Dedicated to your safety, driven by your success

At Fluke, we’re working every day so you can do your essential work with confidence. We are driven to keep you safe, help you succeed and equip you for maximum impact in your industry. Our modern, technology-enabled world works because people like you are at this very moment maintaining it, measuring it, testing it and improving upon it.

The future of Fluke

Our founder, John Fluke Sr. was a “get the job done right” kind of guy. His vision revolved around improving the way things work, and he saw test and measurement as the surest and most effective way of doing it.

Today, we’re expanding our product line beyond the physical tools that defined our early history. But at Fluke the one thing that never changes is our commitment to the people who use our tools: you.

One world—one Fluke

Throughout the year and around the globe, Fluke leads events that bring communities together for greater impact. One example is the WorldSkills Competition. At this epicenter of vocational education and training, Fluke engages with students and professionals from around the world to share industry best practices and show how Fluke can help fill critical skills gaps in all industries.

Taking our commitment further

Fluke’s support doesn’t begin or end with a tool. Our website is loaded with hundreds of useful resources, such as blog posts, videos, how-to guides and more, to help you stay ahead of the curve. Visit Fluke at www.fluke.com.
Fluke battery analyzers are the ideal test tool for maintaining, troubleshooting and performance testing the individual stationary batteries and battery banks that are used in critical battery backup applications in data centers, telecom networks, power distribution systems and more. With an intuitive user interface, a compact design and rugged construction, the Fluke battery analyzers provide optimum performance, test results and reliability.

The Fluke 500 Series Battery Analyzers cover a broad range of battery test functions, from ripple voltage to multi-measurement mode, which shortens test times by performing three measurements in one: dc voltage, internal resistance tests and infrared temperature measurement.

Fluke Battery Analyzers

By reducing testing complexity, simplifying testing workflow and incorporating an intuitive user interface, the Fluke BT510 Basic Battery Analyzer, BT520 Battery Analyzer and BT521 Advanced Battery Analyzer bring a new level of ease of use for testing stationary batteries of all types.

- Key measurements: Internal battery resistance, dc and ac voltage, dc and ac current, ripple voltage, frequency and temperature
- Sequence measurement mode: Automatic or manual sequence testing of battery strings with automatic measurement storage including voltage, resistance and temperature (with BTL21 intelligent test probe), eliminating the need to press a button each time a measurement needs to be saved
- Comprehensive logging: All measured values are automatically captured during testing and can be reviewed on the instrument before downloading for on the-go analysis
- Optimized user interface: Quick, guided setup and profile creation ensures the right data is captured every time, and the combined visual and audio feedback cues reduce the risk of measurement confusion
- Safety rating: CAT III 600 V

### Functions, Range, Resolution, Accuracy

<table>
<thead>
<tr>
<th>Function</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery resistance</td>
<td>3 mΩ</td>
<td>0.001 mΩ</td>
<td>1 % + 8</td>
</tr>
<tr>
<td></td>
<td>30 mΩ</td>
<td>0.01 mΩ</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td></td>
<td>300 mΩ</td>
<td>0.1 mΩ</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td></td>
<td>3000 mΩ</td>
<td>1 mΩ</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td>V dc</td>
<td>6 V</td>
<td>0.001 V</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td></td>
<td>60 V</td>
<td>0.01 V</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td></td>
<td>600 V</td>
<td>0.1 V</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td></td>
<td>1000 V</td>
<td>1 V</td>
<td>0.8 % + 6</td>
</tr>
<tr>
<td>V ac 45 Hz to 500 Hz with 800 Hz filter</td>
<td>600 V</td>
<td>0.1 V</td>
<td>2 % + 10</td>
</tr>
<tr>
<td>Frequency (displayed with V ac and A ac)</td>
<td>500 Hz</td>
<td>0.1 Hz</td>
<td>0.5 % + 8</td>
</tr>
<tr>
<td>AC voltage ripple (20 KHz max)</td>
<td>600 mV</td>
<td>0.1 mV</td>
<td>3 % + 10</td>
</tr>
<tr>
<td></td>
<td>6000 mV</td>
<td>1 mV</td>
<td>3 % + 10</td>
</tr>
<tr>
<td>A dc/A ac (with accessory Fluke i410)</td>
<td>400 A</td>
<td>1 A</td>
<td>3.5 % + 2</td>
</tr>
<tr>
<td>Temperature</td>
<td>0 °C to 60 °C</td>
<td>1 °C (33.8 °F to 140 °F)</td>
<td>2 °C (6 °F)</td>
</tr>
<tr>
<td>Interactive Test Probe set, with extender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meter mode</td>
<td>699 records for each measurement position with time stamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence mode</td>
<td>Up to 100 profiles and 100 profile templates (each profile stores up to 450 batteries) with time stamp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1The measurement is based on AC injection method. The injected source signal is 100 mA, 925 Hz.
2Trigger level V ac: 10 mV; A ac: 10 A.
BENCH MULTIMETERS

Fluke Calibration digital bench multimeters have the precision and versatility to handle the most demanding measurements, on the bench or in a system. These benchtop DMMs are easy to use and offer excellent value that makes them an ideal solution for many applications. Standards laboratory DMMs include: Reference multimeters, precision digital multimeters, and bench multimeters.

### Fluke Calibration 8845A/8846A 6.5 Digit Precision Bench Multimeters

6.5 digit precision and versatility for bench or systems applications
- 6.5 digit resolution
- Basic V dc accuracy of up to 0.0024%
- Dual display
- 100 μA to 10 A current range, with up to 100 pA resolution
- Wide ohms range from 10 Ω to 1 GΩ with up to 10 μΩ resolution
- 2 x 4 ohms four-wire measurement technique
- Both models measure frequency and period
- The 8846A also measures capacitance and temperature
- USB memory drive port (8846A)
- Fluke 45 and Agilent 34401A emulation
- Graphical display
- TrendPlot® paperless recorder mode, statistics and histogram
- CAT I 1000 V, CAT II 600 V
- Three-year warranty

### Fluke Calibration 8808A 5.5 Digit Multimeter

Versatile 5.5 digit multimeter for manufacturing, development and service applications
- 5.5 digit resolution
- Basic V dc accuracy of 0.015%
- Dual display
- Dedicated dc leakage current measurement
- 2 x 4 ohms four-wire measurement technique
- Six dedicated buttons for fast access to instrument setups
- Hi/lo limit compare for pass/fail testing
- Three-year warranty

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**FEATURED PRODUCTS AND SELECTION GUIDE**

**Bench Multimeters**
Readings you can rely on

Wires in tight, compact spaces. Panels that are out of reach. Extra-large conductors. We understand your workspace and have designed products for noise-free, reliable readings. Providing advanced performance, the digital clamp meters designed by Fluke are known as workhorse current clamp meters. The amp clamp meter line is simple to use and gimmick free.

FEATURED PRODUCTS

Fluke 376 FC True-rms Clamp Meter
Log and trend measurements to pinpoint intermittent faults
The Fluke 376 FC True-rms Clamp Meter is your go-to tool for an extremely wide range of electrical measurements.

- Connect your meter to your smartphone with Fluke Connect™ Measurements
- Read measurements on your phone at a safe distance, wearing less PPE while your meter takes all the risks
- Record results directly to your phone and the cloud
- Capture intermittent faults while performing other tasks using the logging capabilities of the Fluke 376 FC
- Create and share reports from the field via email, or converse in real time with ShareLive™ video calls
- The iFlex flexible current probe expands the measurement range to 2500 A ac and provides access to large conductors in tight spaces (included)
- TPAK magnetic hanging strap (included)
- Integrated VFD low-pass filter for accurate motor-drive measurements
- Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
- CAT IV 600 V, CAT III 1000 V safety rating
- Three-year warranty
- Soft carrying case

Fluke 325 True-rms Clamp Meter
Big ac/dc features in a small form factor
The Fluke 325 Clamp Meter performs in the toughest environments and provides noise-free, reliable results. Trust the 325 to help you confidently diagnose all kinds of electrical problems.

- Rugged, reliable true-rms clamp meter with dc current and frequency measurements provides accurate measurements on nonlinear signals
- Measures ac and dc current to 400 A
- Measures ac voltage and dc voltage to 600 V
- Measures ac and dc voltage to 600 V
- Measures frequency to 500 Hz
- Min/max functionality
- Measures temperature from -10.0 °C to 400.0 °C (14.0 °F to 752.0 °F)
- Measures capacitance to 1000 µF
- Hold function captures a reading on the display
- Features a CAT III 600 V, CAT IV 300 V safety rating
- Two-year warranty

Fluke 902 FC True-rms HVAC Clamp Meter
Helps HVAC technicians work more efficiently on the work site
The Fluke 902 FC Clamp Meter, with Fluke Connect wireless connectivity, can help HVAC technicians improve productivity in the field. The rugged, dual-rated CAT III 600 V, CAT IV 300 V meter equips you to perform many essential HVAC system measurements—microamps for testing pilot light sensors, resistance up to 60 kΩ, ac current and ac/dc voltage, capacitance and contact temperature—all with just one tool.

- A wireless Fluke Connect-enabled clamp meter designed specifically for the needs of HVAC technicians
- Offers 200 µA dc current measurements to measure flame rod
- Extends resistance range to measure thermistors up to 60 kΩ
- Captures flue gas temperature
- Measures start and run motor capacitors
- Measures variable frequency drive performance
- Comes with a TPAK magnetic hanging strap, batteries, soft carrying case and a three-year warranty
- Measures ac current to 600 A, ac and dc voltage to 600 V, resistance to 60 kΩ
- Measures temperature from -10 °C to 400 °C (14 °F to 752 °F)

Fluke Connect (FC) available in selected countries only. Non-FC models are available. Please contact your local distributors to find out more.
<table>
<thead>
<tr>
<th>Feature</th>
<th>323</th>
<th>324</th>
<th>325</th>
<th>336 FC</th>
<th>338 FC</th>
<th>346</th>
<th>362 FC</th>
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<tbody>
<tr>
<td><strong>Types of Measurements</strong></td>
<td></td>
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<td><strong>Special Features</strong></td>
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<td>Flashlight/torch</td>
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<td>Remote display Detachable</td>
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<tr>
<td><strong>Specifications</strong></td>
<td></td>
<td></td>
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<td><strong>AC response</strong></td>
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<tr>
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</tbody>
</table>

### Measurements

- **AC volts**
- **Resistance**
- **DC volts**
- **DC current**
- **True-rms**
- **Temperature**
- **Warranty (years)**

### Special Features

- Flashlight/torch
- Remote display Detachable

### Specifications

- **Frequency**
- **Capacitance**
- **Temperature**

### Warranty and Safety

- Warranty (years)

---

**Note:** Clamp not included.
When uptime matters

Fluke digital multimeters (DMMs) are on more tool belts, finding more problems, than any other comparable test tools. Each industrial meter is tested to the extreme—drop, shock, humidity, you name it. Every Fluke digital multimeter gives you accurate measurements, consistent and reliable performance, attention to safety, and the strongest warranty available.

Fluke has a full family of digital multimeters. Whether you work in the residential or commercial world, deal with HVAC equipment or electricity, there’s a Fluke digital multimeter for you.

Fluke 87V Industrial Multimeter

Fluke 87V identifies complex signal problems fast

The Fluke 87V Industrial Multimeter provides the resolution and accuracy to efficiently troubleshoot motor drives, plant automation, power distribution and electromechanical equipment. A low-pass filter lets you troubleshoot VFDs and captures intermittents as fast as 250 µs.

Features include frequency to 200 kHz, plus % duty cycle, resistance, continuity and diode test. And it includes a built-in thermometer so you can take temperature readings without having to carry a separate instrument.

Correctly measure pulse-width modulated motor-drive signals

The Fluke 87V includes a unique function for accurately measuring noisy VFD signals. Special shielding blocks high-frequency, high-energy noise generated by large drive systems.

Electrical safety

All inputs for the 87V are compliant to overvoltage category CAT III 1000 V/CAT IV 600 V. They are designed to withstand spikes in excess of 8,000 V.

Fluke 279 FC True-rms Thermal Multimeter

Full-featured multimeter with built-in thermal imager

Fluke 279 FC True-rms Thermal Multimeter helps you find, repair, validate and report many electrical issues quickly so you can be confident that problems are solved.

Locate the problem immediately

Scanning with the 279 FC’s thermal imager reveals many electrical issues rapidly and from a safe distance. By combining two tools into one, the thermal multimeter lightens the load and increases productivity.

Expanded functionality

The included iFlex™ flexible current clamp lets you measure up to 2500 A ac, even in tight, hard-to-reach spaces. The 10+ hour rechargeable battery keeps you going all day long under normal conditions.

Communicate your results

With built-in Fluke Connect™, transmit results wirelessly to a smartphone and save time on reporting to validate work is complete. Create and email reports right from the field.

Fluke 179 True-rms Digital Multimeter

Works when you need it, where you need it

The Fluke 179 is the preferred solution for professional technicians around the world. It includes the troubleshooting features you use every day, plus a backlit digital display, analog bar graph and built-in temperature measurements.

When uptime matters

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**DIGITAL MULTIMETERS**

**SELECTION GUIDE**

**DIGITAL MULTIMETERS**

**VCHECK™** VoltAlert™, non-contact voltage detection

**Motor Drive (ASD) Measurements**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Advanced meters</th>
<th>Compact meters</th>
<th>Specialty meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Multimeters</td>
<td>288/287</td>
<td>117/115</td>
<td>279 FC</td>
</tr>
<tr>
<td>VoltAlert™, non-contact voltage detection</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Basic features</td>
<td>113/119</td>
<td>119</td>
<td>278 FC</td>
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<tr>
<td>Models</td>
<td>288/287</td>
<td>117/115</td>
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<tr>
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<tr>
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<tr>
<td>Diagnostics and data</td>
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<tr>
<td>Digital multimeter with IR camera</td>
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<tr>
<td>Display holdover (1 hour)</td>
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<tr>
<td>Relative reference</td>
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<tr>
<td>Trend capture</td>
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<td>Measurements</td>
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<td>Voltage range</td>
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<tr>
<td>Temperature range</td>
<td>-40° C to 1090° C</td>
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**Specifications**

- 288/287
- 117/115
- 279 FC
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- 119
- 278 FC
- 288/287
- 117/115
- 279 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC

**Warranty**

- 288/287
- 117/115
- 279 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC
- 113/119
- 119
- 278 FC

**Contact Information**

For more information, visit Fluke.com or call 1-800-44-FLUKE. Contents subject to change without notice. © 2016 Fluke Corporation.
It’s critical for facilities to have grounded electrical systems, so that in the event of a lightning strike or utility overvoltage, current will find a safe path to earth. To ensure a reliable connection to earth, it’s recommended that ground electrode testing be performed at regular intervals.

Fluke’s family of electrical earth ground testers have been built to address the entire spectrum of ground-testing methods from the basic to the most advanced. Our testers have been designed to be accurate, safe and easy to use. We provide quick and precise resistance measurements through several test methods: 3- and 4-pole fall-of-potential testing, selective measurement testing, stakeless testing and 2-pole testing.

### Fluke 1630-2 FC Earth Ground Clamp
- Earth ground ac leakage current measurement
  - Identify ac leakage currents without disconnecting the earth ground stake from the grounding system
  - Save time by automatically recording data at preset intervals; up to 32,760 measurements are stored at the set logging interval
  - Share stored data with Fluke Connect™
  - User-defined high/low alarm limits, for rapid measurement evaluation
  - Selectable band-pass filter function removes unwanted noise from the ac leakage current measurement

### Fluke 1625-2 GEO Earth Ground Tester
- Fast, accurate earth ground testing using all four test methods
  - A unique earth ground tester that performs testing with and without stakes
  - Tests 3- and 4-pole fall-of-potential, and 4-pole soil resistivity (with stakes)
  - Performs selective earth ground rod testing (one clamp + stakes)
  - Performs stakeless earth ground rod testing (two clamps)
  - Features Automatic Frequency Control (AFC) to minimize the effect of interference

### Fluke EI-162BN Split Core Transformer
- Used as a selective clamp for ground loop resistance measurement around power pylons.
  - Inner diameter of the clamp is 340 mm (13.4 in). Includes the split core transformer. This Split Core Transformer can be used in conjunction with the 1625 Kit or the 1623 Kit.

### Fluke 1621 GEO Earth Ground Tester
- The first line of defense in detecting reliable ground connections
  - 3-pole fall-of-potential earth testing for basic measurements
  - 2-pole resistance measurements for added versatility
  - Portable size allows for easy transportation

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**FEATURED PRODUCTS AND SELECTION GUIDE**

### EARTH GROUND TESTERS

**Models**

<table>
<thead>
<tr>
<th>Features</th>
<th>1621</th>
<th>1623-2</th>
<th>1625-2</th>
<th>1630-2 FC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall of potential</td>
<td>3-pole</td>
<td>3-pole/4-pole</td>
<td>3-pole/4-pole</td>
<td>3-pole/4-pole</td>
</tr>
<tr>
<td>Selective</td>
<td>1 clamp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeless</td>
<td>2 clamp</td>
<td></td>
<td></td>
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<tr>
<td>2-pole method</td>
<td>2 pole</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic Frequency Control (AFC)</td>
<td>94 Hz to 128 Hz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td></td>
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<td></td>
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<tr>
<td>Adjustable limits</td>
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<tr>
<td>R*</td>
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</tbody>
</table>

Fluke Connect (FC) available in selected countries only. Non-FC models are available. Please contact your local distributors to find out more.
ELECTRICAL TESTERS

The first tool you reach for

Often the first tool you reach for when troubleshooting an electrical problem is an electrical tester. An electrical tester is a frontline troubleshooting tool designed to give you quick results, so you can quickly get equipment up and running again. Whether you're checking for the presence of voltage, measuring voltage without making metallic contact, measuring current or checking continuity and resistance levels, a tester is fast, reliable and easy to use. It's compact form means you can carry an electrical tester with you, whether in your shirt pocket, pants pocket or tool belt, for fast access.

When complemented with accessories such as a proving unit, a carrying case, a belt holster, alligator clips or a spare set of test leads, an electrical tester will be your go-to tool for any job.

FEATURED PRODUCTS

Fluke T6-1000 Electrical Tester

Measure voltage...without test leads

Measure voltage up to 1000 V ac through the open fork, without test lead contact to live voltage. Equipped with revolutionary FieldSense technology, the T6-1000 can make true-rms ac voltage measurements just by placing the wire to be measured in the open fork. The ability to simultaneously measure up to 1000 V ac and 200 A on wires up to AWG 4/0 (120 mm²) makes the T6-1000 an extremely versatile front-line troubleshooting tool. Plus, the ability to measure frequency through the open fork with just the push of a button gives you even more information at your fingertips.

For more traditional measurements, the included test leads still allow you to measure ac or dc voltage up to 1000 V or resistance up to 100 kΩ.

Related products and accessories
• Fluke AC285 SureGrip™ Alligator Clips
• Fluke H-T6 Holster
• Fluke TPAK Magnetic Meter Hanger

Fluke T150/T130/T110/T90 Two-pole voltage and continuity testers

The four Fluke two-pole voltage and continuity testers are built to work the way you work. They give you the best combination of safety, ease-of-use and fast answers available anywhere.

Designed according to both regulation HSE GS 38 (tip caps) and IEC EN 61243-3:2014 to verify the absence of voltage – even with discharged batteries.

CAT IV 600 V, CAT III 690 V safety rating

With 4 ways to indicate the presence of voltage—LED indicator, LCD display, audible tone or tactile feedback, always know if hazardous voltage is present (digital display on T130, T150; vibration indicator on T110, T130, T150)

• Fluke T150 Voltage and Continuity Tester with LCD readout and additional resistance measurement
• Fluke T130 Voltage and Continuity Tester with backlit LCD readout
• Fluke T110 Voltage, Continuity Tester with switchable load
• Fluke T90 Basic Voltage and Continuity Tester

Fluke 1AC II VoltAlert™ Electrical Tester

Easy to use and small enough to fit in your shirt pocket, the IAC II VoltAlert allows electricians, maintenance technicians, service and safety personnel and homeowners to quickly test for energized circuits. Certified up to CAT IV 1000 V, the IAC II illuminates red and emits an audible alert in the presence of 90–1000 V ac. Designed with Voltbeat™ technology, the IAC II performs a continuous self-test, so you always know it's working. The convenient pocket clip allows you to easily carry it around in your shirt pocket yet always have it at the ready to check for the presence of voltage. Also available in a 20–90 V ac version for use on control circuits.
**ELECTRICAL TESTERS SELECTION GUIDE**

**Open fork testers with FieldSense technology**

<table>
<thead>
<tr>
<th>Model</th>
<th>FieldSense voltage measurement technology</th>
<th>True-rms readings</th>
<th>Phase rotation indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6-1000</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>T6-500</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Open fork design</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6-1000</td>
<td>✔</td>
</tr>
<tr>
<td>T6-500</td>
<td>✔</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency range/Torsion field indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6-1000</td>
<td>50-60 Hz*</td>
</tr>
<tr>
<td>T6-500</td>
<td>50-60 Hz*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage ac/dc</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6-1000</td>
<td>1000 V</td>
</tr>
<tr>
<td>T6-500</td>
<td>600 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Output ac</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6-1000</td>
<td>300 A</td>
</tr>
<tr>
<td>T6-500</td>
<td>300 A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Resistance/Frequency</th>
<th>Continuity test</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6-1000</td>
<td>10 kΩ/50-60 Hz</td>
<td>✔</td>
</tr>
<tr>
<td>T6-500</td>
<td>10 kΩ/1000 Hz</td>
<td>✔</td>
</tr>
</tbody>
</table>

**Basic features**

- FieldSense voltage measurement technology
- Open fork design
- True-rms readings
- Frequency range/Torsion field indication
- Voltage ac/dc 1000 V / 600 V
- Output ac 300 A
- Resistance/Frequency 10 kΩ/50-60 Hz
- Continuity test

**Display**

- Backlight
- Dual line display — simultaneous V+I, Hz

**Other features**

- Hazardous voltage warning light
- Audible alert
- Flashlight
- Dual sensitivity

**Safety and electrical safety**

- Safety rating (EN 61010) CAT III 1000 V / 600 V
- Safety rating (EN 61010) CAT IV 600 V

**Models**

- Fluke VoltAlert™ family
  - 1AC II
  - 2AC LVD2

**Fluke VoltAlert™ family**

- Voltage range 90 V ac to 1000 V ac
- Audible alert
- Flashlight

**Basic features**

- Voltage range 90 V ac to 1000 V ac
- Audible alert
- Flashlight

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage ac/dc</th>
</tr>
</thead>
<tbody>
<tr>
<td>1AC II</td>
<td>1000 V</td>
</tr>
<tr>
<td>2AC LVD2</td>
<td>1000 V</td>
</tr>
<tr>
<td>LVD3</td>
<td>1000 V</td>
</tr>
</tbody>
</table>

**Warranty (years)**

- 2

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**GAS DETECTION THERMAL CAMERA**

**Infrared for every day — SF6 gas leak detection when you need it.**

Increase efficiency and save money with a top-performing every day infrared camera that delivers pinpoint SF6 detection. Conduct two critical functions with a single tool whenever and wherever you want without having to pay heavy rental charges or hire expensive contractors.

Two tools in one, at a one-of-a-kind price.
Fluke Ti450 SF6 Gas Detector

SF6 gas leak detector combined with Fluke’s top performing pistol grip thermal camera two tools in one.

Infrared for every day. SF6 gas detection when you need it
- Increase efficiency and save money with a top performing thermal camera that delivers pinpoint, state-of-the-art SF6 detection – conduct two critical functions with a single tool
- Best of all, it’s affordable enough to own, so you can conduct infrared and gas inspections whenever and wherever you want without having to pay heavy rental charges or hire expensive contractors

Designed for dependability
- Using the technology from Fluke’s top performing pistol grip camera, the Fluke Ti450 SF6 easily switches from infrared to gas mode with the turn of a dial. Making it easy to change modes on the fly when you are in the field

Two critical solutions in one remarkable thermal camera
- With its pistol grip comfort and point-and-shoot convenience, even the tough spots become easy to diagnose
- With the added feature of SF6 pinpoint detection, you can get the analysis you need any-time, anywhere

<table>
<thead>
<tr>
<th>Model</th>
<th>Ti450 SF6</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF6 detection ( \lesssim 10 ) lbs annual gas loss rate</td>
<td>Excellent outdoor conditions necessary - large temperature difference between gas and background, no wind</td>
</tr>
<tr>
<td>SF6 detection ( 10 ) to ( 50 ) lbs annual gas loss rate</td>
<td>Good outdoor conditions - moderate temperature difference between gas and background, no wind</td>
</tr>
<tr>
<td>SF6 detection ( &gt; 50 ) lbs annual gas loss rate</td>
<td>Easy detection in moderate conditions</td>
</tr>
</tbody>
</table>

Specifications
- Detector resolution: 320 x 240 (76,800 pixels)
- SuperResolution on gas mode: 320 x 240 (76,800 pixels)
- SuperResolution on infrared mode: 640 x 480 (307,200 pixels)
- Gas detection: SF6 only
- IFOV with standard lens (spatial resolution): 1.31 mRad, D:S 753:1
- Field of view: 24 °H x 17 °V
- Minimum focus distance: 15 cm (approx. 6 in)
- IR Fusion® technology: Yes, on camera - full screen
- MultiSharp® Focus: Yes, focused near and far, throughout the field of view
- LaserSharp® Focus: Yes, in-focus images with the touch of a button
- Laser distance meter: Yes, calculates distance to the target for precisely focused images and displays distance on screen
- Advanced manual focus: Yes

Indoor Air Quality

IAQ monitoring and measurement

Fluke indoor air quality (IAQ) tools are the professional’s choice for maintaining, troubleshooting and adjusting the heating and air-conditioning systems of our offices, schools, hospitals, manufacturing plants, data centers and other facilities. Diagnosing potential environmental irritants and hazards allows for adjustments and countermeasures that solve or prevent issues like sick building syndrome.

Indoor air diagnostics, temperature, humidity, air flow, particle concentration and other measurements are used in the balancing and maintenance of an HVAC system. Because of the quality and measurement accuracy of Fluke tools, you can quickly diagnose, identify and begin to resolve indoor air quality issues.

Fluke’s professional indoor air diagnostic tools, like the Fluke 985 Airborne Particle Counter, are essential for every HVAC technician and facility maintenance manager. With the Fluke 985, you get real-time particle concentration measurement that you can use to diagnose and identify the source of an airborne contamination.
FEATURED PRODUCTS

**Fluke 985 Airborne Particle Counter**

Portable, handheld particle measurement

Take a new look at indoor air quality.

The Fluke 985 Airborne Particle Counter is the preferred choice for HVAC and IAQ professionals. From filter testing to IAQ investigations, the Fluke 985 is the portable solution for determining airborne particle concentrations. Use the Fluke 985 to immediately respond to occupant complaints, or as part of a comprehensive preventive maintenance program.

Use the Fluke 985 Particle Counter to:

- Measure filter efficiency
- Monitor industrial clean rooms
- Prescreen indoor air quality and confidently work with IAQ specialists
- Locate particle sources for remediation in a particular location
- Report the effectiveness of repairs to customers
- Drive additional business by demonstrating the need for maintenance and repair

The Fluke 985 is lightweight and easy to use in any position. Data export options use a USB cable or memory stick, so it’s easy to review and analyze the data anywhere and anytime.

**Fluke 975 AirMeter test tool**

One tool. Get more done.

The Fluke 975 AirMeter test tool raises indoor air monitoring to the next level by combining five powerful tools into one rugged and easy-to-use handheld device. Use the Fluke 975 to optimize HVAC ventilation settings for ASHRAE 62 recommendations, to actively monitor indoor air diagnostic applications, to verify the operation of building HVAC control systems, to respond to comfort-related calls from occupants, or as part of a comprehensive preventive maintenance program.

Use the Fluke 975 AirMeter test tool to:

- Respond to comfort-related calls from occupants
- Verify the operation of building HVAC control systems
- Determine whether adequate ventilation exists for space air cycling
- Monitor air flow and velocity
- Test for dangerous carbon monoxide leaks

**Fluke 971 Temperature Humidity Meter**

Fast, accurate ambient temperature and humidity measurements

Temperature and humidity are two important factors in maintaining optimal comfort levels and good indoor air quality (IAQ). Quickly and conveniently take accurate humidity and temperature readings with the Fluke 971.

Durable and portable

The Fluke 971 is invaluable for facility maintenance and utility technicians, HVAC-service contractors and specialists who assess indoor air quality. Lightweight and easy to hold, the Fluke 971 is the perfect tool for monitoring problem areas.

**Indoor Air Quality**

**Fluke 971 Temperature Humidity Meter**

**Simple, all-in-one air diagnostics**

- Temperature
- Velocity
- Humidity
- CO₂
- CO

**Fluke 985 Airborne Particle Counter**

**Portable, handheld particle measurement**

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Use the Fluke 975 AirMeter test tool to:

- Respond to comfort-related calls from occupants
- Verify the operation of building HVAC control systems
- Determine whether adequate ventilation exists for space air cycling
- Monitor air flow and velocity
- Test for dangerous carbon monoxide leaks
**Fluke 925 Vane Anemometer**

**Easy-to-use and economical anemometer**

Take a new look at indoor air quality.

- Ability to measure wind speed in feet per minute or meters per second
- Data capture using one button and the ability to average multiple readings
- Min and Max alarm setting to alert the user when limits have been met
- Durable over mold housing to protect the unit from drops
- 1M extension of sensor from display to ensure air flow is captured in hard to reach locations

**Transmission**
- Display: Dual-screen 4 digit (9999 points) LCD screen
- Measurement unit: Wind speed: ft/m, m/s
- Air flow: CFM (cubic foot/minute) and CMS (cubic meter/second) (optical)
- Temperature: °C and °F

**Accuracy**
- Wind speed measurement: ±0.02 % RD + 1
- Temperature: 30° ± 2%    60° ± 6%    80° ± 25%

**Specifications**
- Battery type: 9V battery (high capacity alkaline battery)
- Dimensions: 181 × 71 × 38 mm
- Weight: 100 g, including the battery and sensor
- Sensor head diameter: 70 mm
- Battery life: About 40 hours
- Sensor head storage: Single point (2 hours at most) or multiple points (8 readings at most)
- Measurement parameter Range Resolution Accuracy
  - Wind measurement Range Resolution Accuracy
    - 1 to 99999 revolutions/minute (Fluke 931 only)
  - Temperature: °C and °F

**Fluke 945 Sound Meter**

**Easy to use and provides clear data display for a variety of applications**

- Measure in lux or footcandles, with one button to switch between display options
- Measuring range up to 20,000 lux or foot candles
- Data hold to freeze reading on the digital display
- Min/Max ability to show high and low readings
- Auto power off to save battery life
- Includes protective sensor cap

**Measurement parameters**
- Display: 0.1 dB steps on 4 digit LCD screen
- Measurement of environmental noise (A weighted) Range Resolution Accuracy
  - 10 to 130 dB 0.1 dB ±1.5 dB (ref 94dB@1KHZ)
  - 10 to 130 dB 0.1 dB ±1.5 dB (ref 94dB@1KHZ)

**Specifications**
- Display: 0.1 dB steps on 4 digit LCD screen
- Frequency range: From 31.5 Hz to 8 kHz
- Max/Min, according to memory logging: Up to 14,000 records
- Recording intervals: From 1 second to 8 hours
- USB interface: 14,000 records database
- Safety standard: CE, designed to meet ISO9011 Type2, IEC 61168 Type 2
- Microphones: 0.5 inch electret condenser microphone
- Times weighing: Fast, slow
- Dimensions: 230 x 56 x 22 mm
- Warranty: 1 year
When you're conducting industrial imaging inspections, high-quality images that allow for better analysis, presentation and professionalism are essential. Fluke Industrial Imaging tools are designed for everyday use, in the toughest industrial environments, for thorough and accurate inspections. Whether you're on the factory floor inspecting conveyor belts and compressors, inspecting outdoor substations or conducting an energy audit in a commercial building, you need to quickly identify potential problems, prevent unplanned downtime and eliminate potential safety hazards.

**Sonic imaging**

Sonic imaging enables maintenance teams to quickly and accurately locate pressurized air, steam, gas and vacuum leaks. This new technology allows technicians to isolate the sound frequency, so they can filter out background noise and inspect entire plants even in noisy environments.

SoundSight™ technology quickly pinpoints the location of leaks. A SoundMap™ image is applied to a visible light image to quickly provide a fast visual context of the location. Reduce the time spent in detecting leaks, maximize your compressor usage and inspect entire plants, even during peak production periods.

**Fluke ii900 Sonic Industrial Imager**

Quickly pinpoint the location of leaks

Using SoundSight™ technology, the Fluke ii900 Sonic Industrial Imager, quickly finds compressed leaks in air, steam, gas and vacuum systems, that effect both production uptime and the operations bottom line.

The 7” LCD touchscreen overlays a SoundMap™ image for quick leak identification. With minimal training, maintenance technicians can check for leaks during their typical routine —even during peak operation hours.

The ii900 Sonic Industrial Imager lets technicians see sound as they scan hoses, fittings, and connections for leaks. Its built-in acoustic array of tiny sensitive microphones generates a spectrum of decibel levels per frequency. Based on this output, an algorithm calculates a sound image, known as SoundMap™ that is superimposed on a visual image. The SoundMap is automatically adapted depending on the frequency level selected so that background noise is filtered out.

**Key benefits:**

- Fast, simple leak location identification
- Optimize air compressors—delay the capital expense of installing additional compressors
- Ensure proper pressure to pneumatic equipment
- Lower energy and gas costs
- Improve reliability of the production line
- Make leak detection part of the typical maintenance routine
- Validate repairs on the spot

**Fluke DS701 and DS703 FC High Resolution Diagnostic Videoscopes**

Fluke Diagnostic Videoscopes put high-resolution images in the palm of your hand.

- High definition probe with dual-view camera
- Processing speeds that render a smooth, clear, consistent image
- 7” LCD screen for accurate diagnostics in difficult to reach spaces
- Macro to micro zoom function
- Adjustable LED lighting and digital zoom for quality images

**Fluke DS701 Diagnostic Videoscope**

Rugged, industrial 800 x 600 resolution diagnostic videoscope with dual view probe. Up is Up® technology rotates the display screen to allow for appropriate image display, regardless of the orientation of the probe (8.5 millimeter, 1.2 meter probe only). Intuitive user interface with easy to navigate button technology.

**Fluke DS703 FC High Resolution Diagnostic Videoscope with Fluke Connect™**

Rugged, high-definition industrial 1280 x 720 resolution diagnostic videoscope with Wi-Fi capability. 720p video recording inspection camera. Up is Up® technology rotates the display screen to allow for appropriate image display, regardless of the orientation of the probe (8.5 millimeters, 1.2 meter probe only).

Save time: Wirelessly sync images directly from your videoscope to the Fluke Connect™ system, and attach to an asset record or work order. Having access to maintenance records simultaneously at the inspection site and from the office or an off-site location enables faster decision making and real-time collaboration between team members. You can also live stream images or videos from your scope to a smartphone or PC.
**SELECTION GUIDE**

**Industrial Imaging**

**Model: DS703 FC**

- **VideoScope probe**
  - Length: 1.2 meter (3.94 feet)
  - Diameter: Detachable, semi-ridged, internal Ø 9 mm diameter
  - Number of microphones and sensors: 999 picture files and 20 video files
  - Measurement range:
    - Sound pressure level (dB SPL) or acoustic pressure is the local pressure deviation from the ambient—decibel and sound pressure level
    - Frequency band: 2 kHz to 52 kHz
    - Number of microphones: 64 digital MEMS microphones 
  - Resolution:
    - 1280 x 800 (1,024,000 pixels)
    - Touchscreen: Capacitive touch screen
- **Visibility Range**
  - 0 °C to 45 °C (32 °F to 113 °F), 50 °C (122 °F) for less than 10 minutes
  - Drop test: 2 meter (6.56 feet)
  - Water resistance: IP68, dust tight and immersion of 1 meter or more depth
  - Tablet: IP54, dust protected and protected against water projected from a nozzle
- **Battery and Charging**
  - Batteries: Rechargeable Li-ion, Fluke BP291
  - Battery life: 6 hours (product includes spare battery)
  - Battery charging system: External dual-bay charger, EDBC 290
  - Operating humidity: 90 % at 35 °C (95 °F)
  - Storage temperature: -40 °C to 60 °C (-40 °F to 140 °F)
- **Dimensions**
  - 6.98 x 8.85 inches (17.73 x 22.48 cm)
  - Weight: 1.95 lbs (0.88 Kg)
- **General Features**
  - Instant upload to the cloud: Yes, with Fluke Connect™
  - Digital export: USB and micro HDMI cable
  - Streaming video: Via IEEE and Fluke Connect™
  - Focus type: Fixed
  - Focus distance: 10 mm
  - Video resolution: Standard 720p
  - Video output format: MPEG compression
  - Video recording format: AVI
  - Still image format: JPG
  - Touch screen: Capacitive touch screen
  - LCD screen: 7" LCD with back light, under-sunlight readable
  - Battery charging time: 3 hours
  - Frequency band selection: User selectable through user-made presets or manual entry
  - Frequency band: 2 kHz to 52 kHz
  - Auto-max/min dB gain: Auto or manual, user selectable
  - Frequency band: 2 kHz to 52 kHz
  - Anti-interference: 400x100x3.7 volt rechargeable internal li-ion battery
- **Data transfer**
  - USB, micro HDMI cable
  - Internal memory: 6 GB
  - Color palettes: Visible light, grayscale or inverted
  - Instantaneous readout: Yes, with Fluke Connect™
- **Sensors and Definition**
  - General features: Display front is to the room
  - Warranty: 2 years
  - Operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
  - Relative humidity: 10 % to 95 % non-condensing
  - Weight: 1.7 kg (3.75 pounds)
  - General safety: Class A (Industrial Broadcasting and Communication Equipment)
  - Material: Elastomer coated steel
  - Communication (Equipment): WIFI 11 G/L/B, Range: 33 feet (10.06 meters)
  - Probe: USB and micro HDMI cable
  - Fluke Connect™: –
  - Fluke Connect™ app and Fluke Connect™ products not available in all countries.

*Fluke Connect™ app and Fluke Connect™ products not available in all countries.

**Fluke Connect™ functionality will be available for the DS703 FC VideoScope soon. This powerful software will allow you to save and share high-resolution images with your team. Watch the Fluke website for this firmware update and add the power of Fluke Connect to your DS703 FC VideoScope.*

Fluke is the world leader in handheld test tools. Everything that you know about Fluke multimeters, clamp meters and electrical test tools applies to our insulated hand tools:

These rugged hand tools are built to last a lifetime. That's why they carry a lifetime warranty.* If a Fluke insulated hand tool is defective, take it to a distributor for replacement or contact Fluke (www.fluke.com/hand-tool-warranty).

Fluke insulated tools always feel right. From the moment you first put them in your hand, you're ready to go to work. The pliers offer a smooth, solid motion, without needing to be broken in. The screwdrivers give you maximum torque and a comfortable grip that reduces fatigue.

Take everything that makes Fluke test tools great and put that into insulated hand tools. That's what you'll have on your tool belt.

* Industrial product limited Lifetime Warranty

Each Fluke insulated hand tool will be free from defects in material and workmanship for its lifetime. Lifetime is defined as seven years after Fluke discontinues manufacturing the product. For the warranty period, should a Fluke insulated hand tool prove defective, it will be replaced, repaired, or, if possible, replaced with a new Fluke insulated hand tool of similar value. The replacement may be subject to other terms and conditions of Fluke warranty, including handling, including damage caused by use outside of the product's intended use. This warranty covers the original purchaser only and is not transferable. To establish original ownership proof of purchase is required.

FEATURED PRODUCTS

Fluke Insulated Screwdrivers

The job isn’t finished until everything is tightened down. Precision insulated tools fit and rip the fastener properly to apply maximum torque without damage to the head. Hardened chromium-molybdenum-vanadium steel blades minimize wear. The last thing you want is to have your driver slip out of the screw head and possibly contact a nearby conductor.

Fluke offers three styles and multiple sizes—seven drivers in all. All certified to 1000 volts ac and 1500 V dc. Every screwdriver individually tested to 10,000 volts.

• The ergonomic handle adapts to the user's hand, causing less strain and work fatigue and providing maximum torque
• The full length, impact-proof handle core is coated with soft-grip outer material and has a hanging hole for extra security and an anti-roll handle design
• The slim insulated shaft allows access in hard to reach areas
• All blades are manufactured from German CMV steel for superior durability

Fluke Insulated Pliers and Cutters

Wires need cutting. Cables need pulling. Knockouts need twisting. Sometimes things just need holding. Fluke insulated pliers and cutters give you a range of options when the job requires jaws with bite. All of them are built with German CMV steel.

Long nose pliers with side cutter and gripping zones

• Unique milled wave patter gripping zones
• Straight, half-round, long and slim knurled jaws, specially profiled
• Side cutting edge for wire cutting

Heavy-duty, high-leverage diagonal cutter

• Cuts hard materials including steel and piano wire
• Power joint and precision cutting edges

Fast adjust pump pliers

• 27 jaw adjustment steps for more accurate gripping of the workpiece with less slippage than other designs
• Self-locking on pipes and nuts: no slipping on the workpiece, with low hand force required
• Gripping surfaces with teeth hardened to HRC61 for low wear and reliable gripping
• Box-joint design: high stability because of double guide
• Pinch guard that prevents operators’ fingers being pinched

Heavy duty combination pliers

• Secure hold by aggressive serrated jaws and 4-point gripping hole
• Slim shape for better access to wires in tight spaces
• Powerful gripping jaw, yet 20 % lighter weight than other designs

Fluke Hand Tools Magnetic Hanging Pouch

The magnetic Hanging Pouch with multiple pockets takes care of your tools and keeps them at hand and easy to reach while you’re working. Using the same design and rare-earth magnet of the TPAK Toolkit you use to hang your meters, the Magnetic Hanging Pouch keeps your tools closely hanging in panels and metal surfaces.

• Multiple pockets; holds up to three pliers and seven screwdrivers
• Protected inside
• Magnetic hanging strap

Note: Tools are not included with Magnetic Hanging Pouch

* Industrial product limited Lifetime Warranty
SELECTION GUIDE

**INSULATED HAND TOOLS**

**Models**

<table>
<thead>
<tr>
<th>Screwdriver type</th>
<th>ISLS3</th>
<th>ISLS5</th>
<th>ISLS8</th>
<th>SPRS1</th>
<th>SPRS2</th>
<th>SHQS1</th>
<th>SHQS2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blade length</strong></td>
<td>3 in, 75 mm</td>
<td>4 in, 100 mm</td>
<td>5 in, 125 mm</td>
<td>3 in, 75 mm</td>
<td>4 in, 100 mm</td>
<td>4 in, 100 mm</td>
<td>5 in, 125 mm</td>
</tr>
<tr>
<td><strong>Tip size</strong></td>
<td>3/32 in, 2.5 mm</td>
<td>5/32 in, 4 mm</td>
<td>1/4 in, 6 mm</td>
<td>#1</td>
<td>#2</td>
<td>Square</td>
<td>Square</td>
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**Models**

<table>
<thead>
<tr>
<th>ISLP8</th>
<th>ISDC8</th>
<th>INPP10</th>
<th>INCP8</th>
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<tbody>
<tr>
<td><strong>Pliers type</strong></td>
<td>Long nose</td>
<td>Diagonal cutter</td>
<td>Adjustable/pump</td>
</tr>
<tr>
<td><strong>Nominal length</strong></td>
<td>8 in, 200 mm</td>
<td>8 in, 200 mm</td>
<td>10 in, 250 mm</td>
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**Models**

<table>
<thead>
<tr>
<th>IKSC7</th>
<th>IKPL3</th>
<th>IKST7</th>
<th>IKPK7</th>
<th>IBT6K</th>
<th>IB875K</th>
<th>IB117K</th>
<th>CPAK8</th>
<th>RUP8</th>
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</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Insulated 7 unit Screwdriver Kit, 1000 V</td>
<td>Insulated 3 unit Pliers Kit, 1000 V</td>
<td>Insulated Hand Tools Starter Kit, 1000 V</td>
<td>Insulated Hand Tools Starter Kit</td>
<td>Fluke T6 Electrical Tester + Insulated Hand Tools Starter Kit</td>
<td>Fluke 87V Industrial Multimeter + Insulated Hand Tools Starter Kit</td>
<td>Fluke 117 Electricals Multimeter + Magnetic hanging pouch with multiple pockets</td>
<td></td>
</tr>
<tr>
<td><strong>Included</strong></td>
<td>3 slotted tips, 2 Phillips tips, 2 square drive tips</td>
<td>Long nose pliers, heavy-duty diagonal cutter, heavy-duty combination pliers, roll-up tool pouch</td>
<td>Long nose pliers, heavy-duty diagonal cutter, heavy-duty combination pliers, roll-up tool pouch</td>
<td>Long nose pliers, heavy-duty diagonal cutter, heavy-duty combination pliers, roll-up tool pouch</td>
<td>3 slotted tips, 2 Phillips tips, long nose pliers, diagonal cutter, combination pliers, roll-up tool pouch</td>
<td>3 slotted tips, 2 Phillips tips, long nose pliers, diagonal cutter, combination pliers, roll-up tool pouch</td>
<td>Magnetic hanging pouch with multiple pockets, holds up to 3 pliers and 5 screwdrivers</td>
<td></td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>Lifetime</td>
<td>Lifetime</td>
<td>1 year*</td>
<td>2 year*</td>
<td>2 year*</td>
<td>Lifetime</td>
<td>3 year*</td>
<td>1 year</td>
</tr>
</tbody>
</table>

*Hand tools in kits all carry the limited lifetime warranty. Details at www.fluke.com/tools/warranty

---

**INSULATION TESTERS**

Critical readings, quickly and safely

Whether you work on motors, generators, cables or switch gear, the Fluke insulation resistance testers provide noise-free, reliable results. Delivering advanced performance, the insulation tester line is safe, simple to use and gimmick-free. It’s a perfect solution for troubleshooting, commissioning and preventative maintenance applications.
**FLUKE®**

**LAYOUT AND DISTANCE**

**Level. Layout. Build.™**

PLS laser levels and Fluke laser distance meters are the professional contractor’s tool of choice for accurate layout and measurement on the job site. Rugged, portable, and accurate, PLS and Fluke tools will save you time and money compared to traditional layout methods using tape measures, bubble vials, plumb bobs, or complex measurements and calculations.

PLS laser levels give you the highest-quality bright, thin, and crisp lines and dots for accurate reference and layout applications. To handle the rigors of a job site, PLS laser levels are drop tested up to 1 meter, IP54 rated to protect against water and dust ingress, and covered with a best-in-class, three-year warranty. PLS lasers are self-leveling and designed with the professional contractor in mind.

A PLS laser level, combined with a compact, easy-to-use Fluke laser distance meter, will provide a lifetime of increased productivity, quality, and profit. You get the tools to do the work right the first time, preventing costly rework and callbacks.

---

**FEATURED PRODUCTS AND SELECTION GUIDE**

**Fluke 1587 FC Insulation Multimeter**

*Keep yourself safe. Find hidden problems faster. Put the paperwork down.*

**Fluke Connect™** plus Fluke’s 1587 FC Insulation Multimeter helps you identify tough problems, fix them and wirelessly communicate your work through your smartphone—all at a safe distance from hazardous areas.

**PI/DAR** tested ratio tests with TrendIt™ graphs identify moisture and contaminated insulation problems fast. Fluke Connect saves measurements, eliminates the need to write down results, reduces errors and saves data for historical tracking. Temperature compensation helps create accurate baselines. Includes live circuit detection to prevent an insulation test if voltage >30 V is detected, and a VFD low-pass filter.

---

**Fluke 1550C Insulation Tester**

*Evaluate the trends, eliminate the doubt.*

The Fluke 1550C insulation resistance testing FC kit offers digital insulation testing up to 5 kV. And with the Fluke Connect wireless app, you can perform tests and collect data from a safe distance. Quickly configure, start, stop, and store tests on the 1550C remotely, a safe distance away from any operating, energized equipment. Remote data collection saves test results to the cloud for analysis and preventative maintenance.

---

**Fluke 1507 Insulation Resistance Tester**

**Versatile, compact, handheld insulation tester**

Insulation tests from 10 kΩ to 2.0 GΩ; live circuit detection to prevent insulation test if voltage >30 V is detected. Provides lo-ohms earth-bond continuity (200 mA).

---

**FLUKE CONNECT**

**LEVEL. LAYOUT. BUILD.™**

**Level. Layout. Build.™**

**PI/DAR** timed ratio tests with TrendIt™ graphs identify moisture and contaminated insulation problems fast. Fluke Connect saves measurements, eliminates the need to write down results, reduces errors and saves data for historical tracking. Temperature compensation helps create accurate baselines. Includes live circuit detection to prevent an insulation test if voltage >30 V is detected, and a VFD low-pass filter.

---

**FEATURED PRODUCTS AND SELECTION GUIDE**

**Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>1587 FC</th>
<th>1587</th>
<th>1577</th>
<th>1503</th>
<th>1507</th>
<th>1550C</th>
<th>1555</th>
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</thead>
<tbody>
<tr>
<td>Test voltages</td>
<td>50 V to 1000 V</td>
<td>50 V to 1000 V</td>
<td>500 V to 1000 V</td>
<td>500 V to 1000 V</td>
<td>50 V to 1000 V</td>
<td>250 V to 5000 V</td>
<td>250 V to 10,000 V</td>
</tr>
<tr>
<td>Insulation resistance range</td>
<td>0.01 MΩ to 2 GO</td>
<td>0.01 MΩ to 2 GO</td>
<td>0.01 MΩ to 2000 GO</td>
<td>0.01 MΩ to 10 GO</td>
<td>200 k to 1 TΩ</td>
<td>200 k to 2 TΩ</td>
<td></td>
</tr>
<tr>
<td>PI/DAR</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>Yes, plus Fluke Connect*</td>
<td>Yes, plus Fluke Connect*</td>
</tr>
<tr>
<td>Auto discharge</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Timed ramp test (breakdown)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Peak/AVG comparison</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Memory</td>
<td>Through Fluke Connect</td>
<td>Through Fluke Connect*</td>
<td>Yes, plus Fluke Connect*</td>
<td>Yes, plus Fluke Connect*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote test probe</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Remote start and setup</td>
<td>Yes, through Fluke Connect*</td>
<td>Yes, through Fluke Connect*</td>
<td>Electric</td>
<td>Electric</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lo-ohms/earth-bond resistance</td>
<td>200 mA source (10 mΩ resolution)</td>
<td>200 mA source (10 mΩ resolution)</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backlight</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Multimeter function</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Warranty (years)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Using Fluke 4301S FC adapter with Fluke Connect compatible 155x models.

Fluke Connect (FC) available in selected countries only. Non-FC models are available. Please contact your local distributors to find out more.
**Layout and Distance Measurement**

**PLS 180G KIT Green Crossline Laser Level**

Fast, accurate level and plumb reference for construction

Chalk-free lines for installation

This professional, self-leveling, crossline green laser level provides horizontal and vertical lines with ≤ 3 mm @ 10 m (≤ 1/8 in. at 30 ft) accuracy, allowing for fast, accurate, level and plumb reference lines for fixture alignment, conduit and ductwork installation, wall construction, acoustic ceiling installation, tile installation, and general residential and commercial construction.

Longer distance and use in bright light

Daylight and brighter interior lighting can wash out the visibility of laser lines. For use outdoor, or in an area with bright overhead lighting, use the laser level with an optional detector to increase the visible range of the laser. Additionally, the PLS 180G green beam laser level appears up to three times brighter than the PLS 180R red beam laser level, making it ideal for projects over longer distances or with undesirable lighting conditions.

Durability for the job site

Backed with an industry-leading three-year warranty, PLS laser levels are designed with the professional contractor in mind. PLS laser levels withstand a 1 m drop test, feature a pendulum lock to prevent damage in transport and resist water and dust with an IP54 rating.

**PLS 3G KIT Green 3 Point Laser Level**

Fast, accurate layout of reference points

Accurate reference points

This professional, self-leveling, three-point green laser level provides reference points with ≤ 3 mm @ 10 m (≤ 1/8 in. at 30 ft) accuracy, allowing for fast, accurate layout of reference points for steel stud framing, HVAC installation and electrical and residential construction.

Green vs red

The PLS 3G green beam laser appears up to three times brighter than the PLZ 3R red beam, making it ideal for projects over longer distances or with undesirable lighting conditions.

Durability for the job site

Backed with an industry-leading three-year warranty, PLS laser levels are designed with the professional contractor in mind. PLS laser levels withstand a 1 m drop test, feature a pendulum lock to prevent damage in transport, and resist water and dust with an IP54 rating.

**Fluke 424D Laser Distance Meter**

Measure farther, with greater accuracy, in more situations

Extend your reach with high accuracy

You can use the Fluke 424D Laser Distance Meter to measure up to 1000 m (3300 ft), accurate to +/- 1 mm (+/- .040 in.). No scales to interpret or misread. The extra bright laser makes it easy to target even at long distances and the backlit display makes it easy to read the results. The 424D will help you save time and reduce errors with enhanced features like storage for 20 complete displays, indirect Pythagorean distance calculations and the tripod mode for stable, long-distance measurements. No matter your job, the 424D Laser Distance Meter provides accurate, long-distance measurements to help you do the work of two people on your own.

---

**FEATURED PRODUCTS**

**PLS LASER LEVEL SELECTION GUIDE**

<table>
<thead>
<tr>
<th>Model</th>
<th>PLS 3G KIT</th>
<th>PLS 3R KIT</th>
<th>PLS 180G KIT</th>
<th>PLS 180R KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser function</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laser type</td>
<td>3-point</td>
<td>3-point</td>
<td>Crossline</td>
<td>Crossline</td>
</tr>
<tr>
<td>Laser color</td>
<td>Green</td>
<td>Red</td>
<td>Green</td>
<td>Red</td>
</tr>
<tr>
<td>Accuracy</td>
<td>≤ 3 mm @ 10 m (≤ 1/8 in. at 30 ft)</td>
<td>≤ 3 mm @ 10 m (≤ 1/8 in. at 30 ft)</td>
<td>≤ 3 mm @ 10 m (≤ 1/8 in. at 30 ft)</td>
<td>≤ 3 mm @ 10 m (≤ 1/8 in. at 30 ft)</td>
</tr>
<tr>
<td>Batteries</td>
<td>(3) AA alkaline</td>
<td>(3) AA alkaline</td>
<td>(3) AA alkaline</td>
<td>(3) AA alkaline</td>
</tr>
<tr>
<td>Included in box</td>
<td>Laser level</td>
<td>Camera pouch</td>
<td>PLE 3G 2</td>
<td>PLE 3R 2</td>
</tr>
<tr>
<td></td>
<td>Laser level</td>
<td>PLE BP1 alkaline pack</td>
<td>PLE FS floor stand</td>
<td>PLE MLB wall bracket</td>
</tr>
<tr>
<td></td>
<td>Camera pouch</td>
<td>PLE BP1 alkaline pack</td>
<td>PLE FS floor stand</td>
<td>PLE MLB wall bracket</td>
</tr>
<tr>
<td></td>
<td>Laser level</td>
<td>Camera pouch</td>
<td>PLE 3G 2</td>
<td>PLE 3R 2</td>
</tr>
<tr>
<td></td>
<td>PLE BP1 alkaline pack</td>
<td>PLE FS floor stand</td>
<td>Reflective target</td>
<td>PLE CUB carrying case</td>
</tr>
<tr>
<td></td>
<td>Camera pouch</td>
<td>PLE 3G 2</td>
<td>PLE 3R 2</td>
<td>PLE 180G 2</td>
</tr>
<tr>
<td></td>
<td>PLE BP1 alkaline pack</td>
<td>Reflective target</td>
<td>PLE CUB carrying case</td>
<td>PLE UBD wall/ceiling bracket</td>
</tr>
<tr>
<td></td>
<td>Camera pouch</td>
<td>PLE FS floor stand</td>
<td>Reflective target</td>
<td>PLE CUB carrying case</td>
</tr>
<tr>
<td></td>
<td>PLE BP1 alkaline pack</td>
<td>Reflective target</td>
<td>PLE CUB carrying case</td>
<td>PLE UBD wall/ceiling bracket</td>
</tr>
<tr>
<td></td>
<td>Camera pouch</td>
<td>Reflective target</td>
<td>PLE CUB carrying case</td>
<td>PLE UBD wall/ceiling bracket</td>
</tr>
<tr>
<td></td>
<td>Reflective target</td>
<td>PLE CUB carrying case</td>
<td>PLE UBD wall/ceiling bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLE CUB carrying case</td>
<td>PLE UBD wall/ceiling bracket</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLE UBD wall/ceiling bracket</td>
<td></td>
<td></td>
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</tbody>
</table>

**Application guide**

- Electrical
- HVAC
- Framing
- Finish carpentry
- Foundations
- Floor and tile
- Acoustic ceiling
- Painting
- Window and glass
- Other configuration

**Tools and pouch only**

<table>
<thead>
<tr>
<th>Tools and pouch only</th>
<th>PLE 3G 2</th>
<th>PLE 3R 2</th>
<th>PLE 180G 2</th>
<th>PLE 180R 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT with detector</td>
<td></td>
<td></td>
<td>PLE 180G SYS</td>
<td>PLE 180R SYS</td>
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### DISTANCE METERS SELECTION GUIDE

<table>
<thead>
<tr>
<th>Model</th>
<th>Fluke 424D</th>
<th>Fluke 419D</th>
<th>Fluke 417D</th>
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<tbody>
<tr>
<td>Maximum measurement distance</td>
<td>100 m (330 ft)</td>
<td>80 m (260 ft)</td>
<td>40 m (131 ft)</td>
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<tr>
<td>Accuracy</td>
<td>± 1 mm (± 0.04 in)</td>
<td>± 1 mm (± 0.04 in)</td>
<td>± 2 mm (± 0.08 in)</td>
</tr>
<tr>
<td>Battery life (number of measurements)</td>
<td>5500</td>
<td>5500</td>
<td>3000</td>
</tr>
<tr>
<td>Drop test</td>
<td>1 m (3 ft.)</td>
<td></td>
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</tr>
<tr>
<td>Area measurement</td>
<td>*</td>
<td>*</td>
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</tr>
<tr>
<td>Volume measurement</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Pythagoras calculation</td>
<td>Full</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Plus and minus calculations</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Measurement storage</td>
<td>20 complete displays</td>
<td>20 complete displays</td>
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<tr>
<td>Min/max</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Tripod mount</td>
<td>*</td>
<td>*</td>
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<td>Corner angle measurement</td>
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<td>IP rating</td>
<td>IP54</td>
<td>IP54</td>
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<td>Inclination sensor</td>
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<td>Display</td>
<td>4 line</td>
<td>3 line</td>
<td>2 line</td>
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<td>Automated end-piece correction</td>
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<td>*</td>
</tr>
<tr>
<td>EN 60825-1: 2007 (Class II compliant)</td>
<td>*</td>
<td>*</td>
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</tr>
<tr>
<td>Included in box</td>
<td>Two AAA batteries</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Vinyl carrying pouch</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Other configurations</td>
<td>Kit with a non-contact thermometer</td>
<td>Fluke 417D/62 Max+ Kit</td>
<td></td>
</tr>
</tbody>
</table>

### MULTIFUNCTION INSTALLATION TESTERS

Fluke’s Multifunction Installation Testers are built to test fixed wiring installations based on the IEC 60364-6 regulation, and all your local equivalent standards. The Fluke 1660 Series Installation Testers are the only installation testers that help prevent damage to connected appliances, and also allow users to send test results wirelessly via smartphone directly from the field.

**Insulation Pretest (1664 FC only)**
Protect the installation and avoid costly mistakes. If the tester detects that appliances are connected to the system during test, it will stop the insulation test and provide a visual and audible warning.

**Auto test (1664 FC only)**
Reduce test time up to 40 %, reduce the number of manual connections and decrease the possibility of making errors. Do all required installation tests in ONE sequence, ensuring compliance with local installation regulations.

**Fluke Connect™ compatible (1664 FC only)**
Save time without losing information. Eliminate data entry by wirelessly syncing measurements directly from your installation tester. Retrieve stored results from the office or in the field to make decisions in real time.

**Multifunction Installation Testers**
- Fluke’s Multifunction Installation Testers are built to test fixed wiring installations based on the IEC 60364-6 regulation, and all your local equivalent standards. The Fluke 1660 Series Installation Testers are the only installation testers that help prevent damage to connected appliances, and also allow users to send test results wirelessly via smartphone directly from the field.

**Insulation Pretest (1664 FC only)**
Protect the installation and avoid costly mistakes. If the tester detects that appliances are connected to the system during test, it will stop the insulation test and provide a visual and audible warning.

**Auto test (1664 FC only)**
Reduce test time up to 40 %, reduce the number of manual connections and decrease the possibility of making errors. Do all required installation tests in ONE sequence, ensuring compliance with local installation regulations.

**Fluke Connect™ compatible (1664 FC only)**
Save time without losing information. Eliminate data entry by wirelessly syncing measurements directly from your installation tester. Retrieve stored results from the office or in the field to make decisions in real time.
**Fluke 1664 FC Multifunction Installation Tester**

Get more from your installation tester. The only tester with “Insulation PreTest” that stops you from performing tests with appliances that are connected to the system during test. This helps eliminate accidental damage and keeps your customers happy. In addition, it offers you Fluke Connect and Auto Test.

The 1664 FC puts more power in your hands by quickly and efficiently testing to all local regulations, protecting appliances that may be inadvertently connected to the system under test, and making it easy to share test results over your smartphone.

**Fluke 1663 Multifunction Installation Tester**

Ideal for professional trouble-shooters. Operation is intuitive and easily mastered by all levels of field workers. This instrument is ideal for professional users–high-end functionality, advanced measurement capability, yet it is still easy to use.

The Fluke 1663 puts more power in your hands by quickly and efficiently testing to all local regulations.

**Fluke 1662 Multifunction Installation Tester**

A solid, basic installation tester. Get Fluke’s reliability, simple operation and all the testing power you need for day-in, day-out installation testing. It tests to all local regulations and is easy and intuitive to use. Additional helpful features like the On/Off switchable autostart for RCD and loop test, and self-test save time and give you more confidence in your results.

**FEATURED PRODUCTS**

<table>
<thead>
<tr>
<th>Models</th>
<th>1664 FC</th>
<th>1663</th>
<th>1662</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation-PreTest™ safety function</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Insulation at L-N, L-PE, N-PE inputs</td>
<td>•</td>
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<td>•</td>
</tr>
<tr>
<td>Auto Test sequence</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Loop and line resistance at L-N, L-PE, N-PE inputs</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Continuity at L-N, L-PE, N-PE inputs</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Test smooth dc sensitive RCDs (Type B/B+)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Earth resistance</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Voltage rms (ac and dc) and frequency</td>
<td>•</td>
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<td>•</td>
</tr>
<tr>
<td>Wiring polarity checker, detects broken PE and N wires</td>
<td>•</td>
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<td>•</td>
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<tr>
<td>Insulation resistance</td>
<td>•</td>
<td>•</td>
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</tr>
<tr>
<td>Continuity and resistance</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Measure motor windings with continuity test (0-10 mA)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Loop and line resistance</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Prospective Earth Fault Current (PEFC/IK)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Protective Short-Circuit Current (PSC/IK)</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>RCD trip time</td>
<td>•</td>
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<tr>
<td>RCD trip current (amp test)</td>
<td>•</td>
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</tr>
<tr>
<td>Measured trip time and current for RCD type A and AC in one test</td>
<td>•</td>
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<tr>
<td>RCD variable test current</td>
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<tr>
<td>Automatic RCD test sequence</td>
<td>•</td>
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<tr>
<td>Phase sequence test</td>
<td>•</td>
<td>•</td>
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<td>S Max Memory</td>
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<tr>
<td>Memory</td>
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<tr>
<td>IR-USB and BLE interface (when used with optional Fluke DMS and FVF software)</td>
<td>IR-CUS/BLE IR-USB IR-USB</td>
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</tr>
</tbody>
</table>

Fluke Connect (FC) available in selected countries only. Non-FC models are available. Please contact your local distributors to find out more.
**Fluke 6200-2 Portable Appliance Tester**
The Fluke 6200-2 PAT tester offers you one-touch testing to help you test appliances easier, without setting up test procedures. This will help you complete more portable appliance tests per-session, ideal for service and repair applications.

**Fluke 6500-2 Portable Appliance Tester**
The Fluke 6500-2 PAT tester gives you enhanced functions such as the AUTO test feature, to help you complete more portable appliance tests per-session. Packed with all the features you need for testing portable appliances, this is the complete all-in-one solution for portable appliance testing.

**Separate hard case**
The compact Fluke PAT testers are supplied with a hard-carrying case that not only offers protection during transit but also includes extra storage space for accessories and other tools. The PAT testers are extremely light, weighing approximately 3 kg (without case) and have integral carrying handles for extra convenience.

<table>
<thead>
<tr>
<th>Feature</th>
<th>6200-2</th>
<th>6500-2</th>
</tr>
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<tbody>
<tr>
<td>LN mains volts</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Outside limits indicator</td>
<td>•</td>
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</tr>
<tr>
<td>Wall out facility for earth bonded lead</td>
<td>•</td>
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</tr>
<tr>
<td>Protective earth resistance PE (200 mA)</td>
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<tr>
<td>Protective earth resistance PE (25 mA)</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Insulation 500 V dc</td>
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<tr>
<td>Insulation 250 V dc</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Protective earth conductor current</td>
<td>•</td>
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<tr>
<td>Touch current</td>
<td>•</td>
<td>•</td>
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<tr>
<td>NCD test</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Substitute leakage current</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Appliance power kVA</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Appliance load current</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Seven segment custom LCD</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Color dot matrix display</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Back light</td>
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<td>•</td>
</tr>
<tr>
<td>USB port for printing</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>USB flash drive port (storage and downloaded)</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>External printer output</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Front panel QWERTY key pad</td>
<td>•</td>
<td>•</td>
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<tr>
<td>IEC lead test</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Auto-testing</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Pass/Fail level programmable indicators</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Data storage</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Limited data storage</td>
<td>•</td>
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<tr>
<td>Polarity check</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Graphical help menu on line</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Programme mode</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Real time clock</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Front panel result management</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>230 V test socket/230 V mains input power plug</td>
<td>•</td>
<td>•</td>
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<tr>
<td>110 V appliance test compatible with test lead adapter</td>
<td>•</td>
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</tbody>
</table>

**PORTABLE OSCILLOSCOPES**
ScopeMeter™ portable oscilloscopes take you into territory that standard bench oscilloscopes can’t readily withstand—harsh, hazardous and dirty industrial environments. These hand-held instruments combine the performance of a bench oscilloscope with a multimeter and paperless recorder for installing, commissioning and maintaining industrial and electronic equipment out in the field. Each series of tools has unique features—such as Connect-and-View™ mode, IntellaSet™ technology and guided, step-by-step motor-drive test setups—that simplify complex troubleshooting.

**Guided motor-drive test setups**
The pre-set measurement profiles of the MDA-500 Series allow you to conduct guided measurements for motor-drive input, dc bus, drive output, motor input and shaft measurements with graphical, step-by-step voltage and current connection diagrams.

**Connect-and-View™ triggering**
The Connect-and-View triggering functionality of the 190, 120B and MDA-500 Series works with virtually any signal and automatically sets up the oscilloscope. You don’t need to adjust parameters or even touch a button.

**IntellaSet™/Auto Reading technology**
The Auto Readings function with Fluke IntellaSet™ technology of the 120B Series uses proprietary algorithms to analyze the measured waveform and automatically display the most appropriate numerical measurements on-screen, so you can get the data you need easier than ever before.
Fluke MDA-500 Series Motor Drive Analyzers
Simplify complex motor-drive troubleshooting
The Fluke MDA-500 Series Motor Drive Analyzers simplify the troubleshooting process for variable frequency drives. Step-by-step guided measurements show you where to make voltage and current connections, while preset measurement profiles ensure you will capture all the data you need for each critical motor-drive section—from the input to the output, the drive and the motor itself.
• Measure key motor-drive parameters and perform extended harmonics measurements
• Quickly and easily creates reports that are perfect for documenting troubleshooting and collaborative work with others
• Capture additional parameters with full 500 MHz oscilloscope, meter and recording capability

Fluke 190 Series II ScopeMeter™ Test Tools
High-performance scopes built for harsh industrial environments
The Fluke 190 Series II ScopeMeter 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 go into harsh, dirty and hazardous industrial conditions to test everything from microelectronics to power electronics applications, with 60, 100, 200 and 500 MHz bandwidth models available.
• Automatically capture and replay the last 100 screens as a “live” animation so you can easily find and evaluate anomalies
• Use the integrated ScopeRecord mode for high-resolution waveform recording of events like motion profiles, UPS, power supply and motor start-ups for up to 48 hours
• Find intermittent faults with TrendPlot™ Paperless Recorder technology so you can pinpoint exactly when a fault occurred when a fault occurred up to 22 days

Fluke 120B Series Industrial ScopeMeter™ Test Tools
Three-in-one simplicity for frontline electromechanical troubleshooting
The compact 120B Series ScopeMeter 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 recording capabilities.
• Measure voltage, current and power waveforms with numerical values including harmonics, resistance, diode, continuity and capacitance measurements
• Fluke Connect-and-View™ triggering automatically displays waveforms without having to adjust amplitude, timebase and trigger settings
• IntellaSet™ technology analyzes the signal and automatically displays critical numerical readings

Fluke Connect (FC) available in selected countries only. Non-FC models are available. Please contact your local distributor to find out more.
Whether you're in an industrial plant, large-scale facility or a utility, Fluke power quality and energy analysis tools help you capture the data you need to maintain the best performance and reliability. These tools make it possible to identify your power quality and energy efficiency issues with easy and effective recording and analysis.

**Power and energy loggers**

Power and energy loggers are used for conducting energy and load studies to discover where savings are possible. With the Fluke Energy Analyze Plus software, it’s possible to create detailed reports to focus on the problem spots.

**Power quality troubleshooters and analyzers**

Three-phase power quality analyzers are ideal for troubleshooting, logging and creating detailed reports in conjunction with the easy-to-use PowerLog software. Fluke single-phase power quality meters can measure and log either ac or dc power systems, depending on the model selected. These single-phase and three-phase solutions will allow you to quickly discover where potential problems in your electrical system are located.

**Power quality recorders**

Power quality recorders capture the highly detailed data you need to discover the most difficult-to-find problems. When used with the supporting application software, a recorder can help you see the full picture, enabling you to fix the problems.

**Precision power analyzers**

Whether it’s testing the performance of transformers, lighting or switching electronics such as inverters and power supplies, these instruments have the highest accuracy and can handle the most difficult waveforms. For very low power factor or loads with high-frequency switching, Fluke has solutions that can measure on single-, three- or six-phase systems.

---

### FEATURED PRODUCTS

#### Fluke Norma 6000 Series Power Analyzer

- Up to 4 voltages and 4 current channels in one single unit.
- Motor Speed and Torque measurements (Norma 6003+, Norma 6004+)
- 0.1 % accuracy, 500 kHz bandwidth, 200 kHz sample rate.
- The channels are isolated (basic insulation) with the measurement category of CAT III 1000V/CAT IV 600V.
- Flexible configurations according to the measuring requirements, synchronize 2 Analyzers to configure 6 to 8 channels.
- 100Th order of Harmonic.
- Inverter efficiency test

#### Fluke 435 Series II Energy And Power Analyzer

The Fluke 435-II is designed for users who need to get to the solution of the power quality problem as quickly as possible:

- Create a complete power quality health summary in one screen which quickly highlights problem areas—saving time to get to the causes of the problem
- Calculate the cost of wasted energy, prevent downtime and troubleshoot the source of power quality or motor performance issues

#### Fluke 438-II Power Quality Analyzer and Motor Analyzer

Quickly and easily discover the electrical and mechanical performance of electric motors, and evaluate power quality with a single test tool.

The Fluke 438-II Power Quality and Motor Analyzer adds key mechanical measurement capabilities for electric motors to the advanced power quality analysis functions of the Fluke 435 Series II Power Quality Analyzer.

- Measure key motor parameters like torque, RPM and mechanical power and efficiency without mechanical sensors
- Measure electrical power parameters that impact motor efficiency, such as voltage, current, power, apparent power, power factor, harmonic distortion and unbalance
- Identify power quality issues such as dips, swells, transients, harmonics and unbalance
FEATURED PRODUCTS

**Fluke 1748 Three-Phase Power Quality Logger**

**Troubleshoot, quantify energy usage and perform power quality surveys easier than ever.**

The 1748 Three-Phase Power Quality Logger gives you fast, easy access to the comprehensive data you need to make critical power quality and energy decisions in real-time. With the included Energy Analyzer Plus software package you can easily create detailed reports at the touch of a button.

- The auto-configuration check ensures every measurement campaign is right, the first time
- Measure detailed power quality and power parameters—over 500 different parameters are logged for each averaging period
- Create comprehensive reports according to the most common power quality standards in seconds
- Conveniently power the instrument directly from the measured circuit

**Fluke 1738 Advanced Power and Energy Logger**

**Get more visibility, reduce uncertainty and make better power quality and energy consumption decisions.**

The Fluke 1738 Three-Phase Advanced Power and Energy Logger built with Fluke Connect™ mobile app and desktop software compatibility is the ideal tool for conducting energy studies and power quality surveys.

- Automatically capture and log voltage, current, power, harmonics and associated power quality values
- Capture dips, swells and inrush currents: includes an event waveform snapshot and a high-resolution RMS profile, to give your electrical system a power quality health check and discover where and when energy is being wasted
- Conveniently power the instrument directly from the measured circuit

**Fluke PQ400 Electrical Measurement Window**

**Compliance without compromise. Safety without sacrifice.**

The Fluke PQ400 Electrical Measurement Window enables the connection of three phase measurement equipment to energized panels, without the need to open the panel door, or wear supplemental personal protective equipment (PPE).

- The Fluke PQ400 Electrical Measurement Window enables the connection of three phase measurement equipment to energized panels, without the need to open the panel door, or wear supplemental personal protective equipment (PPE).
- Conveniences power the instrument directly from the measured circuit

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**SELECTION GUIDE**

**Application use**

<table>
<thead>
<tr>
<th>Single-phase</th>
<th>Three-phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>V91710</td>
<td>345</td>
</tr>
</tbody>
</table>

**Energy monitoring**

- Measures V, I, kW, kVAR, kVAR, kWh
- Samples waveform and any value
- 10-day logging
- Waste energy monetization

**Advanced harmonics study**

- Full harmonic spectrum
- Power harmonics

**Basic industrial PQ troubleshooting**

- Sag/swell function
- Voltage dip and swell

**Advanced industrial PQ troubleshooting**

- Comprehensive logging capability

**Power from measurement line**

- Conveniently power the instrument directly from the measured circuit

**Wireless download**

- 17341

**Communications**

- USB
- Ethernet
- Wireless download
- Fluke Connect app

**Panel thickness**

- UL 50/NEMA environmental type 1 (Type 12 when PQ400 cover is closed)

**Safety**

- IEC 61010-1: pollution degree 2
- IEC 61010-2-030: CAT IV 600 V / CAT III 1000 V

**Convenience**

- Outside (W x H x D) 140 mm x 158 mm x Di, Di = 58 – thickness of panel door in mm
- Inside (W x H x D) 148 mm x 187 mm x 23 mm (148 mm x 370 mm x 19 mm with cover opened)
- Inside (W x H x D) 140 mm x 186 mm x 20, 20 = thickness of panel door in mm

**Panel thickness**

- Enclosure: GL 50/NEMA environmental type 1 (Type 12 when PQ400 cover is closed)
- Max: 3.5 mm (10 gauge)

**Diagnostics**

- Transients
- Power wave
- Equipment

**Communications**

- USB
- Ethernet
- Wireless download
- Fluke Connect app

**Panel thickness**

- CAT 6050-V
- CAT 8/500 V
- Power from measurement line

---

**Power Quality and Energy Analysis**
**PROCESS CALIBRATION TOOLS**

Working in a process environment such as pharmaceutical manufacturing, refining or other industrial areas can be challenging. Process instruments are often installed in harsh operating environments that can cause their performance and the performance of their sensors to shift or change over time. These instruments provide measurements to the process plant's control system, and their performance is critical to the operation and safety of the plant. But, maintaining, building and calibrating process systems takes special expertise.

Whether you're working at a bench, out in the plant or in the field, you need accurate tools that you can count on. Fluke process calibration tools include a full range of calibrators and troubleshooting tools for instrument technicians working in the process industries that will help ensure these measurement devices are operating within their expected limits.

## PROCESS CALIBRATION TOOLS

<table>
<thead>
<tr>
<th>Energy Analyzers</th>
<th>Application use</th>
<th>Three-phase continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured V, L, Hz, Cos/PF, kW</td>
<td>434-II 435-II 437-II 438-II</td>
<td>438-II 1750 1780</td>
</tr>
<tr>
<td>Measured MW/MAE and AVG values</td>
<td>• • • • • •</td>
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<tr>
<td>10-day logging</td>
<td>• • • • • •</td>
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<tr>
<td>Remote energy monitoring</td>
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</tbody>
</table>

**Basic harmonics study**
- THD measurement (V & I)
- Harmonics 1 to 55 for V & I

**Advanced harmonics study**
- Fourier transform
- Voltage dips and swells

**Advanced industrial PQ troubleshooting**
- Comprehensive logging capability

**Advanced features**
- Inrush
- Flicker
- Transients
- Noise sigaling
- Power waves
- Disturbance capture
- 400 Hz Measurement for avionics and shipboard systems

<table>
<thead>
<tr>
<th>Communications</th>
<th>Upgrade available</th>
<th>Upgrade available</th>
<th>Upgrade available</th>
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</thead>
<tbody>
<tr>
<td>USB</td>
<td>• • • •</td>
<td></td>
<td></td>
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<tr>
<td>Ethernet</td>
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<td></td>
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<tr>
<td>Wireless download</td>
<td>• • •</td>
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<td></td>
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<tr>
<td>Fluke Connect app</td>
<td>• • •</td>
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<td></td>
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<tr>
<td>CAT 2/1000 V</td>
<td>• • • •</td>
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<td>CAT 3/1500 V</td>
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<tr>
<td>Power from measurement line</td>
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**Power Quality and Energy Analysis**

### Three-phase continued

<table>
<thead>
<tr>
<th>Power from measurement line</th>
<th>Upgrade available</th>
<th>Upgrade available</th>
<th>Upgrade available</th>
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<tbody>
<tr>
<td>CAT 2/1000 V</td>
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<tr>
<td>CAT 3/1500 V</td>
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</table>

1. An upgrade package is available to upgrade an existing 1732 Energy Logger with the same features and capabilities of the 1734 Energy Logger.
2. An upgrade package is available to upgrade an existing 1736 Power Logger with the same features and capabilities of the 1738 Advanced Power Logger.
3. Event waveform capture (10.24 kHz sampling).
4. Not available in Europe.
Loop calibrators are essential tools for working with 4-20 mA current loops. Fluke loop calibrators provide mA sourcing, simulation and measurement readouts in both mA and % of span along with a 24 V loop supply, simple operation and accuracy you can count on. Our HART-enabled loop calibrators help you get the most out of your smart transmitter calibrations, adding useful configuration capabilities and giving you more access and information on the HART devices you’re testing.

**Fluke 773 Milliamp Process Clamp Meter**

The Fluke 773 mA Process Clamp Meter is accurate and versatile and lets you measure output signals without ever breaking the loop. Ideal for troubleshooting transmitters, valves and programmable logic controllers (PLCs) found in process plants, the 773 lets you troubleshoot a live device without having to power down and possibly miss something going on in the process.

- Measure dc voltage to verify 24 V power supplies or voltage I/O signals
- Source 0-10 and 1-5 Vdc voltage signals to test voltage input devices
- Record a 4-20 mA signal without breaking the loop, using the scaled mA output signal and a logging DMM

**789 ProcessMeter™**

The Fluke 789 ProcessMeter doubles troubleshooting capabilities by combining the power of a safety rated digital multimeter and mA loop calibrator into a single, compact test tool. Whether you only need to source and simulate mA, or need a 24 V loop power supply, the 789 is designed to meet your needs. Add the wireless data-logging capabilities of Fluke Connect™ with ShareLive™ video call, and process technicians can do a lot more while carrying a lot less.

- Combines the functionality of a loop calibrator with the power of a precision 1000 V, True-rms digital multimeter with a CAT IV 600 V rating
- HART mode setting with loop power (adds 250 ohm resistor)
- Simultaneous mA and % of scale readout on 4-20 mA output and measurement

**710 mA Loop Valve Tester**

The Fluke 710 mA Loop Valve Tester is a compact and powerful HART communication tool that saves time and produces high-quality results. Not only does the 710 perform all of the loop calibration functions of the 706H Precision HART loop calibrator, this tool also reduces the time it takes to measure or source current and power up a loop while enabling quick, easy tests on HART smart control valves.

- Key valve-testing functions include preconfigured valve signature test, speed test, step test, manual test and bump/partial stroke test
- Key mA loop calibrator functions include mA source, mA simulate, mA read, mA read/loop power and volts read
- HART communication for testing and light configuration of HART transmitters
- Upload valve test results, logged measurements and HART device configurations captured in the field with included ValveTrack™ desktop software

**753 Documenting Process Calibrator**

The Fluke 753 is a powerful multifunction documenting calibrator that lets you download procedures, lists and instructions created with software, and upload data for printing, archiving and analysis. It sources, simulates, and measures pressure, temperature and electrical signals in one rugged, hand-held calibration tool. It also automates calibration procedures, captures data for documentation and helps you meet rigorous standards like ISO 9000, FDA, EPA, and OSHA regulations.

- Measures volts, mA, RTDs, thermocouples, frequency and ohms to test sensors, transmitters and other instruments
- Sources and simulate volts, mA, pressure, thermocouples, RTDs, frequency, ohms and pressure to calibrate transmitters
- Powers transmitters during test using loop supply with simultaneous mA measurement
- Manage calibration procedures, upload and print results and schedule calibrations with optional DPCTrack2 Calibration Management software

**754 HART Enabled Documenting Process Calibrator**

Whether you’re calibrating instruments, troubleshooting a problem, or running routine maintenance, the Fluke 754 with HART® communication can help you get the job done faster. It does so many different tasks, so quickly and so well, it’s the only process calibrator you need to carry. This rugged, reliable integrated communicating calibrator does everything the Fluke 753 does and is ideal for calibrating, maintaining, and troubleshooting HART and other instrumentation.

- Full-featured documenting process calibrator with HART communication for calibrating and troubleshooting HART instrumentation
- Measures volts, mA, RTDs, thermocouples, frequency and ohms to test sensors, transmitters and more
- Sources/simulates volts, mA, thermocouples, RTDs, frequency, ohms and pressure to calibrate transmitters
- Powers transmitters during test using loop supply with simultaneous mA measurement

**726 Precision Multifunction Process Calibrator**

The Fluke 726 is a precise and powerful, yet easy-to-use field calibrator. It features broad workload coverage, calibration power and unsurpassed accuracy needed by process professionals. It measures and sources almost all process parameters to calibrate almost anything. Use it to test sensors and valves and test and calibrate transmitters.

- Delivers precise measurement and calibration source performance with accuracies of 0.01 %.
- Stores up to eight calibration results in memory for later analysis
- Offers HART mode that inserts a 250 ohm resistor in mA measure and source for compatibility with HART instrumentation
Fluke Temperature Calibrators simulate process sensors for testing temperature instrumentation. Specifically designed for the field, these lightweight compact tools are EMI tolerant, dust and splash resistant and offer an easy to use single push button interface. When paired with a temperature sensor they can take high accuracy temperature measurements to verify process temperatures and ensure the highest product quality and safety.

**Fluke 724 Temperature Calibrator**

The Fluke 724 is a powerful yet easy-to-use temperature calibrator that sources and measures 10 thermocouple types and 7 RTD types, plus volts and ohms. It also measures mA while supplying loop power. You can use it to test and calibrate almost any temperature instrument so you only have to carry one tool to expertly test all the temperature sensors and transmitters in your plant.

- Displays input and output simultaneously on the easy-to-read dual display
- Measures RTDs, thermocouples, ohms, and volts to test sensors and transmitters
- Sources/simulates thermocouples, RTDs, volts, and ohms to calibrate transmitters

**Fluke 712B RTD Calibrator**

The Fluke 712B is a handheld, battery-operated calibrator that measures and sources a variety of RTD types and resistances. It also includes an isolated channel to measure 4-20 mA wholers sourcing a temperature signal. It offers configurable 0 % and 100 % source settings for quick 25 % linearity checks. It also provides linear ramp and 25 % step auto ramp functionality based on 0 % and 100 % settings.

- Highly accurate, full-featured, easy-to-use single function RTD temperature calibrator
- Measures and simulates 14 different RTD types and resistance
- Measures 4 to 20 mA signals while simultaneously sourcing a temperature signal

**Fluke 714B Thermocouple Calibrator**

The Fluke 714B is a handheld, battery-operated calibrator that measures and sources a variety of thermocouple types and millivolts. Calibrates a linear thermocouple transmitter with the mV source function and measures mA while sourcing temperature. It also provides linear ramp and 25 % step auto ramp functionality based on 0 % and 100 % settings.

- Highly accurate, full featured, easy-to-use single function thermocouple temperature calibrator
- Measures and simulates 17 thermocouple types and millivolts
- Measures 4 to 20 mA signals while simultaneously sourcing a temperature signal

**Fluke 729 Automatic Pressure Calibrator**

The Fluke 729 Automatic Pressure Calibrator was designed specifically with process technicians in mind to simplify the pressure calibration process and provide faster, more accurate test results. Technicians know that calibrating pressure can be a time-consuming task, but the 729 makes it easier than ever with an internal electric pump that provides automatic pressure generation and regulation in an easy-to-use, rugged, portable package.

- Automatic pressure generation and regulation to 300 psi
- Easily document the process using onboard test templates
- Automatic internal fine-pressure adjustment
- Measure, source and simulate 4 to 20 mA signals
- Compatible with DPCrack2 calibration management software

**Fluke 719Pro Electric Pressure Calibrator**

The 719Pro includes a full-functioning loop calibrator that sources, simulates and measures mA signals and more, making it the ideal test tool for calibrating high-accuracy transmitters, pressure switches and pressure gauges. Get the ultimate in measurement flexibility with the large backlit screen, which displays three parameters at once: pressure measurement from internal or external sensor, sourced/simulated or measured mA values and temperature measured by optional RTD probe.

- Unique, integrated electric pump for one-handed pressure calibration up to 300 psi
- Test pressure switches easily with the easy-to-use switch test function
- Precision pressure adjust vernier for easy and accurate pressure calibration

**Fluke 200G Precision Pressure Test Gauges**

With best-in-class accuracy and measurements, the Fluke 200G Precision Pressure Test Gauges handle all of your pressure calibration needs. The 200G Series Gauges are rugged and easy to use, with 23 models ranging from ± 10 inH2O/25 mbar to 10,000 psi/690 bar, including absolute pressure ranges. When you combine the 700G Series Gauges with the Fluke 700TPX or 700WTPX, you’ve got a complete pressure-testing solution for up to 600 psi (40 bar) with the PTP-1 pneumatically powered and up to 10,000 psi (690 bar) with the HTTP-2 hydraulic pump.

- Rugged, high-quality pressure gauge calibrator for fast and accurate test results
- Delivers precision pressure measurements in 23 ranges from ± 10 inH2O/25 mbar to 10,000 psi/690 bar
- Delivers high accuracy—0.05 % total measurement uncertainty for one year
- Log pressure measurement in the field and upload with optional 700GTrack software

Pressure instrumentation is found in virtually every process plant. Periodic calibration of these instruments is required to keep plants operating efficiently and safely. Fluke offers a wide range of pressure calibration tools with precision pressure measurement from 0-1 inH2O/2.5 mbar to 10,000 psi/690 bar boasting 0.025 % full-scale accuracy to help you quickly and reliably calibrate your pressure instruments.

Everything from simple test gauges to calibrators with built-in, automatic, electric test pumps. Easy-to-use, rugged and reliable construction and an industry best three-year warranty.

Please contact your local distributors to find out more.
**SELECTION GUIDE**

**Fluke Connect™ Option**

- Analog
- Analog/HART

**HART communication**

- Documenting and log data

**mA measure**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-24 mA @ 0.01 %
- 0-20.00 mA @ 0.01 %
- 0-30 mA @ 0.05 %
- 0-20.00 mA @ 0.02 %
- 0-30 mA @ 0.1 %

**mA source/simulate**

- 0-24 mA at 0.02 %
- 0-20 mA at 0.02 %
- 0-20.99 mA @ 0.01 %
- 0-200 mA @ 0.02 %

**DCV measure**

- 0-300 V @ 0.02 %
- 0-300 V @ 0.01 %
- 0-30 V @ 0.02 %
- 0-30 V @ 0.01 %
- 0-15 V @ 0.02 %
- 0-15 V @ 0.01 %
- 0-300 V @ 0.02 %
- 0-300 V @ 0.01 %

**DCV source**

- 0-20 V @ 0.02 %
- 0-20 V @ 0.01 %
- 0-20 V @ 0.02 %
- 0-20 V @ 0.01 %

**Features**

- Auto step/ramp
- Source auto step/ramp
- Serial remote operation
- Documenting
- Software

**Process Calibration Tools**

### mA Loop calibrators

**720**

- 0-24 mA @ 0.05 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.05 %
- 0-24 mA @ 0.02 %
- 0-100 mA @ 0.05 %
- 0-100 mA @ 0.02 %
- 0-20 mA @ 0.01 %
- 0-20 V @ 0.01 %

**720EX**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-20.00 mA @ 0.01 %
- 0-30 mA @ 0.05 %
- 0-20.00 mA @ 0.02 %
- 0-30 mA @ 0.1 %

**726**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-20.00 mA @ 0.01 %
- 0-30 mA @ 0.05 %
- 0-20.00 mA @ 0.02 %
- 0-30 mA @ 0.1 %

**763**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-20.00 mA @ 0.01 %
- 0-30 mA @ 0.05 %
- 0-20.00 mA @ 0.02 %
- 0-30 mA @ 0.1 %

**794**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-100 mA @ 0.01 %
- 0-100 mA @ 0.02 %
- 0-30 V @ 0.02 %
- 0-30 V @ 0.01 %
- 0-30 V @ 0.02 %
- 0-30 V @ 0.01 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %

**Process calibrators**

**720G**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-30 mA @ 0.05 %
- 0-20 mA @ 0.01 %
- 0-20 V @ 0.01 %
- 0-20 V @ 0.02 %
- 0-20 V @ 0.01 %

**719**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-20.00 mA @ 0.01 %
- 0-30 mA @ 0.05 %
- 0-20.00 mA @ 0.02 %
- 0-30 mA @ 0.1 %

**719B**

- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-24 mA @ 0.01 %
- 0-24 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-20.00 mA @ 0.01 %
- 0-30 mA @ 0.05 %
- 0-20.00 mA @ 0.02 %
- 0-30 mA @ 0.1 %

**718**

- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-30 mA @ 0.01 %
- 0-30 mA @ 0.02 %
- 0-30 V @ 0.01 %
- 0-30 V @ 0.02 %
- 0-30 V @ 0.01 %
- 0-30 V @ 0.02 %

**Specifications**

- mA measure (range and accuracy)
- mA source/simulate
- DCV measure
- DCV source
- ACV source
- ACV measure

**Temperature measure/compensation**

- 0-300 V @ 0.02 %
- 0-300 V @ 0.01 %
- 0-30 V @ 0.02 %
- 0-30 V @ 0.01 %
- 0-15 V @ 0.02 %
- 0-15 V @ 0.01 %
- 0-300 V @ 0.02 %
- 0-300 V @ 0.01 %

**Loop calibrators**

- Automatic pressure generation and leak compensation

**Pressure measure/compatibility**

- 0-300 V @ 0.02 %
- 0-300 V @ 0.01 %
- 0-30 V @ 0.02 %
- 0-30 V @ 0.01 %
- 0-15 V @ 0.02 %
- 0-15 V @ 0.01 %
- 0-300 V @ 0.02 %
- 0-300 V @ 0.01 %

**Features**

- Auto step/ramp
- Source auto step/ramp
- Switch test
- Fluke Connect™
- HART communication

**Software**

- 700GTrack
- DPCTrack2

**Fluke Calibration**

**Process Calibration Tools**

**Temperature calibrators**

- Intrinsically safe

**Models**

- 720
- 720EX
- 726
- 763
- 794

**Process Calibration Tools**
INSTRINICALLY SAFE PRODUCTS

Fluke products designed to intrinsic safety standards
A protection method employed in potentially explosive atmospheres, intrinsically safe devices are designed to be unable to release sufficient energy, by either thermal or electrical means, to cause ignition of flammable material (gas or dust/particulates).

Fluke products | ATEX certified | North American Certification
---|---|---
28 II Ex Intrinsically Safe True-rms Multimeter | IV 2G Ex in IIC T4 Ga | Class I, Zone 2, Groups A,B,C,D T4
707Ex Intrinsically Safe mA Calibrator | IV 2G Ex in IIC T4 Ga | II 2G Ex ia IIC T4 N.I. Class I, Div 2, Groups A,B,C,D
718Ex Intrinsically Safe Pressure Calibrator | IV 2G Ex in IIC T4 Ga | II 1G Ex ia IIC T4 I.S. Class I, Div 1, Groups A,B,C,D T4
721Ex Intrinsically Safe Precision Pressure Calibrator | IV 2G Ex in IIC T4 Ga | II 2G Ex ia IIC T3 Ga
710Ex Intrinsically Safe Multifunction Calibrator | IV 2G Ex in IIC T4 Ga | II 2G Ex ia IIC T3 Ga
500Ex Intrinsically Safe Pressure Module | IV 2G Ex in IIC T4 Ga | IECEx: Ex ia IIC T4 Ga
568Ex Intrinsically Safe Infrared Thermometer | IV 2G Ex in IIC T4 Ga | Class I, Zone 1, AEx ia IIC T4 Ga
725Ex Intrinsically Safe Multifunction Calibrator | IV 2G Ex ia IIC T4 Ga | I.S. Class I, Div 1, Groups B,C,D, 171 °C
700G Series Intrinsically Safe Pressure Gauges | IV 2G Ex ia IIC T4 Ga | Class I, Div 1 and 2 Groups A,B,C,D
1551A Ex/1552A Ex Intrinsically Safe “Stik” Thermometers | IV 2G Ex ia IIC T4 Ga | Class I, Div 1 and 2 Groups A,B,C,D
700G Series Intrinsically Safe Pressure Gauges | IV 2G Ex ia IIC T4 Ga | Class I, Div 1 and 2 Groups A,B,C,D
700G Series Intrinsically Safe Pressure Gauges | IV 2G Ex ia IIC T4 Ga | Class I, Div 1 and 2 Groups A,B,C,D
1551A Ex/1552A Ex Intrinsically Safe “Stik” Thermometers | IV 2G Ex ia IIC T4 Ga | Class I, Div 1 and 2 Groups A,B,C,D
568Ex Intrinsically Safe Infrared Thermometer | IV 2G Ex ia IIC T4 Ga | Class I, Div 1 and 2 Groups A,B,C,D
FL-120 Ex Intrinsically Safe Flashlight | IV 2G Ex ia IIC T4 Ga | I.S. Class I, Div 1, Groups A,B,C,D, T4
FL-150 Ex Intrinsically Safe Flashlight | IV 2G Ex ia IIC T4 Ga | I.S. Class I, Div 1, Groups A,B,C,D, T4
HL-200 Ex Intrinsically Safe Headlamp | IV 2G Ex ia IIC T4 Ga | I.S. Class I, Div 1, Groups A,B,C,D, T4

There are no global intrinsically safe standards or certifications, but there are organizations that influence directives in certain world geographies.

Factory Mutual

APPROVED

In the United States, Factory Mutual Research, managed by Factory Mutual (FM) Global, is a nonprofit scientific and testing organization that has tested and certified over 40,000 products in the last 165 years. FM Research has set certification guidelines for equipment used in potentially explosive atmospheres.

Canadian Standards Association (CSA)

Accreditation body for North American regulations, based in Toronto, Canada.

ATEX

This symbol signifies compliance to the European directive 2014/34/EU, which governs requirements for equipment intended for use in potentially explosive atmospheres.

UL

Underwriters Laboratories (UL) is a global safety certification company headquartered in the U.S. UL Marks for Classification service appear on representative samples of products that UL has evaluated with respect to specific properties, a limited range of hazards or suitability for use under limited or special conditions.

Thermal Imaging

THERMAL IMAGING

Thermal cameras offer premium image quality with superbly engineered resolution and thermal sensitivity. With Fluke thermal cameras you can detect issues before they become problems. Designed for everyday use, in the toughest industrial environments, Fluke thermal cameras lineup offers streamlined solutions for optimal resolution, efficiency and results.
FEATURED THERMAL IMAGERS

**Fluke Ti401 PRO Thermal Imager**

Crisp images with 640 x 480 resolution

Fluke Ti401 PRO offers the ruggedness and ease of use that you expect from Fluke. Get sharp, crisp images with 640 x 480 resolution. The portable and easy-to-use pistol-grip design allows for one-handed use. Never lose sight of an issue with the 3.5" (8.89 cm) (landscape) LCD touchscreen. Use infrared data and operate the camera remotely with Fluke Connect™ desktop software.

**Fluke Ti480 PRO Thermal Imager**

Sharp images with 640 x 480 resolution and enhanced features

The Ti480 PRO is a best-in-class handheld infrared camera that offers 640 x 480 resolution. Get the right level of detail for electrical, mechanical and environmental inspections. Image enhancement features with MultiSharp™ deliver focused images near and far throughout the field of view, and LaserSharp™ Auto Focus gives you consistently in-focus images. Stream infrared data and operate the camera remotely with Fluke Connect system software.

**Fluke TiX501 Thermal Imager**

Articulating camera at 640 x 480 resolution

Equipped with Fluke 640 x 480 resolution, the TiX501 offers 240-degree articulation for working in hard-to-reach places. It’s ergonomic design gives you the flexibility to hold the camera in a position that is comfortable, even when taking images overhead and around hard-to-reach targets. Take advantage of analytics and reports with software that offers streaming infrared data, trend analysis and remote camera operation.

**Fluke TiX580 Thermal Imager**

Ergonomic camera with 640 x 480 resolution with enhanced features

The Fluke TiX580 offers 640 x 480 resolution and 240-degree articulation, so you can capture needed data and information in hard-to-reach places. Experience premium resolution, portability and ease of use. The TiX580 comes with Fluke image enhancement features such as MultiSharp for focused images near and far throughout the field of view and LaserSharp Auto Focus for consistently in-focus images. Monitor processes with video recording, live video streaming, remote control or auto capture. Find subtle temperature differences easily with advanced thermal sensitivity.

**Fluke PTi120 Pocket Thermal Imager**

The power of a professional-grade thermal imager that fits in your pocket

Rugged, portable thermal camera for industrial inspection

Small enough to carry every day without worry. Always on hand. Stands up to dirt and water. Now, enhanced infrared inspections are right in your pocket for quick temperature scans of electrical equipment, machinery and other assets.

- Automatically organizes and files thermal images with Fluke Connect Asset Tagging
- A fully radiometric thermal imager
- 120 x 90 infrared resolution (10,800 pixels)
- 3.5" (8.89 cm) LCD touchscreen display for easy troubleshooting
- Can withstand a drop of up to 1 meter
- IP54 enclosure rating
- -20 °C to 150 °C (-4 °F to 302 °F) temperature measurement range
- Touchscreen IR-Fusion blends a visible light image with an infrared image
**SELECTION GUIDE**

**Articulating Thermal Camera**

<table>
<thead>
<tr>
<th>Models</th>
<th>TiX1000</th>
<th>TiX620</th>
<th>TiX580</th>
<th>TiX501</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Articulating Thermal Camera</td>
<td>Articulating Thermal Camera</td>
<td>Articulating Thermal Camera</td>
<td>Articulating Thermal Camera</td>
</tr>
<tr>
<td><strong>Key Features</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Display</strong></td>
<td>5.6 inch color TFT display, 1280 x 800 pixel resolution</td>
<td>3.5 inch touch screen LCD, 640 x 480 pixel resolution</td>
<td>3.5 inch touch screen LCD, 640 x 480 pixel resolution</td>
<td>3.5 inch touch screen LCD, 640 x 480 pixel resolution</td>
</tr>
<tr>
<td><strong>IR-Fusion®</strong></td>
<td>IR-Fusion® AutoBlend™ mode and Picture-in-Picture, continuous blending</td>
<td>IR-Fusion® AutoBlend™ mode and Picture-in-Picture, continuous blending</td>
<td>IR-Fusion®</td>
<td>IR-Fusion®</td>
</tr>
<tr>
<td><strong>Focus System</strong></td>
<td>LaserSharp® Auto Focus with built-in laser distance meter and advanced manual focus</td>
<td>LaserSharp® Auto Focus with built-in laser distance meter and advanced manual focus</td>
<td>LaserSharp®</td>
<td>LaserSharp®</td>
</tr>
<tr>
<td><strong>Temperature Measurement Range</strong></td>
<td>-40°C to 2000°C</td>
<td>-20°C to 1000°C</td>
<td>-20°C to 650°C</td>
<td>-20°C to 650°C</td>
</tr>
<tr>
<td><strong>Frame Rate</strong></td>
<td>30Hz or 9Hz</td>
<td>60Hz or 9Hz</td>
<td>9Hz</td>
<td>9Hz</td>
</tr>
<tr>
<td><strong>FoV</strong></td>
<td>32.4° H X 24.7° V</td>
<td>32.7° H X 24.0° V</td>
<td>34° H X 24° V</td>
<td>34° H X 24° V</td>
</tr>
<tr>
<td><strong>IFOV with Standard Lens (Spatial Resolution)</strong></td>
<td>0.6 mRad</td>
<td>0.85 mRad</td>
<td>0.93 mRad</td>
<td>1.85 mRad</td>
</tr>
<tr>
<td><strong>Infrared Resolution</strong></td>
<td>1024X768 (2048X1536 with SuperResolution)</td>
<td>640X480 (1280X960 with SuperResolution)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Audio Capabilities</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td><strong>Asset Tagging</strong></td>
<td>-</td>
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</tr>
<tr>
<td><strong>Alarms</strong></td>
<td>High-temperature and low-temperature</td>
<td>High-temperature and low-temperature</td>
<td>High-temperature and low-temperature</td>
<td>High-temperature and low-temperature</td>
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</tbody>
</table>

**Software**

<table>
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<th>TiX580</th>
<th>TiX501</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Software</td>
<td>SmartView® software and Fluke Connect®</td>
<td>Software</td>
<td>Software</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Temperature Measurement Range</strong></td>
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<tr>
<td><strong>IFOV with Standard Lens (Spatial Resolution)</strong></td>
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<td><strong>Infrared Resolution</strong></td>
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<td><strong>Asset Tagging</strong></td>
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<tr>
<td><strong>Alarms</strong></td>
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*Within your provider's wireless service area; Fluke Connect is not available in all countries.*
## Thermal Imaging

### Thermal Imaging Selection Guide

#### Mounted Thermal Cameras

<table>
<thead>
<tr>
<th>Model</th>
<th>RSE600</th>
<th>RSE300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrared resolution</td>
<td>640X480</td>
<td>320X240</td>
</tr>
<tr>
<td>Field of view (FOV)</td>
<td>34° H X 25.5° V</td>
<td></td>
</tr>
<tr>
<td>IFOV with standard lens (spatial resolution)</td>
<td>0.93 mRad</td>
<td>1.85 mRad</td>
</tr>
<tr>
<td>Focus system</td>
<td>MultiSharp® Focus to focus near and far throughout the field of view, focus is adjusted in SmartView® desktop software</td>
<td></td>
</tr>
<tr>
<td>Optional lenses</td>
<td>Capture spectacular images close up or from a distance with lenses: wide angle, 2x and 4x telephoto, macro</td>
<td></td>
</tr>
<tr>
<td>Wireless connectivity</td>
<td>In SmartView® desktop software. Five modes of image blending (AutoBlend™ mode, Picture-in-Picture (PIP), IR/Visible alarm, Full IR, Full-visible) with the context of the visible details to your infrared image</td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>Rugged, ergonomic enclosed design for monitoring use</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>≤ 0.040 °C at 30 °C target temp (40 mK)</td>
<td>≤ 0.030 °C at 30 °C target temp (30 mK)</td>
</tr>
<tr>
<td>Temperature measurement range</td>
<td>-10°C to 1200°C</td>
<td>-10°C to 1200°C</td>
</tr>
<tr>
<td>Image size</td>
<td>640 x 480</td>
<td>320 x 240</td>
</tr>
<tr>
<td>Frame rate</td>
<td>60Hz or 9Hz</td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>SmartView® software</td>
<td></td>
</tr>
<tr>
<td>Documentation features</td>
<td>IR-PhotoNotes™, voice annotation, and text annotation</td>
<td></td>
</tr>
<tr>
<td>Asset Tagging</td>
<td>Yes, through SmartView® desktop software</td>
<td></td>
</tr>
<tr>
<td>Video recording</td>
<td>Standard and radiometric</td>
<td></td>
</tr>
<tr>
<td>Streaming video (remote display)</td>
<td>See the live stream of the camera display on your PC, or TV monitor, via Ethernet cable to SmartView® desktop software</td>
<td></td>
</tr>
<tr>
<td>Remote control</td>
<td>Yes, through SmartView® desktop software</td>
<td></td>
</tr>
<tr>
<td>MATLAB® and LabVIEW® compatibility</td>
<td>Yes, through SmartView® desktop software</td>
<td></td>
</tr>
</tbody>
</table>

### Fluke IR Windows

#### Fluke IR Windows CV400/401/300/301/200/201 CLKT100/50

Increase the safety and speed of your electrical infrared inspections

- **Highest arc blast safety rating available—63 kA**
- **Under 5 minute installation with 1 person; no need to remove panel door**
- **Clearly view equipment both visually and thermally with ClirVu® coating that protects the optic from the elements**
- **Corrosion and UV resistant for challenging outdoor environments—IP67 rugged**

*CV series only

#### FEATURED IR WINDOWS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Included accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV400</td>
<td>4 in (95 mm) C-Range IR Windows, Hand Turn Door Latch.</td>
<td>Fluke IR Windows are supplied complete, assembled and ready for installation. In addition to the IR Windows, each carton contains warranty statement and safety key if that option is ordered.</td>
</tr>
<tr>
<td>CV401</td>
<td>2 in (50 mm) C-Range IR Windows, Hand Turn Door Latch.</td>
<td>Fluke IR Windows are supplied complete, assembled and ready for installation. In addition to the IR Windows, each carton contains warranty statement.</td>
</tr>
<tr>
<td>CV300</td>
<td>3 in (75 mm) C-Range IR Windows, Security Key Door Latch.</td>
<td></td>
</tr>
<tr>
<td>CV301</td>
<td>3 in (75 mm) C-Range IR Windows, Security Key Door Latch.</td>
<td></td>
</tr>
<tr>
<td>CV200</td>
<td>4 in (95 mm) C-Range IR Windows, Hand Turn Door Latch.</td>
<td></td>
</tr>
<tr>
<td>CV201</td>
<td>2 in (50 mm) C-Range IR Windows, Hand Turn Door Latch.</td>
<td></td>
</tr>
<tr>
<td>CLKT100/50</td>
<td>3 in (75 mm) C-Range IR Windows, Hand Turn Door Latch.</td>
<td></td>
</tr>
<tr>
<td>CLKT100/50</td>
<td>2 in (50 mm) C-Range IR Windows, Hand Turn Door Latch.</td>
<td></td>
</tr>
</tbody>
</table>

*Within your provider’s warranty service area; Fluke Connect is not available in all countries.*

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**Thermal Imaging**

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**Thermal Imaging**

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**Thermal Imaging**
TEMPERATURE MEASUREMENT

With more than two decades of thermometry expertise, Fluke is a temperature expert offering a complete set of contact and non-contact IR temperature tools – plus all the probes and accessories for almost any application from the front-line troubleshooting to the rendering and reporting needed for Predictive Maintenance.

Each versatile Fluke tool not only quickly and accurately measures temperature, but also offers features and function you won’t find on standard thermometers. So you can take it with you anywhere in the plant, in a wide variety of situations.

FEATURED VISUAL IR THERMOMETER

**Fluke VT04/VT04A**

**Visual IR Thermometer**

*Designed to see it all*

See issues in context by blending the infrared heat map with a visual image, and get the detail you need by choosing one of five on-screen blending modes. See aligned images from as close as 15 cm (6 in) in near mode or from a distance in far mode. Plus, obtain accurate temperature readings without taking your eyes off the screen. The center measurement box shows the exact area of temperature measurement. Fill that center box with your target and rest assured you’re not measuring the background.

- Identify intermittent problems by monitoring equipment over time or get alerts when a temperature is outside the expected range with temperature alarms and automated monitoring features.
- Instantly identify the hottest and coldest spots within the field of view with hot and cold markers.
- Handy when you need it; easily fits in your tool bag or pocket.
- Intuitive enough to use right out of the box.
- Easily access saved images with the removable SD card.
- Save in .is2 format when you only want the image, or choose .is2 format so you can optimize images and create reports with Fluke SmartView® software, available by free download from Fluke.com.

### Key features VT04 / VT04A

<table>
<thead>
<tr>
<th>Feature</th>
<th>VT04</th>
<th>VT04A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-in digital camera</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Infrared heat map overlay</td>
<td>Yes, five blending modes</td>
<td></td>
</tr>
<tr>
<td>Auto-measure mode</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Battery type</td>
<td>VT04: Li-ion rechargeable</td>
<td>VT04A: Four (4) AA batteries</td>
</tr>
<tr>
<td>Ergonomics</td>
<td>Slim, pocket-sized design</td>
<td></td>
</tr>
<tr>
<td>Use and use modes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>General specifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery life</td>
<td>Eight (8) hours</td>
<td></td>
</tr>
<tr>
<td>Temperature measurement range</td>
<td>-10 °C to +25 °C (-14 °F to 482 °F)</td>
<td></td>
</tr>
<tr>
<td>Temperature measurement accuracy</td>
<td>± 2 °C; ± 2 %</td>
<td></td>
</tr>
<tr>
<td>Temperature measurement</td>
<td>Yes, center-point</td>
<td></td>
</tr>
<tr>
<td>Storage medium (micro SD card)</td>
<td>Stores up to 10,000 images per GB (4 GB card included)</td>
<td></td>
</tr>
<tr>
<td>Infrared spectral band</td>
<td>6.5 µm to 14 µm</td>
<td></td>
</tr>
<tr>
<td>Level and span</td>
<td>Auto</td>
<td></td>
</tr>
<tr>
<td>Focus mechanism</td>
<td>Focus free</td>
<td></td>
</tr>
<tr>
<td>Alignment of blended visual image and infrared heat map</td>
<td>NEAR: &lt;23 cm (9 in) from target; FAR: &gt;23 cm (9 in) from target</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>21 cm x 7.5 cm x 5.0 cm (0.8 x 3 in x 2.2 in)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>VT04: 350 g (12.5 oz); VT04A: 385 g (13.5 oz)</td>
<td></td>
</tr>
<tr>
<td>File format</td>
<td>.is2 format saved in SD card. User can create professional reports or export images in SmartView® (BMP, GIF, JPEG, JPG, PNG, PDF, TIFF and .is2); go to Fluke website to download software free.</td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>Two-years</td>
<td></td>
</tr>
</tbody>
</table>

**PyroBlend® Plus optic**

4X sharper image than VT02
**Fluke 54-II B**

*Data Logging Thermometer with Dual Input*

**Laboratory accuracy. Wherever you go**

- Data Logging up to 500 points of data with user adjustable recording interval
- Measures J, K, T, E, R, S, and N-type thermocouples
- Recall function allows logged data to be easily reviewed on the meter display
- Large backlit dual display shows any combination of T1, T2, T1-T2, plus MIN, MAX, or AVG

**Fluke 64 MAX IR Thermometer**

*Fluke 64 MAX thermometer has the precision you need to do your job accurately and will not break the budget*  
- Precise laser technology for more accurate and repeatable measurements
- Temperature accuracy of up to ±1°C or ±1% of reading whichever is greater with 20:1 distance to spot ratio
- Flashlight and large, easy-to-read backlit LCD display for easy viewing even in dark environment
- IP64 rated for extra protection against airborne contaminants

**Fluke 568 Contact & Infrared Temp Gun**

*Fluke 568 two-in-one infrared and contact thermometer handles a wide temperature range*

- Measures temperatures from -40°C to 800°C (-40°F to 1472°F) accurate to ±1.0°C or ±1.0% of reading (whichever is greater)
- Features rugged, ergonomic design that stands up to tough industrial, electrical, and mechanical environments.
- Offers a distance-to-spot ratio of 50:1
- Works with most K-type thermocouples

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### SELECTION GUIDE

<table>
<thead>
<tr>
<th>Models</th>
<th>60 Series</th>
<th>600 Series</th>
<th>670 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluke 61</td>
<td>Fluke 62 MAX</td>
<td>Fluke 62 MAX+</td>
<td>Fluke 63 MAX</td>
</tr>
<tr>
<td>Fluke 62 MAX</td>
<td>Fluke 64 MAX+</td>
<td>Fluke 651</td>
<td>Fluke 566</td>
</tr>
<tr>
<td>Fluke 561</td>
<td>Fluke 566</td>
<td>Fluke 566/566 Ex</td>
<td>Fluke 572-2</td>
</tr>
</tbody>
</table>

**Key features**

<table>
<thead>
<tr>
<th>Fluke 60 Series</th>
<th>Fluke 61</th>
<th>Fluke 62 MAX</th>
<th>Fluke 62 MAX+</th>
<th>Fluke 63 MAX</th>
<th>Fluke 64 MAX+</th>
<th>Fluke 651</th>
<th>Fluke 566</th>
<th>Fluke 566/566 Ex</th>
<th>Fluke 572-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature range</td>
<td>-18 to 275 °C</td>
<td>-20 to 500 °C</td>
<td>-20 to 500 °C</td>
<td>-20 to 500 °C</td>
<td>-20 to 650 °C</td>
<td>-40 to 650 °C</td>
<td>-60 to 650 °C</td>
<td>-40 to 650 °C</td>
<td>-40 to 650 °C</td>
</tr>
<tr>
<td>Distance to spot</td>
<td>8:1</td>
<td>10:1</td>
<td>12:1</td>
<td>12:1</td>
<td>20:1</td>
<td>12:1</td>
<td>30:1</td>
<td>50:1</td>
<td>60:1</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 2%</td>
<td>± 1%</td>
<td>± 0.5%</td>
<td>± 1%</td>
<td>± 1%</td>
<td>± 1%</td>
<td>± 1%</td>
<td>± 1%</td>
<td>± 1%</td>
</tr>
<tr>
<td>Response time</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
<td>&lt; 500 ms</td>
</tr>
<tr>
<td>Adjustable emissivity</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIN/MAX readings</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
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<tr>
<td>AVG readings</td>
<td>•</td>
<td>•</td>
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<td>•</td>
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<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min/MAX readings</td>
<td>•</td>
<td>•</td>
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<td>•</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual laser/single-point laser</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Audible Hi/Lo alarm</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visible Hi/Lo alarm</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Includes contact probe</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probe input (types)</td>
<td>Fluke View® Forms software compatible</td>
<td>Thermometer A</td>
<td>Thermometer B</td>
<td>Thermometer C</td>
<td>Thermometer D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data logging (number of measurements)</td>
<td>99 points</td>
<td>20 points</td>
<td>99 points</td>
<td>99 points</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS interface</td>
<td>USB</td>
<td>USB 2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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**Temperature Measurement**

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**Temperature Measurement**
In the world of mechanical maintenance, vibration remains one of the earliest indicators of a machine’s health. Whether it’s the rumble of worn bearings or the shaking, shimmying or thumping of loose, misaligned or unbalanced parts, machines have a tale to tell. For years, mechanical teams faced a tough choice when it came to vibration and alignment testing: complex vibration analysis systems, expensive vibration consultants, or relying on the trained ears of seasoned technicians using low-resolution test methods, or complex math.

Now you can get fast, accurate and actionable answers with revolutionary vibration and alignment testers from Fluke. These tools redefine testing for mechanical troubleshooting and predictive maintenance, which helps you:

• Quickly and reliably understand machinery health and condition severity
• Increase efficiency by working against a prioritized list of problems
• Take control of downtime costs by anticipating problems earlier and identifying root causes of recurring failures
• Conduct vibration and alignment checks, and perform expert level corrections with minimal training

FEATURED PRODUCTS

Fluke 805 FC Vibration Meter
Make go or no-go maintenance decisions with confidence
The fast, easy-to-use Fluke 805 FC Vibration Meter eliminates the confusion of vibration screening so you can make go or no-go maintenance decisions with confidence. Instantly upload your data to the Fluke Connect™ app and share vibration measurement results with your maintenance team in real-time—all without leaving the field.*

• The innovative sensor and sensor tip design ensures accurate measurements for overall vibration measurement, bearing condition and machine health
• A four-level scale helps you quickly assess problem severity
• Set up machine profiles, create work orders and send maintenance routes to technicians in the field using the Fluke Connect mobile app

*Fluke Connect is not available in all countries. Check with your local Fluke representative.

Fluke 810 Vibration Tester
Take a vibration expert along
The Fluke 810 Vibration Tester is the most advanced machine diagnostic tool for mechanical maintenance teams who need an answer now. A simple step-by-step process reports on machine faults the first time measurements are taken, without prior measurement history.

• The unique automated diagnostic technology identifies and locates the most common mechanical faults: bearings, misalignment, unbalance and looseness
• Repair recommendations advise technicians on corrective action
• Real-time tips and guidance give new users on-board, context-sensitive help

Fluke 830 Laser Shaft Alignment Tool
Precision shaft alignment made easy
The Fluke 830 Laser Shaft Alignment Tool is the ideal test tool to precision-align rotating shafts in your facility. If you’re still using rulers and dial indicators to ensure your rotating machinery is properly aligned, you could be losing thousands of dollars per year in replacement bearing costs, hours of unnecessary repair time and crippling unplanned downtime, not to mention taking years off your machine’s useful life.

• The single-laser measurement technology results in better data accuracy
• The intuitive guided user interface helps you quickly and easily complete machine alignments
• An activated electronic inclinometer means measurements are flexible, reliable and repeatable
• The dynamic machine tolerance check provides continuous evaluation of alignment adjustments so you know when your machine is in an acceptable range

Fluke 820-2 LED Stroboscope
Rugged, compact and easy-to-use stop-motion diagnostic tool
With the Fluke 820-2 LED Stroboscope, investigate and observe potential mechanism failure with confidence on a variety of machinery, in a wide range of industries, without making physical contact with the machine. The Fluke 820-2 LED Stroboscope is a rugged, compact, portable stroboscope ideal for stop-motion diagnostics, mechanical troubleshooting and process or product research and development.

• Identify the running speed of rotating equipment without stopping the operation or making contact with machinery
• Stop motion for diagnoses of parasitic oscillations, flaws, slippage or unwanted distortions
• Measure speed of rotation or frequency of a rotating shaft, speaker or mechanical part
• Identify part numbers or other markings

Get answers now

In the world of mechanical maintenance, vibration remains one of the earliest indicators of a machine’s health. Whether it’s the rumble of worn bearings or the shaking, shimmying or thumping of loose, misaligned or unbalanced parts, machines have a tale to tell. For years, mechanical teams faced a tough choice when it came to vibration and alignment testing: complex vibration analysis systems, expensive vibration consultants, or relying on the trained ears of seasoned technicians using low-resolution test methods, or complex math.

Now you can get fast, accurate and actionable answers with revolutionary vibration and alignment testers from Fluke. These tools redefine testing for mechanical troubleshooting and predictive maintenance, which helps you:

• Quickly and reliably understand machinery health and condition severity
• Increase efficiency by working against a prioritized list of problems
• Take control of downtime costs by anticipating problems earlier and identifying root causes of recurring failures
• Conduct vibration and alignment checks, and perform expert level corrections with minimal training
Genuine Fluke accessories
You’ve already invested in a Fluke tool. Now expand its capabilities with Fluke genuine accessories. Fluke accessories increase the functionality of your test tool as well as your safety and proficiency. Your digital multimeter can become a thermometer, clamp meter, or even a pressure gauge. With Fluke genuine accessories, you can broaden the ability to take meter measurements in different environments to meet your industrial, electrical, and electronic needs.

Get the right case to protect your tools, and with our breadth of soft tool pouches and hard cases available, you’re never short on choices. Other available accessories include fuses, current probes and hat lights, magnetic meter and case hangers, and appropriately rated test lead probes that improve your safety and proficiency.

FEATURED PRODUCTS

Fluke TL175 TwistGuard™ Test Leads
The Fluke TL175 TwistGuard Test Leads offer adjustable length test tips for use in different measurement and safety rated environments. By simply twisting the test lead, the user can change the exposed probe tip length from 19 mm to 4 mm (0.75 in to 0.16 in).

The patented TwistGuard extendable tip shroud meets new electrical safety requirements to reduce tip exposure while providing the versatility needed for most measurements.
TL175 test leads come with the WearGuard™ lead wire wear indicator. Each test lead is covered by two layers of silicone insulation; the inner contrasting color is exposed when the leads are nicked, scuffed or otherwise damaged—a great indicator for replacing compromised leads.

- Probes comply with EN61010-031 requirements
- Rated CAT II 1000 V, CAT III 1000 V, CAT IV 600 V, 10 A max., Pollution Degree 2
- Environmental ratings: -20 °C to +55 °C (-4 °F to +131 °F) altitude: 2000 m (6562 ft)

Fluke TPAK Meter Hanging Kit
Free both hands to make measurements
Hang your meter in a variety of ways for convenient, hands-free operation and to solve any hanging and positioning problems you may face:

- Powerful (rare earth) magnetic hanger: allows you to hang the meter on any metallic surfaces, freeing both hands for conducting tests
- 9 in hook-and-loop strap: allows you to loop around pipes
- Hook hanger: for hanging on nonmagnetic surfaces
- General purpose hanger: allows you to hang your meter on nails, hooks and many other objects

Always demand the best: use the original TPAK Meter Hanging Kit with its unique rare earth magnet for superior gripping strength to ensure your tools don’t slide or fall.

Fluke Pack30 Professional Tool Backpack
Designed for maintenance professionals
The Fluke Pack30 backpack for the professional tradesman is rugged yet weighs less than 6.5 pounds. It’s built with durable, high-quality polyester and features over 30 heavy-duty pockets for storing and carrying your tools to the next job. The primary storage compartments hold test tools, hand tools, and a 12” laptop or tablet; a smaller molded pocket for protection of smaller items. The rugged waterproof molded bottom offers protection from the elements and keeps the backpack standing for convenient access to tools.

- Lightweight, weighs less than 6.5 pounds to take the load off your back
- Rugged, waterproof bottom base protects tools, keeping the backpack upright for easy access to tools
- Over 30 pockets in three main storage compartments
- Clips, brackets and straps on the outside of the Fluke Pack30 for frequently used tools such as tape rolls, measuring tapes and voltage detectors
- Stores, organizes and protects test equipment, hand tools, safety glasses and personal items like your keys, wallet and phone
TEST LEADS/FUSES

Test Leads

<table>
<thead>
<tr>
<th>General purpose measurements</th>
<th>mV measurements</th>
<th>Electronics, hard-to-reach areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL175 TwistGuard™ Test Leads</td>
<td>Use pair of red and black twist guard alligator clips marked CAT III 1000 V, CAT IV 600 V, 10 A rating</td>
<td>Includes three sets of spring loaded test tips and two sets of stainless steel tips</td>
</tr>
<tr>
<td>TL190 True-Point Test Leads</td>
<td>Use pair of red and black true-point test probes marked CAT III 1000 V, CAT IV 600 V, 10 A rating</td>
<td></td>
</tr>
</tbody>
</table>
**Test Lead Kits**

<table>
<thead>
<tr>
<th>Test Lead Kits for Industrial, Electrical and General-Purpose Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL225 SureGrip™ Industrial Test Lead Set</td>
</tr>
</tbody>
</table>

**Parts included**

- AC220 SureGrip™ Alligator Clip Set
- AC185 SureGrip™ Large Jaw Alligator Clip Set
- AC180 SureGrip™ Hook Clip
- AC183 SureGrip™ Fitted Clip
- TP10 SureGrip™ Industrial Test Probes
- TL124 SureGrip™ Test Lead Kit
- TLK282/289 US SureGrip™ Modular test probes (10 A)
- TLK281/282 US SureGrip™ Modular test probes (10 A)
- TLK-220 US SureGrip™ Modular test probes (10 A)
- TL224 SureGrip Test Lead Set
- TL220 SureGrip Test Lead Kit
- TL80A Basic Electronic Test Lead Kit
- TL910 Electronic Test Lead Set
- TL911 Electronic Test Lead Set
- TLK280 SureGrip™ Test Lead Set
- TLK281 TLK282 Modular test probes (10 A)
- TLK282 TLK289 Modular alligator clips
- TLK-220 US SureGrip™ Modular pinch-style clip
- TLK289 US SureGrip™ Modular pinch-style clip
- TL71 Premium Test Lead Set
- TL224 SureGrip Test Lead Set
- TL120 SureGrip Test Lead Set
- TLK-227 US SureGrip™ Industrial Master Test Lead Set
- TP10 Insulation Piercing Clip Set
- TP81 Insulation Piercing Clip Set
- TP10 Insulation Piercing Clip Set
- TP220 SureGrip Test Probe Set
- TP238 SureGrip Insulated Spade lug to banana jack
- TP40 Automotive Back Probe Pins (five)
- TP150 SureGrip Insulated Spade lug to banana jack
- TP151 SureGrip Insulated Spade lug to banana jack

**Test Lead Kits for Automotive Applications**

<table>
<thead>
<tr>
<th>Test Lead Kits for Automotive Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL225</td>
</tr>
</tbody>
</table>

**Parts included**

- TP81 Insulation Piercing Clip Set
- TP220 SureGrip Test Probe Set
- AC220 SureGrip™ Alligator Clip Set
- AC185 SureGrip™ Large Jaw Alligator Clip Set
- AC180 SureGrip™ Hook Clip
- AC183 SureGrip™ Fitted Clip
- TP10 SureGrip™ Industrial Test Probes
- TLK282/289 US SureGrip™ Modular test probes (10 A)
- TL224 SureGrip Test Lead Kit
- TLK281/282 US SureGrip™ Modular test probes (10 A)
- TLK-220 US SureGrip™ Modular test probes (10 A)
- TL224 SureGrip Test Lead Set
- TL220 SureGrip Test Lead Kit
- TL80A Basic Electronic Test Lead Kit
- TL910 Electronic Test Lead Set
- TL911 Electronic Test Lead Set
- TLK282/289 US SureGrip™ Modular alligator clips
- TLK281/282 US SureGrip™ Modular pinch-style clip
- TLK282 US SureGrip™ Modular pinch-style clip
- TLK289 US SureGrip™ Modular pinch-style clip
- TL71 Premium Test Lead Set
- TL910 Electronic Test Lead Set
- TL911 Electronic Test Lead Set
- TLK280 SureGrip™ Test Lead Set
- TLK-220 US SureGrip™ Modular pinch-style clip
- TLK289 US SureGrip™ Modular pinch-style clip
- TLK-227 US SureGrip™ Industrial Master Test Lead Set
- TP10 Insulation Piercing Clip Set
- TP81 Insulation Piercing Clip Set
- TP10 Insulation Piercing Clip Set
- TP220 SureGrip Test Probe Set
- TP238 SureGrip Insulated Spade lug to banana jack
- TP40 Automotive Back Probe Pins (five)
- TP150 SureGrip Insulated Spade lug to banana jack
- TP151 SureGrip Insulated Spade lug to banana jack

**Temperature Accessories**

<table>
<thead>
<tr>
<th>Temperature Accessories Selection Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact probes</td>
</tr>
<tr>
<td>HI TEMP-27</td>
</tr>
<tr>
<td>K-type (500 °C)</td>
</tr>
<tr>
<td>0.6 °C (1 °F)</td>
</tr>
<tr>
<td>21.27 cm (8.39&quot;)</td>
</tr>
<tr>
<td>9.75 cm (3.81&quot;)</td>
</tr>
<tr>
<td>21.08 cm (8.3&quot;)</td>
</tr>
<tr>
<td>18.0 cm (7&quot;)</td>
</tr>
<tr>
<td>19.0 cm (7.5&quot;)</td>
</tr>
</tbody>
</table>

**SureGrip™ Temperature Accessories**

The innovative SureGrip design from Fluke is now available in select temperature probes. The soft rubber handle combined with a new ergonomic shape is so comfortable to hold that you’ll forget about the probe and focus on the measurement. All SureGrip probes have an improved, more flexible strain relief for a long life.

*SureGrip handle provides a secure grip*
**CASES AND HOLSTERS**

**Recommended for:**
- T5/T+/T Pro 17x series, 87v 71x and 72x
- T3 and T5 Electrical

- **Description:** Zippered case with belt loop
- **Dimensions:** (H x W x D)
  - T5/T+/T Pro: 220 x 140 x 65 mm
  - 87v 71x and 72x: 240 x 140 x 65 mm

**Accessories:**
- 10 x 6 x 4 in
- 9 x 7.3 x 6.2 in
- 230 x 185 x 65 mm
- 13 x 18.3 x 7 in

**Hard cases**

- **C310 Hard Case**
  - **Description:** Tough polypropylene case with lightweight handle and semi-rigid transport
  - **Dimensions:** (H x W x D)
    - 397 x 346 x 122 mm (15.6 x 13.6 x 4.8 in)

- **C310 Universal Carrying Case**
  - **Description:** Zippered carrying case with handle and storage, designed for easy transport
  - **Dimensions:** (H x W x D)
    - 210 x 115 mm (8.3 x 4.5 in)

- **C310 Deluxe Case**
  - **Description:** Zippered carrying case with handle and detachable lid
  - **Dimensions:** (H x W x D)
    - 230 x 185 x 65 mm (9 x 7.3 x 2.6 in)

**Specialty cases: camo and leather**

- **Camo Leather Carry Case**
  - **Description:** Large polypropylene case with handle and detachable lid
  - **Dimensions:** (H x W x D)
    - 207 x 170 x 125 mm (8.1 x 6.7 x 4.9 in)

**Soft cases**

- **C23 Soft Carrying Case**
  - **Description:** Tipped case with belt loop and an inner pocket
  - **Dimensions:** (H x W x D)
    - 8 x 10 x 1.52 in

- **C23 Large Soft Case for T5**
  - **Description:** Tipped carrying case with handle and extra pocket
  - **Dimensions:** (H x W x D)
    - 9 x 11.5 x 2.5 in

- **C23 Soft Carrying Case**
  - **Description:** Tipped carrying case with handle and extra pocket
  - **Dimensions:** (H x W x D)
    - 11 x 13 x 2.5 in

**Holsters**

- **Holster**
  - **Description:** Heavy-duty construction and loop strap.
  - **Dimensions:** (H x W x D)
    - 10 x 6 x 4 in
  - **Recommended for:**
    - T90/110/130/150

**FLUKE ACCESSORIES**

**Holsters**

- **C23 Holster for T5**
  - **Description:** Tipped case with belt loop and an inner pocket
  - **Dimensions:** (H x W x D)
    - 9 x 11.5 x 2.5 in

- **C23 Large Holster Case for T5**
  - **Description:** Tipped carrying case with handle and extra pocket
  - **Dimensions:** (H x W x D)
    - 11 x 13 x 2.5 in

- **C23 Soft Carrying Case**
  - **Description:** Tipped carrying case with handle and detachable lid
  - **Dimensions:** (H x W x D)
    - 11 x 13 x 2.5 in

- **C310 Soft Carrying Case**
  - **Description:** Tipped carrying case with handle and storage, designed for easy transport
  - **Dimensions:** (H x W x D)
    - 230 x 185 x 65 mm (9 x 7.3 x 2.6 in)

**Table bags**

- **C49 Soft Case**
  - **Description:** Durable carrying case with inner front pocket and detachable handle and shoulder strap
  - **Material:** Durable polyethylene

- **C550 Tool Bag**
  - **Description:** Durable carrying case with inner front pocket and detachable handle and shoulder strap
  - **Material:** Durable polyethylene

**For a full compatibility chart, check www.fluke.com/accessories**
### RECOMMENDED ACCESSORIES

#### Models

<table>
<thead>
<tr>
<th>Model</th>
<th>RECOMMENDED ACCESSORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVI Industrial Multimeter</td>
<td>C115 Soft Carry Case</td>
</tr>
<tr>
<td>156 Digital HVAC Multimeter</td>
<td>C115 Soft Carry Case</td>
</tr>
<tr>
<td>388 True-RMS Data Logging Multimeter</td>
<td>C115 Soft Carry Case</td>
</tr>
<tr>
<td>388 True-RMS HVAC Clamp Meter</td>
<td>C115 Soft Carry Case</td>
</tr>
<tr>
<td>388 TC True-RMS HVAC Clamp Meter</td>
<td>C115 Soft Carry Case</td>
</tr>
<tr>
<td>420 True-RMS Distance Meter</td>
<td>C115 Soft Carry Case</td>
</tr>
<tr>
<td>74-1000 Electrical Tester</td>
<td>C115 Soft Carry Case</td>
</tr>
</tbody>
</table>

#### For a full list of accessories available for your tool, visit [www.fluke.com](http://www.fluke.com/accessories).
DSX CableAnalyzer™ Industrial Ethernet Kit

Validate that cables conform to standards and don’t have flaws

Faster commissioning and less downtime

Ensure network cable performance at the machine builder when commissioning and after making changes in the plant. Find marginal cables susceptible to vibration, moisture, noise, and temperature. Complete documentation is stored in the cloud using LinkWare™ Live or on your PC.

Speed troubleshooting

Avoid wasting time installing bypass cables. Identify the exact type and location of cable failure—or prove it’s good. Pass/Fail indication is available in 10 seconds.

Support for most cable types and protocols

EtherCAT®, PROFINET®, Modbus TCP™ EtherCAT™ and other industrial protocols. RJ45, M12-D and M12-X connectors. Singlemode and Multimode fiber at all common wavelengths with optional OTDR and OLTS fiber modules.

CableIQ™ Qualification Tester

Finds common cable faults and data rate

Detects Ethernet switch and link configuration, and measures data transfer performance (10/100/1000 Mbps) data rates. Graphical display of cable wiring at each end of the cable to identify open, shorted, cross-wired connections of all eight data lines at one time in just a few seconds.

Time Domain Reflectometry (TDR) technology will find the location of a broken wire in the Ethernet cable or the overall length of the cable. The built-in tone generator helps you to locate the cable end when using an optional IntelliTone™ or Pro3000F™ tone probe.

MicroScanner™ PoE Cable Verifier

Find common errors and switch power capacity

Graphical display of cable wiring at each end of the cable to identify open, shorted, cross-wired connections of all eight data lines at one time in just a few seconds. Time Domain Reflectometry (TDR) technology will find the location of a broken wire in the Ethernet cable, or the overall length of the cable. The built-in tone generator helps you to locate the cable end when using an optional IntelliTone™ or Pro3000F™ tone probe.

Identifies the presence and speed of an active switch connected to the cable and detects the class [0-8] from PoE, PoE+ and PoE++ (802.3 bt) switches.

FEATURED PRODUCTS AND SELECTION GUIDE

Optional Fiber Optic Test Modules for DSX

CFP-Q-Add CertiFiber™ Module

- Optical loss modules provide automatic Pass/Fail analysis to industry standards
- Supports multimode and single mode at four wavelengths

OFP-Q-Add OptiFiber™ Module

- OTDR module to identify all connections on a fiber link and attenuation at each
- Identify splices and associated attenuation and lengths

Solutions for Fiber Optic Contamination

The #1 problem affecting Industrial Ethernet fiber cables

- PortBright™, a built-in flashlight illuminates dark areas
- Autofocus for stable images in few seconds
- Large display to view fiber endfaces
- Includes 4 UPC tips (LC, SC, 1.25 mm and 2.50 mm).
- APC, Bulkhead tips available
- Auto-center for precise fiber ferrule inspection

FI-500 FiberInspector™ Micro

Fiber Optic Cleaning Kits

- The complete solution for precision end-face fiber optic cable cleaning
**LATEST PRODUCTS FEATURE**

**Fluke TiX501 Thermal Imager**
Articulating camera at 640 x 480 resolution
Equipped with Fluke 640 x 480 resolution, the TiX501 offers 240-degree articulation for working in hard-to-reach places. Its ergonomic design gives you the flexibility to hold the camera in a position that is comfortable, even when taking images overhead and around hard-to-reach targets. Take advantage of analytics and reports with software that offers streaming infrared data, trend analysis and remote camera operation.

**Fluke ii900 Sonic Industrial Imager**
Quickly pinpoint the location of leaks
Using SoundSight™ technology, the Fluke ii900 Sonic Industrial Imager, quickly finds compressed leaks in air, steam, gas and vacuum systems, that effect both production uptime and the operations bottom line.

**Fluke MDA-500 Series Motor Drive Analyzers**
Simplify complex motor-drive troubleshooting
The Fluke MDA-510 and MDA-550 Motor Drive Analyzers simplify the troubleshooting process for variable frequency drives. Step-by-step guided measurements show you where to make voltage and current connections, while preset measurement profiles ensure you will capture all the data you need for each critical motor-drive section—from the input to the output, the dc bus and the motor itself.

**Fluke insulated hand tools**
Fluke is the world leader in handheld test tools. Everything that you know about Fluke multimeters, clamp meters and electrical test tools applies to our insulated hand tools.

**Fluke Battery Analyzer Angled Intelligent Test Probe**
Access to hard-to-reach battery terminals using probe extensions with angled measurement tips
With optimized tip angles and coil placement the new Fluke battery analyzer angled test probe gives you the maneuverability you need to avoid obstacles and get into narrow cabinet spaces—all while offering the same CAT II 1000V and CAT III 600V you’ve come to expect from Fluke Battery Analyzers.

**Fluke Norma 6000 Series Power Analyzer**
Measure power parameters to detect problems easily
Increased field applications of power electronic equipment have increased the demand for portable power analyzers. For test engineers and service technicians working in solar, wind, electric vehicles, electronics manufacturing, R&D and third-party laboratories, Fluke Norma 6000 series Portable power analyzers provide the easiest to use hand-held tools for measuring power, efficiency, and harmonics to detect problems.