Solutions for smart energy management

2021

Company Profile
Product Overview

METER&CONTROL

2008

Meter&Control is established in Belgrade, Serbia, as a privately owned, limited liability company, specializing in the development and production of smart metering technology

2010

Launch of the 1st generation of smart meters

Development of the 2nd generation of smart meters

Development and commercialization of the 1st generation of AMI software

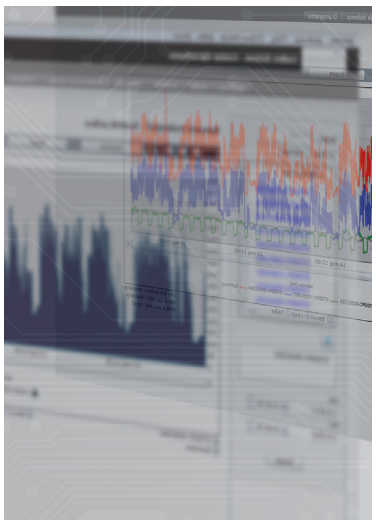
2011

Development and commercialization of the 2nd generation of AMI software with upgrades and new functionalities

Meter&Control is the first private company in Serbia to become authorized body for meter verification

2014

Meter&Control becomes the 5th company worldwide with IDIS certificate on interoperability, positioning itself along the global leaders in the smart metering industry



Inspired by Energy

Meter&Control develops and manufactures state-of-the-art hardware and software solutions for smart energy management in industrial, commercial and residential environments. Established in 2008 in 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 AMI devices and software features smart electricity meters with PLC and GPRS/3G/LTE 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.

Working closely with customers in order to understand their specific challenges is the key to our track record of safe operation and of delivering added value in all our solutions. This customer-oriented flexibility remains our strongest competitive advantage we pride ourselves on.

2016

Meter&Control is granted the MID-D certificate of conformity

Development of the 3rd generation of smart meters

Meter&Control enters the markets of Slovakia and Switzerland and expands the business to the EU

2017

Development and commercialization of the 3rd generation of AMI software with expanded capabilities and functions

Launch of the new corporate identity, product design and marketing strategies for the global market

2018

Continued deliveries to SSE in Slovakia

First delivery of a complete AMI system in Montenegro

2019

Development of the 4th generation of smart meters

Successfully completed certification of the new PLC smart meter by G3-PLC Alliance

Successful IDIS Package 2 certification

Smart metering is in our DNA

Meter&Control has a long background in 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 who devised one of the world's first PLC modems, thus becoming pioneers in Automatic Meter Reading technology. Through the establishing of Meter&Control, this innovative project began its rapid commercial expansion followed by development of smart metering portfolio.

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, seamless integration with other manufacturers in diverse networks, 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, part of our integrated facility, which includes adopting and implementing new ideas and technologies, simulating real world environmental conditions and different network topologies, routine performance and reliability testing and internal and final verification.
Meter&Control was the first private company in Serbia to become authorized body for meter verification. The verification department operates as an independent subsidiary of the company offering services to third parties.

Aligned with global standards

At Meter&Control, we recognize the strategic role of quality management systems in reaching our goals and we rigorously apply them to measure and review every organizational segment's effectiveness in attaining these goals. All processes in our company are certified by relevant Quality Management System certificates.

Corporate values

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

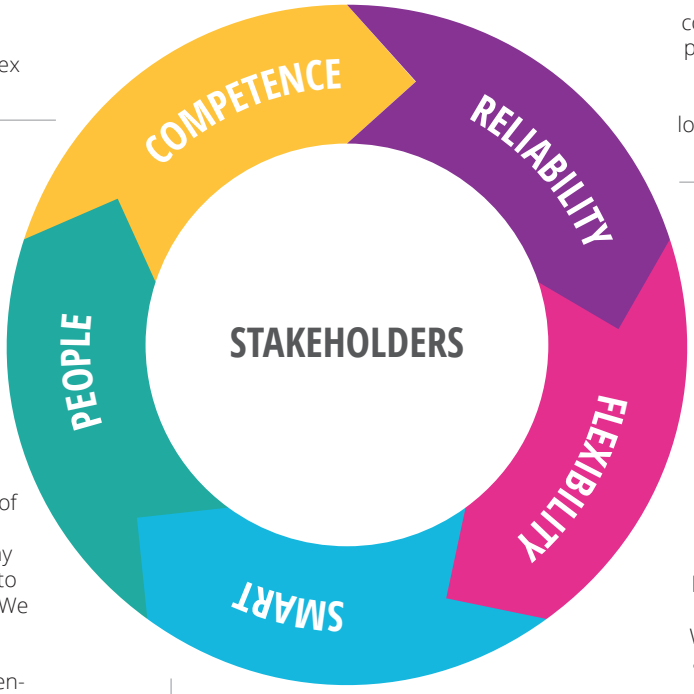
Leading independent company in the field of smart energy management, whose solutions create added energy, financial and ecological values.

Affiliation

Meter&Control is a member of the leading industry and professional associations in Serbia and globally.

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.



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.

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. Without compromising on quality and reliability, our flexibility guarantees successful and complete realization of agreed projects.

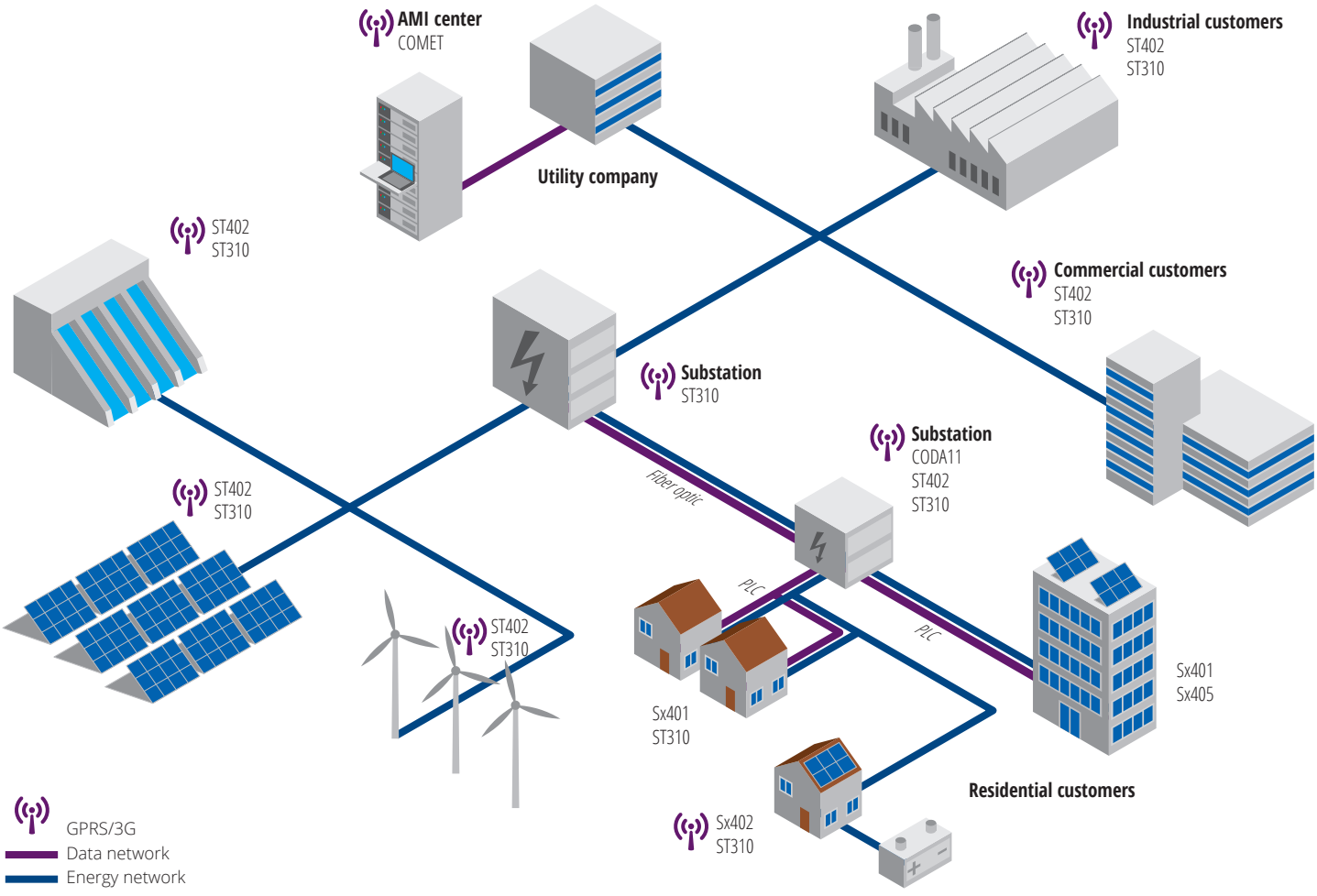
Everything we strive for and create is smart in prefix and essence: from smart energy management we develop, to smart preservation of environment and natural resources we always have in mind. Our ultimate goal is to support and power smart cities and become their integral part by providing solutions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

Product overview

Complete hardware and software solutions for AMI systems

Production and verification processes, EU compliance and interoperability, are approved by a number of industry leading standards and certificates:

- ISO/IEC 17020 Inspection body type C
- MID-D certificate on production quality system
- EU-type examination certificate (MID B)
- METAS MID B certificate issued by Swiss Federal Bureau of Metrology
- Type test reports issued by NMi Laboratories, The Netherlands
- SPODES certificate and conformance with relevant GOST standards, Russia
- DLMS/COSEM
- IDIS
- ITU G.9903/08-2017 (G3-PLC)
- IEC 62052-11
- IEC 62053-21
- IEC 62053-23
- EN 50470-1,3
- IEC 62055-31
- IEC 60529
- EU Directive 2014/32/EU (MID B+D)



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

NEW PRODUCTS

New generation smart meters

Expanded platform allows new communication technologies, extended functions and more DSO and user features

Sx401 G3-PLC
Integrated G3-PLC modem and switching device

Sx402 S
Integrated GPRS/3G/LTE modem and switching device

Sx405D
RS485 port, switching device and prepaid option

IDIS 2DLM Reg No: 0052 dlms G3-PLC CERTIFIED CEN A

New-generation three-phase and single-phase integrated smart meters designed for measurement of active and reactive electrical energy of residential, commercial and industrial consumers / prosumers with communication and switching modules. Wide range of measurement values including power quality data in combination with large capacity of load profiles makes these meters a key tool for utilities for making insight in overall condition of power supply network. With integrated modem (G3-PLC or 2G/3G/LTE), switching device and variety of additional interfaces available as option makes this meter suitable for smart home system implementations at residential consumers as well as data collection hub in MV/LV substations. Optional support for prepaid over GPRS makes this meter applicable in diverse DSO environments.

Key features

- Integrated G3-PLC or 2G/3G/LTE modem or RS485 port
- Integrated switching device
- Flexible tariff policy with up to 8 tariffs
- 230 V/50 Hz or 110 V/60 Hz supported
- Prepaid/postpaid modes supported
- Variety of additional input/output options available on demand (relays, pulse outputs, inputs e.a.)
- 2 RS485 ports for communication on RS485 bus and with IHD
- IDIS 2 certified
- MID certificate
- DLMS/COSEM
- High level data security
- Wired / optionally wireless M-Bus for communication with G/W/H meters
- Measurement of electrical values
- Measurement of energy quality
- Internal real-time clock with DST
- Maximum demand
- Fraud detection
- No-power reading and parameterization
- Billing and load profiles
- Power limit
- Firmware update

Integrated smart meters

Three-phase and single-phase smart meters with integrated communication modem and switching device

SM401/ST401
Integrated PLC (S-FSK) modem and switching device

SM402/ST402
Integrated GPRS/3G/LTE modem and switching device

SM405/ST405
RS485 communication port and switching device

IDIS 1DLM
Reg No: 0015
Reg No: 0018

dlms

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 (S-FSK) data concentrator (Sx401), GPRS/3G/LTE network (Sx402) or 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 also available in CT connection. All functions are compliant with the following specifications and standards: IDIS (Sx401), DLMS/COSEM, Swiss METAS 213N01, IEC 62052-11, IEC 62053-21/22/23, EN 50470-1/3 (MID) and M-Bus.

Key features

- Measurement of electrical values
- Integrated PLC (S-FSK) 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
- 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

Modular smart meters

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

ST310
Modular meter for households, commercial and industrial consumers

ST310 is modular three phase smart meter with exchangeable communication and switching modules. Wide range of measurement values, different options of grid connection (direct, CT or CT/VT) makes ST310 suitable in residential, commercial and industrial applications. Exchangeable communication module offers variety of communication options (PLC or GPRS/3G). AMI system integration is achieved by simply connecting optional plug-in communication module and M-Bus-standard switching module under meter 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

Communication and switching modules

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

CM13S/CM14S
PLC modules with G3-PLC or S-FSK protocol

CM23S/CM24S
GPRS/3G modules for direct communication with AMI center

CM23E
External transparent GPRS module

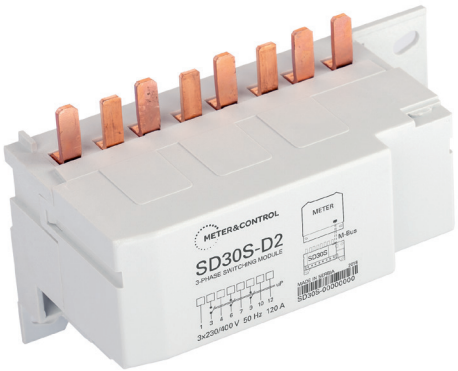
CM1yS and CM2yS are plug-in communication modules which provide data exchange between electricity meters and data concentrators (CM1yS) over low-voltage network (G3-PLC or S-FSK) or direct communication of meters with AMI center (CM2yS) over GPRS/3G network. Communication modules are simply mounted under the terminal cover and use RS485 port for communication with meter. Modems are compatible with ST310 meter. After installation, additional parametrization of modem is not required because it automatically reads communication parameters from ST310 meter once it is connected.

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 newtork)
- 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.

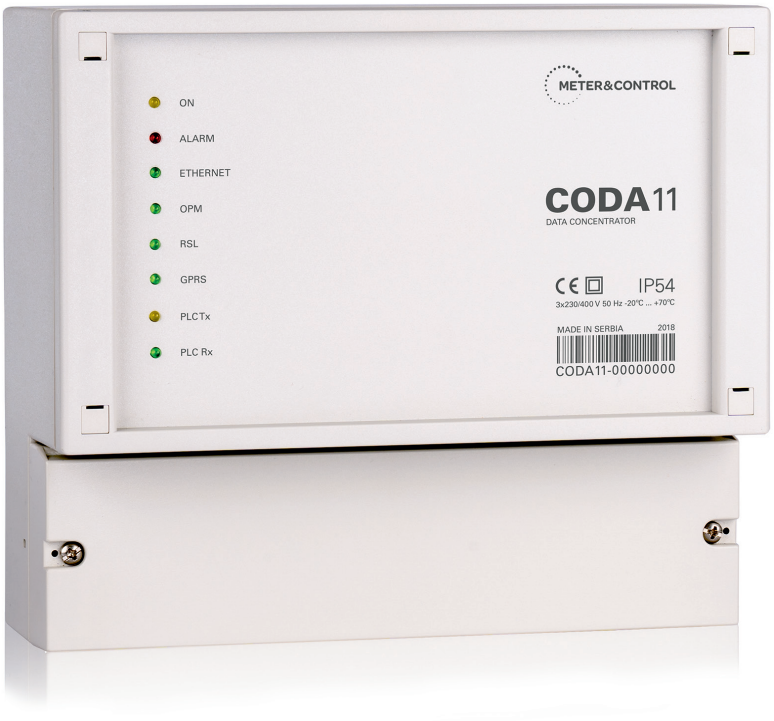


Key features

- Current interruption up to 120 A
- Easy installation onto the meter
- Autonomous power supply
- Long exploitation life

Data concentrators

Data concentrators for communication between smart meters and AMI center



CODA 11
Data concentrator

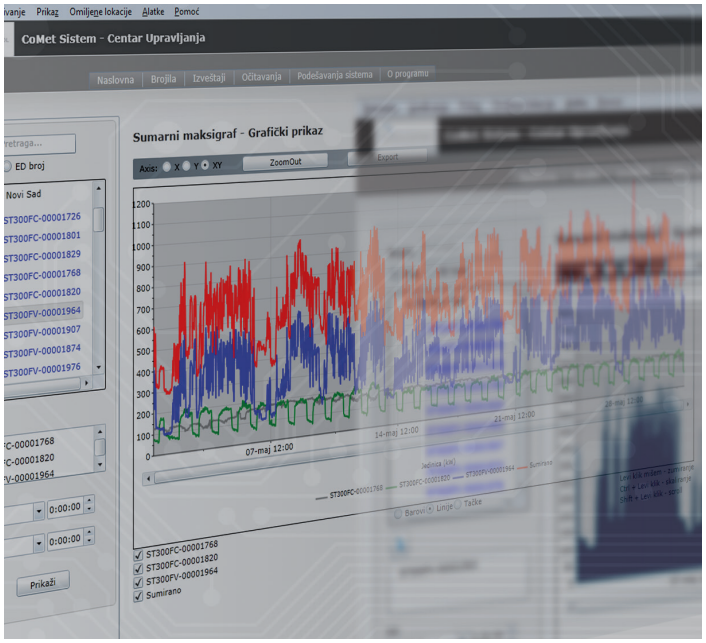
CODA11 data concentrator provides communication between AMI center and electricity meters. Communication between concentrator and electricity meters is carried over PLC network (G3-PLC or S-FSK). Communication between concentrator and AMI center is carried over GPRS/3G network or Ethernet port using TCP/IP protocol. CODA11 provides reading, parameterization and management of meters, either automatically by a pre-de-fined 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 (G3-PLC or S-FSK) 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
- Data security, including encryption
- Visual indication
- Automatic recovery
- Internal Real-Time Clock

AMI software

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



COMET
AMI center software

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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