ME372

Single-phase meter with GSM/GPRS/SMS communication for AMR and remote control

ME372 is targeted at deregulated energy markets and enables provision of an AMR and prepayment service. **ME372** is a single-phase meter intended for use in residential applications. It incorporates a fully integrated GSM modem that can be exchanged with integrated RS485 communication interface for block installations. It is a perfect combination of well-proven metering technology and state-of-the-art GSM communication modem, all integrated and sealed in the single enclosure. The integrated solution attains the same high quality and reliability of Iskraemeco meters. The meter is approved according to IEC 62052-11 and IEC 62053-21, ISO 9001, and designed according to even higher internal Iskraemeco standards, achieved in 60-year experiences of meter manufacturing and 55 million meters installed on the field worldwide.

kWh	Active power
	Single or double direction
T(4)	Multi-rate registration
🕐	Real-time clock synchronized by comm.
	Single phase
	Load profile – 1 & 2 channel
	Meter Log-book
dlms	Communicaton protocol
i²-GSM™	AMR communication: GSM, GPRS, SMS

- ■ Fully Integrated AMR communication – GSM, SMS, GPRS
- ■ AMR on demand and alarm call-backs
- ■ 'Fit and go' – simple, fast and easy installation procedure
- ■ Multi-utility AMR for gas or water meters
- ■ Power disconnection or limitation - integrated relay
- ■ DSM: local or remote load control – integrated load relay
- ■ Indication of operational status
- ■ Tamper detection

FUNCTIONAL AND TECHNICAL DATA

AMR communication – GSM/GPRS/SMS:

GSM modem is fully integrated into the meter.

Comm. frequency: multiple bands are supported: 1800 MHz, 900 MHz, 800 MHz and 1900 MHz. High performance antenna is integrated into the meter.

External antenna option:

available for installations with insufficient GSM signal.

Option for multi-sites – the meter with RS485 comm. bus: Up to 31 meters can be connected to one communication (1 km) loop.

SIM card exchange:

The SIM card can be hot-swapped and automatically registered with the service provider. The SIM connector is designed for high reliability contacting and is positioned under the meter terminal cover.

Metrological LED

– Indication of the energy flow
– Calibration of the meter

Customer interfaces

Backlit Liquid Crystal Display (LCD) for a clear and simple display of the billing registers, modem comm. statuses:

– Indication of the GSM signal level
– The modem registered with the GSM network
– GSM communication indication

Other parameters: self-diagnosis and tamper

LCD modes:

– Automatic Scroll mode
– Manual Scroll (with a blue button)

Programmable data set and sequence.
Data codification: OBIS (IEC 62056 - 61)

Alarm call-backs (self-triggered):

The meter can send alarm messages about pre-programmed events.

Alarm inputs: two signal inputs (24 V) are available for triggering alarms from external devices.

Communications:

GSM/GPRS: Integrated GSM/GPRS modem; IEC62056–46 (DLMS) protocol

SMS option: the meter can function in SMS mode using various scheduled options for outbound AMR calls.

RS485 (option): IEC62056–46 (DLMS) protocol

Opto-port (IEC 62056 – 21): IEC 62056 – 21 (IEC 61107) or IEC62056 – 46 (DLMS) protocols

Multi-utility AMR options:

M-bus communication interface for reading up to four sub-meters.

Tamper-proof features:

The meter detects the main cover and the terminal cover opening, records it in a logbook, and (optionally) triggers an alarm call.

Installation procedure:

It is a fast and easy 4-step process, consisting of the meter fitting, automatic connection check and communication verification.

Measured and recorded quantities:

Energy-active: import (A+), export (A-), and absolute IAI

Maximum Demand (Ti = programmable)

Available periods are 5, 15, 30 and 60 minutes.

Power quality parameters: power-downs, under/over voltages

Multi-rate registration:

Programmable tariff structure (1…. 4 rates), 8 daily programs, day-light saving time, 4 seasons

Real-time clock:

Accuracy: according to IEC 62052-21

Power-down back up options: Super-cap up to 10 days. Synchronization: periodically by GSM communication.

Load Profile:

Two load profile objects with 16 capture objects each.

LP period - programmable: 15, 30, 60 minutes or 1 day. Other periods on demand.

Log-book:

128 meter events with the time stamps

Meter programming: all programming modes including meter SW down-loading can be done locally (by HHU) or remotely (by GSM) under the pre-defined security level access.

Self diagnosis

The meter detects and time stamps any critical system failures and sends an alarm call via an SMS message.

Accuracy class (IEC 61036)	2 or 1
Ib (DIN. BS)	5 or 10 A
Imax (DIN)	85 A
Imax (BS)	100 A
Un	23 0 V
Voltage range	0.8 Un ... 1.15 Un
fn	50 Hz, 60 Hz
Temperature range	-25°C ... +60°C
Extended temp. range	-40°C ... +70°C
Storage temperature	-45°C ... +85°C
Self-consumption current c.	<0,5 VA
Self-consumption voltage c.	<2 W / 10 VA
Isolation voltage	4 kV, 50 Hz, 1 min
Voltage shock	12 kV, 1.2/50 µs
Short current	50 Imax
EMC: burst test (IEC 801-4)	6 kV
Optical port	IEC 62056-21
Relay (100A)	10^6 actions
Dimensions	200 x 132 x 82 mm
Mass	0.8 kg

Relay-bistable (100A):

High quality relay: 106 actions, integrated into the meter. Status detection: on/off (available by comm.)

DSM option: for load control by tariff program or remote signal. 6 A relay output is available.
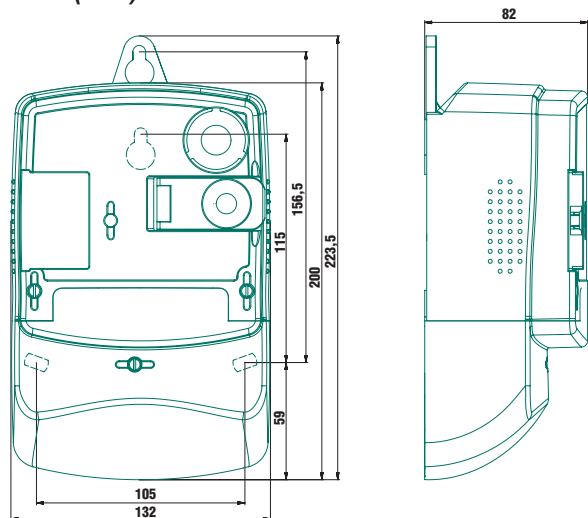
Enclosure:

Self–extinguishable polycarbonate
Protection against water and dust: IP 53

Accessories

– Meter Read CE software for local programming and data read-out
– Meter View and SMS Client for local/remote meter programming
– IR optical probe with a DB9 or an USB connector

OVERALL DIMENSIONS (mm)

Meter Online

Smart Metering Out of The Box
Fit the meters, read them via the internet.

OFGEM Approved meters with remote reading and data recording

Mobile Phone Network

Mobile technology
Smart meters use built in mobile phone technology to automatically return their readings via the telephone network.

Readings at your desktop
Meter Online brings the meter readings from the phone company's servers to your computer. No special software is needed, any PC with internet access can be used.

Automatic reporting
Your Meter Online account can be used to automatically generate monthly invoices complete with the account holders details, billing and premises address.

Management data
Meter Online manages meter groups across multiple sites and includes data export and load profile options. Simple on screen displays show energy use trends.

www.universalmeterservices.co.uk