Electricity Meters
Grid metering

Landis+Gyr
manage energy better

Electricity Meter

Landis+Gyr E850

ZMQ200

Increased revenue through high accuracy and tailored grid functions

E850

BENEFITS

Landis+Gyr E850 *(ZMQ200)* is our latest high precision meter for all grid metering applications and provides increased cost-effectiveness and process efficiency in the metering of large energy quantities.

With its excellent measuring capabilities, exceptional precision, and reliability, you are equipped for both simple and complex metering applications. Additionally, this meter also provides a future oriented communication protocol, while offering complete compatibility with pre-installed metering equipment.

No-one can tell what the market will require tomorrow. A precision meter with tailored functionalities and independent communication channels for future demands helps to increase your revenue.

- Highest accuracy under all operational conditions
- Flexible software configuration for every application
- Three independent communication channels for different users
- Power quality values for grid application needs

Application

- Generation, transmission, substation grid connected I&C consumers Class 0.2S / 0.5S active, 0.5 / 1 reactive
- For all networks, voltages and currents

Interfaces/Communication

- Up to eight transmitting contacts and three independent communication channels, DLMS protocol

Innovation for greater competitiveness

A high-precision meter for production and transmission applications, as well as the facilities of major consumers. These meters should deliver precision, long-term stability and reliability. We deliver a metering system with the highest resolution and measuring dynamics, and a profile memory with short capture periods. Our meter sets new standards delivering functionality that meets the highest demands for high-precision metering.

Basic Functionality

Measurement	Nominal current 1A or 5A set by parameterization for Cl.0.2S
	Highly stable immune measuring processing
	Transmitting contacts
Power Supply	3-phase from measuring-circuit voltage and additional power supply
Recording	Two independent profiles
	8 Mbyte memory for profiles and status
	8/16/36 measurement channels with total registers
	24 energy registers for tariffs
	41 diagnostic registers
	Event log
	Monthly and daily profiles for indicies
Feature	Real-time clock with power reserve
	Easy adaption to primary values
	Power quality values (dips und THD) Instantaneous voltage and current values
	Optical interface according to IEC62056
	Backlit display
Housing	Wall mount f6
	Rack mount f9 with Essailec connector covers all mounting needs e.g. Cabinets and panels

Configuration

		C.4	C.6	C.8
Application	Transformer-operated meter for voltage and current transformer connection	■	■	■
	Special version for direct voltage connvection			
Measuring accuracy	Active energy, class 0,2S	■	■	■
	Active energy, class 0,5S	■	■	■
	Reactive energy, class 0,5, 1	■	■	■
Communication	Integrated RS485 interface with DMLS-protocol	■	■	■
Software Configuration Parameters	Energy profiles (original meter values)	■	■	■
	Time-of-use (TOU)	■	■	■
	Operating events and alarms	■	■	■
	Voltage and current monitoring	■	■	■
	Unsymmetrie for current and voltage	■	■	■
	Line and transformer loss measurement		■	■
	Voltage dip table	■	■	■
	Total harmonic distortion THD		■	■
	Tariff control	■	■	■
	CT/VT error correction	■	■	■
	Bypass feeder operation	■	■	■
	Delta values	■	■	■
	Average demand, Pmax			■
	Apparent energy measurement, power factor			■
	Single-phase energy measurement			■
	Status contacts (optional) - Integration period	■	■	■
	- Power threshold		■	■

Selectable Communication

	B4	E22	G32	M22	P32
RS232 Interface	■				
RS485 Interface	■	■	■	■	■
PSTN-Modem				■	
GSM-Modem			■		
Ethernet TCP/IP		■			
GSM / GPRS-Modul					■

Communication

Only reliable, total availability of precisely measured data provides the prerequisites for an efficient data processing and billing process. In order to meet your communication needs both now and in the future, the meter features the DLMS protocol. This protocol provides transmission of original meter values to the central station (according to STOM method). With the integrated RS485 interface a direct link to other meters is possible without the use of a communication unit. A module is only required for communication with the central station.

All necessary communication applications are covered by a small number of units. This modularity also offers you full freedom of choice for deploying new technologies.

Communication unit Q22
The combination ZMQ and Q22 allows three completely independent communication channels with RS485. With Q22 you can serve a broad range of communication possibilities. The unit allows access to meter data from three independet central station at the same time.

Additional registers allow you to provide a large selection of measured quantities adding value to your service. Diagnostic values with threshold registers allow for a comprehensive analysis of the supply. Operational irregularities are also detected, stored, and transmitted. Enhanced operating and installation support simplifies the installation and service.

Our meter provides important functions for measurement in high voltage networks. These include alarms and operating messages for network monitoring and additional power supply for remote meter reading when the measuring circuit voltage is off.

Additional Functionality

Measured Quantities	■ Instantaneous values for voltage, current, phase angle, power fator (all phases), frequency ■ THD as a percentage or kWh of active energy
Network monitoring	■ Alarm indication with alarm contact ■ Operating indication with phase failure and current without voltage in individual phases ■ Self-test function ■ Regular testing of all memories ■ Voltage, current and Power as 1s-Values ■ Frequency Demand supervision
Additional power supply	■ Special operating mode for low loading of instrument transformer lines ■ Status information if additional supply is present

Software Tools

MAP 120	■ Database for parameterization files for an engineering department
MAP 110	■ Installation support ■ Primary data adaption ■ Meter data readout ■ Load profile analysis ■ DIP table visualisation ■ Communication settings ■ MAP 110 configures all settings at the metering point

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Landis+Gyr is the leading global provider of integrated energy management products tailored to energy company needs and unique in its ability to deliver true end-to-end advanced metering solutions. Today, the Company offers the broadest portfolio of products and services in the electricity metering industry, and is paving the way for the next generation of smart grid.

Landis+Gyr, an independent growth platform of the Toshiba Corporation (TKY:6502) and 40% owned by the Innovation Network Corporation of Japan, operates in 30 countries across five continents, and employs 5,000 people with the sole mission of helping the world manage energy better.

More information is available at www.landisgyr.com.

Landis+Gyr in short

- 5000 employees worldwide
- Operations on all five continents
- Broadest portfolio of products and services in the industry
- 25 years of smart metering experience
- 1000 AMM systems delivered
- 300 million energy meters produced
- Largest relevant engineering capacity in the industry
- 65 years of direct load management experience
- 15 million load management receivers produced
- ISO certified for quality and environmental processes
- World leader in integrated energy management solutions
- Committed to improved energy efficiency and environmental conservation
- Solid and established partner network

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