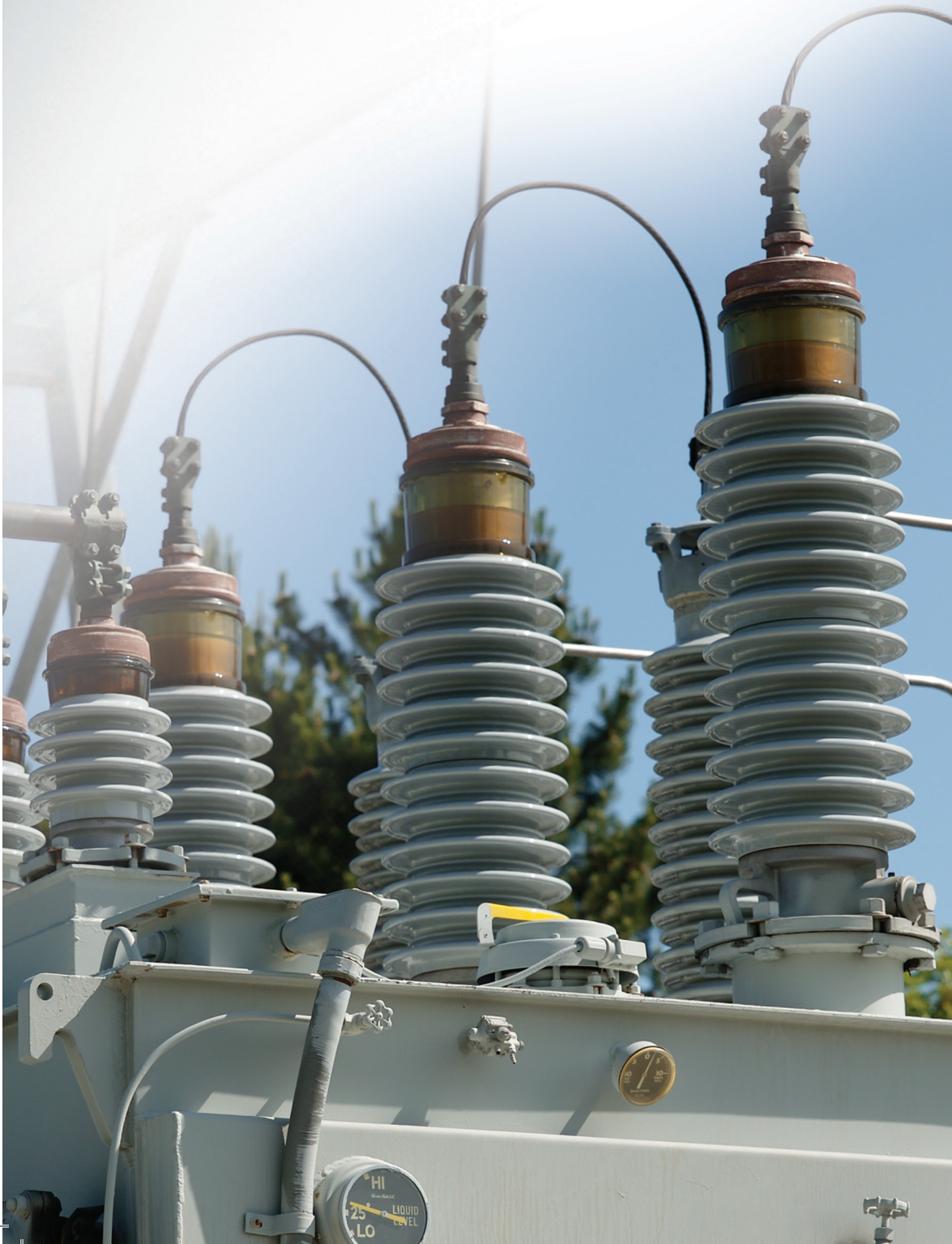


FLUKE®

Utility Test Tools

The power of productivity. The tools, training and support for utilities professionals.



Utilities—Keeping us powerful

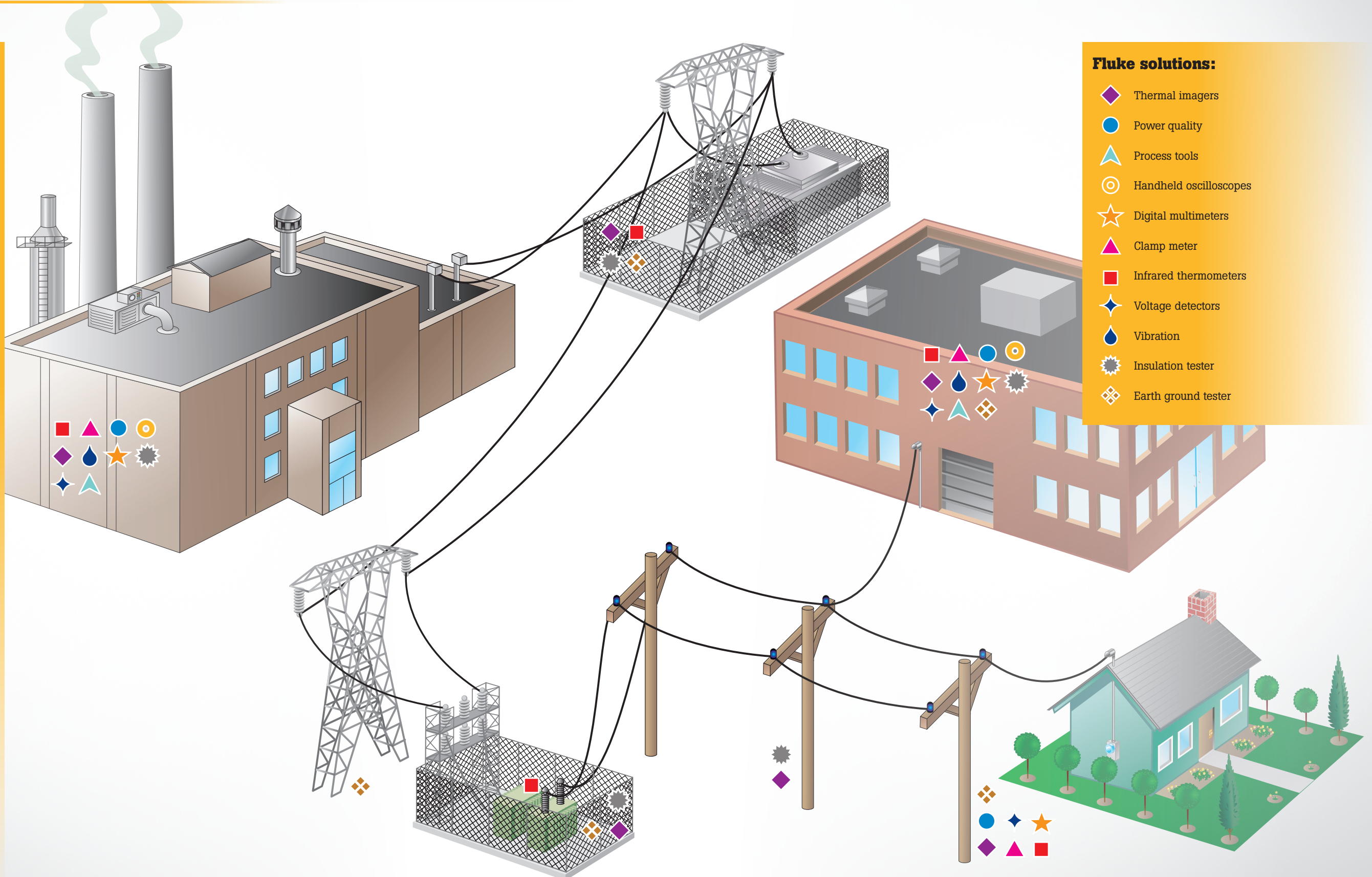
Fluke solutions for utilities professionals

You know the utility industry is a demanding and often dangerous environment. As a utility professional, you need rugged, reliable, high-quality tools you can rely on every day, in every situation. You need to know your tools are providing accurate, consistent information. Fluke understands that need and provides a wide variety of test tools designed for the utility industry.

From the truck to the substation. Whether you are working in power generation, transmission, distribution, or installation, you can count on Fluke to deliver quality tools and application expertise.

Rugged and reliable. Fluke tools are built to the highest safety and reliability standards, giving you the peace of mind to know the job is done right.

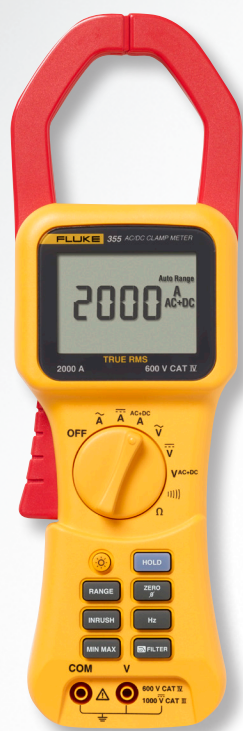
More information and resources. You can always count on Fluke for the troubleshooting techniques, application information, and training to keep your power distribution network up and running. Visit our web site at www.fluke.com.



Fluke solutions:

- ◆ Thermal imagers
- Power quality
- ▲ Process tools
- ◎ Handheld oscilloscopes
- ★ Digital multimeters
- ▲ Clamp meter
- Infrared thermometers
- ◆ Voltage detectors
- Vibration
- ⊙ Insulation tester
- ⊠ Earth ground tester

Clamp meters



Fluke 355/353 True-rms 2000 A Clamp Meters

High current and a large jaw, make this clamp well suited for industrial and utility applications.

Confidently take reliable readings with the true-rms, Fluke 355/353 Clamp Meters; the tools of choice for high-current measurements up to 2000 A. The extra-wide jaw easily clamps around large conductors, typically found in high-current applications.

- Reliably handle a wide range of high-current applications with 2000 A ac + dc true-rms, 1400 A ac, and 2000 A dc
- The large 58 mm (2.3 in) jaw capacity is suitable for large, or multiple, conductors
- Inrush current measurement captures 'power-on' surge current with accuracy and repeatability
- High voltage measurement of 1000 V ac + dc true-rms, 600 V ac, and 1000 V dc allows user to perform multiple tests with only one tool (355 only)
- Resistance to 400 K Ω and a continuity beeper provide the convenience of a multimeter (355 only)
- Accurately measure frequency up to 1 kHz for optimum troubleshooting
- Quickly analyze readings using the min/max, and avg functions
- Use the display hold feature to capture readings even when the display cannot be viewed
- Use the low-pass filter to smooth out noisy loads and stabilize readings



Fluke 376 FC True-rms AC/DC Clamp Meter with iFlex®

The Fluke 376 FC Wireless True-rms AC/DC Clamp Meter offers measurements up to 1000 V and 1000 A, ac or dc, plus an included iFlex™ Flexible Current Clamp. In addition, the 376 FC is now part of the Fluke Connect® family of wireless test tools.

Now you can:

- Log and trend measurements to pinpoint intermittent faults
- Transmit results wirelessly via Fluke Connect Measurements app
- Create and send reports right from the field
- Capture measurements outside the arc flash zone with Bluetooth connectivity to your Apple or Android devices



Every day, thousands of workers suffer disabling injuries on the job.

To help you reduce the level of risk in your work environment, Fluke has created a safety program for electrical measurement—including a free video.

At Fluke, we're committed to helping you stay safe and compliant. So we've developed the only safety program designed to mitigate risk and promote safe electrical measurement.

To find out more, just visit www.fluke.com/safety



Voltage testers

Fluke T+PRO Electrical Tester

The Fluke T+PRO is the ideal, full-featured tester for simple voltage readings. It has all of the advantages of a traditional solenoid tester, with added functionality, but none of the typical drawbacks. With voltage measurement, continuity, built-in flashlights, rotary field indication and the legendary ruggedness and reliability of Fluke, it is an excellent choice for checking voltage.

- Safer than traditional solenoid testers
- Three forms of ac/dc voltage detection: lights, beeper, vibration for added user protection and convenience
- Still indicates live voltage without battery power for added user protection
- Extra-heavy-duty, replaceable test leads for added durability
- Continuity beeper, GFCI trip and flashlight
- Resistance, rotary field indication and display hold



Fluke T5-1000 Electrical Tester

Fluke T5 electrical testers let you check voltage, continuity and current with one compact tool. With the T5, all you have to do is select volts, ohms, or current and the tester does the rest. Tough test leads stow neatly in the back of the tester, making it easy to tote the T5 in your tool pouch.

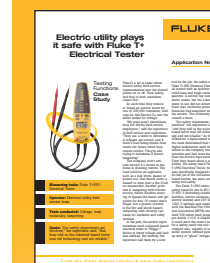
- Measures volts ac or volts dc with precise digital resolution
- Displays resistance to 1000 Ω
- OpenJaw™ current lets you check current up to 100 A ac—without breaking the circuit
- Continuity beeper
- Test leads accept Fluke accessory test clips
- 600 V model also available
- Detachable Slim-Reach™ probe tips are customized for national electrical standards
- Optional holster attaches to a tool belt and neatly stows test leads



Electric utility plays it safe with Fluke T+ Electrical Tester

There's a lot at stake when electric utility field service representatives turn the electric power on or off. Their safety, and that of their customers, comes first.

To find out more, go to www.fluke.com/utilitiesnotes



Digital multimeters

Fluke 113 Utility Multimeter

The true-rms utility multimeter designed for basic electrical tests.

The new Fluke 113 Utility Multimeter has the features needed to repair most electrical problems. This meter is simple to use and has significant improvements over the original Fluke 7-600, and other utility multimeters. With features such as Fluke's VCHEK™, which includes added measurement functions, backlight, conformance to the latest safety standards, and a much larger display that's easier to view, this new meter is a must have for the utility users toolbox.

- VCHEK™ function to simultaneously test for voltage or continuity
- Low input impedance helps prevent false readings due to ghost voltage
- True-rms for accurate ac measurements on non-linear loads
- Record signal fluctuations using the min/max function
- Diode test
- Auto and manual ranging



Fluke PRV240 Proving Unit

The Fluke PRV240 Proving Unit is a portable, pocket-sized, battery-powered voltage source. It is unique in that it sources stable ac and dc voltages for both LoZ and HiZ instruments.

- Using the PRV240 reduces the risk of shock and arc flash by validating the functionality of test tools without placing yourself in a potentially hazardous electrical environment
- Sources both ac and dc steady-state voltage—supplies 240 V dc/ac
- A single LED indicates functionality, making this unit a simple-to-use solution for complying with TBT verification of your test tool
- Compatible with both high impedance or low impedance multimeters, clamp meters or two pole testers
- Voltage is sourced through recessed contacts that are activated when tested probes are inserted to avoid accidental contact



87 Series V Industrial True-rms Multimeter with Temperature

Accuracy and diagnostic functions for maximum industrial productivity.

The Fluke 87V has all of the measurement functions, troubleshooting features, resolution, and accuracy to solve more problems in electronics, plant automation, power distribution, and electro-mechanical equipment.

- True-rms ac voltage and current for accurate measurements on non linear signals
- Built in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument
- Large display digits and two level bright white backlight for increased visibility
- Withstands hazardous 8,000 V spikes caused by load switching and faults on industrial circuits and complies with second edition IEC and ANSI electrical safety standards

Infrared thermometers

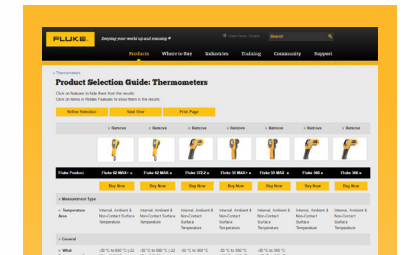
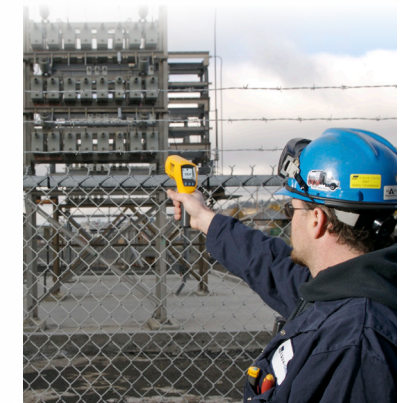
Fluke 568 Infrared Thermometer

The two-in-one infrared and contact thermometer with an innovative graphical display.

With a straight-forward user interface and soft-key menus, quickly and simply adjust emissivity, start data logging, or turn on and off alarms, with just a few pushes of a button.

Use the Fluke 568's high distance-to-spot ratio to check pole transformers, disconnect switches, and bus connectors to check for developing problems with a tell-tale thermal symptom from a greater distance.

- Measure -40 °C to 800 °C (-40 °F to 1470 °F)
- Easily access advanced features with the soft-key buttons and graphical display
- Measure smaller objects from further away, with a distance-to-spot ratio of 50:1
- Compatible with most type K thermocouples
- Log and download up to 99 measurements for accurate reporting
- Trend and analyze your results with the included FlukeView® Forms PC software



How a Fluke thermometer makes your job easier?

Temperature is the second most common measurement in the world (the first is time). For something that is measured so often, wouldn't it be great to have a thermometer that's as easy to carry and as fast to read as your wristwatch? Fluke's family of infrared (IR) thermometers gives you speed and convenience. Point. Squeeze. Read the results. It's quick and easy, and helps you get your job done faster.

Find out more at www.fluke.com/utilitiestemp

Fluke 572-2 High-Temperature Infrared Thermometer

The Fluke 572-2 High-Temperature Infrared Thermometer is the one product you can use in high-temperature industrial environments all around the world. The 572-2 allows you to carry the most trusted name in test tools anywhere you need accurate, high-temperature and high distance-to-spot measurements.

With a straight-forward user interface and soft-key menus, the Fluke 572-2 makes even complex measurements easy. Quickly navigate and adjust emissivity, start data logging, or turn on and off alarms, with just a few pushes of a button.

- **Infrared Temperature Range:** -30 °C to 900 °C (-22 °F to 1652 °F)
- **Spot measure:** determine the absolute surface temperature of an object
- **Temperature differential:** compare two spot measurements against each other
- **Scanning:** detect changes along a wide or continuous region target



Thermal imagers



Fluke Ti300, Ti400 and Ti450 Professional Series Thermal Imagers

100% Focused. Every object, near and far

For the electrical utility field troubleshooter who wants to discover and diagnose potential faults and issues on electrical generation, transmission, and distribution, the Ti300, Ti400 and Ti450 should meet your needs.

- Capture a clear, accurate image focused throughout the field of view with MultiSharp™ Focus. Simply point and shoot—the camera automatically processes a stack of images focused near and far (Ti450)
- Get an instant in-focus image of your designated target. LaserSharp® Auto Focus, exclusive to Fluke, uses a built-in laser distance meter that calculates and displays the distance from your designated target with pinpoint accuracy
- Get 4x the pixel data with SuperResolution, which captures multiple images and combines them to create a 640 x 480 image (Ti450)
- Save time—wirelessly sync images directly from your camera to the Fluke Connect® system, and attach to an asset record or work order.
- See the details you need with interchangeable smart lenses—2x and 4x telephoto and wide angle—no calibration required



Many technicians already know the value of using an infrared camera for utilities inspections. An infrared camera allows you to conduct inspections from a safe distance. That means you may not have to shut down the operation or suit up in full personal protective equipment. Substations and switchyards have many complex electrical systems and equipment that handle very high voltage and current. To help ensure safe and consistent performance, more and more utilities are using infrared cameras to run proactive maintenance inspections on equipment ranging from oil-filled transformers to lightning arrestors, to high voltage transmission lines coming in and out of the substation. Infrared cameras can help to quickly find over- or underperforming components that might indicate a problem.

To find out more, go to www.fluke.com/utilitiesnotes



Fluke TiX520 and TiX560 Expert Series Thermal Imagers

The Fluke TiX560 and TiX520 thermal imagers—from the Fluke Expert Series line—are ideal for utility applications because they allow you to work from a safe distance and easily inspect objects that are overhead with the full 180 degree articulating lens. They go wherever you go—from inspecting transmission lines, to scanning live substations on foot, or climbing down into a cramped transformer vault.



Fluke TiX640, TiX660 and TiX1000 Expert Series Thermal Imagers

The Fluke TiX1000, TiX660 and TiX640 infrared cameras—part of the Fluke Expert Series line—are ideal for utility applications because they allow you to work from a safe distance to inspect areas that you could not get close enough to inspect any other way. They go wherever you go—from inspecting transmission lines from a helicopter or truck, to scanning live substations on foot, or climbing down into a cramped transformer vault. They deliver ultra-high resolution and temperature accuracy from far a way or close-up, along with quick response, and several user-friendly features.

LaserSharp® Auto Focus System

Get an in-focus image like never before with a touch of a button. LaserSharp® Auto Focus, exclusive to Fluke, uses a built-in laser distance meter that calculates the distance to your designated target with pinpoint accuracy. The laser distance meter can calculate distances up to 100 feet and displays the distance on the image. Other auto focus systems may focus on the surrounding landscape or closer targets and compromise an in-focus image and your ability to get accurate temperature measurements.

Visit www.fluke.com/select to choose the right thermal imager for your application



Distance reading



Specification	Ti450	Ti400	Ti300
Detector resolution	320 x 240 (640 x 480 with SuperResolution)	320 x 240	240 x 180
Spatial resolution	1.31 mRad	1.31 mRad	1.75 mRad
Field of view	24° x 17°	24° x 17°	24° x 17°
Thermal sensitivity	50 mK (30 mK in filter mode)	50 mK	50 mK
Temperature range	-20 °C to +1200 °C (-4 °F to +2192°F)	-20 °C to +1200 °C (-4 °F to +2192°F)	-20 °C to +650 °C (-4 °F to +1202°F)
Focus systems	LS, AMF	LS, AMF	LS, AMF
Laser distance meter	Yes	Yes	Yes
Annotation	IRPN, VA, TA	IRPN, VA, TA	IRPN, VA, TA
Standard video rec.	Yes	Yes	Yes
Radiometric video rec.	Yes	Yes	Yes
Optional lenses	Yes	Yes	Yes
Storage Medium	Removable 4 GB micro SD memory card, 4 GB internal flash memory, save-to-USB flash drive capability, upload to Fluke Connect® system*		

Specification	TiX1000	TiX660	TiX640	TiX560	TiX520
Detector resolution	1024 x 768 (2048 x 1536 Super Res.)	640 x 480 (1280 x 960 Super Res.)	640 x 480	320 x 240 (640 x 480 Super Res.)	320 x 240 (640 x 480 Super Res.)
Spatial resolution	0.6 mRad	0.8 mRad	0.8 mRad	1.31 mRad	1.31 mRad
Field of view	32.4° x 24.7°	30.9° x 23.1°	30.9° x 23.1°	24° x 17°	24° x 17°
Thermal sensitivity	50 mK	30 mK	30 mK	30 mK	40 mK
Temperature range	-40 °C to +2000 °C (-40 °F to +3632°F)	-40 °C to +2000 °C (-40 °F to +3632°F)	-40 °C to +1200 °C (-40 °F to +2192°F)	-20 °C to +1200 °C (-4 °F to +2192°F)	-20 °C to +850 °C (-4 °F to +1562°F)
Focus systems	LS, AF, MF, ES	LS, AF, MF, ES	AF, MF, ES	LS, AMF	LS, AMF
Laser distance meter	Yes	Yes	Yes	Yes	Yes
Annotation	VA, TA	VA, TA	VA, TA	IRPN, VA, TA	IRPN, VA, TA
Standard video rec.	Yes	Yes	Yes	Yes	Yes
Radiometric video rec.	Yes	Yes	Yes	Yes	Yes
Optional lenses	Yes	Yes	Yes	Yes	Yes
Storage Medium	Removable 4 GB micro SD memory card, 4 GB internal flash memory, save-to-USB flash drive capability, upload to Fluke Connect® system*				

Fluke Connect system is not available in all countries. Please check availability with your authorized Fluke distributor

*Fluke Connect® system is not available in all countries. Please check availability with your authorized Fluke distributor

Earth ground testers

Fluke 1623-2 and 1625-2 Earth Ground Testers

The most complete earth ground testers†

The Fluke 1625-2 Advanced GEO Earth Ground Tester and Fluke 1623-2 GEO Earth Ground Tester offer advanced features to make your earth ground loop resistance testing quicker and easier.

Product features:

- 3- and 4-pole Fall of Potential, earth resistance loop testing
- 4-pole Soil Resistivity testing
- Selective earth ground rod testing using 1 clamp
- Stakeless earth ground rod testing using 2 clamps
- IP56 rated for outdoor use
- Professional carrying case
- USB data storage and transfer

In addition, the Fluke 1625-2 offers these advanced features:

- Automatic Frequency Control (AFC)—identifies existing interference and chooses a measurement frequency to minimize its effect, providing more accurate earth ground value
- R* measurement—calculates earth ground impedance at 55 Hz to more accurately reflect the earth ground resistance that a fault-to-earth ground would see
- Adjustable limits—for quicker testing

† For full list of features see table on page 11



What is stakeless testing?

Measure earth ground loop resistances for multi-grounded systems using only current clamps.

This test technique eliminates the dangerous, and time-consuming activity of disconnecting parallel grounds, as well as the process of finding suitable locations for auxiliary ground stakes. You can also perform earth ground tests in places you have not considered before: inside buildings, on power pylons, or anywhere you don't have access to soil.

For a virtual demonstration for each of the four testing methods of the 1625-2 and 1623-2 visit www.fluke.com/utilitiestrainings



EI-162BN The 320 mm Diameter Split Core Transformer for Power Pylons

Determine the earth ground resistance of power pylons without disconnecting the utility ground connection. Used in conjunction with Fluke 1625-2 or Fluke 1623-2, This selective clamp for ground loop resistance measurement is used around power pylons/transmission towers. Inner diameter of the clamp is 320 mm (12.6 in). Includes the split core transformer, users manual and all necessary adapters/connections for the Fluke 1623-2 and Fluke 1625-2.

- External dimensions (LxWxD): 46 cm x 36 cm x 16 cm (20.5 in x 16 in x 17.2 in)
- Weight: 8 kg (17.6 lbs)



Fluke 1630 Earth Ground Clamp Meter

Measure earth ground loop resistance anywhere. Quickly and easily.

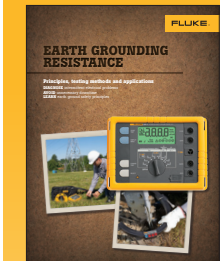
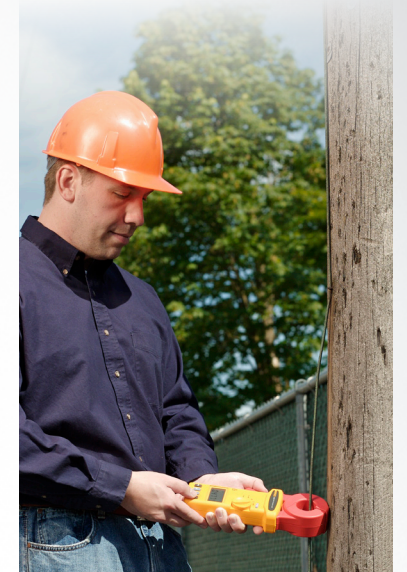
The Fluke 1630 Earth Ground Clamp is able to measure ground loop resistances using stakeless testing—eliminating the need to use earth ground stakes.

Gone are the days of spending time placing and connecting stakes for each earth ground rod on your system—a major time saver.

- Quick and easy use—no earth ground stakes are necessary
- Large, 35 mm (1.35 in) jaw opening
- Measures ground resistance from 0.025 W to 1500 W
- Measures ground leakage current from 0.2 mA to 30 mA
- High and low alarming
- Automatic self calibration
- Rugged carrying case and resistance check loop included

Specification	1630	1623-2	1625-2
2-pole resistance measurement ac		•	•
3-pole earth measurement		•	•
Measuring frequency 128 Hz		•	•
4-pole earth measurement and soil resistivity measurement		•	•
Selective testing*		•	•
Stakeless testing (ground loop resistance)*	•	•	•
Memory		•	•
USB port		•	•
Automatic Frequency Control (AFC) 94 Hz to 128 Hz			•
R* measurement			•
Adjustable limits			•

*Included in Fluke-1623 Kit and Fluke-1625 Kit, or sold separately



Earth Ground Resistance: Principles, testing methods and applications

Learn about the basics of Earth Ground measurement and testing. Answer questions such as: "Why ground? Why is testing important?" and "What is a good ground resistance value?"

Discover all of the methods available for testing and their most common applications.

Download a copy of the Earth Ground Resistance brochure, online at www.fluke.com/utilitiesnotes

Power quality recorders



Fluke 1750 Three-Phase Power Recorder

Never miss capturing a disturbance—with the exclusive threshold-free measurement system, it's automatic.

Capture every measurement, every event, on every cycle, all the time with the Fluke 1750 Three-Phase Power Recorder. Unprecedented accuracy and resolution provide complete visibility into your distribution system.

Features

- All measurements comply with IEC61000-4-30 standards for correct evaluation of all measured values including voltage, current, power, harmonics, flicker etc.
- **Wireless interface:** Included Android tablet allows for quick setup and verification with waveform displays, meter screens, and phasordiagrams.
- **Threshold-free setup:** Apply thresholds after data is collected with Fluke Power Analyze Software
- **Captures everything:** Cross-channel and current triggering capture every measurement, on every channel, every time
- **Intuitive PC software:** Easily analyze data and generate reports. Automated ENS0160 reporting and compliance.
- **Plug and play:** Set up in minutes with self-identifying current probes and single-lead voltage connections
- **No need to reconnect wires:** Swap channels internally with the wireless front panel or PC when connections are not correct.
- **Measure every parameter:** voltage and current on three phases, neutral, and ground
- **5 MHz, 8000 V pk waveform capture:** Get a detailed picture of even the shortest events
- **Quickly retrieve data:** With included SD memory card or via the 100Base-T high-speed Ethernet connection



Multi-purpose measurement tools help utilities increase service and protect revenue

Enough revenue meters are out of tolerance that a 2001 Electric Power Research Institute study estimated meter-related losses at \$5 million to \$20 million per year for a medium sized U.S. utility. Using a multi-purpose analyzer allows utility technicians to offer more customer services in less time and quickly audit revenue meters during each site visit.

Find out more about revenue meter verification and Fluke power quality analyzers at www.fluke.com/utilitiesnotes

Fluke 1760 Three-Phase Power Quality Recorder

The power quality expert's choice for the most demanding tests.

The Fluke 1760 Three-Phase Power Quality Recorder is fully compliant to IEC 61000-4-30 Class-A, for advanced power quality analysis and consistent compliance testing. Designed for analysis of medium- and low-voltage utility power distribution systems, this power quality monitor provides the flexibility to customize thresholds, algorithms, and measurement selections.

- **Flexible, and fully configurable thresholds and scale factors:** Allows user to pinpoint specific issues by defining the detailed criteria for detection and recording of disturbances
- **10 MHz, 6000 Vpk waveform capture:** Get a detailed picture of sub-microsecond events
- **Comprehensive software included:** Provides trend diagrams for root cause analysis, statistical summaries, report writing, and real-time data monitoring in the online mode
- **Rugged field design:** Insulated housing and a solid state design with no rotating components enable reliable testing under nearly any conditions which additionally satisfies important IEC 61010-1 shock protection requirements
- **Fully Class-A compliant:** Conduct tests according to the stringent international IEC 61000-4-30 Class-A standard
- **GPS time synchronization:** Correlate data with events or datasets from other instruments, with precision
- **Uninterrupted power supply (40 minutes):** Never miss important events—even record the beginning and end of interruptions and outages, to help determine the cause



New IEC 6100-4-30 Class-A standard

The new IEC 6100-4-30 Class-A standard takes the guesswork out of selecting a power quality instrument. The standard defines the measurement methods for each power quality parameter to obtain reliable, repeatable, and comparable results. In addition, accuracy, bandwidth, and a minimum set of parameters are all clearly defined.

To find out more about the Class-A standards, go to www.fluke.com/utilitiesnotes and click on the application note, What does Class-A mean to me?

Power loggers and troubleshooters

Fluke 1740 Series Three-Phase Power Quality Loggers

Compact and rugged, the Fluke 1740 Series three-phase power quality loggers are everyday instruments for technicians who troubleshoot and analyze power distribution systems. Capable of simultaneously logging up to 500 parameters for up to 85 days and capturing events, the Fluke 1740 Series helps uncover intermittent and hard-to-find power quality issues.

- **Plug and play:** Setup in minutes with automatic current probe detection and powering
- **Installs inside the cabinet:** Compact, fully insulated housing and accessories fit easily in tight spaces, next to live power
- **Determines the root cause:** Included PQ Log software quickly analyzes trends, creates statistical summaries, and generates detailed graphs and tables
- **Monitors power for the long-term:** Data can be downloaded during recording without interruption
- **Measure voltage with premium accuracy:** IEC 61000-4-30 Class-A compliant voltage accuracy (0.1%)
- **Quickly validate quality of power:** Assess power quality according to EN50160 power quality standard, with statistical overview



A guide to 30 day load studies with Fluke Power and Energy Loggers

When adding new loads to an existing electrical service or set of feeders, the first thing to determine is whether the existing system is capable of supporting the new loads. For instance, if you have a 600 amp service installed in a facility, can you really add another 100 amps of load? Will that put your system over capacity? To answer those questions you have to first ask another one: What is the highest load the system carries now?

Read this article on-line at www.fluke.com/utilitiesnotes



Fluke 1738 Advanced Power Logger

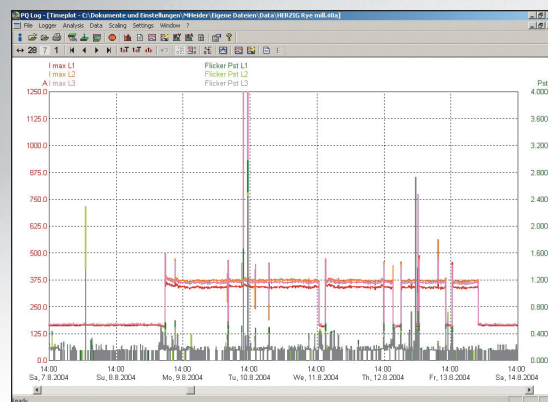
More visibility, reduced uncertainty and better power quality and energy consumption decisions

The Fluke 1736 and 1738 Three-Phase Power Loggers built with Fluke Connect® mobile app and desktop software compatibility give you the data you need to make critical power quality and energy decisions in real-time. The ideal test tools for conducting energy studies and basic power quality logging, the 1736 and 1738 automatically capture and log over 500 power quality parameters so you have more visibility into the data you need to optimize system reliability and savings.

- Verify electrical system capacity before adding loads. Suitable for NEC 220 load studies
- Quantify energy consumption before, and after improvements, to justify energy saving devices
- Uncover harmonic issues that can damage or disrupt critical equipment
- Monitor for dips, swells and inrush currents that cause false resets or nuisance circuit breaker tripping
- Download directly to a USB flash drive that plugs directly into the USB port of the instrument
- View measurements remotely via the Fluke Connect mobile app and desktop software



View graphs and generate reports with Fluke PQ Log software



Fluke 430 II Series Three-Phase Power Quality Analyzers

Pinpoint problems quickly on-screen with these easy-to-use troubleshooters.

The Fluke 434, 435, 437 and 438 Series II models help locate, predict, prevent, and troubleshoot power quality problems in three-phase and single-phase power distribution systems.

- **Troubleshoot real-time:** Analyze the trends using the cursors and zoom tools—even while background recording continues
- **View graphs and generate reports:** With included analysis software
- **Energy loss calculator:** Classic active and reactive power measurements, unbalance and harmonic power, are quantified to pinpoint fiscal costs of energy losses
- **Logger function:** Configure for any test condition with memory for over 600 parameters at user defined intervals
- **Autotrend:** Every measurement you see is always automatically recorded, without any setup
- **System-Monitor:** Up to ten power quality parameters on one dashboard



Power quality handhelds

Fluke 43B Power Quality Multimeter

Field proven performance makes it a “must have” for every tool box.

The Fluke 43B Power Quality Multimeter performs the measurements you need to maintain power systems, troubleshoot power problems, and diagnose equipment failures.

- Combines the most useful capabilities of a power quality analyzer, multimeter, and scope
- 20 measurement memories to save/recall screens and data with cursor readings
- Monitoring functions help track intermittent problems and power system performance
- Records two selectable parameters for up to 16 days
- Complete package with voltage probes and 40 A/400 A current clamp, FlukeView® Software, and optically isolated interface cable



Fluke VR1710 Voltage Quality Recorder

The Fluke VR1710 is a single-phase, plug-in voltage quality recorder that offers an extremely easy-to-use solution for detecting and recording power quality problems, allowing for immediate action and less downtime.

- Easily pinpoint the root cause of voltage problems
- Plug directly into the mains power socket and capture data
- Continuous recording of all values with no gaps
- Take the guesswork out of diagnosing voltage quality problems
- Min, max, average rms values (1/4 cycle) with time stamp
- Actual transient display with time stamp
- Flicker according to EN 61000-4-15, individual harmonic and THD values with trends



Fluke 345 Power Quality Clamp Meter

Easily monitor and troubleshoot high current applications.

The power quality clamp meter combines the functionality of a current clamp, power quality meter, oscilloscope, and data logger in a single handheld instrument.

- Clamp-on measurement of ac current up to 1400 A rms and dc current up to 2000 A without breaking the circuit
- Troubleshoot on screen with graphical display of waveforms, harmonics, and recorded data
- Measures V, A, Hz, CF, THD, DF, W, VA, VAR, kWh, and power factor even on distorted waveforms
- View graphs and generate reports with included Power Log software

ScopeMeter® test tools

Fluke ScopeMeter® 125B

The compact ScopeMeter 120B Series, is the rugged oscilloscope solution for industrial electrical and electro-mechanical equipment troubleshooting and maintenance applications. It's a truly integrated test tool, with oscilloscope, multimeter and high-speed recorder in one easy-to-use instrument. The ScopeMeter 120B Series also integrates with Fluke Connect® mobile app and FlukeView® for ScopeMeter software to enable further collaboration, data analysis and archiving of critical test information.

- Dual-input digital oscilloscope and multimeter
- 40 MHz or 20 MHz oscilloscope bandwidth
- Two 5,000-count true-rms digital multimeters
- Connect-and-View™ trigger simplicity for hands-off operation
- IntellaSet™ technology automatically and intelligently adjusts numerical readout based on the measured signal
- Recorder Event Detect captures elusive intermittent signals on repetitive waveforms up to 10 KHz
- Power measurements (W, VA, VAR, PF, DPF, Hz)
- Voltage, current and power harmonics
- FlukeView® ScopeMeter® Software for Windows®
- Rugged design to withstand 3g Vibration, 30g shock, and rated IP51 according to EN/IEC60529
- Highest safety rating in the industry: safety rated for CAT IV 600 V



Fluke 190 Series II ScopeMeter® Test Tool

The Fluke ScopeMeter 190 Series II combines the highest safety ratings and rugged portability with the high performance of a bench oscilloscope. Designed for plant maintenance engineers and technicians, these tough ScopeMeter test tools include multimeter, TrendPlot™ and ScopeRecord™ roll paperless recorder modes and hands free operation with Connect-and-View™ triggering, and much more:

- Two or four electrically isolated inputs
- Choose from 60 MHz, 100 MHz, 200 MHz or 500 MHz bandwidth models
- Fast sampling rate, up to 5GS/s with up to 200 ps resolution (Depending on model and channels used)
- Deep memory: 10,000 samples per channel waveform capture so you can zoom in on the details
- Four meter measurements via scope BNC inputs in four-channel models
- Connect-and-View™ continuous auto-trigger, single shot, pulse width, and video triggering
- ScopeRecord roll mode, capture waveform sample data for up to 48 hours
- TrendPlot, trend measurement readings for up to 22 days



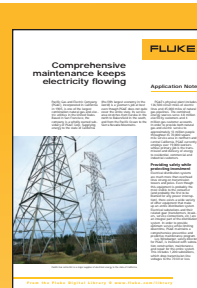
Process tools

Fluke 789 and 787 ProcessMeters™

Double your power. Fluke 787 and 789 ProcessMeters™ combine a DMM and a Loop Calibrator in one rugged, handheld tool.

The Fluke 789 has a large display that's twice as large as the 787 and is easy to read. The built-in, selectable 250 ohm HART resistor in the 789 eliminates the need to carry a separate resistor with you.

- Fully functional DMM that meets 1000 Volt EN61010-1 CAT III standards and 600 Volt EN61010-1 CAT IV standards (789 only for CAT IV)
- Simultaneous mA and % of scale readout on mA output
- 25 % Manual Step plus auto step and auto ramp on mA output
- 24 V loop power supply (789 only)
- 20 mA drive into 1200 ohm (787 only for 500 ohm)
- 0 % to 100 % mA Span Check buttons to toggle from 4 mA to 20 mA (789 only)
- Infrared I/O serial port compatible with FlukeView® Software



Comprehensive maintenance keeps electricity flowing

Pacific Gas and Electric Company (PG&E), incorporated in California in 1905, is one of the largest combination natural gas and electric utilities in the United States. In order to provide optimum service while limiting downtime, PG&E maintains a comprehensive preventive and predictive maintenance program.

Find out how PG&E partnered with Fluke and Fluke products to update their insulation testing accuracy and functionality, as well as promote safer work practices—go to www.fluke.com/utilitiesnotes

Fluke 726 Precision Multifunction Process Calibrator

More calibration power!

The Fluke 726 measures and sources almost all process parameters and can calibrate almost anything. The Fluke 726 will also interpret results without the help of a calculator and store measurement data for later analysis.

- More precise measurement and calibration source performance, accuracies of 0.01 %
- Transmitter error% calculation, interpret calibration results without a calculator
- Frequency totalizer and frequency pulse train source mode for enhanced flowmeter testing
- HART mode inserts 250 ohm resistor in mA measure and source for compatibility with HART instrumentation
- Integrated pressure switch test allows you to capture the set, reset, and deadband of a switch



Insulation resistance

Fluke 1555 10 kV Insulation Tester Kit

Evaluate the trends, eliminate the doubts

The Fluke 1555 insulation resistance tester, offers digital insulation testing up to 10 kV, making it ideal for testing a wide range of high voltage equipment including switchgear, motors, generators and cables.

Fluke insulation testers can now conduct the entire range of test voltages specified in IEEE 43-2000 with a best in class, 3 year warranty and CAT IV 600 V safety rating. With measurement storage and PC interface, the 1555 is the perfect tool for preventative or predictive maintenance programs designed to identify potential equipment failures before they occur.

- Test voltages to up to 10 kV provides solutions for all applications
- Warning function alerts the user that line voltage is present and gives the voltage reading up to 600 V ac or dc for increased user safety
- Selectable test voltages in 50 V steps from 250 V to 1000 V, and 100 V steps above 1000 V
- Measurements can be stored in up to 99 memory locations, with each location assigned a unique, user defined, label for easy recall
- Long battery life gives the user over 750 tests between charges
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup



Fluke 1587 FC Insulation Multimeter

The High-Performance 2-in-1 Insulation DMM

The Fluke 1587 FC Insulation Multimeter combines a digital insulation tester with a full-featured, true-rms digital multimeter in a single compact, handheld unit, which provides maximum versatility for both troubleshooting and preventative maintenance.

- PI/DAR timed ratio tests with TrendIt™ graphs
- Auto-discharge of capacitive voltage for added user protection
- Insulation test from 0.01 MΩ to 2 GΩ
- Insulation test voltages (50 V, 100 V, 250 V, 500 V, 1000 V) for many applications
- AC/DC voltage, DC millivolts, AC/DC milliamps, Resistance (Ω), Continuity
- Capacitance, diode test, temperature, Min/Max, frequency (Hz)
- Memory storage through Fluke Connect
- Temperature Compensation through app for establishing accurate baselines and relevant historical comparisons



Vibration testing

Fluke 810 Vibration Tester

Everything you need for machine diagnosis

The Fluke 810 helps you quickly identify and prioritize mechanical problems, putting the expertise of a vibration analyst in your hands.



Features and benefits:

- On-board identification and location of the most common mechanical faults focus maintenance efforts on root cause, reducing unplanned downtime
- Fault severity scale with four severity levels helps you prioritize maintenance work
- Repair recommendations advise technicians on corrective action
- Detailed diagnostic reports and spectral diagrams help confirm data quality, and narrow down the root cause of failures
- Laser tachometer for accurate machine running speed promotes confident diagnoses
- Tri-axial accelerometer reduces measurement time by 2/3 over single axis accelerometers
- Viewer PC Software expands data storage and tracking capacity

Put Fluke tools on every tool belt

Now you can equip utility specialists, technicians and linemen with a full complement of portable tools for utility applications including:

- Clamp meters
- Digital multimeters
- Earth ground
- Infrared thermometers
- Insulation resistance
- Power quality
- Process tools
- Thermography
- Voltage testers
- Vibration

Trust our tools for rugged reliability and safety from the truck to the substation, wherever this mission critical work takes your team.

Fluke 805 FC Vibration Meter

The reliable, repeatable, accurate way to check bearings and overall vibration

The Fluke 805 FC Vibration Meter is the most reliable vibration screening device available for frontline mechanical troubleshooting teams that need repeatable, severity scaled readings of overall vibration and bearing condition.

- Innovative sensor design minimizes measurement variations caused by device angle or contact pressure
- Four-level severity scale assesses urgency of problems for overall vibration and bearing condition
- Overall vibration measurement (10 Hz to 1,000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines
- Crest Factor+ technology provides reliable bearing assessment using direct sensor tip measurements between 4,000 Hz and 20,000 Hz



More information and resources

You can always count on Fluke for the troubleshooting techniques, application information, and training to keep your power distribution network up and running. Visit our web site at www.fluke.com

Fluke. Keeping your world up and running.®

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