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Yokogawa Test & Measurement Releases High Accuracy Current Sensor Element for Use with the WT5000 Precision Power Analyzer

- For the efficient development of electric vehicles (EVs) and renewable energy-related equipment -

Yokogawa Test & Measurement Corporation announces that it has developed the 760903 current sensor element for use with the company's world-class power measurement solution, the WT5000 precision power analyzer. The 760903 current sensor element includes a number of new features that simplify the setup and use of external current sensors. This new product will go on sale on April 6.

With the launch of this new product, Yokogawa will continue to expand its business in the power measurement field by proposing solutions to customers that improve performance and enable the efficient development and evaluation of electric vehicles (EVs) and renewable energy-related equipment. In so doing, the company is doing its part to aid in the realization of a sustainable society.

Development Background:

To realize a sustainable society and make progress toward the achievement of the Sustainable Development Goals (SDGs) for the year 2030, efforts are intensifying to develop electric vehicles, vehicle charging systems, and equipment needed for the generation of power from the sun, wind, and other renewable energy sources. For the development of electric vehicles, the need is particularly acute for solutions that can accurately measure power consumption and evaluate power utilization efficiency. Such evaluations have required the use of external current sensors that are able to convert large output currents to levels suitably low for direct input to a high-precision wattmeter, and such sensors have typically relied on external power supplies.

Since its release in October 2018, the WT5000 precision power analyzer has won acclaim for its world-class basic power accuracy (AC 50 - 60 Hz) of ± 0.01%, and this analyzer has sold widely around the world. With the development of the 760903 current sensor element, we have responded to the needs in cutting-edge technology R&D for solutions that can accurately and efficiently perform power measurements for equipment that handles high currents.

Features

1. Ideal for power measurement of equipment that handles high currents.
   The 760903 current sensor element is capable of converting large currents from external current sensors to levels that are sufficiently low for direct input to the WT5000 precision power analyzer. It joins a product lineup that includes the 760901 (30 A maximum) and 760902 (up to 5 A) input elements, both of which can directly input current to the WT5000. As the 760903 current sensor element runs off the internal DC power

supply of the WT5000, this eliminates the need for the external current sensor to have its own power supply, greatly simplifying the setting up of an evaluation system. When used together with a Yokogawa CT current sensor, this system can measure currents of up to 2000 Arms. In addition, dedicated cables in lengths of 3, 5, and 10 meters are available that enable high-precision measurements even in harsh noise environments. And for applications that require the use of external sensors to measure high currents, a function in the WT5000 precision power analyzer improves measurement accuracy by correcting for phase differences between the sensor inputs and outputs.

Major Target Markets

- Automakers of EVs, PHVs/PHEVs, and fuel-cell vehicles, and manufacturers of in-vehicle batteries and chargers
- Manufacturers of solar, wind, and hydro power generation equipment

Applications

Measurement of power consumption and evaluation of electric power use efficiency during product design or final examination

Yokogawa in the power analyzer business

As a pioneer in this field, Yokogawa started the development and sales of electronic power analyzers in 1970. The company now holds a leading position in the high precision power analyzer market (as of March 2021, based on a Yokogawa survey). Through the provision of power consumption and energy efficiency measurement solutions, Yokogawa helps its customers develop energy efficient products and reduce power consumption at their production sites.

The WT5000 precision power analyzer is our flagship product. In 2019, it was awarded the "Power Product of the Year" in the Electronics Industry Awards sponsored by CIE magazine in the UK, and the "Test Product of the Year" in the Elektra Awards sponsored by Electronics Weekly magazine in the UK. It is highly regarded by the industry and is used by customers all over the world who are committed to energy conservation.
https://tmi.yokogawa.com/solutions/products/power-analyzers/wt5000/

About Yokogawa

Founded in 1915, Yokogawa engages in broad-ranging activities in the areas of measurement, control, and information. The industrial automation business provides vital products, services, and solutions to a diverse range of process industries including oil, chemicals, natural gas, power, iron and steel, and pulp and paper. With the life innovation business, the company aims to radically improve productivity across the pharmaceutical and

food industry value chains. The test & measurement, aviation, and other businesses continue to provide essential instruments and equipment with industry-leading precision and reliability. Yokogawa co-innovates with its customers through a global network of 114 companies spanning 62 countries, generating US$3.7 billion in sales in FY2019. For more information, please visit www.yokogawa.com.

For more information

http://tmi.yokogawa.com