

Wireless test tools can cut troubleshooting time

Application Note



The automation of more and more processes and operations in today's factories and commercial buildings is helping to reduce energy consumption and increase safety and productivity as never before. However, automation has also added a large dose of complexity for the technicians who maintain and troubleshoot the systems.

When we asked technicians about their biggest challenges we heard two basic points. On one hand they need to be able to test a wide range of variables. On the other hand they have too many tools doing too many things. For example, if a technician is measuring a transmitter on the back of a pressure gauge, he also might need to manipulate controls on the panel. That requires another set of hands just to hold a tool.

Fluke can't actually provide more hands. However, with the introduction of the Fluke CNX 3000 Wireless system we can reduce the number of hands required.

This revolutionary CNX wireless system combines wireless functionality with the accuracy and rugged performance of our classic meters. The modular system consists of a digital multimeter and four standalone meter modules—an AC voltage module, AC current clamp module, iFlex AC current clamp module, and K-type temperature module.

Multiple simultaneous readings

All the components connect wirelessly within a 20 meter radius so you can view up to four live measurements (one from the digital multimeter and three from the modules) simultaneously on the digital multimeter.

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the modules) simultaneously on the digital multimeter (DMM). If you opt for the PC Adapter (included with some of the kits) you can view up to 10 live measurements on your PC simultaneously or download logged readings from the modules.

The ability to capture multiple measurements in relation to each other over time makes it much easier to find intermittent problems. And because you can attach the modules and step away up to 20 meters to read the results, you won't need to wear as much personal protective equipment.

All the modules have logging capabilities. After you connect the module to the test point, you just push LOG and can capture up to 65,000 sets of min/max/avg readings over time.

Real life applications

We've asked some of our customers how they would use a wireless DMM and modules. Here are a few responses:

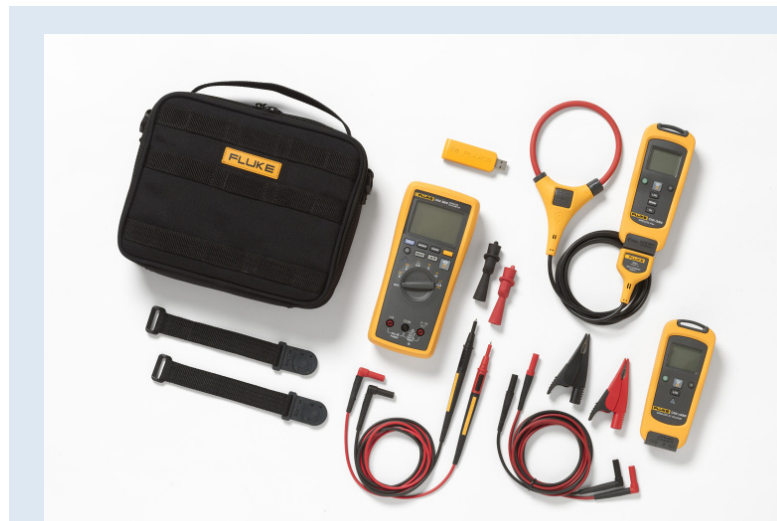
One R&D technician sees the Fluke CNX system as a great tool for test setups for new products and processes. The ability to measure multiple points simultaneously and log the results will help expedite testing. In one case, they have refrigerator-sized test racks with a large table-like test area. There is a fixture on

top of the test area and a printed circuit board (PCB) under the fixture block that contains much of the switching and control circuitry. The technician has to lie underneath the rack and reach up into the bottom of the tabletop to probe and attach meters. With the Fluke CNX wireless system, the tech can attach the modules on the PCB and other places throughout the rack, and look at the results while standing next to the rack.

Another technician sees the CNX system as a great tool for validating the reference signal

on process control systems. He can use it on a valve to measure temperature and flow, or on an induction power supply to monitor the inputs and outputs simultaneously. In the latter case, he would monitor the 0-10 V or 4-20 mA dc reference signal with the base unit, while monitoring the power feedback with another dc input, and ac output voltage and/or current.

Wireless can change the way you work.



You can combine the modules and the kits in the way that best suits your needs.

Fluke. *The Most Trusted Tools in the World.*

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