



Delta Electronics SRL
Str. Aurel Persu 100C, sector 4
Bucuresti, Romania

Mobil: +40 722 373 491
office@delta-electronics.ro

Data logger for ELSTER membrane gas meters MIA-SFG-01

Destination

The MIA-SFG-01 is used for monitoring gas consumption of ELSTER membrane gas meters and remote communication. The housing of the module has been designed for direct mounting on gas meters, with sealing capability, with no need for other parts for mechanical positioning. The module has an internal pulse detector, so, the information displayed by the mechanical index of the counter as a result of gas consumption is digitally stored in the internal storage. This information is periodically transmitted remotely using Sigfox radio technology.

Why MIA-SFG-01 ?

The technical solutions adopted in design phase of module generate a lot of advantages over the remote reading methods currently used. So :

- **A modern IOT (Internet of Things) communication technology is used - SIGFOX technology** . Considering the fact that over 5-6 years GPRS technology will be abandoned, Sigfox communication will become an alternative to be considered for solving the communication in AMR domain,
- **It's a compact solution**; it has no connection elements outside the housing, so mechanical mounting and dismounting on the meter is extremely fast
- **It does not require an additional pulse interface** (e.g. IN-Z61), which reduces the cost of the solution.
- **Setup can be done on-site** using an Android application (from a mobile phone) using Near Field Communication (NFC) technology. Mounting, dismounting and configuration can also be done by the distribution company's staff after prior training



- Both **the presence of an external magnetic field** (equivalent to the "fraud" signal from the IN-Z61) and **the vibrations or modifying the position of the module** (unauthorized dismounting of the module or the meter) **are detected and signaled**
- **Extremely low power consumption**, with battery life greater than 10 years, using a 3.6V battery with a capacity of more than 10 times lower than the GPRS
- **The module can be attached to a meter in operation or can be removed from a meter to relocate** without interfering with the gas installation. This facility as well as the final cost of the solution is an advantage over the smart-meter solution.
- **Easily integrate into the software management system**, or in a software management system dedicated to this solution.

Technical specifications:

- **Communication protocol** - Sigfox
- **Frequency band** - 868 MHz band, does not require license
- **Maximum power** - 14 dBm (25 mW)
- **Dimensions**: 85 x 42 x 34 mm
- **Weight**: max 90 g
- **Degree of protection**: IP67 - certified
- **Operating temperature** -25 .. +55 °C
- **Power supply** : 1 battery 3.6V 2.4 Ah.
- **Battery life**, assuming 70% of capacity - over 12 years
- **ATEX certification** - ongoing.