Single phase metering products for
advanced energy measurement applications

Residential Metering

Landis+Gyr
manage energy better

Cutting Edge Technology

Landis+Gyr brings more than 100 years of meter design and development expertise to deliver reliable, state-of-the art products for the future. Landis+Gyr delivers solid-state platforms designed for integrated communications to meet today's demanding standards for residential metering applications.

Landis+Gyr's objective is to be the supplier of choice for residential and advanced metering solutions. The FOCUS® family of metering products provides the utility industry with an economical, quality, solid-state meter platform that excels in advanced metering applications.

All FOCUS meters feature a single circuit board design mounted at the front of the meter to allow room for modular AMI communications or a KYZ option output board. Fewer parts and connectors throughout the board design increase reliability and contribute to better overall endpoint performance. Highly accurate load performance and the use of a field-proven Digital Multiplication Measurement Technique ensure reliability and dependability during the entire life of the meter.
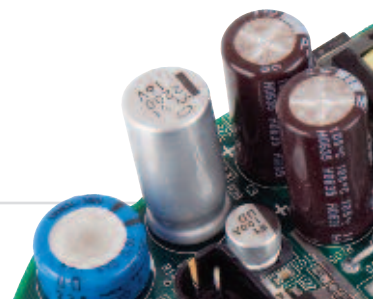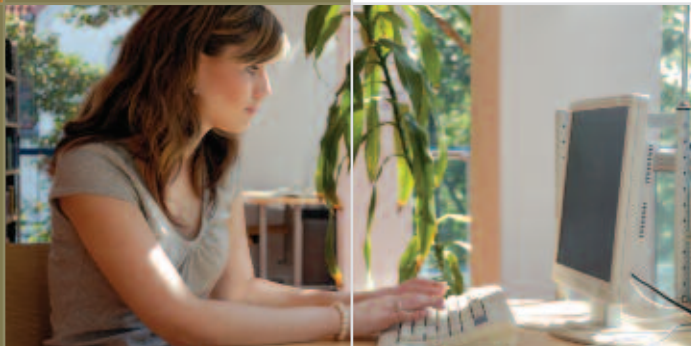
Flexibility

Meter reconfiguration can be accomplished optically through the configuration port located on the front cover.

- Select from displayable positive, negative, net and added (security) metrics
- Change the displayed information
- Configure a current and potential transformer meter multiplier to obtain a direct reading
- Preset or reset kWh

Reliability

FOCUS meters are designed and built with robust components to provide years of trouble-free service.

- Single piece current coil (No welds or snap-together pieces to fail)
- Full current rating assured
- 10 kV surge withstand
- Potted transformer

Product Features

Each of our residential product lines offers a variety of flexible configurations that can be adapted for a utility's specific needs:

E130 FOCUS AL

The E130 FOCUS AL provides electric utilities with a reliable, quality, low-cost, solid-state kWh meter platform that is easily adaptable to various advanced metering technologies.

Adaptable to include integrated or modular communication technologies, the E130 FOCUS AL offers many advanced features for kWh only applications. By working with a number of different communication providers, Landis+Gyr created what is considered to be the best meter on the market for adaptability to the different communication technologies available in today's market.

kWh Technology

The heart of the meter is a field-proven digital multiplication measurement circuit along with a microprocessor and non-volatile memory. The meter utilizes the industry standard ANSI protocol. The E130 FOCUS AL meter is designed for 20+ years of service. All residential forms are available. (Forms: 1S, 2S, 2SE, 2K, 3S, 4S, 12S and 25S).

Capabilities

E130 FOCUS AL meters are programmed in the factory to utility specifications. A variety of selectable metrics and display options are available including: delivered (+) kWh, received (-) kWh, net kWh and/or added kWh (security) displays on the easily readable, eight-digit LCD. Energy values can be formatted as 4 x 1, 4 x 10, 5 x 1 or 6 x 1. Line voltage, error codes, segment check and/or firmware version are also displayable. Time for the display scroll sequence is programmable from 1 to 15 seconds.

Configuration

Through the use of the FOCUS Configuration Tool, an existing E130 FOCUS AL meter can be re-configured. The optical interface, which does not require the cover to be removed, allows the utility to modify display parameters, select KYZ output value, zero or preset kWh reading(s), input meter multipliers (direct read), adjust meter calibration, if desired, and more.

Enhanced Functionality

One solid-state relay output (KYZ) is available in the E130 FOCUS AL meter. It can be ordered in a new meter or retrofitted to an existing meter. The pulse output is scalable and can be programmed to be delivered kWh (detent), received kWh or added kWh (security).

Communications

Landis+Gyr designed the E130 FOCUS AL with integrated and modular advanced metering infrastructure (AMI) applications in mind. Various communication technologies are available in the FOCUS AL meter, including radio (RF) and power line carrier (PLC) technologies. Contact us for a list of communication technologies that are supported in the FOCUS AL family of metering products, the solid-state residential AMI meter platform of choice.

E330 FOCUS AX and E350 FOCUS AX-SD

Building upon the E130 FOCUS AL, Landis+Gyr has taken residential metering to the next level, by adding demand, time-of-use and load profile capabilities to create the E330 FOCUS AX. This meter incorporates all of the functionality that the market is demanding today to meet the ever-changing needs of utilities.

The E350 FOCUS AX-SD expands AX capabilities by incorporating a 200 amp, motor driven, cam action disconnect/reconnect switch under the meter cover. This is Landis+Gyr's third generation service disconnect meter incorporating years of design experience. In addition to acting as a hard disconnect/reconnect meter, the platform provides service limiting options. The FOCUS AX and FOCUS AX-SD feature the same 10-pin header as the FOCUS AL making AMI integration easier.

The Standard for Advanced Metering

The E330 FOCUS AX is an advanced meter platform with features that rival any meter in its class. With available service switch integrated into the meter base for forms 1S, 2S, 12S & 25S, utilities can take advantage of the 200 amp relay to disconnect/reconnect power or limit service remotely using an advance communication technology or manually at the meter. The service switch operation is accomplished with a motor driven cam-action switch that has been used with success for years in the global market. The combination of the FOCUS service switch base module and powerful AX register provides a flexible system that supports a variety of connect/disconnect and service-limiting applications.

Advanced Capabilities

Other important capabilities of the AX meter platform include:

- Digital Multiplication Measurement Technique
- Non-volatile memory
- Designed for a 20+ year life
- Meets or exceeds industry and ANSI standards
- Uses ANSI protocol (between meter and advanced communication device)
- 6 digit LCD and 3 Alpha ID
- Selectable meter multiplier
- Service limiter function
- Event log of 500+ entries
- 77 kb of load profile memory, 1–8 channels
- Advanced, second-generation over-the-air-flashable firmware

Software Solutions

1132Prog

Used to create programs for E330 FOCUS AX and E350 FOCUS AX-SD.

- Allows the operator to have as many databases as desired or create multiple programs in a single Microsoft Access database.
- Handles demand, TOU and load-profile programs for both the FOCUS AX and FOCUS AX-SD meters.
- Handles different configurations of the FOCUS AX-SD for normal disconnect/reconnect scenarios as well as for when service limiting is the desired operation.
- Defines the capabilities available through its companion program, 1132Com.
- Allows for five different levels of passwords to be used with 1132Com communications for the needed security that utilities desire.

1132Com

Used as a companion with 1132Prog to program and read E330 FOCUS AX and E350 FOCUS AX-SD meters.

- Supports optical port communication using all popular optical cables.
- Reads meter files that are saved in formats for easy export to other reporting packages, such as Itron's MV-90 and Landis+Gyr's 1132Gyr.
- Supports optical port firmware upgrades without loss of data or meter program.
- Provides ability to review event logs as well as load profile date.
- Allows for partial modifications of an existing meter program without total reprogramming.
- Allows for connect/reconnect of FOCUS AX-SD meters with a visual confirmation of the switch state.
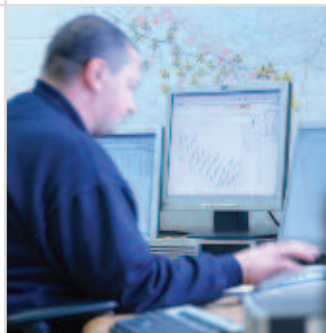
1132Gyr

- Acts as a Load Profile Translation software package with an interface to the 1132Com software.
- Designs and generates single, multiple or totalized reports from a single Windows interface. For totalized reports, you can use data from different meter types, such as the E330 FOCUS AX or E650 S4e.
- Supports automated reading and reporting with the use of the built-in scheduler option.

FOCUS Configuration Tool

Used to create and modify programs for E130 FOCUS AL meters.

- Supports optical (configuration) port communication using all popular optical cables.
- Creates and modifies programs.
- Includes a reading function so the current meter program settings can be reviewed and data can be saved.
- Supports multiple levels of access so reading and programming capabilities can be kept separate for added security.

Landis+Gyr – Your Smart Grid Partner

Landis+Gyr offers a combined portfolio of advanced metering and smart grid automation solutions to utilities in more than 30 countries. The company's global experience includes deployment of over 1,000 advanced metering systems, supporting an installed base of over 300 million meters, and managing over 15 million meters under contracts.

With smart grid solutions from Landis+Gyr, utilities streamline processes, improve energy efficiency and reduce peak load. Consumers benefit from personal energy management technology, which empowers them to monitor and manage their energy usage. And communities benefit through the smarter use of energy resources. This is what it means to manage energy better.

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