

Smart AMR EMGSM1

Approved Remote Automatic Metering for Micro-Generation and the Feed In Tariff

Metering

- ⇒ MID approved
- ⇒ Measures Import and Export, Active and Reactive Energy
- ⇒ Power Quality Information - Volts, Current, Power etc.
- ⇒ GSM Signal Strength Display

GSM Communications

- ⇒ Optimised Internal Antenna
- ⇒ O2, Vodafone, Orange/Tmobile...
- ⇒ External Antenna option, where required
- ⇒ Simple SIM Swap without need for de-energising mains supply

Features

Designed specifically for the collection of micro-generation metering data, EMGSM1 provides remote collection of meter readings especially generation metering of wind, solar and any other renewable energy installations. The meter is of modular construction and allows a range of communication modules to be fitted to allow for future developments in remote metering.

The meter is a fully MID approved device and can provide functionality over and above that required for generation metering making it suitable for many other applications. Additional functionality includes Time-of-Use Rate Switching, Power Quality Recording, Active (kWh) and Reactive (kvarh) energy measurement across both import and export.

The overall solution has been designed to minimise installation time and reduce the need for return maintenance visits. An indication of the GSM signal strength is provided on the meter display and in the cases where a network resilient SIM is fitted, the number of available networks is provided. This single display allows the installer to leave site confident that the installation is fully operational with a robust communication link.



SIM Module

The SIM is installed ready for use thus saving time and effort on site. SIM exchange is simple via a holder fitted to the underside of the module. A simple Push-Push action inserts and removes the SIM. Sims are supplied using the O2, Vodafone and Orange/Tmobile networks for optimum coverage of all areas.



Meter Technical Data

Electrical

Voltage Nominal voltage 220V—240V
Maximum 276V
Voltage withstand 415V continuously
Frequency Nominal frequency 50Hz
Frequency variation $\pm 5\%$
Current Basic current (I_{ref}) 5, 10, 15 and 20A
Maximum (I_{max}) 100A

Metrology

Accuracy Active energy Class B, to EN 50470 1-3
Reactive energy Class 2, to IEC 62053 -23
Meets the essential requirements of the Measuring Instruments Directive (MID) 2004/22/EC

Environmental

Temperature Range -25°C to $+55^{\circ}\text{C}$
Ingress protection IP52, to BS EN 60529
Meters are intended for installation in a in a class E2 electromagnetic environment and Class M1 Mechanical Environment according to 2004/22/EC Directive

Physical

Terminal arrangement BS 7856
Main Terminal size 8.2 mm diameter
Terminal Construction Solid brass

Dimensions mm

182H \times 126W \times 68D

SIM Module

AMR service, remote readings for a single subscription with simple on line registration

- ⇒ One subscription covers the SIM account and data handling
- ⇒ Self registration of meters using meter number and security code
- ⇒ Accounts for multiple or single meters
- ⇒ Meter groups within accounts (buildings, projects etc)
- ⇒ Database of meter information – location FIT reference etc
- ⇒ Spreadsheet view listing all readings
- ⇒ Automatic data export
- ⇒ FIT Claim Report—Good Energy format
- ⇒ Individual meter dashboard displays with readings and various profile graphs and energy analysis
- ⇒ Instantaneous readings from meter on demand
- ⇒ Automatic email alerts—Low Generation, Missed Readings
- ⇒ Energy generated display (can used as a public display on a project)
- ⇒ Read only account password and individual customer single meter access
- ⇒ Customised version with re-sellers colours, name, logo etc
- ⇒ Ongoing improvement policy since 2005

Meter Group	Meter	Location	Meter Type	Total Reading	Reading Date	Status	Comment	Added To
Meter Group: Responder Meters UK	1.000000000	England	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	1.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	2.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	3.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	4.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	5.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	6.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	7.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	8.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	9.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12
Meter Group: South Park Industrial Estate Ring Road Industrial Area/Bedford	10.000000000	UK	Responder	000000	01/01/2012	Done		01 Nov 12

Compatible with www.meteronline.co.uk