Satel®
MADE TO PROTECT

UNIVERSAL
MONITORING MODULE

ETHM-A

Monitor, control and report system status with a single device

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ETHM-A

UNIVERSAL MONITORING MODULE

Event reporting

- reporting sources:
  - » control panel audio reporting
  - » module internal events
  - » inputs violations
  - » exceeding threshold values on analogue inputs and 1-Wire sensors
  - » change of output status
- reporting path:
  - » Ethernet (TCP/UDP) – unlimited data transfer

Support of any alarm control panel

- programmable inputs
- outputs with remote control support
- audio reporting conversion (SIA/DTMF/impulse)

Input types

- digital (NO, NC)
- analogue

Notification

- notification sources:
  - » control panel audio reporting
  - » module internal events
  - » inputs violations
  - » exceeding threshold values on analogue inputs and 1-Wire sensors
  - » change of output status

4 OC type outputs controlled

- remotely using the GX CONTROL mobile application
- locally/remotely using GX Soft
- remotely by IoT
- locally via 8 inputs of the module

1-Wire bus

- supports digital temperature sensors

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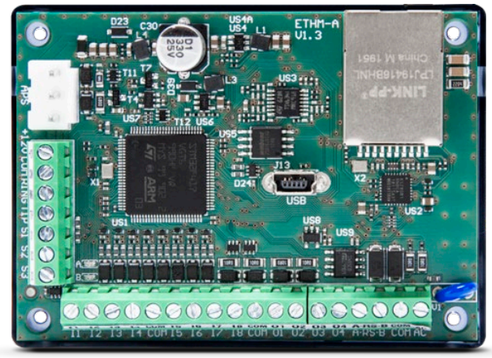
UNIVERSAL MONITORING MODULE — ETHM-A



GX CONTROL mobile application for **Android** and **iOS** can be used for:

- checking the input status with option to block them
- displaying readings from analogue inputs
- displaying readings from connected digital 1-Wire sensors
- checking the output status with option to control them
- browsing and clearing the troubles list
- browsing and filtering event log
- PUSH notifications

Data exchange within the **IoT**:

- collection of data from multiple devices on an external server
- use of transmitted information in any data acquisition systems
- remote control of outputs of integrated modules

Support for open communication protocols:

- MQTT
- JSON
- JSON/HTTP

GX Soft configuration software

- intuitive interface
- full module configuration
- preview of event log
- fault diagnostics

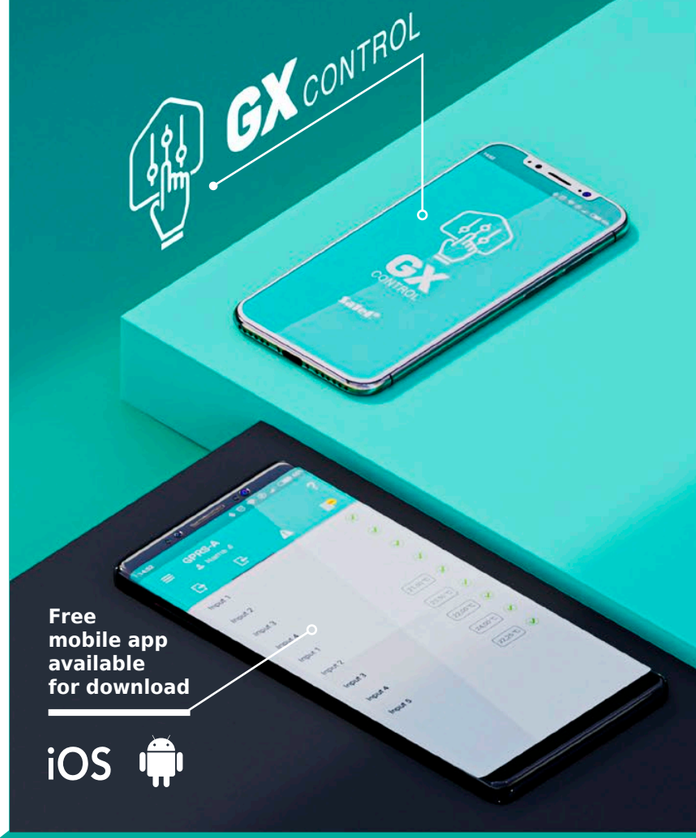
Where to use it?

Facilities which require constant monitoring of various parameters

In contrast to GSM modules, ETHM-A does not use prepaid GSM cards for communication that require regular monitoring and recharging. By using a permanent cable connection for data transmission, the costs of network maintenance are significantly reduced. Examples include wind or solar farms, which require monitoring of temperature, weather conditions, and dirt levels on panels or battery status.

Locations where there is no GSM coverage or the signal is too weak to ensure reliable transmission

Such locations include: server rooms (located inside buildings or underground), technical rooms (located in built-up locations, like in underground garages), wells, underground tanks, mines (where additionally air quality sensors can be connected) or ships (using the ship's own Internet satellite network to transmit values read by the module to land).



ETHM-A is a universal monitoring module

enabling the transfer of information via Ethernet. Since the module can operate within a local area network, there is no need to redirect sent data over the Internet or create a database. Everything remains within the local network, protected by a firewall. The device can work as a part of an intruder alarm system as well as an automation system.

ETHM-A enables event reporting from a control panel to a monitoring station, and notifies persons concerned about selected events.

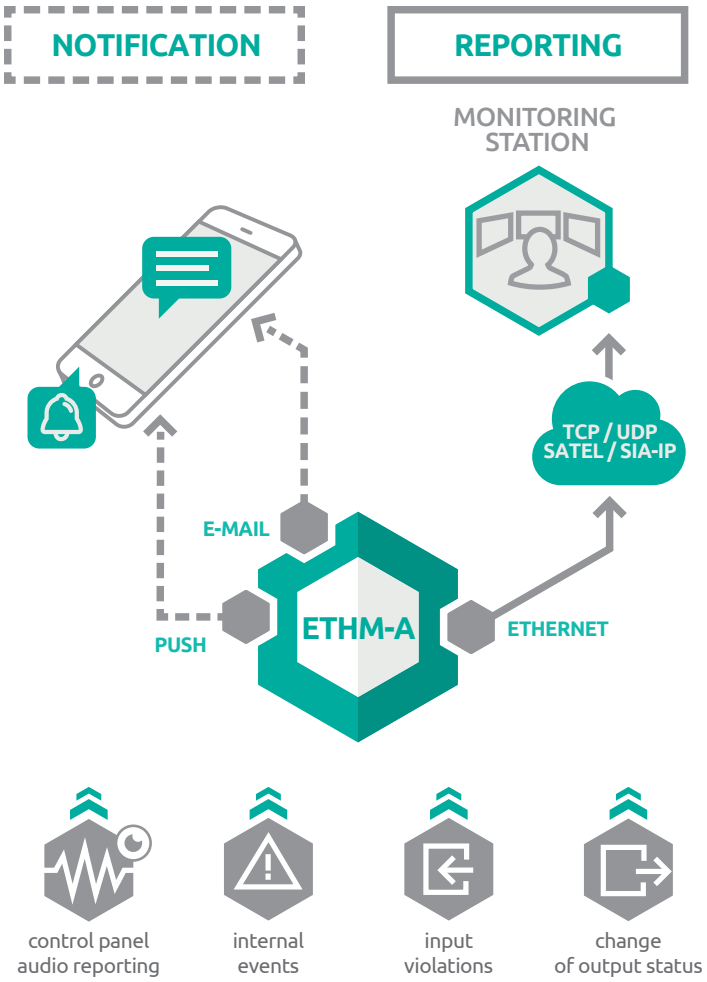
With configurable inputs supporting analogue signals, it can supervise the operation of sensors measuring various physical quantities, and inform users when the set threshold values have been exceeded.

Full flexibility

The module can be successfully used in many existing as well as newly built installations. ETHM-A receives information about detected events from the connected control panel, and transmits it to the monitoring stations of security agency, or selected persons, via Ethernet. In intruder alarm systems, the module can be used for event reporting. It supports any control panel connected to the module via its dialler. ETHM-A can also be connected to an alarm control panel, using suitably configured control panel outputs connected to the module inputs.

The module can be used in automation systems, e.g., arming the alarm, or opening a gate on user command (e.g. using the mobile app) or automatically in response to specific events.

ETHM-A is compatible with any alarm control panel, including older models, expanding their functionalities with new, previously unavailable features. This is an opportunity to grant older security installations “a new life”. It can also operate autonomously, e.g., by monitoring the status of various devices and automation systems.



Event reporting

When used for event reporting, data is sent by:

- Ethernet (using TCP or UDP)

The module supports two transmission formats:

- SIA-IP (for communication with any monitoring station)
- SATEL (for communication with SATEL devices: STAM-2 monitoring station or SMET Pro monitoring converter).

Notification

ETHM-A communication module allows sending notifications using:

- PUSH messages to smartphones with the GX CONTROL application installed
- E-mail messages

Remote control

ETHM-A has 4 OC type outputs. They can be remotely controlled and activated from any location:

- from the GX CONTROL mobile application
- from a PC with the **GX Soft** software installed
- using IoT solutions

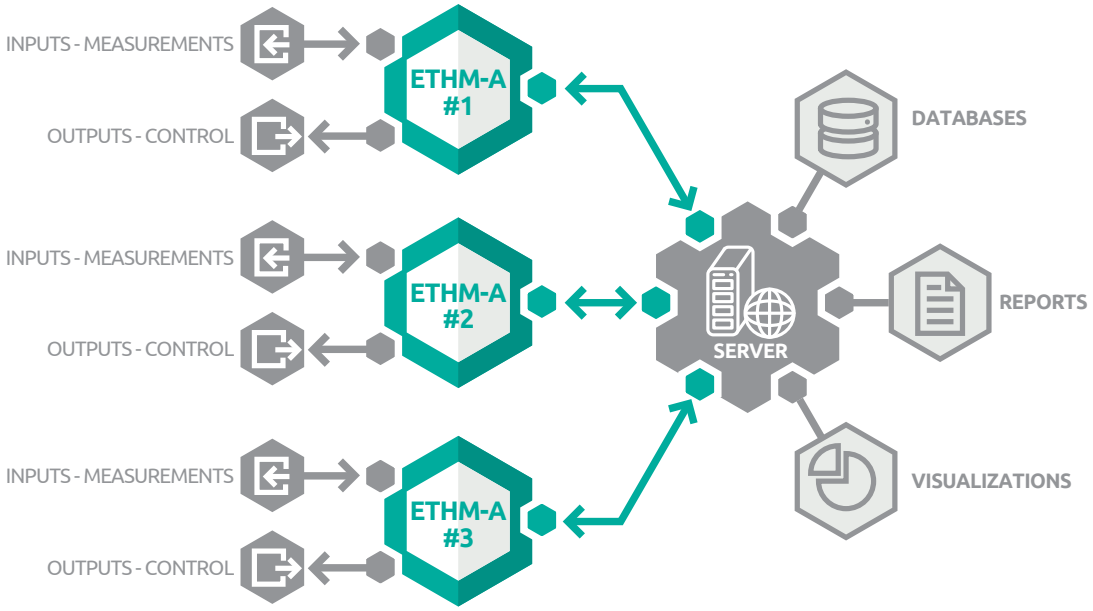
In addition to its ability to arm alarm systems, ETHM-A is ideal for controlling various devices connected to the module, such as lighting, gates, roller blinds or solenoid valves.

Upon receipt of a command, it can activate heating, air conditioning, smoke extraction, irrigation, and many other systems.

Support of various devices
including detection and measurement devices

The module inputs can be programmed as NO, NC or analogue — to work with devices featuring with NO or NC outputs, as well as with a range of analogue sensors and digital-to-analogue converters. This grants ETHM-A a wide range of possible uses.

The module will convert (scale) the received analogue signal to any unit (e.g., temperature) or any other physical quantity. It can also operate autonomously, e.g., monitor the status of various devices and automation systems.



Gathering data from different ETHM-A modules in one localization enables to monitor facilities like wind farms, and more.

Digital data collection

The device features a 1-Wire type digital sensor bus, and can support up to 8 detectors, with a maximum bus length of 30 m. With the use of SATEL DS-T1 (temperature measurement from -35 °C to +60 °C) and DS-T2 (temperature measurement from -40 °C to +110 °C) sensors, the ETHM-A module proves useful wherever temperature monitoring is crucial.

Analogue inputs and 1-Wire sensors can be assigned two threshold values (upper and lower). When these are exceeded:

- a report is sent to monitoring stations
- selected persons are notified
- the module responds automatically and performs a programmed action.

Facility monitoring

ETHM-A can be used wherever a local area network (LAN) is available. ETHM-A does not generate additional costs related to prepaid SIM cards or phone subscriptions, as in the case of modules using GPRS transmission. Since it supports temperature and humidity sensors, the module is perfect for monitoring environmental conditions, e.g., during storage of food or medicines:

- continuously sending information about selected parameters
- alarming on exceeding the set limits or change in the input status
- responding to specific events.

IoT - Internet of Things

The ETHM-A universal monitoring module can support automation and data acquisition systems. By exchanging information with other devices using open communication protocols MQTT, JSON and JSON/HTTP, its operation fits perfectly into the Internet of Things concept.

This grants the system users a wide range of uses, including processing, collecting and visualizing transmitted data. Information sent by the module can be handled by software available on the market, and in applications created from scratch.

Many modules, operating within the IoT, can send data to an already existing server. It also allows to remotely control all the devices connected to module outputs. This makes the entire system scalable. The GX Soft software is used to configure server communication.

Mobile access

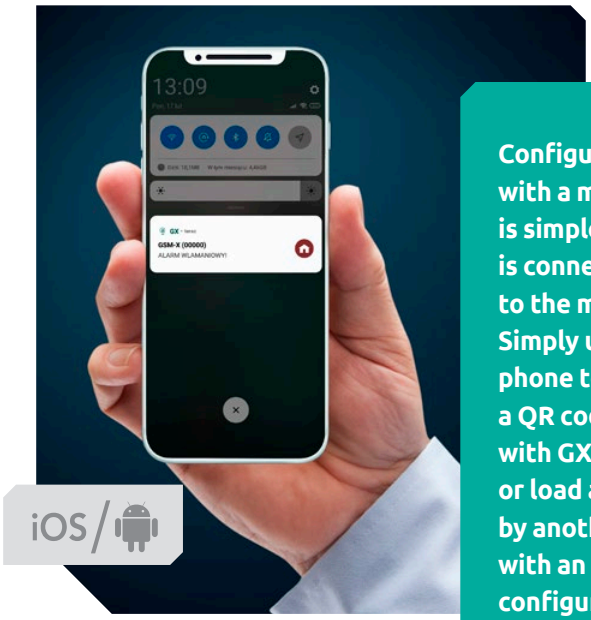
Mobile applications for remote control of various devices are an increasingly popular solution — valued for their ease of use.

GX CONTROL is an app created for SATEL communication modules, available for Android and iOS devices.

With GX CONTROL you can:

- verify the status of inputs and outputs (connected sensors and devices)
- display readings from analogue inputs and digital sensors
- browsing and clearing the troubles list
- browsing and filtering event log
- remotely control module outputs (connected devices).

PUSH messages provide users with constant access to information.



Configuring the app with a mobile device is simple, and so is connecting it to the module. Simply use your phone to scan a QR code generated with GX Soft, or load a code shared by another user with an already configured app.

Functional software

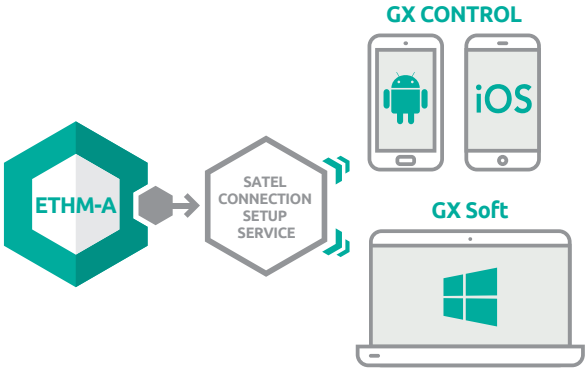
GX Soft is a versatile tool featuring a user-friendly interface. It is designed for configuration and diagnostics of SATEL communication modules. With it, installers have access to all module functions — they can program its operation, adjusting it to the requirements of every installation and expectations of its users. ETHM-A can be connected to GX Soft locally, using an USB, or remotely via Ethernet.

Easy and safe connection

SATEL connection setup service extremely facilitates the use of the many functionalities of GX CONTROL and GX Soft. The configuration of communication between the application, software, and module takes only a few moments, and does not require an external IP address or advanced network settings. The transmitted data are encrypted using a complex algorithm to ensure the security of transmission.

Remote firmware update

ETHM-A supports UpServ software and can be updated remotely. Installers can quickly introduce new functionalities without having to actually visit the sites, and disassemble the module.



MADE TO PROTECT

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30 YEARS OF EXPERIENCE

Professional protection of any type of facility, as well as its occupants, with advanced, functional and economical solutions — these few words describe the mission of SATEL, the security systems manufacturer with 100% Polish capital. SATEL brand has been widely recognized in the industry for 30 years, primarily for its integrity in business and particular emphasis on high quality and wide range of products.

Such a philosophy of management and hard work of over 350 SATEL employees bring tangible results. SATEL's comprehensive offer, which includes over 400 products, provides countless opportunities to create security systems, home automation, fire alarm, access control and monitoring, tailored to the individual needs of each user. At the same time, these systems meet the requirements of Polish and international regulations and industry standards.

One of SATEL's main objectives is to adapt the device functionality to the current requirements and expectations of the market using the latest technologies. Therefore, SATEL's design and manufacturing departments are constantly modernized and expanded. The introduction of the ISO 9001 compliant quality management system in 2002 was a natural consequence of all activities aimed at manufacturing the highest quality devices. Regardless of this certification, SATEL always conducts a full functional test of all products leaving the production line, to ensure their reliability. By focusing on modern design and taking care of the highest level of quality and functionality of its products, SATEL has acquired many satisfied customers not only in Poland, but also in over 50 markets around the world.