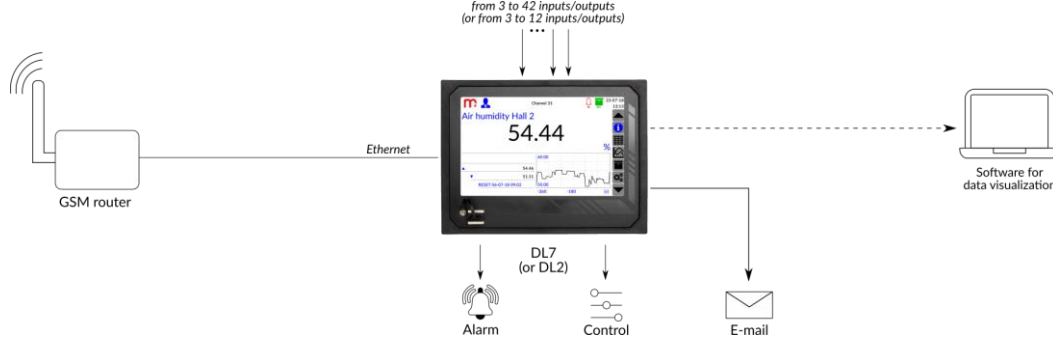# E-MAIL NOTIFICATIONS ON ALARMS AND TOTALIZERS VALUES USING A GSM ROUTER

DL2/DL7 data loggers and FP4 flow meter enable sending e-mail notifications with information on alarms state after exceeding alarm threshold and after returning to the normal value. In addition, the values of selected totalizers may be sent in the form of a cyclic reports. E-mail notifications enable gathering reports remotely from installation to supervisor. To send messages, the device must be connected to Internet. Some application may use independent GSM router. The basic information regarding configuration of the DL7 data logger and GSM routers (the AS30GSM210P Astraada router and the RUT240 Teltonika router) is described below.
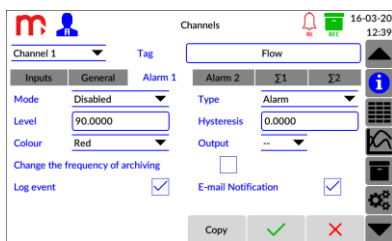

- **Alarms notifications**

A message regarding alarm states is sent after exceeding at least one alarm threshold and after returning to the normal value. If several alarm thresholds have been triggered at the same time, the device will send only one common e-mail message. Subject of the e-mail specify the source device and action: DL7, ALARM, device ID, device tag.

- **Totalizers' cyclic reports**

The message regarding totalizers values is sent in accordance with the settings in the Cyclic report tab in Communication settings window. E-mail messages can be sent in the mode: Daily (select Hour of sending the message), Weekly (select Day of the week and Hour of sending the message) or Monthly (select Day of the month and Hour of sending the message). The e-mail will be sent at the indicated time and will contain the values and units of totalizers in the form of a table. Subject of the e-mail: DL7, RP, device ID, device tag.
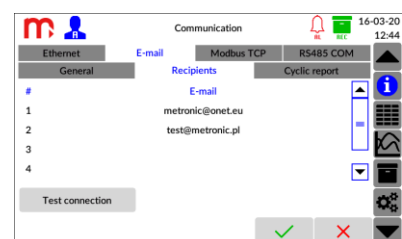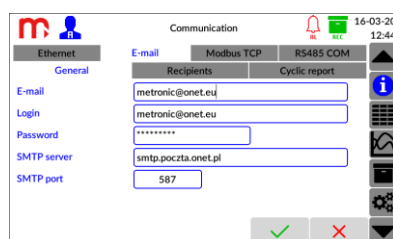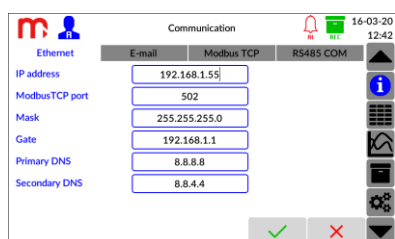
- **Data select for email notifications**

Proper configuration and connecting the DL7 data logger to the Internet enable sending messages to the specified e-mail addresses. A notification regarding alarm states after exceeding alarm threshold and after returning to the normal value will be sent only to those alarms that were selected in the Channels window in the Alarm 1/Alarm 2 tab (E-mail notification option for each alarm must be selected). As part of the cyclic report, only that totalizers values will be sent, which were selected in the Channels window in the Σ1/Σ2 tab (E-mail notification option for each totalizer must be selected).

- **Communication settings**

Parameters in the Communication settings window must be configured (Ethernet and E-mail tabs). In the Ethernet tab, parameters necessary for the device to work in a network must be entered. In the E-mail tab, the account from which the messages will be sent, recipients of the messages and parameters of the cyclic report (if cyclic report is to be used) must be defined.

Notes: The sender's e-mail account must have an outgoing server unlocked (SMTP). The maximum amount of emails per day have to be considered to avoid spam filter or messages limits.

The router must be configured in accordance with the User Manual. Examples of routers settings are presented below. A SIM card with mobile Internet from local provider was used. The SIM card PIN is recommended to be disabled.

The DL7 device and router must operate on the same network (for example, DL7 data logger IP address: 192.168.1.55, router IP address: 192.168.1.1). In the DL7 data logger, the router's IP address should be entered as the Gate in the Ethernet tab (in the Communication window in the Main Menu).

- **Test connection**

After configuring the router and connecting the device, the configuration should be checked: Main Menu → Communication → E-mail → Recipients → Test connection. A test message will be sent to entered e-mail addresses and information regarding successful test message will appears on the device screen. The test message sent to the entered e-mail addresses contains the model, firmware, serial number, device ID and tag of the device. Subject of the e-mail: DL7, TEST, device ID, device tag.
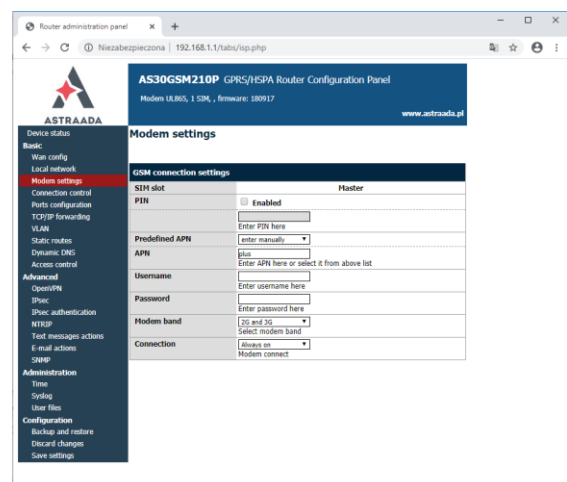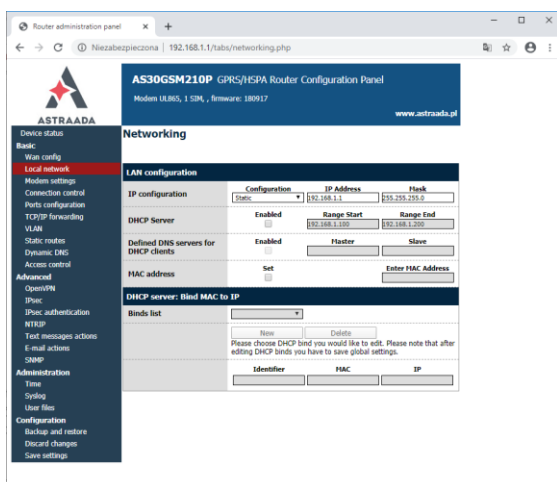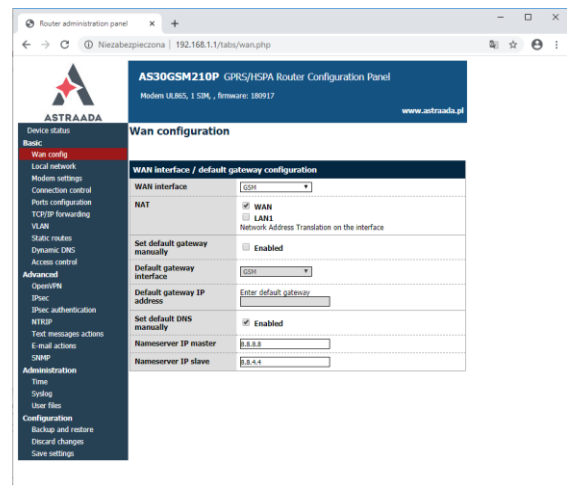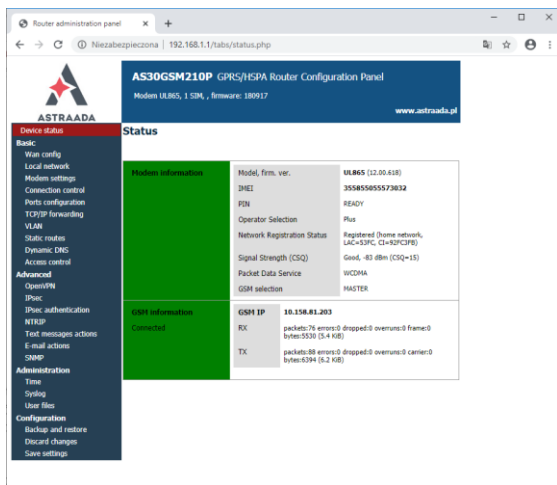
- **Additional information**

The SIM card should have the PIN turned off. After connecting the system, send a test message (Main Menu → Communication → E-mail → Recipients → Test connection) to check the correctness of communication. After connecting the router to the power supply, wait up to several minutes before sending a test message (time needed to connect to the network). After connecting the router and continuous lack of communication it may be necessary to reset the data logger.

Notes: Detailed information on router configuration and GSM network should be obtained from Internet provider. Depending on the system, router model and Internet provider, the shown settings may vary.
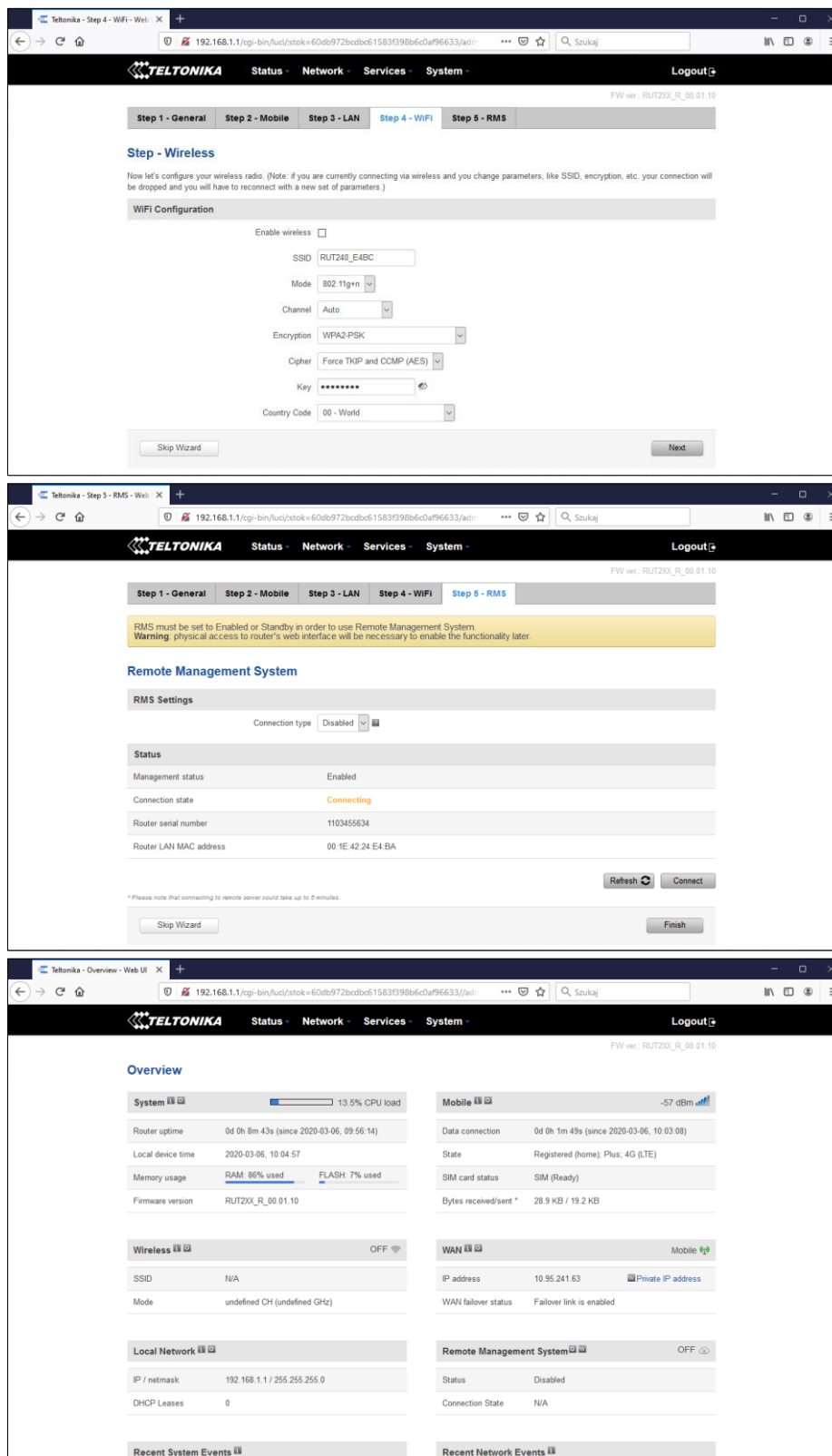
- **Astraada AS30GSM210P router configuration**

The router must be connected to the computer using an Ethernet cable. The router and computer must operate in the same network. The computer must have a fixed IP address (e.g. 192.168.1.2). Enter the router's IP address in the browser bar, default login: **admin**, default password: **12345**. Example settings of a router configured to operate with the DL7 data logger are presented below. After configuration, the router must be connected to the data logger using an Ethernet cable (LAN socket in the router and Ethernet socket within the M base module in the data logger).

- **Teltonika RUT240 router configuration**

The router must be connected to the computer using an Ethernet cable. The router and computer must operate in the same network. The computer must have a fixed IP address (e.g. 192.168.1.2). Enter the router's IP address in the browser bar, default login: **admin**, default password: **admin01**. An example of the router configuration is presented below. After configuration, the router must be connected to the data logger using an Ethernet cable (LAN socket in the router and Ethernet socket within the M base module in the data logger).

- **Information from the Manufacturer**

All functions of the recorder are subject to modifications for the benefit of technical progress.

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