INCOM-LTE / INCOM-LTE-WF

Remotely managed telemonitoring communicators

Users manual v1.0
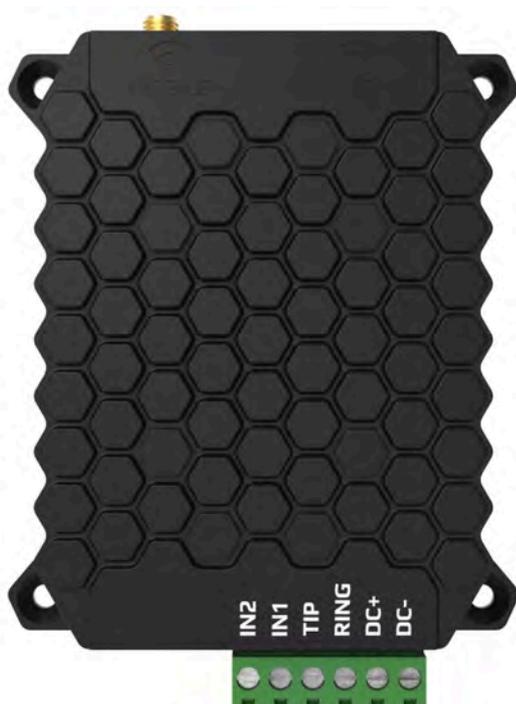
INCOM-LTE: LTE
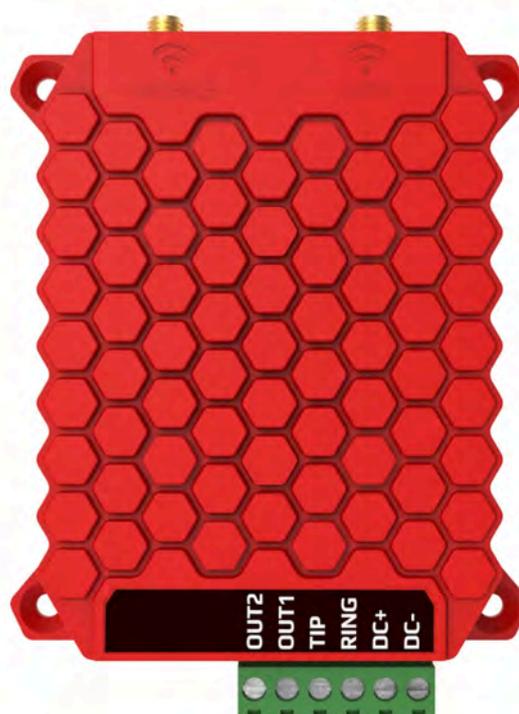
INCOM-LTE-WF: LTE/WIFI

1 General information

The **INCOM-LTE** and **INCOM-LTE-WF** have the same function, the difference between the two models is their mobile network communication capabilities. While the **INCOM-LTE** is only capable for GPRS or EDGE connection, the **INCOM-LTE-WF** uses LTE and WIFI networks (except the 5G protocols).

Operation: the communicator (simulating a landline towards the alarm centre) receives Contact ID reports from the alarm panel, forwarding those to the remote monitoring station via the mobile network (in the form of TCP/IP or UDP packets), as it is defined in the SIA DC-09 standard. If it is successful, the acknowledgement received from the monitoring receiver is signalled to the alarm panel. At the same time, it can forward the contact signals received on its own inputs to the monitoring station. The unit will turn itself off if the power supply drops below 10.5V. (battery protection)

Key features

- Web browser setup and configuration
- Remote serial connection for almost any security or fire alarm control panel
- Incomlink Application
- Listen to communications on TIP/RING line to make the installation easier
- Primary WIFI and alternate LTE connection
- Minimum communication cost
- Wide range (WIFI 802.11 b/g/n)
- High-tech LTE network connection

2 Circuit Type

❶ Terminals for Alarm panel connection
❷ Antenna connector (LTE)
❸ Service Button
❹ QR Code for the communicator's data sheet
❺ Serial connector for remote programming
❻ Mini USB-B port for setup
❼ Status LED
❽ SIM card slot

3   Wiring diagram

INCOM-LTE   INCOM-LTE-WF
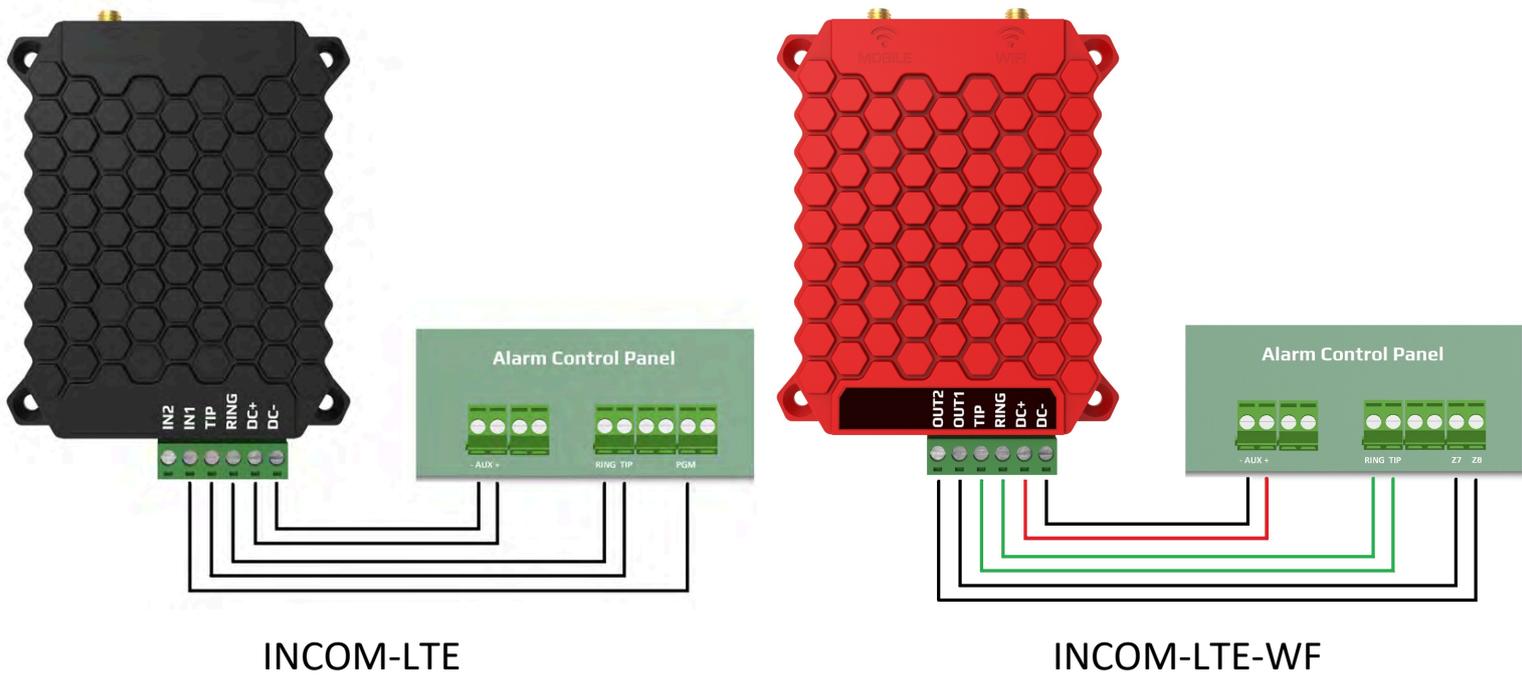
4   Required settings of the alarm

In the communication settings of the connected alarm panel, the following actions are required:
– Phone communication should be enabled in the alarm panel
– DTMF (Tone) dialling should be selected
– A simple phone number should be selected for easy dialling (e.g. 1111)
– Client ID should be set
– Contact ID (Full) should be selected
The module receives the signals of the alarm panel as a remote monitoring receiver, forwarding those to the receiver.
– For the INCOM-LTE-WF module with two programmable outputs, Be sure to configure the alarm system for key switch arming / disarming. With the two programmable outputs, it is possible to control two partitions of your alarm system. If the Incomlink module is powered from a source external to the alarm system, make sure you have the negative is linked to both when connecting the output to a zone for arming / disarming.

5   Status indicators

The LED status indicator, next to the antenna, provides the following status information.

Status of the mobile network (GPRS, LTE)

Continuous red	APN or SIM missing
Blinking red	Connection in progress
Blinking green	Standstill
Continuous green	Communication with alarm panel in progress

6   Settings

Install the INCOMLINK Configurator program first.

The program can be downloaded from our website:
You will also find a quick guide to help you set it up.
After installing the INCOMLINK Configurator, connect the device to the PC, select the appropriate serial port, then push the "Connect" button. When the connection is established, the following screen will appear:

Attention: To apply the changes, the new settings must be downloaded to the device!

To download the settings, click on the icon, which will initiate the changes displayed in the STATUS INDICATOR window. Once you have modified your settings, the background of the icon will become red, this means you need to download the new settings on the device.

6.1   Setting up the mobile network connection

To set up the network connection, insert a SIM card in the SIM card slot ⑧, located on the side of the device (according to the marking on the back). The SIM card requires the following:
- available mobile data
- SIM card must be registered
- known data of APN connection
- You may need the PIN of the SIM card

If a PIN is required for the SIM card, it must be entered in the **SIM PIN code** field. To establish the data connection, the APN data must be provided. (Generally, no username and password are required, only the APN name)

MODEM AND GPRS SETTINGS	
PIN code:	
GPRS APN:	em
User:	
Password:	

Once you have downloaded the data, the module will restart. It takes approximately 30 seconds to connect – you will know the receiver status by looking at the LED **7**. The information window shows the status as well.

6.2 Settings of the connection to the remote monitoring receivers

Connection with SIA DC-09 remote monitoring receivers (e.g. INC-3URX-256) requires the following settings:

MONITORING STATION 1 SETTINGS	
IP address:	
Port:	9998
Protocol:	TCP
SIA prefix:	
Object identifier:	0000
Replace obtained identifier:	NO
Link test period:	24 hours
Link test code:	

IP address	IP address or the domain name of the receiving station. (e.g. test.incomlink.com)
Port	End of the IP address subnet, where the receiving computer is directed on the router.
Protocol	Selectable communication transfer protocol: TCP or UDP
SIA prefix	2-character addition, it is necessary when the monitoring receiver expects a 6-character client ID, but the one generated by the alarm is only 4-character long.
Own client ID	Own client ID assigned to own events (e.g. test code, errors)
Replacement of the client ID	When enabled, replaces the original client ID to the characters given in **Own client ID**, in all CID signals coming from the alarm panel.
Phone number dialled by the alarm panel	The dialled phone number forces the actual signaling to the given receiver. For example, general signals go to receiver 1, while service events are sent to receiver 2.
Time of test report	Setting the time of the test report.
Code of test report	Setting the code sent in the test report. If left empty, the null test set in the standard, is sent to the receiver.

The communicator can keep contact with 2 monitoring receivers. The primary direction is the RECEIVER 1, thus all signals are sent to this address, until the test report or other signals are sent. If there is no successful acknowledgement from RECEIVER 1, the unit switches direction and send signals towards RECEIVER 2.
If the signal is re-established with RECEIVER 1, it is directed back to the address of the primary receiver.

In case you want to send some of the signals (e.g. service reports) to RECEIVER 2, a different phone number has to be entered in the **Phone number dialled by the alarm** field of RECEIVER 2 in the alarm. This will force the communicator to send the given report to RECEIVER 2, instead of the primary one.

The communicator takes any phone number from the alarm panel, signals the corresponding reports, thus can be adapted to old systems without modification of the alarm settings.
The replacement of the client ID enables inserting old systems in the client registry system of the remote monitoring company.

6.3   Setup of input events (Only available with INCOM-LTE)

The device contains 2 contact inputs, with either NO or NC setting. Contacts are considered, compared to **DC -** negative supply voltage. Upon an input event, the module generates a Contact ID report, with a given event code. In this report, the client ID will be the one set in the **Own client ID** field, while the value of the partition is 01. The serial number of the zone is 001 for IN1, and 002 for IN2. Sensitivity means that the duration of events triggering the signal (short or open) shall be at least the time set there.

INPUT 1 SETTINGS		INPUT 2 SETTINGS	
Sensitivity:	0.3 sec	Sensitivity:	0.3 sec
Contact type:	NO	Contact type:	NO
Event code:	130	Event code:	130
Partition:	01	Partition:	01
Zone:	001	Zone:	002

6.3.1   INCOM-LTE-WF Outputs

The INCOM-LTE-WF has two controllable outputs which can be used to do keyswitch arming of two areas or can be used to control external devices remotely.

Communicator signal

The unit is continuously monitoring its supply voltage and sends a signal when it drops below 11V. This is important, because low supply voltage has a negative effect on the security of communication. When sensing a voltage drop, a report will be generated with the set event code, then a restoral if the voltage reached and exceeded 12V again. In this report, the client ID will be set in the **Own client ID** field, while the value of the partition is 00, the value of the zone is 000. You will receive a notification with a unique event code to be set up, if the settings are modified.

COMM. EVENT CODES	
Battery low:	314
Setup changed:	306

6.4 Status indicators

The status of the module is shown in the MODULE STATUS window.

MODULE STATUS	
Mobile network:	-
Network signal (%):	0%
Monitoring station 1:	
Monitoring station 2:	
Dial capture:	ONHOOK
Input 1:	INACTIVE
Input 2:	INACTIVE
Supply voltage:	4.45V

➔ Status of the SIM card, and the name of the mobile provider
➔ Signal strength of the mobile network (0-100)
➔ REMOTE MONITORING RECEIVER **1** connection status
➔ REMOTE MONITORING RECEIVER **2** connection status
➔ Status of the alarm dialer (TIP/RING)
➔ Status of input **IN1**
➔ Status of input **IN2**
➔ Value of supply voltage

6.5 Displaying the text of events, statuses

In the **STATUS INDICATOR** window of the configurator, the communication between the communicator and the alarm panel, the sending of signals to the receiver, and the actual error signals of the unit, can be monitored.

6.6 Administrative window

The administrative window of the IncomlinkConfigurator program show the device information.

➔ Device ID
➔ Software version
➔ Unique device ID code

➔ Administrative tools

➔ Language Selection

Function of the administrative tools is as follows:

Restart the module

Opening saved settings and loading them

Saving settings in a file

Saving the modified or loaded settings in the device

Set up your master password

Enable/Disable specific functions

Outputs (only available on the INCOM-LTE-WF)

If you use the unique device ID code, you can access your device remotely from a WEB page.

7   Technical data

- Supply Voltage: 10.5 to 30 V DC
- Current consumption, idle: 120 mA
- Current consumption, max.: 1 Amp
- Operating Temperature: -20°C to +70 °C

8   This package contains

- **INCOM-LTE / INCOM-LTE-WF** communicator
- Antenna
- Users manual
- Warranty