



Electricity Meter
Landis+Gyr E550
ZMG300/400

The optimal metering solution for
harsh environments

E550

The E550 is a four quadrant active/reactive industrial and commercial entry level meter family with two load profiles, a comprehensive feature set and all applicable connection types. It is especially designed for harsh environments. A combination of anti-tampering functionalities and the state-of-the-art communication interface will maximize your revenue and assure you peace of mind. The meter allows you to monitor the network and power quality metrics.

Application

Industrial and commercial 3 PH direct and transformer connected, current range 5(125)A, 5(10)A, 1(6)A, class 0.5s, 1 (IEC) or C, B (MID), advanced anti-tampering events

Rate control

Externally and internally switched (TOU, CI's, Comm's), MD, stored values, load profiles

Interfaces/modularity

Optical, 2 independant integrated interfaces, support of IEC62056-21 and DLMS (short and logical names), GSM/GPRS modem under terminal cover.

SMART BENEFITS

Extensive feature set and innovative Swiss design

The E550 robust design and a broad range of innovative anti-tampering features significantly minimize the risk of energy theft. With this non-technical loss solution, we offer you peace of mind.



Basic Functionality

Quality and Safety: The extensive basic functionality meets all major IEC and MID standards applicable to the respective requirements.

Electronics	Wide voltage power supply Large LCD display Backlit display Utility sealed reset button Optical interface (IEC62056) Optical button for the display Optical test output
Recording	Max. 48 energy registers 24 demand registers Tariff control external or internal timeswitch Load profile Historical billing value registers 7 operating time registers Event log
Functions	Installation support on display Set mode via buttons Real-time clock with power reserve Instantaneous voltage, current and power values Voltage monitoring Current and power indication Remote control of output contacts
Housing	Glass fiber reinforced, antistatic Crystal clear, unbreakable windows Wiring diagram on faceplate or under terminal cover Battery compartment under utility seal
Communication	IEC62056-21 and DLMS DLMS with short and logical names

Configuration E550

The Landis+Gyr E550 meter is the right answer to your specific needs, covering applications in commercial and industrial field. With the new E55C modems it gives you a state of the art and cost effective solution for AMR.

E550		ZMG405C	ZMG410C	ZMG310C	ZMG410A	ZMG310A
Application	High voltage	■	■	■	■	■
	Medium voltage	■	■	■	■	■
	Low voltage	■	■	■	■	■
Connection Type	Transf. connection	■	■	■	■	■
	Direct connection	■	■	■	■	■
Metering accuracy *active/reactive	Class C (0.5)/1.0	■	■	■	■	■
	Class B (1.0)/2.0	■	■	■	■	■
Energy Type	Active energy	■	■	■	■	■
	Reactive energy	■	■	■	■	■
	Apparent energy	■	■	■	■	■

Communication Interfaces

The maximum communication speed of the RS232/RS485/RS422, powered RS232 and optical interfaces have been increased to 38,400 bps and 19,200 bps, respectively.

Additionally, extended modem support is available for RS232, including initialisation, periodic reset, etc.

		00	02	03	40	42	43	60	62	63	07	37
Interface 1	without	■	■	■	■	■	■	■	■	■	■	■
	RS232	■	■	■	■	■	■	■	■	■	■	■
	RS485	■	■	■	■	■	■	■	■	■	■	■
	Powered RS232	■	■	■	■	■	■	■	■	■	■	■
Interface 2	without	■	■	■	■	■	■	■	■	■	■	■
	CS	■	■	■	■	■	■	■	■	■	■	■
	RS485	■	■	■	■	■	■	■	■	■	■	■
	RS422	■	■	■	■	■	■	■	■	■	■	■

Additional Functionality

Tariff functions	Average demand
	Switching tables (active and passive TOU)
	Mixed control with programmable matrix Remote real time tariff control
Measured Values	Power factor
	Instantaneous values for current voltage, power, phase angle, frequency, power factor
Recording	2 power factor registers
	2 nd load profile for diagnostic purposes
Special functions	Monitoring for power, current, power factor
	Losses calculation
Fraud detection	Distortion level calculation
	Hardware and software Per phase Ah measurement
Event detection and recording	Standard
	Fraud detection (DC magnet, terminal and front cover detection)
	Network quality
	Power quality
Access protection	On all security levels and interfaces

Software Tools

MAP 120	Parameterisation
	Matching to primary data
MAP 110	Installation support
	Meter data readout
	Load profile analysis
	Display of event log (fraud detection, network quality, power, standard)
	Settings for communications
	Security system visualisation

Communication with E55C

The E550 meter supports now the E55C module portfolio. The first member provides an innovative and price effective solution for AMR applications using GSM/GPRS network.

The new Landis+Gyr E550 four quadrant load profiling meters offer you substantially increased protection against meter manipulation and data access by unauthorised persons. Improved installation support is integrated into the meters.

- This new meter range has high immunity against strong magnet fields and records manipulation attempts and opening of the meter housing or terminal cover.
- The meters recognise and record not only all these events, but differentiate between fraud detection, network quality, power quality and general events.
- The meter data can be read out from the display or the optical interface without power connection.
- To prevent unauthorised data access, the number of communication attempts using the wrong password is limited.
- The installation support has been improved. The terminals have visual separation of the individual phases.
- On the Landis+Gyr E550 (ZMG400), the voltage inputs are recognisable by the recessed upper section of the terminal entry. The display also shows whether voltage and phase current are present immediately after connection.
- Communication with new E55C module portfolio and with external modems (PSTN, GSM, GPRS, etc) is well supported thanks to the smart RS232 and DLMS-Cosem Protocol (short and logical names).

Manage energy better

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
- 25 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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