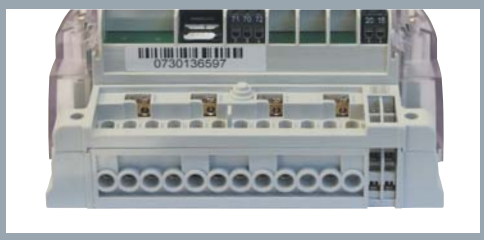
ISKRAEMECO

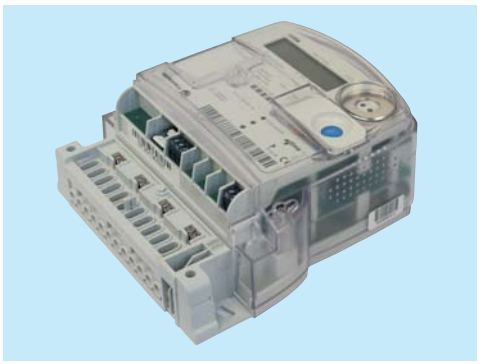
Energy Measurement and Management

MT375

Poly-phase AMR meter with GSM/SMS modem



MT375 – is targeted on deregulated energy markets and enables provision of an AMR services. **MT375** is a poly -phase meter intended for use in Commercial/Industrial and CoP5 applications. **MT375** incorporates a fully integrated, GSM/SMS modem. Integrated GSM/SMS modem can be exchanged with integrated RS485 communication interface for multi-site installations. It is a perfect combination of well-proven metering technology and state-of-the-art GSM/SMS communication modem, all integrated and sealed under a 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 on 60-year experiences of meter manufacturing and 55 million meters on the field installed worldwide.



kWh kVAh	Active/Reactive power
	Single or double direction
	CT operated meter
T(8)	Multi-rate registration
	Real-Time Clock synchronized by GSM
	Load profile – 1 & 2 channel
	Log-book
dlms	Communicaton protocol
i² - GSM™	AMR communication: GSM/SMS, GPRS

- Fully integrated GSM/SMS modem
- AMR on demand and alarm call-backs
- CoP5 compatible
- 'Fit and go' – simple, fast and easy installation procedure
- Multi-utility port for water, heat or gas meters reading
- Active/reactive, multi-rate metering
- Indication of operational statuses
- Very high EMC immunity

FUNCTIONAL AND TECHNICAL DATA

Automatic Meter Reading – GSM/SMS

– GSM modem is fully integrated into the meter
– Multiple frequency bands are supported including 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.

SIM card exchange
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.

Automatic Meter Reading – RS485

Optionally up to 31 meters with an RS485 interface can be connected to one communication (1 km) loop.

Performance indicators

Metrological LED (imp/kWh)

Illuminated: meter is powered, no load current

Pulsating: load current is higher than starting value

Not illuminated: meter is not powered

LCD indicators

Modem communications statuses:
– 3-segment GSM signal level indicator
– Modem registered with the GSM network
– GSM communication in progress

Other indicators include phase voltage presence, tamper parameters and self-diagnoses parameters.

Self-triggered alarm call-back

The meter can send alarm messages if an alarm condition exists (e.g. after power failure).

Communications

– Integrated GSM/SMS modem supporting the IEC 62056-46 (DLMS) protocol
– RS485 interface (option): IEC 62056-46 (DLMS) protocol
– Optical port (IEC 62056-21) supporting the IEC 62056-21 (former IEC 61107) or IEC 62056-46 (DLMS) protocols

Local data display (LCD)

– Automatic or manual scroll mode
– Programmable data set and sequence
– Data identification according to OBIS (IEC 62056-61)

Tamper-proof features

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

Installation procedure

Fast and easy 4-step process, consisting of meter fitting, automatic connection check and communication verification.

Measured and recorded quantities

Active/Reactive energy: import (A+), (R+), export (A-), (R-) and absolute IAI

Maximum demand (Ti = programmable)

Power quality parameters: instantaneous voltage and current, under/over voltages, power-downs and cosφ

Multi-rate registration
– Programmable tariff structure (1…. 8 rates)
– Up to 4 seasons

Real-Time Clock

– Accuracy according to IEC 62052-21
– Day-light saving scheme
– Super Cap for power down back-up (up to 10 days)
– Periodically synchronised to the GSM network

Load Profile

– One or two channels with up to 16 captured objects
– Capacity of up to 200 days at Ti = 30 min
– Programmable LP period: 15, 30, 60 minutes or 1 day (other periods on demand)

Accuracy class (IEC 6205321)	2 or 1
Nominal current In (CT connected)	5 (6) A
Nominal voltage Un	3x230/400V
Voltage range	0,8 Un ... 1,15 Un
Nominal fraquency fn	50 Hz, 60Hz
Temperature range	-25 °C ... +60 °C
Extended temperature range	-40 °C ... +70 °C
Storage temperature	-45 °C ... +85 °C
Self-consump. current circuit	<0.5 VA
Self-consump. voltage circuit	<2 W / 10 VA
Isolation voltage	4 kV, 50 Hz, 1 min
Voltage shock	12 kV, 1.2/50 µs
Short circuit current	50 Imax
EMC burst test	(IEC 801-4) 6 kV
Optical port	IEC 62056-21
Dimensions	250 x 178 x 86 mm
Mass	1.3 kg

Log-book

Up to 128 meter events with time stamps.

Meter programming

All programming modes including meter SW downloading can be done locally (by an HHU) or remotely (by GSM) under the pre-defined security level access.

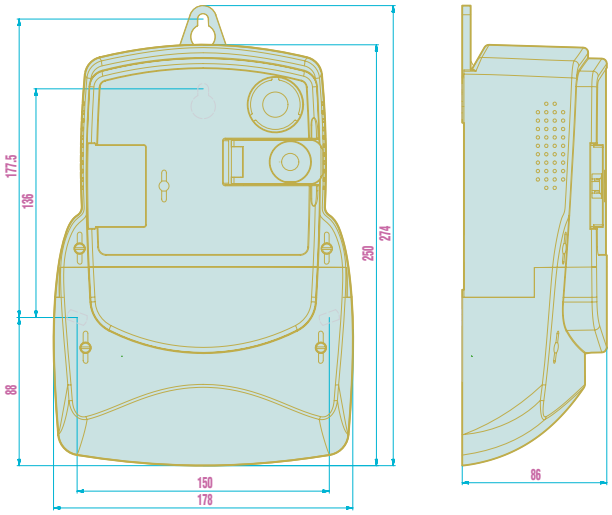
Multiutility AMR

M-bus input for reading gas, heat and water meters.

Enclosure

– Self–extinguishing polycarbonate
– IP 54 protection against water and dust

CASING DIMENSIONS



Owing to periodical improvements of our products the supplied products can differ in some details from the data stated in the prospectus material.

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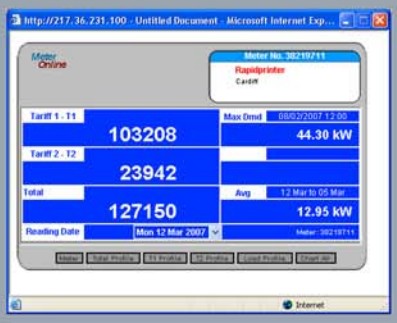
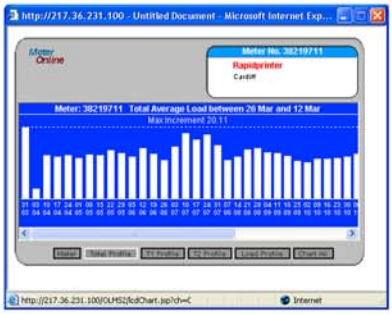
Automatic Meter Reading Service



www.meteronline.co.uk

Remote metering using web based mobile technology

Meteronline provides remote metering data to registered account holders via the Internet. Meters and loggers with integrated mobile communications technology transmit their readings via the mobile phone network. Meteronline collects this data from the mobile service providers and presents it to subscribers via the web.



- Load Profiles
- Daily, Weekly & Monthly Reading
- Automatic Billing
- Data Export
- Location Information Database
- Energy Management Displays
- Multi Tariff
- Web Browser Interface
- Easy to Use

- Online service registration
- No additional cabling or equipment needed on site
- Specialised software and commissioning not required
- Readings available at any location
- Installation by electrical contractors or meter installers