100 kHz bandwidth on voltage and current ranges

Lifetech's Fluke 289/FVF is most commonly used for reactivating and testing switched sources, which often involves setting up reference voltages and current loops.

A variety of pre-defined measurements are available on the meter's rotary switch. For example, one pre-defined position measures diodes or capacitors and the menu options allow you to change this to a mode for transition measurements. If you need to carry out more transition measurements, you change the mode back using the menu options, and the tool remembers the last position of the cursor.

Greatest advantage for Lifetech

Asked what he found to be the instrument's greatest advantage, Mr. Zemánek pointed to the wide bandwidth of both the voltage and current ranges, which he described as "unique".

He also appreciates the basic performance of the instrument: the high precision, fast measurements, and bandwidth filter. Also its breadth of measurements: he can immediately switch from finding a signal's duty cycle, for example, to taking relative and min/max measurements. And, as in many laboratories, the work often needs LoZ measurements (Low impedance voltage function prevents false readings due to "ghost voltage." It is also the recommended mode when testing for absence or presence of live power). Even more basic measurements include the range of accessories that can be attached. These can be valuable when working in the field—Mr. Zemánek often uses the magnet (FlukeT-PAK) for attaching the multimeter to an electrical cabinet.

Measures semiconductor junctions up to 3.1 V

One bonus of having a wide range of high-specification features is that different features turn out particularly useful for different users. For Mr. Zemánek and his colleagues, one such feature is the ability to measure semi-conductor junction voltages up to 3.1 V. They often come across installations using semiconductor devices with a threshold voltage of around 2.7 V. "The 289's ability to measure semiconductor transitions up to 3.1 V allows us to see immediately whether or not a device is working. I speak from experience when I say that it is possible to measure transitions in this range only with Fluke meters. Multimeters from other manufacturers are limited by an upper value of 2 V. That means reducing the threshold voltage when testing a transition, for example using a 1.5 V battery."

According to Mr. Zemánek, their new 289 even surpassed the department's expectations. He himself owns a Fluke 89 IV, which also features Event Logging, and he is impressed by the extent of the improvements in the 289/FVF. He concludes: "The new tool simply goes beyond my expectations."

Fluke. *Keeping your world up and running.®*