longer a problem.



TWO-WAY SYSTEM

The cornerstone of the new NG-TRX® technology is the ability to manage two-way transmissions between the control unit and working devices. This makes NG-TRX® a smart technology enabling, among other things, the remote configuration of all devices.



TRIPLE FREQUENCY

Transmissions between control unit and devices in the field take place on three different frequencies, protected by advanced encryption algorithms ensuring an unprecedented security and jamming resistance level for a wireless intrusion detection system..



TOP-NOTCH TRANSMISSION SECURITY

NG-TRX® offers innovative solutions, against the most advanced illicit signal manipulation systems. Advanced encryption algorithms, encryption keys and rolling codes for each device and an innovative anti-grabbing system make NG-TRX® an unassailable system.





2 KM RANGE



NG-TRX® gives you excellent freedom of installation and you are no longer bound to the shape of buildings. Even the least accessible areas may now be easily protected from intrusion attempts.

 **Installation flexibility**



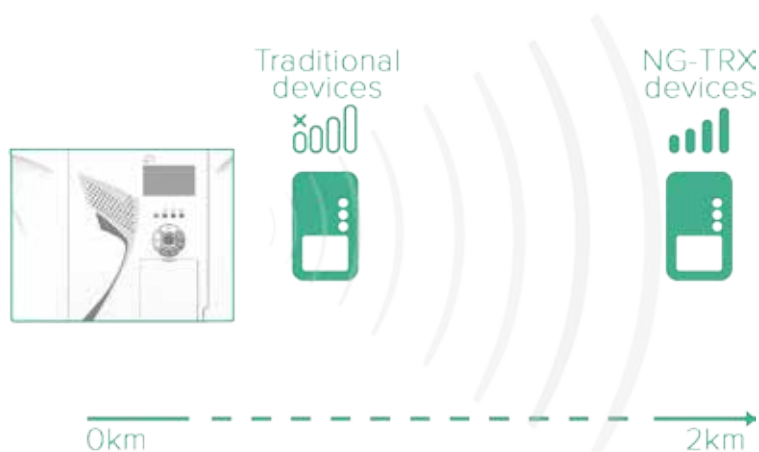
Sensitivity means security. Our system is 20 times more sensitive than a traditional one, which guarantees more effective communications with the control unit even in case of severe disturbance in the protected area.

 **Sensitivity**



NG-TRX® devices use new-generation high-performance ceramic antennas, which are the result of a complex engineering and miniaturization process. They offer more compact, better-performing products.

 **Antennas**





TWO-WAY SYSTEM



NG-TRX® devices may be configured via software, even remotely from your PC via LAN/WAN, making installation and maintenance easier. Several parameters can be adjusted to set the calibration of the devices and have them fit the area to be protected. All without altering internal DIP switches.



Configuration
via software



The central unit and the devices constantly exchange information on the radio signal quality. In this way the devices receive a feedback and adjust their signal accordingly, increasing or decreasing its intensity. This improves the use of batteries and increases their duration.



Signal
control



NG-TRX® technology highlights important issues such as energy consumption reduction and environmental protection. This is a green technology which can increase battery life and save money.



Longer
battery life



Information overload due to simultaneous communications is the weak spot of first-generation wireless systems. NG-TRX® technology has solved the issue and proves its superiority by managing and sorting all the information received from its devices through an advanced LBT (Listen Before Talk) technique.



Anti-collision

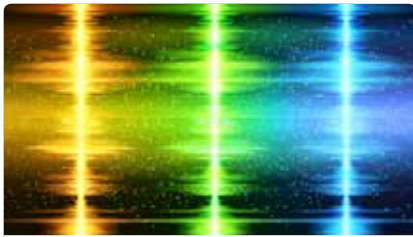


Traditional
devices setup



NG-TRX
devices setup

TRIPLE FREQUENCY



Transmissions between control unit and devices on the field take place on three differentiated frequencies. According to environmental conditions, communications automatically move to the frequency guaranteeing the highest level of effectiveness and security.



Three frequencies



One of the main risks for wireless systems is interferences caused by illegal devices such as a jammer. Even in case of severe environmental disturbance, NG-TRX® guarantees excellent communication between the devices and the central unit.



Jamming resistance





TOP-NOTCH TRANSMISSION SECURITY



Transmissions between the control unit and the devices take place by using an advanced encryption algorithm, which guarantees secure communications that cannot be decoded by outsiders.



Advanced encryption



Further security of transmission is guaranteed by the Rolling Code function for each device. This means that each device sends out to the control unit a different code each time, which cannot be repeated for each event, which only the receiver can interpret.



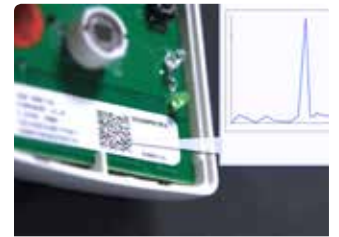
Rolling code



Besides the rolling code, NG-TRX® remote controls guarantee a further level of security thanks to the anti-grabbing function which, through double authentication, extends its protection even against cloning attempts.



Anti-Grabbing



All devices undergo a completely automated validation procedure generating a unique calibration certificate. Such certificate is stored in a company database and you may download it directly from the internet through a QR code placed within each device.



Calibration certificate



NG-TRX devices



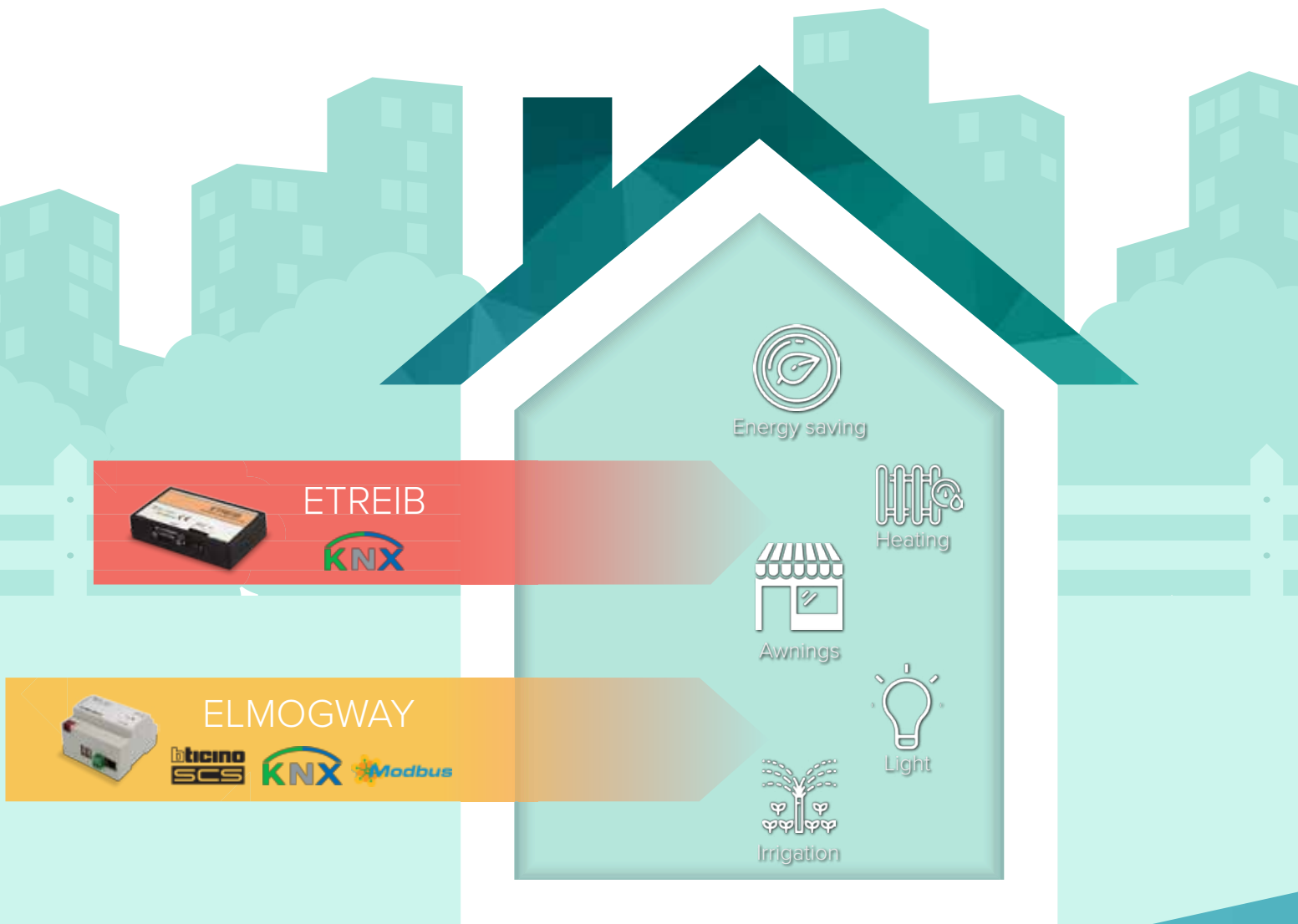
- 1  **VIDOMO2K**
NG-TRX® intrusion detection control unit
- 2  **CONDOR2K**
Indoor MW+IR wireless detector
- 3  **TRIAL2K**
Outdoor MW+2IR wireless detector
- 4  **DT2000**
Indoor MW+IR wired detector
- 5  **TRESO1485**
Indoor MW+2IR detector with ULTRABUS interface

- 6  **GAIA2K**
Outdoor wireless siren
- 7  **VIRGO2K**
Outdoor magnetic contact
- 8  **GATEWAY2K**
Gateway for NG-TRX® system with ULTRABUS interface
- 9  **VOLANS2K**
Indoor wireless perimetral transmitter with piezo

Home and building automation

The NG-TRX intrusion detection control units optimally perform even the functions dealing with the world of home automation. Indeed, they allow controlling some outputs that can be assigned to specific functions such as opening the garage, activating the irrigation system or switching the

lights on and off. Moreover, it is possible to integrate the NG-TRX control units in third-party home automation systems based on the Konnex, SCS and Modbus protocols by using the ETREIB and ELMOGWAY optional modules.



NG-TRX® control units

VIDOMO2K



Intrusion detection control unit up to 64 inputs
(freely configurable as wireless and/or wired inputs).
1 ULTRABUS interface

VICOMPACT2K



Intrusion detection control unit up to 32 wireless inputs
Integrated GSM/GPRS module

MDPSTN



PSTN module

MDNTP



NTP module

MDGSMI/ MDGSME



GSM/GPRS modules

MDLAN



LAN module

MDWIFI



Wi-Fi module

MDGPSE



GPS module

MDTEMP



Heat detector

MDPOWER MDPOWER24



Power supply
modules

NG-TRX® devices

GAIA2K



Wireless outdoor siren

ATLANTE2K



Two-way remote control

GATEWAY2K



Gateway with ULTRABUS interface

FLY2K



IR+MW detector for ceiling-mount

SCORPIO2K



Indoor IR detector

CONDOR2K



Indoor IR+MW
detector

BLADE2K



Indoor IR detector
for doors/windows

TRIAL2K series



Outdoor 2IR+MW de-
tectors with multifocal/
vertical/horizontal lens

GRIFO2K



Outdoor IR+MW
detector with
multifocal lens

STRIXO2K



Outdoor IR+MW
detector with
vertical lens

VIRGO2K



Wireless perimetral
transmitter for indoor and
outdoor use (IP55)

LUPUS2K



Perimetral transmitter.
It manages 1 onboard con-
tact, 1 external contact and 1
roll-up shutter

LUPUSC2K



Compact perimetral trans-
mitter. It manages 1 onboard
contact, 1 external contact
and 1 roll-up shutter

VOLANS2K























Perimetral transmitter.
It manages 1 onboard
contact, 1 external contact,
1 roll-up shutter and 1 inte-
grated piezo sensor

VOLANSC2K























Compact perimetral trans-
mitter It manages 1 onboard
contact, 1 external contact, 1
roll-up shutter and 1 inte-
grated piezo sensor

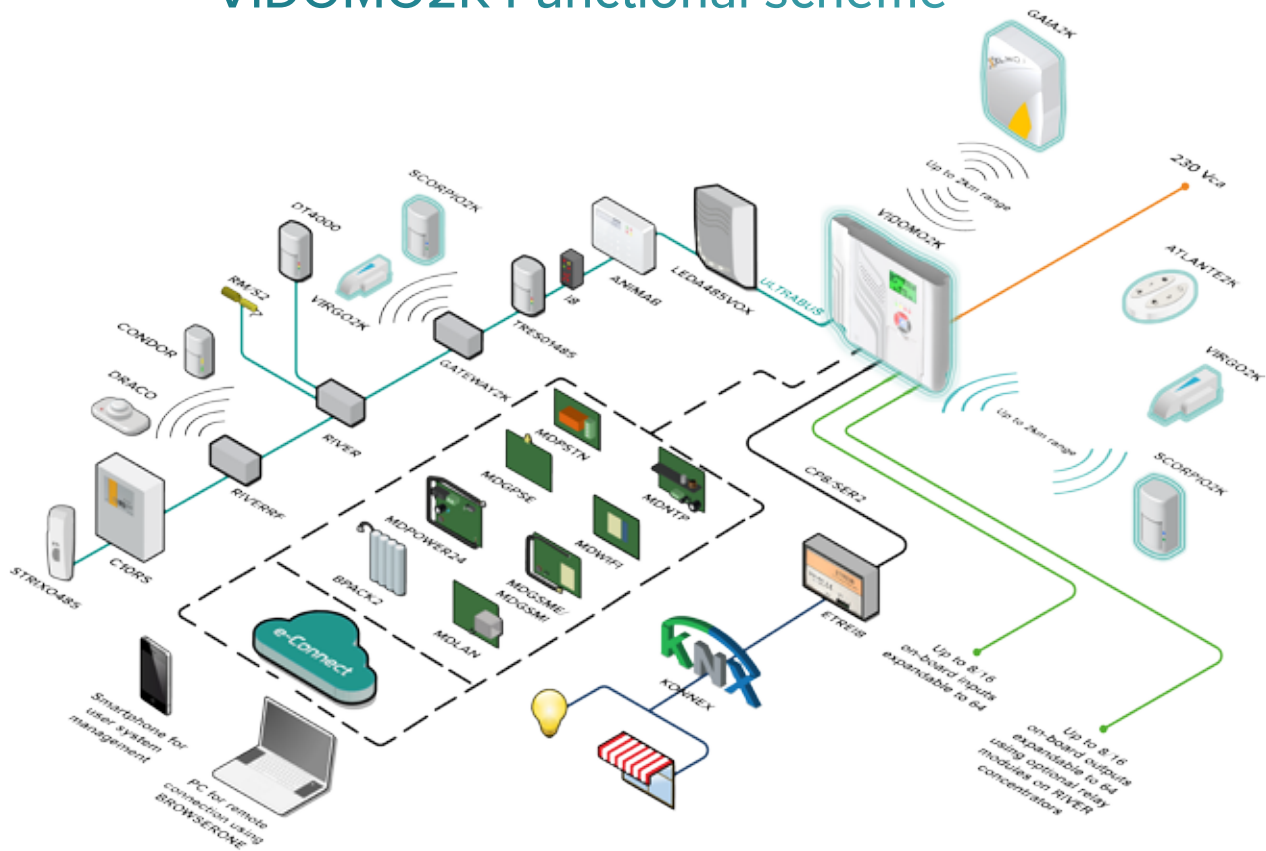
Other compatible devices

<p>TRIAL series</p>  <p>Outdoor 2IR+MW detectors with multifocal/vertical/horizontal lens</p>	<p>GRIFOX series</p>  <p>Outdoor IR+MW detectors with multifocal lens</p>	<p>STRIXO series</p>  <p>Outdoor IR+MW detectors for doors/windows/external walls protection</p>	<p>BLADE series</p>  <p>Indoor IR or MW+IR detector for doors/windows</p>	
<p>DT1000 series</p>  <p>Indoor MW+IR compact detectors (DT1000P PET-IMMUNITY version)</p>	<p>DT2000 series / CONDOR</p>  <p>Indoor IR+MW detector</p>	<p>DT4000</p>  <p>Indoor IR+MW wired detector with anti-mask function</p>	<p>TRES01 series</p>  <p>Indoor 2IR+MW detectors</p>	<p>FLY</p>  <p>IR+MW detectors for ceiling-mount</p>
<p>DRACO</p>  <p>Wireless smoke detector</p>	<p>DRACOG2</p>  <p>Wireless heat detector</p>	<p>RCALG/RCALRF</p>  <p>Flooding detectors</p>	<p>Gas detectors</p>  <p>Gas methane, LPG and CO detectors for civilian use</p>	
<p>ANIMA series</p>  <p>Capacitive control and management keypads</p>		<p>TATTILO series</p>  <p>Touch screen control and management keypads</p>		<p>VELA series</p>  <p>Wireless control and management keypads</p>
<p>LEDA485 and LEDA485VOX</p>  <p>Outdoor sirens with ULTRABUS interface</p>	<p>RPX485</p>  <p>ULTRABUS repeater</p>	<p>RIVER series</p>  <p>Concentrators</p>	<p>C10RS/C11RS</p>  <p>Power supply units with ULTRABUS interface</p>	

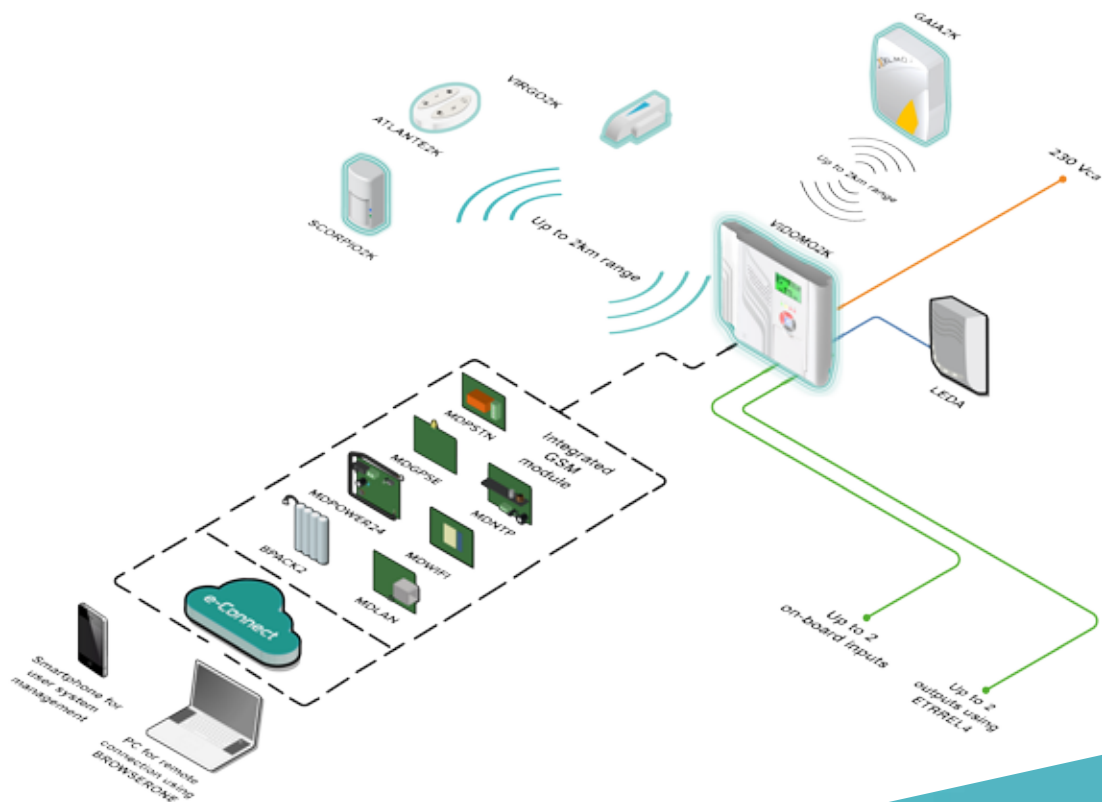
The devices are available in these version:  Traditional wireless  Wired  ULTRABUS (EL.MO. addressable RS485 serial bus)

Model	VIDOMO2K		VICOMPACT2K	
Product code	 CWVIL0101900  CWVIL0101904  CWVIL0101906	 CWVIL0101901  CWVIL0101905  CWVIL0101907	 CWVIL0101800  CWVIL0101804  CWVIL0101806	 CWVIL0101801  CWVIL0101805  CWVIL0101807
				
	 		   	
Zones	64 total inputs freely manageable in wireless/wired/ULTRABUS configuration . The wireless zones are available on board and/or through RIVERRF or GATEWAY2K via ULTRABUS. On-board 8 wired zones or 16 with split function (reducing the wireless zones). Expandable up to 64 by using RIVER concentrators via ULTRABUS On board zones can be configured as radio zones or NO, NC, balanced, split, extended split, triple balanced.		32 total wireless zones. The wireless zones are available on board. Not expandable On-board 2 wired inputs (reducing the wireless inputs). Not expandable	
ULTRABUS interface	1 x ULTRABUS (RS485 serial bus) for compatible devices connection		/	
Outputs	Total 64 programmable outputs Connector with 8 outputs for ETRREL modules 12V fuse-protected power output for detectors. Alarm relay output with C-NO-NC free from potential contacts with 3A@AC24V capacity. It can be configured.		Total 2 programmable outputs Connector with 2 outputs for ETRREL4 modules 12V fuse-protected power output for detectors. Alarm relay output with C-NO-NC free from potential contacts with 3A@AC24V capacity. It can be configured.	
Areas/sectors	Management of 4 areas with 4 sectors each, or 2 areas with 8 sectors each, or 1 area with 16 sectors.			
Users	32 max		32 max	
Control devices	16 control devices over ULTRABUS		/	
User interface	B/W LCD display, 128x65, with RGB backlight depending on operating conditions (adjustable) Backlit 20-rubber-key keypad Low-consumption proximity key reader (selectable), located among the sectors keys		Backlit 20-rubber-key keypad	
Wireless module	3 channels settable via browser for digital transmissions on the 868.120 MHz, 868.820 MHz and 869.525 MHz frequencies for LPD devices.			
Operative range	From 400 m to 2000 m in free space.		From 400 m to 2000 m in free space.	
Events log	Historical memory with 1000 events capacity.		Historical memory with 1000 events capacity.	
Connectors	MINIDIN for programming and remote control, CP8/SER2 cable required. MINIUSB for programming, remote control and firmware update in simplified mode. Support of ETREIB interface via CP8/SER2 cable for Konnex systems connections. Connector for remote I66 proximity key readers.		/	
Phone dialler	Telephone number list, 16 numbers for voice calls, 2 for digital calls, 4 for remote assistance, 1 for direct dial-out			
Voice synthesis	Voice synthesis module with 64 messages that can be recorded by the installer using microphone and speaker			
GSM	Optional GSM/GPRS module (MDGSMI or MDGSME) for connection to and from the control unit via GSM Connection to the e-Connect platform		GSM/GPRS module (supplied) for connection to and from the control unit via GSM Connection to the e-Connect platform	
LAN	MDLAN Ethernet module (optional) for remote control and programming via TCP/IP. Digital transmission with SIA IP Reporting (TCP-2007) protocol		MDLAN Ethernet module (optional) for remote control and programming via TCP/IP. Digital transmission with SIA IP Reporting (TCP-2007) protocol	
Wi-Fi	MDWIFI Wi-Fi module (optional) for the connection to the e-Connect system Digital transmission with SIA IP Reporting (TCP-2007) protocol		MDWIFI Wi-Fi module (optional) for the connection to the e-Connect system Digital transmission with SIA IP Reporting (TCP-2007) protocol	
Functions	Compatible with wireless NG-TRX devices and devices of the first Villeggio generation Control of up to 15 sirens and 15 configurable actuators Built-in temperature sensor with thermostat function. Wireless temperature sensor MDTEMP (optional) Daily/weekly chronothermostat function with boiler block detection.			
Built-in siren	Low-consumption built-in piezo siren		Low-consumption built-in piezo siren	
Case	White plastic housing protected against opening and removal			
Battery	Battery PACK 1 supplied			
Operating temperature	From +5 to +40 °C			
Dimensions/weight	W 268 x H 210 x D 63 mm, 990 g with wall fixing bracket			
Current draw	35 mA when armed, 27 mA when disarmed			
Power supply	From mains 110-240VAC 50Hz (MDPOWER module included).			
Regulations	Compliant with EN50131-3 grade 2, environmental class 2.			

VIDOMO2K Functional scheme



VICOMPACT2K Functional scheme



e-Connect

Web platform for security systems

e-Connect is the innovative web platform for the management, centralization and supervision of EL.MO. intrusion detection systems for end-users, installers, distributors and service companies. With e-Connect you can:

- Control the status of your system: power supply, battery, alarms.
- Enable or disable devices directly touching icons on the map.
- Control lighting, heating, irrigation.
- Remotely program thermostat and manage temperature of your home.
- View your video surveillance system cameras directly from your smartphone or tablet.
- Enable and disable different areas of your home.
- Receive real time notifications for each event.
- Manage more systems with just one account.

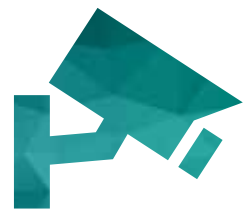
What can I manage?



Intrusion detection system



Home and building automation



Videosurveillance system

What can installers do?

Systems list



Complete list of all the installed systems in a single platform

Accounts management



Create end-users accounts, enabling or disabling them to specific services

Systems supervision



Possibility to supervise customers systems

Remote assistance



Configure and remotely assist systems through BrowserOne Enterprise software

e-mails and alerts



Send e-mails to end-users for maintenance or definable events

Theme customization



Customize customers page with graphic themes, logo and advertising banners

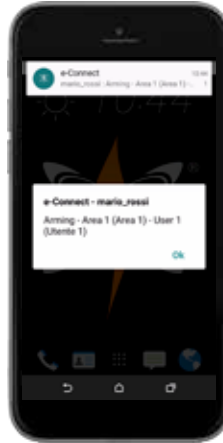
What can end-users do?

Online preview



Control the status of your system: power supply, battery, alarms

Push notifications



Receive real time notifications for each event

Graphic Maps



Enable or disable devices directly touching icons on the map

Intuitive icons



Enable and disable different areas of your home

Home Automation



Control lighting, heating, irrigation

Videosurveillance



With e-Connect app, you can view your video surveillance system cameras directly from your smartphone or tablet



You can manage your security system everytime from PC, smartphone and tablet





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