



# Product catalogue



## OVER 20 YEARS OF **EXPERIENCE**

Since SATEL was created in 1990, each year of its activities has been marked by launching onto the market new products dedicated to protection of people and property. You can find in our offer both a wide range of devices and accessories used in alarm security systems and access control systems, as well as equipment for companies engaged in the business of monitoring the same. Strategic investments into new technologies and innovative solutions make us the leader of the market. Dynamic development of the Company and expansion of the range of products offered are possible because of the trust the Customers have bestowed on our solutions. Correct identification of Customers' needs and requirements is one of the pillars of our Company's success. Our mission is to ensure the sense of security for individual and corporate Customers and to raise standards in the field of people and property protection. Our employees spare no effort so that products bearing the SATEL's brand name can offer comfort of use and enhance your quality of life.

This have been appreciated by certificates issued by independent certification bodies, like the Det Norske Veritas (Norway) and SBSC (Sweden). Since the very beginning, SATEL products gained a positive reputation among distributors, installers and end users both on domestic market and abroad.



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## Intruder alarm control panels

Intruder alarm control panels are the most important products of SATEL's product portfolio. Wide selection of available devices allows optimal choice of proper components for a particular installation – from a small shop or flat, up to large commercial and office buildings.

Many years of experience and cutting-edge manufacturing technology guarantees reliability of the equipment. To ensure effective utilization of device capabilities, our engineers choose the most flexible solutions during the design stage. Their focus is also put on an user friendly interface – to make sure that system set up and maintenance as well as everyday use will be an enjoyable experience.

**INTEGRA RANGE OF INTRUDER CONTROL PANELS**

INTEGRA panels are the most powerful and advanced intruder alarm control panels manufactured by SATEL. The family includes seven control panels of unified hardware/software architecture that differ from each other with size and expansion possibilities. Unique scalability combined with the selection of core components allow to suit the needs of most security applications. The versatility of these panels makes it possible to use them not only for intruder and hold-up systems, but also for access control and building automation.

A new addition to this range is INTEGRA 128-WRL, which combines INTEGRA features with the benefits of wireless solutions – such as integrated bidirectional 868 MHz interconnect, or built-in GSM/GPRS communicator.



**GUARDX**

**DLOADX**



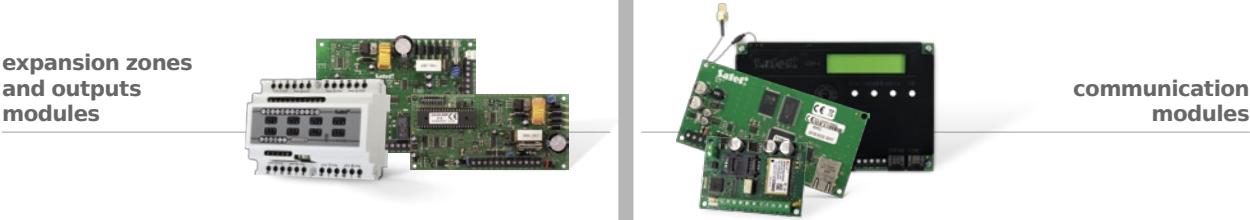
**sirens**

**detectors**



**system operation and supervision**

**access control modules**



**expansion zones and outputs modules**

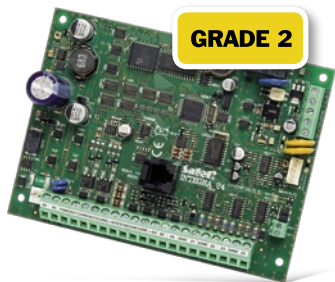
**communication modules**

**wireless bidirectional ABAX system**

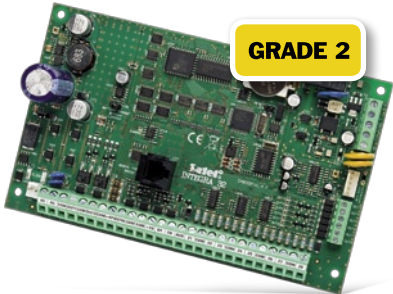


## INTEGRA INTRUDER ALARM CONTROL PANEL

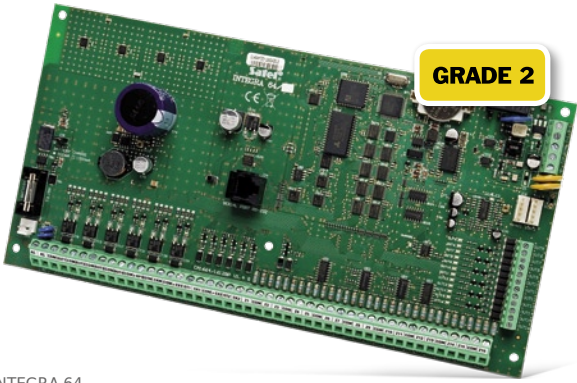
- 4 up to 128 zones:
  - support for NC, NO, EOL, 2EOL/NC and 2EOL/NO loop configurations
  - 3EOL configuration (**INTEGRA Plus**)
  - pulse analysis with sensitivity setting for vibration and roller shutter sensors
  - flexible selection of zone function
  - detector diagnostic tools
- 4 up to 128 programmable outputs
- built-in 868 MHz bidirectional interconnect for detectors and output devices (**INTEGRA 128-WRL** only)
- 4 up to 32 partitions:
  - partitions controlled by users, timers, inputs or automatically related to other partitions
  - partition grouping into up to 8 objects
- expansion buses for easy installation of additional modules
- onboard RS-232 port for local upload/download, external modem support and event printing – RJ type socket
- USB port for quick and easy programming (**INTEGRA Plus** only)
- on-board communicator with reporting, messaging, remote control and remote uploading/downloading features:
  - telephone dialer (except **INTEGRA 128-WRL**)
  - GSM/GPRS 900/1800/1900 communicator (**INTEGRA 128-WRL** only)
- system operation:
  - LCD keypads
  - touch sensor keypad with MACRO features
  - partition keypads
  - remote controller keyfobs
  - personal computer (local RS-232/modem connection/TCP/IP networks)
  - SMS (**INTEGRA 128-WRL** only)
  - Java enabled mobile phone
- FLASH based firmware for easy updates without disconnecting the wiring
- panel programming:
  - local (LCD keypad/PC connected by RS-232, or USB **INTEGRA Plus** only)
  - remote (modem connection/TCP/IP connection/Java enabled mobile phone)
- settings backup in FLASH memory
- system codes:
  - up to 8 master user codes (1 master user code per object)
  - 16 up to 240 user code
  - 1 service code
  - selection of user rights, additional definition of access rights
  - dynamic function menu depending on current user rights
- individual keypads/code locks/card readers assignment of users
- periodic code changing with prefix feature
- dual code access partitions
- name editing (user/zone/output/partition/object) for easy control and maintenance
- timers:
  - 16 up to 64 installer defined weekly system timers
  - user defined partition timers
- event log (899 up to 22527 entries)
- enhanced online/offline event log printing features
- access control:
  - door opening by the use of partition keypad, code lock, proximity card readers, **DALLAS** iBUTTON readers (dedicated relays, function does not reduce number of available programmable outputs)
  - door control input (does not reduce number of available panel's zones)
  - opening every door by the use of LCD keypad
- reporting (Contact ID, SIA and other formats):
  - 4 monitoring station numbers (2+2 backup)
  - 9 identifiers
- messaging:
  - 4 to 16 telephone numbers
  - 16 to 32 voice messages (optional message reception DTMF confirmation)
  - 16 to 64 text messages
- incoming call answering:
  - partition state check
  - output control
  - voice menu for telephone control (with **INT-VG**)
- advanced telephone tone analysis (except **INTEGRA 128-WRL**):
  - TBR-21 compliant tone detection
  - intelligent redial attempts
  - programmable dialing sequence
- built-in 300 bps modem
- external modem support: PSTN, ISDN and GSM
- flexible output control by programmable logical operations
- auto-diagnostic features for all system components
- battery backed-up RTC with calendar
- onboard switching mode power supply
- twin-regulator power supply with advanced diagnostics (**INTEGRA Plus** only)
- optical indication of output state, battery charger and dialer operation
- electrical protection for all zones, outputs and buses



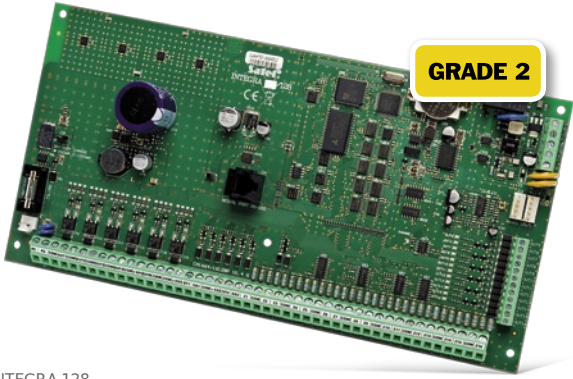
INTEGRA 24



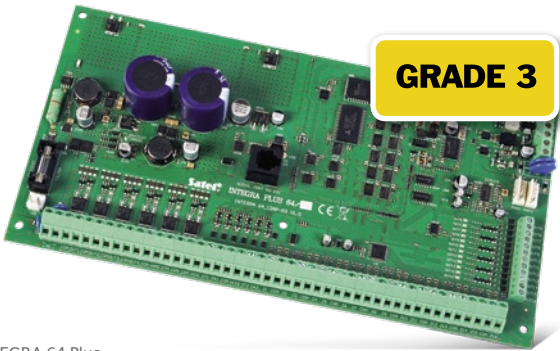
INTEGRA 32



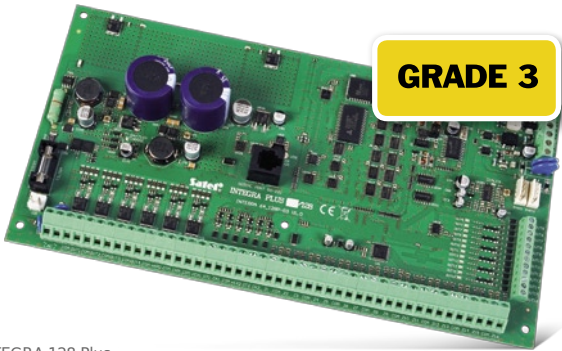
INTEGRA 64



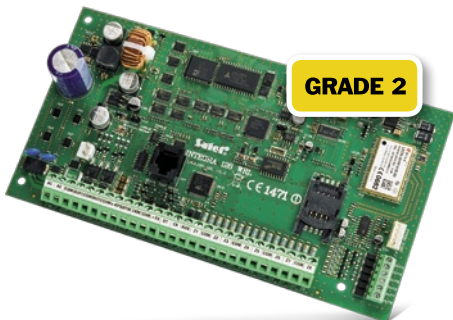
INTEGRA 128



INTEGRA 64 Plus



INTEGRA 128 Plus



INTEGRA 128-WRL

## INTEGRA OPERATION, CONTROL AND MANAGEMENT

### INT-KSG

Touch-sensor keypad

- large display with new user interface, able to deliver more information at once
- new display feature that provides customized information set on system status
- MACRO sequences for easy triggering of complex system operations
- backlit touch-sensor keypad
- individual LED and buzzer for key-press feedback
- dedicated FIRE, PANIC and AUX alarm keys
- 2 programmable zones with adjustable EOL value



INT-KSG-SSW / INT-KSG-BSB

### INT-KLCD / INT-KLCDR / INT-KLCDL / INT-KLCDS / INT-KLCDK

LCD keypads

- keypad and display backlight
- LEDs for system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- buzzer for acoustic signaling
- two zones expansion
- panel communication loss indication
- RS-232 for supervision and management applications **GUARDX**
- proximity card reader for **INT-KLCDR-GR** and **INT-KLCDR-BL** keypads
- available with green backlight (**GR**) or blue backlight (**BL**)



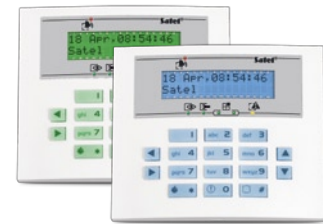
INT-KLCD-GR / INT-KLCD-BL / INT-KLCDR-GR / INT-KLCDR-BL



INT-KLCDK-GR



INT-KLCDL-GR / INT-KLCDL-BL



INT-KLCDS-GR / INT-KLCDS-BL

### INT-S-BL

Partition keypad

- controls single partition in the system
- keypad hold-down PANIC, FIRE and AUX alarms
- LEDs for partition state indication
- buzzer for acoustic signaling
- access control features
- relay for electromagnetic lock/electric strike
- door control input
- available with green backlight (**INT-S-GR**)





**INT-SK-GR**

Partition keypad

- controls single partition in the system
- keypad hold-down PANIC, FIRE and AUX alarms
- LEDs for partition state indication
- buzzer for acoustic signaling
- access control features
- relay for electromagnetic lock/electric strike
- door control input



**INT-IT**

Proximity card arm/disarm device

- partitions arming and disarming with proximity cards or tags
- support for 125 kHz passive transponders
- 3 programmable partition arm modes
- 3 LEDs for system state indication and user interface display
- built-in buzzer
- compatible with BTicino (Magic, Living Int, Living Light) and Gewiss (PlayBus, SYS) systems



INT-IT-MA / INT-IT-LI / INT-IT-LH / INT-IT-PB / INT-IT-SY

**INT-SCR-BL**

Multi-function keypad with proximity card reader

- partition keypad and entry keypad modes
- proximity card reader
- LEDs for partition state indication
- buzzer for acoustic signaling
- keypad backlight
- optical tamper for opening and removal from mounting surface
- relay for electromagnetic lock/electric strike
- door control input
- doorbell button
- outdoor operation



**INT-CR**

Proximity card arm/disarm device

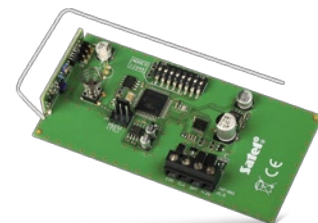
- partitions arming and disarming with proximity cards or tags
- support for 125 kHz passive transponders
- 3 programmable partition arm modes
- 3 LEDs for system state indication and user interface display
- built-in buzzer



**INT-RX**

433 MHz keyfobs receiver

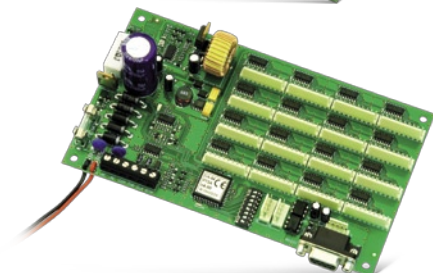
- support for up to 248 keyfobs
- up to 6 installer programmable actions per keyfob
- operated by **P-2**, **P-4**, **T-1**, **T-2**, **T-4** keyfobs
- supported also by the **VERSA** alarm control panels



**CA-64 PTSA**

Mimic board

- connecting of up to 128 LEDs for indicating zone/partition state of security system
- RS-232 for communication with **GUARDX** application
- onboard switching mode power supply



## ZONES/OUTPUTS EXPANSION MODULES FOR INTEGRA CONTROL PANELS

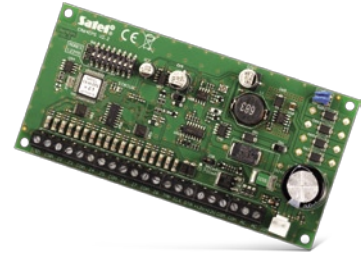
### CA-64 E Zone expansion module

- system expansion with 8 zones
- support for NO, NC, EOL, 2EOL/NO, 2EOL/NC zone configurations
- programmable EOL resistance value
- pulse analysis with sensitivity setting for vibration and roller shutter sensors
- supported also by the **VERSA** alarm control panels



### CA-64 EPS Zone expansion modules

- system expansion with 8 zones
- support for NO, NC, EOL, 2EOL/NO, 2EOL/NC zone configurations
- programmable EOL resistance value
- pulse analysis with sensitivity setting for vibration and roller shutter sensors
- switching mode power supply
- supported also by the **VERSA** alarm control panels



### CA-64 ADR Addressable bus expansion module

- dedicated independent bus for addressable detectors
- support for up to 48 addressable zones
- switching mode power supply



### CA-64 ADR-MOD Addressing module

- converts standard (NO, NC) detector into addressable detector
- installs inside detector enclosure
- compatible with **CA-64 ADR** addressable bus module



### INT-ORS DIN rail compatible outputs expansion module

- 8 relay outputs for direct control of 230 V mains powered appliances
- installation directly on 35 mm DIN rail
- supported also by the **VERSA** alarm control panels



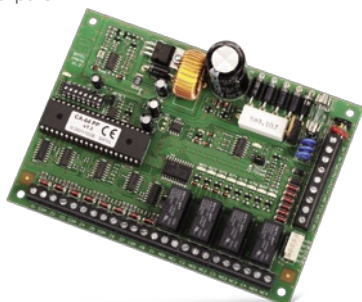
### INT-IORS DIN rail compatible zones and outputs expansion module

- 8 programmable zones
- 8 relay outputs for direct control of 230 V mains powered appliances
- installation directly on 35 mm DIN rail



### CA-64 PP Subpanel module

- system expansion with 8 zones
- system expansion with 8 outputs:
  - 4 relay outputs
  - 4 low current OC outputs
- switching mode power supply



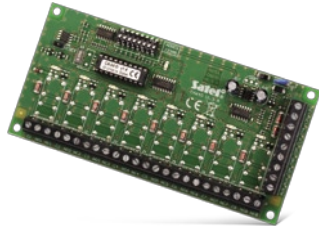
### ACU-100 Wireless system controller

- **ABAX** wireless components expansion
- fully integrated with control panel (**INTEGRA** and **VERSA**)



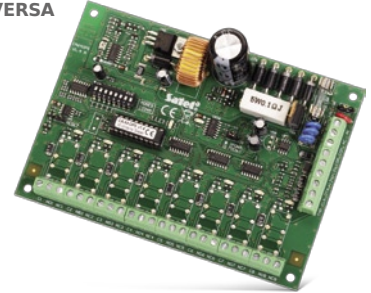
**CA-64 O-OC**  
Output expansion module

- system expansion with 8 outputs:
  - 8 low current OC outputs
- supported also by the **VERSA** alarm control panels



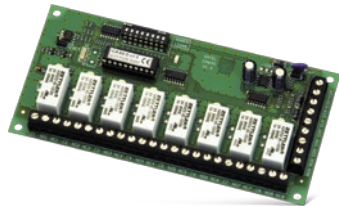
**CA-64 OPS-OC**  
Output expansion module

- system expansion with 8 outputs:
  - 8 low current OC outputs
- switching mode power supply
- supported also by the **VERSA** alarm control panels



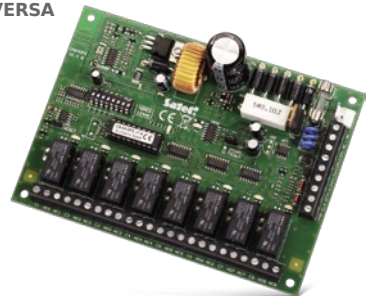
**CA-64 O-R**  
Output expansion module

- system expansion with 8 outputs:
  - 8 relay outputs
- supported also by the **VERSA** alarm control panels



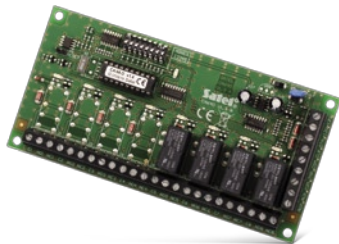
**CA-64 OPS-R**  
Output expansion module

- system expansion with 8 outputs:
  - 8 relay outputs
- switching mode power supply
- supported also by the **VERSA** alarm control panels



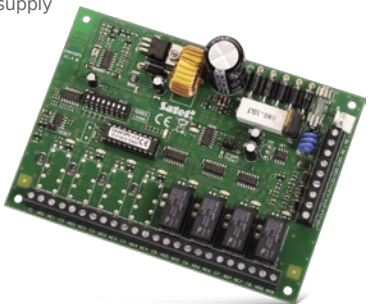
**CA-64 O-ROC**  
Output expansion module

- system expansion with 8 outputs:
  - 4 relay outputs
  - 4 low current OC outputs
- supported also by the **VERSA** alarm control panels



**CA-64 OPS-ROC**  
Output expansion module

- system expansion with 8 outputs:
  - 4 relay outputs
  - 4 low current OC outputs
- switching mode power supply
- supported also by the **VERSA** alarm control panels



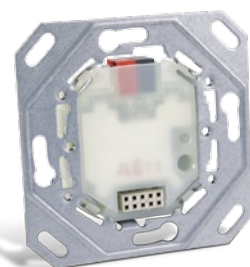
**BUS CONVERTER FOR INTEGRA CONTROL PANELS**

**INT-KNX**  
KNX integration module

- KNX actuators control via **INTEGRA**
- reception of KNX telegrams by **INTEGRA**
- interconnection with KNX via bus coupling unit (**BTM-KNX**)
- module configuration with **DLOADX**



**BTM-KNX**  
KNX Bus Transceiver Module



**INT-FI**

Fiber-optic interface

- **INTEGRA** keypad and expansion buses to fiber-optic conversion
- support for two fiber pairs allowing modules daisy-chaining
- communication range between transmitter and receiver up to 2 km
- high immunity to interference
- full galvanic isolation
- supported also by the **ACCO** (RS-485)



**INT-RS**

RS-232 interface for systems integration

- RS-232 interface installed on keypad bus
- **GUARDX** communication
- RS-232 based monitoring support
- open protocol for systems integration



**GSM MODULES**

**Features and functions:**

- transmission of signals from a telephone dialer via GSM network
- conversion of PAGER messages to SMS
- remote module configuration via GPRS
- remote programming of control panels via GPRS – “remote RS-232 port” function
- remote update of module firmware

**Applications:**

- dedicated monitoring module for **INTEGRA** control panels
- SMS receiver for **STAM** monitoring station
- GSM gateway for telephone exchanges

**GSM LT-1**

GSM module replacing telephone line

**GSM LT-2**

GSM module replacing telephone line

**Additional functions and features:**

- telephone monitoring conversion to SMS, GPRS and CSD formats
- 4 module inputs with ability to start SMS messaging and to trigger event transmission when reporting
- CallerID retransmission – Caller identification

**Additional applications:**

- SMS, GPRS, CSD reporting for any control panel

**GSM-4**

Backup communication path module for telephone line

**Additional functions and features:**

- telephone line supervision and automatic switch-over to GSM at fault
- telephone reporting conversion to SMS, GPRS and CSD formats
- 4 module inputs with ability to start voice/SMS messaging and to trigger event transmission when reporting
- 3 outputs with remote control capability

**Additional applications:**

- SMS, GPRS, CSD reporting for any control panel
- voice messaging for any control panel
- remote control of devices



## GSM/GPRS MODULES

### GPRS-T1

GPRS/SMS reporting transmitter

- telephone line monitoring conversion to GPRS/SMS transmission, compatible with any panel
- automatic fallback to SMS reporting in case of GPRS failure
- SMS/CLIP personal messaging
- support for CLIP test transmissions
- pre-paid balance and time limit query function
- automatic module restart
- communication failure indication
- remote module configuration via GPRS

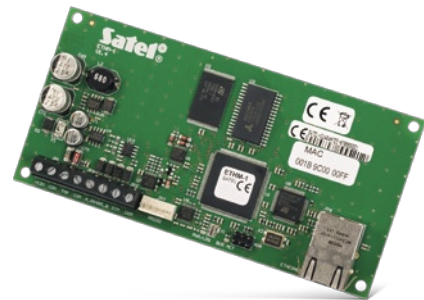


## TCP/IP MODULES

### ETHM-1

TCP/IP communication module for INTEGRA control panels

- TCP/IP reporting
- **DLOADX** remote system programming
- supported also by the **VERSA** alarm control panels



## VOICE MESSAGING MODULES

### INT-VG

Remote interactive voice module

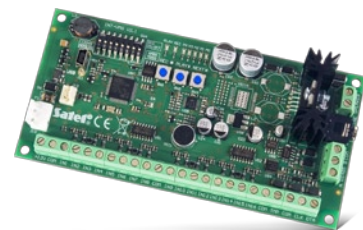
- customizable voice menu
- provides "text to speech" function
- remote arming/disarming and output control
- management of violation, zones and failures
- macro functions
- 16 voice messages can be assign to events
- supported by **VERSA** control panel



### INT-VMG

Voice message module

- ability to record up to 32 messages
- triggering messages with the **INTEGRA** alarm control panel or other external devices
- built-in amplifier allows direct connection of a loudspeaker
- line output for easy connection to a PA system
- built-in USB port for quick programming with a computer

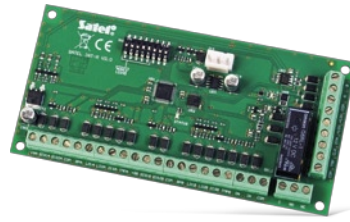


## ACCESS CONTROL MODULES FOR INTEGRA SYSTEMS

### INT-R

Universal expander for card/chip readers

- support for two proximity card/**DALLAS** iBUTTON readers
- support for Wiegand 26 interface readers
- relay to control electromagnetic door lock
- input for door status sensor
- Input for door unlocking with a button
- fire emergency unlocking feature
- tamper input



### CZ-EMM / CZ-EMM2

Proximity card reader

- installed directly on wall/door frame
- communication format: EM Marin
- support for 125 kHz proximity cards/tags
- optional **CZ-EMM-POD** spacer pad available (**CZ-EMM** only)



CZ-EMM



CZ-EMM2

### CZ-EMM3 / CZ-EMM4

Proximity card reader

- installed directly on wall/door frame
- communication format: EM Marin
- support for 125 kHz proximity cards/tags
- outdoor operation
- doorbell button (only **CZ-EMM4**)



CZ-EMM3



CZ-EMM4



CZ-DALLAS

### CZ-DALLAS

DALLAS iBUTTON reader

- installed directly on wall/door frame
- support for standard **DALLAS** iBUTTONS

### INT-SZ-BL

Code lock

- LEDs for door state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- buzzer for door left open indication
- relay for electromagnetic lock/electric strike
- door control input
- available also with green keypad backlight (**INT-SZ-GR**)



### INT-SZK-GR

Code lock

- LEDs for door state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- buzzer for door left open indication
- relay for electromagnetic lock/electric strike
- door control input



## VERSA INTRUDER ALARM CONTROL PANEL

VERSA is a range of modern intruder alarm control panels, intended for small commercial and residential security installations. What makes them stand out on the market are their expansion capabilities – both hardwired and wireless, as well as variety of supported communication media and user friendliness.



VERSA 5 / VERSA 10 / VERSA 15

- **EN50131** Grade 2 compliance
- 5 up to 30 zones:
  - NO, NC, EOL, 2EOL/NO, 2EOL/NC zone configurations
  - support for vibration and roller shutter detectors
  - detectors supervision
- additional tamper input
- 4 up to 12 programmable outputs
- 2 supply outputs
- 2 partitions:
  - 3 arming modes for each partition
  - arming/disarming by users or timer controlled
- communication bus for keypads, readers and expansion modules
- RS-232 port for panel programming – RJ type socket
- built-in telephone dialer for:
  - reporting (SIA, Contact ID, other)
  - personal messaging (8 telephone numbers, 64 text/16 voice messages)
  - remote programming (built-in 300 bps modem)
- support for GSM/GPRS communicator:
  - SMS/GPRS reporting
  - voice/SMS messaging
- compatible with **ETHM-1**:
  - **DLOADX** remote uploading/downloading over TCP/IP networks
  - TCP/IP reporting
- system operation via:
  - LCD or LED keypads (up to 6)
  - proximity tags/cards (up to 6 readers)
  - remote control keyfobs
- easy update of firmware for enhancing the panel with new features
- support for 31 user codes:
  - 30 standard users
  - 1 installer
- individual naming for easy system operation and management
- timers:
  - 4 timers with holidays support
- event log with 2047 entries
- automatic diagnostics of basic system components
- built-in high efficiency switching mode power supply:
  - overload protection
  - deep discharge protection
  - battery charging supervision

## VERSA OPERATION, CONTROL AND MANAGEMENT

### VERSA-LCDM-WH

LCD keypad for VERSA panels

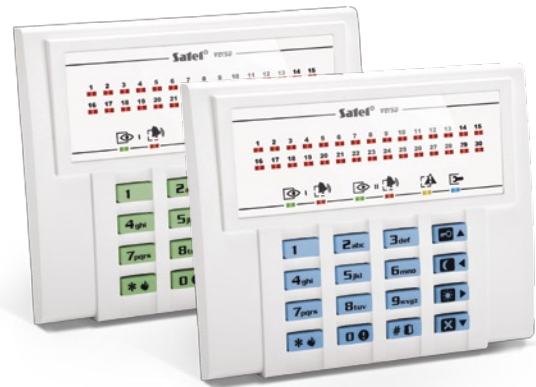
- large, easily readable LCD display
- LED indicators for partition and system status indication
- dedicated buttons for quick selection of arming mode (away/stay day/stay night)
- keypad hold-down PANIC, FIRE and AUX alarms
- display and keypad backlight
- acoustic indication of system events
- indication of communication loss
- attractive design



## VERSA OPERATION, CONTROL AND MANAGEMENT



VERSA-LCD-GR / VERSA-LCD-BL



VERSA-LED-GR / VERSA-LED-BL

### VERSA-LCD

LCD keypad for VERSA panels

- easily readable display
- LED indicators for system and partitions status
- quick selection of arming modes with dedicated buttons
- PANIC, FIRE and MEDICAL hold-down alarms
- keypad and display backlight
- built-in buzzer
- self indication of communication loss

### VERSA-LED

LED keypad for VERSA panels

- LED indicators for zones, system and partitions status
- quick selection of arming modes with dedicated buttons
- PANIC, FIRE and MEDICAL hold-down alarms
- keypad backlight
- built-in buzzer
- self indication of communication loss

## INTEGRA AND VERSA MODULE COMPATIBILITY CHART

		INTEGRA 24	INTEGRA 32	INTEGRA 64 / 64 Plus	INTEGRA 128 / 128 Plus	INTEGRA 128-WRL	VERSA 5	VERSA 10	VERSA 15
INT-S	partition keypad	•	•	•	•	•			
INT-SK	partition keypad	•	•	•	•	•			
INT-SCR-BL	multi-function keypad with proximity card reader	•	•	•	•	•			
INT-CR	proximity card arm/disarm device	•	•	•	•	•	•	•	•
INT-IT	proximity card arm/disarm device	•	•	•	•	•	•	•	•
INT-RX	433 MHz keyfobs receiver	•	•	•	•	•	•	•	•
CA-64 PTSA	mimic board	•	•	•	•	•			
CA-64 E	zone expansion module	•	•	•	•	•	•	•	•
CA-64 EPS	zone expansion module with power supply	•	•	•	•	•	•	•	•
CA-64 ADR	addressable bus expansion module	•	•	•	•	•			
CA-64 PP	subpanel module	•	•	•	•	•			
ACU-100	wireless system controller	•	•	•	•	•	•	•	•
CA-64 O	output expansion module	•	•	•	•	•	•	•	•
CA-64 OPS	output expansion module with power supply	•	•	•	•	•	•	•	•
INT-ORS	DIN rail compatible outputs expansion module	•	•	•	•	•	•	•	•
INT-IORS	DIN rail compatible zones and outputs expansion module	•	•	•	•	•			
INT-KNX	KNX integration module	•	•	•	•	•			
INT-RS	RS-232 interface for systems integration	•	•	•	•	•			
INT-FI	fiber-optic interface	•	•	•	•	•			
ETHM-1	TCP/IP communication module	•	•	•	•	•	•	•	•
GSM-4	backup communication path module for telephone line	•	•	•	•	•	•	•	•
GSM LT-2	GSM module replacing telephone line	•	•	•	•	•	•	•	•
GSM LT-1	GSM module replacing telephone line	•	•	•	•	•	•	•	•
GPRS-T1	GPRS/SMS reporting transmitter	•	•	•	•	•	•	•	•
INT-VG	remote interactive voice module	•	•	•	•	•	•	•	•
SM-2	voice synthesizer	•	•	•	•	•	•	•	•
INT-VMG	voice message module	•	•	•	•	•	•	•	•
INT-R	universal expander for card / chip readers	•	•	•	•	•			
INT-SZ	code lock	•	•	•	•	•			
INT-SZK	code lock	•	•	•	•	•			



## MICRA WIRELESS SECURITY SYSTEM

MICRA system was designed for the protection of small premises, like kiosks, boutiques, lodges, garages or hobby rooms – however, its application range may be much wider. Thanks to its compact design, the whole installation may be easily moved if necessary. This makes it a perfect solution for temporary security installation e.g. for the construction sites.

The ability to use wireless motion detectors and magnetic contacts enables the security installer to ensure optimal protection against burglary, while conventional detectors may provide additional safeguard. The operation of the system with remote control keyfobs, wireless keypad or mobile phone is straightforward and intuitive. With its built-in analog inputs, MICRA may be used as a monitoring device used for the supervision of technical equipment, responsible for the notification on exceeding of critical parameters like the temperature or pressure.

### MICRA

Alarm module with GSM/GPRS communicator

- 5 programmable inputs for detectors
- 2 relay outputs controlled locally or remotely
- remote control receiver supporting:
  - up to 8 keyfobs (**MPT-300, P-2, P-4, T-1, T-2, T-4**)
  - up to 8 wireless detectors (**MFD-300, MMD-300, MPD-300, MSD-300**)
  - wireless keypad (**MKP-300**)
- GPRS/SMS monitoring with events definition
- SMS/CLIP personal messaging on selected events
- audio verification over telephone via external microphone
- local (RS-232) or remote (GPRS/SMS) programming



Transformer and battery sold separately.

## OPERATION OF MICRA SYSTEM

### MKP-300

Arm/disarm wireless keypad

- up to 8 user codes
- outputs control
- fire, panic and AUX keypad alarms
- keypad backlight
- arm/disarm command confirmation LEDs
- powered by CR123A cell



### MPT-300

Remote control keyfob

- 5 buttons with assignable function
- KEELQ code hopping for increased security
- ergonomic design preventing accidental button pressing
- powered by 2x CR2016 button cell



## WIRELESS DETECTORS FOR MICRA

### MPD-300

Wireless PIR detector

- dual element pyrosensor
- interchangeable Fresnel lenses
- optional pet immunity up to 15 kg
- LED for detector walk testing
- powered by 3 V CR123A lithium battery



### MSD-300

Wireless smoke and heat alarm

- **EN54-7** compliant photoelectric visible smoke sensor
- integrated **EN54-5** compliant heat sensor
- possibility to work as a standalone device
- acoustic and optical alarm indication
- test/reset button



### MMD-300

Wireless magnetic contact

- additional external detector input
- LED for test mode indications
- powered by 3 V CR123A lithium battery
- also available in brown (**MMD-300 BR**)



### MFD-300

Wireless flood detector

- detection of water presence for flood threatened areas
- external easy to mount sensor
- tamper protection
- also available in brown (**MFD-300 BR**)



## CA-10 INTRUDER ALARM CONTROL PANEL

CA-10 was designed with medium-size protected objects in mind. It offers a variety of functions for optimal configuration of security system. Operation and programming using LCD keypad makes the system user friendly for both the installer and the end user.

- up to 16 zones:
  - support for NC, NO, EOL, 2EOL/NC and 2EOL/NO loop configurations
  - flexible selection of zone function
  - detector diagnostic tools
- 6 programmable outputs
- 4 partitions
- RS-232 port for local upload/download and event printing – RJ type socket
- on-board PSTN telephone dialer for reporting, messaging and remote uploading/downloading
- system operation:
  - LCD and LED keypads
  - remote operation by telephone (with optional **MST-1** module)
- system programming:
  - local (LCD/LED keypad, PC connected to RS-232 port)
  - remote (PC communicating via modem)
- system codes:
  - up to 4 master user codes (1 code per partition)
  - up to 28 user codes (max 12 per partition)
  - 1 service code
  - an option to define system access authority for the codes
- 4 timers
- event log with 255 entries
- event printing feature
- monitoring using Contact ID and other protocols:
  - 2 monitoring stations numbers
- messaging:
  - 8 telephone numbers
  - 1 voice message
  - 4 text messages
- incoming call answering
- advanced telephone tone analysis:
  - TBR-21 compliant tone detection
  - intelligent redial attempts
  - programmable dialing sequence
- built-in 300 bps modem
- auto-diagnostic features for basic system components
- switching mode power supply



## CA-10 OPERATION, CONTROL AND MANAGEMENT

### CA-10 KLCD-L / CA-10 KLCD-S / CA-10 KLCD

LCD keypads for CA-10 control panel

- LEDs for partition and system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad and display backlight
- buzzer for acoustic signaling
- two zones expansion
- communication loss indication
- RS-232 for easy programming of keypad options, names and messages
- available with green backlight (**KLCD**) or blue backlight (**BLUE**)



CA-10 KLCD-L / CA-10 BLUE-L



CA-10 KLCD-S / CA-10 BLUE-S



CA-10 KLCD

**CA-10 KLED-S**

LED keypad for CA-10 control panel

- LEDs for zones, partition and system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad backlight
- buzzer for acoustic signaling
- two zones expansion
- communication loss indication



16 LEDs for zone state indication

**CA-10 KLED**

LED keypad for CA-10 control panel

- LEDs for zones, partition and system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad backlight
- buzzer for acoustic signaling
- two zones expansion



12 LEDs for zone state indication

**ZONES EXPANSION MODULES FOR CA-10 CONTROL PANEL**

**CA-10 E**

Zone expansion module

- system expansion with up to 6 zones
- LED for zone state indication



## CA-6 INTRUDER ALARM CONTROL PANEL

CA-6 is an intruder alarm control panel which is simple to install and use, and provides high security to small and medium premises. This panel is flexible to program, which makes it ideal for installation in specific applications.

- up to 8 zones:
  - support for NC, NO, EOL, 2EOL/NC and 2EOL/NO loop configurations
  - flexible selection of zone function
- 5 programmable outputs
- 2 partitions
- RS-232 TTL port for local upload/download – RJ type socket
- on-board PSTN telephone dialer for reporting, messaging and remote uploading/downloading
- system operation:
  - LED keypad
  - remote operation by telephone (with optional **MST-1** module)
- system programming:
  - local (LED keypad, PC connected to RS-232 port)
  - remote (PC communicating via modem)
- system codes:
  - 1 master user code
  - up to 12 user codes
  - 1 service code
  - an option to define system access authority for the codes
- 4 timers
- event log with 255 entries
- monitoring using Contact ID and other protocols:
  - 2 monitoring stations numbers
- messaging:
  - 4 telephone numbers
  - 1 voice message
  - 2 text messages
- incoming call answering
- advanced telephone tone analysis:
  - TBR-21 compliant tone detection
  - intelligent redial attempts
  - programmable dialing sequence
- built-in 300 bps modem
- auto-diagnostic features for basic system components
- on-board switching mode power supply



### CA-6 KLED LED keypad for CA-6

- LEDs for zones, partition and system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad backlight
- buzzer for acoustic signaling
- two zones expansion



### CA-6 KLED-S LED keypad for CA-6

- LEDs for zones, partition and system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad backlight
- buzzer for acoustic signaling
- two zones expansion
- communication loss indication



## CA-5 INTRUDER ALARM CONTROL PANEL

CA-5 is an easy to install intruder alarm control panel intended for small premises. Advanced functionality and programming flexibility are its main advantages, while support for LCD keypad for operation and programming is an additional benefit.

- 5 on board zones:
  - support for NC, NO, EOL, 2EOL/NC and 2EOL/NO loop configurations
  - flexible selection of zone function
- 3 outputs (bell output + 2 programmable outputs)
- RS-232 TTL port for local upload/download – RJ type socket
- on-board PSTN telephone dialer for reporting, messaging and remote uploading/downloading
- system operation:
  - LCD and LED keypads
- system programming:
  - local (LCD/LED keypad, PC connected to RS-232 port)
  - remote (PC connected via modem)
- system codes:
  - 1 master user code
  - up to 5 user codes
  - 1 service code
  - optional limitation of authority for some passwords
- event log with 255 entries
- monitoring using Contact ID and other protocols:
  - 2 monitoring stations numbers
- advanced telephone tone analysis:
  - TBR-21 compliant tone detection
  - intelligent redial attempts
  - programmable dialing sequence
- built-in 300 bps modem
- auto-diagnostic features for basic system components
- on-board switching mode power supply



CA-5 KLCD-L / CA-5 BLUE-L



CA-5 KLCD-S / CA-5 BLUE-S

### CA-5 KLCD-L / CA-5 KLCD-S

LCD keypads for CA-5 control panel

- LEDs for system state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad and display backlight
- buzzer for acoustic signaling
- communication loss indication
- available with green backlight (**KLCD**) or blue backlight (**BLUE**)

### CA-5 KLED-S

LED keypads for CA-5 control panel

- LEDs for zones state indication
- keypad hold-down PANIC, FIRE and AUX alarms
- keypad backlight
- buzzer for acoustic signaling
- communication loss indication



**CONTROL PANEL COMPARISON CHART**

	INTEGRA 128-WRL	INTEGRA 128 Plus	INTEGRA 128	INTEGRA 64 Plus	INTEGRA 64	INTEGRA 32	INTEGRA 24	VERSA 15	VERSA 10	VERSA 5	MICRA	CA-10	CA-6	CA-5
On-board zones/ Total number of zones	8 / 128	16 / 128	16 / 128	16 / 64	16 / 64	8 / 32	4 / 24	15 / 30	10 / 30	5 / 30	5+8 / 13	8 / 16	6 / 8	5 / 5
Number of keypad zones	8 x 2	8 x 2	8 x 2	8 x 2	8 x 2	4 x 2	4 x 2					4 x 2	2	
Number of objects / partitions	8 / 32	8 / 32	8 / 32	8 / 32	8 / 32	4 / 16	1 / 4	1 / 2	1 / 2	1 / 2	1 / 1	1 / 4	1 / 2	1 / 1
Available keypads: LED / LCD	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / -	• / •	• / -	• / •
Touch-sensor keypad support	•	•	•	•	•	•	•							
Operation with keyfobs and proximity cards	•	•	•	•	•	•	•							
Users keyfobs	•	•	•	•	•	•	•							
Users and master users + service	248 + 1	248 + 1	248 + 1	200 + 1	200 + 1	68 + 1	17 + 1	30 + 1	30 + 1	30 + 1	8	32 + 1	13 + 1	6 + 1
Total number of expansion modules	32	64	64	64	64	32	32	19	19	19		1		
Additional armed modes	programmable	programmable	programmable	programmable	programmable	programmable	programmable	day / night	day / night	day / night		with bypass	with bypass	
On-board outputs/ Total number of outputs	2+6 / 128	4+12 / 128	4+12 / 128	4+12 / 64	4+12 / 64	2+6 / 32	2+2 / 20	2+2 / 12	2+2 / 12	2+2 / 12	2+1 / 3	4+2 / 6	3+2 / 5	1+2 / 3
Power supply	2 A	2 A + 2 A	3 A	2 A + 2 A	3 A	1.2 A	1.2 A	2 A	2 A	1 A	2 A	1.7 A	1.2 A	1.2 A
Home automation features	•	•	•	•	•	•	•							
Access control features	•	•	•	•	•	•	•							
Built-in communicator	GSM	•	•	•	•	•	•				GSM	•	•	•
Remote control via DTMF	•	•	•	•	•	•	•					option	option	
Remote control via SMS	•	•	•	•	•	•	•							
Programming: local / remote	•	•	•	•	•	•	•					•	•	•
Remote system management	•	•	•	•	•	•	•							
TCP/IP communication support	•	•	•	•	•	•	•							
GSM/GPRS communication support	•	option	option	option	option	option	option	option	option	option	•	option	option	option
Operation via Internet	•	•	•	•	•	•	•							
EN50131: certifies	Grade 2	Grade 3	Grade 2	Grade 3	Grade 2	Grade 2	Grade 2	Grade 2	Grade 2	Grade 2				
Wireless devices support	•	option	option	option	option	option	option	option	option	option	•			



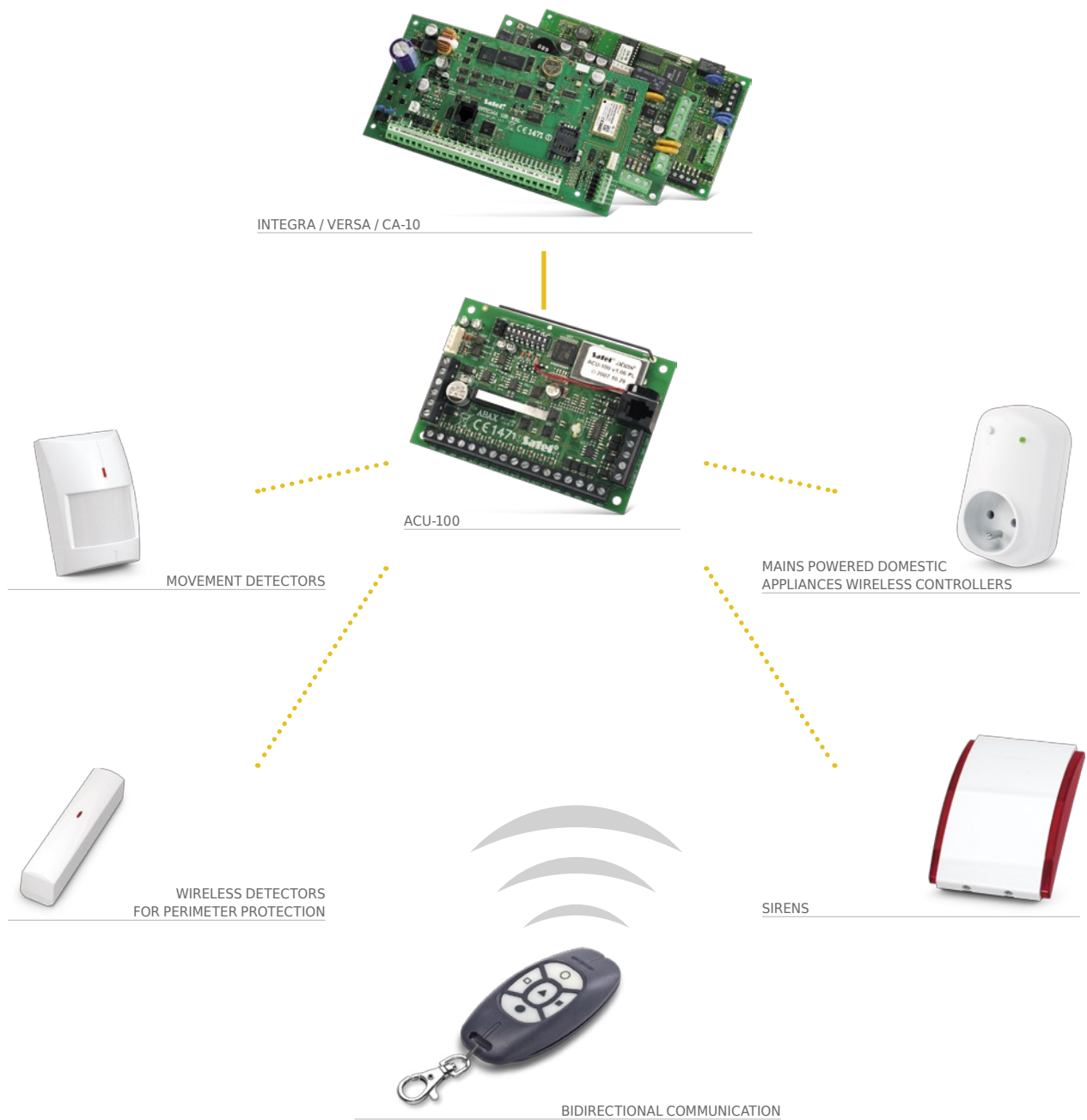
## **ABAX** **Two Way Wireless System**

ABAX system is designed as a wireless expansion for any hardwired control panel. Unique technological solutions used by SATEL's engineers ensure the highest possible security level for a wireless system.



**ABAX SYSTEM FEATURES**

- bidirectional encrypted communication between all registered devices for high grade of intrusion and tamper protection
- no need for putting the detectors in suspend mode always ensuring instant system reaction
- acknowledgement of each received digital message to provide reliable communication and reduce unnecessary transmissions
- advanced power management that increases battery change intervals
- operation in 868,0 + 868,8 MHz band with FSK modulation
- individual device naming for easy system maintenance
- remote configuration of wireless devices, and remote triggering of walk test mode to facilitate periodic system checks
- configuration software with advanced diagnostic features
- compatibility with other wireless systems operating within mutual coverage



## SYSTEM UNITS

### ACU-100

Wireless system controller

- supports up to 48 wireless devices
- 4 up to 24 control inputs (NO/NC)
- 8 up to 48 programmable outputs (OC type)
- 4 predefined functional outputs indicating:
  - tamper
  - communication problem
  - radio jamming
  - low battery condition
- communication bus for **INTEGRA**, **VERSA** and **CA-10** panels
- support for virtually any intruder control panel by hardwiring controller outputs with panel zones
- system settings programming:
  - LCD keypad connected directly to the controller for programming only
  - LCD keypad of **INTEGRA** or **VERSA** panels in service mode
  - PC with **DLOAD10** connected to controller's RS-232 for programming only
  - PC with **DLOADX** connected to **INTEGRA** or **VERSA** control panel for upload/download
- RS-232 port with optical isolation
- FLASH based firmware for easy updates



### ACX-100

Controller inputs and outputs expansion module

- expands the **ACU-100** wireless controller with additional inputs/outputs for hardwiring with panel's zones
- 4 control inputs
- 8 programmable OC outputs
- communication bus for connecting to **ACU-100**



## ZONES AND OUTPUTS WIRELESS EXPANSION MODULES

### ACX-201

Zones and outputs expansion wireless module

- **ABAX** wireless interconnect for hardwired security equipment
- 4 zones: NO, NC, EOL, 2EOL/NO, 2EOL/NC configurations support
- 4 independent relay outputs
- 1.2 A switching mode power supply with battery test and overload protection features



### ACX-200

Zones and outputs expansion wireless module

- **ABAX** wireless interconnect for hardwired security equipment
- 4 zones: NO, NC, EOL, 2EOL/NO, 2EOL/NC configurations support
- 4 independent relay outputs
- tamper protection

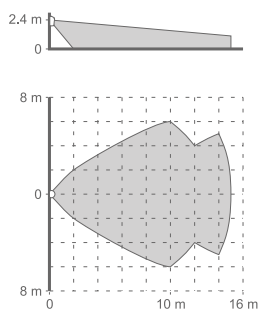


## WIRELESS MOVEMENT DETECTORS

### APMD-150

Wireless dual technology PIR+microwave detector

- PIR and MW based detection
- advanced power management
- high false alarm immunity under harsh conditions
- independent PIR and microwave remote sensitivity adjustment
- remote configuration
- tamper protection against opening and removing from mounting surface



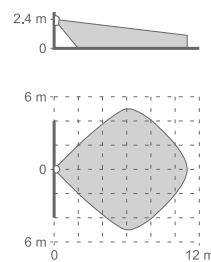
APMD-150



### APD-100

Wireless PIR detector

- **EN50131** Grade 2 compliance
- high quality sealed optical path
- three step remote sensitivity adjustment
- battery diagnostics
- replaceable Fresnel lenses
- adjustable mounting bracket included
- remote configuration
- tamper protection against opening and removing from mounting surface
- up to 15 kg pet immunity configuration option



APD-100



## WIRELESS DETECTORS

### ARD-100

Wireless reorientation detector

- individual protection on precious items
- detection of item's reorientation in 3D space
- remote configuration
- tamper protection
- also available in brown (**ARD-100 BR**)



ARD-100 / ATD-100

### ATD-100

Wireless temperature detector

- built-in digital temperature sensor
- two programmable temperature thresholds
- remote configuration
- also available in brown (**ATD-100 BR**)



AFD-100

### AFD-100

Wireless flood detector

- detection of water presence for flood threatened areas
- external easy to mount sensor
- tamper protection
- also available in brown (**AFD-100 BR**)

### ASD-110

Wireless smoke and heat alarm

- **EN54-7** compliant photoelectric visible smoke sensor
- integrated **EN54-5** compliant heat sensor
- possibility to work as a standalone device
- acoustic and optical alarm indication
- test feature



ASD-110

## WIRELESS DETECTORS FOR PERIMETER PROTECTION

### AMD-100 / AMD-101 / AMD-102

Wireless magnetic contact

- two reed contacts for easy installation
- terminals for connecting external detector
- separate digital channel for external detector (**AMD-101, AMD-102**)
- roller shutter detector interface with pulse analysis (**AMD-102**)
- remote configuration
- tamper protection
- also available in brown (**AMD-100 BR, AMD-101 BR, AMD-102 BR**)



AMD-100 / AMD-101 / AMD-102 / AVD-100

### AVD-100

Wireless vibration detector and magnetic contact

- advanced processing of piezoceramic sensor signal
- adjustable sensitivity and settings of vibration sensor
- independent integrated magnetic contact
- remote configuration
- tamper protection
- also available in brown (**AVD-100 BR**)

### AGD-100

Wireless glassbreak detector

- detection of plate, tempered and laminated glass breaking
- advanced dual path signal analysis
- adjustable sensitivity
- remote configuration
- tamper protection
- also available in brown (**AGD-100 BR**)



AGD-100

## WIRELESS CONTROL

### ASW-100 E / ASW-100 F

Mains powered domestic appliances wireless controllers

- wireless remote switching of mains powered appliances
- manual operation mode
- built-in status indication LED
- safe and aesthetic enclosure with plug and socket integrated:
  - type E (EURO) socket in **ASW-100 E**
  - type F (SCHUKO) socket in **ASW-100 F**



ASW-100 E



ASW-100 F

### APT-100

Bidirectional remote control keyfob

- free configuration of buttons' functions
- feedback with LEDs and buzzer
- automatic keypad backlight



APT-100

## WIRELESS SIRENS

### ASP-105 R

Wirelessly triggered outdoor siren

- wireless triggering of optical and acoustical signaling
- acoustic signaling: piezo transducer
- optical signaling: ultra bright LEDs
- selection of four acoustic signals
- remote configuration
- long-lasting rechargeable battery powered by external power supply
- tamper protection:
  - against opening
  - against removing from mounting surface
- available also in blue (**ASP-105 BL**) and orange (**ASP-105 O**)



### ASP-205 R

Wireless indoor siren

- wireless triggering of optical and acoustical signaling
- acoustic signaling: piezo transducer
- optical signaling: ultra bright LEDs
- two separately triggered signaling modes
- selection of three acoustic signals
- remote configuration
- tamper protection:
  - against opening
  - against removing from mounting surface
- available also in blue (**ASP-205 BL**) and orange (**ASP-205 O**)

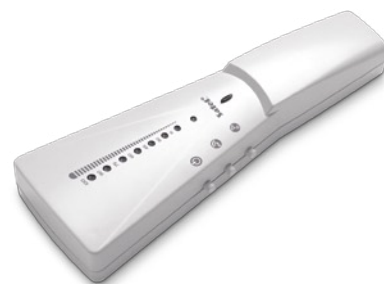


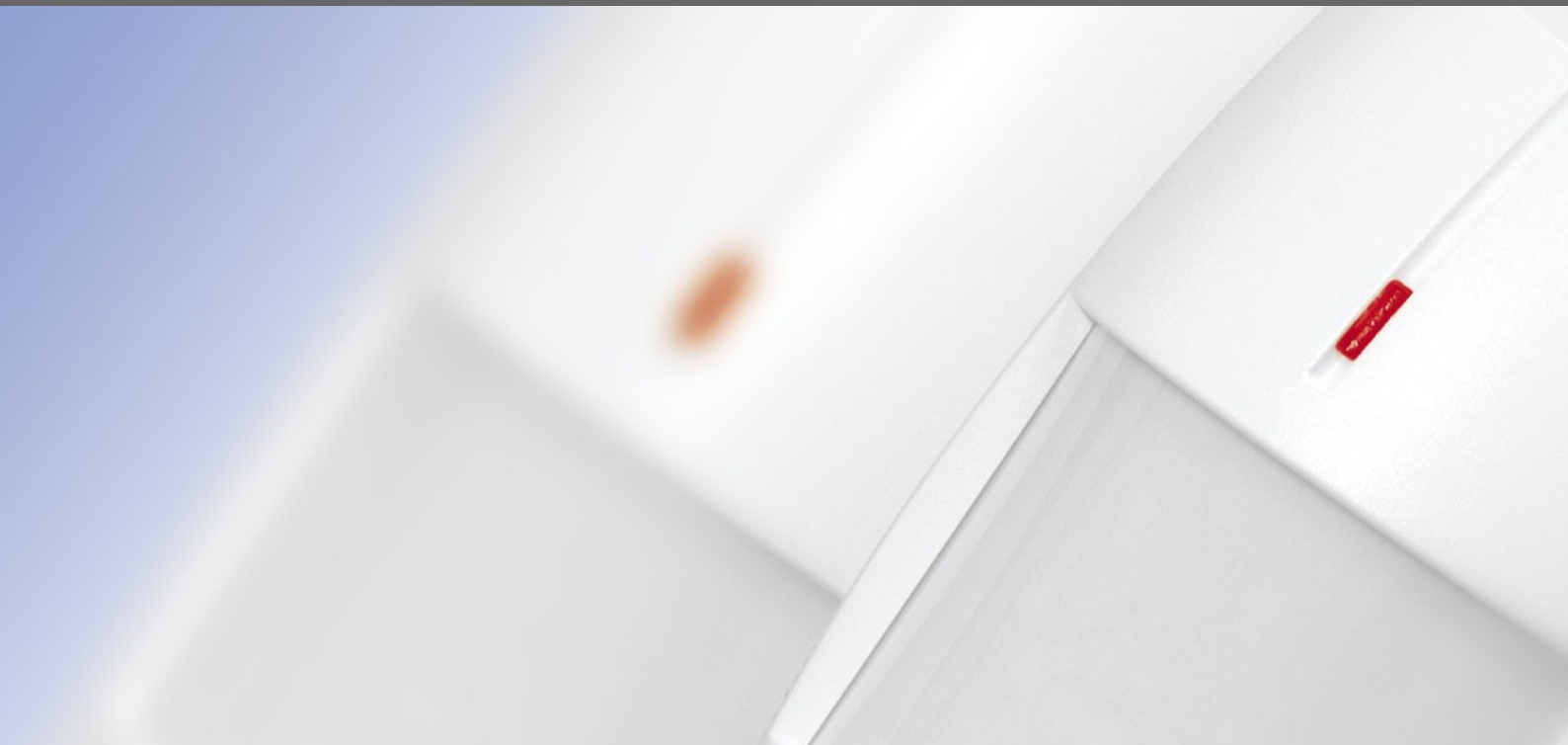
## SITE SURVEY TOOL

### ARF-100

Site survey tool for ABAX system

- checking the level of radio signal received by controller from tester, or by tester from controller
- simulating radio communication of devices to be supplied from battery or external sources
- LED indicator showing the radio signal level





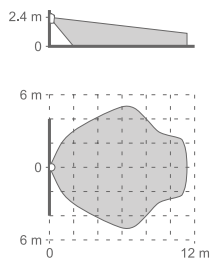
## Detectors

Intruder detectors are an important part of SATEL product line. Wide range of motion detectors is completed by other kind of detection devices like acoustic glassbreak detectors, selection of magnetic contacts or impressive range of gas detectors. Continuous research in the detection field lead to constant improvement and introduction of new designs based on breakthrough technologies.

**DIGITAL DUAL MOVEMENT DETECTORS**

**COBALT / COBALT Plus / COBALT Pro**  
Digital dual technology motion detectors

- dual technology PIR+MW
- dual element pyrosensor (**COBALT, COBALT Plus**)
- quad element pyrosensor (**COBALT Pro**)
- digital detection algorithm
- microwave based antimask feature (**COBALT Plus, COBALT Pro**)



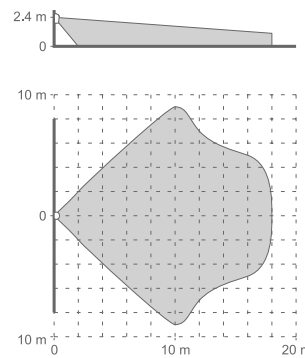
COBALT / COBALT Plus / COBALT Pro



**SILVER**  
Digital dual technology motion detector

**GRADE 2**

- **EN50131** Grade 2 compliance
- dual technology PIR+MW
- new generation DSP and analysis algorithm
- precise LODIFF™ Fresnel sealed optics
- microwave based antimask feature
- cloaking attempts detection
- remotely triggered test mode
- alarm memory feature



SILVER

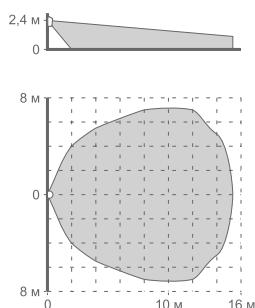


**DIGITAL PIR DETECTORS**

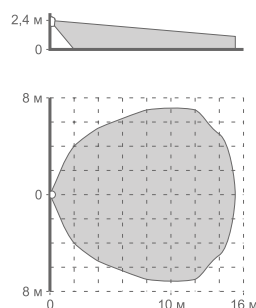
**AQUA Plus / AQUA Plus 2E / AQUA Pro / AQUA Pet / AQUA Pet 2E / AQUA S**  
Digital PIR motion detectors

**GRADE 2**

- **EN50131** Grade 2 compliance (**AQUA Plus, AQUA Plus 2E, AQUA Pet, AQUA Pet 2E**)
- dual element pyrosensor (**AQUA Plus, AQUA Plus 2E, AQUA Pet, AQUA Pet 2E, AQUA S**)
- quad element pyrosensor (**AQUA Pro**)
- build-in EOL resistors (**AQUA Plus 2E, AQUA Pet 2E**)
- digital detection algorithm
- replaceable Fresnel lens with sealed optics (**AQUA Plus, AQUA Plus 2E, AQUA Pro, AQUA S**)
- pre-alarm feature (**AQUA Plus, AQUA Plus 2E, AQUA Pro, AQUA S**)
- home pet immunity up to 15 kg (**AQUA Pet, AQUA Pet 2E**)
- powered by 24 V AC/DC (**AQUA S**)



AQUA Plus / AQUA Plus 2E



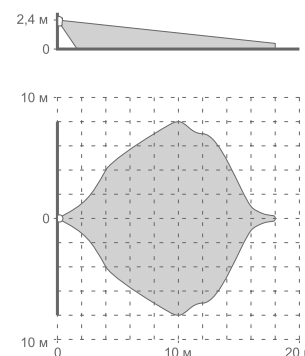
AQUA Pro / AQUA S



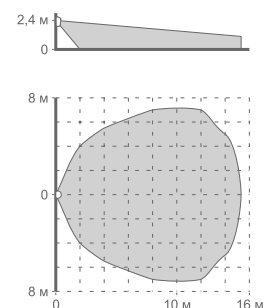
**AQUA Luna**  
PIR motion detector with emergency lighting feature

**GRADE 2**

- **EN50131** Grade 2 compliance
- remotely controlled LED emergency lighting
- digital signal processing
- 3-step sensitivity adjustment
- digital temperature compensation
- pre-alarm feature



AQUA Pet / AQUA Pet 2E



AQUA Luna



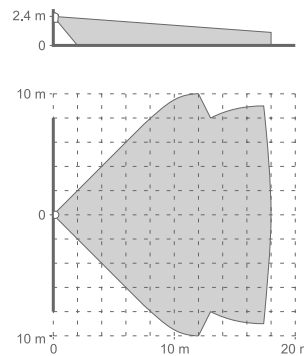
**AQUA Ring / AQUA Ring S**  
Ceiling mount digital PIR

- dual element pyrosensor
- digital detection algorithm
- pre-alarm feature
- powered by 24 V AC/DC (**AQUA Ring S**)



**AMBER / AMBER 2E**  
PIR motion detector

- digital signal processing
- build-in EOL resistors (**AMBER 2E**)
- temperature compensation
- sensitivity adjustment

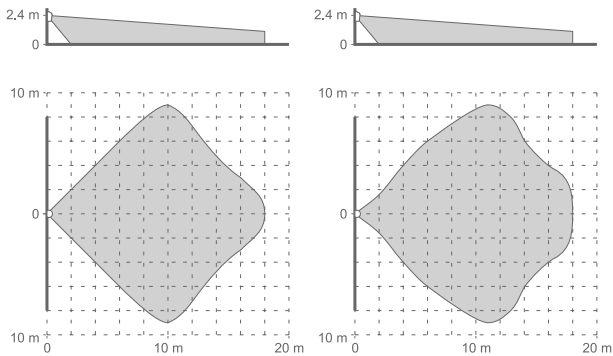


AMBER / AMBER 2E

**GRAPHITE / GRAPHITE Pet**  
Digital PIR motion detectors

- **EN50131** Grade 2 compliance
- high quality dual element pyrosensor
- new generation DSP and analysis algorithm
- precise LODIFF™ Fresnel sealed optics
- remotely triggered test mode
- alarm memory feature
- home pet immunity up to 15 kg (**GRAPHITE Pet**)

**GRADE 2**



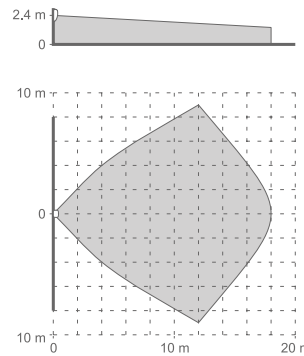
GRAPHITE

GRAPHITE Pet

**IVORY**  
Advanced PIR motion detector with mirror optics

- **EN50131** Grade 2 compliance
- high quality segmented mirror
- advanced digital signal processing
- temperature compensation
- stepless sensitivity adjustment
- remote walk test triggering
- alarm memory feature

**GRADE 2**



IVORY

See **DETECTOR ACCESSORIES** on page 61



**MOTION DETECTOR COMPARISON CHART**

	AQUA Plus/ AQUA S	AQUA Plus 2E	AQUA Pet	AQUA Pet 2E	AQUA Pro	AQUA Luna	AQUA Ring/ AQUA Ring S	AMBER	AMBER 2E	GRAPHITE	GRAPHITE Pet	IVORY	COBALT	COBALT Plus	COBALT Pro	SILVER	
Technology	PIR	PIR	PIR	PIR	PIR	PIR	PIR	PIR	PIR	PIR	PIR	PIR	PIR+MW	PIR+MW	PIR+MW	PIR+MW	
Digital signal processing	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Sensor self-test		•	•	•												•	
Advanced digital interference filter										•	•	•				•	
Sensitivity adjustment	•	•	•	•	•	•	•	•	•	stepless	stepless	stepless	•	•	•	stepless	
Digital temperature compensation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Alarm memory and remote LED disable																•	
Anti-mask feature																•	
Cloaked intruder detection																•	
Pyrosensor type	dual HQ	dual HQ	dual HQ	dual HQ	quad	dual HQ	dual HQ	dual SMD	dual SMD	dual HQ	dual HQ	dual HQ	dual HQ	dual HQ	quad	dual HQ	
Optic type	Fresnel – replaceable	Fresnel – replaceable	Fresnel	Fresnel	Fresnel – replaceable	Fresnel – replaceable	Fresnel	Fresnel	Fresnel	Fresnel – replaceable	Fresnel	mirror	Fresnel	Fresnel	Fresnel	Fresnel	
Bracket	•	•			•	•	•	option	option	•		•	•	•	•	•	
Pet immunity			•	•							•						
Range	15 x 14 m 130°	15 x 14 m 130°	18 x 16 m 90°	18 x 16 m 90°	15 x 14 m 130°	15 x 14 m 130°		18 x 20 m 90°	18 x 20 m 90°	18 x 18 m 90°	18 x 18 m 90°	18 x 18 m 90°	11 x 10 m 130°	11 x 10 m 130°	11 x 10 m 130°	18 x 18 m 90°	
Other unique features	pre-alarm	pre-alarm, built-in EOL resistors	built-in EOL resistors	built-in EOL resistors	emergency lighting feature	ceiling mount	compact enclosure, very low current consumption	compact enclosure, very low current consumption	compact enclosure, very low current consumption								advanced digital fluorescent light interference filter

## GAS DETECTORS

### DG-1 CO

Carbon monoxide detector

- digital signal analysis
- optical and acoustical indication of threshold concentration detection
- optical indication: red LED
- low current consumption
- full auto-diagnostics



### DG-1 LPG

Liquefied petroleum gas detector

- digital signal analysis
- optical and acoustical indication of threshold concentration detection
- optical indication: green LED
- low current consumption
- full auto-diagnostics
- pre-alarm feature



### DG-1 ME

Methane detector

- digital signal analysis
- optical and acoustical indication of threshold concentration detection
- optical indication: yellow LED
- low current consumption
- full auto-diagnostics
- pre-alarm feature



### DG-1 TCM

Trichloromethane based narcotic gas detector

- digital signal analysis
- optical and acoustical indication of threshold concentration detection
- optical indication: blue LED
- low current consumption
- full auto-diagnostics



## DETECTORS FOR PERIMETER PROTECTION

### ACTIVA

Active infrared barrier

- encrypted, synchronized transmission to prevent transmitter substitution
- up to 20 m range (up to 10 m outdoors)
- bracket that allows installation parallel or perpendicular to wall
- optical and acoustic indication to facilitate installation
- outdoor operation
- also available in brown (**ACTIVA BR**)



See **ACCESSORIES FOR ACTIVA** on page 61

### VD-1

Vibration detector with magnetic contact

- piezoceramic vibration sensor
- digital signal processing
- detection sensitivity and settings adjustment
- NC relay output for connection to intruder alarm panels
- independent integrated magnetic contact



VD-1



VD-1 BR

### INDIGO

Acoustic glassbreak detector

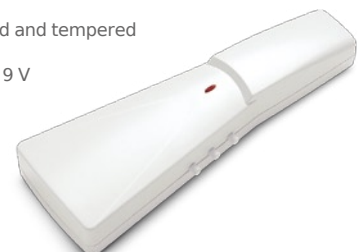
- designed for plate, laminated and tempered glass
- advanced dual-path signal analysis
- auto-diagnostic feature
- trimmer sensitivity adjustment



### INDIGO Tester

Acoustic glassbreak detector tester (**INDIGO, AGD-100**)

- simulates plate, laminated and tempered glass breaking sound
- powered by single 6LR61 9 V alkaline battery



**K-1 / K-1 2E / K-2 / K-2 2E / K-3 / K-3 2E / S-1 / S-2 / S-3 / S-4**  
Magnetic detectors

- surface mounted (**K-1, K-1 2E, S-1, S-4**)
- insert mounted (**K-2, K-2 2E, S-2, K-3, K-3 2E, S-3**)
- tamper loop (**S-1, S-2, S-3**)
- 2EOL termination 1.1 kOhm (**K-1 2E, K-2 2E, K-3 2E**)
- sealed aluminium body (**K-3, K-3 2E, S-3**)
- tamper contact with terminals (**S-4**)



K-1/K-1 BR



K-2/K-2 BR



K-3



K-1 2E/K-1 2E BR



K-2 2E/K-2 2E BR



K-3 2E



S-1/S-1 BR



S-2/S-2 BR



S-3



S-4



S-4 BR

**B-1 / B-1 BR**  
Magnetic detector

- surface mounted (screw mount or self adhesive)
- small sized sealed body

**B-1M / B-1M BR**  
Magnetic detector

- surface mounted (screw mount or self adhesive)
- medium sized sealed body

**B-1T / B-1T BR**  
Magnetic detector

- surface mounted (screw mount)
- medium sized sealed body

**B-2 / B-2 BR**  
Magnetic detector

- recessed mounted
- sealed body

**B-2T / B-2T BR**  
Magnetic detector

- recessed mounted
- screw terminals
- sealed body

**B-2S / B-2S BR**  
Magnetic detector

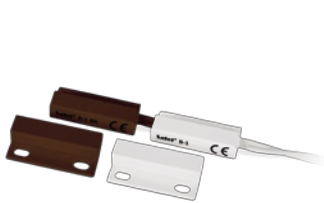
- recessed mounted
- small sized sealed body (Ø6,5mm)

**B-3 / B-3A**  
Magnetic detector

- surface mounted (screw mount)
- rugged, metal sealed body
- armored cable (**B-3A**)

**B-4M / B-4L / B-4S**  
Magnetic detector

- surface mounted (screw mount)
- rugged, metal sealed body
- armored cable



B-1 / B-1 BR



B-1M / B-1M BR



B-1T / B-1T BR



B-2 / B-2 BR



B-2T / B-2T BR



B-2S / B-2S BR



B-3 / B-3A



B-4M



B-4L



B-4S

## OTHER DETECTORS

### **TD-1**

Programmable temperature detector

- programmable threshold and temperature gradient
- possibility to work in two modes (economy feature)
- support for external temperature sensor
- two relay outputs to control external devices



### **FD-1**

Water flood detector

- detection of water flood in the areas with water installations
- easy to install external sensor
- also available in brown (**FD-1 BR**)



### **TSD-1**

Universal smoke and heat detector for alarm systems

- unique Swirl chamber for increased smoke sensitivity
- **EN54-7** compliant smoke detection
- **EN54-5** compliant heat detection
- selectable operating mode (smoke, heat, multisensor)
- line type configuration (NO/NC/2EOL) with DIP switches
- precision stainless steel Hexamesh filter
- smoke chamber dirt build-up indicator
- easy installation with detachable base
- compatible with all 12V alarm panels

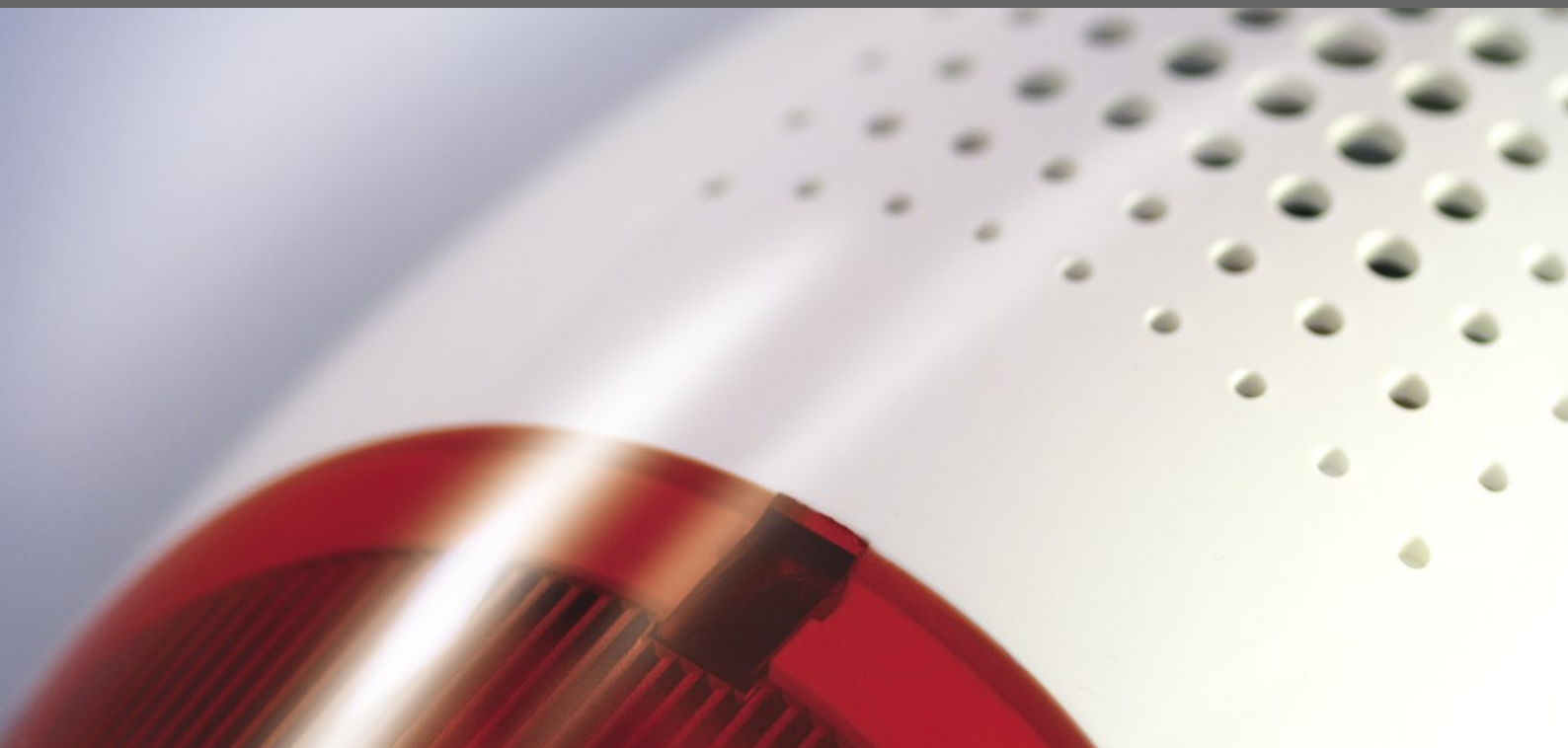


### **PNK-1**

Latching panic button

- triggers panic alarm and remote notification for hold-up situation
- compatibility with all panels supporting NC zones





## Sirens

An effective and rigid siren is one of the key components of an intruder security system. SATEL's product range includes a wide selection of different sirens, to suit almost any type of installation.

All these sirens provide several common features: high quality of components used, and advanced technology – just to make them reliable.

## OUTDOOR SIRENS

### SP-4001 R

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against removing from mounting surface
  - against opening
- available also in blue (**SP-4001 BL**) and orange (**SP-4001 O**)



### SP-4002 R

Outdoor siren with optical and acoustical signaling

- microprocessor controlled
- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against removing from mounting surface
  - against opening
- sealed lead acid backup battery included
- available also in blue (**SP-4002 BL**) and orange (**SP-4002 O**)



### SP-4003 R

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against removing from mounting surface
  - against opening
- available also in blue (**SP-4003 BL**) and orange (**SP-4003 O**)



### SP-4006 R

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against removing from mounting surface
  - against opening
- sealed lead acid backup battery included
- available also in blue (**SP-4006 BL**) and orange (**SP-4006 O**)



### SD-3001 R

Outdoor siren with optical and acoustical signaling

- microprocessor controlled
- acoustical signaling: dynamic horn
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against removing from mounting surface
  - against opening
- support for sealed lead acid backup battery
- available also in blue (**SD-3001 BL**) and orange (**SD-3001 O**)



### SP-500 R

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- tamper protection:
  - against removing from mounting surface
  - against opening
- available also in blue (**SP-500 BL**) and orange (**SP-500 O**)



**SPL-2010 R**

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against foaming
  - against removing from mounting surface
  - against opening
- available also in blue (**SPL-2010 BL**) and orange (**SPL-2010 O**)



**SPL-2030 R**

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- tamper protection:
  - against foaming (optional)
  - against removing from mounting surface
  - against opening
- optional inner metal shield
- available also in blue (**SPL-2030 BL**) and orange (**SPL-2030 O**)



**SPL-5010 R / SPL-5020 R**

Outdoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs (**SPL-5010**)
- optical signaling: light bulb (**SPL-5020**)
- tamper protection:
  - against foaming (optional)
  - against removing from mounting surface
  - against opening
- optional inner metal shield
- support for sealed lead acid backup battery (**SPL-5020**)
- available also in blue (**SPL-5010 BL, SPL-5020 BL**) and orange (**SPL-5010 O, SPL-5020 O**)



**SPLZ-1011 R**

Outdoor siren with optical and acoustical signaling

- microprocessor controlled
- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- inner metal shield
- tamper protection:
  - against foaming
  - against removing from mounting surface
  - against opening
- sealed lead acid backup battery included
- available also in blue (**SPLZ-1011 BL**) and orange (**SPLZ-1011 O**)



**INDOOR SIRENS**

**SPW-100**

Indoor siren

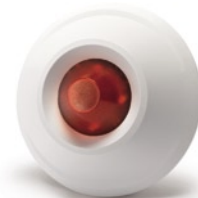
- acoustical signaling: piezo transducer
- tamper protection against opening



**SOW-300 R**

Indoor LED beacon

- optical signaling: ultra bright LEDs
- three signalling modes
- tamper protection against opening
- available also in blue (**SOW-300 BL**) and orange (**SOW-300 O**)





**SPW-250 R**

Indoor siren with acoustical signaling (battery back-up)

- acoustical signaling: piezo transducer
- automatic alarm on power failure
- lithium battery back-up power
- tamper protection:
  - against removing from mounting surface
  - against opening
- available also in blue (**SPW-250 BL**) and orange (**SPW-250 O**)



**SPW-220 R**

Indoor siren with optical and acoustical signaling

- acoustical signaling: piezo transducer
- optical signaling: ultra bright LEDs
- tamper protection:
  - against removing from mounting surface
  - against opening
- available also in blue (**SPW-220 BL**) and orange (**SPW-220 O**)

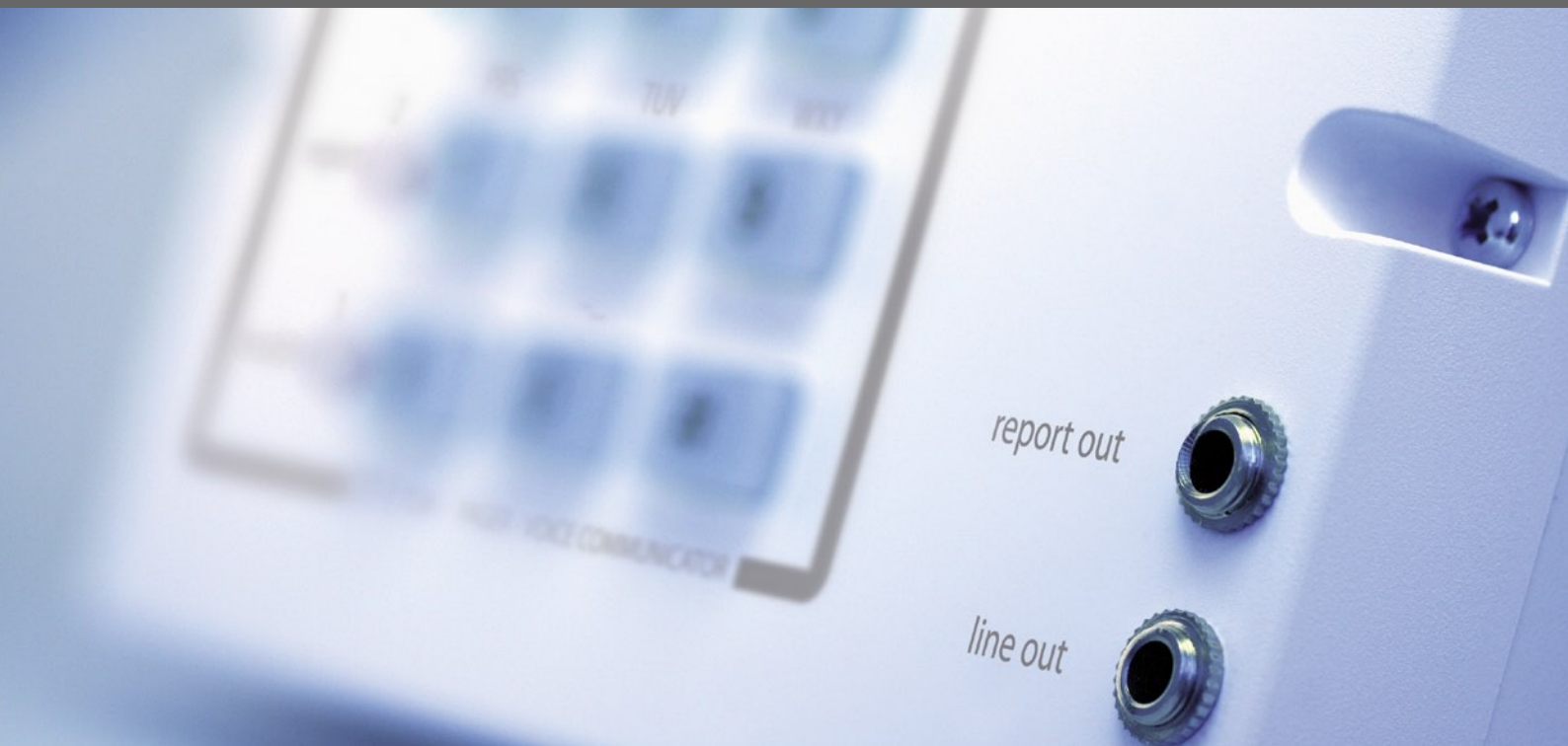
**SPW-210 R**

Indoor siren with acoustical signaling

- acoustical signaling: piezo transducer
- tamper protection:
  - against removing from mounting surface
  - against opening
- available also in blue (**SPW-210 BL**) and orange (**SPW-210 O**)

**SIREN COMPARISON CHART**

	siren type	acoustic signaling	optical signaling	backup battery	metal shield	tamper – enclosure openings	tamper – tearing from the surface	tamper – foaming	maximum signaling time limitation	lens colors	enclosure design
SP-4006	outdoor	piezo transducer	LED rails	•	•	•	•		•	Red, Blue, Yellow	
SP-4003	outdoor	piezo transducer	LED rails		•	•	•			Red, Blue, Yellow	
SP-4002	outdoor	piezo transducer	LED	•	•	•	•		•	Red, Blue, Yellow	
SP-4001	outdoor	piezo transducer	LED		•	•	•			Red, Blue, Yellow	
SD-3001	outdoor	dynamic horn	LED	option	•	•	•		•	Red, Blue, Yellow	
SP-500	outdoor	piezo transducer	LED			•	•			Red, Blue, Yellow	
SPLZ-1011	outdoor	piezo transducer	LED	•	•	•	•	•	•	Red, Blue, Yellow	
SPL-2010	outdoor	piezo transducer	LED		•	•	•	•		Red, Blue, Yellow	
SPL-2030	outdoor	piezo transducer	LED		option	•	•	option		Red, Blue, Yellow	
SPL-5020	outdoor	piezo transducer	bulb	option	option	•	•	option		Red, Blue, Yellow	
SPL-5010	outdoor	piezo transducer	LED		option	•	•	option		Red, Blue, Yellow	
SPW-250	indoor	piezo transducer		•		•	•			Red, Blue, Yellow	
SPW-220	indoor	piezo transducer	LED			•	•			Red, Blue, Yellow	
SPW-210	indoor	piezo transducer				•	•			Red, Blue, Yellow	
SPW-100	indoor	piezo transducer				•	•				
SOW-300	indoor		LED			•				Red, Blue, Yellow	



## Communication and messaging

Efficient messaging is essential for a modern security system. SATEL provides a complete range of devices intended for reliable transmission of alarm messages through variety of available media: PSTN telephone lines, ISDN networks, GSM or TCP/IP Ethernet networks.

## GSM MODULES

### Features and functions:

- transmission of signals from a telephone dialer via GSM network
- conversion of PAGER messages to SMS
- remote module configuration via GPRS
- remote programming of control panels via GPRS – “remote RS-232 port” function
- remote update of module firmware

### Applications:

- dedicated monitoring module for **INTEGRA** control panels
- SMS receiver for **STAM** monitoring station
- GSM gateway for telephone exchanges



### GSM LT-1

GSM module replacing telephone line

### GSM LT-2

GSM module replacing telephone line

### Additional functions and features:

- telephone monitoring conversion to SMS, GPRS and CSD formats
- 4 module inputs with ability to start SMS messaging and to trigger event transmission when reporting
- CallerID retransmission – Caller identification

### Additional applications:

- SMS, GPRS, CSD reporting for any control panel

### GSM-4

Backup communication path module for telephone line

### Additional functions and features:

- telephone line supervision and automatic switch-over to GSM at fault
- telephone reporting conversion to SMS, GPRS and CSD formats
- 4 module inputs with ability to start voice/SMS messaging and to trigger event transmission when reporting
- 3 outputs with remote control capability

### Additional applications:

- SMS, GPRS, CSD reporting for any control panel
- voice messaging for any control panel
- remote control of devices



## GSM/GPRS MODULES

### MICRA

GSM/GPRS communication module

- 4 programmable inputs for detectors and technical equipment supervision
- inputs mode selection: digital (on/off) or analog (voltage)
- dedicate tamper loop input
- 2 relay outputs controlled locally or remotely
- remote control receiver supporting:
  - up to 8 keyfobs (**MPT-300, P-2, P-4, T-1, T-2, T-4**)
  - up to 8 wireless detectors (**MFD-300, MMD-300, MPD-300, MSD-300**)
- GPRS/SMS monitoring with events definition
- SMS/CLIP personal messaging on selected events
- audio verification over telephone via external microphone
- local (RS-232) or remote (GPRS/SMS) programming



**GPRS-T2**  
GPRS/SMS reporting module

- 5 inputs for triggering of reporting or personal messaging
- automatic fallback to SMS reporting in case of GPRS failure
- SMS/CLIP personal messaging
- remote control of module's output
- support for CLIP test transmissions
- pre-paid balance and time limit query function
- automatic module restart
- communication failure indication
- remote module configuration via GPRS



**GPRS-T1**  
GPRS/SMS reporting transmitter

- telephone line monitoring conversion to GPRS/SMS transmission, compatible with any panel
- automatic fallback to SMS reporting in case of GPRS failure
- SMS/CLIP personal messaging
- support for CLIP test transmissions
- pre-paid balance and time limit query function
- automatic module restart
- communication failure indication
- remote module configuration via GPRS



**MODULE COMPARISON CHART**

	GSM-4	GSM LT-2	GSM LT-1	MICRA	GPRS-T2	GPRS-T1
Simulation of analog telephone line over GSM network (GSM gateway feature)	•	•	•			
Handling of incoming GSM calls	•	•	•			
Simulation of telephone monitoring receiver	•	•				•
Automatic switching to GSM in case of telephone line failure	•					
CallerID forwarding		•				
Telephone line monitoring conversion to GPRS/SMS transmission	•	•				•
PAGER (DTMF) messaging conversion to SMS	•	•	•			
SMS/CLIP messaging on selected events						•
Number of control inputs	4	4		5	5	
Messaging triggering by means of control inputs	•	•		•	•	
Reporting triggering by means of control inputs	•	•		•	•	
Voice messaging	•	from control panel	from control panel			
Remote output control	•			•	•	
External modem functionality for INTEGRA panels	•	•	•			
LCD display for programming and diagnostics	•					
Listen-in feature - alarm verification				•		
Remote module configuration via GPRS	•	•	•	•	•	•
Remote programming of control panels via GPRS	•	•	•			
Remote update of module firmware via GPRS	•	•	•			

**PHONE MESSAGING**

**ISDN Module**  
Terminal adapter for ISDN networks

- interfaces PSTN devices with ISDN network
- shares ISDN network with other devices (telephones, fax machines, modems)
- optional priority alarm calls
- support for point-to-point and point-to-multipoint mode configurations
- RS-232 port for panels upload/download
- external modem functionality for **INTEGRA** panels
- output for optional line separation module



**ISDN-SEP**  
ISDN line separator module

- accessory item for ISDN module
- separation of additional telephone lines provided by NT



**DT-1**

PSTN telephone communicator

- PSTN communicator for intruder panels not equipped with on-board dialers
- monitoring using variety of protocols:
  - 2 central station numbers
  - 2 identifiers
- messaging:
  - 6 telephone numbers
  - 1 or 2 voice messages
  - 1 or 2 text messages
- incoming call answering:
  - system state check



**SM-2**

Voice synthesizer

- records and plays back a 16 second voice message

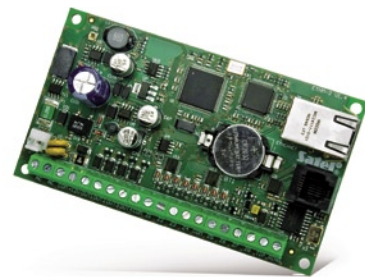


**TCP/IP COMMUNICATION**

**ETHM-2**

Universal TCP/IP communication module

- telephone line monitoring conversion to TCP/IP transmission, compatible with any panel
- TCP/IP reporting triggered by means of module inputs
- e-mail personal messaging
- remote control via web browser
- unit configuration via web browser
- local configuration via RS-232
- basic alarm unit with TCP/IP communication functionality
- encrypted data transmission



**ALARM VERIFICATION**

**VIVER**

Video alarm verification unit

- 4 video inputs for CCTV cameras
- 4 inputs for transmission triggering
- camera images sequence buffering
- built-in TCP/IP communicator
- built-in 56k modem as transmission backup
- PC software for module configuration

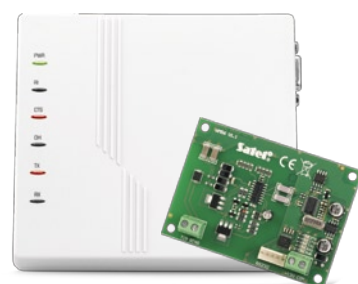


**ANALOGUE MODEMS**

**MDM56**

External 56k modem

- optimized for communication with **SATEL** panels
- transmission speed up to 56 kbit/s
- powered by 12 V DC supply – typical for alarm panels
- AT command based configuration
- available in three versions
  - **MDM56 CA** – installed on panel side
  - **MDM56 PC** – used on computer side
  - **MDM56 BO** – without enclosure, to be used with alarm control panel



MDM56 CA / MDM56 PC / MDM56 BO



## Radio remote controllers

All applications that require remote control of any devices may take the benefits provided by universal remote controllers. For that purpose, SATEL offers a complete range of controllers operating at 433 MHz, which can be used to operate up to four separate channels.

Additional features provided by SATEL controllers are aimed at alarm systems functionality. In conjunction with the panel they can be used not only for arming/disarming, but also for triggering an entry delay or as a portable panic button.

## SETS

### **RXH-1K / RXH-2K / RXH-4K**

Radio remote controller with superhet receiver

- attractive and ergonomic keyfob design
- superior range (up to 220 yd) and selectivity thanks to superhet receiver
- 1 independent channel (**RXH-1K**)
- 2 independent channels (**RXH-2K**)
- 4 independent channels (**RXH-4K**)
- support for up to 40 keyfobs (**RXH-1K**)
- support for up to 340 keyfobs (**RXH-2K, RXH-4K**)
- keyfob low battery indication
- arm/disarm signalling with the sounder
- RS-232 port for PC-based management



RXH-1K / RXH-2K / RXH-4K

### **RX-1K / RX-2K / RX-4K**

Radio remote controllers

- up to 4 separate, programmable channels
- support for up to 340 keyfobs
- operating range up to 100 m open space
- remote low battery indication
- arm/disarm/reset confirmation
- the RS-232 port which enables programming by means of computer with **DLOAD10** program installed (**RX-2K, RX-4K**)



RX-1K / RX-2K



RX-4K

### **RE-1K / RE-2K / RE-4K**

Radio remote controllers

- up to 4 separate, programmable channels
- support for up to 340 keyfobs
- operating range up to 100 m open space
- remote low battery indication
- arm/disarm/reset confirmation (**RE-4K**)
- the RS-232 port which enables programming by means of computer with **DLOAD10** program installed (**RE-4K**)



RE-1K / RE-2K



RE-4K

## KEYFOBS

### **P-2 / P-4 / T-1 / T-2 / T-4**

Remote controller keyfobs

- KEELOQ® dynamic code-hopping technology
  - ideal for security demanding applications
  - high immunity to interference signals
- SAW Resonator frequency stabilization
- immunity to environmental changes
- powered by single 12 V 23A battery



P-2



P-4



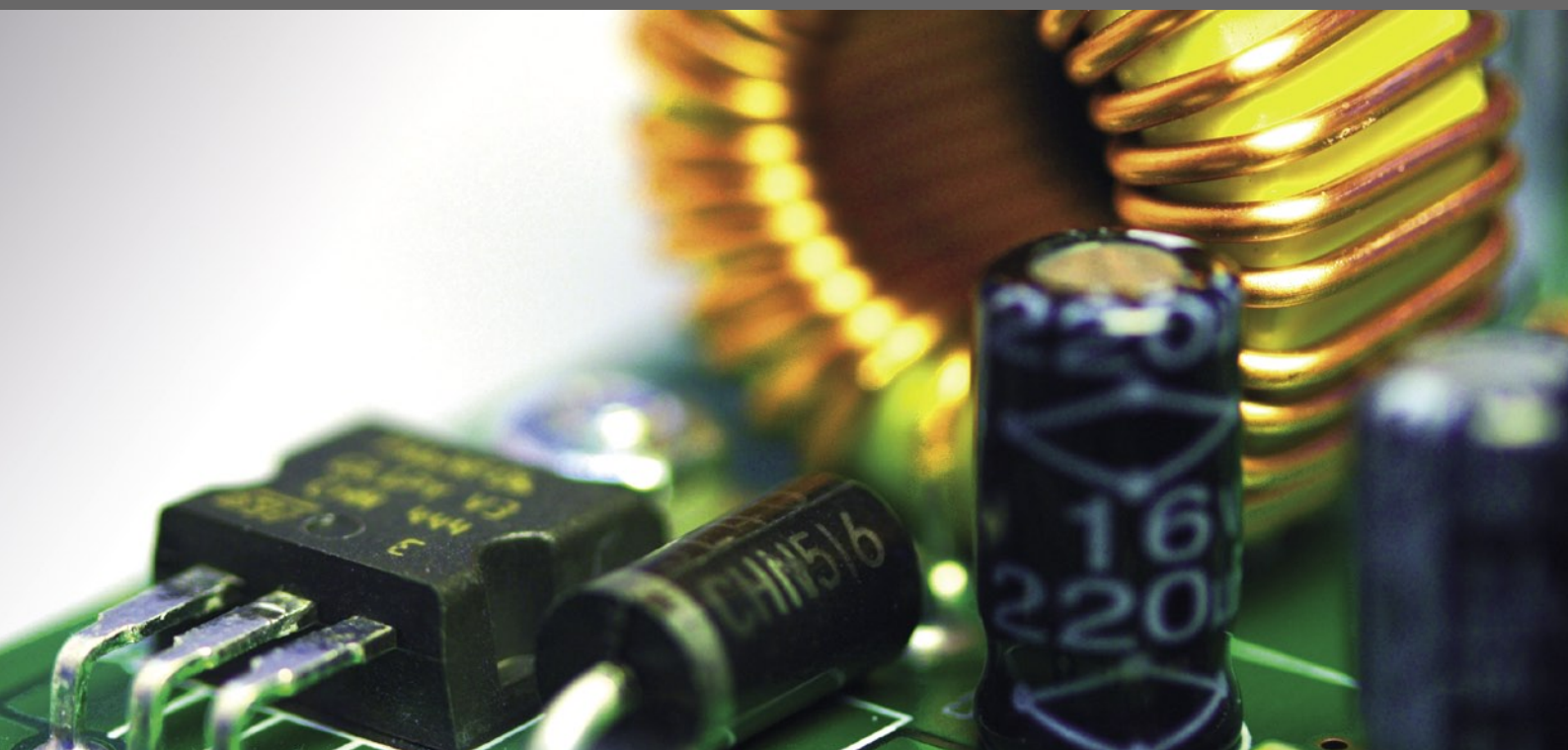
T-1



T-2



T-4



## Power supplies

Backup power supplies are responsible for uninterrupted power delivery. SATEL manufactures power supplies intended for security applications, which provide high reliability, effectiveness and remote supervision.



**APS-1012**

Backup power supply

- **EN50131-6** Grade 2 compliant
- high efficiency mains powered switching mode power supply with 12 V DC output
- 10 A power supply capacity
- short circuit, overload and overheat protection
- designed for use with sealed lead-acid batteries
- current controlled battery charging circuit
- battery deep discharge protection
- 4 OC outputs for remote supervision
- optical indication for mains, battery, overload and overheating status
- acoustic failure indication



**APS-524**

Backup power supply

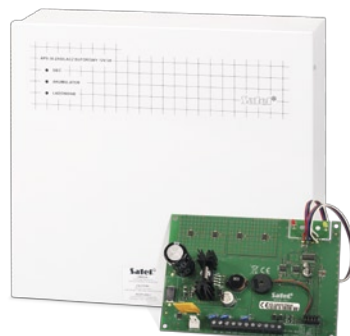
- high efficiency mains powered switching mode power supply with 24 V DC output
- 5 A power supply capacity
- short circuit, overload and overheat protection
- designed for use with sealed lead-acid batteries
- current controlled battery charging circuit
- battery deep discharge protection
- 4 OC outputs for remote supervision
- optical indication for mains, battery, overload and overheating status
- acoustic failure indication



**APS-30**

Backup power supply

- high effectiveness switching mode power supply
- 3 A power supply load capacity
- short circuit and overload protection built-in
- designed for use with sealed lead-acid batteries
- battery charging circuitry with current controller
- battery deep discharge protection
- 2 OC outputs for remote supervision
- optical indication of the AC mains supply/battery status and the battery charging process
- acoustical failure indication



**APS-15**

Backup power supply

- high effectiveness switching mode power supply
- 1.5 A power supply load capacity
- short circuit and overload protection built-in
- designed for use with sealed lead-acid batteries
- battery charging circuitry with current controller
- battery deep discharge protection
- 2 OC outputs for remote supervision
- optical indication of the AC mains supply/battery status and the battery charging process
- acoustical failure indication





## **ACCO Access control system**

Growing market demand for standalone access control system inspired SATEL's engineers to develop flexible solution that meets the requirements of numerous groups of customers.

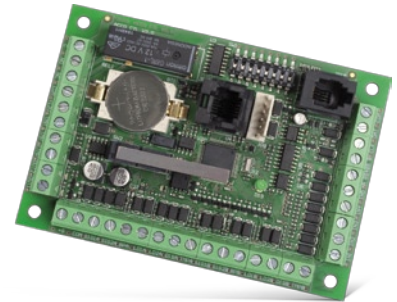
ACCO system consist of distributed intelligent devices networked for central supervision and management. The combination of proven hardware and software solutions with thought out system concept ensures the highest possible quality and makes it suitable for individual needs.

## DOOR CONTROLLERS

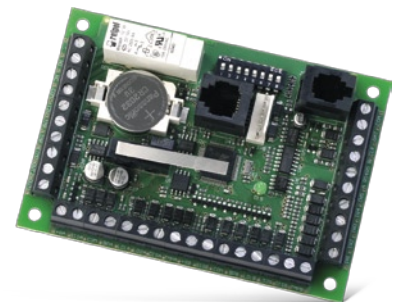
### ACCO-KP / ACCO-KP-PS / ACCO-KPWG / ACCO-KPWG-PS

Door controllers

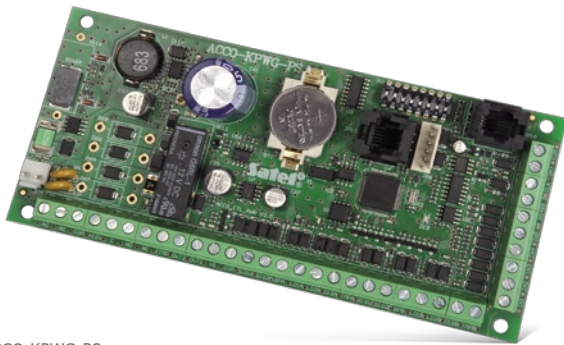
- support for single door with entry and exit authorization
- support for SATEL terminals and for WIEGAND compatible terminals (**ACCO-KPWG, ACCO-KPWG-PS**)
- standalone or ACCO system operation mode
- 1024 users
- user rights definition
- access authorization with proximity card and/or code
- biometric authorization (**ACCO-KPWG, ACCO-KPWG-PS**)
- 256 schedules
- holiday schedules
- non-volatile 24 576 event log
- work time registration event tagging
- anti-passback
- programming means:
  - permanently or temporarily connected LCD keypad
  - PC connected via RS-232 port
  - PC connected via **ACCO-USB** interface to RS-485 bus
- non volatile settings memory
- FLASH based firmware update
- scheduled door locking and unlocking
- programmable limits on number of accesses
- switching mode backup power supply 12 V DC 1.2 A (**ACCO-KP-PS, ACCO-KPWG-PS**)



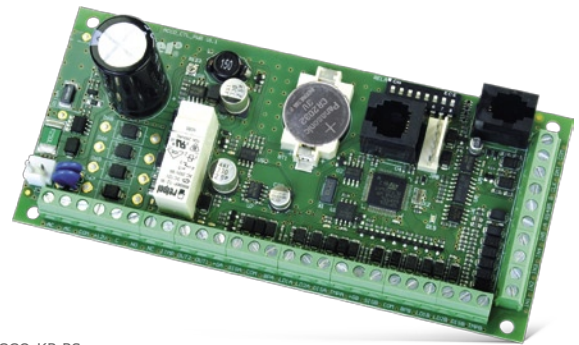
ACCO-KPWG



ACCO-KP



ACCO-KPWG-PS



ACCO-KP-PS

## SYSTEM UNITS

### ACCO-USB

RS-485 to USB interface

- RS-485 **ACCO** system bus to PC USB connection
- socket RJ-45 for **ACCO-USB-CZ** system management reader
- powered by USB port
- Plug&Play installation
- LEDs for device state indication



**ACCO-USB-CZ**  
Proximity card reader

- support for cards, tags and other 125 kHz passive transponders
- system management reader for easy proximity cards management via **ACCO** software
- LED indicator for reader state indication
- built-in buzzer for acoustic feedback
- RJ-45 connector for connecting to **ACCO-USB**



**ACCO TERMINALS**

**ACCO-KLCDR-BW / ACCO-KLCDR-BG**  
LCD keypads

- large, easy to read backlit LCD display
- access authorization with code and/or proximity card
- support for cards, tags and other 125 kHz passive transponders
- LED indicators for door and controller status indication
- built-in buzzer for acoustic feedback
- display and keypad backlight
- tamper protection



ACCO-KLCDR-BW / ACCO-KLCDR-BG

**ACCO-SCR-BG**  
Keypad

- access authorization with code and/or proximity card
- support for cards, tags and other 125 kHz passive transponders
- LED indicators for door and controller status indication
- built-in buzzer for acoustic feedback
- keys backlight
- optical tamper protection against opening and removing from mounting surface
- doorbell button
- indoor and outdoor operation



ACCO-SCR-BG

**CZ-EMM / CZ-EMM2**  
Proximity card readers

- access authorization with proximity card



CZ-EMM



CZ-EMM2

**CZ-EMM3 / CZ-EMM4**  
Proximity card readers

- access authorization with proximity card
- outdoor operation
- doorbell button (only **CZ-EMM4**)



CZ-EMM3



CZ-EMM4

**CZ-DALLAS**  
DALLAS iBUTTON reader

- installed directly on wall/door frame
- support for standard **DALLAS** iBUTTONS



CZ-DALLAS

## TRANSPONDERS

### KT-STD-1

Proximity card

- passive 125 kHz transponder
- standard credit card size, dimensions: 85 x 55 mm
- colour: white



### KT-STD-2

Thick proximity card

- passive 125 kHz transponder
- standard credit card size, dimensions: 85 x 55 mm, 2 mm thick
- colour: white



### BR-STD-1

Proximity tag

- passive 125 kHz transponder



### BR-STD-2

Proximity tag

- passive 125 kHz transponder



### PAS-DALLAS

DALLAS iBUTTON

- passive 125 kHz transponder
- compatible with **CZ-DALLAS** iBUTTON reader
- available in black and red



## ACCO ACCESSORIES

### OP-KT-1

Plastic holder

- plastic holder for **KT-STD-1** proximity card



### OP-KT-2

Plastic holder

- plastic holder for **KT-STD-2** proximity card



### LOGOBAND-A

Neck strap with clip

- suitable for proximity card holder, tag, keys etc.



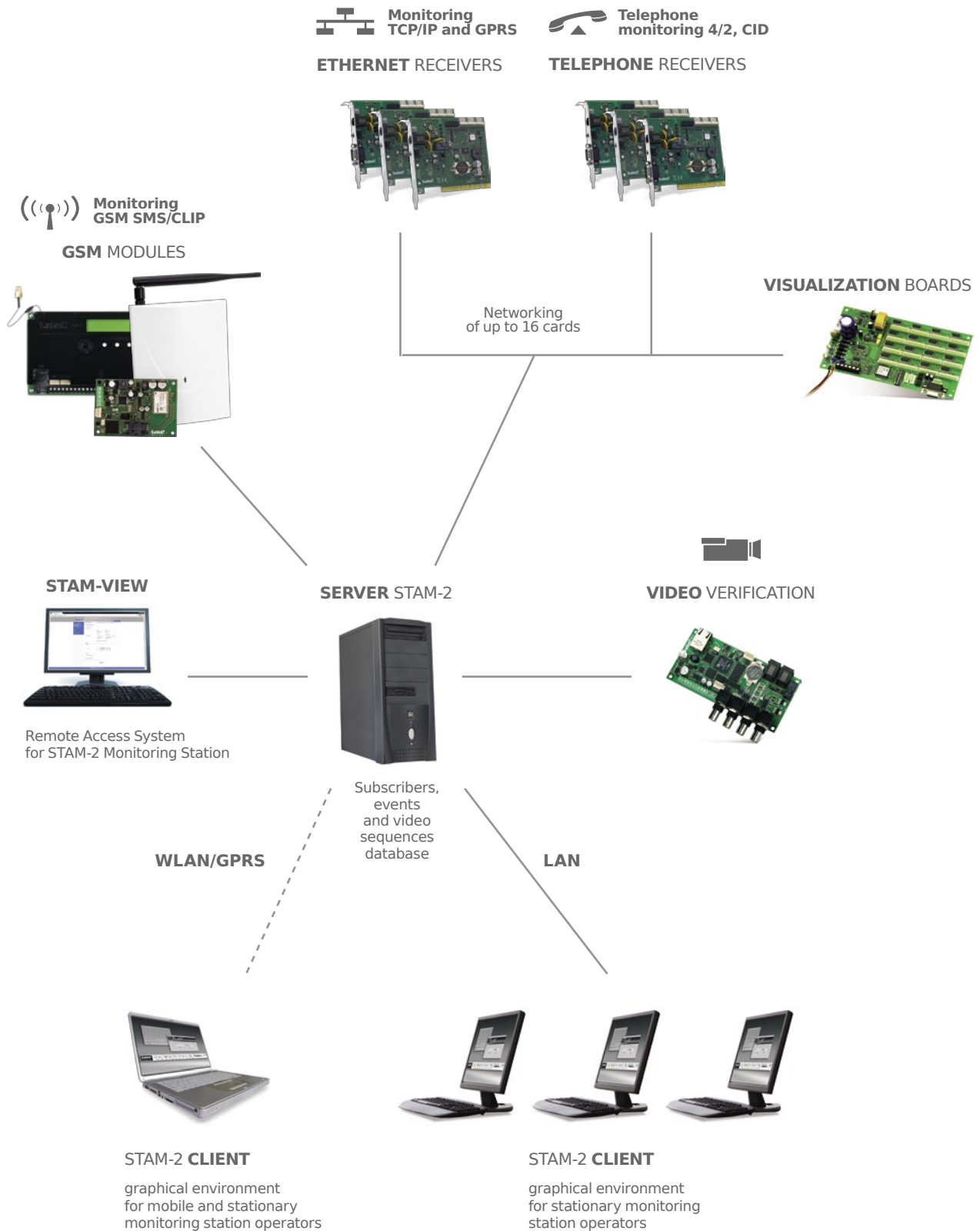


## Monitoring

Alarm receiving centers are responsible for effective reception of the information from supervised premises, as well as prompt reaction to incoming events.

To meet market requirements, SATEL have developed a range of products that allow to establish a modern central monitoring station, which utilizes various communication channels – providing the security specialists with a professional, advanced tool which enables them to efficient operation.

**STAM-2 MONITORING STATION SYSTEM STRUCTURE**



## MONITORING STATION SOFTWARE

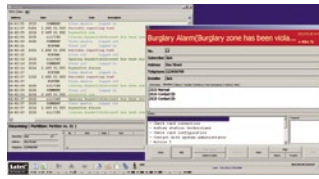
### STAM-2 / STAM-2 PRO

Multiuser, multi-workstation monitoring station management software

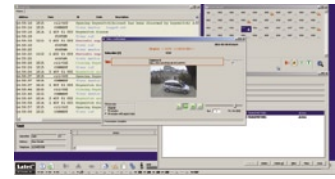
- support for telephone line monitoring, GSM reporting, monitoring using TCP/IP networks
- cross-platform Java™ based multi-user/multi-workstation solution networked client-server architecture
- support for visual alarm verification
- support for over 50 000 subscribers
- multiple identifiers for single subscriber
- code categories, defined for each subscriber and identifier
- alert notification
- overdue tasks notification
- reports for subscribers, operators and whole monitoring station
- database backups
- data import from **STAM-1** databases

Extended functionality (**STAM-2 PRO**):

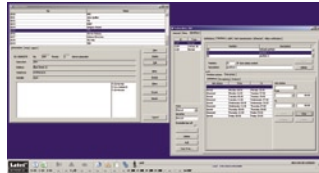
- 10 workstations license
- creating detailed site plans with a possibility to mark detectors' location
- indication of alarm source on site plan
- site status control by means of virtual keypad
- possibility to use maps for presentation of a site status



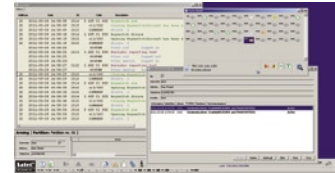
Event handling window



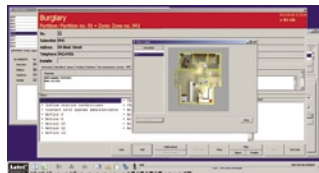
Video verification window



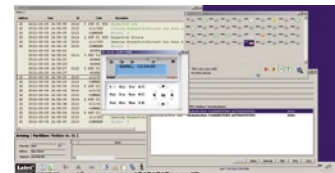
Subscriber editing window



State board window



Indication of alarm source on site plan

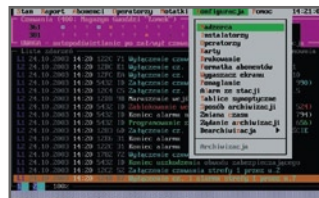


Site status control by means of virtual keypad

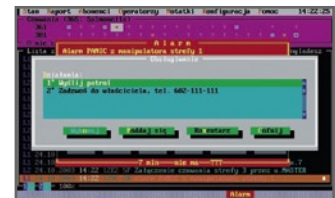
### STAM-1

Monitoring station management software

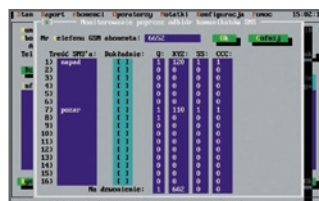
- support for telephone line monitoring and GSM reporting
- DOS-based multi-user solution
- support for over 50 000 subscribers
- multiple identifiers for single subscriber
- code categories, defined for each subscriber and identifier
- alert notification
- due tasks notification
- reports for subscribers, operators and whole monitoring station
- database backups



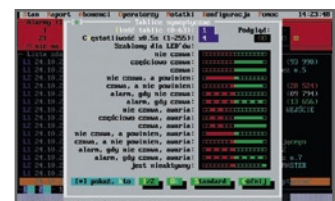
Main program menu



Event handling window



SMS reporting edit window

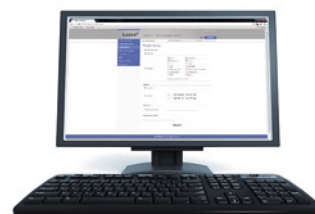


State definition for mimic board

### STAM-VIEW

Remote Access System for STAM-2 Monitoring Station

- enhancement of the monitoring station system with remote events viewing ability
- access to the system via a web browser
- ability to remotely verify the system status
- easy testing of the system at startup and periodic maintenance
- effective protection against unauthorized access to data
- ability to filter events recorded by the station
- text messaging system to facilitate internal communication
- functions for making backup copies
- optional visual alarm verification





## HARDWARE SOLUTIONS

### STAM-IRS

Integrated monitoring receiver with micro server

- support for up to 14 telephone or TCP/IP receiver cards
- 3 RS-232 ports for additional GSM receivers
- built-in INTEL ATOM based micro server PC with dual SSD storage
- 7" TFT LCD screen for server management
- built-in 10 A power supply with support for backup battery
- industry standard 19" chassis suitable for rack mounting
- pre-installed and pre-configured essential software



## TELEPHONE RECEIVERS

### STAM-1 P

Base receiver card

- PCI slot compatible form factor
- RS-232 for connecting to the computer
- telephone line jack for telephone line monitoring
- multiprotocol compatibility (incl. Contact ID)
- auto-negotiation of communication protocol
- data transmission verification support
- no limitation for number of data received
- FIFO buffer for 250 last received events
- full auto-diagnostic
- telephone line overhear audio jack



### STAM-1 R

Expansion receiver card

- PCI slot compatible form factor
- telephone line jack for telephone line monitoring
- multiprotocol compatibility (incl. Contact ID)
- auto-negotiation of communication protocol
- data transmission verification support
- no limitation for number of data received
- FIFO buffer for 250 last received events
- full auto-diagnostic



### STAM-1 K

Termination receiver card

- PCI slot compatible form factor
- RS-232 for connecting the **STAM-1 PTSA** mimic board
- telephone line jack for telephone line monitoring
- multiprotocol compatibility (incl. Contact ID)
- auto-negotiation of communication protocol
- data transmission verification support
- no limitation for number of data received
- FIFO buffer for 250 last received events
- full auto-diagnostic

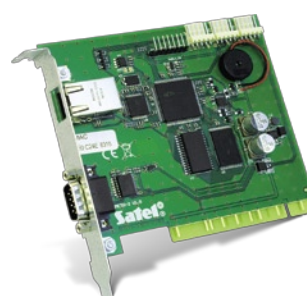


## ETHERNET RECEIVERS

### STAM-1 PE

TCP/IP receiver base card

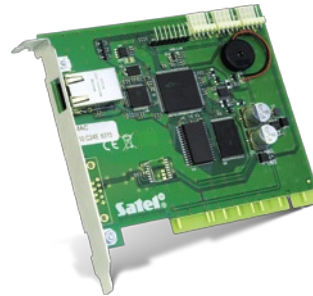
- TCP/IP reporting receiver for SATEL Ethernet and GPRS transmitters
- support for up to 256 subscribers with individual link supervision
- hardware event buffering
- ETHERNET link supervision
- optional incoming events filtering based on physical address (MAC)
- support for automatic IP address configuration with DHCP
- possibility to install in computer's PCI slot
- RS-232 port for communication with central monitoring station system



**STAM-1 RE**

TCP/IP receiver expansion card

- TCP/IP reporting receiver for SATEL Ethernet and GPRS transmitters
- support for up to 256 subscribers with individual link supervision
- hardware event buffering
- ETHERNET link supervision
- optional incoming events filtering based on physical address (MAC)
- support for automatic IP address configuration with DHCP
- possibility to install in computer's PCI slot



**SMET-256**

TCP/IP reporting converter to telephone formats

- SATEL TCP/IP reporting conversion to telephone line monitoring
- compatible with SATEL Ethernet and GPRS transmitters
- simulation of Visonic RC4000 and SurGuard MLR2 receivers
- support for up to 256 subscribers with individual link supervision
- support for unlimited number of subscribers without individual link supervision
- event buffering until successful reception by telephone receiver
- ETHERNET link supervision
- optional incoming events filtering based on physical address (MAC)
- configuration via web browser (TCP/IP connection) or via dedicated software (RS-232 connection)
- support for automatic IP address configuration with DHCP

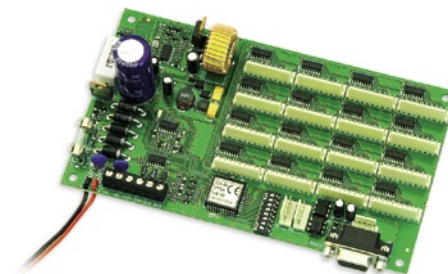


**VISUALIZATION**

**STAM-1 PTSA**

Mimic board for STAM monitoring station

- LED visualization of 64 premises
- support for up to 63 boards in a system
- on-board switching mode power supply



## SETS

### STAM-2 BT STAM-2 Set

- **STAM-1 P** receiver card
- **STAM-2** software (3 workstations license)
- installation guide
- protection dongle



### STAM-2 BE STAM-2 Set

- **STAM-1 PE** receiver card
- **STAM-2** software (3 workstations license)
- installation guide
- protection dongle



### STAM-2 BS STAM-2 software

- **STAM-2** software (3 workstations license)
- protection dongle



### STAM-2 UE STAM-2 BS upgrade

- 10 workstations license for **STAM-2** software





## Accessories

Wide range of security systems related accessories is an addition to SATEL's base product lines, which is intended to provide a better customization for the whole project.

## CODE LOCKS

### SZW-02 Code lock

- operates control panels: arming, disarming and entry delay triggering
- controls relay for electromagnetic lock/electric strike
- LED for relay state indication
- 3 incorrect codes alarm



### PK-01 Standalone access control module

- user authorization with code or proximity card
- up to 50 users
- module configuration via keypad
- LED status indicators
- keypad backlight for easy use in dark areas
- built in relay for electromagnetic locks
- sealed circuitry for outdoor use



## PROTECTION MODULES

### ZB-1 Battery deep discharge protection

- battery disconnecting to prevent deep discharge
- compatible with all devices not equipped with such feature



### ZB-2 Automatic overload protection with notification output

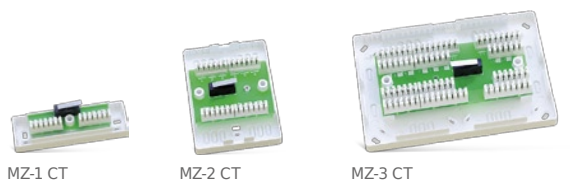
- protects 12 V power supply outputs against overloading
- compatible with all power supplies not equipped with such feature
- OVL output for overload indication



## DISTRIBUTION BOX MODULES

### MZ CT Distribution box modules

- facilitates installation of low-voltage installations, like alarm installations
- KRONE type terminals



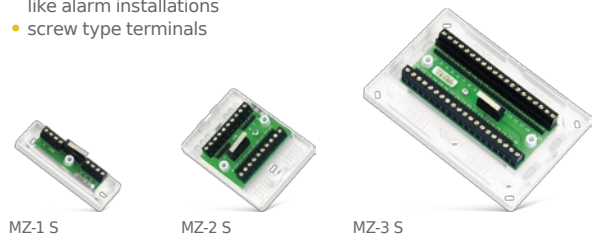
MZ-1 CT

MZ-2 CT

MZ-3 CT

### MZ S/L Distribution box modules

- facilitates installation of low-voltage installations, like alarm installations
- screw type terminals



MZ-1 S

MZ-2 S

MZ-3 S

## TRAINING SUITCASE

### WSR Demonstration sets

- available for any type of control panel
- comprise:
  - mainboard
  - keypad
  - power supply
  - some modules
- are excellent equipment for presentation and training
- different equipment configurations upon request



## CABLES

### DB9F/RJ-SET

RS-232 programming set

- set for programming devices equipped with RS-232 Port with RJ or PIN-5 connector, length 4 m (**CA-10, INTEGRA, GSM-4, GSM LT-1, GSM LT-2, ACU-100, VIVER, ETHM-2**)



### DB9FC/RJ-SET

RS-232 programming set

- set with a converter for programming devices equipped with RS-232 TTL with RJ or PIN-3 connector, length 4 m (**CA-5, CA-6, RX-2K, RX-4K, RE-4K, ACCO-KP, ACCO-KP-PS, ACCO-KPWG, ACCO-KPWG-PS, ACTIVA, GPRS-T1, GPRS-T2, MICRA, VERSA**)



### RJ/PIN5-LCD

Adapter for DB9F/RJ cable

- part of DB9F/RJ-SET, designed for use with: LCD keypads for **INTEGRA** and **CA-10** control panels, **GSM-4, GSM LT-1, GSM LT-2, ACU-100, VIVER**



### RJ/PIN3

Adapter for DB9FC/RJ cable

- part of DB9FC/RJ-SET, designed for use with: **ACTIVA, GPRS-T1, GPRS-T2, MICRA**



### PIN5/PIN5

RS-232 TTL programming cable

- cable for connection of RS Ports of control panels with modules equipped with PIN5 connector (**INTEGRA, CA-64/MDM56 BO** modem, **GSM** modules, **ISDN, ETHM-1**)



### RJ/PIN5

RS-232 cable

- cable for connection of RS Ports of **INTEGRA** panels equipped with RJ connector and modules equipped with PIN-5 connector (**MDM56 BO** modems, **GSM, ISDN, ETHM-1** modules)



### USB/RS-232

Converter

- connecting RS-232 devices to computers not equipped with RS-232 ports
- driver CD included



### PIN5/RJ-TTL

RS-232 TTL cable

- cable for connecting of **ETHM-1** module with **VERSA**



## ANTENNAS

### ANT-868

ISM antenna

- antenna for **ABAX** wireless devices (**ACX-201, INTEGRA 128-WRL**)



### ANT-900/1800

GSM antenna

- 900/1800 MHz antenna for **GSM-4, GSM LT-1, GSM LT-2, GPRS-T1, GPRS-T2** and **INTEGRA 128-WRL** modules



### ANT-OBU-Q

GSM antenna

- GSM quad-band antenna for **GSM-4, GSM LT-1, GSM LT-2, GPRS-T1, GPRS-T2** and **INTEGRA 128-WRL** modules, mounted to the case



## ACCESSORIES FOR ACTIVA

### ACTIVA-D

Distance piece for ACTIVA-K

### ACTIVA-K

Angular holder with tamper for ACTIVA barriers



## DETECTOR ACCESSORIES

### BRACKET "A"

Adjustable holder for motion detectors

- tilt angle adjustment within approx. 30°
- swivel angle adjustment within approx. 90°
- optional wall- or ceiling mounting of detector
- compatibility: **AMBER, APD-100, APMD-150, AQUA Luna, AQUA Plus, AQUA Pro, AQUA S, COBALT, COBALT Plus, COBALT Pro, GRAPHITE, MPD-300, SILVER**



### BRACKET "B"

Adjustable holder for motion detectors

- inner cable duct
- fully enclosed design for better appearance of installation
- tilt angle adjustment within approx. 30°
- swivel angle adjustment within approx. 90°
- optional wall- or ceiling mounting of detector
- compatibility: **AMBER, APD-100, APMD-150, AQUA Luna, AQUA Plus, AQUA Pro, AQUA S, COBALT, COBALT Plus, COBALT Pro, GRAPHITE, MPD-300, SILVER**



## OTHERS

### MP-1

Relay module

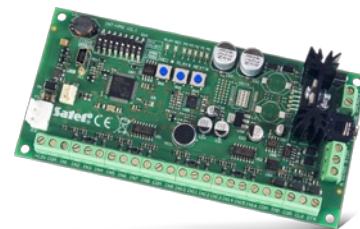
- high-current AC/DC appliance control
- triggering with low-current OC outputs
- 4 relays
- 5 fuses



### INT-VMG

Voice message module

- ability to record up to 32 messages
- triggering messages with the **INTEGRA** alarm control panel or other external devices
- built-in amplifier allows direct connection of a loudspeaker
- line output for easy connection to a PA system
- built-in USB port for quick programming with a computer



### MST-1

DTMF remote operation module

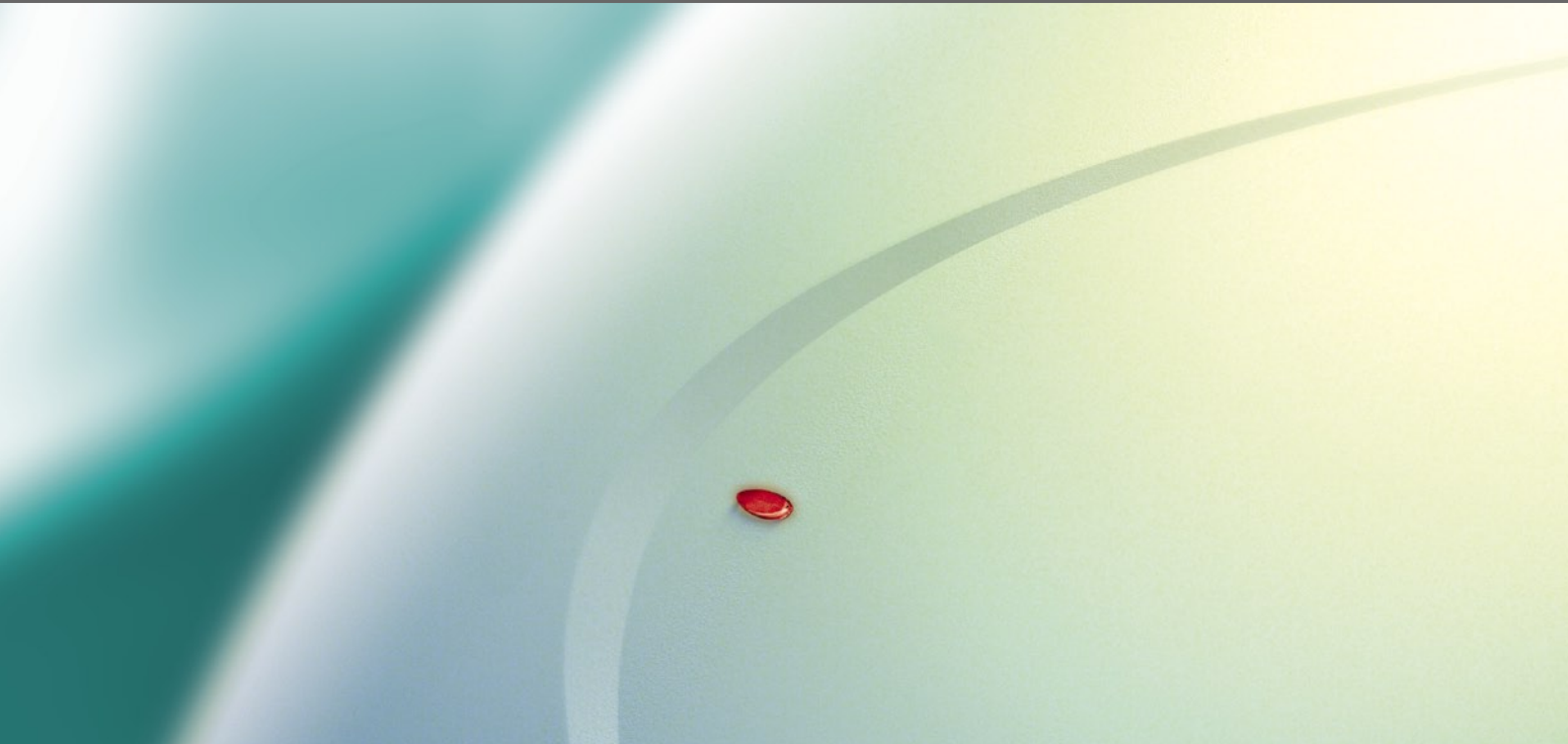
- remote operation over telephone line by using DTMF telephone handset
- remote system state check
- **CA-10** and **CA-6** compatible



### CZ-EMM POD

Spacer for CZ-EMM reader (6 mm)





## Enclosures

Enclosures complete the range of products provided by SATEL. To make installation easier, they are designed exclusively for SATEL panels and expansion modules, intended for indoor use. High quality craftsmanship and proper electrochemical preparation guarantee good paint adhesiveness and through rust protection.



## PLASTIC ENCLOSURES

### OPU-4 P Enclosure

- double tamper protection
- possibility to install wireless devices with antennas inside
- dimensions: 266 x 286 x 100 mm
- space for 40 VA or 60 VA AC/AC power supply
- surface mounting



**OPU-4 P**  
Example of configuration

### OPU-4 PW Enclosure

- double tamper protection
- possibility to install wireless devices with antennas inside
- dimensions: 322 x 342 x 100 mm
- space for 40 VA or 60 VA AC/AC power supply
- flush mounting



**OPU-4 PW**  
Example of configuration

### OPU-3 P Enclosure

- double tamper protection
- removable plates simplifying system installation and maintenance
- possibility to install wireless devices with antennas inside
- dimensions: 324 x 382 x 108 mm
- space for 40 VA or 60 VA AC/AC power supply



**OPU-3 P**  
Example of configuration

### OPU-2 A Enclosure

- tamper protection
- dimensions: 126 x 158 x 32 mm



### OPU-1 A Enclosure

- tamper protection
- dimensions: 126 x 158 x 32 mm



## METAL ENCLOSURES

### **OBU-M-LED** Enclosure

- dimensions: 210 x 110 x 40 mm



### **OBU-M-LCD** Enclosure

- dimensions: 215 x 150 x 45 mm



### **OBU-M-LCD-S** Enclosure

- dimensions: 190 x 130 x 40 mm



### **OBU-M-LED-S** Enclosure

- dimensions: 140 x 135 x 40 mm



## METAL ENCLOSURES WITH TRANSFORMER

### **OMI-3** Enclosure

- EN50131 Grade 3 approved
- double tamper protection
- dimensions: 330 x 405 x 110 mm
- transformer: 50 VA
- primary voltage: 230 V AC, 50 Hz
- secondary voltage: 20 V AC, 50 Hz



### OMI-2 Enclosure

- EN50131 Grade 3 approved
- double tamper protection
- dimensions: 325 x 310 x 110 mm
- transformer: 40 VA
- primary voltage: 230 V AC, 50 Hz
- secondary voltage: 18 V AC, 50 Hz



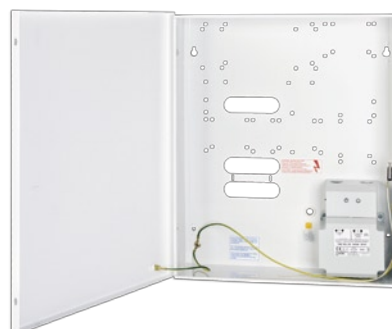
### OMI-1 Enclosure

- EN50131 Grade 3 approved
- double tamper protection
- dimensions: 290 x 285 x 105 mm
- transformer: 20 VA
- primary voltage: 230 V AC, 50 Hz
- secondary voltage: 18 V AC, 50 Hz



### CA-64 OBU Enclosure

- metal enclosure
- tamper protection
- dimensions: 325 x 400 x 95 mm
- transformer: 50 VA
- primary voltage: 230 V AC, 50 Hz
- secondary voltage: 20 V AC



### CA-10 OBU Enclosure

- metal enclosure
- tamper protection
- dimensions: 320 x 300 x 90 mm
- transformer: 40 VA
- primary voltage: 230 V AC, 50 Hz
- secondary voltage: 18 V AC



### CA-6 OBU Enclosure

- metal enclosure
- tamper protection
- dimensions: 255 x 255 x 80 mm
- transformer: 20 VA
- primary voltage: 230 V AC, 50 Hz
- secondary voltage: 18 V AC



## ENCLOSURE COMPARISON CHART\*

		plastic enclosures				metal enclosures									
		OPU-4 P / OPU-4 PW	OPU-3 P	OPU-2 A	OPU-1 A	OBU-M-LED	OBU-M-LCD	OBU-M-LCD-S	OBU-M-LED-S	OMI-3**	OMI-2**	OMI-1**	CA-64 OBU**	CA-10 OBU**	CA-6 OBU**
<b>CONTROL PANELS, KEYPADS AND EXPANSION MODULES</b>															
INTEGRA 128-WRL	intruder alarm control panel	•	•												
INTEGRA 128 Plus	intruder alarm control panel		•						•				•		
INTEGRA 128	intruder alarm control panel		•						•				•		
INTEGRA 64 Plus	intruder alarm control panel		•						•				•		
INTEGRA 64	intruder alarm control panel		•						•				•		
INTEGRA 32	intruder alarm control panel	•	•						•	•	•		•	•	•
INTEGRA 24	intruder alarm control panel	•	•						•	•	•		•	•	•
INT-KLCD-GR / INT-KLCD-BL	LCD keypads						•								
INT-KLCDR-GR / INT-KLCDR-BL	LCD keypads						•								
INT-KLCDL-GR / INT-KLCDL-BL	LCD keypads						•								
INT-KLCDS-GR / INT-KLCDS-BL	LCD keypads							•							
INT-SK-GR	partition keypad						•								
CA-64 PTSA	mimic board	•	•						•	•	•	•	•	•	•
CA-64 E	zone expansion module	•	•		•				•	•	•	•	•	•	•
CA-64 EPS	zone expansion module with power supply	•	•						•	•	•	•	•	•	•
CA-64 ADR	addressable bus expansion module	•	•						•	•	•	•	•	•	•
CA-64 PP	subpanel module	•	•						•	•	•	•	•	•	•
CA-64 O	output expansion module	•	•		•				•	•	•	•	•	•	•
CA-64 OPS	output expansion module with power supply	•	•						•	•	•	•	•	•	•
INT-KNX	KNX integration module	•	•		•				•	•	•	•	•	•	•
INT-RS	RS-232 interface for systems integration	•	•		•				•	•	•	•	•	•	•
INT-FI	fiber-optic interface	•	•		•				•	•	•	•	•	•	•
ETHM-1	TCP/IP communication module	•	•						•	•	•	•	•	•	•
INT-VG	remote interactive voice module	•	•						•	•	•	•	•	•	•
INT-VMG	voice message module	•	•						•	•	•	•	•	•	•
INT-R	universal expander for card / chip readers	•	•		•				•	•	•	•	•	•	•
INT-SZK-GR	code locks						•								
VERSA 15	intruder alarm control panel	•	•						•	•	•	•	•	•	•
VERSA 10	intruder alarm control panel	•	•						•	•	•	•	•	•	•
VERSA 5	intruder alarm control panel	•	•						•	•	•	•	•	•	•
CA-10	intruder alarm control panel	•	•						•	•	•	•	•	•	•
CA-10 KLCD-L / CA-10 BLUE-L	LCD keypads						•								
CA-10 KLCD-S / CA-10 BLUE-S	LCD keypads							•							
CA-10 KLED-S	LED keypad							•	•						
CA-10 KLED	LED keypad						•								
CA-10 E	zone expansion module	•	•		•				•	•	•	•	•	•	•
CA-6	intruder alarm control panel	•	•						•	•	•	•	•	•	•
CA-6 KLED-S	LED keypad							•	•						
CA-6 KLED	LED keypad						•								
CA-5	intruder alarm control panel	•	•						•	•	•	•	•	•	•
CA-5 KLCD-L / CA-5 BLUE-L	LCD keypads						•								
CA-5 KLCD-S / CA-5 BLUE-S	LCD keypads							•							
CA-5 KLED-S	LED keypad							•	•						
<b>ABAX TWO WAY WIRELESS SYSTEM</b>															
ACU-100	wireless system controller	•	•		•										
ACX-201	zones and outputs expansion wireless module	•	•										•	•	
ACX-200	zones and outputs expansion wireless module	•	•		•										
<b>COMMUNICATION MODULES</b>															
GSM-4	backup communication path module for telephone line	•	•												
GSM LT-2	GSM module replacing telephone line	•	•	•						•				•	
GSM LT-1	GSM module replacing telephone line	•	•	•						•				•	
GPRS-T1	GPRS/SMS reporting transmitter	•	•	•									•		
GPRS-T2	GPRS/SMS reporting module	•	•	•									•		
ETHM-2	universal TCP/IP communication module	•	•						•	•	•	•	•	•	•
MDM-56 BO	external 56k modem	•	•						•	•	•	•	•	•	•
<b>ACCO ACCESS CONTROL SYSTEM</b>															
ACCO-KP / ACCO-KPWG	door controllers	•	•		•					•			•		
ACCO-KP-PS / ACCO-KPWG-PS	door controllers with power supply	•	•							•	•	•	•	•	•
<b>MONITORING</b>															
STAM-1 PTSA	mimic board for STAM monitoring station	•	•						•	•	•	•	•	•	•
<b>CODE LOCKS</b>															
SZW-02	code lock						•								
<b>OTHERS</b>															
MP-1	relay module	•	•		•				•	•	•	•	•	•	•
MST-1	DTMF remote operation module	•	•						•	•	•	•	•	•	•

\* The chart indicates what devices can be installed in the given enclosure. It does not specify how many different devices can be installed in one enclosure.

\*\* In determining whether a particular module with power supply can be installed, the parameters of the transformer installed in the enclosure are taken into account.

ACCO-KLCDR-BG.....	50	CA-5 KLED-S.....	20	INT-KLCDR-BL.....	6	RE-2K.....	45
ACCO-KLCDR-BW.....	50	CA-6.....	19	INT-KLCDR-GR.....	6	RE-4K.....	45
ACCO-KP.....	49	CA-6 KLED.....	19	INT-KLCDS-BL.....	6	RJ/PIN3.....	60
ACCO-KP-PS.....	49	CA-6 KLED-S.....	19	INT-KLCDS-GR.....	6	RJ/PIN5.....	60
ACCO-KPWG.....	49	CA-6 OBU.....	65	INT-KNX.....	9	RJ/PIN5-LCD.....	60
ACCO-KPWG-PS.....	49	CA-10.....	17	INT-KSG.....	6	RX-1K.....	45
ACCO-SCR-BG.....	50	CA-10 BLUE-L.....	17	INT-ORS.....	8	RX-2K.....	45
ACCO-USB.....	49	CA-10 BLUE-S.....	17	INT-R.....	12	RX-4K.....	45
ACCO-USB-CZ.....	50	CA-10 E.....	18	INT-RS.....	10	RXH-1K.....	45
ACTIVA.....	32	CA-10 KLCD.....	17	INT-RX.....	7	RXH-2K.....	45
ACTIVA-D.....	61	CA-10 KLCD-L.....	17	INT-S-BL.....	6	RXH-4K.....	45
ACTIVA-K.....	61	CA-10 KLCD-S.....	17	INT-SCR-BL.....	7	S-1.....	33
ACU-100.....	8, 24	CA-10 KLED.....	18	INT-S-GR.....	6	S-2.....	33
ACX-100.....	24	CA-10 KLED-S.....	18	INT-SK-GR.....	7	S-3.....	33
ACX-200.....	24	CA-10 OBU.....	65	INT-SZ-BL.....	12	S-4.....	33
ACX-201.....	24	CA-64 ADR.....	8	INT-SZ-GR.....	12	SD-3001 R.....	37
AFD-100.....	25	CA-64 ADR-MOD.....	8	INT-SZK-GR.....	12	SILVER.....	29
AGD-100.....	26	CA-64 E.....	8	INT-VG.....	11	SM-2.....	43
AMBER.....	30	CA-64 EPS.....	8	INT-VMG.....	11, 61	SMET-256.....	56
AMBER 2E.....	30	CA-64 OBU.....	65	ISDN Module.....	42	SOW-300 R.....	38
AMD-100.....	26	CA-64 O-OC.....	9	ISDN-SEP.....	42	SP-500 R.....	37
AMD-101.....	26	CA-64 OPS-OC.....	9	IVORY.....	30	SP-4001 R.....	37
AMD-102.....	26	CA-64 OPS-R.....	9	K-1.....	33	SP-4002 R.....	37
ANT-868.....	60	CA-64 OPS-ROC.....	9	K-1 2E.....	33	SP-4003 R.....	37
ANT-900/1800.....	60	CA-64 O-R.....	9	K-2.....	33	SP-4006 R.....	37
ANT-OBU-Q.....	60	CA-64 O-ROC.....	9	K-2 2E.....	33	SPL-2010 R.....	38
APD-100.....	25	CA-64 PP.....	8	K-3.....	33	SPL-2030 R.....	38
APMD-150.....	25	CA-64 PTSA.....	7	K-3 2E.....	33	SPL-5010 R.....	38
APS-15.....	47	COBALT.....	29	KT-STD-1.....	51	SPL-5020 R.....	38
APS-30.....	47	COBALT Plus.....	29	KT-STD-2.....	51	SPLZ-1011 R.....	38
APS-524.....	47	COBALT Pro.....	29	LOGOBAND-A.....	51	SPW-100.....	38
APS-1012.....	47	CZ-DALLAS.....	12, 50	MDM56.....	43	SPW-210 R.....	39
APT-100.....	26	CZ-EMM.....	12, 50	MDM56 BO.....	43	SPW-220 R.....	39
AQUA Luna.....	29	CZ-EMM2.....	12, 50	MDM56 CA.....	43	SPW-250 R.....	39
AQUA Pet.....	29	CZ-EMM3.....	12, 50	MDM56 PC.....	43	STAM-1.....	54
AQUA Pet 2E.....	29	CZ-EMM4.....	12, 50	MICRA.....	15, 41	STAM-1 K.....	55
AQUA Plus.....	29	CZ-EMM POD.....	61	MFD-300.....	16	STAM-1 P.....	55
AQUA Plus 2E.....	29	DB9FC/RJ-SET.....	60	MKP-300.....	15	STAM-1 PE.....	55
AQUA Pro.....	29	DB9F/RJ-SET.....	60	MMD-300.....	16	STAM-1 PTSA.....	56
AQUA Ring.....	30	DG-1 CO.....	32	MP-1.....	61	STAM-1 R.....	55
AQUA Ring S.....	30	DG-1 LPG.....	32	MPD-300.....	16	STAM-1 RE.....	56
AQUA S.....	29	DG-1 ME.....	32	MPT-300.....	15	STAM-2.....	54
ARD-100.....	25	DG-1 TCM.....	32	MSD-300.....	16	STAM-2 BE.....	57
ARF-100.....	27	DT-1.....	43	MST-1.....	61	STAM-2 BS.....	57
ASD-110.....	25	ETHM-1.....	11	MZ-1 CT.....	59	STAM-2 BT.....	57
ASP-105 R.....	27	ETHM-2.....	43	MZ-1 S/L.....	59	STAM-2 PRO.....	54
ASP-205 R.....	27	FD-1.....	35	MZ-2 CT.....	59	STAM-2 UE.....	57
ASW-100 E.....	26	GPRS-T1.....	11, 42	MZ-2 S/L.....	59	STAM-IRS.....	55
ASW-100 F.....	26	GPRS-T2.....	42	MZ-3 CT.....	59	STAM-VIEW.....	54
ATD-100.....	25	GRAPHITE.....	30	MZ-3 S/L.....	59	SZW-02.....	59
AVD-100.....	26	GRAPHITE Pet.....	30	OBU-M-LCD.....	64	T-1.....	45
B-1.....	34	GSM-4.....	10, 41	OBU-M-LCD-S.....	64	T-2.....	45
B-1M.....	34	GSM LT-1.....	10, 41	OBU-M-LED.....	64	T-4.....	45
B-1T.....	34	GSM LT-2.....	10, 41	OBU-M-LED-S.....	64	TD-1.....	35
B-2.....	34	INDIGO.....	32	OMI-1.....	65	TSD-1.....	35
B-2S.....	34	INDIGO Tester.....	32	OMI-2.....	65	USB/RS-232.....	60
B-2T.....	34	INTEGRA 24.....	4	OMI-3.....	64	VD-1.....	32
B-3.....	34	INTEGRA 32.....	4	OP-KT-1.....	51	VERSA 5.....	13
B-3A.....	34	INTEGRA 64.....	4	OP-KT-2.....	51	VERSA 10.....	13
B-4L.....	34	INTEGRA 64 Plus.....	4	OPU-1 A.....	63	VERSA 15.....	13
B-4M.....	34	INTEGRA 128.....	4	OPU-2 A.....	63	VERSA-LCD-BL.....	14
B-4S.....	34	INTEGRA 128 Plus.....	4	OPU-3 P.....	63	VERSA-LCD-GR.....	14
BRACKET „A“.....	61	INTEGRA 128-WRL.....	4	OPU-4 P.....	63	VERSA-LCDM-WH.....	13
BRACKET „B“.....	61	INT-CR.....	7	OPU-4 PW.....	63	VERSA-LED-BL.....	14
BR-STD-1.....	51	INT-FI.....	10	P-2.....	45	VERSA-LED-GR.....	14
BR-STD-2.....	51	INT-IORS.....	8	P-4.....	45	VIVER.....	43
BTM-KNX.....	9	INT-IT.....	7	PAS-DALLAS.....	12, 51	WSR.....	59
CA-5.....	20	INT-KLCD-BL.....	6	PIN5/PIN5.....	60	ZB-1.....	59
CA-5 BLUE-L.....	20	INT-KLCD-GR.....	6	PIN5/RJ-TTL.....	60	ZB-2.....	59
CA-5 BLUE-S.....	20	INT-KLCDK-GR.....	6	PK-01.....	59		
CA-5 KLCD-L.....	20	INT-KLCDL-BL.....	6	PNK-1.....	35		
CA-5 KLCD-S.....	20	INT-KLCDL-GR.....	6	RE-1K.....	45		



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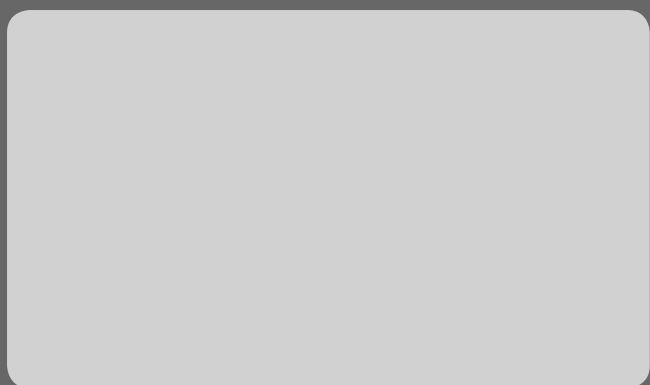
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