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Yokogawa Test & Measurement Releases CA500 and CA550 Multifunction Process Calibrators

For improved efficiency in on-site work

Yokogawa Test & Measurement Corporation announces the October 18 release of two new multifunction process calibrators that can generate and measure signals with the highest class of accuracy. The CA500 and CA550 multifunction process calibrators are intended for use in the inspection and calibration of plant instruments.

Development Background

Plant instruments must be calibrated periodically to maintain their accuracy, and process calibrators are measuring instruments that are used to calibrate such devices on site. With the increasing sophistication of plant instruments, there is a need for new types of calibrators that have the high levels of accuracy needed to inspect and calibrate these devices. And as ever more highly-skilled workers retire from the workforce, there is a need for new functions that help to ensure high work quality by making it easier to inspect and calibrate devices. To meet these needs, Yokogawa Test & Measurement has developed multifunction process calibrators that have the ability to calibrate a wider variety of instrument signals (DC voltage/current, thermocouple, RTD, resistor, frequency, pulse) with high accuracy, thus improving work efficiency.

Product Features

1. All-in-one calibrator with highly accurate signal generation/measurement

The CA500 and CA550 feature improved signal generation and measurement accuracy, expanding the range of devices that can be inspected with these calibrators. A single CA500 series calibrator can do inspection tasks that have required special measuring instruments such as a decade resistance box, thus reducing the number of devices that must be taken to the work site.

CA500 series

- DC voltage accuracy: $\pm 0.015\%$
- DC current accuracy: $\pm 0.01\%$

Previous calibrator model

- $\pm 0.02\%$
- $\pm 0.025\%$

- Thermocouple accuracy: $\pm 0.5^{\circ}\text{C}$ (typical for type K) $\pm 0.02\% + 0.5^{\circ}\text{C}$
- RTD accuracy: $\pm 0.1^{\circ}\text{C}$ (typical for Pt100) $\pm 0.025\% + 0.3^{\circ}\text{C}$

2. Workability improvement at outdoor work sites

The CA500 and CA550 employ a reflective LCD display that is easy to read in direct sunlight. The volume of information displayed on the screen has also been increased so that workers can learn all they need to know at a glance. And thanks to an energy saving design, each of these new models can now operate continuously for up to 16 hours on just 4 AA alkaline batteries. (The previous model required 6 batteries for 8 hours of use.) The CA500 and CA550 are thus well suited for use at outdoor work sites where no power sources are readily available.

3. Reduction of man-hours for calibration work

The CA550 has a program sweep (automatic I/O testing) function that eliminates the need to manually adjust generated values, record measurement results, and enter data on a PC. This function automatically generates and measures signals according to preset generation patterns and displays not only the calibration value and pass/fail results, but all other necessary information on the screen, and automatically saves that data to internal memory.

A new version of the CA550 that supports the HART protocol and thus can perform zero adjustment and other functions with HART devices is scheduled for release in June 2020.

Major Target Markets

- Maintenance and inspection of instruments in oil, chemical, iron and steel, pulp and paper, gas, electric power, food, pharmaceutical, water supply, and water treatment plants

Applications

- Calibration and I/O performance testing of instruments for plant commissioning and periodic inspections, and diagnosis and inspection of control loops

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 113 companies spanning 60 countries, generating US\$3.6 billion in sales in FY2018. For more information, please visit www.yokogawa.com.

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