

E300

GPRS MODEM

GPRS MODEM Description

GPRS modem provides the connection between the meter to which it is connected as an external communication module and AMM Center.

GPRS modem has a built in protection from unwanted calls.

The call numbers from which communication is permitted are entered as a parameter in the modem. The modem can register five call numbers with which it is possible to communicate with the modem.

This type of protection can be controlled both remotely and locally i.e. protection can be set on or off and call numbers that are registered can be modified.

As the power is provided from the GPRS modem, normal operation of the modem is possible under the following conditions:

- Neutral conductor break prior to meter ("zero" missing)
- The crossing of the phase and neutral conductors,
- Occurrence of overvoltage
- Work in a voltage range from 50V to 275V
- Loss of one or two stages.

GPRS modem is not dependent on the number of meters of factory and replacement of an old and the installation of a new modem is a simple physical replacement whereas software in HUB / AMM Center implements the logical replacement.

After positioning GPRS modem on the counter it automatically copies meter serial number. Therefore no additional intervention is required in terms of changes to the set parameters.

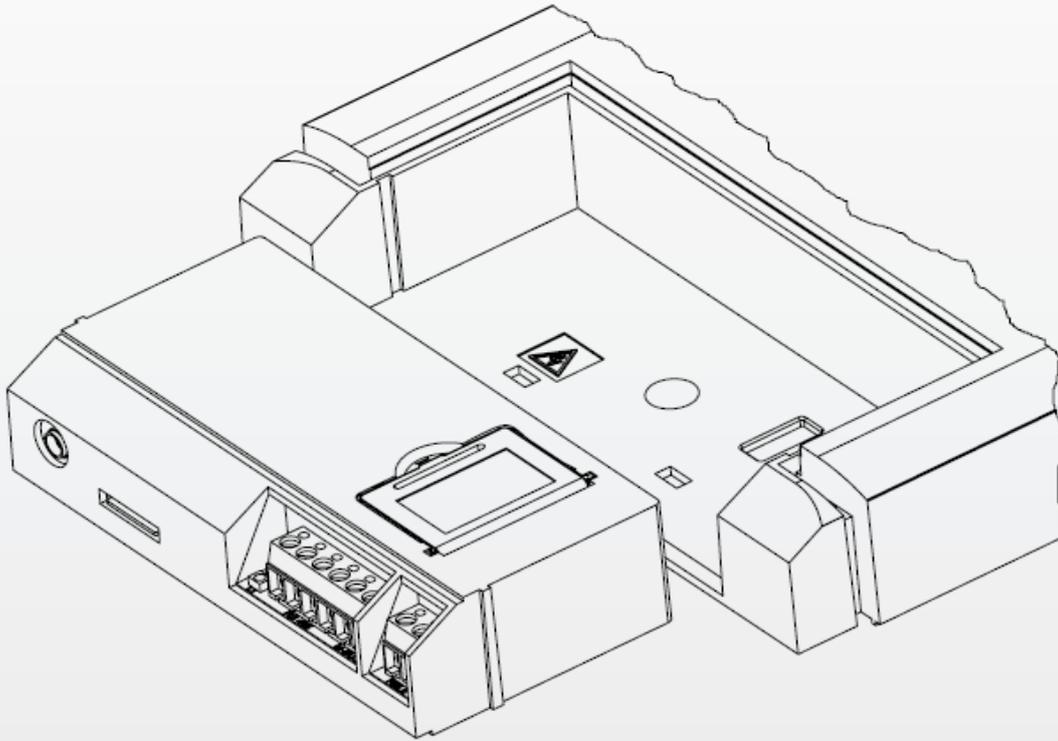
Each GPRS modem has a hardware watchdog function that resets the GPRS modem when the modem has not been active for a longer period of time.

All parameters of GPRS modems that are documented in the modem at the time of reset are retained.

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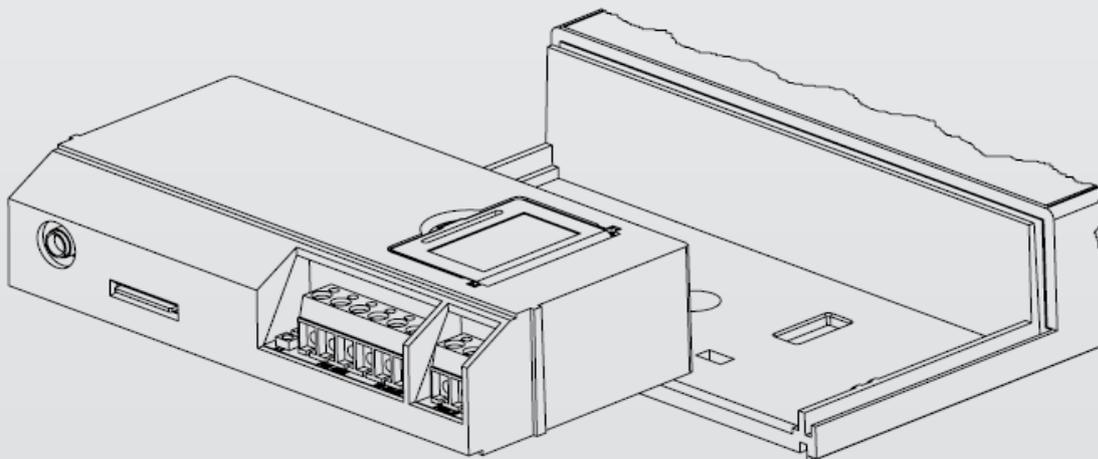


GND A B +V MB- MB+ RELE



The form of the nameplate on the modem is shown above

GPRS modem dimensions and connectors allow placement of the modem in the space provided for an external communications module counters that measure 30 x 60 x 122 mm. GPRS modem connects to the electric meter interfaces (RS-485) and the power supply according to the “PLUG IN” principle (Connector connector). GPRS modem communicates with the meter and the AMM Center according to a communication protocol defined by the standard DLMS / COSEM.



GPRS / GSM modem and the space on the meter intended for setting GPRS / GSM modem.

READING AND CONFIGURATION CHANGE GPRS MODEM

At the request of the users from AMM's Centre, based on pre-given task of the AMM of the Center, or locally via a portable computer it is possible to read and execute the change of the configuration of GPRS modem.

Local reading and change of the configuration is achieved by using appropriate software tools. GPRS modem supports AT commands (GSM 07.07,07.05 and enhanced AT commands).

BASIC TECHNICAL CHARACTERISTICS OF GPRS MODEM

1.1 GPRS MOBILE STATION CLASS: B

1.2 GPRS MULTI-SLOT CLASS: 10

1.3 Quad Band GSM/GPRS: EGSM 850 / 900 / 1800 / 1900 MHz protocol stack 3GPP

1.4 Output 1.4:

- Class 4 (2W) @ 850 / 900 MHz
- Class 1 (1W) @ 1800 / 1900 MHz

1.5 Control via AT commands according to 3GPP 27.005, 27.007 and enhanced AT commands

1.6 Power Consumption (typical values)

- Off: <62 ua
- Standby (registered, energy saving): 1.5 mA @ DRKS = 9
- Standby (registered, power, GPS hibernation): 1.55 mA @ DRKS = 9 (only GE864-GPS)

1.7 Serial port multiplexer 3GPP 27 010

1.8 After Voltage: 3.22 - 4.5 V DC (3.8 V DC nominal)

1.9 TCP / IP access via AT commands

1:10 Sensitivity

- - 107 dBm (typical) @ 850/900 MHz
- - 106 dBm (typical) @ 1800/1900 MHz

1:11 OPERATING TEMPERATURE RANGE: from -25 C to +55 C

1:12 Connector for external antenna: SMA

1:13 POSITION SIM-card holder: the outside of the modem.