



GSM-1, GSM-1/485

Communication modules for single phase electricity meters type LABM, LAP and LAP-A1/485 working in SMS mode



GSM-1 or GSM-1/485, built under the cover of terminal block of LAP meter

Application

GSM-1 and GSM-1/485 communication modules are smart communication devices designed for remote data transmission in both directions for single phase electricity meters type LABM, LAP and LAP-A1/485. GSM-1 and GSM-1/485 are considered as a specially designed compact modules for installing under the cover of terminal block.

These modules may be installed in the meter at any time of its operation without necessity of removing its seals.

Communication between GSM-1 module and electricity meter is performed using wireless optical interface. Communication of GSM-1/485 module with electricity meter is performed by wire connection using RS485 interface.

GSM-1 and GSM-1/485 modules work in standard GSM network.

All billing data is sent from the meter as an SMS text message which gives possibility of: (Figure 1)

- reading of metering data using mobile phone,
- reading and remote controlling by SKADEN or "Automatyczny Inkasent" systems.

GSM-1 and GSM-1/485 functions

GSM-1 and GSM-1/485 communication modules allow remote reading of billing data and remote controlling of other measuring functions. Controlling and data reading with GSM-1 and GSM-1/485 may be performed using SKADEN or "Automatyczny Inkasent" software.

Configuration of modules is performed by „Konfigurator modułów GSM” software supplied with the device.

For configuration and programming of GSM-1 and GSM-1/485 it is necessary to:

- enter PIN code of the SIM-card to activate GSM network,
- program into the module cell phone numbers, to which metering data will be transmitted from electricity meters via communication modules GSM-1 and GSM-1/485.

GSM-1 and GSM-1/485 communication modules may be configured for remote data reading using following modes:

- Readout on demand
or
- Automatic readout according to predefined schedule

Above mentioned readings may contain:

- serial number of electricity meter used for data readout,
- date and time of data readout,
- state of energy registers,
- information about events such as voltage dips or acting at the meter with strong magnetic field.

GSM-1 and GSM-1/485 communication modules give possibility of remote controlling of tariffs or power switch that can be integrated with the meter.

Note: GSM-1 and GSM-1/485 modules allow communication within GSM network of chosen operator.

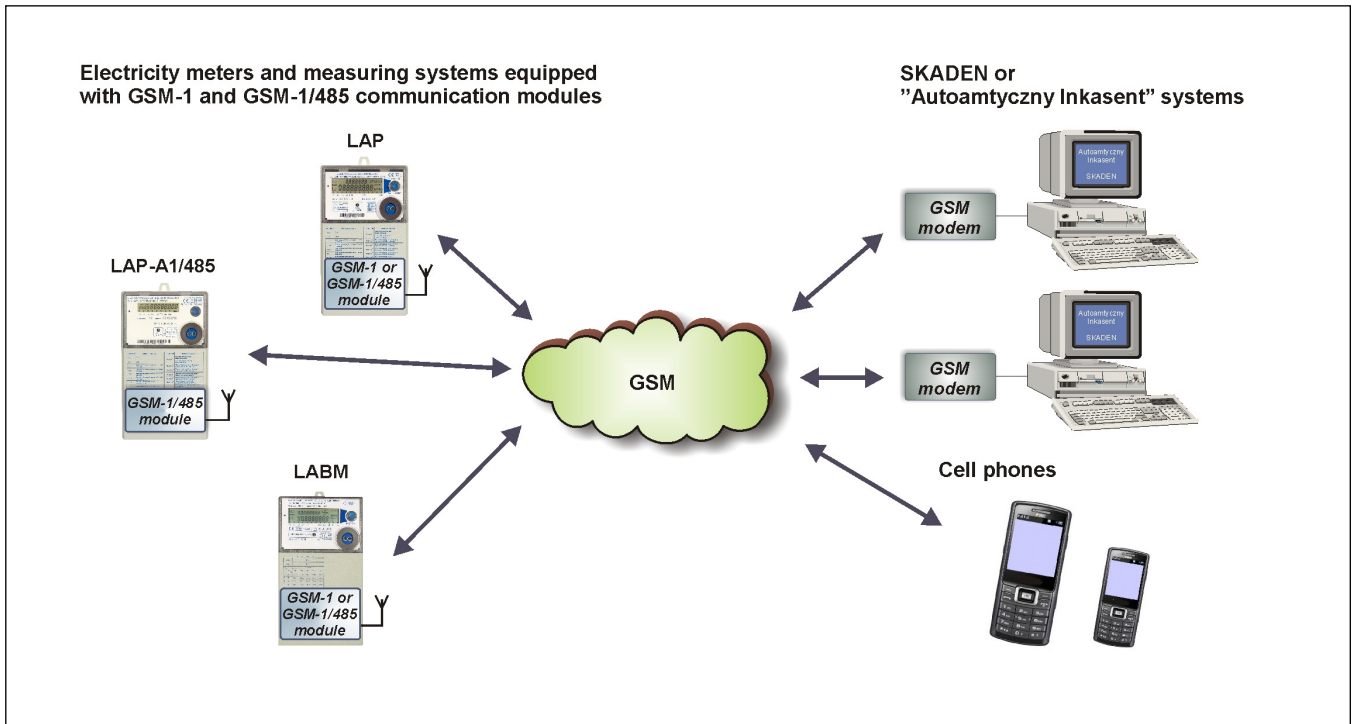


Figure 1. Schematic of data transmission from LABM, LAP and LAP-A1/485 electricity meters equipped with GSM-1 and GSM-1/485 communication modules.

GSM-1, GSM-1/485 technical data

	GSM-1 for LAP or LABM meters	GSM-1/485 for LAP-A1/485, LAP and LABM meters with RS485 communication interface
Voltage	180 V AC ÷ 265 V AC	180 V AC ÷ 265 V AC
Frequency	50 Hz	50 Hz
Maximum current consumption	50 mA	50 mA
GSM standards	E-GSM 900, DCS 1800	E-GSM 900, DCS 1800
Emission	Class 4 (2 W) – E-GSM 900 Class 1 (1 W) – DCS 1800	Class 4 (2 W) – E-GSM 900 Class 1 (1 W) – DCS 1800
SIM cards	1,8 V and 3 V	1,8 V and 3 V
Electromagnetic compatibility	PN-EN 55024:2000, PN-EN 55022:2006	PN-EN 55024:2000, PN-EN 55022:2006
Configuration interfaces	USB 2.0 (mini-B socket)	USB 2.0 (mini-B socket)
Operating temperature range	- 30 °C ÷ + 60 °C	- 30 °C ÷ + 60 °C
Dimensions (with cover of the terminal block)	130 x 138 x 73 mm or 130 x 113 x 72 mm [width/height/depth]	130 x 138 x 73 mm or 130 x 113 x 72 mm [width/height/depth]
Weight (with cover of the terminal block)	~ 0,28 kg	~ 0,28 kg

GSM-1 and GSM-1/485 communication modules are supplied with cover of the terminal block.

ALL FEATURES ARE SUBJECT TO CHANGE WITHOUT NOTICE ACCORDING TO PRODUCTS IMPROVEMENTS.