CA-GSM-1-LCD ALARMING UNIT

M.Sc. Eng. **Andrzej Zagórski**
JOTAFAN
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controllers
for breeding
establishments

energy
efficient
lighting
systems

Temp. 23.2°C
Target 25.0°C

↑ + DPUŚC START
↓ − USTAW STOP

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weighing
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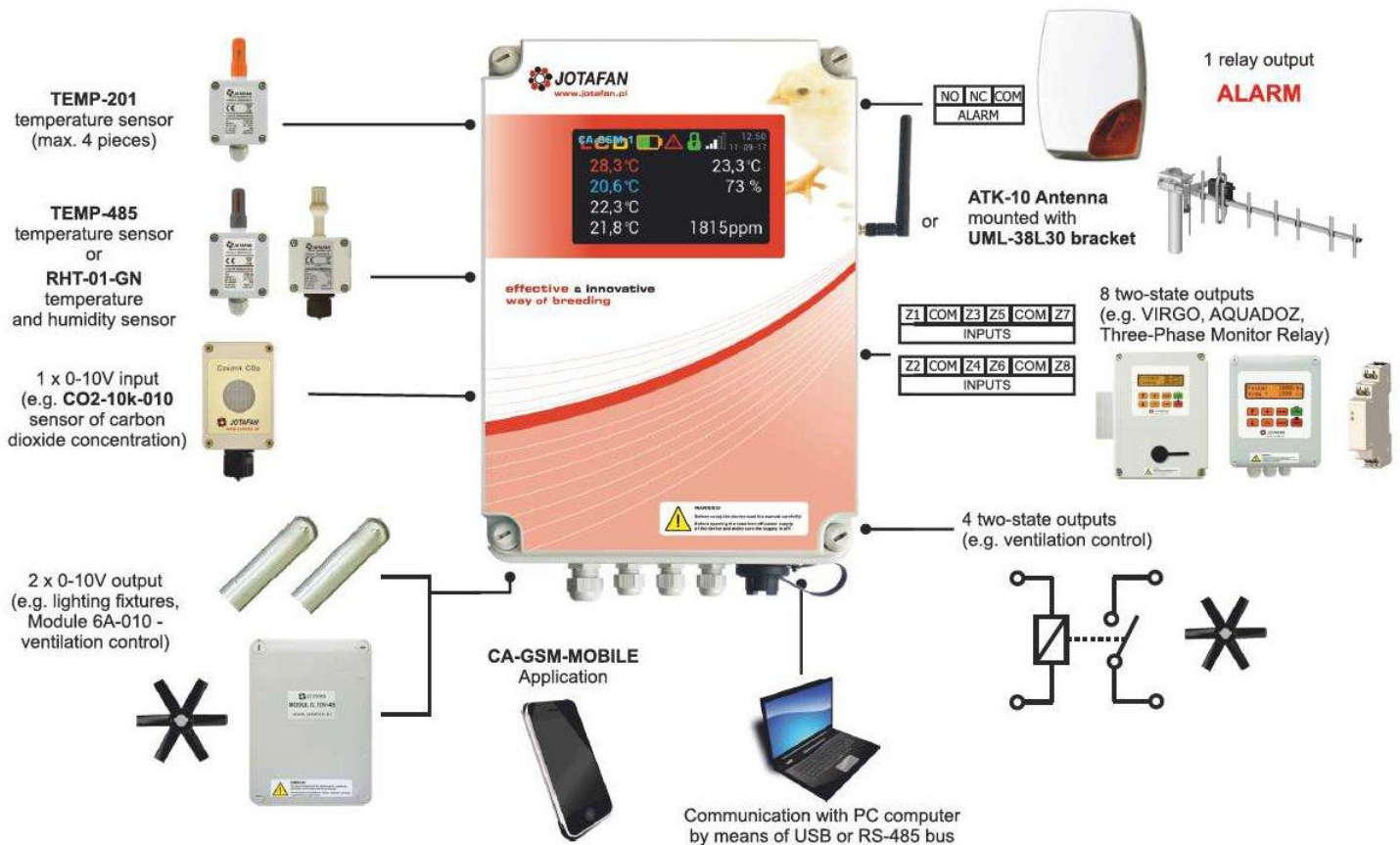# CA-GSM-1-LCD Alarming Unit improves the safety of breeding

The application:

* The CA-GSM-1-LCD alarming unit is designed for monitoring the correctness of devices operation and microclimate parameters in livestock buildings as well as informing the User by means of GSM communication (SMS, CLIP) about irregularities (alarm situations). Additionally, the alarming unit can switch on external alarming devices (e.g. an acoustic signalling unit).

* It is possible to connect to the alarming unit sensors of temperature, humidity and others, e.g. carbon dioxide or ammonia as well as executive devices, read their indications remotely, check their status and control their operation.

* The CA-GSM-1-LCD alarming unit interoperates with a SIM card of any operator what enables to choose the best communication conditions and optimum costs.

* It is possible to connect to the alarming unit by means of phones (by SMS messages, by a mobile application for devices with Android system or a Windows PC computer), configure it, check the current parameters and download the history of operation.

New opportunities:

* The CA-GSM-1-LCD alarming unit is equipped with a large colour LCD display with a touch panel and intuitive menu making its use easier. The user can monitor on a currently basis indications of temperature, humidity, carbon dioxide concentration and other information about the status of the alarming unit. There is also the possibility of changing the settings, i.a. thermal alarm thresholds.

* The alarming unit can be also operated by means of the CA-GSM-MOBILE application for mobile devices with Android system that is designed for easy operation of many CA-GSM-1-LCD alarming units by means of a graphical interface.

* The JOTAFAN offer also includes the possibility of modernisation of the CA-GSM-1 alarming unit to the new version CA-GSM-1-LCD with an LCD graphical display and a touch panel!

* The mobile application and software for a PC computer can be downloaded from the JOTAFAN website!

Wiring Diagram CA-GSM-1-LCD with Sensors and Modules

TEMP-201
temperature sensor
(max. 4 pieces)

TEMP-485
temperature sensor
or
RHT-01-GN
temperature
and humidity sensor

1 x 0-10V input
(e.g. **CO2-10k-010**
sensor of carbon
dioxide concentration)

2 x 0-10V output
(e.g. lighting fixtures,
Module 6A-010 -
ventilation control)

CA-GSM-MOBILE
Application

NO	NC	COM
ALARM		

1 relay output
ALARM

ATK-10 Antenna
mounted with
UML-38L30 bracket

or

Z1	COM	Z3	Z5	COM	Z7
INPUTS					

Z2	COM	Z4	Z6	COM	Z8
INPUTS					

8 two-state outputs
(e.g. VIRGO, AQUADOZ,
Three-Phase Monitor Relay)

4 two-state outputs
(e.g. ventilation control)

Communication with PC computer
by means of USB or RS-485 bus

It is possible to connect to the alarming unit temperature sensors (up to 5 pieces, TEMP-201, TEMP-485) and the RHT-010-GN sensor of temperature and humidity as well as other sensors by means of a 0..10V input, e.g. ammonia or the CO2-10k-010 sensor of carbon dioxide concentration and read their indications remotely (by SMS, by means of a mobile application for devices with Android system or by a Windows PC computer).

The alarming unit is equipped with: 8 two-state inputs (configuration: 4 - NO/NC/EOL/2EOL, 4 - NO/NC), one 0..10V input, one relay output (24V, 200mA, contacts NO, NC, C), 4 two-state outputs (one high-current with 1A electronic protection, the others of OC 100mA type), two 0..10V (5mA) outputs, two RS-485 buses: one for external devices, e.g. the RHT-01 sensor, the other for PC connection, a USB port to connect a PC computer.

The alarming unit has got a ~230V buffer power supply with a battery what enables its operation in case of the failure of power supply. The battery charging and check system provides its long service life and it indicates an alarm in case of failures in its circuit.
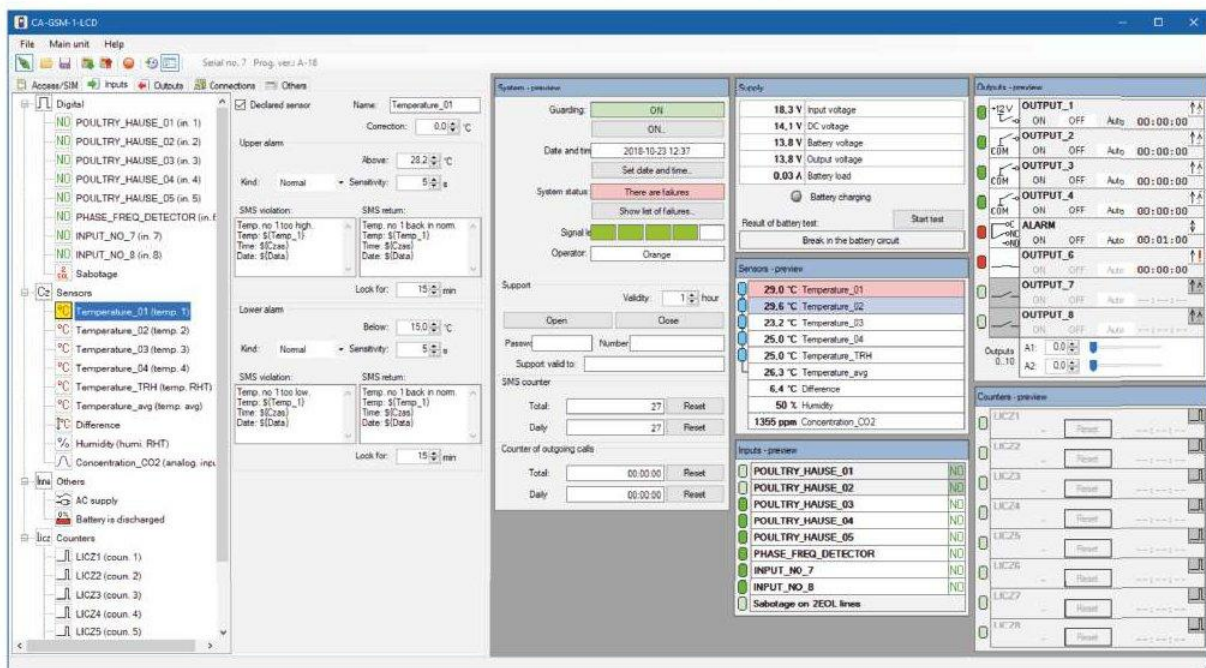
CA-GSM Computer Program

Full access to the CA-GSM-1-LCD alarming unit is possible by means of a computer program that operates in Windows environment. It is possible to connect to the alarming unit by means of a USB port or RS-485 interface that are situated on the printed circuit board of the alarming unit. After initial configuration there is also a possibility to create a GPRS connection (via the Internet).

The computer program provides full freedom of configuration of the alarming unit: rich set of settings of inputs, outputs and external sensors as well as operation parameters, creating connections between sources of alarms, Users authorised to receive messages and outputs, communication and self-check.

Special attention should be drawn to the possibility of defining long SMS messages (160 characters) that may contain information about the current status of the alarming unit and sensors connected to it (e.g. the value of temperature, level of GSM signal). The program also enables monitoring of current parameters and loading the history of operation from the memory of the alarming unit; arranging single readings in the chronological order.
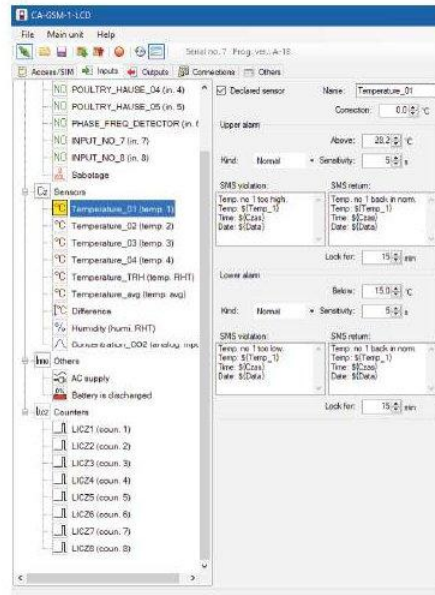
CA-GSM Computer Program

In the example configuration presented on the above picture there are windows with the preview of the current settings of alarm sources, system parameters, statuses of inputs and outputs, preview of indications of sensors connected to the alarming unit as well as the status of counters.
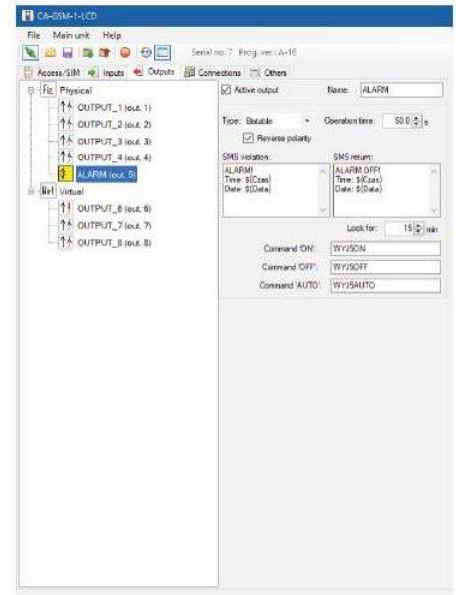
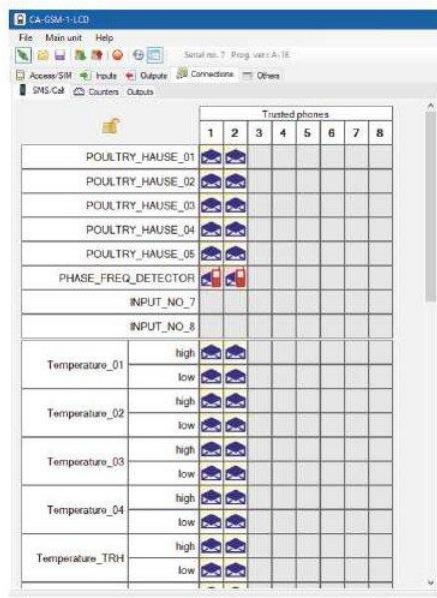# CA-GSM Computer Program - program windows

The SIM Access Tab enables to verify and change parameters connected with the trusted numbers (authorised Users).
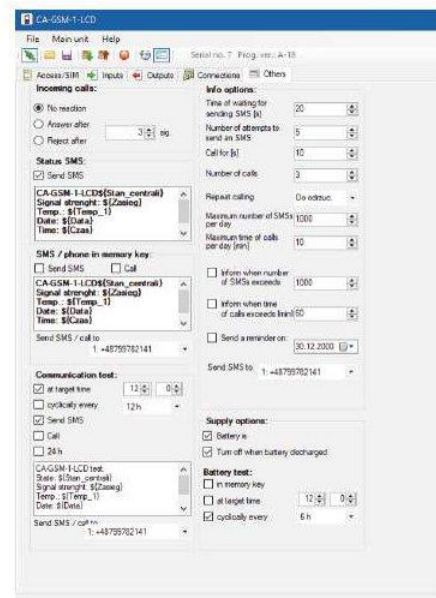

The Inputs Tab is used to configure parameters of inputs, sensors, counters and other alarm sources (e.g. status of AC power supply).

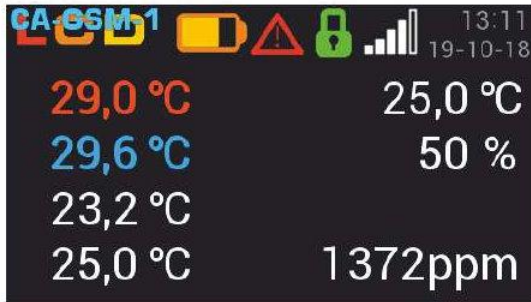**The Outputs Tab** enables to configure alarm outputs, physical as well as virtual.

The Connections Tab is dedicated to create connections between alarm sources and Users authorised to receive messages as well as outputs.
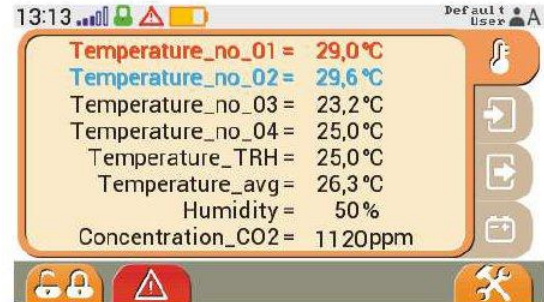

The Others Tab enables to configure the system parameters of the alarming unit and options of cyclical messages about the status of its operation.

The Screens of the CA-GSM-1-LCD Graphical Touch Display

The basic screen of the display with the preview of sensors indications and basic parameters of the alarming unit.
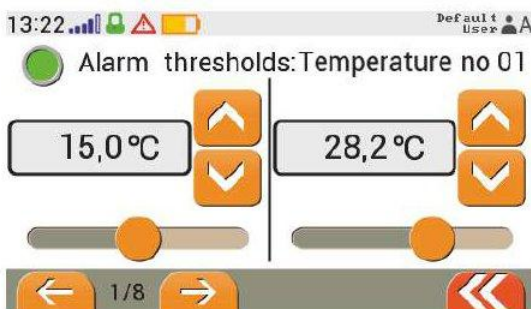

The Previews Menu contains tabs with information about sensors indications, status of inputs and outputs as well as parameters of operation of a buffer power supply and a battery.

The login screen for particular Users authorised to operate the alarming unit by means of a touch panel.

The Settings Menu enables to modify them within selected parameters, i.a.: alarm thresholds for sensors, switch on/off of inputs and outputs, change of PIN code of a SIM card, etc.

The Sensors Menu enables to switch-on/off sensors and adjust for them alarm thresholds.

The Outputs Menu is used to configure the status of alarm outputs and adjust the values of voltage for the analogue 0..10V outputs.

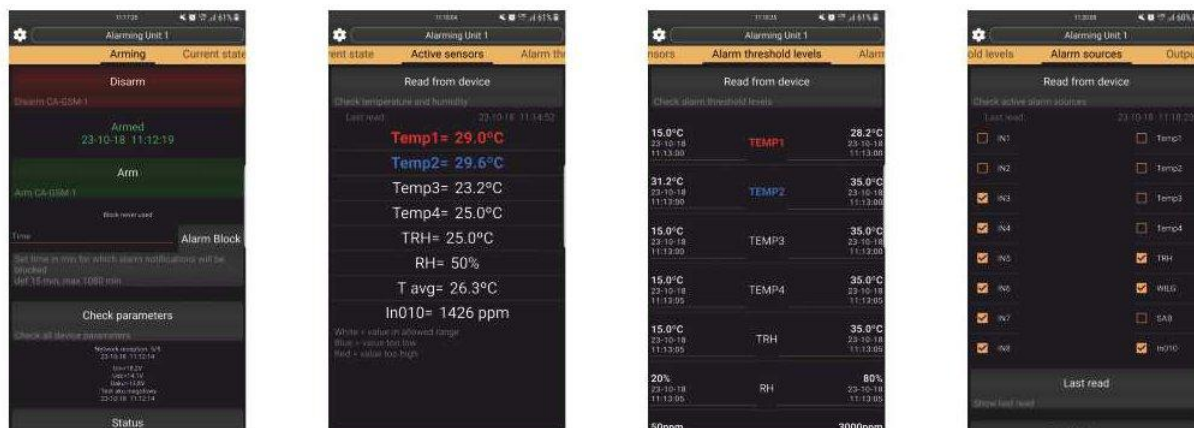# Preview of the CA-GSM-1-LCD Graphical Display Screens

The SIM Access Menu enables to enter Users data together with the level of privileges for communication with the alarming unit by means of GSM (up to 8 Users).

The History Menu enables to preview recorded events during the operation of the alarming unit, including alarms.

The CA-GSM-MOBILE Application for Mobile Devices with Android System

The application allows with just one button to read from the alarming unit all available through SMS current parameters and settings. It also operates: switch-on/off of guarding, 'sleeping the alarm', requests for sensors indications, the status of inputs and outputs. It is also possible to change settings of alarm thresholds, switch-on/off the sources of alarms, control the outputs. In menu 'Advanced functions' it is possible to manage phone numbers that are privileged to communicate with the alarming unit, change the password, set date and time, generate a service password and send it to the phone of a serviceman. The application allows to manage many alarming units. The alarming unit can be selected from the list by name or a phone number of its SIM card.

JOTAFAN **Andrzej Zagórski**
30-418 Kraków, ul. Zakopiańska 9
POLAND

Tel.: **+48 12 269 18 77**
Mob.: +48 510 104 822 **biuro@jotafan.pl**