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EM200Gi GSM Modem

Enermet's EM200Gi Modem is an ideal solution for wireless communications in remote reading and control of industrial electricity meters. Since the EM200Gi Modem utilises the existing GSM and GPRS communications infrastructure, no extra wiring is needed for communications.

EM200Gi makes GPRS communication available for E600 and E700 meters. TCP/IP based communication ensures easy and reliable communication with the devices. Enermet TCP/IP connection for EM200Gi is also built to secure communication in all communication levels.

EM200Gi software can be remotely updated and the communication media can also be changed from GSM to GPRS remotely. This will ensure that the user can easily utilise new applications in future.

EM200Gi in a Metering System

Thanks to the standard casing, the EM200Gi Modem can be mounted to new or already installed metering devices. The EM200Gi Modem functions as a link between the metering device and system. The information can be read from the metering device using appropriate reading software. The EM200Gi Modem can also be used with metering devices that have originally been planned for local serial communications only. This is possible, as the EM200Gi does not require extra handshaking signals or commands from the metering device.

Modem Communications

The EM200Gi Modem supports GPRS and GSM communication in the regular GSM network. The EM200Gi Modem has a standard RS-232 interface, and also two-wire current loop signaling for up to three metering devices (CS-interface), extending the communication range also to CS-meters. The communication interface type with the metering device can be changed on the field simply using a switch.

Standardised Solution

The EM200Gi Modem is fully type approved against GSM Phase 2 Specifications and naturally it fulfils the standard European requirements regarding electrical safety and electromagnetic interference.

aim
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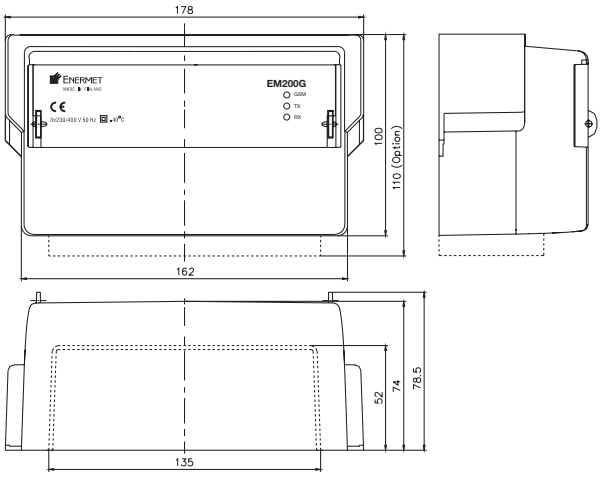
Secure Information

The SIM card is located in a slot behind the sealable cover. Thanks to this, the maintenance personnel who have the authorisation to break the seals can still easily change the SIM card. The easily accessible but sealed SIM card provides a utility both security in tamper-protection and the freedom to choose or even change the GSM operator.

Compatibility

With the EM200Gi Modem Enermet offers a comprehensive communications solution for the overall metering system. The EM200Gi Modem is directly compatible with the following items of the Enermet product range: E600 and E700 industrial meters. Regarding compatibility with other metering devices, please contact Enermet.



Easy Installation

The EM200Gi Modem is easy to install to the terminal block of electronic DIN or ERMI meters, or directly to the wall. The EM200Gi Modem does not need extra wiring for power since it can use directly the normal mains voltage. The EM200Gi can even be used to feed the mains voltage to the meter. Different supply voltage options allow the use of EM200Gi Modem also at electricity substations, without a separate power supply.

The delivery package includes the modem, a SIM card and a suitable antenna that is needed for the installation. Wiring can be carried out using slot-headed screws without any special tools.

EM200Gi Technical Specification

GSM/GPRS modem's characteristics

- Dual band GSM/GPRS modem (900/1800MHz)
  - Class 4 (2 W at 900MHz)
  - Class 1 (1 W at 1800 MHz)
- SIM-card holder: Easily accessible but tamper-proof
- Connector for antenna: Standard SMA female connector
- GSM Phase 2 Specifications: Fully type approved
- Insulation class: Double-insulated
- Installation: To a wall or terminal block of an electronic DIN or ERMI metering devices.

Local data communication

- RS-232 connection: 3 or 5 wires
- Character frames:
  - 8 data bits, none parity (default)
  - 7 data bits, even parity
  - 7 data bits, odd parity
  - 8 data bits, even parity
  - 8 data bits, odd parity
- CS current loop connection: 2 wires
- Baud rates : 2400, 9600, 14400, 19200, 38400, 57600 and 115200 bit/s

Case

- Protection class: IP20

Additional information

- Operating temperature: –20...+50 °C
- Storage temperature: –40...+70 °C
- Humidity: < 93 % RH, IEC 68-2-3
- LED indicators: GSM, RX and TX

Power supply

- Operating voltage: 100 V…230 V, -20 % ...+15 %
- Frequency: 50 Hz, ±1 Hz
- Power consumption: 5 VA

Dimensions

- Height: 100 mm
- Width: 178 mm
- Depth: 78.5 mm
- Weight: 462 g

Antenna

- Omni-directional GSM antenna with a SMA connector