FLUKE®

Use Study

Electrical applications

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"A big advantage with the Fluke system is we could place the modules inside the enclosure and close it so that they stay clean and the enclosure is safe"

"What would I use a wireless measurement system for?"

A four-man recording meter

The Fluke wireless system is like a four-man recording meter. You could put modules inside an enclosure and record data for an extended period of time, then download the data for a load study or to look for trends.

If you were troubleshooting a power quality issue, you would look at voltage and current to verify how they interact. When the voltage decreases and the current doesn't change or only changes slightly, the source of the problem is upstream from the point of measurement. When the voltage decreases and the current increases the source of the problem is downstream from the point of measurement. You'd use voltage and current modules around the conductors of the circuit under test and monitor all the readings on the DMM to see how they move together. If you have a load that varies, you want to see it move up and down and what it does to the voltage. Having remote modules for this is great because it reduces the safety risk.

We do a lot of load studies at cell sites. When a mobile carrier adds more equipment at a site, they need to know if the electrical service is adequate to handle the increase. I would put the current modules around the service conductors that supply power to the cell site to log data and monitor them over a period of time to see if there's enough capacity to add more load.

We had floats in a sanitary pump station that would "dial out" to notify us when they had a fault—which they were doing frequently. Being able to put wireless modules around the float contacts to log data and monitor more than one measurement simultaneously would be very helpful in determining what was causing the problem. In this scenario, we would use three voltage modules across the float contacts to record when the floats open and close. We'd leave them on for an extended period of time—these things always seem to occur at 2 or 3 in the morning. A big advantage with the Fluke system is we could place the modules inside the enclosure and close it so that they stay clean and the enclosure is safe.

The Fluke wireless system

One central meter that receives wireless voltage, amperage and temperature readings from multiple sister meters placed in a variety of locations up to 20 meters away.

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