Solutions for smart energy management
Inspired by Energy

Meter&Control provides state-of-the-art hardware and software solutions for smart energy management in industrial, commercial and residential environments. Established in 2008 in Belgrade, Serbia, as an independent, limited liability company, we successfully combine innovative thinking, latest technologies, engineering expertise, continuous development, and quality excellence in all our products. The entire research, development, production and verification process takes place at our integrated facility in Belgrade.

Our broad range of products features smart electricity meters with PLC and GPRS/3G communication, data concentrators and gateways, as well as AMM/AMI software for remote meter reading and power consumption management of commercial and residential electricity customers. Our products offer versatile and custom functions, interoperability according to global standards, reliability associated with genuine European manufacturing, ease of use and attractive design.

With a successful track record and the highest industry standards and certificates, we have joined the exclusive company of few global leaders in the field of energy metering and control. Meter&Control is a reliable and flexible partner with references on global market, constantly pursuing the development of new solutions in the dynamically evolving market of smart metering.
Smart metering is in our DNA

Meter&Control has a strong background in development of smart metering technology. The company stems from an early research of PLC technology conducted at the Faculty of Electrical Engineering in Belgrade in 1980’s by a team of engineers, which was also developing software applications for remote reading of electricity meters. This team devised one of the world’s first PLC modems, thus becoming pioneers in Automatic Meter Reading (AMR) technology. Through the establishing of Meter&Control, this innovative project began its rapid portfolio development and commercial expansion.

Responding to future needs now

Our portfolio of smart metering products and services provides utilities with hardware and data required to manage energy use, anticipate demand and achieve cost-efficient, low-loss operation. It also helps end consumers to act more sustainably. Responding to current and future needs of utilities and consumers for efficient energy management, we have hands-on experience in various topologies of electricity networks and different deployments of solution topologies, seamless integration with different IT systems and data concentrators of other manufacturers, as well as in development and adaption of devices to specific requirements of distribution companies.

On top of technology

Committed to continuous improvement and serving the market with up-to-date solutions, we are consistently investing resources in four key components: standardization, quality, research&development and support. Meter&Control has a state-of-the-art R&D center, which is part of our integrated facility, where adopting and implementing new ideas and technologies, routine performance and reliability testing and internal and final verification are performed.

Meter&Control was the first private company in Serbia to become authorized body for meter verification, which operates as an independent subsidiary of the company.

Our ability to simulate real world environmental conditions and different network topologies is the key to our track record of safe operation and of bringing value to our customers. Our experienced engineers are able to develop state-of-the-art meter communication technologies and modify them to specific customer requirements in order to improve integration, overall performance and technology usage in the field. Many of our innovations and new products have been developed in close collaboration with customers, by listening and understanding their challenges and developing custom solutions for them. This customer-oriented flexibility remains to day our strongest competitive advantage we pride ourselves on.
Milestones

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<th>2008</th>
<th>2010</th>
<th>2011</th>
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<td>Meter&amp;Control is</td>
<td>Launch of the 1st generation of smart meters</td>
<td>Development and commercialization of the 2nd generation of AMI software</td>
<td>Meter&amp;Control becomes the 5th company worldwide with IDIS certificate on interoperability, positioning itself along the global leaders in the smart metering industry</td>
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<td>established in Belgrade,</td>
<td>Development of the 2nd generation of smart meters</td>
<td>Development and commercialization of the 1st generation of AMI software</td>
<td>as a privately owned, limited liability company, specializing in the development and production of smart metering technology</td>
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<td>Serbia, as a privately</td>
<td>Development and commercialization of the 2nd generation of AMI software with upgrades and new functionalities</td>
<td>Meter&amp;Control is the first private company in Serbia to become authorized body for meter verification</td>
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Our Mission

Up-to-date and reliable solutions for smart energy management through early adoption of latest technologies, rounded-up development and production process and individual approach to client demands.

Our Vision

Leading independent company in the field of smart energy management, whose solutions create added energy, financial and ecological values.

Global Standards

Our strong research and development capacities, as well as highest quality of products and services which we deliver to our customers, call for equally high level of standardization and quality management.

At Meter&Control, we recognize the strategic role of quality management systems in reaching our goals and measuring and reviewing every organizational segment's effectiveness in attaining these goals.

All processes in our company are certified by relevant Quality Management System certificates, issued by SGS Serbia:

- ISO 9001 Quality management
- ISO 14001 Environmental management
- OHSAS 18001 Occupational health and safety
- ISO/IEC 27001 Information security

Affiliation

Meter&Control is a member of the leading industry and professional associations.
While building our company by strictest standards, we have also remained flexible regardless of the project size and complexity because we know it is impossible to plan every detail in advance. With- out compromising on quality and reliability, our flexibility guarantees successful and complete realization of agreed projects.

Expertise, creativity and original thinking, continuously being in touch with latest industry trends and successful projects in international markets, constitute our knowledge and experience base in designing and manufacturing, as well as in readiness and competence for the most complex demands from our clients.

We are a trustworthy partner, right from the first contact, to our communication, our agreements, our professional solutions and completed projects. Quality of our products and services guarantees flawless operation in the long term. All our stakeholders have long-standing confidence in values which we create for them.

Our Values

Everything we strive for and create is smart in prefix and essence: from smart energy management we develop, to smart preservation of environment and natural resources we always have in mind. Our ultimate goal is to support and power smart cities and become their integral part by providing solutions for managing energy better.

At the beginning and at the end of everything we do are human beings: from people in our company who create ideas and solutions, to our clients and end consumers. We care about communities around us, about people whose lives we will improve, and about future generations who will inherit this planet and its resources.

Company profile

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<th>2016</th>
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<th>2018</th>
<th>2019</th>
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<td>Meter&amp;Control is granted the MID-D certificate of conformity</td>
<td>Development and commercialization of the 3rd generation of AMI software with expanded capabilities and functions</td>
<td>Continued deliveries to SSE in Slovakia</td>
<td>Successfully completed certification of the new PLC smart meter by G3-PLC Alliance</td>
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<td>Development of the 3rd generation of smart meters Meter&amp;Control enters the markets of Slovakia and Switzerland and expands the business to the EU</td>
<td>Launch of the new corporate identity, product design and marketing strategies for the global market</td>
<td>First delivery of a complete AMI system in Montenegro</td>
<td>Development of the 4th generation of smart meters</td>
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Meter&Control provides complete hardware and software solutions to build fully functioning AMI systems or extend and upgrade the existing ones.

The 4th generation of modular smart meters will be commercially available in 2019. The completely new platform with innovative design will allow various communication technologies to be used by easy replacement of communication modem. It will support GPRS/3G/LTE technologies, as well as G3, S-FSK and OSGP PLC. This will allow utilities to keep pace with fast transitions and evolutions of communication technologies within meter lifetime period.

Production and verification processes, EU compliance and interoperability, are approved by the following certificates:

- ISO/IEC 17020 Inspection body type C
- MID-D certificate on production quality system
- EC-type examination certificate and Certificate of Conformity
- DLMS/COSEM
- IDIS
- ITU G.9903/08-2017 (G3-PLC)
- IEC 62052-11
- IEC 62053-21
- EN 50470-1,3
- IEC 62055-31

For complete product portfolio and detailed specifications, please see our product sheets or visit www.meterandcontrol.com
Integrated smart meters

Sx40y is the series of three-phase and single-phase smart meters designed for measurement of electrical energy of residential, commercial and industrial consumers, with integrated communication and switching modules for remote reading and power management via PLC data concentrator (Sx401), GPRS/3G network (Sx402) or via RS485 port (Sx405). Sx405 meters are also available as modular devices. Single-phase meters are available in direct grid connection, while three-phase meters are available in both direct and CT connection. All functions are compliant with the following specifications and standards: IDIS (Sx401), DLMS/COSEM, IEC 62052-11, IEC 62053-21/22/23, EN 50470-1/3 (MID), ITU G.9903/08-2017 (G3-PLC), and M-Bus.

Key features

- Measurement of electrical values
- Integrated PLC or GPRS/3G modem and switching device
- Internal real-time clock with DST
- Flexible tariff policy with up to 4 tariffs
- Maximum demand
- Optical port
- MID certificate
- DLMS/COSEM
- IDIS interoperability (Sx401)
- Fraud detection
- No-power reading and parameterization
- Billing profile
- Fraud profile
- Load profiles
- Power limit
- Code red
- Event logs
- Measurement of energy quality
- Firmware update
- Functional inputs / outputs
- M-Bus port for G, W, H meters reading (Wireless M-Bus on demand)
- Optionally additional RS485 for one way communication instead of M-Bus port (Sx402)
- Support for in-home customer display
- Data security
Product overview

Modular smart meters
Three-phase modular meters with plug-in communication and switching modules

ST100 and ST310 are three-phase modular meters designed for measurement of electrical energy in households, with direct grid connection. ST300 and ST310 are aimed for measuring active and reactive electrical energy of commercial and industrial customers, with direct, CT or CT/VT connection. AMI system integration is achieved by simply connecting optional plug-in communication module (PLC or GPRS/3G) and M-Bus-standard switching module. Both plug-in modules are mounted under protective terminal cover. All functions are compliant with the following standards: IEC 62052-11, IEC 62053-21/22/23, EN 50470-1/3 (MID), M-Bus and DLMS/COSEM.

Key features

- Measurement of active and reactive energy
- Integrated Real-time clock with DST
- Flexible tariff policy with up to 4 tariffs
- Maximum demand
- RS485 port
- Optical port
- MID certificate
- DLMS/COSEM
- Fraud detection
- No-power reading and parametrization
- Billing profile / profiles
- Load profiles
- Power limit
- Code red
- Event logs
- Measurement of energy quality
- Firmware update
- Functional inputs / outputs
- M-Bus port for G, W, H meters reading (Wireless M-Bus on demand)
- Support for in-home customer display
- Data security

ST100
Modular meter for households

ST300
Modular meter for commercial and industrial consumers

ST310
Modular meter for households, commercial and industrial consumers
Communication and switching modules

Plug-in communication and switching modules for easy AMI system integration of modular meters

CM1yS and CM2yS are plug-in communication modules designed for installation in modular smart meters. They provide data exchange between electricity meters and data concentrators (CM1yS) over low-voltage network (S-FSK or G3-PLC) or direct communication of meters with AMI center (CM2yS) over GPRS/3G network. Communication modules are simply mounted under the terminal cover and use RS485 port for communication with meter. Meters with installed communication modules are ready for integration into AMI systems and are compliant with IEC 62052-11 and IEC 62053-21. All modules support DLMS/COSEM protocol. CM23E is transparent, which allows communication with meters supporting both DLMS and IEC 62056-21 mode C protocols.

Key features

- Auto-configuration according to the parameters stored in meters
- Automatic recovery
- RS485 port for communication with meter
- Additional port for connecting to RS485 bus (for meters which communicate via GPRS/3G network)
- Channel for communication with AMI center
- Visual communication LED
- Call identification
- Data protection
- Independent power supply
- Plug-in

SD30S
Switching module

SD30S is a three-phase switching device which enables remote disconnecting/connecting of end consumers. SD30S is easily mounted on direct modular meters as a plug-in module via M-Bus interface port under the terminal cover. SD30S is compliant with IEC 62055-31 and UC3 standards.

Key features

- Current interruption
- Easy installation onto the meter
- Meter connection port
- Autonomous power supply
- Long exploitation life
CODA11 data concentrator provides communication between AMI center and electricity meters. Communication between concentrator and electricity meters is carried over PLC network (S-FSK or G3-PLC). Communication between concentrator and AMI center is carried over GPRS/3G network or Ethernet port using TCP/IP protocol. CODA11 provides reading, parameterization and management of meters, either automatically by a pre-defined schedule, or on request of the AMI center. Collected data is stored in the concentrator’s permanent memory and forwarded to the AMI center. CODA11 automatically detects newly installed meters on the PLC network and maintains the list of active meters. Concentrator is equipped with ports for local communication with meters, as well as for communication with external devices.

Key features

- PLC (S-FSK or G3-PLC) channel for communication with meters
- GPRS/3G channel for communication with AMI center
- USB port for communication with an external device
- Ethernet port for communication with AMI center or local access
- RS485 port for local communication with meters and external devices
- RS232 port for communication with an external device
- Plug&Play
- Storing data in permanent memory
- Working with up to 1,024 meters
- Remote monitoring and control of the operation of the concentrator
- Automatic communication with meters by pre-defined schedule
- Communication with meters upon request from AMI center
- Firmware update
- Security
- Visual indication
- Automatic recovery
- Internal Real-Time Clock
Product overview

AMI software

HES software for remote AMI system reading, parametrization, and load management

COMET is advanced AMI software designed for remote reading, parameterization and management of AMI devices: electronic meters, data concentrators and communication modules. AMI functions can be executed automatically, by pre-scheduling, or on operator's request. Depending on the access rights, the operator can create reports, administer complete AMI system and manage work orders for installation and maintenance. COMET processes and stores collected data in database. Complete history of communication with AMI devices and actions executed by the operator is also stored. COMET supports third-party meters and uses web service interface, DLMS/COSEM and IP protocols to communicate with AMI devices. It also provides web service interface to other business applications, such as MDM, Billing, CRM, SAP, GIS and others. AMI center software consists of web service applications, relation databases and data exchange service. Operators access AMI center software through the web service applications using standard web browsers.

Key Features

- Administration
- Data collecting
- Data storing
- Parameterization
- Management
- Work orders management
- Reports
- History
- Predefined schedule operation
- On-demand operation
- Interface to AMI devices
- Interface to business applications
- Interoperability
- Security
- Scalability

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