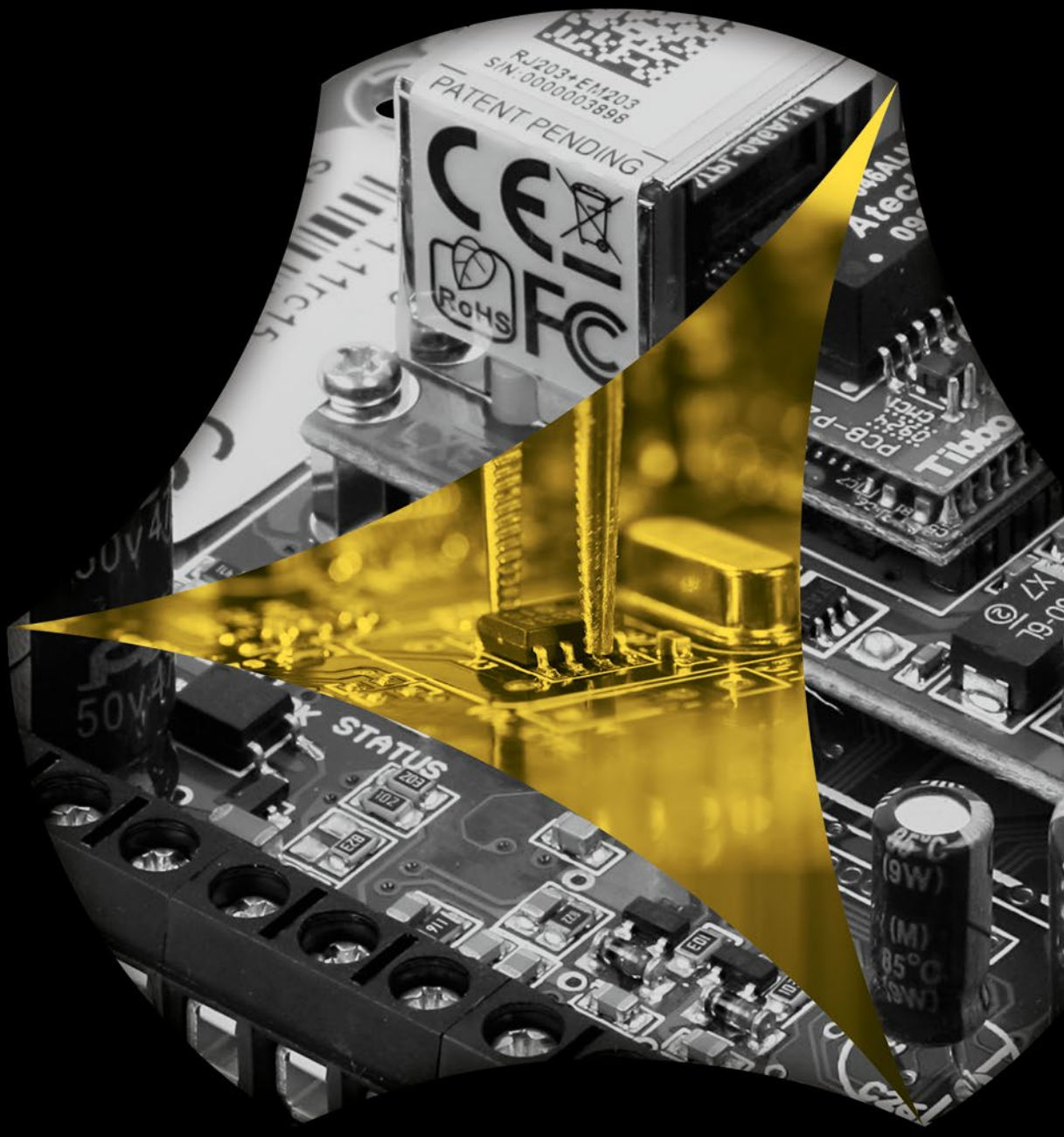
EBS

CREATING A SENSE OF SECURITY
SINCE 1989

EBS MAIN PRODUCTS CATALOG



About Company

EBS is a manufacturing and R&D specialist that has been present in the world security market from 25 years. We specialize in the production of devices based on **GSM/GPRS/SMS**, **RFID** and **GPS technologies**. The products shown in this catalogue are just part of our wide range. Each of our product has been designed, manufactured and tested by EBS at our factory in Poland. EBS is a company oriented towards the special needs of individual customers. Primary principle is the **production of OEM/ODM systems** and and the customizing of equipment to meet the requirements of our customers. We also have many years of experience in **M2M solutions**.

EBS products are offered on markets all over the world. The quality and competitiveness of the products are confirmed by our fruitful cooperation with many partners in Europe, Asia, Africa, North and South America and Australia. We have established relations with the largest security agencies, distributors of international brands of DSC, GE or Paradox and GSM providers. Our clients list includes:

AAT, Poland
CMA, Poland
Impel, Poland
Juwentus, Poland
Konsalnet, Poland
Securitas Worldwide
G4S Worldwide
Avaris, Czech Republic
VIP Security, Bulgaria
Alpha System, France
Connect Security, UK
Orange

AL.SE.RO., Romania
Tagtronics, UK
Innovise, UK
CSS, Germany
Comon Professionals, Turkey
Pronet, Turkey
Biges, Turkey
Sareme, Lithuania
SoftGuard, Argentina
Fitob d.o.o., BIH
Polkomtel

Starx, Brasil
Solutec, Colombia
Stanley (Niscayah), Portugal
ByDemes, Spain
Casmar, Spain
Stratel, Malaysia
Trinity Telecomms, South Africa
AIA Engineering, Nigeria
Electro Safe, Israel
Johnson Controls, Gulf Area
T-Mobile

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NEW **NOW ACTIVE TRACK IN 3 VERSIONS:**

GPS only | RFID only | GPS & RFID

Immediate GPS location and communication GSM/GPRS/SMS/VOICE

ACTIVE TRACK is a new device that integrates a GPS receiver and two-way communication device. Applying a quad band GSM/GPRS modem u-blox Leon-G100 gives A-GPS service that supports GPS signal from satellites by GSM/GPRS. Using A-GPS **Active Track** is able to compute a position even under poor GPS signal conditions.

Main functionality and benefits

- Two-way voice communication
- PANIC button in case of emergencies
- MAN-DOWN function (built-in accelerometer)
- A-GPS (Assisted GPS)
- GeoFencing
- Tamper detection alert
- Online, real time tracking and history
- Large memory capacity
- Programming buttons for sending an SMS alarm
- Can be extended with new functionalities
- Silent call
- Battery working time - up to 30 hours

Ref. code:	**Version:**
AT-GR	GPS with RFID
AT-G	GPS only
AT-R	RFID only

Application

- Lone worker protection (MAN DOWN function)
- VIP protection
- Outdoor safety for elderly people (elderly care)
- Children protection
- Escorting valuable shipments/people - the possibility of routing and alerting the aberration from its course

NEW activeview

Active View is a web application to manage and control your personnel in real time, from any place in the world.

- Easy to operate application with customer oriented interface
- Processing alarm events in real time
- Settings patrol routs (check points, schedules)
- Powerful management's reports in csv format
- Programmed buttons to send SMS on smartphone (e.g. GPS position)
- Preview on the map current position of **Active Track** device
- **Active Track** route on map (date, time, speed, direction, altitude)

Technical data

Active Track with RFID reader	
Reader type	Proximity RFID
Frequency and standard	125kHz, unique
RFID read-out distance	3-4cm (depends on transponder type)
Active Track with GPS (optionally with RFID reader)	u-blox Leon G-100 (850/900/1800/1900 MHz)
Channels	56 channel u-blox 7 engine (energy saving better accuracy)
A-GPS online/offline support	YES
Position accuracy	< 2.5 m
TTFF hot start acquisition time	< 1 s average
TTFF cold start acquisition time	< 27 s average
Electrical characteristics	
Power supply	5V/1A
Power socket	standarized Micro USB type B plug
Battery	Li-Polymer, 2400 mAh
Battery working time after charging*	**up to 30 hours**
Casing protection rating	IP67
Physical characteristics	
Dimensions (HxWxT)	121x60x30 mm
Housing	The waterproof and shock resistant housing
Weight	175g (GPS device) + 35g (charger)
Motion sensor	3-axis motion sensor (accelerometer)
Interfaces & general features	- Internal speaker and microphone; - 4 Buttons for easy operating; - Ambient operating temperature: -20°C to +60°C; - Based on durability-assumptions for Active Guard; - Data transmission via GPRS (TCP, IP), SMS to OSM.2010; - Voice call; - Silent call; - Remote administration & firmware update
Configuration	- Local: PC through RS232 link (LX cable and AGP3 programmer required) or SP-PROG - Remote: via GPRS, SMS, CSD
Alarm events buffer size	1000
Quantity of system events stored in history	2000

** by position reporting every minute via GPRS*

Reliable supervision system

Active Guard System is an innovative solution for supervising the work of security guards.
- Sending alarm notification in real time via GSM/GPRS/SMS.
- PANIC button in case of emergencies.
- GSM two-way voice communication.

Active Guard is the most advanced, first of its kind in the world, system for monitoring the time, place and results of the personnel work. By the combining benefits of GPRS communication and RFID reading **Active Guard** can be used as a guard tour system, a personnel protection system and a voice communication device. **Active Guard** ensures the ability to react immediately, which helps increase the safety and quality of work. It gives an instant irregularity warning.

Designed for guard control, **Active Guard** is a highly flexible system and can be used also for other purposes, e.g. access control and identification, technical inspection monitoring, storage and rental systems monitoring, or maintenance systems.

Functionality and benefits

- Built-in accelerometer
  - MAN-DOWN detection – notification of threats to the life of the user
  - Excessive shock detection – notification of attempts to destroy the device
  - Tilt detection with configurable positions and angles – notification of changes to the position of the device – alarm signal if the position is outside the defined range
- New, more durable housing (silicone gasket, more screws, additional shock absorbers)
- Reduction of equipment costs
- Increase physical security effectiveness: low cost of monitoring, easy implementation and use, quality improvement of supervisor's work

NEW activeview

Active View is a web application to manage and control your personnel in real time, from any place in the world.

- Easy to operate application with customer oriented interface
- Processing alarm events in real time
- Settings patrol routs (check points, schedules)
- Workforce details – information about guards being currently on duty
- Powerful management's reports in csv format
- Real-time monitoring of connection status, battery level, GSM signal strength

Technical data

Reader type	Proximity RFID
RFID reader frequency and standard	125kHz, unique
RFID read-out distance	3-4 cm (depends on transponder type)
Transmission	In real-time with GPRS/SMS
Alarm events buffer size	1000
Quantity of system events stored in history	4000
Timestamp event	YES (data, hour with 0,01s accuracy)
GPRS/SMS transmission security	AES encryption
Device configuration	Remote: via GPRS, SMS, CSD Local: PC through RS232 link (LX-PROG cable and AGP programmer required) or SP-PROG
Remote firmware update	YES
Supported modems	- Cinterion MC55i
Voice call support	YES
User interface	3 buttons (PANIC, CALL-ME, RFID readout)
Optical signalisation	YES (3 LEDs)
Sound signalisation	YES
Vibration	YES
Power supply	- main battery - lithium-ion polymer 3.7V, 1600mAh nominal capacity - backup battery - nickel metal hydride 3.6V, 40mAh nominal capacity
Main battery working time after charging	up to 2 days
Main battery charging time	max. 3 hours
Main battery charging current	max. 1A
Threshold of signaling low battery voltage	YES, configurable voltage levels (default - low level threshold: 3.7V; battery OK. after low level event: 4.1V)
Power supply unit functions	- low battery voltage detection - fuse protection - detection of main battery sabotage - detection of battery cover opening even after main battery discharge - excessive shock detection even after main battery discharge
Built-in accelerometer functions	- man-down detection with configurable pre-alarm time - excessive shock detection (whitch may cause device malfunction) - tilt detection with configurable postions ang angles
Weight	230g (reader) + 150g (charger)
Dimensions	- reader (195 x 57 x 38 mm) - charger (99 x 111 x 83 mm)
Protection rating	IP67
Vibration resistance	10-500Hz with acceleration to 3G for 2 hours

Control Panels
CPX200N (wired solution) & CALLISTO (wireless)

Functional / Simple / Customised by you

The **CPX200N** control panel is a device that meets the basic requirements for the protection of a small and medium-sized objects. Simple functionality, service and fast installation are the main advantages of our control panel. Small dimensions and modern design of keypad, 7 zones possible to grouping into two partitions make **CPX200N** one of the best solution on the market.

For more demanding , we created a **CALLISTO** system that reliably meets the requirements of more complex objects. Both panels support up to 3 key-pads, so the alarm can be armed / disarmed from 3 different places. It is important especially in offices, service points where there are backdoors or in single-family houses with balcony doors, garages. With our control panels you can also **configure SMS messages**, that will be sent to 10 different users.

In short

	CPX200N	CALLISTO
Transmission channels	GPRS	GPRS
SMS to the monitoring station	YES	YES
Wired zones	7	7
Wireless zones	-	**9**
Partitions	2	2
Supported keypads	3	3
Key fob	-	YES, max **9 pcs**
Remote control	YES, with SMS, GPRS or using **application for smartphone**	YES, with SMS, GPRS or using **application for smartphone**

Wireless sensors integrated with CALLISTO system (433 MHz frequency):

The **MC-10** wireless magnetic contact allows detection of opening doors/ windows.

Main features
- Battery lifetime: 2-3 years
- Battery status control (low-power signal)
- Supervisory signal every 15 minut
- Tamper signal if open cover
- Max transmission distance: 300 m (open space)
- Size: detector 85x26x33 mm / magnet 64x13x13 mm

The **PIR-10** wireless motion detector allow a motion detection in restricted areas.

Main features
- Battery lifetime: 2-3 years
- Dual passive infrared detection technology.
- Temperature compensation.
- Supervisory signal every 15 min.
- Battery status control (low-power signal)
- Max transmission distance: 300 m (open space)
- Size: 105x58x38 mm

The **SD-10** is an optical point smoke detector using scattered light.

Main features
- Adjustable sensitivity
- LED indicator (normal work, alarm, error state)
- Designed to meet the requirements of EN 54-7 and EN 54-25
- Battery status control (low-power signal)
- Lithium battery 3V: lifetime 2-3 years
- Size: 140x140x70 mm

RC-10 Remote control with four programmable buttons.

CALLISTO SECURITY SOLUTION

ALERTVIEW MOBILE APP FOR ANDROID AND IOS

Control panels produced by EBS meets the requirements of EN 50131, Grade 2.

FPX10 NEW

Time attendance system with finger print sensor. Monitor employee attendance in real-time!

Functionality

FPX is an advanced, mobile device with a solid housing, which enables you personnel work time controlling and gives you variety possibilities of work planning. **Now FPX has a built-in fingerprint sensor and RFID reader!**

APPLICATION	Personnel management e.g. cleaning companies, time attendance
BUILT-IN FINGERPRINT SENSOR & RFID READER	Capacitive fingerprint reader is insensitive to ambient lighting and more resist to contamination factors than some optical designs; RFID frequency 125 kHz
TRANSMISSION	GSM/GPRS/SMS
FINGERPRINTS STORAGE	Internal memory; possibility of adding, erasing, transmitting of the patterns between devices
DATA TRANSMISSION	via OSM.2010 (XML)
HOUSING	Small, compact, portable, can be mounted on the wall. Mobile version is currently under construction
SABOTAGE ALARM	Tilt and shock sensor; prevention against unauthorized removal of the device from the wall
CONFIGURATION	Locally or remotely
ADDING/CANCELING/AUTHORIZATION	Possibility of remote adding and canceling users; remote sending of fingerprints

There is also version without fingerprint sensor, only with RFID reader - RPX10.

Parameters

- **Reading method:** Capacitive sensor
- **Number of fingerprints stored in the memory:** min. 300
- **Keypad:** 3 x 4, silicone
- **Optical signalisation:** 4 LED's
- **Power supply:** 5VDC, external USB power supply
- **Operating time on backup power:** min. 5 hours
- **GSM Antenna:** Inbuilt, possibility of connection external antenna

GD30.2

GSM autodialer with VOICE/SMS/GPRS transmission

GD30.2 is a smart device intended for those who want to protect their facilities and receive information about alarm situations. If you want save costs and do not require constant supervision by the security agency, it is a perfect solution. But if you feel more secure using monitoring station or security agency, new version of **GD30** is able to transmit signal via GPRS.

Benefits and application

SECURITY	**GD30.2** can be programmed to sending signal to monitoring station. It is important function if you want feel secure about your facilities e.g. on vacation
CONTROLL	Thanks to 2 partitions, **GD30** has a mini Control Panel feature. Better control what is actually happening in our home or office during our absent.
SUPERVISE	Remote voice monitoring (silent call). Thanks to this function we can leave children at home and at any time call and check is everything ok. It also helps with identification of false alarm signals.

Parameters

- 9 programmable phone numbers
- Each phone number configurable as voice message only, text message only or both voice & text message
- Independent input type selection NO/NC/ EOL/2EOL/Analog (PT-100)
- 4 voice messages (2 partitions, tamper, 24h inputs)
- Adjustable dialing procedures for number of attemps & message repetitions
- 4 LEDs status indication (Armed, System, Power, Ready)
- Configuration via device keypad
- GSM signal level indicator with operator name
- Built in memory for settings
- Automatic service provider selection

There is available also version without fingerprint sensor, only with RFID reader - **RPX10**.

Control panel downloading over GPRS with LX20G-3C

NEW

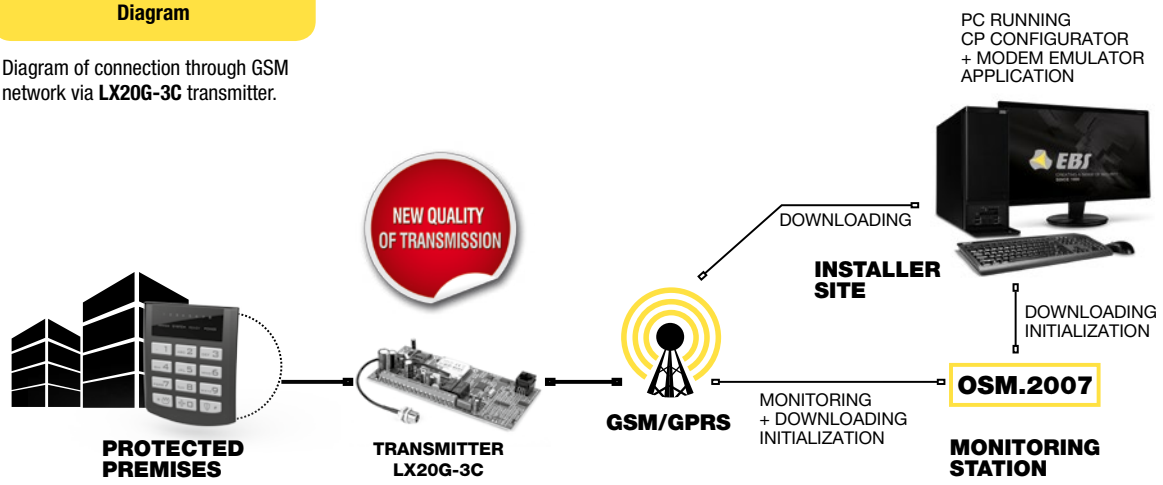
Innovative solution to improve work and reduce costs

Expanded transmitter based on **LX20G**, provided with a function giving remote control of control panels - a novel feature for EBS transmitters. This feature allows you to reduce the cost of installing and configuring the unit, but also improve all services and technical inspections.
Our transmitter:

- does not require a telephone network in the protected premises,
- does not require a PSTN dedicated modem,
- transmits data via the GPRS network (up to 17 times lower cost compared to CSD connection),
- allows remote reading of events history,
- configures control panels from a monitoring station through OSM,
- has a Modem EMU application provided by EBS, serving as an interface between control panel software and the transmitter.

Diagram

Diagram of connection through GSM network via **LX20G-3C** transmitter.



Advantages of the new transmitter:

- The ability to remotely verify the operating of the control panel
- Faster response to any irregularities
- Efficient verification of false alarms
- Reducing the cost and time of control panel installation
- Remote technical inspections and servicing - cost and time saving

LX20G-3C meets the requirements according to EN 50131-1:

EN 50131-1

- Security Grade 3
- Environmental Class II
- ATS Class 5

Supported types of control panels:

It is possible to achieve a remote downloading session with any control panel equipped with Bell103/V.21 modem. Successful testing has been performed with following control panels:

Producer	Type
Bosch	CC488 Solution Ultima 880, ICP-CC488
Crow	Runner 4
DSC	PC1616, PC1832, PC1864 (using DLS4)
DSC	PC4020 (using DLS2002)
GE	NX-8, NX-4, IDS X64
IDS	X64
Napco	Gemini P1632
Paradox	Evo-48, Esprit 728 ULTRA, Esprit 738+
Pyronix	Matrix 6, Matrix 424
Risco	Gti (WISDOM 3)
Satel	CA-5, CA-10, Versa5, Integra24
UTC	ATS1000A, ATS2109H
Taxecom	Premier 816

Transmitters - main functions and benefits

EBS is a leading global manufacturer of transmitters. Transmitters are used mainly as the transfer module for security systems, and are designed to be integrated with the most popular alarm systems. The use of packet data transfer (GPRS) reduces the operating costs for alarm systems. EBS uses its long experience and extensive know-how to participate in projects that use transmitters in systems to notify emergency services, security and monitoring counters, FMCG products issuing machines (M2M), gambling machines (M2M) and also for monitoring schools and banks.

We offer four types of transmitters:

PX series - GSM transmitters with built-in power supply
LX series - GSM transmitters without built-in power supply
EX series - Ethernet/IP transmitters
Special - transmitters dedicated for customized solutions, e.g. for banking, energetic; with two transmission channels

FEATURES AND BENEFITS:

DATA SECURITY

- **Encryption of transmitted data using AES cipher**
  full data transfer safety
- **Authorization for configuration and steering text messages**
  protection against unauthorized device access
- **GSM/GPRS link control**
  automatic retrieving of the connection with the monitoring station
- **Reserve server servicing**
  transmission protection in case of server damage

ENERGY AND COST SAVING

- **Modem sleep mode**
  elimination of unsuccessful transfer in the absence of AC power and low battery voltage, extension of battery cycle life
- **Reduced power consumption**
  extension of device operating time on backup power supply
- **Automatic inputs locking**
  protection against generating needless costs
- **Sent text messages quantity control, incoming messages retransmission**
  supervision over transmission costs
- **Steering via CLIP**
  costless output connection

COMFORT OF SERVICE AND WIDE RANGE OF FUNCTIONALITY

- **Supports control panel with SIA protocol Level 2**
  able to receive more information from the control panel
- **Remote configuration and firmware upgrade**
  comfortable servicing and time savings
- **Complex telephone line simulation circuit and DTMF receiving (ContactID, Ademco Express)**
  flexible integration with alarm control panels equipped with dialer and telephone exchanges of various manufacturers
- **Sending of text messages of any desired content to the 5 defined cellphone numbers**
  immediate signalling of alarm situation events
- **System event history**
  evidence up to 5000 events enabling to diagnose possible problems
- **Device status monitor**
  diagnostic mode for the installer
- **Grouping inputs in zones**
  acquires simple control panel features
- **Possibility of setting priority for PSTN or GPRS channel**
  adapting the device to suit individual needs
- **Embedded RS232/RS485 serial interface**
  integration with industrial devices

NEW

LX20G-3C GPRS Transmitter/GSM Dialer/GSM Gateway with control panel downloading.
Further information on page 8.

GSM jamming detection

New feature in EBS transmitters!*

EBS transmitters can be configured to detect GSM jamming signals. When jamming is detected, the transmitter signals this state by switching outputs and/or sending a notification to the monitoring center or a private user. The notification is sent in two cases - jamming ON and jamming OFF.

GSM jamming detection allows:

- early detection of tamper attempts
- identification the causes of GSM signal loss
- more secure data transmission of alarm signals
- notification of monitoring station or private user about jamming detection

* *Functionality applies to LX10, LX20, LX20S, PX100N, PX200N EBS transmitters equipped with u-blox LEON-G100 or Cinterion BGS2-W GSM modem*

LX20G-3C / LX20G / LX20S

Description

LXseries transmitters have no in-built power supply, which allows any type of power to be configured. Transmitters vary in degree expand the functionality, are available in the following configurations:

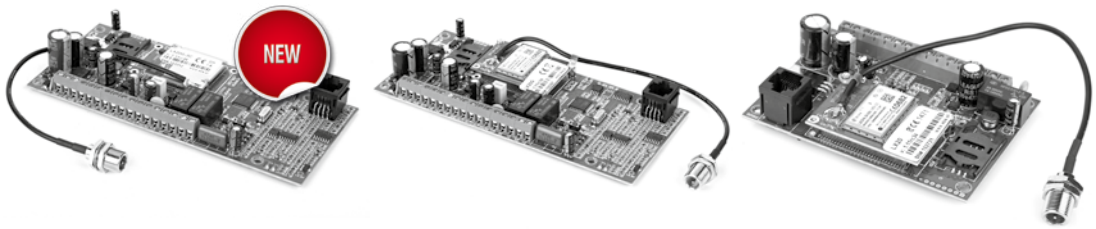
LX20G — **LX20G** is an advanced GSM transmitter which allows for the simulation of telephone line (PSTN) with transmission in a voice channel to GSM. In case of failure of the telephone line or after selecting the appropriate prefix, a voice call is made to the monitoring station, allowing the transfer of data from the control panel via ContactID (DTMF) or SIA (FSK). The other transmission channels are also available.

LX20G-3C — The extended **LX20G-3C** version additionally allows remote configuration of control panels.

LX20S — GSM transmitter with functionality of **LX20**, expanded on SIA protocol Level 2.

Application

- Alarm signals transmission
- Complex systems operate redundantly, e.g. banking systems, remote reading of data from energy meters
- Elevator communication systems
- Monitoring of counters in gambling machines - OEM project
- Redundant transmission system - secure Ethernet channel
- **Energys** system - protection against theft and damage designed for power distribution transformers



Technical data	LX20G-3C remote configuration of control panels	LX20G with GSM gateway	LX20S with SIA protocol
Transmisson channels: GPRS, SMS	✓	✓	✓
Transmisson channel: Voice	✓	✓	×
Transmisson channel: PSTN*	✓	✓	✓
Inputs NO/NC	2	2	4
Inputs SAB	1	1	1
Phone input compatible with DTMF standard	✓	✓	✓
Protocols supported on the phone input: ContactID, Ademco Fast, DTMF	✓	✓	✓
- SIA protocol Level 2	✓	✓	✓
Outputs OC, max.load 100 mA	3	3	2
Serial interface RS232 / RS485 (lines: RxD, TxD, RTS, CTS) transmission speed up to 115200bps	✓	✓	✓
Output functions (ways of control)	- unavailable GSM signal - from server or through SMS - incoming CLIP - in reaction on inputs - GSM jamming (only for transmitters with modem u-blox LEON-G100 or interion B6S2-F31W, firmware version F281.11rc48 or above) NEW!		
Status LEDs	4	4	4
Remote access to the control panels NEW!	✓	×	×
Supported modems	- Cinterion MC55i (former SIEMENS)	- Cinterion BGS2-W - u-blox LEON-G100	- Cinterion BGS2-W - u-blox LEON-G100
Remote configuration via GPRS, SMS, CSD	✓	✓	✓
Local configuration: PC through RS232 (required cable: LX-PROG)	✓	✓	✓
Remote firmware	YES		
Charging module functions	In version: PCB in plastic casing - fast battery charging mode - protection against excessive discharge - protection against reverse battery connection - AC failure signalization - low battery/no battery signalization - protection against short circuit batt		
GPRS/SMS transmission security	AES encryption		
Quantity of system events stored in history	5000		
Dimensions of PCB	PCB: 163 x 73 x 35 mm	PCB: 163 x 73 x 35 mm	PCB: 102 x 73 x 35 mm

** Transparent, PSTN dialer required in a control panel*

LX2NB / LX2NB-xR RADIO / LX10 / LX20

Description

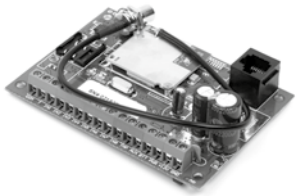
LXseries transmitters have no in-built power supply, which allows the configuration of any type of power. Transmitters vary in the degree that they expand the functionality, and are available in the following configurations:

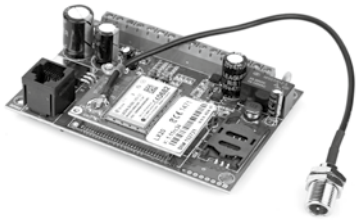
LX2NB
LX2NB-xR RADIO New customized GSM transmitter characterized in simple functionality and attractive price.

LX10
LX20 **LX10** and **LX20** are basic types of transmitters, that differ in the number of inputs and phone input (DTMF standard).

Application

- Alarm signals transmission
- Complex systems operate redundantly, e.g. banking systems, remote reading of data from energy meters
- Elevator communication systems
- Monitoring of counters in gambling machines - OEM project
- Redundant transmission system - secure Ethernet channel
- **Energys** system - protection against theft and damage designed for power distribution transformers





LX2NB
LX2NB-xR RADIO

LX10

LX20

Technical data

	LX2NB / LX2NB-xR RADIO	LX10	LX20
Transmisson channels: GPRS, SMS	✓	✓	✓
RC Receiver: 434 Mhz	✓ LX2NB-xR RADIO	×	×
Transmisson channel: Voice	×	×	×
Transmisson channel: PSTN*	×	×	✓
Inputs NO/NC	4	8	4
Inputs SAB	×	1	1
Phone input compatible with DTMF standard	✓	×	✓
Protocols supported on the phone input: ContactID, Ademco Fast, DTMF	✓	×	✓
- SIA protocol Level 2	×	×	×
Outputs OC, max.load 100 mA	1	2	2
Serial interface RS232 / RS485 (lines: RxD, TxD, RTS, CTS) transmission speed up to 115200bps	×	✓	✓
Output functions (ways of control)	- unavailable GSM signal - from server or through SMS - incoming CLIP - in reaction on inputs - GSM jamming (only for transmitters with modem u-blox LEON-G100, firmware version 1.11rc48 or above) **NEW!**		
Status LEDs	2	2	4
Remote access to the control panels NEW!	×	×	×
Supported modems	- Cinterion BGS2-W (4-band) - u-blox LEON-G100	- Cinterion BGS2-W (4-band) - u-blox LEON-G100	- Cinterion BGS2-W (4-band) - u-blox LEON-G100
Remote configuration via GPRS, SMS, CSD	✓	✓	✓
Local configuration: PC through RS232 (required cable: LX-PROG or SP-PROG)	✓ (required cable: GD-PROG or SP-PROG)	✓	✓
Remote firmware	NO	YES	YES
Charging module functions	In version: PCB in casing - fast battery charging mode - protection against excessive discharge - protection against reverse battery connection - AC failure signalization - low battery/no battery signalization - protection against short circuit battery output - ploymer fuse		
GPRS/SMS transmission security	AES encryption		
Quantity of system events stored in history	5000		
Dimensions of PCB	PCB: 102 x 73 x 35 mm	PCB: 102 x 73 x 35 mm	PCB: 102 x 73 x 35 mm

** Transparent, PSTN dialer required in a control panel*

PX200N / PX100N / PX100D

Description

PX200N
PX100N

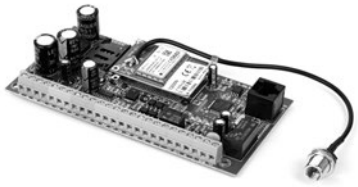
PX100N and **PX200N** transmitters are modern devices used for the real-time packet data transfer through GSM networks via GPRS and SMS channels.
PX200N is the most advanced transmitter in the PX series. It has an extensive complex telephone line simulation circuit and ContactID reception. **PX200N** also supports control panel with the SIA protocol Level 2.
Transmitters equipped with a modem u-blox have an additional feature - GSM signal jamming detection.

PX100D

Transmitter **PX100D** is equipped with a **GSM dialer** which allows communication in the most reliable GSM voice channel. The dialer calls the monitoring station number and sends messages through Contact ID (DTMF) or SIA (FSK). Communication is also possible via GPRS and SMS channels.

Application

- Alarm signals transmission
- Complex systems operate redundantly, e.g. banking systems, remote reading of data from energy meters
- Elevator communication systems
- Emergency system on the base of **PX100N-1N** transmitter with extended SMS sending function - OEM project
- Monitoring of counters in gambling machines - OEM project
- Redundant transmission system - secure Ethernet channel
- **Energys** system - protection against theft and damage designed for power distribution transformers



Technical data

	PX200N	PX100N	PX100D with GSM dialer
Transmisson channels: GPRS, SMS	✓	✓	✓
Transmisson channel: Voice	×	×	✓
Transmisson channel: PSTN*	✓	×	×
Inputs NO/NC	8 (NO/NC)	8 (NO/NC)	8 (NO/NC)
Inputs SAB	1 SAB (NO/NC)	1 SAB (NO/NC)	1 SAB (NO/NC)
Phone input compatible with DTMF standard	✓	×	×
Protocols supported on the phone input	SIA, ContactID, Ademco Fast, DTMF	×	×
Outputs OC, max.load 100 mA	1	1	3
Relay outputs NO/NC, max. load 1A	1	1	×
Power output +12V (max. load 200 mA)	✓	✓	✓
Serial interface RS232 / RS485 (lines: RxD, TxD, RTS, CTS) transmission speed up to 115200bps	✓	✓	✓
Output functions (ways of control)	- unavailable GSM signal - from server or through SMS - incoming CLIP - in reaction on inputs		
Status LEDs (functions)	4	2	4
Alarm events buffer size	×	×	1000
Supported modems	- Cinterion BGS2-W (4-band) - u-blox LEON-G100	- Cinterion BGS2-W (4-band) - u-blox LEON-G100	- Cinterion BGS2-W (4-band) - u-blox LEON-G100
Timestamp event	×	×	YES (only for Dialer, SIA, accuracy 1s)
Remote configuration via GPRS, SMS, CSD	✓	✓	✓
Local configuration: PC through RS232 (required cable: LX-PROG)	✓	✓	✓
Remote firmware update	YES		
Charging module functions	- protection against reverse battery connection - AC failure signalization - low battery/no battery signalization - protection against short circuit battery output - polymer fuse		
GPRS/SMS transmission security	AES encryption		
Quantity of system events stored in history	5000		
Dimensions of PCB	146 x 73 x 35 mm	141 x 73 x 35 mm	160 x 73 x 35 mm

** Transparent, PSTN dialer required in a control panel*

EX20

Description

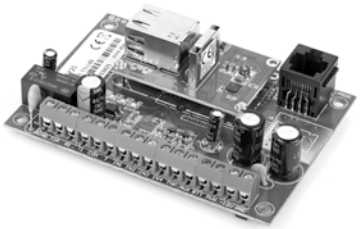
EX20 transmitters are modern devices for real time internet data transmission. **EX20** transmitters are mainly used as the transfer module for security systems. They can be integrated with all of the most popular alarm systems. Ethernet transmitters are often used as a backup transmission channel - they are easy to use and generate low costs.

EX20

Transmitters work both with static IP and DHCP. They operate in LAN & WAN, using IEEE 802.3 10Mbps/100Mbps standards.
- Remote configuration and firmware upgrade comfortable servicing and time savings
- Encryption of transmitted data using AES cipher
- Complex telephone line simulation circuit and DTMF reception (ContactID, Ademco Express)
- Flexible co-operation with alarm control panels equipped with a dialer and telephone exchanges of various manufacturers
- System event history evidence up to 5000 events enabling the diagnosis of potential problems
- Device status monitor diagnostic mode for the installer
- Embedded RS232/RS485 serial interface interface integration with industrial devices
- Reserve server servicing transmission protection in case of server damage
- Automatic locking of inputs to protect against the generation of needless costs

Application

- Locations where GSM signal is poor
- Ready to connect to the network infrastructure in industrial plants, office buildings, banks - it generates low costs
- Used as the primary transmission channel in the banking system: **LX20-2EV**, **EX20-2PV**



EX20

Technical data

		Ethernet
Transmisson channels		ETHERNET (IEE 802.3; 10Mbps/100Mbps; DHCP/Static IP; LAN/WAN)
Transmisson channel: PSTN*		✓
Inputs		4 (NO/NC) + 1 SAB (NO/NC)
Phone input compatible with DTMF standard		✓
Protocols supported on the phone input		ContactID, Ademco Fast, DTMF
Outputs		2 (OC, max. load 100mA)
Output functions (ways of control)		- absence of TCP/IP connection - from server - in reaction on inputs
Serial interface		RS232 / RS485 (lines: RxD, TxD, RTS, CTS) transmission speed up to 115200bps
Alarm events buffer size		5000
GPRS/SMS transmission security		AES encryption
Status LEDs (functions)		4 LEDs (GSM signal level, device state, DTMF comunication)
Remote configuration via ETHERNET		✓
Local configuration: PC through RS232		✓ (required cable: LX-PROG)
Remote firmware update		✓
Power supply parameters - PCB (without casing)	Supply voltage	$13,8V_{DC}$ ($12-14V_{DC}$)
	Power consumption (average / max)	$140mA@13,8V_{DC}$
Charging module functions		In version: PCB in plastic casing - fast battery charging mode - protection against excessive discharge - protection against reverse battery connection - AC failure signalization - low battery/no battery signalization - protection against short circuit batt
Dimensions of PCB		PCB: 102 x 73 x 35 mm

** Transparent, PSTN dialer required in a control panel*

OBDNA

EBS transmitters are offered independently or in sets with plastic casing, AC adapter and battery.

OBDNA
Casing made of high quality, mechanical shock resistance plastic, allowing for the free installation of equipment. The standard box is available in light gray, although it is also possible to order different colors. The high standard of performance, smart functionality prevent the casing being opened or destroyed by unauthorized persons.

Technical specification

Casing

Power supply	Transformer T20/18/14
	Power supplly LX-ZAS (EBS) - optional
Place for battery	YES, 12V/7Ah
Anti-tampering protection from cover opening	YES
Performance	ABS material
Dimensions	265mm x 85mm x 255mm
Standard color	Light gray RAL7035

Transformer T20/18/14

Power	20 W
Voltage primary	230VAC
Voltage secondary:	
Voltage1	14VAC (1.4A)
Voltage2	18VAC (1.1A)
Dimensions	W 60 mm x D 50 mm x H 55 mm

Power supply LX-ZAS (EBS)

Served batteries	Acid-leaded 12V
Max. voltage of charging battery	13.8V
Charging current	0.2A or 1A (switched by jumper)
Voltage of signaling of low level	11 V
Voltage of switch-off battery	9.5V

OSM.2010 Support for EBS devices in monitoring stations

OSM.2010 is an interface between data transfer devices installed at monitored objects and the software of the Monitoring Station. Information from objects reach the devices via various data channels (GSM/GPRS/SMS/Internet). Including the element within the monitoring system enables the creation of extensive telemetry systems.
Absolute reliability of data transfer by use of redundancy in the receiver system, even in cases of component damage.
Thanks to the unique cluster operation function (a group of computers inter-doubling their functions), another group node takes over the function from a faulty unit. Such functionality provides continuity of operation of the **OSM.2010** receiver without the need of permanent control or the involvement of the system administrator.
OSM.2010 receiver cooperates with all transmitting devices manufactured by EBS i.e. **Active Guard**, **Active Track** devices as well as **LX**, **PX** and **EX** series transmitters. **OSM.2010** is also available in a software version.

Technical specification

Housing	Rack Mount 19' 2U
Operating system	Linux (kernel 2.6)
Processor	Intel® Atom™ N270 1.6GHz
Installed RAM	2GB
Hard disk drive (FLASH disc)	1GB
Motherboard	Avalue Technology EMX-945GSE
I/O	1 x PCI 2 x LAN (RTL8111C Gigabit Ethernet) 4 x COM (RS232) 6 x USB
GSM modems in set	1 x Sierra Wireless Airlink Fastrack Xtend FXT009
Frequency bands	850/900/1800/1900MHz
Size of buffer	max: 1 000 000 events default XML: 500 000 events default ContactID: 50 000 events default SIA: 50 000 events
Limit of connected devices	10000 units
License HASP key	2 x Aladdin HASP Max Pro (optional)*
Net weight	13,7 kg
Gross weight	19 kg
Power supply	100-240V @ 50-60Hz
Power consumption (max)	350W
Box contents	OSM.2010, antenna GSM, rack mounting sliders, supplying cable, 2 x HASP key (optional)*

** up to 10000 units license keys are not required*

OSM.2010 Key functions

Safety / Reliability / Flexibility:

- Redundancy (operation in a cluster)
- Automatic backup copies of entire receiver configuration
- Enhanced efficiency – supports 30 000 devices, maximum of 240 000 events per minute
- Equipment watchdog – automatic restart in case of system hang-up
- No mechanical hard disk – data is being saved on more reliable FLASH memories
- Firewall (IP access control list, limit of connections etc.) – prevention against sabotage
- Data transfer to other systems via RS232 ports (3 ports to chose from), USB-RS232 converters (3 ports, LAN with the use of MLR-2) protocol (SIA format, ContactID) or XML
- Supports numerous GSM modems and many TCP/IP UDP ports
- SMSC network allowing to receive SMS directly from an operator
- Easy system management thanks to an intuitive software with graphical user interface
- Access to load statistics and receiver network configuration via www
- Automatic synchronization of transmitting device clocks
- Synchronization of receiver time with NTP time server
- Ability to transfer data regarding signals directly to PostgresSQL database

GD-PROG

Programming module and monitoring for device series **CPX200N**, **LX2N**, **GD30.2**

LX-PROG

Cable for local configuration of transmitters via RS232.

LX-DATA

Cable for monitor the state of device operation, testing and debugging. LX-DATA enable to connect via RS232 external devices to the transmitter.

AGP3 set

Set of PCB, LX-DATA cable and two LX-PROG cables to configure, monitor the state of device operation, testing and debugging. It supports **Active Guard 2.0** and **3.0, Active Track** and **Active Track Trailer** devices.

SP-PROG / SP-PROG-BT (version with Bluetooth)

A universal programmer that supports all EBS products. It enables you to: configure devices, monitor the state of devices, transfer data from external devices, use it as a USB/RS232 converter.

SuperProg has all the communication interfaces used by EBS products. It can be operated with a PC through one of the three available interfaces: a serial port, USB port or Bluetooth.

ANTENNA TYPES

Type / Name	*Connector type*	Gain	Product details
GSM			
ANT GSM...- JC-003	FME Famale	3 dBi	cable lenght: 3 m, with adhesive tape
ANT GSM L	SMA Male	2 dBi	antenna: 7 cm, mounted directly to the board
ANT GSM...- 5 FME	FME Famale	2 dBi	antenna: 5 cm, mounted directly to the board
ANT GSM...- 5 SMA	SMA Male	2 dBi	antenna: 5 cm, mounted directly to the board
ANT GSM...- SMA M	SMA Male	3 dBi	cable lenght: 3 m, with adhesive tape
ANT GSM...- 5DB/MAGN SMA	SMA Male	5 dBi	cable lenght: 3,5 m magnetic base
ANT GSM...- 5DB MAGNET	FME Famale	5 dBi	cable lenght: 3,5 m magnetic base
ANT GSM... - 17 FME	FME Famale	3 dBi	antenna: 17 cm, mounted directly to the board
ANT GSM... - FI92/16	FME Famale	3 dBi	cable lenght: 3 m, on metal surface, vandal protection
433,92 MHz			
ANT433…-	stripped coax	2 dBi	cable lenght: 3 m, mounted directly to the board

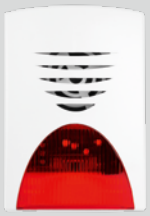
Optical and acoustic sirens

Our sirens are characterized by their modern design and universal use. Each siren can be customized to the customer needs in terms of print, sound and color. Sirens produced by EBS are featuring with high-efficiency sound source, diverse light sources, the highest reliability and double anti-sabotage protection.

Indoor sirens

- Super-bright LED diodes.
- Sound signal source - piezoelectric transducer.
- Dimensions: 85 x 123 x 28 mm
- Two trigger inputs.
- Selection of sound signals - 2 melodies.
- ABS + PC (polycarbonate) cover.
- Anti-sabotage protection against cover opening and removing.
- Volume: 109 dB/m
- Power supply nominal voltage: 13,8 VDC
- Max. power consumption: 250 mA
- Work temperature range: -35 °C +60 °C
- Light color - red, orange or blue.

M21 - acoustic indoor siren



M21R - optical-acoustic indoor siren

Outdoor sirens

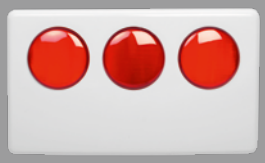
- Diverse optical signal sources - bulbs, diodes or flash.
- Sound signal source - piezoelectric or dynamic transducer.
- Separate controlling inputs for optics and acoustics.
- Selection of sound signals (2 melodies).
- Adjusted duration of sound signal.
- ABS + PC (polycarbonate) cover.
- Anti-sabotage protection (cover opening, removing from the wall).
- Any colour of cladding and light cover.
- Metal internal cover (optional).
- Electronics protected against the influence of weather conditions.
- Volume: 115dB/m (BM7000 106dB/m).
- Light color - red, orange or blue.

These products are also offered in versions without a battery. Sirens without a battery have no 'B' in their product code, e.g. M220.

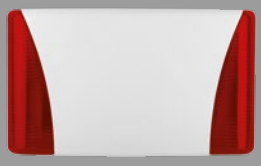
Ref. code: BM220
Dimensions: 200 x 149 x 60 mm
Battery: 7,2V/0,28Ah

Ref. code: BM200
Dimensions: 195 x 145 x 65 mm
Battery: 7,2V/0,28Ah

Ref. code: BM4001
Dimensions: 260 x 145 x 82 mm
Battery: 12V/1,2Ah



Ref. code: BM6000
Dimensions: 330 x 190 x 85 mm
Battery: 12V/1,2Ah



Ref. code: BM6100
Dimensions: 330 x 190 x 90 mm
Battery: 12V/1,2Ah

Ref. code: BM7000
Dimensions: 240 x 240 x 80 mm
Battery: 12V/1,2Ah

Ref. code: BM8000
Dimensions: 260 x 274 x 70 mm
Battery: 12V/1,2Ah

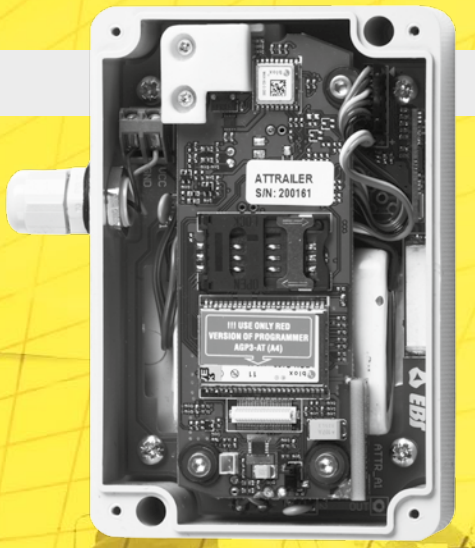
Sirens with code: M8000PLB4 (blue light color), BM8000PLB4 (blue light color) are certificated according to:
- Security Grade 2
- Enviromental Class IV
- Extended especially on Spanish market standard EN 50131-4

Ref. code: BM8100
Dimensions: 260 x 315 x 70 mm
Battery: 12V/1,2Ah

Active Track Trailer

NEW

On-line and on-event GPS fleet and asset tracker



Our solution allows you to track movements in real time based on geographic coordinates. With A-GPS service, determine the exact location in the environment where the GPS signal is weak, it is not only possible, but also more precise. A-GPS uses the GSM / GPRS network to obtain information about the position of the satellites, which allows you to specify the position even when GPS signal is poor. The durable casing and built-in accelerometer are designed to protect and inform about the attempts to destroy and sabotage. In addition, **ATT** is equipped with a battery that under conditions of sleep allows you to wake up for 35 days.

Active Track device redesigned and adapted to logistic/transport companies needs. Customer trailer is traveling around the Country/Continent. The trailer is connected to different trucks and lent by different companies – **Acitve Track for Trailers** gives you the possibility to monitor the trailer and transported goods in the real time.

The device has been designed for monitoring semi-trailers, machines and loads that are often disconnected from power. **Its sleep mode feature and high-capacity battery ensure long monitoring time.**

Business Case

With the development of transport and logistics, problems with which contrary to appearances. It is not easy to deal with. Logistics companies handle more orders, increase its fleet by another semi-trailer, which run on the roads of Europe. Here arises the problem of their location. More and more companies are not able to determine exactly where at the moment is their equipment. This is due not only to the range of their activities, but the problem is that currently only the cars are subject of monitoring. Trailers are handled and transshipped without any control. This problem has plagued many companies, causing losses and generates costs generates costs related with additional workplaces, courses and downtime.

Features & benefits

- More efficient planning and overseeing the implementation of the route based on GPS and GSM
- Two reporting modes
- Online – message sent if time, distance or angle is qualified
- On-event – device wake up every eg. 12h or when movement is detected
- A-GPS receiver – Getting position fast even if GPS signal is poor
- 12V/24V Power supply
- Operates more than one month on single charging
- Embedded GSM and GPS antenna
- Only power is needed to be connected
- Battery which could be charged below 0˚C
- Movement detection
- Vehicle Speed
- Compact size
- Supported by application
- Possible integration with other software

Applications

- Trailers tracking
- Containers tracking
- Vehicles tracking
- Construction equipments, diggers, etc.
- Pallets, boxes tracking
- Additional output (optional)

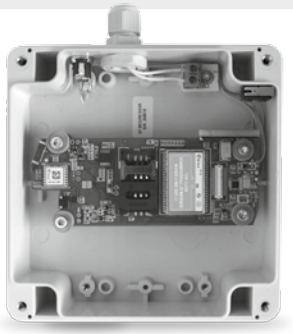
Technical data

GSM module	
Module	u-blox Leon G-100 (850/900/1800/1900 MHz)
GSM antenna	yes, built-in
GPS module	
Module	u-blox MAX-7
Channels	56
A-GPS online/offline support	YES
Position accuracy	< 2.5 m
TTFF hot start acquisition time	< 1 s avarage
TTFF cold start acquisition time	< 27 s avarage
GPS antenna	yes, built-in
Electrical characteristics	
Power supply 12V / 24V	12V / 24V
Battery Li-Ion, 2600 mAh	Li-Ion, 2600 mAh
Battery working time in sleep mode (GPS position twice per day) 35 days	35 days
Physical characteristics	
Casing protection rating	IP67
Dimensions (HxWxT)	120x80x41 mm
Weight	~ 280 g
Motion sensor	
3-axis motion sensor (accelerometer)	YES
General features	
Built-in GSM & GPS antenna	YES
Ambient operating temperature	-20 °C to +60 °C
Data transmission	via GPRS (TCP, IP), SMS to OSM.2010
Administration & firmware update	remotely
Configuration	
Local:	PC through RS232 link (LX cable and AGP3 programmer required) or SP-PROG
Remote:	via GPRS, SMS, CSD
Events buffer	YES
Alarm events buffer size 1000	1000
Quantity of system events stored in history 2000	2000

AT DOOR NEW

Cheap and effective monitoring of objects with no power supply

Full Service & Functionality through a web application activeview



AT DOOR is a system designed to protect facilities such as storages, empty buildings, private houses, buildings under construction, real estate debt over which the custody of a bank or simply unsold properties that are exposed to the "squatters". **AT DOOR** sends twice a day test reports describing the state of the battery and the whole system. Communication takes place via GPRS or SMS. The device is easy to configure, supported by web application **ActiveView**, provided by EBS.

Our device is connected to external sensor - magnetic contact, it reports:
- Entrance to the facility
- Attempts to destroy the device (built-in accelerometer, a reaction to the shock over 3G)
- Opening of the housing

In places where the power supply is cut off, our solution works perfectly. AT DOOR has its own power supply, which can operate up to 6 months!

Purpose:

AT Secure Door is designed for bank institutions, developers, and private users to protect:
- Cottage houses
- Vacant facilities
- Abandoned houses
- Storages
- other facilities

Main features of the device:

- operation in GPRS / SMS mode
- cooperation with the monitoring system OSM.2010
- reaction to door opening through external magnetic sensor
- reporting unauthorised opening of the housing
- reaction to shock over 3G
- GPRS signals / test SMSs sent 2 times a day
- special firmware version with a sleep mode/energy saving function
- lithium-polymer battery pack allows the device to work up to 6 months (after discharge, the batteries can be replaced or recharged)
- built-in battery charger
- built-in accelerometer
- integrated GSM antenna
- additional overvoltage protection

AT DOOR device is adapted to easy embedding additional GPS antenna.

Technical data

GSM module	
Module u-blox Leon G-100 (850/900/1800/1900 MHz)	
GSM antenna	yes, built-in
Electrical characteristics	
Battery charging	external power supply 5V-1A
Battery	lithium-polymer 14,4 Ah
Battery working time (tests twice daily)	6 months
Physical characteristics	
Dimensions (HxWxT)	120x120x61 mm
Weight	~ 640 g
Motion sensor	
3-axis motion sensor (accelerometer)	yes
RF radio communication (optional)	
Remote control truck driver	yes
Working frequency	433.92 MHz
Range	50 m
RF antenna	yes, built-in
General features	
Ambient operating temperature:	-20°C to +60°C
Data transmission	via SMS to OSM.2010
Configuration	
Local:	PC through RS232 link (LX-PROG cable and AGP3 programmer required)
Remote:	via SMS
Events buffer	
Alarm events buffer size	1000
Quantity of system events stored in history	2000

Customised systems and devices:

Power energy systems	Theft prevention for power transformers - **ENERGYS** system. Remote reading of electricity meters (ZigBee or RS485).
Banking	System of remote opening and closing banking doors: **EX20-2PV** and redundant data transmission: **LX20-2EV**.

Uniform services	Emergency notification by SMS system created for fire brigades.
FMCG	Monitoring system for vending machines - counters control and maschine protection.

RFID solutions:

RFID SYSTEM **Main areas of application:**	**RFID is currently the fastest growing technology of automatic identification in the world.** RFID systems are based on semi-automatic reading via radio of the data contained in miniature electronic circuits called RFID tags.
Libraries, archives	Workflow management - stands of self-service borrowings, returns and location of volumes.

Museums	Protection of art work through the system of properly configured tags, sensors and gates.
Courier companies, security agencies	Management of production processes, labelling pallets and packagings, transshipment and storage infrastructure.

Logistics, production and storage	Management of production processes, labelling pallets and packagings, transshipment and storage infrastructure.
Hospitals, pharmacies, nursing homes	Identification of people, granting powers, labelling medicines and surgical instruments; asset tracking.

In short

PXseries

	PX200N	PX100N	PX100D dialer GSM
Transmission channels	GPRS, SMS	GPRS, SMS	GPRS, SMS, VOICE
DTMF	✓	×	×
Inputs	9	9	9
Outputs	1 OC + 1 NO/NC	3 OC	1 OC + 1 NO/NC
Serial interface	RS232 / 485	RS232 / 485	RS232 / 485
Power supply	$18V_{AC}$ (16-$20V_{AC}$) **reduced power consumption**	$18V_{AC}$ (16-$20V_{AC}$)	$18V_{AC}$ (16-$20V_{AC}$)

EXseries

	EX20
Transmission channels	Ethernet
DTMF	✓
Inputs	5
Outputs	2 OC
Serial interface	RS232 / 485
Power supply	$13,8V_{DC}$ (12-$14V_{DC}$)

LXseries

	LX20G-3C remote configuration of control panels	LX20G GSM gate	LX20S SIA protocol	LX20	LX10	LX2NB	LX2NB-xR RADIO with RC Receiver
Transmission channels	GPRS, SMS, VOICE	GPRS, SMS, VOICE	GPRS, SMS	GPRS, SMS	GPRS, SMS	GPRS, SMS	GPRS, SMS, 434 MHz
DTMF	✓	✓	✓	✓	×	✓	✓
Inputs	3	3	5	5	9	4	4
Outputs	3 OC	3 OC	2 OC	2 OC	2 OC	1 OC	1 OC
Serial interface	RS232 / 485	RS232 / 485	RS232 / 485	RS232 / 485	RS232 / 485	×	×
Power supply	$13,8V_{DC}$ (12-$14V_{DC}$)	$13,8V_{DC}$ (12-$14V_{DC}$)	$13,8V_{DC}$ (12-$14V_{DC}$)	$13,8V_{DC}$ (12-$14V_{DC}$)	$13,8V_{DC}$ (12-$14V_{DC}$)	$13,8V_{DC}$ (12-$14V_{DC}$)	$13,8V_{DC}$ (12-$14V_{DC}$)

Version: V5_4_2015

EBS
CREATING A SENSE OF SECURITY
SINCE 1989

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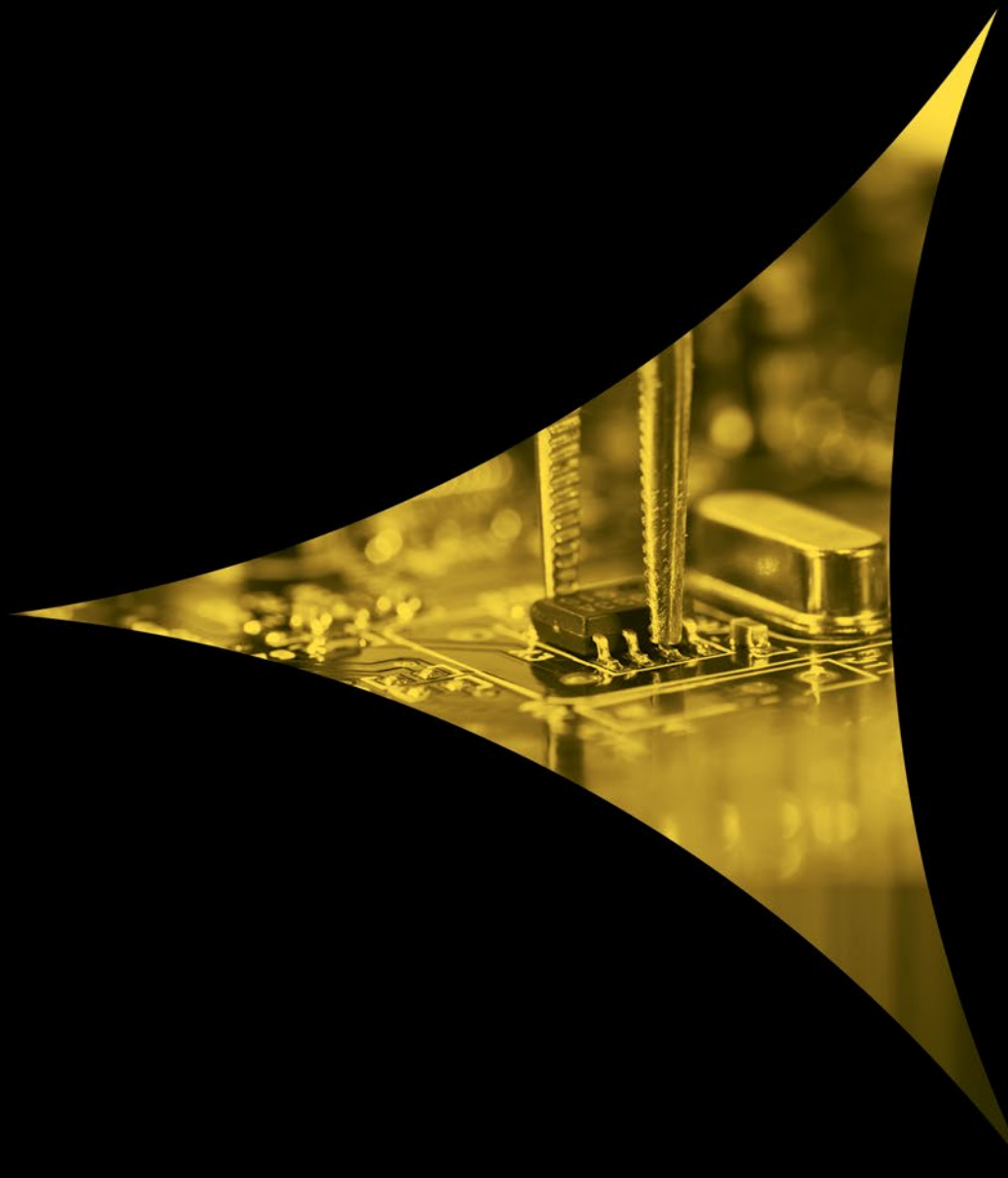
website: www.ebs.pl



In order to receive detailed information and offer please contact us: sales@ebs.pl

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