**Electro Industries Introduces a New High Performance, Low Cost Substation Meter**

By Eran Kagan

**Shark 100**

Electro Industries/GaugeTech, the leader in Web Accessed Power Monitoring, introduces one of the industry's highest performance revenue grade panel meters, the Shark 100. Based on an all new platform, this meter has high end meter performance and low end economical pricing. It is perfect for new metering applications and for a simple replacement to existing analog meters. With only 3.25" behind the panel, the Shark 100 is ideal for applications in which space is at a premium. With advanced features, the Shark 100 is still one of the lowest priced meters in the market.

**0.2% Class Accuracy**

The Shark 100 is one of the only products in its class to have 0.2% of reading accuracy for energy readings. It meets ANSI C12.20 (0.2%) and IEC 687 (0.2%) accuracy classes. The Shark 100 measures every aspect of power, including volts, amps, freq, %THD and all energy functions. The unit utilizes high DSP technology with high resolution A/D conversion to provide revenue certifiable accuracy for utility billing, substation monitoring, metering and critical metering applications. The unit typically has better than 0.1% energy performance with field testing capability - the only one in its class.

**Utility Peak Demand Metering**

The Shark 100 provides user-configured Block (fixed) or Rolling Window Demand. This allows you to set up a particular utility demand metering and among other parameters offer max and min capability over the user-selectable averaging period. The Voltage readings provide instantaneous values, as well as max and min readings, displaying the highest surge and lowest sag seen by the meter. The Shark 100 offers a true RMS metering, allowing the user to see the real power usage of their system.

**High Speed Modbus and DNP 3.0 Communication**

The Shark 100 provides standard Modbus communication and DNP 3.0 protocol. Baud rates can be set from 9,600 to 57,600 baud.

**PDA Access to Change Parameters**

The Shark 100 has an optional IRDA port, allowing the user to set parameters on the unit directly. The unit can be configured and programmed using a PDA or remote laptop without need for a communication cable. COPILOT EXT is a Windows CE software package that allows you to simply point any pocket PC or laptop to a Shark 100 to configure it and poll readings.

**Easy to Install and Use**

Installation and programming are extremely simple and quick. From mechanical construction to user interface, the Shark 100 is straightforward and intuitive. The Shark 100 is programmed using a PDA, a PC computer or through a web based user interface. By using the PC or PDA, a technician can see a visual phase diagram of the vectors ensuring that CT and Voltage polarities are correct. All inputs are color coordinated and have clear easy to understand labeling to avoid cross wiring mistakes. The Shark 100 is equipped with a large 5.6" backlit LCD display for easy panel application readings. It even reads in direct sunlight. The % of Load Bar gives you the routing feed with a digital meter.

**Superior Voltage and Current Input Design**

The meter has been rigorously designed for harsh electrical applications on both high and low voltage power systems. The environmental rating for operation is -30 to +700 C rating. A NEMA 12 design and 6KV surge withstand ensure design reliability. Voltage inputs allow measurement to 480 volts line-to-neutral and 721 volts line-to-line.

Current inputs uniquely use a dual input method.

- **CT Pass Through Method** - The CT passes directly through the meter without any physical termination on the meter, which ensures the meter cannot be a point of failure on the CT circuit.
- **Current "Gils" Method** - This method provides additional ultra-rugged termination pass-through bars, allowing the CT leads to be terminated on the meter.

**Optimize Investment with After Installation Field Upgrading**

The Shark 100 is equipped with EIG's exclusive V-Switch. V-Switch, virtual switch technology, allows users, OEMs, or Power Utilities to minimize different levels of meters and reduce stocking to one type of hardware. In this manner, the meter can be expanded to meet the specific application, even after installation. Using V-Switches, you can purchase what you require now and field upgrade functionality as needed, which allows you to optimize your system.

**Universal Physical Configuration**

The unit mounts directly into an ANSI C39.1 (4" Round Form) and an IEC 92 mm DIN square form. This is perfect for new installations and for existing panels. In new installations, simply use existing DIN rail or ANSI punches. For existing panels, pull out an old analog meter and install this meter in its place. The resulting cost saving is that CT and PT wiring does not need to be replaced.

**About Electro Industries/GaugeTech**

Founded in 1973 by engineer and inventor Dr. Sagi Kagan, Electro Industries/GaugeTech changed the face of power monitoring forever with its first breakthrough invention. Electro Industries/GaugeTech now offers a complete line of easy to use AC power meter. Thirty years later, Electro Industries/GaugeTech, the leader in Web Accessed Power Monitoring, continues to revolutionize the industry with the highest quality, cutting edge power monitoring and control technology on the markertoday. As an ISO9001:2000 certified company, EIG sets the industry standard for advanced power quality and reporting, revenue metering and substation data acquisition and control. EIG's products can be found on site at virtually all of today's leading manufacturers, industrial grants and utilities.

Today, EIG is world renowned for its technology and quality. Our products are used globally and EIG is accepted as the world leader in power monitoring and metering technology. In recent years, General Electric has become the single largest corporate shareholder with a 30%-share of the EIG corporate holdings. With direct offices in the United States, Turkey, Brazil, Mexico, Guatemala, Croatia, China and the United Kingdom, EIG is well supported in most regions around the world. Our worldwide support, advanced technology and quality manufacturing standards make EIG the superior choice when dependable, reliable service is paramount.