

A man and a woman are standing in front of a modern, multi-story house with a balcony. The woman is on the left, wearing a green jacket and a patterned scarf, gesturing with her right hand. The man is on the right, wearing a blue shirt and glasses, looking up at the house. The background is a clear blue sky.

Satel®

2009/10

Intelligent
Security Solution

SATEL Company, established in 1990, has been present almost 20 years on the Polish market. In the course of time, we have become the unquestionable leader in security systems industry. We have also achieved excellent results specializing in designing, production and sale of the wide range of modern devices used for the construction of security alarm systems.

State of Art and Top Quality Products of SATEL's

Innovation in solutions cannot be only reduced to modern technology. We know perfectly well, how important it is to offer friendly devices for our clients. That is why special emphasis is put on functionality and handling of a final product as early as at the product design stage. The multilevel textual menu in the Polish language, system of intuitive designations on keypads, or installer's software working in Windows environment are just a few examples aimed at facilitating products operation. Special attention is permanently paid to adjustment our offer to current trends in product design. Therefore, we have organized our own design and production departments – places where our top quality components are developed and made.

Combination of modern design and maintaining the highest quality standards have made possible achieving success, not only on the Polish market, but also on over 40 foreign markets. Since the very beginning, the Company's activity has been based on the system ensuring top quality of products. In 2002, we obtained the certificate of conformance to ISO 9001:2000, thus confirming high quality of standards applied by our Company. We managed to exceed ISO specified requirements – each product leaving our production line undergoes full scope functionality tests and receives guarantee of reliability.

To Make Life Easier

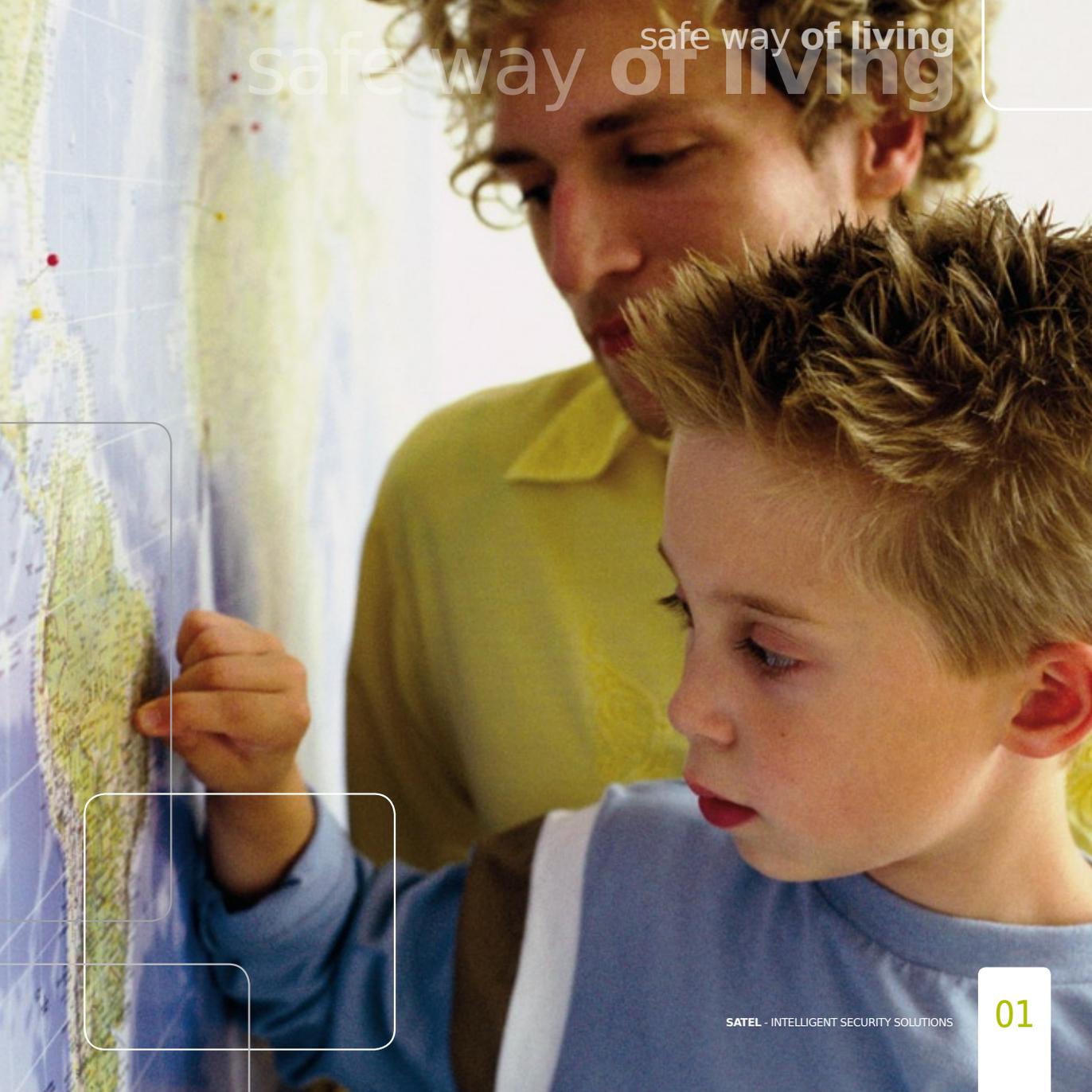
Our goal is to maintain the position of the technological leader on the market of security devices. We offer functional state-of-the-art solutions for each area of property protection. More than 200 skilled employees, involved in realization of this task, as well as dynamically developing production facilities, make easier achievement of the set objectives.

This catalogue has been prepared to present our customers functionality of the offered security systems. We would like to emphasize that our offer, besides traditional alarms, includes also many useful devices which will make your home secure and functional. Our smart products can take over doing some routine duties even if you are outside the house or apartment.

Let us begin the presentation of the security systems by the description of essential components of the alarm system, including its basic features and application. Additionally, we want to demonstrate great capabilities provided by our devices. You have the chance to learn about some advanced solutions which may inspire you to create the system tailored to the needs of your family. You will be shown some patterns of appropriate arrangement of the earlier presented devices in typical places.

We hope, that this catalogue will make it easier to specify the precise requirements to be met by your exceptional security system, ensuring quietness, sense of security and comfort for your loved ones.

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get familiar with our **products****Alarm Control Panels**

Control panel is the heart of any security alarm system, responsible for functionality of the whole installation. Up-to-date control panels in SATEL's portfolio, such as INTEGRA series, allow to create not only a reliable alarm system, but also use extra features which will free you from performing some daily chores. This is possible thanks to several modern and flexible solutions adopted in the construction of devices and firmware of control panels. An entirely new solution is INTEGRA 128-WRL control panel which, due to the advantages of wireless communication, is an ideal solution wherever making conventional installation is difficult or even impossible. Examples of capabilities offered by our control panels are presented in the catalogue. Where such wide-ranging functionality is not necessary, simpler devices, for example CA-10, CA-6 or CA-5 control panels can be applied. They have been successfully used for many years in a great number of installations, ensuring reliable and trouble free operation.

**CONTROL PANEL FEATURES**

CONTROL PANEL	WRL	INTEGRA	CA-10	CA-6	CA-5
Max. number of zones	128	128	16	8	5
Support for wireless detectors	yes	option	yes	no	no
Home automation features	yes	yes	no	no	no
Remote reporting	yes	yes	yes	yes	yes
Max. number of voice/text messages	32/64	32/64	1/4	1/4	brak
Voice messaging	yes	yes	yes	yes	no
Communicator type	gsm	tel.	tel.	tel.	tel.
TCP/IP (Internet) communication	yes	yes	no	no	no
GSM/GPRS communication	yes	option	option	option	option



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Keypads

Keypads are designed for everyday operation of the security alarm system by using the system of “codes”, i.e. digits which are “virtual key” to the system entered by those keys. In case of control panels with extended functionality, keypads can be also used to control devices connected to the system, like an air conditioner or a roller shutter. Easiness of keypad operation will depend on the choice of a keypad. LCD keypads in SATEL’s control panels facilitate the use by an easy-to-read menu in Polish. Simpler LED keypads also ensure the easy use of the basic functions, however those less frequently used, require memorizing control combinations and meanings of particular indicators. Another additional feature, facilitating operation, available only in special keypads for INTEGRA control panels, is the option of using key fobs or proximity cards, which can make the need of memorizing the code unnecessary. In most cases, the keypad for alarm system control is installed in a prominent position in the room. For this reason, you can choose from the variety of models differing by the shape of enclosure and/or colour of backlighting to match the individual character of your house or apartment.



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Sirens

Sirens have a triple function in the security alarm system. In the first place, presence of outdoor sirens should discourage potential intruders from forcing the entrance into the house or apartment protected by the alarm system. Additionally, in emergency situation, their loud sound and flashing light are likely to draw attention of people. The purpose of indoor sirens is to fill the inner space with unpleasant sound, its intensity being close to pain threshold, which is also intended to make the intruder leave the building. Considering the fact, that it is usually the only element of the alarm installation accessible from outside, the siren should be particularly carefully protected against unauthorized access. For this purpose, it can be fitted with a number of devices which guarding against attempts and consequences of a tamper or intentional damage. Another important problem regarding construction of the siren is its resistance to changing weather condition. Well-designed and proven construction along with the reputation of the manufacturer are the basic advantages of the good siren. To fulfil different expectations of our customers, SATEL Company has in its portfolio the range of sirens differing not only by shape and size, but also applied technologies and protection level. While choosing the appropriate equipment, it is advisable to turn to our expert for assistance and assessment of potential hazards.





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get familiar with our **products****Alarm System Detectors**

Detectors are one of the basic components of the security alarm system. Their role is to transmit information about the occurrence of the particular incident, e.g. detecting motion inside the room or opening the window, to the alarm control panel. Great variety of such devices is available in SATEL's offer. Indoor motion detectors are the kind most widely used in security alarm systems. They can be based on various technologies and physical phenomena. Infra-red (so-called PIR) detectors and "dual" detectors, combining IR and microwave technologies, are the most popular because of their versatility. Their quality and professional installation have an effect on functioning of the whole system: low-quality or poorly installed devices may trigger false alarms or entirely fail to respond in emergency situation. Motion detectors of the new generation, such as GRAPHITE or proven AQUA Plus detectors, ensure trouble free operation, which has been confirmed by satisfied users and installers, certificates issued by independent bodies and results of numerous tests carried out in various conditions. It is worth knowing that the special type of motion detectors should be used if they are to be installed where pets, like dogs or cats, stay. Detectors suitable in such a situation are Graphite Pet and Aqua Pet, which both have all the advantages of the basic model and, additionally, are adopted for the presence of pets. There are still other possibilities of using motion detectors supplied by AQUA Luna model. Provided with the system of LED lighting, the model can be used for illumination of passageways and/or stairs, and create cosy atmosphere by filling the room with a delicate light at TV time.





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get familiar with our **products****Detectors - Perimeter Protection**

SATEL's offer includes also a number of detectors which make possible to create perimeter protection, aimed at detecting any intrusion attempt the protected buildings. This category includes a series of magnetic door and window opening detectors, commonly known as reed relays. Their task is to detect an attempt at opening protected windows or doors. The similar role is played by vibration detectors, such as VD-1 or AVD-100, reacting to vibrations caused by breaking locks or forcing hinges. Another detector of this kind is INDIGO glass break detector which, by detecting sound waves, reacts to an attempt at breaking the window/door glass pane. ACTIVA active infrared barriers comprise the separate group among the perimeter protection detectors. They form an invisible "fence" by the use of infrared radiation beams. Due to the special construction, these barriers can be used not only for the protection of the door/window line inside the house, but also secure outside of the building. Our customer can additionally apply protection of collections and/or works of art – another option among our smart solutions.



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Detectors - Additional Protection

Advanced system can ensure security to much greater extent than mere burglary protection. For this purpose, it must be provided with additional detectors, capable of sensing various kinds of threats early enough. Fitting the system with DG-1 gas detectors will make possible to discover and warn against the danger connected with the escape of explosive natural gas, propane/butane, or poisonous carbon monoxide. Smoke and heat detector, such as the wireless ASD-100, will allow you to react early to the occurrence of smoke, even caused by the electric iron left plugged in. Another example of the comprehensive security approach is the use of water flood detectors, such as FD-1 or AFD-100 (which is a wireless equivalent of the former). They are capable to protect you against the consequences of flooding caused, for example, by the running tap in the bathroom.





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Communication and Messaging

Efficient transmission of alarm information is one of the key functions of any security alarm system. One of the possible options is transmission of the digital signal to the alarm monitoring centre supervised by security agencies, with the use of the regular telephone line. In this way, security guards will be able to intervene quickly to protect your property. Another solution is transmission of a voice message, for example, to your mobile phone. An undisputable advantage of INTEGRA control panels is differentiation and detailed information on the incident, so that at the very moment of messaging you can know exactly what is going on at your home.

However, if the telephone line is out of order – either by an accident or as the result of the intruder’s action – the control panel will be unable to transmit the alarm information. To avoid such a situation, you can fit your system with GSM-4S device which will automatically substitute the defective telephone line and enable the control panel to make the emergency connection. Another benefit of connecting GSM module to the control panel is the capability of the latter to send a text message to the house owner in case of any alarm. Similarly to voice messaging, INTEGRA control panels enable sending detailed information via text messages – not only about alarms, but even your kids coming home from school.

Quite different capabilities are offered by the application of ETHM-1 communication module, using TCP/IP networks, such as the Internet or LAN. Thanks to this device, you can not only supervise your system from any place in the world, but also operate it by using the virtual keypad, available in the web browser or in the mobile phone. Of course, as with all SATEL’s devices, security is the main priority. Therefore, for network communication, there are used advanced methods of encoding and safeguarding against malicious attacks in order to prevent unauthorized access.

Where a digital ISDN link is installed instead of the traditional telephone line, it becomes indispensable to fit the system with a module enabling communication with the use of such a link. Standard devices with similar functionality, which are provided by the telecommunication operator, do not fulfill their purpose in the security alarm system, as they cannot ensure correct operation when the power supply is disconnected.

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Day and Night Protection

Before you start planning the security alarm system for your home, it is worth considering which elements of its surroundings and when should be covered by protection.

Even in its simplest configuration, the system should not only cover the interior, but also the perimeter, i.e. the doors and windows. By the separation of the interior from the perimeter section you can adjust the security level to the everyday rhythm of your life. On leaving home, you turn on the full armed mode: both opening the doors / windows and motion of people inside will trigger the alarm then. However, when you stay indoors and wish to ensure the sense of security, the system will automatically turn on the perimeter protection at the preset time. You and your family can move freely inside your home, while any attempt of forced entry through the doors or windows will be instantly detected by the perimeter protection detectors. If your home has more than one level, you can turn on the full armed mode for the night, excluding the bedroom, kids' rooms, bathroom and the kitchen. An additional keypad installed on the upper floor will facilitate the full use of the capabilities of such a system. By choosing additional, independently controlled partitions, you will adjust the system be better suited to your individual way of life and to ensure maximum security for your family.

Only such a solution will guarantee that the system armed to the night mode will trigger an alarm at the very moment of forcing the door or window, before the intruder gets in. Hence, it is advisable then to make sure that the installation plan includes the elements of perimeter protection.



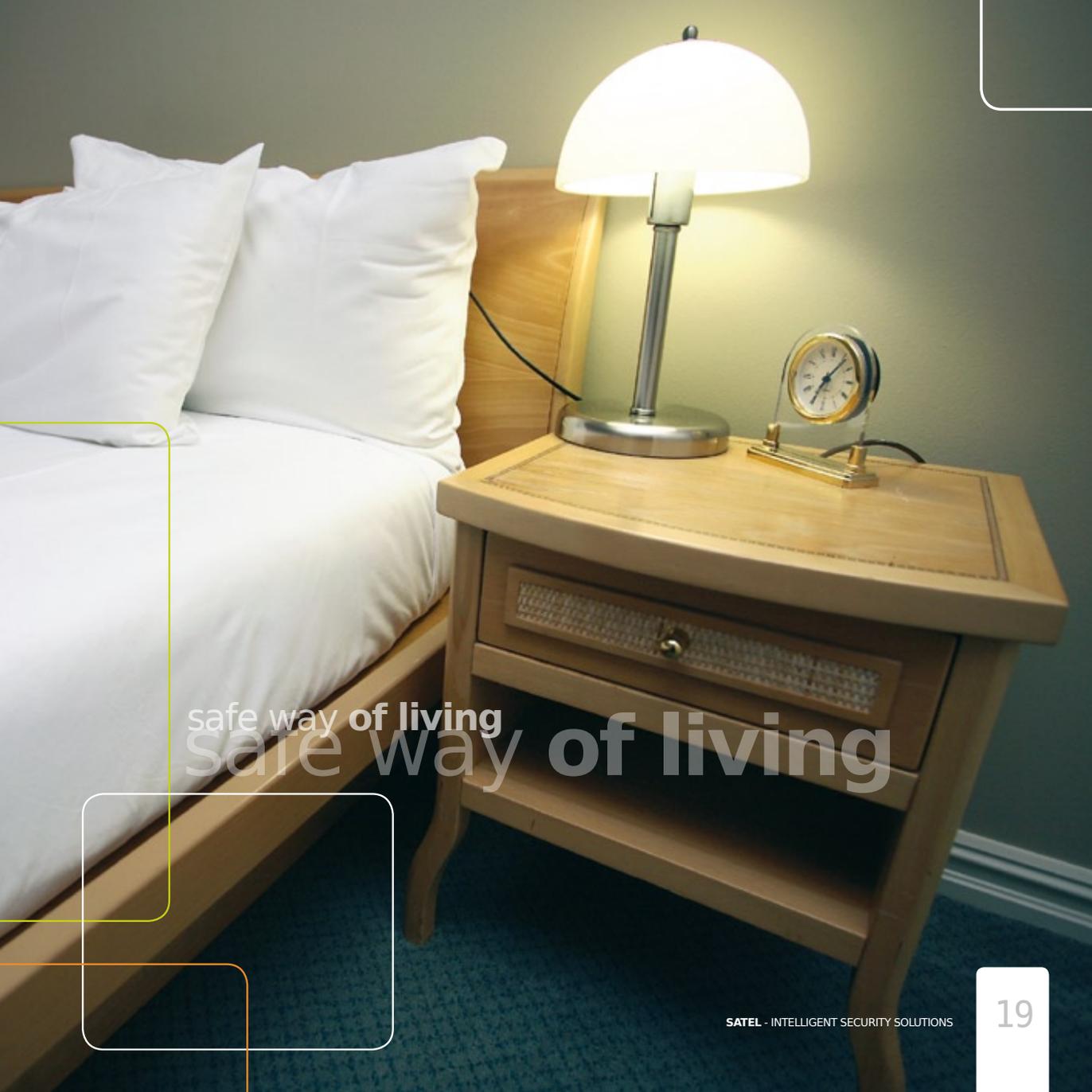
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Lighting Control

When you are out, the security alarm system based on INTEGRA control panels can simulate the presence of the occupants, which may discourage a potential burglar. Lighting can be controlled automatically, according to pre-programmed time schemes, or as the reaction to specific events (for example, in combination with a twilight sensor). Moreover, with the use of your mobile phone, you can turn the light on / off at any moment, for example in the living room.

Lighting control means not only simulation of the presence of occupants. The features incorporated in INTEGRA control panels allow to turn on the light in the corridor or on the staircase automatically as soon as the detector senses your presence. If you wish, the light may turn on with less intensity at night so as not to disturb the sleep of your family. On your coming home in the evening, the light in the lobby can turn on automatically after opening the entrance door, just when your hands are busy with holding bags full of shopping.





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Heating and Air Conditioning Control

Using INTEGRA control panel for heating control can bring you measurable savings in energy consumption costs. Control automation can be programmed according to your routines so that comfort heating is turned on just before your arrival. Thus the room has already been warmed on your entering. During your stay outside, the system will automatically switch over to the economy mode. If, exceptionally, you have to stay longer at work, you can change the everyday scheme via the Internet. On opening the window in the particular room, the system can turn off heating automatically.

This solution allows also control conditioning operation – in this way, both in winter and summer, SATEL system will ensure you maximum comfort and measurable savings.

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learn about our **solutions**

Automatic Garden Watering, Roller Shutter and Garage Gate Control

Having the system based on INTEGRA control panel, you can easier take care of your garden. Automatic watering will begin at the preset time, unless it rains earlier.

Anti-burglary roller shutters can be automatically lowered at the moment of arming – you do not have to bother about it any more while leaving the house or going to bed. When you come home and disarm the system, the roller shutters will rise automatically, filling your home with sunshine. If you would prefer to control the roller shutters manually, you can group them as you wish, to open or close some by using just one button.

When you want to drive out of the garage, you can use one button for disarming the system and opening the garage door and driveway gate. In the same way you can close both gates and rearm the garage surveillance system. On your return, you can use the same key fob to open the gate and start the alarm delay. Then you will disarm the system by entering the password on the keypad.



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learn about our **solutions****Remote Control of System**

Thanks to the wide range of available communication media you will be in constant touch with home. This will allow you to respond immediately to various circumstances. Being at work, you can use your computer to make sure you did not forget to arm the system while leaving the house in the morning. In winter, stuck in a traffic jam, you can send a text message to turn on central heating beforehand and come to the warm house.

When your home is left in charge of trustworthy neighbours for the time of your absence, you can remotely disarm the system through the mobile phone, to let them in so that they could water your favourite plants. Then, after making sure that the house was locked again, you can rearm the system in the same way.



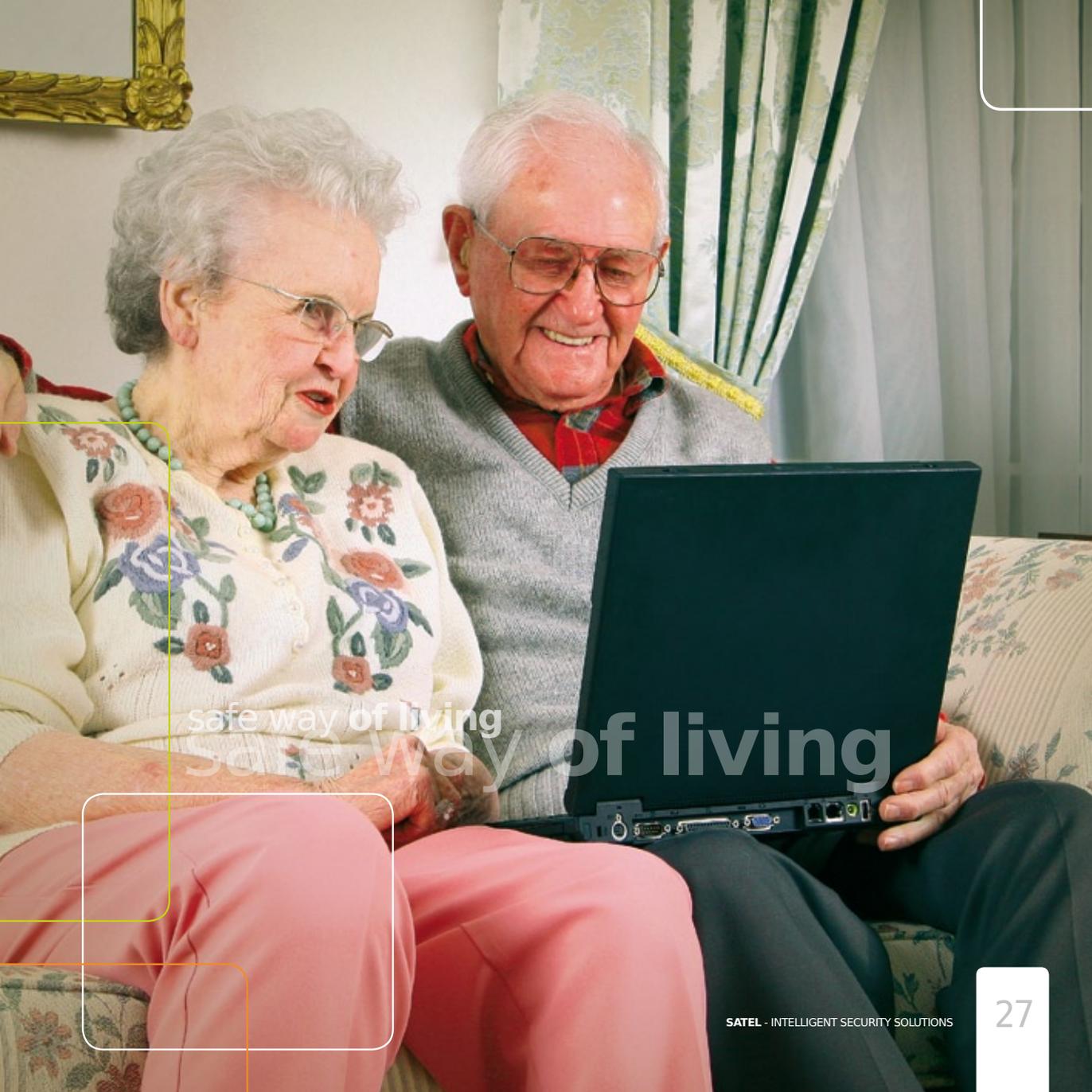


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Meeting Elderly Needs

Everyday operation of SATEL alarm system is not complicated. If you do not want to remember control codes, you can use key fobs and proximity cards or remote controls. Thus, to arm or disarm the system it is enough to put the key fob reader / card to the keypad / or to press the button on the remote control unit. These operations can be acknowledged by the control panel with a voice message. In this simple way operation of the system will become easier for elderly people.





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examples of equipment **arrangement**

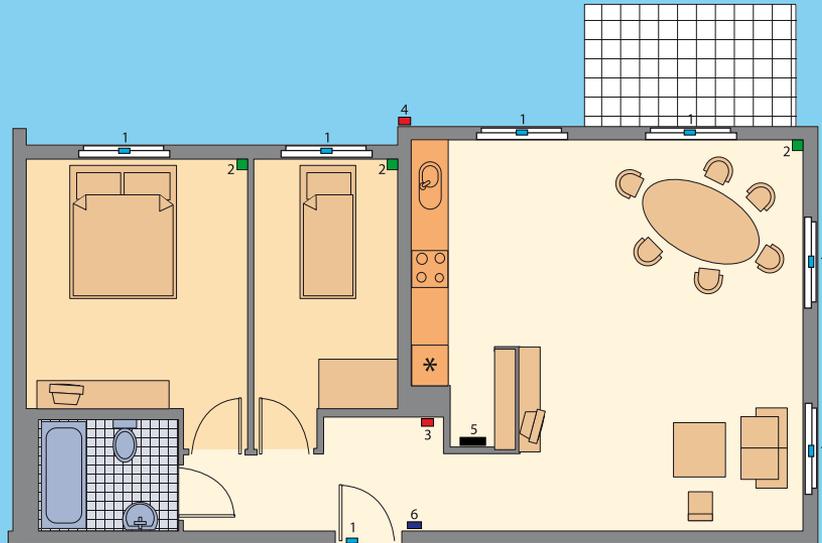
Examples of Typical Alarm Systems

Security alarm system based on INTEGRA 32 control panel. This panel, which offers the possibility of extending the system in the future, is ideally suited for small and middle-size buildings. It allows monitoring, messaging, using the remote access function and ensures security and quietness to users. Its unquestionable advantages are programming flexibility and advanced functionality. The extra option is the possibility of using LCD keypad for operation and programming.



An example of configuration of the alarm system for a 3-room apartment

1. Magnetic detector **K-1**
2. Motion detector **AQUA Plus**
3. Indoor siren **SPW-220**
4. Outdoor siren **SP-4003**
5. Alarm control panel **INTEGRA-32**
6. Keypad **LCD for INTEGRA**



examples of equipment **arrangement**

Examples of Typical Alarm Systems

Security alarm system based on INTEGRA 64 control panel. Having 16 zones and 16 optionally configurable outputs, this control panel ensures high security level for middle-size buildings, while GSM LT-1S messaging module allows reliable monitoring of the site in any situation. Along with numerous possibilities of extension and advanced functionality, this system can be used for construction of a house automation system.



An example of configuration of the alarm system for a small detached house

1. Magnetic detector **K-1**
2. Motion detector **GRAPHITE**
3. Dual movement detector **SILVER**
4. Indoor siren **SPW-220**
5. Outdoor siren **SP-4003**
6. Alarm control panel **INTEGRA 64**
7. Keypad **LCD for INTEGRA**
8. Communication module **GSM LT-1S**



examples of equipment **arrangement**

Examples of Typical Alarm Systems

Security alarm system based on INTEGRA 128-WRL control panel. Versatility of devices makes possible not only their use in burglary and panic alarm systems but also in building access control and smart management systems. The main advantage of the above mentioned control panel is freedom of use both hardwired and wireless devices. The built-in GSM/GPRS communicator ensures monitoring of the facility in any situation, while the additional ETHM-1 module enables the system control to be effected through a network (e.g. the Internet).



An example of configuration of the alarm system for a large-size detached house

1. Alarm control panel **INTEGRA-128 WRL**
2. Keypad **INT-KLCD-BL**
- 2a. Partition keypad **INT-S-GR**
3. Wireless PIR detector **APD-100**
4. Wireless flood detector **AFD-100**
5. Dual movement detector **SILVER**
6. Trichloromethane based narcotic gas detector **DG-1 TCM**
7. Dual channel wireless magnetic contact **AMD-101**
8. Magnetic detector **S-4**
9. Indoor siren **SPW-220**
10. Outdoor siren **SP-4003**
- optionally:**
11. Communication module **ETHM-1**

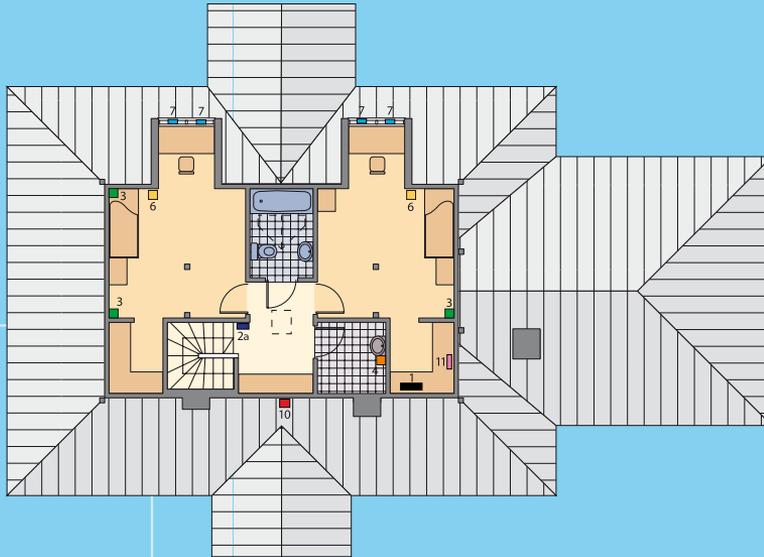


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SATEL is 100% privately held, capital-owned, Polish company active in designing, production and sale of high-quality electronic alarm system devices. Wide range of manufactured products includes control panels, sirens, detectors, monitoring stations, wireless systems, access control systems, radio controllers and switching mode power supplies.

Satel®
www.satel.eu

SATEL SP. Z O.O.
Ul. Schuberta 79
80-172 Gdansk, Poland
fax. +48 58 320 94 01
EU VAT: PL 5840154038

Export DEPARTMENT
tel. +48 58 320 94 11
e-mail: trade@satel.pl