

PRODUCT GUIDE 2023-2024

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Fluke 1770 Series **Power Quality Analyzers**

The faster, easier way to perform power quality studies.

- Measures power quality parameters (harmonics, dips, swells, unbalance, inrush etc.)
- At-a-glance "Advanced Power Quality Health" summary screen with graphical representation
- · Transient capture optimized for the capture of high-speed transients found in electrical systems
- · Create custom reporting templates with Energy Analyze Plus software

For more on the Fluke 1770 Series Power Quality Analyzers, see page 94



Fluke FEV300 Adapter Kit for **Electric Vehicle Charging Stations**

Test the functionality and safety of electrical vehicle charging stations (EVSE), easily and reliably.

- within safety standards.

For more on the Fluke FEV300 Adapter Kit, see page 75



Fluke 393 FC Solar Clamp Meter

The World's first CAT III 1500 V current clamp designed for the solar industry.

- · Safe and accurate voltage measurement up to 1500V DC
- DC power measurement, showing readings in kVA steps
- IP54 rating for dust and water making it ideal for work outdoors
- Meets IEC 61730-1 standard for photovoltaic panels

For more on the Fluke 393 FC CAT III 1500 V Clamp Meter, see page 28



- advertised data rates).



Fluke SMFT-1000 Solar Multifunction Tester

Multifunction PV Tester and Performance Analyzer, I-V Curve Tracer. An all-in-one test solution.

- Full sequence safety testing-IEC 62446-1, Category 1
- ROI and system performance testing-IEC 62446-1, Category 2
- Precise I-V curve measurements
- Fluke's "Keep the Leads" system
- TruTest[™] Solar Software

For more on the Fluke SMFT-1000, see page 73



Fluke MDA-550 Series III Motor Drive Analyzer

Simplify complex motor-drive troubleshooting.

- Measure key motor drive parameters
- Create reports quickly and easily



• Check that an EVSE including protective earth is correctly wired and functioning properly with the PE pre-test feature.

• Perform GFCI troubleshooting of an EVSE and verify if it is operating

• Test different charging states of an EVSE with CP state simulation.

· Verify charging voltage and maximum available current using a digital multimeter.

Fluke Networks LinkIO[®] Cable+Network Tester

Cable Testing you Trust. Network Testing you Need.

• Cable Performance testing up to 10GBASE-T

• Network features include: ping, switch diagnostics (name, port / VLAN number, and

• Ethernet Alliance certified PoE Verification of PoE class (1-8) and power,

• Displays cable length, wire map, and distance to open or short

• Manage results and print reports from LinkWare[™] PC

For more on the LinkIQ, see page 182

• Provides guided measurements for motor-drive input with graphical step-by-step

voltage and current connection diagrams

· Measure additional electrical parameters with full 500 MHz oscilloscope

For more on the Fluke MDA-550 Series III, see page 103



Take advantage of the benefits of Fluke Connect[™] by seamlessly gathering and sharing inspection results instantly. Using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



SEE IT. SAVE IT. SHARE IT.

All the facts, right in the field.

Troubleshoot faster

Instantly trend and monitor intermittent problems with TrendIt^m graphs so you can easily identify trends and stop problems before they happen. Seeing is believing – trend data over time and prove your point.



Save Time Reporting

Make better decisions faster than before. Organize your measurements by asset in one location with EquipmentLogTM history. Measure once, and cut out the paper with AutoRecordTM measurements.

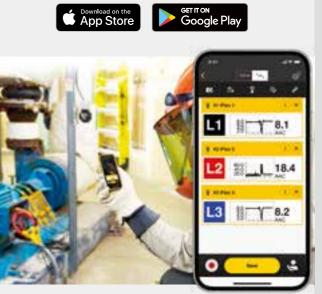
When your measurements are associated with equipment, there is no need to record in the field and then transcribe into an office computer. Make decisions quicker than before by viewing temperature, mechanical, electrical and vibration measurements from one location.





Get the FREE Fluke Connect[™] App!

By using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.



Share from anywhere

Stay on the same page even when you and your team are in different places and on different devices. With the ShareLive[™] video call feature, securely connect and collaborate with others, so they can see what you see in real time. Get approvals without leaving the field.



Fluke Connect^{**}

Fluke Connect[™] Selection Guide

The Fluke Connect[™] App displays readings from up to ten modules on the iPhone and six modules on an Android device. A vast range of Fluke Infrared Cameras display their own measurements plus readings from up to five wireless modules. The 3000 FC Wireless Digital Multimeter displays its own readings plus measurements from up to three wireless modules. The 173X Power Loggers and 174X Power Quality Loggers display their own measurements plus readings from up to two wireless modules.

| Fluke Connect™ tools | Fluke Connect [™] App – iOS and Android [™] | TiX580 Infrared Camera | Ti480 PRO Infrared Camera | PTi120/TiSxx Series Infrared Cameras | 3000 FC Digital Multimeter | 902 FC True-RMS HVAC Clamp Module | 378/377/376/375/374/393 FC Clamp Meters | a3000/a3001 FC AC Current Clamp Modules | a3002 FC AC/DC Current Clamp Module | a3003/a3004 FC DC Current Clamp Modules | v3000 FC AC Voltage Module | v3001 FC DC Voltage Module | t3000 FC Temperature Module | 1555/1550C Insulation Resistance Testers | 1742/1746/1748 Power Quality Loggers | 1732/1734/1736/1738 Electrical Loggers | 729 FC Automatic Pressure Calibrator | 787B/789 ProcessMeter ^{nx} | 1587 FC Insulation Multimeter | 1664 FC Multifunction Installation Tester | 805 FC Vibration Tester | 125B/124B/123B ScopeMeters* | 279 FC Digital Thermal Multimeter | 1630-2 FC Earth Ground Clamp | 368/369 FC Leakage Current Clamps |
|--|---|------------------------|---------------------------|--------------------------------------|----------------------------|-----------------------------------|---|---|-------------------------------------|---|----------------------------|----------------------------|-----------------------------|--|--------------------------------------|--|---|-------------------------------------|--------------------------------------|---|-------------------------|-----------------------------|-----------------------------------|------------------------------|-----------------------------------|
| Fluke Connect™ App – iOS and Android | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| TiX580 Infrared Camera | • | | | | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | |
| Ti480PRO Infrared Camera | • | | | | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | |
| PTi120/TiSxx Series Infrared Cameras | • | | | | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | |
| 3000 FC Digital Multimeter | • | • | • | | | | | • | • | • | • | • | • | | • | • | | | | | | | | | |
| a3000/a3001 FC AC Current Clamp Modules | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| 902 FC True-RMS HVAC Clamp Meter | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| - 378/377/376/375/374/393 FC True-RMS Clamp Meters | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| a3002 FC AC/DC Current Clamp Module | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| a3003/a3004 FC DC Current Clamp Modules | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| v3000 FC AC Voltage Module | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| v3001 FC DC Voltage Module | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| t3000 FC Temperature Module | • | • | • | • | • | | | | | | | | | | • | • | | | | | | | | | |
| 1555/1550C Insulation Resistance Testers | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 1742/1746/1748 Power Quality Loggers | • | | | | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | |
| 1732/1734/1736/1738 Electrical Loggers | • | | | | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | |
| 787B/789 ProcessMeter™ | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 1587 FC Insulation Multimeter | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 1664 FC Installation Tester | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 805 FC Vibration Tester | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 125B/124B/123B ScopeMeters® | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 279 FC Thermal Multimeter | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 1630-2 FC Earth Ground Clamp | • | | | | | | | | | | | | | | | | | | | | | | | | |
| 368/369 FC Leakage Current Clamps | • | | | | | | | | | | | | | | | | | | | | | | | | |
| ir3000 FC Wireless Connector | • | | | | | Con | nect | ada | pter | to: F | luke | 787 | B, 78 | 39, 2 | 89, 2 | 287, | 1550 | DC, 1 | 555 | | | | | | |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

Fluke a3000 FC, a3001 FC, a3002 FC **Wireless Current Clamp Modules**

Fluke a3000 FC

Fluke a3001 FC

A true RMS Current Clamp Meter that wirelessly relays measurements to other Fluke Connect[™] enabled master units.

- Measure up to 400 A AC
- Logging function: record and save up to 65000 readings • Use as a standalone meter or as part of a system
- Inrush function • Weight: 0.22 kg (7.76 oz)
- Three-year warranty

a3001 FC Wireless iFlex[™] AC Current Module An iFlex[™] AC Current Module that wirelessly relays measurements to other Fluke Connect[™] enabled master-units. It allows you to measure around awkward sized conductors and access wires more easily in tight spaces.

- Measure up to 2500 A AC
- Logging function: record and save up to 65000 readings
- Use as a standalone meter or as part of a system
- Inrush function • Weight: 0.22 kg (7.76 oz)
- Three-year warranty

a3002 FC Wireless AC/DC Current Module

For use with the i410 or i1010 AC/DC current clamps (sold separately). Wirelessly relay measurements from the i410 or i1010 clamp accessory to other Fluke Connect™ enabled master units.

- Measure up to 400 A AC or 400 A DC with i410
- Measure up to 600 A AC or 1000 A DC with i1010
- Use as a meter alone or as part of a system
- · Record and save up to 65000 readings
- Weight: 0.25 kg (8.81 oz) ee-year warranty

| Fluke a3002 FC | • | Thre |
|----------------|---|------|
| | | |

| Specifications | a3000 FC | a3001 FC | | | | |
|---------------------------|--|--|--|--|--|--|
| specifications | asourc | asuure | | | | |
| Range | 0.5 A to 400.0 A AC | 0.5 A to 2500 A AC | | | | |
| Resolution | | 0.1 A | | | | |
| Accuracy | 400.0 A: 2 % ±5 digits (10 Hz to 100 Hz), 2.5 % ±5 digits (100 Hz to 500 Hz) | 3 % ±5 digits (5 Hz to 500 Hz) | | | | |
| Inrush | Max displayed reading: 999.9 A | | | | | |
| Crest Factor (50Hz/60Hz) | 3 at 500 A, 2.5 at 600 A, 1.42 at 1000 A, add 2% for C.F. > 2 | 3.0 at 1100 A, 2.5 at 1400 A, 1.42 at 2500 A, add 2% for C.F. > 2 | | | | |
| LCD w/backlight | 3½ dig | its | | | | |
| Log rate/interval | 1 sec minir | num/adjustable by PC | | | | |
| Battery type/life | 2 AA, NE | DA 15 A, IEC LR6 / 400 | | | | |
| RF communications | | 2.4 GHZ ISM Band | | | | |
| RF communication range | e Open air, unobstructed: Up to 20 m (65 ft). Obstructed (21 ft). Obstructed, concrete wall or steel electrical e | | | | | |
| Operating & Storage temp | -10° C to 50° C / -40° C | C to 60° C (14° F to 122 | | | | |
| Temperature coefficient | Add 0.1 × (specified accur | racy)/° C (<18° C or >2 | | | | |
| Operating humidity | 0% to 75% | o (0° C to 35° C (32° F t (35° C to 40° C (95° F t (40° C to 50° C (104° F | | | | |
| EMC | | EN 61326-1:2006 | | | | |
| Safety compliance | IEC 61010-1, 600 V CAT III, Pollution Degree 2 | IEC 61010-1, 600 Pollutio | | | | |
| Safety rating | CAT III 600 V | CAT IV 600 | | | | |
| Certifications | CSA, CE, F | CC: T68-FBLE IC: 662 | | | | |
| Ingress Protection rating | IP30 | | | | | |
| Jaw Opening | 64 mm (2.5 in) | 25.4 cm (1 in) coil | | | | |
| Size (H×W×D) | 16.5 × 6.35 × 3.56 cm (6.5 × 2.5 × 1.4 in) | 16.5 × 6.35 × 1.4 cm (6.5 × 2.5 × 0.5 in) | | | | |
| Save and record | τ | Jp to 65000 readings | | | | |
| | | | | | | |



Fluke Connect[™]



a3000 FC Wireless AC Current Clamp Module







| a3002 FC |
|---------------------|
| up to 600 A AC and |
| 1000 A DC |
| (with I1010 Current |
| Clamp) |
| |

AC: 1.0 % + 3 DC: 0.5 % + 3 (45 Hz to 1000 Hz)



3¹/₂ digits, 6000 counts, 4/sec update rate or FC App 00 hours

ed, sheetrock wall: Up to 6.5 m enclosure: Up to 3.5 m (11.5 ft) 22° F / -40° F to 140° F) >28° C (<64° F or >82° F)) ' to 95° F)), F to 104° F)), F to 122° F))

O V CAT IV/1000 V CAT III, tion Degree 2 0 V, CAT III 1000 V 27A-FBLE IP42

cm

16.0 × 6.6 × 3.8 cm (6.3 × 2.6 × 1.5 in)

Recommended Accessories



PC Adapter Wireless PC Adapte

Recommended Kits Bundle and Save



Fluke Wireless a3000 FC **Current Clamp Kit**



Fluke Wireless a3001 FC iFlex™ AC Current Kit

Included Accessories

iFlex[™] i2500 Flexible Current Probe (a3001FC), Magnetic Hanging Strap (a3002FC).

Ordering Information

| FLK-A3000 FC | Wireless AC Current Clamp Module |
|---------------------|---|
| FLK-A3001 FC | Wireless iFlex™ AC Current Module |
| FLK-A3002 FC | Wireless AC/DC Current Module |
| FLK-A3000 FC KIT | Wireless AC Current Clamp Kit |
| FLK-A3001 FC KIT | Wireless iFlex [™] AC Current Kit |



Fluke a3003 FC and a3004 FC Wireless Current Clamp Modules



6

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a3003 FC Wireless 2000 A DC **Current Clamp Module**

The a3003 is the tool of choice for high current DC ammeter applications that require measurements up to 2000 A DC. The extra-wide jaw easily clamps around large conductors, typically found in mining, utility, marine, rail or other heavy manufacturing industries where large DC currents or large

current carrying cables are found. The a3003's unique jaw construction allows for a wide measurement range meaning that you can accurately make measurements from 10 A DC to 2000 A DC.

- Measures from 10 A to 2000 A DC
- Large jaw size (64mm (2.5 in)) for measuring large, high current conductors
- Logging function: record and save up to 65000 readings
- Weight: 0.65 kg (1.43 lb)
- Three-year warranty

a3004 FC Wireless 4-20 mA DC Clamp Module

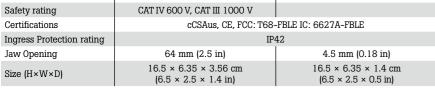
A fully functional current clamp module, the a3004 tests or troubleshoots 4-20 mA control loops used with drive systems, PLC's, or building energy management systems. Now you can troubleshoot and repair 4-20 mA loops without breaking the loop or bringing down the system and save time.

- · Send data to your laptop and go from logging to analysis and diagnosis.
- Use the Fluke Connect[™] wireless USB adapter to collect logged data from remote modules by walking past a working module and downloading logged data
- Logging function: record and save up to 65000 readings • Perform for analysis with your PC and share the results using Fluke Cloud[™] storage and ShareLive[™] video call
- Weight: 0.3 kg (10.58 oz)
- Three-year warranty



Fluke a3004 FC

| Specifications | a3003 FC | a3004 FC | | | |
|-------------------------|---|---|--|--|--|
| Range | 1.0 A to 999.9 A DC 1000 A to 2000 A DC | 0.05 mA to 20.99 mA DC 21.0 mA to 99.9 mA DC | | | |
| Resolution | 0.1 A 1 A | 0.01 mA 0.1 mA | | | |
| Accuracy | $2\% \pm 5$ digits $2.5\% \pm 5$ digits | 0.2% ±5 digits 1.0% ±5 digits | | | |
| LCD w/backlight | 3½ digits | | | | |
| Log rate/interval | 1 sec minimum/adjustable by PC or front panel | | | | |
| Battery type | 2 AA, NEDA 15A, IEC LR6 | | | | |
| Battery life | 120 hours | 45 hours | | | |
| Memory | Record up to 65000 readings | | | | |
| RF communications | 2.4 GHz ISM Band | | | | |
| RF communication range | Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 | | | | |
| Operating Temperature | -10° C to 50° C | (14° F to 122° F) | | | |
| Storage Temperature | -40° C to 60° C (| -40° F to 140° F) | | | |
| Temperature coefficient | Add 0.1 × (specified accuracy) /° C (< | 18° C or > 28° C (<64° F or >82° F)) | | | |
| Operating humidity | 90% at 35° C (95° F), 75% at 40° | C (104° F), 45% at 50° C (122° F) | | | |
| Altitude | Operating 2000 m (6561 ft), | Storage 12000 m (39,370 ft) | | | |
| EMC | EC 61326-1 | | | | |
| Safety compliance | IEC 61010-1, CAT IV 600 V, CAT III 1000 V | | | | |
| Safety rating | CAT IV 600 V, CAT III 1000 V | | | | |
| Certifications | cCSAus, CE, FCC: T68-FBLE IC: 6627A-FBLE | | | | |







Get the FREE Fluke Connect[™] App!

By using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.



Included Accessories

Batteries, Hanging Strap,

Ordering Information

Contact your local distributor for

Quick Start Guide

FLK-A3003FC

FLK-A3004FC

price and availability.

fluke.com/findus

2000 A Clamp Attachment (a3003),

4-20 mA Clamp Attachment (a3004),

Wireless DC

Wireless DC

4-20 mA Current

Module

Module

Current Clamp

Fluke v3000 FC AC and v3001 FC **DC Wireless Voltage Modules**



AC voltage measurements to other Fluke Connect[™] enabled master units.

- True-RMS AC Voltage Module
- Measure up to 1000 V
- Use as a standalone meter or as part of the system

v3000 FC Wireless True-RMS AC Voltage Module

A fully functional true-RMS Voltage Module that wirelessly relays

500 Hz to 1 kHz

2.0% + 3

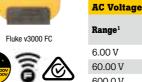
Accuracy

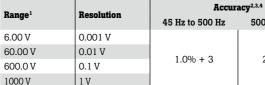
0.09% +3

0.09% + 3

0.15% + 2

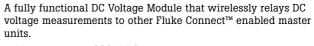
- Record and save up to 65000 readings
- Weight: 0.22 kg (7.76 oz)
- Three-year warranty





¹ All AC voltage ranges are specified from 1% of range to 100% of range. ² Crest factor of \leq 3 at full scale up to 500 V, decreasing linearly to crest factor \leq 1.5 at 1000 V. ³ For nonsinusoidal waveforms, add -{2% of reading + 2% full scale} typical, for crest factor up to 3. 4 Do not exceed 106 V-Hz.

v3001 FC Wireless DC Voltage Module



- Measure up to 1000 V DC
- · Use as a standalone meter or as part of the system
- Record and save up to 65000 readings
- Weight: 0.26 kg (9.17 oz)
- Three-year warranty

DC Voltag

| Do vona |
|----------|
| Function |
| mV DC |
| |
| V DC |
| |

| • | | |
|---|----------|------------|
| | Range | Resolution |
| | 600.0 mV | 0.1 mV |
| | 6.00V | 0.001 V |
| | 60.00 V | 0.01 V |
| | 600.0 V | 0.1 V |
| | 1000 V | 1 V |
| | | |

| Specifications | v3000 FC / v3001 FC |
|--------------------------------|---|
| LCD w/backlight | 3 ¹ / ₂ digits, 6000 counts, updates 4/sec |
| Battery type | 2 AA, NEDA 15A, IEC LR6 |
| Log rate/Interval | Adjustable by PC from 1 sec to 1 hr, default 1 min |
| Battery life | 400 hours |
| Memory | Record up to 65000 readings |
| RF communications | 2.4 GHz ISM Band |
| RF communication range | Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft) |
| Operating temperature | -10° C to +50° C (14° F to 122° F) |
| Storage temperature | -40° C to +60° C (-40° F to 140° F) |
| Temperature coefficient | 0.1 × (specified accuracy)/° C (< 18° C or > 28° C (<64° F or >82° F)) |
| Operating humidity | 90% at 35° C (95° F), 75% at 40° C (104° F), 45% at 50° C (122° F) |
| Altitude | Operating 2000 m (6561 ft), Storage 12000 m (39,370 ft) |
| EMC | EN 61326-1 |
| Safety compliance | IEC 61010-1, IEC 61010-2-030 |
| Safety rating | CAT IV 600 V, CAT III 1000 V |
| Certifications | CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE |
| Ingress Protection (IP) rating | IP42 |
| Pollution Degree | 2 |
| Size (H×W×D) | 16.5 × 6.35 × 1.4 cm (6.5 × 2.5 × 0.5 in) |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



v3000 FC: TL224 Test Leads, AC285 Alligator Clips, Magnetic Hanging Strap. v3001 FC: TL222 Test Leads, AC220 Alligator Clips, Magnetic Hanging Strap

Ordering Information

FLK-V3000FC Wireless AC

FLK-V3001FC Wireless DC

FLK-V3000 FC Wireless AC KIT FLK-V3001 FC Wireless DC

KIT

KIT

Voltage Module Voltage Kit

Voltage Module

Voltage Kit

FLK-V3003 FC Wireless AC-DC Voltage Measurement Kit



Fluke t3000 FC Wireless K-Type Temperature Module





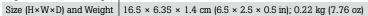
- The Fluke t3000 FC Wireless K-Type Temperature Module is one member of a family of wireless test tools that let you share test data using the Fluke Connect[™] app with ShareLive[™] video call. Fluke Connect[™] Wireless Test Tools put tools, not your
- body, near live electrical panels. It's simple. Connect the t3000 FC wireless temperature module, or any of the other Fluke Connect[™] remote modules, and read the results at a safe distance on the Fluke Connect™ Wireless Multimeter or a portable PC.

Better still, Fluke Connect[™] test tools can send measurement data to your smartphone, so you can save and share measurements from the field with your team anytime, from anywhere.

Using t3000 FC temperature modules, you can:

- Spot temperature differences between three-phases in 1/3 the time of previous methods.
- · Send data to your laptop and go from logging to analysis and diagnosis
- Record over time to monitor circuit load changes for an hour, a shift or a week
- Use the Fluke Connect[™] wireless USB adapter to collect logged data from remote modules by walking past a working module and downloading logged data
- Perform analysis on your PC and share the results using Fluke Cloud[™] storage and ShareLive[™] video call. View data or graphs to get input from team members
- · Logging function: record up to 65000 readings
- Three-year warranty

| Specifications | t3000 FC |
|---------------------------|---|
| Range | K-type: -200° C to 1000° C (Temperature probe dependent) |
| Resolution | 0.1° C (0.2° C) |
| Accuracy | ±[0.5 % + 0.3° C (0.54° F) counts] |
| Input terminals | Thermocouple, K-type mini |
| LCD w/backlight | 3 ½ digits |
| Log rate/interval | 1 sec minimum/adjustable by PC and FC app on smart phone |
| Battery type | 2 AA, NEDA 15A, IEC LR6 |
| Battery life | 400 hours |
| Memory | Record up to 65000 readings |
| RF communications | 2.4 GHz ISM Band |
| RF communication range | Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft) |
| Operating temperature | -10° C to 50° C (14° F to 122° F) |
| Storage temperature | -40° C to 60° C (-40° F to 140° F) |
| Temperature coefficient | 0.01% of reading +0.03° C per ° C (+0.54° F per °F) |
| Temperature scale | ITS-90 |
| Operating humidity | 90% at 35° C (95° F), 75% at 40° C (104° F), 45% at 50° C (122° F) |
| Altitude | Operating 2000 m (6561 ft), Storage 12000 m (39,370 ft) |
| EMC | IEC 61326-1 |
| Safety compliance | IEC 61010-1, 30 V, Pollution Degree 2 |
| Certifications | CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE |
| Ingress Protection rating | IP42 |
| | |





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Get the FREE Fluke Connect[™] App!

By using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.



| Included Acce 80PK-1 K-Type B Magnetic Hanging | ead Thermocouple |
|--|--|
| Ordering Info | mation |
| FLK-T3000FC | Wireless K-Type Temperature Module |
| FLK-T3000 FC KIT | Wireless FC Temperature Kit |

Contact your local distributor for price and availability. fluke.com/findus

Fluke Connect[™] Accessories



Fluke Connect™ ir3000FC Connecto



Fluke Connect[™] ir3000 FC Connector

Connect your Fluke test tool with the ir3000 FC Connector and get all the benefits of the Fluke Connect[™] mobile app. If you already have a Fluke 287/289 Digital Multimeter or Fluke 789 Process Tool or are considering purchasing one, add the ir3000 FC Connector so those tools can communicate with the Fluke Connect[™] app.

- Fluke Connect[™] ir3000 FC Connector allows you to wirelessly transfer data from Fluke 287, 289 Digital Multimeters, Fluke 789 ProcessMeters[™] and Fluke 1550C/1555 Insulation Resistance Testers to your smart phone
- Fits over the IR port of the Fluke tools listed above
- Immediately enables you to graph, save, and share the tool's readings with your team from your smart phone
- · Identify and diagnose problems quickly and confidently • Efficiently and safely capture real-time readings of the
- primary display from the field
- Share results instantly with your team
- Upgradeable by USB • Three-year warranty

Supported Fluke Tools:

- DMMs: 287, 289
- Process Tool: 789, 787B
- Insulation: 1550C, 1555

Supported Smart Phones:

• Android 5.0 & above

Fluke Connect™ PC Adapter

a

iOS 13 & above



| Specifications | ir3000 FC |
|------------------------|--|
| Battery type | Two AAA Alkaline batteries, NEDA 24A, IEC LRO3 |
| Battery life | 6 hours of continuous transmission |
| RF communications | 2.4 GHz ISM Band |
| RF communication range | Open air, unobstructed: Up to 20 m (65 ft). Obstruct Up to 6.5 m (21 ft). Obstructed, concrete wall or ste Up to 3.5 m (11.5 ft) |
| Temperature | Operating: -10° C to 50° C (14° F to 122° F) Storage: -20° C to 60° C (-4° F to 140° F) |
| Certifications | CE, FCC: T68-IRFBLE , IC: 6627A-IRFBLE |
| Size (H×W×L) | 3.2 × 7.6 × 6.4 cm (1.25 × 3 × 2.5 in) |
| Compatibility* | Fluke 287, 289, 789, 1550C, 1555 |
| | |

* At time of catalog print, Fluke's ir3000 FC Connector is currently compatible with the tools listed above. For updates on Fluke Connect™ test tool compatibility, go to **connect.fluke.com**

Fluke Connect[™] Wireless PC Adapter

Fluke 3000 FC Wireless Test Tools show real-time measurements from remote modules up to 20 meters away on your PC. Fluke FC wireless test tools work together to help you troubleshoot faster.

The PC3000 FC Adapter and Software help you understand the information you measure. When you need to get information back to a PC, the PC3000 FC Adapter and software wirelessly collect up to 65000 sets of time stamped MIN/MAX/AVG readings from FC remote modules. the software can display live readings from up to six modules simultaneously. Allows custom logging intervals and custom names for modules.

Includes Windows SW3000 software.





Fluke Connect^{**}

cted, sheetrock wall: teel electrical enclosure:



Get the FREE Fluke Connect[™] App!

By using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.



Ordering Information

FLUKE-FC

Fluke Connect[™] IR3000 FC ir3000 Connector

> Wireless PC Adapter

CARD

FLK-PC3000 Fluke Connect[™]

FLK-FC-SD Fluke Connect[™] Wireless SD Card



Digital Multimeters

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 what you need: accurate measurements; consistent, reliable performance; attention to safety; and the strongest warranty available.

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ILLUPS

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| Digital Multimeters | 600 V 600 V | | | | | _ | | V 0C | 9 | 00 V | _ | | | 600 V | | | 600 V | | 600 V | 600 V |
| Digital Multimeters | | | | | | | | | | | | | | | | | | | | |
| Digital Multimeters | | | | | | | | | | | | | | | | | | | ļ | |
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Digital Multimeters

Fluke 279 FC True-RMS Thermal Multimeter



True

DMM

Bandwidth

Current AC

Resistance Frequency

Capacitance

Diode test

Continuity with beeper

Min/Max recording

Infrared Camera

Infrared resolution

Infrared spectral band

Image capture frequency 8 Hz

Display Hold

Field of View

Center point

Emissivity

Background

compensation

Focus mechanism

Temperature Range

NETD

Voltage

Basic DC accuracy

30

0.09%

50 MΩ

100 kHz

9999 µF

Yes

Yes

Yes

Yes

80 × 60

≤200 mK

Fixed focus

0.95 fixed

20° C fixed

36° (w) × 27° (h)

7.5 to 14 microns

Yes (with center point temp)

AC/DC 1000 V

Find. Repair. Validate. Report.

The industry first Fluke 279 FC is a full-featured digital multimeter with integrated thermal imaging and is designed to increase your productivity and confidence. The thermal multimeter helps you find, repair, validate, and report many electrical issues quickly so that you are confident problems are solved

- Full-featured multimeter with built-in thermal imager
- 15 measurement functions including: AC voltage with lowpass filter, DC voltage, Resistance, Continuity, Capacitance, Diode test, Min/Max/Avg, AC current (with iFlex[™]), Frequency
- Thermal imaging reveals many electrical issues quickly and safely, eliminating the need for time-consuming testing and validation
- Two-in-one tool is designed to increase productivity-no need to go back to the truck or office to retrieve a shared camera or wait for the thermographer. Do more in less time
- iFlex[™] expands your measurement capabilities get into tight, hard to reach spaces for current measurement (up to 2500 A AC)
- Save measurements and images while communicating wirelessly with a smart phone up to 6.1 meters away (no obstructions)
- · Rechargeable lithium ion battery allows for a full work day (10+ hours) under normal conditions
- Image resolution: 80 × 60
- 8.89 cm (3.5 in) color LCD screen
- CAT III 1000 V, CAT IV 600 V measurement category

-10° C to 200° C (14° F to 392° F) Accuracy: ±5° C (±9° F) or (±5% as tested)

iFlex[™] Flexible Current Probe (included with the 279 FC/iFlex[™])

• Three-year warranty

1% 45 Hz to 65 Hz, full time low pass filter

i2500-18

Current Probe

BP500

Lithium-Ion Battery 3000mAh battery

nch iFlex™ Flexible

Recommended Accessories

i2500-10

10 inch iFlex™ Flexible

Current Probe

- 200

BC500

AC Power Charge

C280

Carrying Case

Recommended Kits

Fluke 3000 FC Wireless Digital Multimeter



Fluke 3000 EC

True

<u>ŝ</u>

See it. Save it. Share it.

The Fluke 3000 FC True-RMS Wireless Multimeter and Fluke Connect[™] wireless test tools put tools, not your body, near live electrical panels. It's simple. Just de-energize the cabinet, open the panel while wearing PPE and connect the remote modules, whether they are voltage modules, current clamps, flexible current loops or thermometers. Then read the results on the 3000 FC Wireless Multimeter from a safe distance. You can display the meter measurement, plus readings from up to three wireless modules, while reducing the risk of arc flash by separating yourself from hazardous measurement situations.

Better still, the Fluke 3000 FC Series Wireless Multimeter can send measurement data to your smartphone, so you can save and share measurements from the field with your team anytime, from anywhere.

Other capabilities of Fluke Connect[™] and the 3000 FC Multimeter:

- Connect to your PC with USB dongle (optional) for detailed analysis and diagnosis
- Perform analysis with your smart phone and the FC App and share the results using Fluke Cloud[™] storage and ShareLive[™] video call. View data or graphs to get input from team members

The Fluke 3000 FC Series Wireless Multimeter with the Fluke Connect[™] app has all the essentials for convenient test and measurement troubleshooting.

- · AC and DC voltage measurements to 1000 V
- AC and DC current with 0.01 mA resolution
- · Continuity, resistance, diode test, capacitance and
- frequency measurements
- MIN/MAX Recording
- CAT III 1000 V, CAT IV 600 V; IP54
- Three-year warranty

| Functions | Range | Basic Accuracy |
|--|--|--|
| AC voltage | 600.0 mV, 6.00 V, 60.00 V, 600.0 V, 1000 V | 1.0% + 3 |
| DC voltage | 600.0 mV, 6.00 V, 60.00 V, 600.0 V, 1000 V | 0.09% + 2 |
| Continuity | 600 Ω | Meter beeps at < 25 Ω , beeper detect opens or shorts of 250 µs or longer |
| Resistance | 600 Ω, 600.0 Ω, 6.00 kΩ, 60.00 kΩ, 600.0 kΩ, 50.00 MΩ | 0.5% + 1 |
| Diode test | 2.00 V | 1% + 2 |
| Capacitance | 1000 nF, 10.00 μF, 100.0 μF, 9999 μF ¹ | 1.2% + 2 |
| mA AC (45 Hz to 1 kHz) ² | 60.00 mA, 400.0 mA ³ | 1.5% + 3 |
| mA DC ² | 60.00 mA, 400.0 mA ³ | 0.5% + 3 |
| Frequency | 99.99 Hz, 999.9 Hz, 9.99 kHz, 99.99 kHz | 0.1% + 1 |

¹ In the 9999 μ F range for measurements to 1000 μ F, the measurement accuracy is 1.2% + 2. ² Input burden voltage (typical): 400 mA input 2 mV/mA. ³ 400.0 mA accuracy specified up to 600 mA overload.

For all specifications: accuracy is specified for one year after calibration, at operating temperatures of 18° C to 28° C, with relative humidity at 0% to 90%. Accuracy specifications take the form of ±([% of Reading] + [Number of least significant digits]).

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

| Memory storage | Approximately 100 images (internal) |
|-------------------------|--|
| File format | Non-radiometric .is2 |
| Other | |
| Battery type | Rechargeable lithium-ion battery (charge time: 4.5 hours) |
| Operating temperature | -10° C to 50° C (14° F to 122° F) |
| Storage temperature | -20°C to 60°C (-4° F to 140° F) |
| Relative humidity | 0% to 90% (0 °C to 35 °C) (32 °F to 95 °F) 0% to 75% (35 °C to 40 °C) (95 °F to 104 °F) 0% to 45% (40 °C to 50 °C) (104 °F to 122 °F) |
| Altitude | 2000 meters (6,561 feet) |
| Temperature coefficient | Add 0.1 \times specified accuracy for each ^o C above 28 ^o C (82 ^o F) or below 18 ^o C (64 ^o F) |
| Ingress Protection | IEC 60529: IP40 |
| Certifications | CE, CSA, FCC ID: T68-FBLE |
| Safety compliance | IEC 61010-1: Pollution degree 2; IEC 61010-2-033: CAT III 1000 V/CAT IV 600 V |
| EMC | IEC 61326-1 |
| Size | 215.9 x 93.9 x 57.1 mm (8.5 x 3.7 x 2.25 in) |
| Weight | 0.793 kg (1.75 lb) |



Included Accessories

Strap, Soft Carrying Case.

Ordering Information

Lithium-ion Battery.

279 FC/iFlex

TL75 Test Leads, Rechargeable Lithium-

ion Battery, Charger, 18-inch (45.72 cm)

iFlex[™] Flexible Current Probe, Hanging

279 FC I/B also includes: Additional

Fluke 279FC I/B TRMS Thermal

Contact your local distributor for

price and availability

fluke.com/findus

TRMS Thermal

iFlex™

Multimeter with

Multimeter with iFlex[™] and Extra

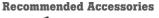
Battery Kit

| Fluke Connect (FC) available in selected countries. |
|---|
| Contact your local Fluke distributors to find out more. |

Fluke Conne

at < 25 Ω , beeper detects









EVA Foam Hard Case

PC Adapter Wireless PC Adapter

Recommended Kits Bundle & Save

Fluke 3000 FC General **Maintenance System** Fluke 3000 FC Industrial System

Fluke 3000 FC HVAC System Fluke 3000 FC/1AC-II **Wireless Multimeter and Non-Contact Voltage**

Detector Kit Fluke 3000 FC/EDA2 Wireless Multimeter and Deluxe Accessories Combo Kit

Fluke 3000 FC/TPAK Wireless Multimeter and Magnetic Hanger Combo Kit

Included Accessories

TL175 Test Leads, AC175 Alligator Clips, Manual Information Pack.

Ordering Information

FLK-3000 FC Wireless Digital FC Multimeter

FLK-3000 Wireless General FC GM Maintenance Kit

FLK-3000 Wireless Industrial FC IND System Kit

FLK-3000 Wireless HVAC FC HVAC System Kit

FLK-3000 Wireless FC/1AC-II Multimeter & Non-Contact Voltage Detector Combo Kit

FI.K-3000 Wireless FC/EDA2 Multimeter Deluxe Accessories Combo Kit

FLK-3000 Wireless FC/TPAK Multimeter & Magnetic Hanger Combo Kit

Contact your local distributor for price and availability. fluke.com/findus



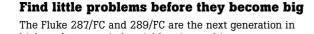
Digital Multimeters

Digital Multimeters

Fluke 280 Series True-RMS Logging Multimeters



True



high performance industrial logging multimeters. These high performance industrial logging multimeters are designed to solve complex problems faster in many applications. Log data and review it graphically on-screen to help minimize downtime.

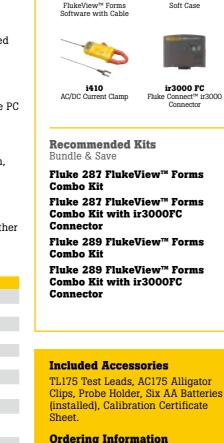
Communicate wirelessly with your smart phone directly from the field with the Fluke Connect™ app and get quick answers or next step authorizations faster than ever before. It's as simple as adding the Fluke ir3000 FC Connector to the standard Fluke 287 and 289 (connector sold separately).

- Large 50000 count, 1/4 VGA dot matrix display with white backlight
- Logging function with expanded memory for unattended monitoring of signals over time. Using on-board TrendCapture, users can graphically review logged readings without needing a PC. Store up to 10000 recorded events
- · Save, name, and recall multiple logging sessions before PC download is necessary
- Field upgradeable and expandable meter lets you stay current as new capabilities are added.
- Two terminal 50 ohm range with 1 milliohm resolution, 10 mA source current. Useful for measuring and comparing differences in motor winding resistance or contact resistance (289/FC)
- Low-pass filter for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (289/FC)
- · Limited lifetime manufacturer's warranty

| Features | 287 | 289 |
|--|----------|----------|
| Multiple on screen displays | • | • |
| True-RMS AC bandwidth | 100 kHz | 100 kHz |
| dBV/dBm | • | • |
| DC mV resolution | 1 μV | 1 μV |
| Megohm range up to | 500 MΩ | 500 MΩ |
| Conductance | 50.00 nS | 50.00 nS |
| Continuity beeper | • | • |
| Elapse time clock/time of day clock | • | • |
| Min/Max/Avg/duty cycle/pulse width | • | • |
| Isolated optical DMM interface with USB PC connection | • | • |
| Auto/touch hold | • | • |
| Over 200 hours logging capacity with new power saving function | • | • |
| Lo Ohm capability | - | • |
| LoZ volts | - | • |
| Lo Pass Filter | - | • |

| Functions | Range | Basic Accuracy |
|----------------------------------|--|----------------------------------|
| AC volts or DC volts | 50.00 mV, 500.00 mV, 5.00 V, 50.00 V, 500.00 V, 1000.0 V | 0.02% 0.4% (True-RMS) (AC) |
| AC current DC current | 500.00 μA, 5000.0 μA, 50.00 mA, 400.00 mA, 5.00 A, 10.00 A | 0.15% 0.7% (True-RMS) |
| Temperature (excluding probe) | -200.0° C to 1350.0° C (-328° F to 2462° F) | 1.0% |
| Resistance | 50.00 Ω, 500.00 Ω, 5.00 kΩ, 50.00 kΩ, 500.00 kΩ, 5.00 MΩ, 50.00 MΩ, 500.0 MΩ | 0.05% |
| Capacitance | 1.00 nF,10.00 nF, 100.0 nF, 1.00 μF , 10.00 μF , 100.0 μF , 1000 μF , 10.00 mF, 100 mF | 1.0% |
| Frequency | 99.99 Hz, 999.99 Hz, 9.99 kHz, 99.99 kHz, 999.99 kHz | 0.005% |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



Recommended Accessories

TLK287

Electronic Test Lead Set

FVF-SC2

TLK289

C280

Soft Case

rial Test Lead Set

| Ordering in | Iormation |
|-------------|---|
| FLUKE-287 | True-RMS Industrial Logging Multimeter with TrendCapture |
| FLUKE-289 | True-RMS Electronics Logging Multimeter with TrendCapture |
| FLUKE-287/ | FlukeView™ Forms |
| FVF Kit | Combo Kit |
| FLUKE-289/ | FlukeView™ Forms |
| FVF Kit | Combo Kit |
| FLUKE-287/ | Industrial Logging |
| FVF/IR3000 | Multimeter and |
| Kit | Software Combo Kit |
| FLUKE-289/ | Industrial Logging |
| FVF/IR3000 | Multimeter and |
| Kit | Software Combo Kit |
| FLUKE | Fluke Connect™ |
| IR3000 FC | ir3000 Connector |
| | |

Contact your local distributor for price and availability. fluke.com/findus

Fluke 83V, 87V & 87V MAX Digital Multimeters



Performance and accuracy for maximum industrial productivity

Fluke 80-V Series is equipped with improved measurement functions, troubleshooting features, resolution and accuracy to solve more problems on motor drives, in-plant automation, power distribution, and electro-mechanical equipment.

The Fluke 87V and new 87V Max offer a unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment. A built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument.

Electrical safety

All inputs are protected to CAT III 1000 V and CAT IV 600 V. They can withstand impulses in excess of 8000 V to help protect you from arc blast resulting from surges and spikes. Limited lifetime manufacturer's warranty.





| Features | 83V | 87V | 87V MAX |
|---|-----|-------|-----------|
| True-RMS AC voltage and current for accurate measurements on non-linear signals | - | • | • |
| Selectable filter for accurate voltage and frequency measurements on motor drives | - | • | • |
| 6000 counts, 3-3/4 digits | • | • | • |
| 4-1/2 digit mode for precise measurements (20000 counts) | - | • | • |
| Measure up to 10 A, 20 A for up to 30 seconds | • | • | • |
| Built in thermometer lets you carry one less tool (TC probe included) | - | • | • |
| Frequency to 200 kHz and % duty cycle | • | • | • |
| Resistance, continuity and diode test | • | • | • |
| 10000 μF capacitance range for components and motor caps | • | • | • |
| Min/Max/Average recording with Min/Max Alert to capture variations automatically | • | • | • |
| Battery Life with Backlight off | 400 | hours | 800 hours |

| | B | Bas | ic Accuracy |
|------------------------------|---|--------|----------------------------|
| Functions | Range | 83V | 87V 87 MAX |
| DC volts | 600.0 mV, 6.00 V, 60.00 V, 600.0 V, 1000 V | 0.1% | 0.05% |
| AC volts | 600.0 mV, 6.00 V, 60.00 V, 600.0 V, 1000 V | 0.5% | 0.7% (True-RMS) |
| DC current | 600.0 μA, 6000 μA, 60.00 mA, 600.0 mA, 6.00 A, 10.00 A | 0.4% | 0.2% |
| AC current | 600.0 μA, 6000 μA, 60.00 mA, 600.0 mA, 6.00 A, 10.00 A | 1.2% | 1.0% (True-RMS) |
| Temperature (excl. probe) | -200° C to 1090° C (-328° F to 1994° F) | - | 1.0% |
| Temperature Probe | -40° C to 260° C (-40° F to 500° F) | - | 2.2° C (35.96° F) or 2% |
| Resistance | 600.0 Ω, 6.00 kΩ, 60.00 kΩ, 600.0 kΩ, 6.00 MΩ, 50.00 MΩ | 0.4% | 0.2% |
| Capacitance | 10.00 nF, 100.0 nF, 1.00 μF, 10.00 μF, 100.0 μF, 9999 μF | 1.0% | 1.0% |
| Frequency | 199.99 Hz, 1.99 kHz, 19.99 kHz, 199.99 kHz | 0.005% | 0.005% |





Fluke 83V

Recommended Accessories



TPAK



TL175 Guard Leads



AC285 SureGrip[™] Alli Clips



C37XT EVA Foam Hard Case

i400

TL220

TL224

ureGrip™ Silicone sulated Test Leads

dustria

SureGrip[™] Indus Test Lead Se



CXT80

Recommended Kits Bundle & Save



Fluke 87V/E2 Industrial **Electrician's Combo Kit**

Included Accessories

TL175 Test Leads, AC175 Alligator Clips, Yellow Holster (H80M excl. TPAK), 80BK-A Temperature Probe (87V/MAX only), 9 V Battery Installed (83V and 87V Only), Three AA Batteries Installed (87V MAX only). User Manual and Technical Notes.

Ordering Information FLUKE-83V Industrial Multimeter

| FLUKE-87V | True RMS Industrial |
|-----------|---------------------|
| | Multimotor |

| LUKE- | Industrial Electrician |
|-------|------------------------|
| 7V/E2 | Combo Kit |

FLUKE- MAX True RMS

87V-MAX Industrial Multimeter FLUKE- Industrial Multimeter 87V/IMSK Service Kit



FLUKE



Fluke 88V Automotive Multimeter





Specifications

Size and Weight

Digital Multimeters

18

The right meter for automotive diagnostics The Fluke 88V Automotive Multimeter is the most powerful

automotive multimeter ever offered by Fluke. In addition to having all standard multimeter features like the ability to measure voltage, current, continuity, and resistance, the 88V can perform diode test and pulse width measurements.

This meter can take current measurements up to 20 A for 30 seconds and 10 A continuously. The optional magnetic hanger lets you attach the meter to most steel surfaces for easy set-up and viewing. The 88V is designed to be used in high energy environments like those found on hybrid vehicles.

- 0.1% DC accuracy
- 4-1/2 digit mode for precise measurements (20000 counts) • Measure up to 1000 V AC and DC
- · Current measurements up to 10 A, 20 A for up to 30 seconds
- Built-in thermometer for temperature measurements when
- you need them (temperature probe included)
- · Resistance, continuity and diode test
- RPM measurements with inductive pickup (included)
- Millisecond pulse width measurements for fuel injectors
- Magnetic hanger to attach meter to the vehicle and free your hands for other tasks
- Min/Max/Average recording with Min/Max Alert to capture variations automatically
- Peak Min/Max to record transients as fast as 250 µs · Relative mode to remove test lead resistance from low ohms measurements
- Auto and manual ranging for maximum flexibility
- Autohold[™] to capture stable readings with only one touch of the leads
- · Large display digits and two-level bright white backlight for increased visibility
- Analogue bar-graph to track changing or unstable signals
- · Input Alert provides audible warning against wrong use of input jacks
- Limited lifetime manufacturer's warranty

88V

Recommended Accessories TLK281 TLK282 ve Test Lead Kit tive Test Lead Kit \bigcirc C35 80PK-27 Soft Carrying Case SureGrip™ Surfac emperature Probe ires 80AK) i410 **TL82** TL82 Automotive Pin & 400 A AC/DC Current Clamp Socket Adapter Set **Recommended Kits** Bundle & Save



Fluke 88V/A Automotive **Multimeter Combo Kit**

fluke.com/findus

| DC volts | Maximum Voltage: 1000 V Accuracy: ±(0.1% + 1) Best Resolution: 0.01 mV | | |
|-------------------------|---|------------------------------------|---|
| AC volts | Maximum Voltage: 1000 V Accuracy: ±(0.5% + 2) AC Bandwidth: 5 kHz Best Resolution: 0.01 mV | | |
| DC Current | Maximum Amps: 10 A Amps Accuracy: ±(0.4% + 2) Best Resolution: 0.001 mA | | |
| AC Current | Maximum Amps: 10 A Amps Accuracy: ±(1.2% + 2) Best Resolution: 0.001 mA | | |
| Resistance | Maximum Resistance: $50 \text{ M}\Omega$ Accuracy: $\pm (0.4\% + 1)$ Best Resolution: 0.1Ω | | |
| Capacitance | Maximum Capacitance: 9999 µF Accuracy: ±(1% + 2) Best Resolution: 0.01 nF | Included A | lccessories |
| Frequency | Maximum Frequency: 200 KHz Accuracy: ±(0.005% + 1) Best Resolution: 0.01 Hz | | Holster, Test Leads, User Quick Reference Guide. |
| Duty Cycle | Maximum Duty Cycle: 99.9% Accuracy: within 2% per KHz + 0.1% Best Resolution: 0.1% | Ordering In FLUKE-88-5 | nformation 5 Automotive Multimeter |
| Temperature Measurement | -200.0° C to 1090° C (-328° F to 1994° F), 1.0% excluding probe | | |
| 80BK Temperature Probe | -40° C to 260° C, 2.2° C (-40° F to 500° F) or 2% whichever is greater | FLUKE-88-5 A KIT | 5/ Automotive Multimeter |
| Conductance | Maximum Conductance: 60.00 nS Accuracy: ±(1.0% + 10) Maximum Resolution: 0.01 nS | | Combo Kit |
| Operating Range | Operating Temperature: -20° C to 55° C (-4° F to 131° F) Storage Temperature: -40° C to 60° C (-40° F to 140° F) | Contact your lo price and avail | ocal distributor for lability. |
| | | | |

5.2 cm × 9.8 cm × 20.1 cm, 624 g

and accuracy. All and a second se 0 • 0.09% basic accuracy (177, 179) • 6000 count resolution backlight (177, 179) · Manual and automatic ranging • Display Hold and Auto Hold • Resistance, continuity and diode measurements • Temperature measurements (179) • Min/max/average recording Fluke 179 True LIFETIME **Electrical safety** resulting from surges and spikes.

| Features | 179 |
|--|-------|
| Max voltage AC/DC | 1000 |
| True-RMS | • |
| Temperature | • |
| Basic DC accuracy | 0.09% |
| Backlight | • |
| Min/Max/Avg | • |
| Compatible with ToolPak [™] meter hanging kit with magnet | • |
| Limited lifetime warranty | • |

| MΩ |
|----|
| |
| |
| |
| |

¹ All AC voltage and AC current ranges are specified from 5% of range to 100% of range. ² 10 A continuous, 20 A for up to 30 seconds.

³ Voltage frequency is specified from 2 Hz to 100 kHz. Current frequency is specified from 2 Hz to 30 kHz.

Fluke 170 Series Digital Multimeters

Troubleshooting tools for electrical and electronic systems



- Smoothing mode allows filtering of rapidly changing inputs · Easy battery exchange without opening the
- case Closed case calibration through front panel
- · Ergonomic case with integrated protective holster
- IEC 61010-2-033 CAT III 1000V / CAT IV 600V
- Battery life: 200 hours typical for alkaline.
- Size: (H×W×L): 4.3 × 9.0 × 18.5 cm (1.69 × 3.54 × 7.28 in)
- Limited lifetime manufacturer's warranty

All inputs are protected to measurement CAT III 1000 V and CAT IV 600 V. These meters can withstand transient impulses in excess of 8000 V to help protect you from arc blasts



Digital Multimeters

Fluke 170 Series digital multimeters are the preferred solutions for professional technicians around the world. They include the features you need to troubleshoot and repair electrical and electronic systems, combined with Fluke's unparalleled reputation for ruggedness, reliability

• True RMS voltage and current measurements

• Digital display with analog bargraph and

· Frequency and capacitance measurements





Fluke 175

| 177 | 175 |
|-------|-------|
| 1000 | 1000 |
| • | • |
| - | - |
| 0.09% | 0.15% |
| • | - |
| • | • |
| • | • |
| • | • |
| • | • |

| Best accuracy |
|--------------------------------------|
| ±0.09% (177 and 179) ±0.15% (175) |
| ±1.0% of reading |
| $\pm 1.0\%$ of reading |
| ±1.5% of reading |
| ±0.9% of reading |
| ±1.2% of reading |
| ±0.1% of reading |
| 1.0% of reading |

| Recommended Accessories FRK Magnetic Meter Hanger FRS |
|---|
| TL175 TwistGuard [™] Test Leads |
| AC220 SureGrip™ Alligator Clips TP220 SureGrip™Industrial Test Probes |
| C11KT EVA Foam Hard Case |
| Recommended Kits Bundle & Save |
| Fluke 179/EDA2 Industrial Digital Multimeter Combo Kit |
| |
| Included Records |
| Included Accessories Test Leads with 4 mm Lantern Tips, 9V Battery (installed) and User Manual, 80BK Temperature Probe (179 only). |
| Ordering Information |
| FLUKE-175 True RMS Digital Multimeter |
| FLUKE-177 True RMS Digital Multimeter |

9460

FLUKE-179 True RMS Digital

FLUKE-

179/EDA2 Kit

179/IMSK Service Kit

Multimeter

FLUKE- Industrial Multimeter

Electronics Combo

Fluke 233 Remote Display Digital Multimeter



Fluke 233



The Fluke 233 True-rms Remote Display Digital Multimeter allows you to be in two places at once. The removable display solves several problems. First, you no longer have to hold both the meter and the test leads to make a measurement. It also allows you to measure where the measurement point is separated from controls or where the operator can't stay close to the meter during measurements due to various hazards or moving machinery.

- Wireless technology allows the display to be carried up to 9.1 m (29.8 ft) away from the point of measurement for added flexibility
- The removable magnetic display can be conveniently mounted where it is easily seen
- · Low-power 802.15.4 wireless technology does not interfere with measurement accuracy
- Use as a conventional multimeter when the display is connected
- True-RMS AC voltage and current
- Built-in thermometer
- Auto power off maximizes battery life (400 hours)
- Radio transmitter automatically turns off when the display is connected to the meter
- Record signal fluctuations using the Min/Max function
- Three-year warranty

| Features | 233 | |
|--|-----------------------------|--|
| Removable magnetic display | • | |
| True-RMS measurement | • | |
| Digital display counts | 6000 | |
| Display backlight | • | |
| Built in thermometer | • | |
| Resistance, continuity and diode test | • | |
| Min/Max/Average recording | • | |
| Auto power off maximizes battery life | • | |
| Radio transmitter automatically turns off when the display is connected to the meter | • | |
| Use as conventional multimeter when the display is connected | • | |
| Safety rating | CAT IV 600 V/CAT III 1000 V | |
| Auto and manual ranging | • | |
| Display Hold and AutoHold [™] | • | |
| Unsafe voltage alert warns for voltages above 30 V | • | |
| 2 Low battery indications - Base/Display | | |
| Ergonomic case with integrated holster | • | |
| Selectable sleep mode preserves battery life | • | |

0.1 mV to 1000 V DC voltage Range 0.25% + 2 Accuracy 0.1 mV to 1000 V AC voltage Range 1.0% + 3 Accuracy DC current 0.001 A to 10 A Range Accuracy 1.0% + 30.001 A to 10 A AC current Range 1.5% + 3Accuracy $0.1~\Omega$ to $40~M\Omega$ Resistance Range 1000 nF to 9999 µF Capacitance 0.1 Hz to 50.00 kHz Frequency -40° C to 400° C (-40° F to 752° F) Temperature 3 AA batteries main body, 2 AA batteries display module Power Battery life 400 hours IEC 61010-2-033: CAT IV 600 V. CAT III 1000 V Compliance 5.3 x 9.3 x 19.3 cm (2.08 x 3.6 x 7.6 in) Size (H×W×L) Weight 604 q



TL75 Test leads, AC175 Alligator Clips,

80BK-A Temperature Probe, CD, two AA batteries and user manual.

Ordering Information FLUKE-233 Remote Display **Digital Multimeter**

Contact your local distributor for price and availability. fluke.com/findus

Fluke 110 Series True-RMS Digital Multimeters



Dependable Digital Multimeters for Electrical and HVAC applications

All the models in the Fluke 110 series are True-RMS Multimeters with a large 3-1/2 digit / 6000 count display. The Fluke 117 includes integrated VoltAlert[™] non-contact voltage detection and LoZ ghost voltage detector features to get the job done faster. The Fluke 116 is the HVAC/R Multimeter with temperature, microamps, and LoZ to quickly troubleshoot problems with HVAC/R equipment. The Fluke 115 is a compact meter for a wide variety of electrical/electronic testing applications, while the Fluke 114, 113 and 110 are basic electrical troubleshooting meters designed for "go/no-go" testing.

- VoltAlert[™] technology for integrated non-contact voltage detection (117)
- AutoVolt feature for automatic AC/DC voltage selection (117, 116, 114)
- Microamps to test flame sensors (116)
- VCHEK[™] LoZ low impedance measurement function to simultaneously test for voltage/continuity (113)
- LoZ: Low input impedance prevents false readings due to "ghost voltage" (117, 116, 114)
- Large display and white LED backlight to work in poorly lit areas more effectively
- Three-year warranty

| Specifications | 117 | 115 | | |
|--|-----|-----|--|--|
| VoltAlert [™] detector | • | - | | |
| AutoVolt/LoZ | • | - | | |
| Analogue bargraph | • | • | | |
| True-RMS for accurate measurements on non-linear loads | • | • | | |
| Min/Max recording | • | • | | |
| Display hold | • | • | | |
| 3-1/2 digits | • | • | | |
| 6000 counts | • | • | | |
| CAT III 600 V safety rated | • | • | | |
| | | | | |
| Temperature | | | | |
| Microamps | | | | |
| Frequency | | | | |
| Capacitance | | | | |
| Diode test | | | | |
| AutoVolt/LoZ | | | | |
| Analogue bargraph | | | | |
| True-RMS for accurate measurements on non-linear loads | | | | |
| Min/Max recording | | | | |
| Display hold | | | | |

| Functions | 117 | 116 | 115 | 114 |
|---------------|----------------------|----------------------|----------------------|------------------|
| AC/DC voltage | 600 V | 600 V | 600 V | 600 V |
| AC/DC current | 10 A | 600.0 μA | 10 A | - |
| Resistance | 40 MΩ | 40 MΩ | 40 MΩ | 40 MΩ |
| Capacitance | 9999 µF | 9999 µF | 9999 µF | - |
| Diode test | • | | • | - |
| Frequency | 5 Hz to 99.99 kHz | 5 Hz to 99.99 kHz | 5 Hz to 99.99 kHz | - |
| Temperature | | +400° C | | - |
| Safety rating | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V |



3-1/2 digits

6000 counts

113 only



• Built in thermometer for HVAC applications (116)

| 113 | 110 |
|---------|-----|
| - | - |
| Vchek | - |
| • | • |
| • | • |
| | • |
| • • • • | • |
| • | • |
| • | • |
| • | • |
| 116 | 114 |
| • | - |
| • | - |
| • | - |
| • • • • | - |
| • | - |
| • | • |
| | • |
| • | • |
| • • • | • |
| • | • |
| • | • |
| • | • |

| 113 | 110 |
|-----------------|------------------|
| 600 V | 600 V |
| - | - |
| 60 kΩ | 40 MΩ |
| 9999 µF | - |
| • | - |
| - | - |
| - | - |
| CAT IV 600 V | CAT III 600 V |





C11XT EVA Foam Hard Case



Hanger

TPAK

gnetic Me

80PK-27 reGrip™ Indust Surface Probe (Fluke 116) tria



FLUKE

Recommended Kits Bundle & Save



Fluke 116/323 HVAC Combo Kit



IB117K FLUKE 117 Multimeter + Insulated Hand Tools Starter Kit

Included Accessories

TL75 Test Leads, holster, 80BK Integrated Temperature Probe (116), user's manual and 9 V battery (installed).

Ordering Information

| FLUKE-110 | Basic True RMS Digital Multimeter |
|--------------------------|--|
| FLUKE-113 | Utility True RMS Digital Multimeter |
| FLUKE-114 | Electrical True RMS Digital Multimeter |
| FLUKE-115 | True RMS Digital Multimeter |
| FLUKE-116 | HVAC Electrical True RMS Multimeter |
| FLUKE-117 | Adv. Electrical True RMS Multimeter |
| FLUKE- 116/323 | HVAC and Clamp Meter Combo Kit |
| FLUKE- 116/62 MAX+ | HVAC Multimeter and Infrared Thermometer Kit |
| FLUKE- 117/323 | Electrical and Clamp Meter Combo Kit |
| B117K | 117 Multimeter + Insulated Hand Tools |

Starter Kit



Fluke 27 II, 28 II and 28 II Ex Industrial IP67 **Digital Multimeters**



MSHA

The 27 II, 28 II and 28 II Ex-AU Digital Multimeters are designed for tough work environments. All three meters have IP 67 waterproof and dustproof rating. They provide an extended operating temperature range of -15° C to 55° C (5° F to 131° F) and 95% humidity. • Unique function for accurate voltage and

- frequency measurements on adjustable speed motor drives and other electrically noisy equipment (28 II, 28 II Ex)
- Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument (28 II, 28 II Ex)
- Hi-resolution 20000 count display mode (28 II, 28 II Ex)
- Resistance and continuity. Relative mode to remove test lead resistance from low ohms measurements
- Large digit display with bright, two-level backlight
- Backlit keypad buttons allow for easy visibility in low-lit areas
- Optional magnetic hanger for easy setup and viewing, freeing your hands for other tasks
- Intrinsically safe certifications from the world's leading certification bodies (28 II Ex)
- Limited lifetime manufacturer's warranty

| Features | 27 II | 28 II | 28 II Ex |
|---|-------|-------|----------|
| Tested to withstand a 3 m drop | • | • | • |
| Wide 1000 V measurement range | • | • | • |
| True-RMS AC voltage and current for accurate measurements on non-linear signals | - | • | • |
| Average responding voltage and current measurements | • | - | - |
| Low pass filter | - | • | • |
| Temperature | - | • | • |
| 10 A continuous (20 A for 30 seconds) | • | • | • |
| Frequency and capacitance | • | • | • |
| Record signal fluctuations using the Min/Max function | • | • | • |

 \wedge

| Specifications | | 27 II | 28 II | 28 II Ex |
|--|----------|---|--------------------------|----------------------|
| DC voltage | Range | | 0.1 mV to 1000 V | |
| | Accuracy | 0.05% +1 | 0.05% + 1 | 0.05% + 1 |
| AC voltage | Range | | 0.1 mV to 1000 V | |
| | Accuracy | 0.5% +3 | 0.7% +4 | 0.7% +4 |
| DC current | Range | | 0.1 µA to 10 A | - |
| | Accuracy | 0.2% + 4 | 0.2% + 4 | 0.2% + 4 |
| AC current | Range | | 0.1 µA to 10 A | - |
| | Accuracy | 1.5% + 2 | 1.0% + 2 | 1.0% + 2 |
| Resistance | Range | | 0.1 0 to 50 MΩ | |
| Display counts | | 6000 | 6000/19,999 | 6000/19,999 |
| Capacitance | | 1 nF to | 9999 µF | 10 nF to 9999 µF |
| Frequency | | | 0.5 Hz to 199.99 kHz | |
| Temperature | | - | -200° C to 1090° C | (-328° F to 1994° F) |
| Low pass filter (measurement on VSD's) | | - | Yes | Yes |
| Compliance | | IEC 61010-2-033: CAT IV 600 V, CAT III 1000 V | | |
| Measurement method | | Avg. responding | True-RMS | True-RMS |
| Power | | Three AA batteries | | |
| Battery life | | 800 hours 400 hours | | |
| Dimensions (DxWxH) | | 6.35 x 10 | .0 x 19.81 cm (2.5 x 3.9 | 3 x 7.8 in) |
| Weight with holster | | | 700 g (24.69 oz) | |
| | | | | |



Included Accessories

TL175 Test Leads, AC175 Alligator Clips, 80BK-A Temperature Probe (28 II), holster, user manual and three AA batteries (installed).

| Ordering Infor | mation |
|----------------|--|
| FLUKE-27II | Industrial Multimeter |
| FLUKE-28II | Industrial Multimeter |
| FLUKE-28IIEx | Intrinsically Safe Industrial Multimeter |

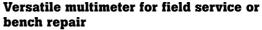
Contact your local distributor for price and availability. fluke.com/findus

Fluke 77IV Digital Multimeter



Fluke 77IV

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The Fluke 77IV Digital Multimeter has the features needed to repair most electrical and electronic problems. This meter is simple to use and has significant improvements over Fluke's original 70 Series with more measurement functions, conformance to the latest safety standards, and a much larger display that is easier to view.

- Wide 1000 V measurement range
- Average responding AC measurements • 0.3% accuracy
- 10 amps continuous
- Frequency and capacitance
- Resistance and continuity
- Large display
- · Backlight for work in dim areas
- Min/Max to record signal fluctuations
- Integral holster with probe holders
- Free your hands with the optional
- TPAK magnetic hanger
- Auto and manual ranging
- · Limited lifetime manufacturer's warranty

| Function | Maximum | Max. resolution | Accuracy | |
|-----------------------------|-------------------------|-----------------|-----------|--|
| Voltage DC | 1000 V | 1 mV | ±(0.3%+1) | |
| Voltage AC | 1000 V | 1 mV | ±(2.0%+2) | |
| Current DC | 10 A | 0.01 mA | ±(1.5%+2) | |
| Current AC | 10 A | 0.01 mA | ±(2.5%+2) | |
| Resistance | 50 MΩ | 0.1 Ω | ±(0.5%+1) | |
| Capacitance | 9,999 µF | 1 nF | ±(1.2%+2) | |
| Frequency | 99.99 kHz | 0.01 Hz | ±(0.1%+1) | |
| A comparing and heat a comp | acian for each function | | | |

Accuracies are best accuracies for each function

General Specifications

Accuracy is specified for one year after calibration, at operating temperatures of 18° C to 28° C, with relative humidity at 0% to 90%. Accuracy specifications take the form of ±([% of Reading] + [Counts]).

| Specifications | 77IV |
|--|---|
| V Maximum voltage between any terminal and earth ground | 1000 V |
| Surge protection | 8 kV peak per IEC 61010-2-033 |
| Fuse for mA input | 440 mA, 1000 V FAST Fuse |
| Fuse for A input | 11 A, 1000 V FAST Fuse |
| Display | Digital: 6000 counts, updates 4/sec |
| Bar Graph | 33 segments, updates 32/sec |
| Frequency | 10000 counts |
| Capacitance | 1000 counts |
| Operating altitude | 2000 m |
| Storage altitude | 12 000 m |
| Operating temperature | -10° C to 50° C (14° F to 122° F) |
| Storage temperature | -40° C to 60° C (-40° F to 140° F) |
| Temperature coefficient | 0.1 × (specified accuracy/° C (< 18° C or > 28° C) (< 64.4° F or > 82.4° F)) |
| Electromagnetic compatibility (EN 61326-1:1997) | In an RF field up to 3 V/m, accuracy = specified accuracy except in temperature: specified accuracy $\pm 5^{\circ}$ C |
| Relative humidity (maximum non-condensing) | 90% to 35° C; 75% to 40° C; 45% to 50° C (90% to 95° F; 75% to 104° F; 45% to 122° C) |
| Battery life | 400 hours |
| Size (H×W×L) and Weight | 185 × 90 × 43 mm (7.28 × 3.54 × 1.70 in); 420 g (14.81 oz) |
| Safety compliance | IEC 61010-2-033; CAT III 1000 V, CAT IV 600 V |
| Certifications | CSA |



Digital Multimeters





AC Cur ent Clamp





C35

Soft Carrying Case

Voltage Adapte Lead Kit



i2000 FLEX AC Current Clamr



TLK-225 ureGrip™ Master Accessory Kit



Included Accessories

TL75 Test Leads, 9V battery (installed), manual information pack.

Ordering Information FLUKE-77-4 Digital Multimeter



Fluke PRV240 and PRV240FS Proving Units







Fluke PRV240 FS

Fluke PRV240 Proving Unit

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

- Sources both AC and DC steady-state voltage supplies 240 V DC/AC
- A single LED indicates functionality, making this unit a simple-to-use solution for verification of your test tool
- Compatible with both high impedance or low impedance multimeters, clamp meters or two pole testers
- Voltage is sourced through recessed contacts that are activated when tested probes are inserted to avoid accidental contact
- Includes Magnetic Hanging Strap
- Long battery life 5000 tests per set of four AA batteries • One-year warranty

Fluke PRV240FS Proving Unit

The Fluke PRV240FS Proving Unit is specifically built to prove the functionality of the FieldSense[™] measurement on the Fluke T6 Electrical Testers. It also provides AC and DC voltages for other HiZ instruments in your tool box.

- · Reduces the risk of shock and arc flash by validating the functionality of test tools without placing yourself in a potentially hazardous electrical environment
- Can prove functionality of the FieldSense™ measurement on the T6 Electrical Testers
- · Sources both AC and DC steady-state voltage supplies 240 V DC/AC
- A single switch and a set of LEDs indicate functionality of both the FieldSense™ "no-test-lead" voltage measurement capability, plus standard AC and DC measurements with test leads
- Compatible with high impedance multimeters or clamp meters
- Voltage is sourced through a central hub designed to test the T6 FieldSense[™] open fork, as well as through recessed contacts that are activated when test probes are inserted to avoid accidental contact
- Long battery life 2000 tests per set of four AA batteries
- One-year warranty

| Specifications | PRV240 | PRV240FS | |
|------------------------|---|--|--|
| Output voltage | | RMS or DC ≥ 1 MΩ | |
| $LoZ > 3 k\Omega$ load | 60 V AC typical 50 V AC RMS minimum | - | |
| LED power indicator | Turns on when out | put voltage present | |
| Battery | 4 AA Alkaline batteries NEDA 24 A IEC LRO3 | 4 × AA Alkaline batteries NEDA 15A IEC LR6 | |
| Battery life | 5000 (5-second duration) test cycles with >1 MΩ load, 300 tests minimum with >3 kΩ load | 2000 (10-second duration) test cycles with >1 M\Omega load | |
| Operating temperature | -10° C to 50° C | (50° F to 122° F) | |
| Operating altitude | 2000 m (6,561 ft) | | |
| Dimensions | $11.7 \times 7.4 \times 2.8$ cm (4.6 x 2.9 x 1.1 in) | 11.7 × 7.4 × 4.5 cm (4.6 x 2.9 x 1.75 in) | |
| Weight | 0.23 kg (8.11 oz) includes batteries | 0.32 kg (11.28 oz) includes batteries | |
| Safety | IEC 61010-1, IE | C 61010-2-030 | |

Fluke T6-1000 + PRV240FS **Proving Unit Kit**



Recommended Accessories

..........

TPAK

Magnetic Meter Hange

Recommended Kits

Bundle & Save



Included Accessories TPAK Hanging Strap, four AA batteries, instruction sheet. **Ordering Information** PRV240 Proving Unit

PRV240FS Proving Unit T6-1000/ T6-1000 & PRV240FS **PRV240FS** Proving Unit Kit

Contact your local distributor for price and availability. fluke.com/findus

Fluke 8808A Precision Bench Multimeter











resistance measurements. • 5.5 digit resolution • Up to 0.01% accuracy

• Dual measurement display

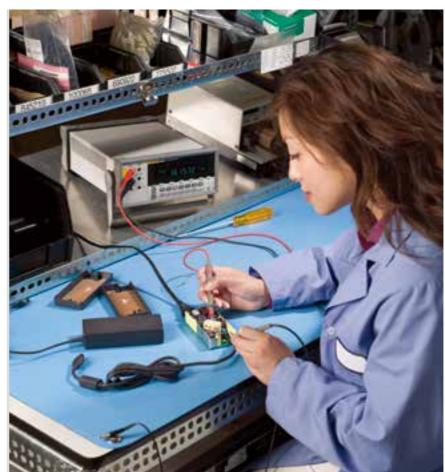
• Sensitive DC leakage current ranges

• Front panel setup keys

• TL2X4 wire measurement technique

• Three-year warranty

| Specifications | 8808A |
|---|--|
| Display | Dual |
| Resolution (digits) | 5.5 |
| Measurements | AC Volts, DC Volts, AC Current, DC Cu Continuity, Dic |
| Basic V DC accuracy (% Reading +% Range) | 0.01 + 0.00 |
| Advanced measurements/ functions | 2x4 wire ohms, i-Leakage dedicated setup |
| Math | Null, dBm, dB, Min |
| Analysis | Limit Compar |
| USB memory device port | No |
| Interfaces | RS-232, USB via option |
| Safety rating | IEC 61010-2-030: CAT II 60 |
| | |





Recommended Accessories

E

Fluke 8808A 5.5 Digit Multimeter

The Fluke 8808A multimeter has a broad range of functions, measuring volts, ohms and amps with a basic V DC accuracy of 0.01%. The meter is easy to use and includes innovative functions to simplify routine testing and precision 4-wire

Current, Frequency, Ohms, iode 03

freq, keys in, Max are

onal adapter 00 V, 1000 V Max



Digital Multimeters



Clamp Meters

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

Clamp Meter Selection Guide

| Fluke Clamn Meters | Residenti | Residential/Commercial Electrical | Electrical | | General Purpose | Purpose | | | Industrial Electrical | Electrical | | | HVAC/R | High-End Industrial, Utility | ıstrial, Utility | Leakage | Wire | Wireless |
|---|--------------------------------|---|--------------------------------|--------------------|---|---|--|--|---|---|---|--|---|--|--|--------------------------------------|---|--------------------------------|
| | 323 | 324 | 325 | 365 | 373 | 374 FC | 375 FC | 376 FC | 377 FC | 378 FC | 381 | 393 FC | 902 FC | 353 | 355 | 368 FC/369 FC | a3000 FC | a3001 FC |
| Measurements AC current | | | | | | | | | | | | | | | | | | |
| AC voltage | • | • | | | | | • | • | | | | | | | | | | |
| Resistance | • | • | • | • | • | • | • | • | • | • | • | • | • | | • | | | |
| Continuity | • | • | • | • | • | • | • | • | • | • | • | • | • | | • | | | |
| DC voltage | • | • | • | • • | • | | • | • • | | | | | | | • • | | | |
| True-RMS | | • | | | • | | • | • | | | | • | • | | • | | | • |
| Frequency | | | • | | | | • | • | • | • | • | • | | • | • | | | • |
| AC + DC voltage | | | | | | | | | | | | | | | • | | | |
| AC + DC current | | | | | | | | | | | | | | • | | | | |
| Min/Max/Avg | | | • | | | | • | • | • | • | • | • | • | • | • | | | |
| Temperature | | | | | | | • | | | | | | | | | | | |
| Vapacitance Messivement locating | | • | | | • | | | | | | Ī | | | | | | • | • |
| | | | | | | | · | | | | | | | | | | • | |
| Inrush current mode | | | | | | | | | | | | | | | | | | |
| Low Pass filter for VFDs | | | | | | | • | • | | | | | | | | | | |
| 18-inch iFlex [™] | | | | | | Optional | Optional | Included | Included | Included | Included | Included | | | | | | Included |
| Wireless | | | | | | | | | | | | | | | | | | |
| FieldSense | | | | | | | • | • | • | | | | | | | | | • |
| PQ indicator | | | | | | | | | | | | | | | | | | |
| DC power | | | | | | | | | | | | • | | | | | | |
| Display | | | | | | | | | | | | | | | | | | |
| Display hold | • | • | • | • | | • | • | | | | | | | | | • | in phone app | in phone app |
| Backlight Specifications | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | |
| Jaw opening | 30 mm (1.18 in) | 30 mm (1.18 in) | 30 mm (1.18 in) | 18 mm (0.7 in) | 32 mm (1.26 in) | 34 mm (1.33 in) | 34 mm (1.33 in) | 34 mm (1.33 in) | 34 mm (1.33 in) | 34 mm (1.33 in) | 34 mm (1.33 in) | 34 mm (1.33 in) | 30 mm (1.2 in) | 58 mm (2.3 in) | 58 mm (2.3 in) | 40 mm (1.5 in)/ 61 mm (2.4 in) | 34 mm (1.33 in) | 254 mm (10 in) coil |
| Max wire size | 300 mm² (11.81 in²) | 300 mm ² (11.81 in ²) | 300 mm² (11.81 in²) | 17 mm (0.67 in) | 400 mm^2 (15.74 in ²) | 400 mm ² (15.74 in ²) | 400 mm^2 (15.74 in ²) | 400mm ² (15.74 in ²) | $400 \mathrm{mm}^2$ (15.74 in ²) | 400 mm ² (15.74 in ²) | 400 mm ² (15.74 in ²) | 400 mm ² (15.74 in ²) | 300 mm ² (11.81 in ²) | 400 mm ² or 3× 240 mm ² (15.74 in ² or 3× 9.44 in ²) | 400 mm ² or 3× 240 mm ² (15.74 in ² or 3× 9.44 in ²) | | 400 mm ² (15.74 in ²) | |
| Current range AC | 0 to 400.0 A | 0 to 40.00 A/ 400.0 A | 0 to 40.00 A/ 400.0 A | 0 to 200.0 A | 0 to 600.0 A | 0 to 600.0 A (2500 A with iFlex TM) | 0 to 600.0 A (2500 A with iFlex ^m) | 0 to 999.9 A (2500 A with iFlex [™]) | 0 to 999.9 A (2500 A with iFlex™) | 0 to 999.9 A (2500 A with iFlex TM) | 0 to 999.9 A (2500 A with iFlex TM) | 0 to 999.9 A (2500 A with iFlex [™]) | 0 to 600.0 A | 0 to 1400 A | 0 to 1400 A | 0 to 60 A | 0 to 400 A | 0 to 2500 A |
| Accuracy AC current (50/60 Hz) | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 70 | 2% ±5 counts 2 | 2% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1% ±5 counts | 2% ±5 counts | 3% ±5 counts |
| AC Response | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS | True-RMS |
| Current range DC | | | 0 to 40.00 A/ 400.0 A | 0 to 200 A | | 0 to 600.0 A | 0 to 600.0 A | 0 to 999.9 A | 0 to 999.9 A | 0 to 999.9 A | 0 to 999.9 A | 0 to 999.9 A | 0 to 200 μA | 0 to 2000 A | 0 to 2000 A | | | |
| Accuracy DC current | | | 2% ±5 counts | 2% ±5 counts | | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts | 2% ±5 counts 2 | 2% ±5 counts | 1% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | | | |
| Voltage range AC | 0 to 600.0 V | 0 to 600.0 V | 0 to 600.0 V | 0 to 600.0 V | 0 to 600.0 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 600.0 V | | 0 to 600.0 V | | | |
| Accuracy AC voltage | 1.5% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 2% ±5 counts | 1% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1.5% ±5 counts | 1% ±5 counts | | 1% ±5 counts | | | |
| Voltage range DC | 0 to 600.0 V | 0 to 600.0 V | 0 to 600.0 V | 0 to 600.0 V | 0 to 600.0 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | 0 to 1000 V | ~ | 0 to 600.0 V | | 0 to 1000 V | | | |
| Accuracy DC voltage | 1.0% ±5 counts | 1.0% ±5 counts | 1.0% ±5 counts | 2% ±5 counts | 1% ±5 counts | 1% ±5 counts | $1\% \pm 5 \text{ counts}$ | 1% ±5 counts | 1% ±5 counts | 1% ±5 counts | 1% ±5 counts | 1% ±5 counts | 1% ±5 counts | | 1% ±5 counts | | | |
| Resistance range | 0 to 4000 Ω | 0 to 4000 Ω | 0 to 40 kΩ | 0 to 6000 Ω | 0 to 6000 Ω | 0 to 6000 Ω | 0 to 6000 Ω | 0 to 60 kΩ | 0 to 60 kΩ | 0 to 60 kΩ | 0 to 60 kU | 0 to 60 kf | 0 to 9999 Ω | | 0 to 400 kΩ | | | |
| Frequency range | | | 5 to 500 Hz | | | | 500 Hz | 500 Hz | 500 Hz | 500 Hz | 500 Hz | 500 Hz | | 5 to 1000 Hz | 5 to 1000 Hz | 40 to 1000 Hz | | |
| warranty (years) Warranty (years) | 2 | 2 | 2 | e | e | e | 3 | e | с | ę | ę | ę | e | с | ę | 1 | e | ę |
| Safety Compliance (IEC 61010-2-032) | CAT IV 300 V, CAT III 600 V | CAT IV 300 V, CAT III 600 V | CAT IV 300 V, CAT III 600 V | CAT III 600 V | CAT III 600 V, CAT IV 300 V | CAT III 1000 V, CAT IV 600 V | CAT III CAT I | CAT III 1000 V, CAT IV 600 V | CAT III 1000 V, CAT III 1000 V, CAT IV 600 V, | CAT III 1000 V, CAT IV 600 V | CAT III 1000 V, C CAT IV 600 V | CAT III 1500 V, CAT IV 600 V | CAT III 600 V | CAT III 1000 V, CAT III 1000 V, CAT IV 600 V | CAT III 1000 V, CAT IV 600 V | CAT III 600 V | CAT III 600 V | CAT III 1000 V CAT IV 600 V |
| Fluke Connect [™] Fluke Connect [™] Ann commatible | | | | | | | | | | | | | | | | | | |
| and the source and | | | | | | | | | | | | | | | | | | |

Clamp Meters



Fluke 393 FC Solar Clamp Meter CAT III 1500 V



NEW

Fluke 393 FC



The World's First CAT III **1500 V Solar Clamp Meter**

The Fluke 393 FC CAT III 1500 V/CAT IV 600 V $\,$ True-RMS Clamp Meter with iFlex is designed for technicians who work in DC environments up to 1500 V: solar arrays, wind power, electric railways, and data center battery banks for uninterruptible power supplies. The Fluke 393 FC meets the IEC 61730-1 standard for overvoltage category III photovoltaic panels and extends the safe measurement range up to 1500 V DC.

Make DC power measurements quickly and accurately with a tool that does it all: V, A and Power (kVA). Ensure PV panels are properly installed with the help of an audio beep to indicate incorrect polarity. Visual Continuity makes continuity testing easier in lowlight situations.

- Safe and accurate voltage measurement up to 1500 V DC
- Thin jaw for access to cables in crowded combiner boxes
- IP54 rating for dust and water making it ideal for working outdoors on solar arrays and wind power systems
- DC power measurement, showing readings in kVA • Audio and Visual Polarity to ensure photovoltaic panels are properly installed
- Visual Continuity that provides a bright green indicator light in the display for working in dark
- and noisy environments • Seamless logging, sharing and reporting of test results via Fluke Connect software

• Three-year warranty

| Features | Range | Accuracy |
|--------------------------------|---------------------------|----------------------------|
| DC power | 600.0 kVA | 2% + 2.0 kVA |
| DC power | 1500 kVA | 2% + 20 kVA |
| Current AC (clamp jaw) | 999.9 A | ±(2% + 5 digits) |
| Current AC (iFlex™) | 2500 A | ±(3% + 5 digits) |
| Current DC | 999.9 A | ±(2% + 5 digits) |
| Voltage AC | 1000 V | ±(1% + 5 digits) |
| Voltage DC | 1500 V | ±(1% + 5 digits) |
| mV DC | 500.0 mV | ±(1% + 5 digits) |
| Capacitance | 0 to 1000 µF | ±(1% + 5 digits) |
| Resistance / Continuity | 60 kΩ | ±(1% + 5 digits) |
| Jaw opening | 34 mm | (1.33 in) |
| Visual Continuity | Y | es |
| Audio Polarity | Y | es |
| Logging (device / phone) | Yes | / Yes |
| Low Pass | Y | es |
| Display | Dual | l line |
| Safety Compliance (device) | IEC 61010-2-032: CAT I | II 1500 V / CAT IV 600 V |
| Safety Compliance (test leads) | IEC 61010-031: CAT III 15 | 500 V insulated test leads |
| | | |

Work in the

Solar Industry?

Visit the link to learn

how Fluke tools can help with the future

fluke.com/sea.solar





Contact your local Fluke distributors to find out more.





Get the FREE Fluke Connect[™] App!

By using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.





Included Accessories

CAT III 1500 V rated test leads, 18-inch iFlex[™] Flexible Current Probe, ToolPak Magnetic Meter Hanger, premium carrying case, two AA batteries.

Ordering Information

FLUKE-393 FC CAT III 1500 V True-RMS AC/DC Clamp Meter with iFlex[™]

Contact your local distributor for price and availability. fluke.com/findus

Fluke 377 FC and 378 FC Clamp Meters with FieldSense™



with FieldSense[™] Technology The new Fluke 377 FC and 378 FC are the first industrial clamp meters that use FieldSense™ technology to make accurate non-contact voltage measurements, thereby enhancing safety and improving productivity. Get a full set of phase-to-phase voltage and current measurements along with auto-calculation of phase rotation by clamping the jaw over each of the three-phase conductors. The Fluke 378 FC includes the unique power quality indicator that automatically senses power quality issues related to current, voltage and power factor, enabling you to quickly determine if the fault is upstream or downstream.

- Safe and accurate voltage measurement without metallic contact • View both voltage and current measurements
- simultaneously on dual display • Complete three-phase measurements 50%

Fluke 377 FC Fluke 378 FC



with PQ Indicator (Fluke 378 FC only) · Easy logging, seamless data transfer and

reporting with Fluke Connect[™] • Three-year warranty

| Features | Range | 377 FC | 378 FC |
|-----------------------------|---------|------------------------|--|
| Current AC | 999.9 A | ±(2% + | 5 digits) |
| (clamp jaw/iFlex™) | 2500 A | ±(3% + | 5 digits) |
| Current DC | 999.9 A | ±(2% + | 5 digits) |
| Voltage AC (FieldSense™) | 1000 V | | ts) ($\leq 4/0$ AWG) ts) ($\geq 4/0$ AWG) |
| Voltage AC (Test Leads) | 1000 V | ±(1% + | 5 digits) |
| Voltage DC | 1000 V | ±(1% + | 5 digits) |
| Capacitance | 1000 µF | ±(1% + | 4 digits) |
| Resistance/Continuity | | 60 kC | 2 / Yes |
| Jaw opening | | 34 mm | (1.33 in) |
| Three-phase calculations | | Ŷ | es |
| Power Quality indicator | | No | Yes |
| Phase Rotation | | Y | es |
| Visual Continuity | | Yes | |
| Data Logging | | Y | es |
| Low pass filter (for VFD) | | Y | es |
| Safety Compliance | | IEC 61010-2-032: CAT I | II 1000 V / CAT IV 600 V |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.





Voltage and Current Measurements

- faster than other industrial clamp meters • Phase rotation information is auto calculated
- (in Fluke Connect[™] App)
- Screen equipment for power quality problems



TL223



lest Leads



Pack30 Backpack



AC285 Clips

Clamp Meters

FieldSense[™] Enabled



Non-contact voltage measurement made possible with Fluke's FieldSense[™] technology.

Get voltage measurements faster, easier and safer than ever. No direct electrical contact means less potential for electric shocks and arc flash.





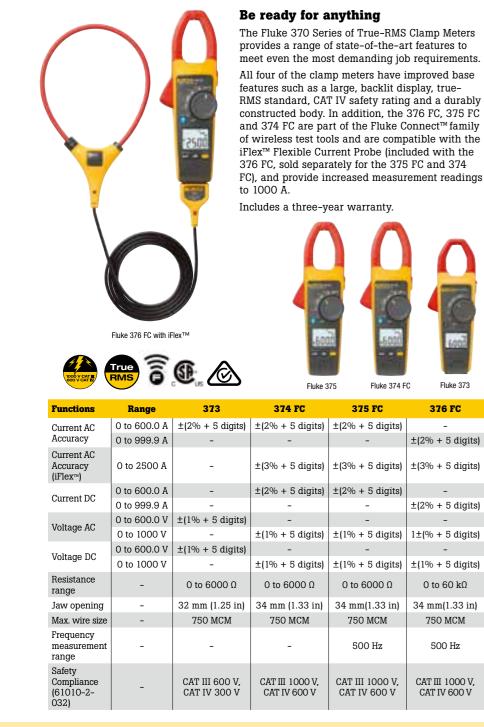
Included Accessories

Test Leads, TwistGuard[™] Test Probes, black grounding clip, 18-inch iFlex™ Flexible Current Probe, ToolPak Magnetic Meter Hanger, premium carrying case, two AA batteries and quick reference guide.

Ordering Information

| Fluke 377 FC | Non-Contact Voltage True-RMS AC/DC Clamp Meter |
|-----------------|--|
| Fluke 378 FC | Non-Contact Voltage True-RMS AC/DC Clamp Meter |

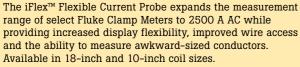




Fluke iFlex[™] Flexible Current Probe



Unprecedented measurement flexibility



- Compatible with Fluke 374 FC, 375 FC, 376 FC and 381 • CAT IV 600 V, CAT III 1000 V
- 7.5 mm (0.29 in) coil diameter allows measurement in tight spaces
- 1.8 m (5.9 ft) cable
- Three-year warranty

Visit fluke.co/clamps for additional specifications.



Fluke Connect[™] Enabled

The Fluke 376 , 375 FC, and 374 FC are part of the Fluke Connect[™] family of wireless test tools.

Î

- Trend measurements, pinpoint intermittent faults and transmit results wirelessly by connecting your meter to your phone via the Fluke Connect[™] mobile app
- Create and send reports right from the field
- Stay safely away from the arc flash zone through Bluetooth connectivity

Fluke Connect (FC) available in selected countries.

Contact your local Fluke distributors to find out more.

Included Accessories

18-inch iFlex™ Flexible Current Probe (Fluke 376 FC only), Test Leads, Soft Carrying Case, Instruction Card, Safety Information Sheet, Two AA Alkaline Batteries.

Ordering Information

FLUKE 373 True-RMS Clamp meter FLUKE 374 FC True-RMS Clamp meter FLUKE 375 FC True-RMS Clamp meter FLUKE 376 FC True-RMS Clamp meter i2500-10 Flexible Current Probe iFlex™ 25 cm (9.84 in) i2500-18 Flexible Current Probe iFlex™ 46 cm (18.11 in) Calibration & Service Agreement units also available.

Contact your local distributor for price and availability. fluke.com/findus

Fluke 320 Series True-RMS Clamp Meters

3250 Fluke 324 Fluke 323 Fluke 325



· Large, easy to read backlit display (324 and 325 only)

(AC and DC current; 325 only)

- CAT IV 300 V/CAT III 600 V safety rating
- Hold button
- Two-year warranty

(324 and 325 only)

• Slim, ergonomic design

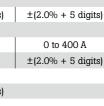
| | Peridential/Com | mercial Electrical | Light Industrial |
|--------------------------------|--------------------|--------------------|--------------------|
| | 323 | 324 | 325 |
| Measurements | 525 | 541 | 525 |
| AC current | • | • | • |
| AC voltage | • | • | • |
| Resistance | • | • | • |
| Continuity | • | • | • |
| DC voltage | • | • | • |
| DC current | - | - | • |
| True-RMS | • | • | • |
| Frequency | - | - | • |
| Min/Max/Avg | - | - | • |
| Temperature | - | • | • |
| Capacitance | - | • | • |
| Display | | | |
| Display hold | • | • | • |
| Backlight | - | • | • |
| Specifications | | | |
| Jaw opening | | 30 mm (1.18 in) | |
| Max wire size | | 600 MCM | |
| Current range AC RMS | | 0 to 400.0 A | |
| Accuracy AC current (50/60 Hz) | ±(2.0% + 5 digits) | ±(1.5% + 5 digits) | ±(2.0% + 5 digits |
| AC response | | True-RMS | |
| Current range DC | - | - | 0 to 400 A |
| Accuracy DC current | - | - | ±(2.0% + 5 digits) |
| Voltage range AC | | 0 to 600.0 V | |
| Accuracy AC voltage | | ±(1.5% + 5 digits) | |
| Voltage range DC | | ±600 V | |
| Accuracy DC voltage | | ±(1% + 5 digits) | |
| Resistance range | 0 to 4 | 000 Ω | 0 to 40 kΩ |
| Frequency measurement range | - | - | 500 Hz |
| | | | |

Go to work with the best

True-RMS measurements and optimized ergonomics make the Fluke 320 Series True-RMS Clamp Meters the best general troubleshooting tools for commercial and residential electricians. The 323, 324 and 325 are designed to verify the presence of load current, AC voltage and continuity of circuits, switches, fuses and contacts. These small and rugged clamp meters are ideally suited for current measurements up to 400 A in tight cable compartments. The Fluke 325 also offers DC current and frequency measurements. • 400 A AC current measurement

 600 V AC and DC voltage measurement · True-RMS AC voltage and current for accurate measurements on non-sinusoidal signals • Resistance measurement to up to 40 k Ω with continuity detection (325 only) · Temperature and capacitance measurement

Frequency measurement (325 only)









EVA Foam Hard Case



TL175 Test Leads





TL223-1 reGrip™ Electrical Test Lead Set



FLUKE



Included Accessories

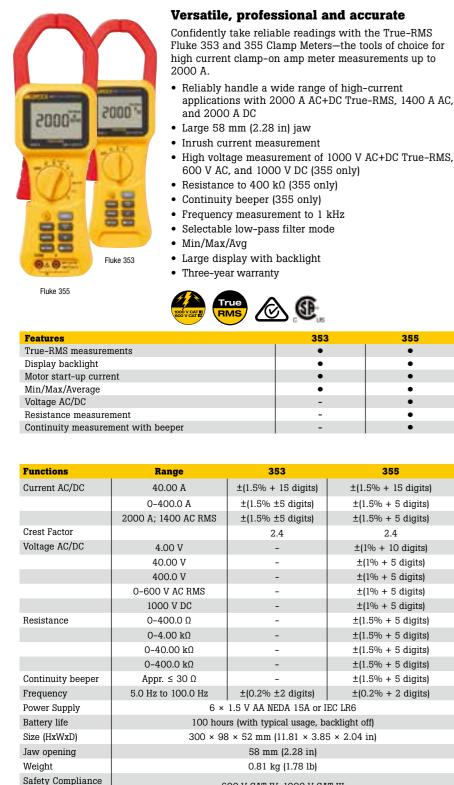
Test Leads, Soft Case, User Manual

Ordering Information

| FLUKE-323 | True-RMS | Clamp | Meter |
|-----------|----------|-------|-------|
| FLUKE-324 | True-RMS | Clamp | Meter |
| FLUKE-325 | True-RMS | Clamp | Meter |



Fluke 350 Series AC/DC True-RMS Clamp Meters



600 V CAT IV, 1000 V CAT III (IEC 61010-2-032)



d Test Probe

Fluke 381 Remote Display True-RMS AC/DC Clamp Meter with iFlex[™]



protective equipment, all while watching real-time readings. The iFlex[™] Flexible Current Probe (included) expands the measurement range to 2500 A AC while providing increased display flexibility. With a cord that runs 6 feet, you can finally measure those tight spaces, awkward sized conductors and disorganized wires.

• Remote display reads measurements up to 9.1 m (29.85 ft) away

clamp meter

- iFlex[™] Flexible Current Probe included,18 inch circumference
- 2500 A AC current measurement with iFlex[™]
- fixed jaw
- 1000 V AC and DC voltage measurement • Frequency measurement to 500 Hz
- 60 kΩ resistance measurement
- Min/Max/Avg and inrush recording
 - IEC 61010-2-032: CAT IV 600 V, CAT III 1000 V
 - Three-year warranty
- Fluke 365 Detachable Jaw **True-RMS AC/DC Clamp Meter**



Where rugged meets reliable

The Fluke 365 True-RMS AC/DC Clamp Meter offers a small, detachable jaw with 1.2 meters of cable that makes it easy to take and read measurements in tight or hard-to-reach places. • 200 A AC and DC current measurement with

- detachable iaw • 600 VAC and DC voltage measurement
- Detachable jaw makes accessing wires and
- viewing the display easier • Built in flashlight allows for easy illumination
- and identification of wires • IEC 61010-2-032: CAT III 600 V
- · Compact design fits in your hand and can be
- used while wearing protective equipment • State-of-the-art signal processing allows for use in noisy electrical environments while providing
- stable readings • Large, easy to read, backlight display
- so you do not need to change switch positions while taking a measurement
- Three-year warranty

Contact your local distributor for price and availability. fluke.com/findus

Alligator Clip Set, User Manual.

True RMS AC/DC

True RMS AC/DC

Clamp Meter

Clamp Meter

Ordering Information

FLUKE-353

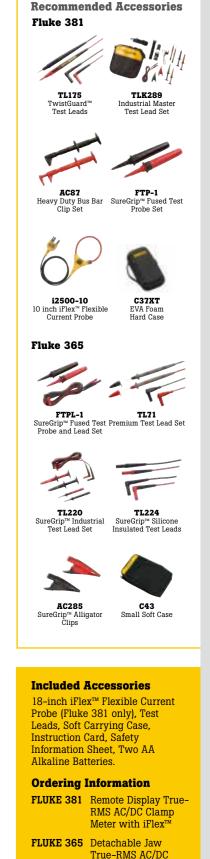
FLUKE-355



The World's most advanced

The Fluke 381 True-RMS AC/DC Clamp Meter combines iFlex[™] flexibility with remote reading capability for the ultimate in innovation and safety. Now one technician can do jobs that would otherwise require two people. Clamp the Fluke 381 around a conductor, remove the display and walk across the room to operate controls or remove

• 999.9 A AC and DC current measurement with



Contact your local distributor for price and availability. fluke.com/findus

Clamp Meter



automatically sets the correct measurement range



Fluke 902 FC True-RMS HVAC Clamp Meter



CATE True

Improve productivity in the field

The Fluke 902 FC delivers the features necessary to diagnose and repair HVAC systems. In addition, with Fluke Connect[™] you can trend measurements, create and send reports right from the field, and safely stay away from live equipment.

Applications for HVAC

- + 200 μA DC current measurements to measure flame rod
- Extended resistance range to measure thermistors up to 60 $k\Omega$
- Capture flue gas temperature
- Measure start and run motor capacitors
- Measure performance of variable frequency drives
- Temperature measurement from -10° C to 400° C (14° F to 752° F)
- 1000 μF capacitance measurement
- IEC 61010-2-032: CAT III 600 V, CAT IV 300 V
- Three-year warranty

| Functions | Range | Resolution | Accuracy |
|------------------------|----------------------------------|------------|---|
| A AC (via Jaw) | 60/600 A | 0.01/0.1 A | ±(2.0% + 5 digit) (45-65 Hz) ±(2.5% + 5 digit) (65-400 Hz) |
| V AC | 600 V | 0.1 V | ±(1.5% + 5 digit) (45-400 Hz) |
| V DC | 600 V | 0.1 V | ±(1% + 5 digits) |
| Ohms | 600/6000 /60000 Ω | 0.1/1/10 | ±(1% + 5 digits) |
| μA | 200 µA | 0.1 µA | ±(1% + 4 digits) |
| Contact Temperature | 10°C to 400°C (50°F to 752°F) | 0.1 C/F | ±(1% + 8 digits) |
| Capacitance | 100.0/1000 µF | 0.1/1 µF | ±(1% + 4 digits) |
| Continuity B | eeper | | |
| n | | , | C . |

Beep Volume 75 dBA nom. 15 cm from case front On Threshold $\leq 30 \Omega$

Fluke 368 FC/369 FC AC True-RMS Leakage Current Clamp Meters



60 @

Measure leakage current to track small problems, avoid large problems

The Fluke 360 Series of True-RMS Leakage Current Clamp Meters help users detect, document, record and compare leakage current readings over time to prevent unplanned downtime, and identify intermittent GFCI and RCD trips, without taking equipment offline.

- True-RMS measurements for accuracy when measuring complex, non-sinusoidal waveforms
- Jaw size: 40 mm (1.57 in) (368 FC) and 61 mm (2.4 in) (369 FC)
- Current resolution 1 μA/0.01 mA and 0.01 A/0.1 A
- Frequency range 40 Hz to 1 kHz
- Selectable filter 40 Hz to 70 Hz or wideband 40 Hz to 1 kHz
- Highest resolution of 1 µA, measure up to 60 A
- Forward-facing LED worklight for use in dark wiring cabinets
 Backlit display; auto backlight off and auto power off for
- extended battery life.
- Wireless data connectivity via Fluke Connect[™]
- CAT III 600 V safety rating

• Three-year warranty

| Specifications | |
|----------------------|---|
| Measurement Function | Alternating current |
| AC Ampere Range | 3 mA, 30 mA, 300 mA, 3 A, 30 A, 60 A |
| Range Selection | mA, A: manual selection 3 mA, 30 mA, 300 mA: automatic selection 3 A, 30 A, 60 A: automatic selection |
| Frequency | 40 Hz to 1 kHz |
| Crest Factor | Three |

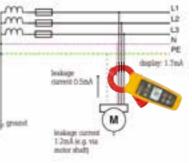
Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



TPAK Magnetic Hanging Strap



C781



Included Accessories

Fluke 902 FC: TL75 Test leads, 80BK Integrated DMM Temperature Probe, Two AA Alkaline Batteries, Soft Carrying Case, Statement of Calibration Practices and User Manual. Fluke 368 FC/369 FC: Soft Case, Two AA Batteries, Safety Manual.

Ordering Information

FLUKE 902 FC HVAC Clamp Meter

FLUKE 368 FC AC Leakage Current Clamp Meter

FLUKE 369 FC AC Leakage Current Clamp Meter

Contact your local distributor for price and availability. fluke.com/findus



Battery Analyzers

Fluke Battery Analyzers are the ideal test tool for maintaining, troubleshooting and performance testing individual stationary batteries and battery banks used in critical battery back-up applications in data centers, telecom networks, power distribution systems and more. With an intuitive user interface, a compact design, and rugged construction Fluke Battery Analyzers are designed to provide optimum performance and reliability.

ATLANT COLUMN

2.64

13.21 100

Fluke BT500 Series Battery Analyzers



<u> ()</u>

More battery tests. Less time.

Fluke's BT500 Series Battery Analyzers cover a broad range of battery test functions ranging from DC voltage and resistance tests to full condition testing using an automated string function testing and the test probe integrated infrared temperature measurement system. 500 Series Battery Analyzers are designed for measurements on stationary batteries of all types.

- The world's fastest battery measurements reduce time of a typical battery measurement by 50% from 8 seconds to 4 seconds
- Unique Industry leading CAT III 600 V safety rating • Key measurements: Battery resistance, DC and AC
- voltage, DC and AC current, ripple voltage, frequency and battery temp
- 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)
- Optimized user interface: Quick, guided setup ensures you're capturing the right data every time. • Intelligent test probe set (BT520 and BT521):
- Integrated LCD display, infrared temperature measurement (BT521 only), verbal audio feedback and captures voltage readings and temperature logging automatically or via integrated save button • Three-year warranty

| Functions | Range | Resolution | Accuracy | BT510 | BT520* | BT521* |
|--|---|------------|-----------|-------|--------|--------|
| | 3 mΩ | 0.001 mΩ | 1% + 8 | • | • | • |
| Detterry register gel | 30 mΩ | 0.01 mΩ | 0.8% + 6 | • | • | • |
| Battery resistance ¹ | 300 mΩ | 0.1 mΩ | 0.8% + 6 | • | • | • |
| | 3000 mΩ | 1 mΩ | 0.8% + 6 | • | • | • |
| | 6 V | 0.001 V | 0.09% + 5 | • | • | • |
| V DC | 60 V | 0.01 V | 0.09% + 5 | • | • | • |
| V DC | 600 V | 0.1 V | 0.09% + 5 | • | • | • |
| | 1000 V | 1 V | 0.09% + 5 | | | • |
| V AC (45 Hz to 500 Hz with 800 Hz filter) | 600 V | 0.1 V | 2% + 10 | • | • | • |
| Frequency (displayed with Vac and Aac) ² | 500 Hz | 0.1 Hz | 0.5% + 8 | • | • | • |
| AC voltage ripple | 600 mV | 0.1 mV | 3% + 20 | • | • | • |
| (20 KHz Max) | 6000 mV | 1 mV | 3% + 10 | • | • | • |
| A DC/A AC (with accessory Fluke i410) | 400 A | 1 A | 3.5% + 2 | | | • |
| Temperature | 0° C to 60° C (32° F to 140° F) | 1° C | 2° C | | | • |
| Meter mode | 999 records for each measurement position with time stamp | | | np | | |
| Sequence mode | Up to 100 profiles and 100 profile templates (Each profile stores up to 450 batteries) with time stamp | | |) | | |

*BT520ANG and BT521ANG for angled probe models

| Specifications | |
|--|---|
| Size (HxWxD) and Weight | 220 × 103 × 58 mm (8.66 × 4.05 × 2.28 in), 850 g (1.87 lb) |
| Screen dimensions | 77 × 56 mm (3.03 × 2.2 in) |
| Interface | USB mini |
| Operating temperature | 0° C to 40° C (32° F to 104° F) |
| Lithium-ion battery charging temperature | 0° C to 40° C (32° F to 104° F) |
| Operating humidity | Non-condensing (10° C), ≤80% RH (at 10° C to 30° C (50° F to 86° F)), ≤75% RH (at 30° C to 40° C (86° F to 104° F)) |
| Ingress Protection (IEC 60529) | IP40 |
| Radio | FCC ID: T68-FWCS, IC: 6627A-FWCS |
| Vibration requirements | MIL-PRF-28800F: Class 2 |
| Drop test requirements | 1 m |
| Temperature coefficients | Add 0.1 × specified accuracy for each degree C above 28° C (82° F) or below 18° C (64° F) |
| Safety compliance (IEC 61010-2-032) | CAT III 600 V |

¹ The measurement is based on AC injection method. The injected source signal is <100 mA, 1 kHz. ² Trigger level V AC: 10 mV, A AC: 10 Å

BP500 i410 AC/DC Current Clamp Lithium-ion Battery 3000mAh

Recommended Accessories



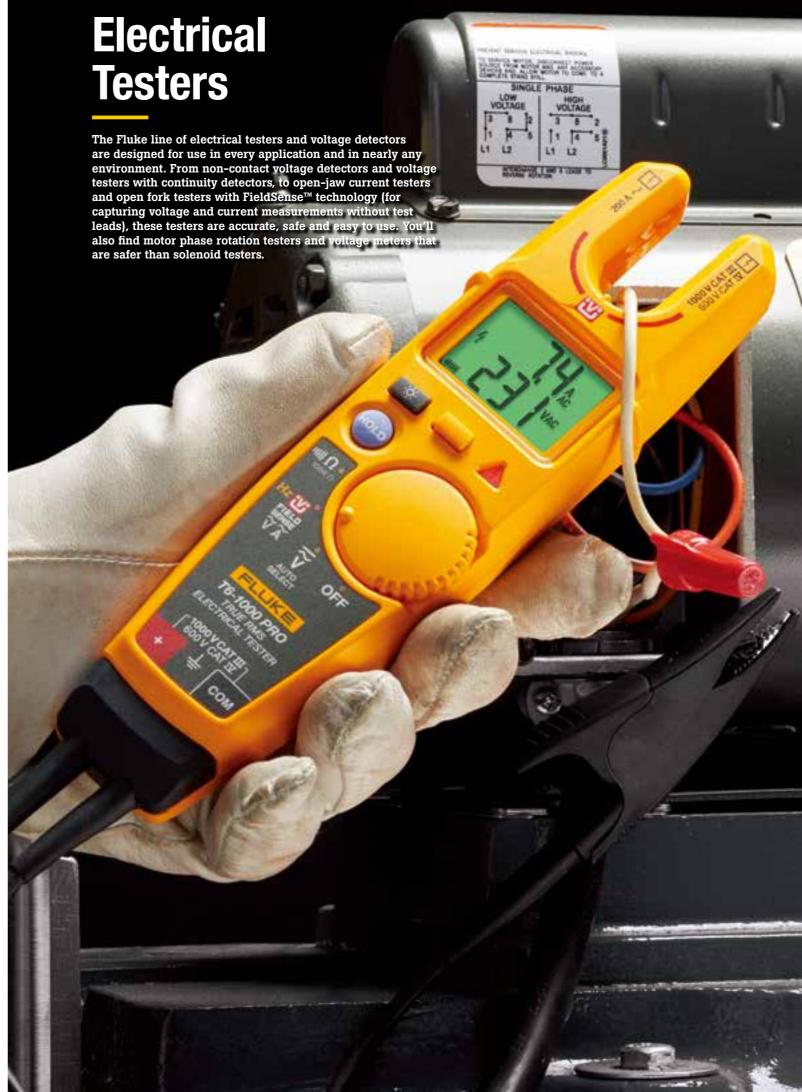


BT521 Intelligent Test Probes with integrated display

Included Accessories

4-Wire Test Pin (set), BTL10 Basic Test Lead (set), TL175 TwistGuard™ Test Leads with Adapter, L300 Attachable LED Flashlight (2) (BT520 and BT521 only), BTL20 Intelligent Test Probe Set with Extender (no Temperature Sensor)(BT520 only), BTL21 Intelligent Test Probe Set with Extender and Temperature Sensor (BT521 only), i410 AC/DC Current Clamp (BT521 only), BP500 Lithium-ion Battery, BC500 AC Charger, Mini-USB Cable, Shoulder Strap, Belt Strap, Magnetic Hanging Strap, FlukeView™ Battery Tags (BT520 and BT521 only).

| nation |
|--------------------------------------|
| Basic Battery Analyzer |
| Battery Analyzer |
| Advanced Battery Analyzer |
| Battery Analyzer with Angled Prob |
| Battery Analyzer with Angled Prob |
| |



Fluke T+ and T+PRO Electrical Testers



Specifications

Relative Humidity

Battery Type/Life

Shock, Vibration

AC Bandwidth

Duty Cycle

LEDs

LCD Accuracy

LCD Resolution

GFCI Test Current

Size (H x W x L)

Weight

Standard Input Test Current

Voltage Hazard LED

Maximum Working Voltage

Maximum Measurable Voltage

LED Voltage Indication Levels

Temperature

Altitude

Storage

Safety

The expert's choice for building diagnostics

These electrical testers have all the advantages of traditional solenoid testers, with none of the typical drawbacks. Use all 3 voltage detection methods - light, sound, and vibration, to work more efficiently in noisy environments, dimly lit areas, or tight spaces. Built-in flashlight, GFCI trip capability, and the legendary ruggedness you expect from Fluke, make these an excellent choice for most residential, commercial, and industrial applications.

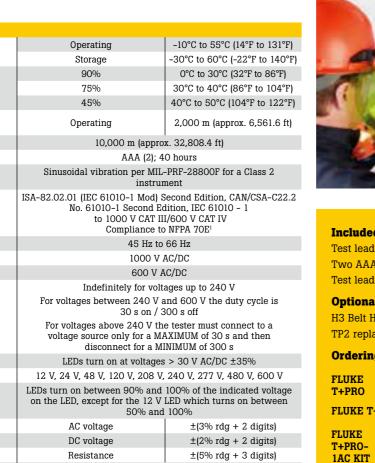
The Fluke T+PRO is the choice for the demanding commercial and industrial electrician. This full-featured electrical tester includes voltage and continuity measurement, a Rotary Field Indicator, resistance, and a digital display with 0.1 V resolution

The Fluke T+ is the basic electrical tester for residential electricians and HVAC technicians, who need a durable, reliable tool for testing voltage and continuity.

| Recommended Accessories | | |
|---------------------------------------|---|--|
| | - | |
| AC285 SureGrip™ Alligator Clips | TP2 Slim Reach Test Probes | |
| 6 | | |
| C37XT EVA Foam Hard Case | C11XT EVA Foam Hard Case | |

Added functionality available only on the T+PRO:

- · Backlit LCD display for easier viewing • Display resolution of 0.1 V, ideal for
- troubleshooting low-voltage lighting
- Resistance (Ohms) to 9.99 kOhms
- Rotary Field Indication
- hard-to-test areas



0.1 V for voltages < 50 V, 1 V for voltages \ge 50 V

0.01 kΩ for resistance measurement

100 V - 150 V @ 6 mA - 9 mA AC, 150 V - 240 V < 12 mA

3.3 x 5.46 x 1

| < 5 mA | |
|--------------------------------|----------|
| 19.3 cm (1.3 x 2.15 x 7.6 in) | Contact |
| 0.28 kg (9.9 oz) | price an |
| monta and Equipmont | fluke co |

• Display Hold for easier viewing in

Included Accessories Test leads and probes

Two AAA batteries Test lead strap for managing leads

Optional Accessories H3 Belt Holster

TP2 replacement test probes

Ordering Information

Electrical Tester FLUKE T+ Electrical Tester

> Electrical Tester and AC Voltage Detector Kit

t your local distributor for nd availability. fluke.com/findus

Fluke T6 Series Electrical Testers with FieldSense™

-

Fluke T6-1000

63

Fluke T6-1000 PB0

True

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Fluke

T6-600

Measure voltage without test leads

Measure voltage up to 1000 V AC through the open fork, without test lead contact to live voltage.4 Without opening covers or removing wire nuts; on wires up to 4/0 (120 mm²), carrying as much as 200 A. It will change your job.

- FieldSense[™] technology for AC voltage, current and frequency measurement without making electrical contact to live voltage+
- Simultaneous voltage and current display (T6-1000 & T6-1000 PRO) - shows all power supply measurements at a glance for efficient troubleshooting
- T6-1000 PRO features Visual Continuity[™] the screen automatically lights up green for continuity, perfect when it's too loud to hear the beeper • Works with wire up to AWG 4/0 (17.8 mm
- jaw opening)
- easy viewing
- · Easy to read display with backlight
- Hanger for convenient operation
- Two-year warranty

+Voltage measurement requires capacitive path to ground, provided through user in most applications. Ground connection via test lead may be required in some situations.

The Full Package

The Fluke T6-1000 PRO Electrical Tester comes with a belt holster and black alligator clip as standard. Measure wires up to AWG 4/0 (120 mm²), carrying as much as 200 A and 1000 V AC, even with gloves on.

| Specifications | | T6-600 | T6-1000/ T6-1000 PRO | | |
|--|---------------------------|---------------|---------------------------------|------------|--|
| Function | Requires Test Leads | Range | Range | Resolution | Accuracy ¹ |
| FieldSense™ AC voltage | No | 600 V | 1000 V | 1 V | ±(3% + 3 counts) ^{2 3} 45 Hz - 66 Hz |
| FieldSense™ AC current | No | 200.0 A | 200.0 A | 0.1 A | ±(3% + 3 counts) 45 Hz - 66 Hz |
| FieldSense™ frequency (Hz) | No | | 45 Hz – 66 Hz | 1 Hz | $\pm (1\% + 2 \text{ counts})^3$ |
| Volts AC | Yes | 600 V | 1000 V | 1 V | ±(1.5% + 2 counts) 45 Hz - 66 Hz |
| Volts DC | Yes | 600 V | 1000 V | 1 V | ±(1% + 2 counts) |
| Resistance | Yes | 2000 Ω | 2000 Ω | 1 Ω | ±(1% + 2 counts) |
| | Yes | | 20.00 kΩ | 0.01 kΩ | ±(1% + 2 counts) |
| | Yes | | 100.0 kΩ | 0.1 kΩ | ±(1% + 2 counts) |
| Visual Continuity: | | No | T6-1000: No T6-1000 PRO: Yes | | |
| Audible Continuity: | | Yes | Yes | | |
| Safety Compliance (IEC 61010-2-032) | | CAT III 600 V | CAT III 1000 V CAT IV 600 V | | |
| Accessories Included | | No | T6-1000: No T6-1000 PRO: Yes | | |

Accuracy¹: ±([% of reading] + [number of least significant digits]). Accuracy is specified for 1 year after calibration, at 18° C to 28° C (64°F to 82°F) with relative humidity to 90%. AC conversions are ac-coupled, RMS responding. Accuracy ¹². Add 3% without an external ground connection. External ground connection required for user wearing insulated gloves, standing on an insulated ladder and otherwise insulated from earth ground. Accuracy 3: FieldSense[™] specified from 16V to 100% of range.

38 **Electrical Testers**



· HOLD button temporarily freezes the reading for

· Accepts optional Fluke TPAK Magnetic Meter





Included Accessories

Attached Test Leads with

and User Documentation.

Ordering Information

T6-600 Electrical Tester

T6-1000 Electrical Tester

T6-1000 PRO PRO Electrical Tester

 T6-600/
 T6-600 Tester,

 62MAX+/1AC
 62MAX+ & 1AC-II Kit

T6-HT6-1AC T6-1000 Tester, H-T6

T6-1000/ T6-1000 & PRV240FS

PRV240FS Proving Unit Kit

Holster & 1AC Kit

KIT

removable 4 mm Probe Cap

Electrical Testers

Electrical Testers

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Fluke T5 Series Electrical Testers

Fluke 9040 Phase Rotation Indicator



Fluke T5 Series Voltage, **Continuity and Current Testers**

The Fluke T5 Electrical Testers let you check voltage, continuity and current with one compact tool. OpenJaw[™] current lets you check current up to 100 A AC without breaking the circuit. Its tough test leads stow neatly in the back of the tester, making it easy to tote the T5 in your tool pouch. Detachable SlimReach[™] test probes are customized for national electrical standards. The test leads accept optional accessories such as clips and specialty probes. Available in 600 V and 1000 V models

- Excellent front-line troubleshooting and measurement tool
- Available in 600 V and 1000 V models
- Digital display • OpenJaw[™] current measurement
- Rotary switch selects volts, amps and ohms functions
- · Heavy-duty test leads
- Two-year warranty

| Recommended Fluke T5 Series | |
|------------------------------------|---|
| | |
| C37XT EVA Foam Hard Case | TP1 Slim Reach Test Probes |
| | |
| T5-KIT Starter Kit | T5-RLS T5 Replacement Test Leads |





Take the guesswork out of phase/motor rotation measurements

The Fluke 9040 is effective for measuring phase rotation in all areas where 3-phase supplies are used to feed motors, drives and electrical systems. The Fluke 9040 is a rotary field indicator and can provide clear indication of 3-phase via an LCD display and the phase rotation direction to determine correct connections. It allows rapid determination of phase sequence and has a voltage (up to 700 V) and frequency range suitable for commercial and industrial applications. Test probes supplied with the instrument have a variable clamping range for safe contact, especially in industrial sockets per IEC 61557-7.

- 3-phase indication
- Indication of phase rotation
- Clear LCD display
- No battery required Two year warranty

| Specifications | |
|-------------------|------------------------------------|
| Voltage range | 40 - 700 V |
| Phase display | - |
| Frequency range | 15 - 400 Hz |
| Operating time | Continuous |
| Size | 124 × 61 × 27 mm (4.88 × 2.40 |
| Power supply | from unit under test |
| Weight | 0.20 kg (7.05 oz) |
| Safety Compliance | (IEC 61010-2-030)- CAT IV 300 V, 0 |

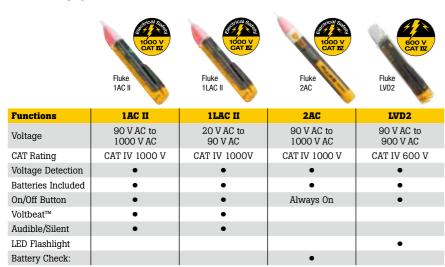
| 1 unotions | 10-1000 | 10-000 |
|---|----------------|--------------|
| Measure AC/DC voltage | 1000 V | 600 V |
| Measure AC current (average) | 100 A | 100 A |
| Measure continuity | < 25 Ω | < 25 Ω |
| Measure resistance | 1000 Ω | 1000 Ω |
| DC polarity indicator | Yes | Yes |
| Detachable probe tips with optional probe tips styles | Yes | Yes |
| Safety Compliance (IEC 61010-2-032) | CAT III 1000 V | CAT III 600V |

*Voltage levels will vary depending on country of intended use.

Fluke VoltAlert[™] Family

VoltAlert[™] AC non-contact voltage testers from Fluke are easy to use - just place the tip to a terminal strip, outlet, or supply cord. When the tip glows red, you know there's voltage present.

Fluke now offers three models of noncontact voltage detectors, making sure you have the right tool for the job. Two-year warranty.



Included Accessories

Fluke T5-600 & T5-1000: Detachable Probes and Instruction Sheet.

Ordering Information

| FLUKE T5-600 | Electrical Tester |
|------------------|-------------------|
| FLUKE T5-1000 | Electrical Tester |
| FLUKE | VoltAlert™ |
| 1AC-II | Voltage Detector |
| FLUKE | VoltAlert™ |
| 1LAC II | Voltage Detector |
| FLUKE | VoltAlert™ |
| 2AC | Voltage Detector |
| FLUKE LVD2 | Volt Light |

Contact your local distributor for price and availability. fluke.com/findus



Electrical Testers

× 1.06 in)

CAT III 600 V



Included Accessories

Alligator Clips - Black (3), Standard Test Probes - Black (3), Flexible Test Probes - Black (3), Two AA Batteries, User Manual.

Ordering Information

FLUKE-9040 Phase Rotation Indicator



ь 5 43 Z 9 8 6 1.41 PLS**** • -1 0 211 1 8 Laser Levels From point and line to rotary lasers, Fluke laser levels provide bright, crisp reference points and lines for quick and accurate layout of many jobs. PLS tools were developed out of necessity by professional contractors with of 50 years of experience in commercial and residential interior and external layouts.

PLS 3x360R and 3x360G Three-plane Laser Levels



1 1

PLS 3x360G

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Lighten your toolbelt - plumb, level and square with one tool

The PLS 3x360R and 3x360G Three-plane Laser Levels combine the best qualities of your favorite PLS gear, now with best-in-class accuracy and new features including a rechargeable battery pack with charging adaptor, and a pendulum lock for added protection during transportation. • Accuracy of 2 mm at 10 meter distance

- Pendulum lock
- Out-of-level warning
- Replaceable glass inserts and metal towers
- IP54 protection rating to limit dust and water entry
- Three-year warranty

PLS, The Professional Standard – Built by contractors for contractors

The PLS 3x360R and 3x360G provide bright, crisp reference points and lines for quick and accurate layout. The 3x360R and 3x360G fill the gap in Fluke's legacy products that are now discontinued, including the HVL100, PLS 360 and PLS 480.

| Key Features | PLS 3x360R | |
|--|--|-----------------------------|
| Laser Function | | |
| Battery | | |
| Battery | Lithium-ion, 3. | 6 V, 5200 m |
| Battery Life, Continuous Use (Typical) | 3 beams: ≥ 9 hours 1 beam: ≤ 30 hours | 3 I 1 |
| Line Fan Angle | | |
| Horizontal | 36 | 60° |
| Front Vertical | 36 | 60° |
| Side Vertical | 36 | 0° |
| Working Range | | |
| Without Line Detector | 20 m (65.61 ft) | : |
| With Line Detector | 50 m (164.04 ft) | |
| Accuracy | | |
| Accuracy | ±2 mm @ 10 m distance (± | :0.07 in @ 32 |
| Laser Leveling | | |
| System | Automatic | Pendulum |
| Range | | ling: ≤ 4° eveling: > 6° |
| Leveling Time | ≤ 3 se | econds |
| General Specifications | 3 | |
| Ingress Protection | IEC 605 | 29: IP54 |
| Weight (With Battery) | 0.8 kg | (1.76 lb) |
| Li-ion Battery Safety | IEC 6 | 2133 |
| Laser Safety | | |
| Light Source | Semiconducto | or laser diod |
| Max Output Power | < 1 | mW |
| Wavelength | | |
| Red | 635 nm | ±10 nm |
| 9 | 520 nm | ±10 nm |
| Green | | |
| Electromagnetic Com | | |





۱Ăh beams: ≥ 5 hours beam \leq 17 hours

35 m (114.82 ft) 65 m (213.25 ft)

32.8 ft distance)





PLS HG13X360R/ PLS 3x360 MLB PLS HG13X360G Magnetic L-Bracket w PLS Housing Glass Insert and Tower for PLS 3x360R/G



PLS 3x360 CB Ceiling Bracket used with PLS 3x360 MLB



PLS RBP5 Li-ion battery with charging cord and adaptors



PLS XLD+ Rotary Laser Detector



Magnetic L-Bracket w, Micro and Elevation Adjustmen



PLS RRT4/ PLS GRT4 Green Reflec Target



PLS RBP Single PK Li-ion battery on



TPOD300 Elevating Tripo



Included Accessories PLS 3x360R/PLS 3x360G Bare Tool: Canvas Pouch

PLS 3x360R/PLS 3x360G Kit: RBP5 (Li-ion), Power Supply, 3x360 Magnetic L-Bracket, Red/Green Reflective Target, Canvas Pouch, Blow Mold Case

Ordering Information

PLS 3x360R Z Tool PLS 3x360G

Z Tool

Three-plane Laser Level Red

Three-plane Laser Level Green

PLS 3x360R Kit Three-plane Laser Level Kit Red

PLS 3x360G Kit Three-plane Laser Level Kit Green



PLS H2, HV2R and HV2G Rotary Laser Levels



PLS HV2G



Designed for any construction job site These professional-grade tools offer the accuracy and

durability you can expect from PLS, a Fluke Company. The PLS Rotary range is ideal for use by general contractors, electricians, plumbers and landscapers in both interior and exterior applications.

H2 Rotary Laser Level

The PLS H2 model is a horizontal-only rotary laser that offers a simple one button operation.

- The H2 is a horizontal-only rotary laser. It is easyto-use and fully self-leveling, designed for interior and exterior layout projects.
- This fully automatic unit offers one-button operation and is ideal for large exterior layout applications including concrete forms, slabs, and other horizontal leveling applications.
- Three-year warranty

HV2R (Red Laser) and **HV2G (Green Laser)**

Offering a rugged ergonomic design and simplified controls, the PLS HV2R/G emits a laser line in the horizontal or vertical plane. The HV2R/G rotary lasers also emit a point from the top when placed in the vertical position.

- The HV2G rotary laser level emits a self-leveling horizontal laser plane and can be used in the vertical position to emit a vertical laser plane. Applications include setting foundations and footings, concrete pours, drywall terracing, contour framing and suspended ceiling installation.
- Three-year warranty

| Specifications | H2 | HV2R | HV2G |
|-----------------------------------|---|---|---|
| Laser | Class II Red | Class II Red | Class II Green |
| Laser axis | Horizontal Only | Horizontal and Vertical | Horizontal and Vertical |
| Accuracy | ≤ 2.2 mm (0.08 in) @ 30 m (98.42 ft) | ≤ 2.2 mm (0.08 in) @ 30 m (98.42 ft) | ≤ 2.2 mm (0.08 in) @ 30 m (98.42 ft) |
| Auto-leveling range | ±5 degrees | ±5 degrees | ±5 degrees |
| Manual slope range | ±5 degrees | ±5 degrees | ±5 degrees |
| Working range | ≤ 30 m (98.42 ft) without XLD laser detector ≤ 300 m (984.25 ft) with XLD laser detector | ≤ 30 m (98.42 ft) without XLD laser detector ≤ 300 m (984.25 ft) with XLD laser detector | ≤ 30 m (98.42 ft) without XLD laser detector ≤ 300 m (984.25 ft) with XLD laser detector |
| Ingress Protection (IEC 60529) | IP67 | IP67 | IP67 |
| Battery Life | > 60 hours | > 60 hours | > 60 hours |

Recommended Accessories PLS XLD TPOD500 Laser Dete PLS RBP10 PLS C19 NiMH Rechargeal Battery Rotary Laser Leve Carrying Case **Recommended Kits** Bundle & Save

PLS HV2G KIT, Manual Slope **Green Rotary Laser Kit**



PLS HV2R SYS, Manual Slope Red **Rotary Laser System**

Included Accessories

PLS BP10 Alkaline Battery Tray, Four D Batteries, Safety Sheet and Quick Reference Guide.

| Ordering Information | | |
|------------------------------|---|--|
| PLS H2 Z | Horizontal Red Rotary Laser | |
| PLS H2 KIT | Horizontal Red Rotary Laser Kit | |
| PLS H2 SYS | Horizontal Red Rotary Laser System | |
| PLS HV2R Z PLS HV2G Z | Manual Slope R/G Rotary Laser Bare Tool | |
| PLS HV2R KIT PLS HV2G KIT | Manual Slope R/G Rotary Laser Kit | |
| PLS HV2R SYS PLS HV2G SYS | Manual Slope R/G Rotary Laser System | |

Contact your local distributor for price and availability. fluke.com/findus

PLS Laser Levels



PLS 3G

PLS 180R

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Point Laser (3R/G, 5R/G)

The professional self-leveling three-point (3R/G) and five-point (5R/G) laser level, available in red or green laser, allows for fast, accurate layout of reference points. Three-year warranty.

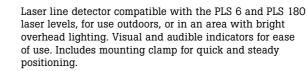
Combo Line Laser (6R/G)

Plumb, level, and square with one tool. This professional self-leveling combination point and cross line laser level, available in red or green laser, includes vertical and horizontal modes with lines and points combined. Three-year warranty.

Line Laser (180R/G)

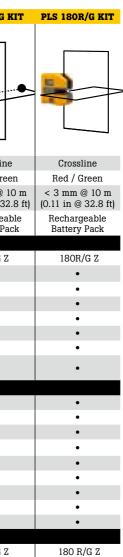
Plumb, level, and square with one tool. This professional self- leveling cross line laser level, available in red or green laser, includes vertical and horizontal modes allowing for fast, accurate, level and plumb reference lines. Three-year warranty.

SLD Laser Line Detector



| Models | PLS 3R/G KIT | PLS 5R/G KIT | PLS 6R/G |
|-----------------------------|--------------------------------------|--------------------------------------|-----------------------------|
| Laser Function | • | | |
| Laser type | 3-point | 5-point | Crosslin |
| Laser colour | Red / Green | Red / Green | Red / Gre |
| Accuracy | < 3 mm @ 10 m (0.11 in @ 32.8 ft) | < 3 mm @ 10 m (0.11 in @ 32.8 ft) | < 3 mm @ 3 (0.11 in @ 32 |
| Batteries | (3) AA alkaline | (3) AA alkaline | Rechargea Battery Pa |
| Included in Box | | | |
| Laser level | 3R/G Z | 5R/G Z | 6R/G Z |
| Canvas pouch | • | • | • |
| PLSBP5 alkaline pack | • | • | • |
| FS floor stand | • | • | • |
| PLSMLB wall bracket | • | • | • |
| Reflective target | • | • | • |
| PLSC18 carrying case | • | • | • |
| UB9 wall/ceiling bracket | | | |
| Application Guide | | | |
| Electrical | • | • | • |
| HVAC | • | • | • |
| Framing | • | • | • |
| Carpentry | | | • |
| Foundations | | | • |
| Floor and tile | | | • |
| Acoustic ceiling | | | • |
| Painting | | | • |
| Window and glass | • | • | • |
| Other Configuration | | | |
| Tools and pouch only | 3R/G Z | 5R/G Z | 6R/G Z |
| Kit with detector | | | |





180 R/G SYS

Recommended Accessories





Charging Ca



PLS RBP5 Single Pk Li-Ion Battery Pack



PLS C18 Laser Level Tool Box Laser Levels

Included Accessories

Bare Tool: Canvas Pouch Kit: Canvas Pouch, Carry Case, Three AA Batteries, Floor Stand, Wall Bracket, Reflective Target. 6R/G and 180R/G models with Rechargeable Battery Pack. 180R/G models with Wall/ Ceiling Bracket.

System: 6R/G and 180R/G models with Canvas Pouch, Carry Case, Three AA Batteries, Floor Stand, Wall Bracket, Reflective Target, Line Detector, Rechargeable Battery Pack. 180R/G models with Wall/ Ceiling Bracket.

Ordering Information

| ordering mon | mation |
|--|---|
| PLS 3R Z PLS 3G Z | Red/Green 3-Point Laser Level |
| PLS 3R KIT PLS 3G KIT | Red/Green 3-Point Laser Level Kit |
| PLS 5R Z PLS 5G Z | Red/Green 5-Point Laser Level |
| PLS 5R KIT PLS 5G KIT | Red/Green 5-point Laser Level Kit |
| PLS 6R Z PLS 6G Z | Red/Green Combo Point Laser Level |
| PLS 6R RBP KIT PLS 6G RBP KIT | |
| PLS 6R RBP SYS PLS 6G RBP SYS | |
| PLS 180R Z PLS 180G Z | Red/Green Combo Point Laser Level |
| PLS 180R RBP KIT PLS 180G RBP KIT | Red/Green Combo Point Laser Level Kit |
| PLS 180R RBP SYS PLS 180G RBP SYS | Red/Green Combo Point Laser Level System |



Fluke 417D and 424D Laser Distance Meters





Professional grade distance measuring tools that are fast, easy to use and fit in your pocket

Measure farther, with greater accuracy, in more situations.

- Measure with greater accuracy: Up to ±1 mm, no scales to interpret or misread (424D)
- Do the work of two: Instead of holding the tape, your helper can do other jobs
- The most advanced 2 laser technology for distance measurement
- Speed up the job: Easily measure hard-to-access areas, like high ceilings, without climbing a ladder
- Keep it on the level: New inclination sensor on the Fluke 424D helps with leveling, height tracking, measuring around obstacles
- Reduce estimating errors, let the meters do the math: Find area and volume. Easily add and subtract distances. Use Pythagoras calculations for height
- Improved battery life: Automatic shut-off feature
- Improved visibility with backlit screen
- Three-year warranty (417D & 424D)

The Fluke 424D Laser Distance Meter offers:

Fluke 424D

- · Improved visibility with backlit screen
- Tripod mode allows you to mount to a tripod for measuring long distances
- Stake out function
- Enhanced Pythagoras calculation for determining distance indirectly from three other measurements
- Audible keypad feedback
- Storage of the last twenty measurements for quick recall of distance
- · Strong environmental protection with IP54 (water spray and dust proof) sealing
- · Inclination sensor for taking measurements in hard to reach areas
- Compass provides a "heading" for distance measurement
- · Automated end-piece correction: when measuring from an edge or corner, a built-in sensor detects the position of this bracket and automatically changes the reference point

| Key Features | 417D | 424D |
|------------------------------------|------------------|-------------------|
| Maximum measurement distance | 40 m (131,23 ft) | 100 m (328.08 ft) |
| Accuracy | ±2 mm (0.078 in) | ±1 mm (0.039 in) |
| Battery life (no. of measurements) | 3000 | 5000 |
| Area measurement | • | • |
| Volume measurement | | • |
| Pythagoras calculations | | • |
| Plus and minus calculations | | • |
| Measurement storage | | 20 sets |
| Backlight | | • |
| Minimum/Maximum | | • |
| Audible keypad feedback | | • |
| Tripod mount | | • |
| Corner angle measurement | | • |
| Ingress Protection (IEC 60529) | IP54 | IP54 |
| Compass | | • |
| Inclination sensor | | • |
| Automated end-piece correction | | • |
| Laser Class | 2 | 2 |









Fluke 417D/62MAX+ Laser **Distance Meter/Infrared Thermometer Combo Kit**



| Included Accessories |
|--|
| 417D & 424D: Two AAA Batteries, User Manual CD, Quick Reference Guide, Vinyl Carrying Pouch, Lanyard. |
| Ordering Information |
| FLUKE-417D Laser Distance Meter, 40 m |

| UKE-424D | Laser | Distance |
|----------|-------|----------|
| | Meter | , 100 m |

FL

FLUKE-417D Laser Distance 62 MAX+ Meter/Infrared KIT Thermometer Combo Kit

Contact your local distributor for price and availability. fluke.com/findus

Fluke 405, 408 and 410 **Laser Distance Meters**



These Laser Distance Meters have the Fluke durability and quality you expect. The simple design and easyto-use button operation allow you to operate with one hand, minimize time spent measuring and maximize the reliability of measurements. Key Functions:

- Quickly measure distance, calculate area / volume / pythagoras
- Auto level and height
- Built to withstand rainv or dusty conditions: 1-meter drop tested with rated IP65
- Electronic angle display, auxiliary level measurement

• Up to 100 sets of data storage

- Universal tripod interface, easy to use
- Type-C charging port, strong endurance
- 2-inch HD display, clear viewing in full sunlight

Fluke 410

| 405 | |
|-----|--|
| | |

| | 405 | 408 | 410 |
|-----------------------------|----------------------|----------------------------|--------------|
| Specifications | | | |
| Range | 0.2 to 50 m | 0.2 to 80 m | 0.2 to 100 m |
| Accuracy* | | ±(2.0mm+5x10-5D) | |
| In favorable condition** | | 2(2.0000 0000 0) | |
| Accuracy | | ±(3.0mm+29x10-5D) | |
| In unfavorable condition*** | | (****** | |
| Angle accuracy | | | |
| Angel measurement method | | | |
| Measurement unit | | | |
| Display | | 2.0-inch positive display | |
| Measurements | | | |
| Single measurement | • | • | • |
| Continuous measurement | • | • | • |
| Area measurement | • | • | • |
| Volume measurement | • | • | • |
| Auto Level | • | • | • |
| Auto Height | • | • | • |
| Pythagoras 2-point | • | • | • |
| Pythagoras 3-point | • | • | • |
| Add / Substrate Method | • | • | • |
| Measurement reference | Front | / Tripod hole / Back / Ext | ender |
| Auto-off | | 3 minutes after inactivity | |
| Data Storage | | 100 sets | |
| Time-delay measurement | • | • | • |
| Auto calibration | • | • | • |
| Side button | • | • | • |
| Extender | • | • | • |
| General | | | |
| Laser class | | | |
| Laser type | | | |
| Battery life | up to 3500 | measurements (single me | easurement) |
| Operating temperature | | | |
| Storage temperature | | | |
| Ingress protection | IP65 | | |
| Drop test | 1 m | | |
| Size | 52 mm × 116mm × 28mm | | |
| Weight | 110g | | |
| Certification | | - 0 | |
| Laser certification | | | |
| Electrical certification | | | |



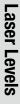
- The battery life up to 5000 single measurements
- Automatically power off after 3 minutes of inactivity

Included Accessories

Fluke 405: Full telescope, User manual, Vinyl carrying pouch, 2 AAA NiMH rechargeable cells, Qualification certificate, Lanyard, Type-C cable, 0.5m

Fluke 408: Full telescope, User manual, Vinyl carrying pouch, 2 AAA NiMH rechargeable cells, Qualification certificate, Lanyard, Type-C cable, 0.5m

Fluke 410: Full telescope, User manual, Vinyl carrying pouch, 2 AAA NiMH rechargeable cells, Qualification certificate, Lanyard, Type-C cable, 0.5m







Digital Infrared Thermometer Selection Guide

| | | | | | 560 Series | | 570 Series |
|---------------------------------------|-----------------|---------------|-----------------|-----------------------|-----------------------|-----------------------|-------------------------------------|
| | Fluke 62 MAX | Fluke 62 MAX+ | Fluke 64 MAX | Fluke 561 | Fluke 566 | Fluke 568/568Ежж | Fluke 572-2 |
| Temperature range | -30 to 500 °C | -30 to 650 °C | -30 to 600 °C | - 40 to 550 °C | - 40 to 650 °C | - 40 to 800 °C | - 30 to 900 °C |
| Distance to spot | 10:1 | 12:1 | 20:1 | 12:1 | 30:1 | 50:1 | 60:1 |
| Laser sighting | Single laser | Dual laser | Single laser | single-point laser | single-point laser | single-point laser | offset dual laser, output < 1 mW |
| Accuracy | 1.5% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% |
| Response time | < 500 mSec | < 300 mSec | < 500 mSec | < 500 mSec | < 500 mSec | < 500 mSec | < 500 mSec |
| Recommended distance to spot | Up to 2 m | Up to 2 m | Up to 2 m | Up to 2.5 m | Up to 4.5 m | Up to 7.5 m | Up to 9 m |
| Adjustable emissivity | • | • | • | • | • | • | • |
| MIN/MAX readings | • | • | • | • | • | • | • |
| AVG readings | • | • | • | | • | • | • |
| DIF readings | • | • | • | • | • | • | • |
| Backlit LCD | • | • | • | • | • | • | • |
| Audible Hi/Lo alarm | | | • | | • | • | • |
| Visible Hi/Lo alarm | | | • | | • | • | • |
| Includes contact probe | | | | • | • | • | • |
| Probe input (types) | | | | Thermocouple K | Thermocouple K | Thermocouple K | Thermocouple K |
| Data logging (number of measurements) | | | 99 points | | 20 points | 99 points | 99 points |

| | Visual Infrared Thermometer | Thermometer |
|---------------------------|---|--|
| | Fluke VT06 | Fluke VT08 |
| Infrared resolution | -30 to 500 °C | 500 °C |
| Image mode | Thermal image / Visible image / PIP | Thermal image |
| Thermal sensitivity/NETD | 601 | 60 mk |
| Field of view (H x V) | 50° x 37.5° | 37.5° |
| Spatial resolution | 7.6 mrad | rrad |
| Focus system | Focus free | free |
| Minimum focusing distance | 0.5 m (19.7 in) | 9.7 in) |
| Temperature range | -20 °C to 400 °C [-4 °F to 752 °F] (not specified for below -10 °C) | (not specified for below -10 °C) |
| Battery type | Rechargeable Li-ion battery, unremovable | oattery, unremovable |
| Battery operation time | ≥5 hrs (VTO8) ≥8 hrs (VTO6) Actual battery life depends on environment and settings | (VT08) (VT06) n environment and settings |
| Internal storage | 14 GB (>50000 images) | 000 images) |
| Laser sighting | Yes | 8 |
| Type-C interface | Yes | 59 |
| | | |



Plant/Facilities Maintenance • Preventive and Predictive Maintenance • Energy Eudits • Vehicle and Fleet Maintenance • Programs • Faulty Electrical/Circuit Connections Petrochemical/ Hazardous Locations Motors, Pumps and Bearings Heating/Ventilation/Air **Conditioning/Refrigeration** Leaky Ductwork • Thermostats • Temperature Balancing • Steam Distribution Systems Compressor Lines Safety and protection • Fire Localisation Hazardous Materials • Faulty Ballasts • Search and Rescue Smoldering Embers • Equipment Maintenance Safety and protection • Fire Localisation Hazardous Materials Faulty Ballasts • Search and Rescue Smoldering Embers Equipment Maintenance

Infrared Thermometers

FLUKE ®

Recommended Applications

Infrared Thermometers

Fluke VT06 and VT08 **Visual Infrared Thermometer**

Fluke VT08

Fluke VT06



Higher resolution, greatly improving temperature measurement efficiency

The 120 x 90 resolution model has more than 10000 infrared pixels, which is 12 times higher than the previous generation* and rich temperature details help you find problems faster.

Difficult to distinguish between false and real? Infrared and visible blending can help!

VT08 is equipped with both infrared and visible light cameras and blend a visual image with infrared heat map overlay in real-time to distinguish the object. In addition, you can quickly adjust the blend degree according to your habits, or switch to the Picture-in-Picture mode.

Experience of thermal imagers in the size of a spot thermometer

Portability is one of the advantages of VTO6 / O8 thermal imager. It is almost comparable to the point thermometer in terms of weight and size. Great abilities with a small size. you can get a leap in temperature measurement experience

Drop-proof, dust and water resistance, suitable for harsh industrial environments

Built with legendary Fluke ruggedness, VT06/08 features IP65 ingress protection and 2-meter drop test. It can provide stable and reliable test results even if it is exposed to the sun and rain, or it is dropped.

| Specifications | VT08 | VT06 |
|---------------------------|-------------------------------------|---|
| Thermal image and optics | | |
| Infrared resolution | 120 | ×90 |
| Image mode | Thermal image / Visible image / PIP | Thermal image |
| Thermal sensitivity/NETD | 60 | mk |
| Field of view (H x V) | 50° x | 37.5° |
| Spatial resolution | 7.6 1 | mrad |
| Focus system | Focus | s free |
| Minimum focusing distance | 0.5 m (| 19.7 in) |
| General features | | |
| Temperature range | | o 400 °C ecified for below -10 °C) |
| Battery type | Rechargeable Li-ion | battery, unremovable |
| Battery operation time | ≥8 hrs | (VTO8) (VTO6) on environment and settings |
| Internal storage | 28 GB (>100 | 0000 images) |
| Laser sighting | Ye | es |
| Type-C interface | Ye | es |

from point to area.

Applications



Standard accessories

Wrist strap for main unit Quick reference guide Charger + Adapter TYPE C data cable Data downloadi ng card

Fluke 60 Series Infrared Thermometers

Fluke 64 MAX



Fluke 62 MAX, 62 MAX+ and 64 MAX **IR Thermometers**

The Fluke 62 MAX, 62 MAX+ and new 64 MAX IR Thermometers have the precision you need to do your job accurately and will not break the budget. Designed and tested to survive a 3-meter drop, you can count on these lightweight, compact infrared thermometers to work when you need them to work-even in the harshest environments and when you're not able to be there. • Precise laser technology for more accurate and

- repeatable measurements
- Temperature accuracy of up to $\geq 0^{\circ}$ C: $\pm 1^{\circ}$ C or $\pm 1\% \geq$ of reading whichever is greater with 20:1 distance to spot ratio (64 MAX)
- Flashlight (64 MAX) and large, easy-to-read backlit LCD display for easy viewing even in dark environment
- IP54 rated for extra protection against airborne contaminants
- Get your tool to work when you can't-set time and desired interval between measurements and Auto Capture will capture spot temperatures unattended (64 MAX)
- 99 data point logging (64 MAX)
- Displays the minimum, maximum or average temperature, or the difference between two measurements
- · Hi and Lo alarms for rapid display of measurements outside set limits
- Dual rotating lasers to help you identify area to be measured (62 MAX+)
- Three-year warranty

| Specifications | 62 MAX | 62 MAX+ | |
|--------------------|---|---|---|
| Temperature range | -30° C to 500° C (-22° F to 932° F) | -30° C to 650° C (-22° F to 1,202° F) | |
| Accuracy | ±1.5° C or ±1.5% of reading, whichever is greater | ±1.0° C or ±1.0% of reading, whichever is greater | |
| | -10° C to 0° C: ±2.0 -30° C to -10° C: ±3.0 (14° F to 32° F: ±2.0 -22° F to 14° C: ±3.0) | -10° C to 0° C: ±2.0 -30° C to -10° C: ±3.0 (14° F to 32° F: ±2.0 -22° F to 14° C: ±3.0) | |
| Emissivity | | 0.10 to 1.00 | |
| Optical resolution | 10:1 (calculated at 90% energy) | 12:1 (calculated at 90% energy) | 2 |
| Compliance | | IEC 61010-1: 2001 | |
| Laser safety | F | DA and IEC 60825-1 Class | 2 |





• Small and lightweight, fits easily into your tool box

64 MAX - 30° C to 600° C (-22° F to 1,112° F)

±1.0° C or ±1.0% of

reading, whichever is

greater

-10° C to 0° C: ±2.0 -30° C to -10° C: ±3.0

(14° F to 32° F: ±2.0

-22° F to 14° C: ±3.0)

20:1 (calculated at 90%

energy)





TI-TRIPOD Tripod Mounting Accessory for 64 MAX

Recommended Kits Bundle & Save

Fluke 116/62 MAX+ **Technician's Combo Kit** Fluke T6-600/62 MAX+/1AC-II **Infrared Thermometer and Electrical Tester Kit** Fluke 417D/62MAX+ Laser **Distance Meter/Infrared Thermometer Combo Kit** Fluke 62MAX+/323/1AC Combo Kit

Infrared Thermometers

Included Accessories

Fluke 64 MAX, 62 MAX and 62 MAX+: Two AA Batteries and Instruction Sheet.

Ordering Information

FLUKE-64 MAX Single Laser IR Thermometer, 10:1 Spot

FLUKE-62 MAX+

FLUKE 62 MAX+/323/1AC Clamp Meter

Thermometer, 12:1 Spot IR Thermometer

Dual Laser IR

and Voltage Detector Kit

FLUKE-64 MAX IR Thermometer

FLUKE-T6-600/ T6-600 Tester, 62MAX+/1AC 62MAX+ and 1AC-II Combo Kit

1587KIT/62 MAX+

2-in-1 ADV Elec Kit with 62MAX+ i400 AC Current Clamp



Fluke 560 and 570 Series Infrared Thermometers



Specifications

Accuracy

Sighting

Infrared temperature range

Distance to Spot (D:S)

Typical distance to target

Contact temperature range

Material type adjustment

Number of on-board

memory locations PC download and software

(emissivity) High and low alarms

Fluke 561, 566 and 568 Infrared and **Contact Thermometers**

With a straight-forward user interface and soft-key menus, the Fluke 561, 566 and 568 make even complex measurements easy. With just a few pushes of a button you can easily adjust emissivity, start data logging, or turn on and off alarms. With a rugged, easy-to-use design, the Fluke 561, 566 and 568 can stand up to tough industrial, electrical, and mechanical environments.

- Confidently measure more surfaces, with adjustable emissivity and built-in materials table
- Log and download measurements for reporting (568)
- Audible and visual alarms
- MIN/MAX/DIF functions
- Includes KTC bead probe and compatible with any K-type thermocouple

566

-40° C to 650° C

(-40 to 1,202° F)

30.1

Laser point

20

Up to 4.5 m (14.76 ft) Up to 7.5 m (24.6 ft)

-270° C to 1372° C (-454° F to 2,501.6° F)

Material table or 0.1 to 1.00 by 0.01

High and low alarms

Greater of ±1% or ±1° C

568/568 Ex

-40° C to 800° C

(-40 to 1,472° F)

50.1

qq

FlukeView[™] Forms

• Two-year warranty

561

-40° C to 535° C

(-40 to 995° F)

12:1

Up to 2.5 m (8.2 ft)

-40° C to 550° C

(-40° F to 1,022° F)

_

Hi/Med/Lo

| Specialty Model |
|-----------------|
| Fluke 568Ex |
| Intrinsically |
| Safe Infrared |
| Thermometer |

- Measure -40° C to 800° C (-40° F to 1,472° F)
- 50:1 distance to spot ratio with dual laser sighting for fast, accurate targeting
- Display resolution 0.1° C of reading
- Adjustable emissivity and predefined emissivity table
- Safety Certification ATEX/IECEx for Class 1, Div 1, Div 2, Zone 1 and 2 hazardous environments

Recommended Accessories



C1600

Gear Tool Box

Fluke 572-2

Fluke 572-2 High Temperature **Infrared Thermometer**

The Fluke 572-2 Infrared Thermometer is the one product you can use in high temperature industrial environments all around the world. This is the best choice for when you need accurate results for high temperature readings from a long distance.

- Measure -30° C to 900° C (-22° F to 1,652° F)
- 60:1 distance to spot ratio with dual laser sighting for fast, accurate targeting
- Last reading Hold (20 seconds)
- High and low temperature alarm
- Data storage and review (99 data sets)
- Compatible with standard mini-connector K-type thermocouples, including ones you already own
- Current Temperature plus MAX, MIN, DIF, AVG displays
- Adjustable emissivity and predefined emissivity table
- FlukeView[™] Forms documenting software
- Two-year warranty

| Specifications | 572-2 |
|---|--|
| Infrared temperature range | -30° C to 900° C (-22° F to 1,652° F) |
| Infrared accuracy (calibration geometry with ambient temperature 23° C $\pm 2^\circ$ C) | ≥0° C: ±1° C or ±1% of the reading, whichever is greater ≥-10° C (14° F) to <0° C (32° F): ±2° C (3.6° F) <-10° C (14° F): ±3° C (5.4° F) |
| Distance:Spot | 60:1 |
| Laser sighting | Offset dual laser, output <1 mW |
| Hi/Low alarms | Audible and two-color visual |
| Min/Max/Avg/Dif | Yes |
| Data storage | 99 points |
| K-type thermocouple input temperature range | -270° C to 1372° C (-454° F to 2,501.6° F) |
| K-type thermocouple input accuracy (with ambient temperature 23° C \pm 2° C) | < -40° C: \pm (1° C + 0.2°/1° C) ≥ -40° C: \pm 1% or 1° C, whichever is greater |

Included Accessories

30PK-18

Pipe Clamp Probe Ki

560 Series: Thermocouple K-type Velcro Pipe Probe (561 only), K-type Thermocouple Bead Probe (566 & 568 only), FlukeView[™] Forms Software (568 only), USB Cable (568 only), Hard Carrying Case, Two AA Batteries and User Manual with Measurement Guide.

572-2: K-type Thermocouple Bead Probe, USB 2.0 Computer Interface Cable, FlukeView™ Forms Documenting Software, Hard Carrying Case, Getting Started Guide and User Manual (CD).

| Ordering In | formation |
|--------------------|--------------------------------|
| FLK-572-2 | IR Thermomete |
| FLUKE-561 | HVACPro Infrare Thermometer |
| FLUKE-566 | IR Thermometer |

| FLUKE-568 | IR Thermometer |
|--------------|--------------------------------------|
| FLUKE-568 Ex | Intrinsically Safe IR Thermometer |

Fluke 50 Series II Thermometers

Lab accuracy in a field thermometer



Fluke 53 II B

œ

The Fluke 50 Series II Contact Thermometers offer fast response and laboratory accuracy in a rugged handheld test tool.

- Laboratory accuracy: ±(0.05% + 0.3° C)
- · Large backlit dual display
- Min/Max/Avg
- Electronic offset function maximizes overall accuracy
- · Supports a wide range of thermocouple types
- Temperatures displayed in° C,°F, or Kelvin (K)
- Three-year warranty

Powerful data logging capabilities

The Fluke 53 II B and 54 II B can log up to 500 points of data to internal memory.

- User-adjustable
- recording intervals • Real-time clock captures the exact event time
- Recall function lets logged data be easily reviewed
- Download data to optional FlukeView[™] PC software

| Specifications | 51 II | 52 II | 53 II B | 54 II B |
|--|---------------|---------------|---------------|---------------|
| Thermocouple types | J,K,T,E | J,K,T,E | J,K,T,E,N,R,S | J,K,T,E,N,R,S |
| Number of inputs | Single | Dual | Single | Dual |
| Time stamp | Relative Time | Relative Time | Time of Day | Time of Day |
| Dual display with backlight | • | • | • | • |
| Min/Max/Avg recording | • | • | • | • |
| (T_1-T_2) True differential | - | • | - | • |
| Data logging up to 500 points | - | - | • | • |
| IR data port for interface to PC | - | - | • | • |
| Compatible with FlukeView [™] Software | - | - | • | • |
| Battery life | | 1000 hours | typical, AA | |
| Size (HxWxD) | | 173 mm × 86 | mm × 38 mm | |
| Weight | | 0.4 | kg | |

| Temperature range and accuracy | |
|-------------------------------------|--|
| J-type Thermocouples | -210° C to 1200° C (-346° F to 2,192° F) |
| K-type Thermocouples | -200° C to 1372° C (-328° F to 2,501.6° F) |
| T-type Thermocouples | -250° C to 400° C (-418° F to 752° F) |
| E-type Thermocouples | -150° C to 1000° C (-238° F to 1,832° F) |
| N-type** Thermocouples | -200° C to 1300° C (-328° F to 2,372° F) |
| R** and S-type** Thermocouples | 0° C to 1767° C (32° F to 3,212.6° F) |
| Temperature accuracy above -100° C: | |
| J, K, T, E, and N-type** | ±[0.05% + 0.3° C] |
| R** and S-type** | ±[0.05% + 0.4° C] |
| Temperature accuracy below -100° C: | |
| J, K, E, and N-types | ±[0.20% + 0.3° C] |
| T-type | ±[0.50% + 0.3° C] |
| | |





Fluke 52 II









Fluke 80PK-10 Pipe Clamp Temperature Prob

Included Accessories

Fluke 50 Series Thermometers: Impact Absorbing Holster, Two Bead Probe Thermocouples 80PK-1 (54 and 52 only), One Bead Probe Thermocouple, 80PK-1 (51 and 53 only).

Ordering Information

| FLUKE 51 II | Single Input Digital Thermometer |
|---------------|--|
| FLUKE 52 II | Dual Input Digital Thermometer |
| FLUKE 53 II B | Single Input Digital Thermometer with Data Logging |
| FLUKE 54 II B | Dual Input Digital Thermometer with Data Logging |



Industrial Imaging

Through the latest advancements in ter Fluke thermal imaging, video borescop imaging tools help expedite inspection crucial maintenance decisions easier. nd ac id mak

- Fluke Thermal Imagers offer the highest resolution necessary to identify areas of concern for non-invasive preventive maintenance inspection.
- Fluke Video Borescopes offer industrial tough solution for inspecting machinery with difficult to reach spaces.

ogy

Acoustic Imagers provide leading edge technolog taking ultrasonic leak detection to a new level of efficiency and accuracy.

Infrared Camera Selection Guide

| 80 | | | | | | | of view | ime | nages and | | | | | | |
|-----------------------|-------------------------------------|-------------------|---|---|------------------------------------|------------------------|---|--|---|-----------------------|---|--|---|---|----------------------|
| TiX580 | | Yes, in software. | -20 °C to +1,000 °C (-4 °F to 1,832 °F) | 35:1 | | | Yes, focused throughout the field of view | : Every. Single. T | ecisely focused ir screen | | | f | | r battery pack | |
| Ti480 PRO | 640 × 480 (307,200 pixels) | Yes, | -20 % | 0.93 mrad, D:S 1065:1 | $34^{\circ} H \times 24^{\circ} V$ | 15 cm (5.9 in) | Yes, focused three | Yes, for consistently in-focus images. Every. Single. Time | ce to the target for precisely displays distance on screen | Yes | ble) | saving and sharinç | | 2-3 hours continuous use per battery pack | |
| Ti401 PRO | | | -20 °C to +650 °C (-4 °F to +1,202 °F) | 0 | | | | Yes, for consistent | Yes, calculates distance to the target for precisely focused images and displays distance on screen | | Yes, to PC, iPhone TM and iPad TM (iOS 4s and later), Android TM 4.3 and up, and WiFi to LAN (where available) | Yes*, connect your camera to your smartphone, and images taken automatically upload to the Fluke Connect™ app for saving and sharing | AutoBlend continuous 0% to 100%. Adds the context of the visible details to your infrared image | 2-3 hours | |
| TiS75+ | 384 × 288 (110,592 pixels) | | -20° C to 550° C (-4 °F to +1,022 °F) | 1.91 mrad | 42° H × 30° V | 50 cm (19.68 in) | | Manual Focus | | Manual Focus | lroid™ 4.3 and up, and V | omatically upload to the | atext of the visible detai | 3.5 hours continuous (without Wifi) | (standard) |
| TiS60+ | 320 × 240 (76,800 pixels) | | -20° C to 400° C (-4 °F to +752 °F) | 1.86 mrad, D:S 532:1 | 34.1° H × 25.6° V | 46 cm (18.11 in) | | Fixed Focus | - | Fixed Focus | M (iOS 4s and later), And | e, and images taken au | % to 100%. Adds the co | 4 hours continuous use per battery pack | Two years (standard) |
| TiS55+ | 256 × 192 (49,152 pixels) | | -20° C to 550° C (-4 °F to +1,022 °F) | 1.91 mrad | 28° H × 20° V | 50 cm (19.68 in) | | Manual Focus | ı | Manual Focus | o PC, iPhone [™] and iPad ¹ | imera to your smartphon | AutoBlend continuous O ^c | 3.5 hours continuous (without Wifi) | - |
| TiS20+/ TiS20+ MAX | 120 × 90 (10,800 pixels) | | -20° C to 400° C (150° C for TiS20+) (-4° F to 752° F (302° F for TiS20+)) | 7.6 mrad, D:S 130:1 | 50° H × 38° V | 50 cm (19.68 in) | | Fixed Focus | | Fixed Focus | Yes, 1 | Yes*, connect your ca | | 5 hours continuous (without WiFi) | |
| PTi120 400C | 120 (10,800 | | -20° C to 400° C ((-4° F to 752° F (3 | 7.6 mrad, | 50° H | 50 cm (| | Fixed | | Fixed | | | | 2 hours continuous (without WiFi) | |
| | Key Features Infrared Resolution | SuperResolution | Temperature Range | IFOV with Standard Lens (spatial resolution) | Field of View | Minimum Focus Distance | MultiSharp Focus | LaserSharp Auto Focus | Laser Distance Meter | Advanced Manual Focus | Wireless Connectivity | Fluke Connect [™] App Compatible | IR-Fusion Technology | Battery Life | Warranty |





Fluke Thermal Imaging Software



Fluke PTi120 400C Pocket Infrared Camera



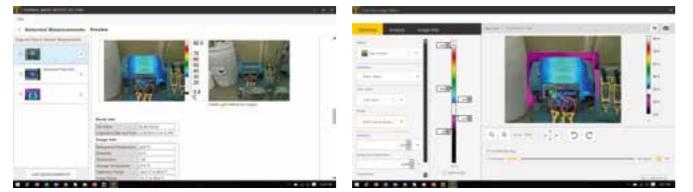
Fluke Connect[™] Desktop for Thermal Imaging

Get the most out of your thermography program. Create professional inspection reports in minutes while efficiently capturing full radiometric data to support preventive and predictive maintenance programs with the new Fluke Connect[™] Desktop software.

- Easily edit and optimize images to visualize equipment status
- Combine infrared and visible images for simpler analysis using picture-in-picture mode and image blending
- Create detailed reports in minutes and save customized report templates
- · Connect a camera to your computer wirelessly with the built in Fluke Camera WiFi
- Never lose your data automatically save all your thermal images and reports in the Fluke Connect[™] cloud storage, accessible anytime on PC or Mobile App
- Organize images and easily search by asset, severity, and image title
- · Enhance inspection credibility by incorporating live readings of energized circuits and operational equipment from Fluke Connect™ enabled test tool into your infrared image • Share images immediately with team members with the Fluke Connect[™] Mobile App

Fluke Connect[™] Desktop has all the same features as SmartView and more, with intuitive navigation interface and the advantage of Fluke Connect[™] cloud storage.

Download Fluke Connect[™] Desktop FREE from the Fluke website and the Fluke Connect[™] Mobile app from the mobile IOS or Android app store.



Get more out of your thermal inspections with Fluke Connect™ Wireless Modules

You can connect up to 5 Fluke Connect[™] Wireless modules with a Fluke Infrared Camera, whileincorporating live readings on the infrared image. The table below highlights a list of Fluke Connect™ enabled tools that are compatible with Fluke Infrared Cameras.

Fluke Connect[™] Compatibility Guide

| Fluke Connect™ Tools | Fluke Connect™ App | 3000 FC | 902 FC | 376/375 /374 FC | a3000 FC a3001 FC | a3002 FC | a3003 FC a3004 FC | v3000 FC | v3001 FC | t3000 FC |
|--|--------------------------|---------|--------|--------------------|----------------------|----------|----------------------|----------|----------|----------|
| Fluke Connect™ App – iOS and Android™ | • | • | • | • | • | • | • | • | • | • |
| TiX580 Infrared Camera | • | • | • | • | • | • | • | • | • | • |
| Ti480PRO Infrared Camera | • | • | • | • | • | • | • | • | • | • |
| PTi120/TiSxx Series Infrared Cameras | • | • | • | • | • | • | • | • | • | • |



Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



Connect[™] App! Download the free Fluke Connect[™] Desktop from the Fluke website and the Fluke Connect[™] Mobile app from the mobile IOS or Android app store.

Get the FREE Fluke









Infrared troubleshooting power you need, right in your pocket

A fully radiometric thermal imager with a 3.5" LCD touchscreen that offers IR-Fusion[™] to blend a visible light image with an infrared image to easily locate problems. The PTi120 has built in WiFi that allows you to connect your camera to the Fluke Connect[™] App and share images remotely with your team. Compact and easy to use, the Fluke PTi120 should be your first line of defense with maintenance work.



measurement range

- intuitive interface for easy troubleshooting
- 1 m (3.28 ft) drop tested
- IP54 enclosure rating · Touchscreen IR-Fusion blends a visible light image with an infrared image, simply slide your finger across the screen to adjust
- Two-year warranty

| Key features | PTi120 |
|---|--|
| IFOV (Spatial Resolution) | 7.6 mrad |
| Infrared Resolution | 120 × 90 |
| Field of View | 50° H × 38° V |
| Frame Rate | 9 Hz |
| Distance to Spot | 130:1 |
| Temperature Measurement Range (not calibrated below -10° C) | -20° C to 400° C (-4° F to 75 |
| Thermal Sensitivity | 60 mK |
| Focus system | Fixed focus, minimum focus distance |
| Center-point temperature | Yes |
| Spot temperature | Hot and cold spot mar |
| Battery | ≥2 hours (without WiFi), can be cha |
| Fluke Connect™ Instant Upload | Yes, connect your camera to your building's taken automatically upload to the Fluke C storage and viewing on y |
| | |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



fluke.com/sea.pti120

56 **Industrial Imaging**





• 120 × 90 infrared resolution (10,800 pixels) • -20° C to 400° C (-4° F to 752° F) temperature

• 8.89 cm (3.5 in) LCD touchscreen display with









Get the FREE Fluke Connect[™] App!

By using the Fluke Connect[™] App, you can efficiently and safely capture, store and share maintenance data without leaving the field. You can securely connect and collaborate with others, so they can see what you see.



Included Accessories Soft Case, Lanyard and USB cable.

Ordering Information

FLK-PTI120 Fluke Pocket 9HZ 400C

Infrared Camera

Contact your local distributor for price and availability. fluke.com/findus



52° F) NEW

e 22.8 cm (8.97 in)

rkers

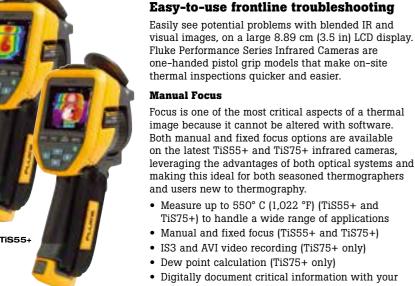
arged via USB cable WiFi network, and images Connect[™] mobile App for

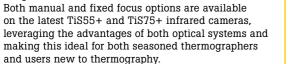
vour PC.

Fluke Performance Series Infrared Cameras TiS20+, TiS20+ MAX, TiS55+, TiS60+ and TiS75+



ŝ





- Measure up to 550° C (1,022 °F) (TiS55+ and TiS75+) to handle a wide range of applications
- Manual and fixed focus (TiS55+ and TiS75+)
- IS3 and AVI video recording (TiS75+ only)
- Dew point calculation (TiS75+ only)
- Digitally document critical information with your infrared image using IR-PhotoNotes[™] or voice annotation with TiS55+, TiS60+ and TiS75+
- Make decisions in real time-wirelessly sync images from your camera, create and email reports all with your smart phone and the Fluke Connect[™] App
- Monitor battery charge and avoid unexpected loss of power with the smart battery with LED charge indicator
- Two-year warranty

| Key features | TiS20+ | TiS20+ MAX | TiS55+ | TiS60+ | TiS75+ |
|---|---|--|--|---|--|
| Infrared Resolution | 120 × 90 (10,800 pixels) | 120 × 90 (10,800 pixels) | 256 × 192 (49,152 pixels) | 320 × 240 (76,800 pixels) | 384 × 288 (110,592 pixels) |
| IFOV (Spatial Resolution) | 7.6 mrad | 7.6 mrad | 1.91 mrad | 1.86 mrad | 1.91 mrad |
| Field of View | 50° H × 38° V | 50° H × 38° V | 28° H × 20° V | 34.1° H × 25.6° V | 42° H × 30° V |
| Thermal Sensitivity (NETD)** | 60 mK | 60 mK | 40 mK | 45 mK | 40 mK |
| Temperature Measurement Range | -20° C to 150° C (-4°F to 302° F) | -20° C to 400° C (-4°F to 752° F) | -20° C to 550° C (-4°F to 1,022° F) | -20° C to 400° C (-4°F to 752° F) | -20° C to 550° C (-4°F to 1,022° F) |
| Focus Systems | Fixed focus | Fixed focus | Manual focus and 1 meter focus marker | Fixed focus | Manual focus and 1 meter focus marker |
| IR-Fusion AutoBlend Continuous 0% to 100%. | Yes | Yes | Yes, incl | uding Picture in Pic | ture (PIP) |
| Display | 8.89 cm (3.5 in) (landscape) 320 × 240 LCD touch screen | 8.89 cm (3.5 in) (landscape) 320 × 240 LCD touch screen | 8.89 cm (3.5 in) (landscape) 640 × 480 LCD touch screen | 8.89 cm (3.5 in) (landscape) 320 × 240 LCD | 8.89 cm (3.5 in) (landscape) 640 × 480 LCD touchscreen |
| Colour Alarms | - | - | Yes ¹ | Yes ¹ | Yes ¹ |
| IR PhotoNotes and Voice Annotations | - | - | Yes ¹ | Yes ¹ | Yes ¹ |
| Software | Fluke Connect™ Desktop Software - full analysis and reporting software with access to the Fluke Connect™ system | | | | |

¹Refer to product datasheet for more details.

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



Î



Combine with a Fluke $\operatorname{ClirVu^{\operatorname{{\scriptscriptstyle TM}}}}$ Infrared Window to conduct thermal inspections without having to open the electrical panel.

Included Accessories

Infrared camera: AC Power Supply, USB Cable and Soft Transport Bag.

Fluke TiS55+ also includes 4GB Micro-SD-Card, One lithium-ion Smart Battery, Hard Carrying Case and adjustable Hand Strap.

Fluke TiS60+ & TiS75+ also includes 4GB Micro-SD-Card, Twobay Smart Battery Charger, Two Lithium-ion Smart Batteries, Hard Carrying Case and adjustable Hand Strap

Ordering Information

FLK-TIS20+ 9Hz Infrared Camera FLK-TIS20+ MAX 9Hz Infrared Camera FLK-TIS55+ 9Hz Infrared Camera FLK-TIS55+ 27Hz Infrared Camera FLK-TIS60+ 9Hz Infrared Camera FLK-TIS60+ 30Hz Infrared Camera FLK-TIS75+ 9Hz Infrared Camera FLK-TIS75+ 27Hz Infrared Camera

Contact your local distributor for price and availability. fluke.com/findus

Fluke Professional Series Infrared Cameras Ti401 PRO and Ti480 PRO



Get clear, accurate focus on objects near and Recommended Accessories far with MultiSharp™ focus1, or focus with laser speed and accuracy on your designated target with LaserSharp® Auto Focus. Easily navigate the menu and view images on a 3.5 inch, 640 x 480 touchscreen. Get more from your camera with an optional 2x or 4x telephoto or wide angle smart lens - no calibration required. New models to the Professional Series family are the Ti480 PRO and Ti4O1 PRO Infrared Cameras, capturing smaller temperature differences with increased thermal sensitivity on an intuitive touch screen.

- Get 4x the pixel data with SuperResolution, which captures multiple images and combines them to create a 1280 x 960 image (Ti480 PRO)
- Save time. Wirelessly sync images directly from your camera to the Fluke Connect™ system, and attach to an asset record or work order
 - helpful features: - IR-PhotoNotes[™] annotation system captures
- conditions or actual location - Any additional details can also be saved to the file with voice annotation
- Field of view: (34° H × 24° V) · View all your assets with increased accuracy using one of the four optional lenses (macro, wide-angle, 2x telephoto and 4x telephoto)
- Two-year warranty

| Key Features | Ti401 PRO | |
|---|--|--------------------------------|
| Infrared Resolution | 640 × 480 (3 | 07,200 pixels) |
| SuperResolution | No | Yes, in softwar 4x the data |
| IFOV with Standard Lens (Spatial Resolution) | 0.93 mrad, | D:S 1065:1 |
| Field of View | 34° H > | < 24° V |
| Thermal Sensitivity (NETD)** | \leq 0.075 °C at 30 °C target temp (75 mK) | ≤ 0.05° C at |
| Temperature Measurement Range | -20 °C to +650 °C | -20° C to 10 |
| LaserSharp [™] Auto Focus and Manual Focus | Yes with MultiSha | arp™ Focus optic |
| Laser Distance Meter | Yes, calculates distance to the target for distance | r precisely focus on screen |
| Optional Lenses | Wide angle, 2x and 4x te | lephoto, 25 mic |
| IR-Fusion Technology | Yes, adds the context of the visib | ole details to you |
| Display | 8.89 cm (3.5 in) (landscape), | 640 × 480 LCI |
| Frame Rate | 60 Hz or 9 | Hz versions |
| Voice Annotation | 60 seconds maximum recording time per optional Bluetooth headset | |
| Text Annotation | Yes. Including standard shortcuts as | well as user pr |
| Video Recording | No | Standa |
| Remote Control Operation | Remote display through Fluke Connect | Remote displ |
| Alarms | High temperature, low temperatu | |
| Wireless Connectivity | Fluke Connect [™] App compatible. Wireles (iOS 4s and later), Android [™] | s connectivity t |
| Software | Full analysis and reporting software with | th access to the |
| | | |

Reduce the need to take notes in the field with two

digital images of the surrounding area to reference

Ti480 PRO

are. Captures and combines to create a 1280 × 960 image

: 30° C (86° F) target temp (50 mK)

000° C (-4° F to 1,832° F)

ion

sed images and displays

cron macro

our infrared image

D Touch Screen

able playback on camera, not required

rogrammable options

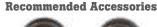
ard and radiometric

play and control operation through

luke Connect™

rms (within range) to PC, iPhone™ and iPad™ nd WiFi to LAN

e Fluke Connect™ system





Telephoto infrared lens (2x magnification







TI-TRIPOD3



TI-SBP3

utional Smart Battery



FLK-TI-

BLUETOOTH

FLK-TI-SBC3B Additional Smart Battery Charger



Included Accessories

AC Power Supply and Battery Pack Charger, Two Rugged Lithium-Ion Smart Battery Packs, USB Cable, HDMI Video Cable, 4GB Micro SD Card, Adjustable Hand Strap.

Ordering Information

| FLK-TI401 PRO | Infrared |
|---------------|--------------------|
| 9Hz | Camera |
| FLK-TI401 PRO | Infrared |
| 60Hz | Camera |
| FLK-TI480 PRO | Infrared |
| 9Hz | Camera |
| FLK-TI480 PRO | Infrared Camera |

Contact your local distributor for price and availability. fluke.com/findus



Industrial Imaging

FLUKE

Mounted Infrared Cameras **RSE30 and RSE60**



Fluke RSE60

The wide temperature range & high IR resolution makes the Fluke RSE30 & RSE60 thermal imaging cameras suitable for a variety of applications including critical asset monitoring, hotspot detection, research & development, process monitoring and quality control, amongst others. Our standard, wide angle and telephoto lens options capture exceptionally detailed images required for such challenging applications.

The SmartView IR software gives customers the tools they need to watch, plot, analyze and report temperature data. The SDK enables app developers to produce intricate, feature-rich apps that live up to the demands and expectations of their users.

- Wide Temperature range: -20 to 650° C and -20 to 2000° C options covers a wide variety of applications.
- 384×288 & 640×480 infrared resolution offers high-definition images crucial for hotspot detection.
- Autofocus feature allows capturing sharp images.
- Video streaming at a 30Hz frame rate for smooth visual experience.
- SmartView IR software to stream radiometric videos, capture fully-radiometric videos or images, analyze images, plot data trends, export data, customize reports.
- User-definable measurement points, lines, and areas to meet the challenging needs of multi-point testing.
- Access the full potential of our RSE 30/60 series infrared cameras with Open API SDK.

| Key Features | RSE30 | RSE60 | RSE30H | RSE60H | | |
|--------------------------------|---|--|--|--|--|--|
| IR Resolution | 384 × 288 | 640 × 480 | 384 × 288 | 640 × 480 | | |
| Thermal Sensitivity (NETD) | <50 mk | <30 mk | <50 mk | <30 mk | | |
| Spectral Response | 7.5 μm to 14 μm | | | | | |
| Focus | Auto | | | | | |
| Temperature Range | -20 °C to 650 °C | -20 °C to 650 °C | -20 °C to 2000 °C | -20 °C to 2000 °C | | |
| Temperature Accuracy | ± 2 °C or ± 2 % of reading, whichever is greater | | | | | |
| Fully-Radiometric Streaming | Yes. 30Hz | Yes. 25Hz | Yes. 30Hz | Yes. 25Hz | | |
| Video | Frequency: 30 Hz Bandwidth: 1.8 Mb Sub stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 100 Kb | Frequency: 30 Hz Bandwidth: 2.5 Mb Sub stream Pixel: 320 x 240 Frequency: 30 Hz Bandwidth: 100 Kb | Frequency: 30 Hz Bandwidth: 2.5 Mb Sub stream Pixel: 320 x 240 Frequency: 30 Hz Bandwidth: 100 Kb | Frequency: 30 Hz Bandwidth: 2.5 Mb Sub stream Pixel: 320 x 240 Frequency: 30 Hz Bandwidth: 100 Kb | | |
| Alarm Input/Output | 1 relay output: load capacity: 24 V, 1.5 A 1 optocoupled output: output capacity: 3.3 to 24 V, 35mA maximum output current 1 channel optocoupled input: input capability: 3.3 to 24 V, 5mA-to-15mA input current | | | | | |
| Access standard | | ONVIF | | | | |
| Network Protocols | | IPv4, UDP, TCP, I | RTSP, RTCP, RTP | | | |
| Concurrent Access | 10 channels for mainstream and substream, 1 channel for fully-radiometric | | | | | |

Recommended Accessories RSE30-2X TELE LEN RSE30-2X WIDE LEN RSE30H-2X TELE LEN RSE30H-2X WIDE LEN RSE60-2X TELE LEN RSE60-2X WIDE LEN RSE60H-2X TELE LEN RSE60H-2X WIDE LEN

Included Accessories

Thermal Camera (standard lens), Lens cap (removable), Power adapter, Power connector, Ethernet cable 3 m, Allen wrench, Tripod adapter block, Mounting screw M2X5, Documents including each of Safety Sheet and Ouick Reference Guide, Ouality Certificate and Warranty Card

| Ordering Info | mation |
|---------------|----------|
| FLUKE-RSE30/ | Infrared |
| APAC | Camera |
| FLUKE-RSE60/ | Infrared |
| APAC | Camera |
| FLUKE- | Infrared |
| RSE30H/APAC | Camera |
| FLUKE- | Infrared |
| RSE60H/APAC | Camera |

Contact your local distributor for price and availability. fluke.com/findus

Fluke TiX580 Infrared Camera



Fluke TiX580



1,832° F) • Premium in-field viewing experience with a 5.7 inch responsive touchscreen LCD

- 2x and 4x telephoto, wide angle, and 25 micron macro-no calibration required, interchangeable between compatible cameras
- to the largest selection of wireless test and measurement tools with the Fluke Connect[™] App • Two-year warranty

LaserSharp[™] Auto Focus

a

Get an in-focus image like never before with just a touch of a button. LaserSharp^ $\ensuremath{^{\text{TM}}}$ Auto Focus, exclusive to Fluke, uses its built-in laser distance meter to calculate the distance to your designated target with pinpoint accuracy. On target and in-focus. Every. Single. Time

Brilliant Image Quality

Enhanced image quality and temperature measurement accuracy can turn your 640 × 480 images (307,200 pixels) into 1280 × 960 images (1,228,800 pixels). That's 4× the resolution and pixels with SuperResolution.

| Key Features | TiX580 |
|---------------------------|---|
| Infrared Resolution | 640 × 480 (307,200 pixe SuperResolution mode: 1280 × 960 (1,228,800 pixels) (|
| IFOV (Spatial Resolution) | 0.93 mrad |
| Field of View | 34° H × 24° V |
| Distance to Spot | 753:1 |
| Thermal Sensitivity | ≤ 0.05° C at 30° C (86° F) target ter |
| Temperature Range | -20° C to 1000° C (-4° F to 1,8 |
| Optional lenses | Pre-calibrated smart optional lenses: wide |
| Wireless Connectivity | Fluke Connect [™] app compatible. Wireless connect iPad [™] (iOS 4s and later), Android [™] 4.3 and u |
| IR-Fusion™ | AutoBlend [™] mode, continuous b |
| Picture-In-Picture (PIP) | Yes |
| Software | Fluke Connect™ (web, mobile and |
| Video recording | Standard and radiometri |
| Alarms | High temperature, low temperature, and isoth |
| | |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



Industrial Imaging



Tablet-sized screen, more details,

You need maximum flexibility with an ergonomic design that allows you to easily navigate over, under and around hard-to-reach objects. With a lens that rotates a full 240 degrees and a tabletsized 5.7 inch touchscreen LCD, you can aim and focus from a comfortable angle and easily capture targets that were once impossible to see.

• Resolution: 640 × 480 (307,200 pixels) • Temperature range: -20° C to 1000° C (-4° F to

• See the details you need with smart lenses-

· See, save and share from the field and connect

(TiX580)

emp (50 mK) ,832° F) angle, 2x telephoto ctivity to PC, iPhone™ and up, and WiFi to LAN blending

d desktop) therms (within range)





FLK-LENS/TELE2 noto infrared lens (2x magnification)



ns (4x magnification)





FLK-TIX5XX-NECK

FLK-LENS/WIDE2

Wide-and infrared lens



FLK-LENS/4XTELE2 FLK-LENS/25MAC2 rared 25 Mic Macro Lens



TI-CAR-CHARGER FLK-TI-BLUETOOTH



CV400 ClirVu[™] Infrared Window



Included Accessories

AC Power Supply and Battery Pack Charger, Two Lithiumion Smart Battery Packs, USB Cable, HDMI Video Cable, Hard Carrying Case, Adjustable Neck and Hand Strap, Bluetooth Headset (where available), Warranty Registration Card and Calibration Certificate. Flash Drive includes Product Manuals and SmartView[™] Software.

Ordering Information

| FLK-TiX580 9Hz | Infra Came |
|-----------------|---------------|
| FLK-TiX580 60Hz | Infra Came |

red era red



Fluke CV Series ClirVu™ Infrared Windows





Fluke CV200

Ð

Fluke CV300

Compliance without compromise. Safety without sacrifice.

Increase the safety and speed of electrical thermal imaging inspections with Fluke ClirVu[™] IR Windows. Reduce the risk of arc-flash and electrocution, increase the safety of your personnel and reduce the time and cost of preventive maintenance.

- Save time with a quick and easy five-minute or less installation
- One technician
- One hole with standard Greenlee[™] punch - Panel door does not need to be removed
- Grounds instantly to metal enclosure with
- patent-pending AutoGround[™] process
- Maintains panel arc test ratings up to 63 kA when properly installed
- Torture Tested[™] to the highest arc blast test ratings
- IEEE C37.20.7: 63 kA Arc tested at KEMA, UL 50/50E/50V, UL 1558, IEC 60529-1: IP67, IEC 60068, NEMA 4/12, CSA C22.2 N0.14-13:2012, and CE
- Convenience of both quick turn (CV400, CV300, CV200) or security keyed access (CV401, CV301, CV201)
- Available in three sizes 50 mm (1.96 in), 75 mm (2.95 in) and 95 mm (3.74 in)
- Work permit requirements and NFPA 70E processes are significantly reduced
- Full PPE is often not required so inspections are done faster and more conveniently
- Lifetime replacement warranty against manufacturing defects

| Conception and the second | 0114.0.0 | 0114.0.1 | <i></i> | 011201 | 011 | |
|--|---|------------------------------|--------------------------|-----------------|-----------------|-----------------|
| Specifications | CV400 | CV401 | CV300 | CV301 | | 200 |
| Size | 95 mm (3.74 in) | | · · | 2.95 in) | 50 mm (1.96 in) | |
| Voltage Range | | Āny | | | | |
| NEMA Environment Type | | Type 4/12 (indoor/outdoor) | | | | |
| AutoGround™ | | | Ye | es | | |
| ClirVu™ Optic | | Yes | | | | |
| Operating temperature | -40° C to | 232º C and 2 | 60° C (-40° F | to 449.6° F a | nd 500° F) Ir | ntermittent |
| Body material | | EZAC & ZA-2 | 27 High Stren | gth Zinc/ Alu | minum Alloy | |
| Ratings and testing | | | | | | |
| Arc-Tested (IEEE C37.20.7) | | 6 | 63 kA for 30 c | ycles @ 60 H | z | |
| UL 50V component recognition | | | Ye | s | | |
| UL 50, UL 50E/NEMA Environmental Rating | | NEMA Type 4/12 | | | | |
| UL 1558 | Yes | | | | | |
| CSA C22.2 No. 14, No. 94 | Yes | | | | | |
| CSA Type Rating | Туре 4, 12 | | | | | |
| Ingress Protection (IEC 60529) | IP67 | | | | | |
| Lloyds Register | IEC 62271-100, 200: Up to 11 kV marine switchgear, indoor or outdoor (offshore only), IP65 | | | or outdoor | | |
| Vibration rating | | IEC 60068-2 | 2-6: 10-2000 | Hz, 5 g peak | x, 2.5 hr/axis | |
| Humidity rating | | IEC 60 | 068-2-3: 40 | C, 93% RH, 5 | 504 hr. | |
| Install | | | | | | |
| Actual mounting hole diameter required | 115.42 mi | 115.42 mm (4.54 in) 89.89 mm | | n (3.53 in) | 61.37 mn | n (2.41 in) |
| Greenlee Punch Kit = Punch/Die | 742BB = 2984AV/2983AV | | 739BB = 1431AV/1432AV | | 102 | BB = /442AV |
| Door Latch | Hand Turn | Security Key | Hand Turn | Security Key | Hand Turn | Security Key |

95 mm (3.74 in) 75 mm (2.95 in) 50 mm (1.96 in)

Quick & Easy Installation in 5 minutes or less







| Included Accessor | ing |
|-------------------|-----|

Hand Turn Door Latch (CV200, 300 & 400), Security Key Door Latch (301, 401) and Warranty Statement.

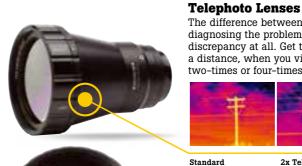
Fluke IR Windows are supplied complete, assembled and ready for installation.

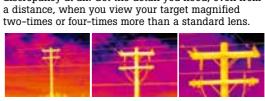
Ordering Information

| Jucing | mormation |
|-----------------|---|
| TLUKE- CV200 | 50 mm, Infrared Window, Hand Turn Door Latch |
| TLUKE- CV300 | 75 mm, Infrared Window, Hand Turn Door Latch |
| FLUKE- CV301 | 75 mm, Infrared Window, Security Key Door Latch |
| TLUKE- CV400 | 95 mm, Infrared Window, Hand Turn Door Latch |
| CV401 | 95 mm, Infrared Window, Security Key Door Latch |

Contact your local distributor for price and availability. fluke.com/findus

Fluke Lenses Telephoto, Wide Angle and Macro





Standard 2x Telephoto

Wide Angle Lenses

When working in a tight space, see a larger target from a close distance. Ideal for roof and building inspection or for looking through IR Windows.



Standard Lens

Macro Lenses

Get an incredibly detailed image of very small objects—as small as 25 microns, smaller than the average human hair.



Standard

| Model number | Ti401Pro | Ti480PRO | TiX580 |
|--|----------|----------|---------------|
| TI-LENS/TELE2 2x Telephoto infrared smart lens† | • | • | • |
| II-LENS/WIDE2 Wide Angle Infrared Smart Lens† | • | • | • |
| FLK-Lens/4xTele2 4x Telephoto infrared smart lens† | • | • | • |
| FLK-Lens/25Mac2 25 Micron macro infrared smart lens† | • | • | • |

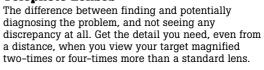
†The lenses for TiX580, Ti480PRO are smart lenses. They come pre-calibrated and don't require calibration to a specific camera, so they are interchangeable between compatible cameras.



Optics

Optic insert diameter





4x Telephoto



Wide Lens see both sides of the building at the same time from the same distance



25 Micron Macro Lens - see detail in very small objects



Industrial Imaging

Ordering Information

TELE2 FLK-LENS/

4XTELE2

FLK-LENS/ 2x Telephoto Infrared Smart Lens

> 4x Telephoto Infrared Smart Lens

FLK-LENS/ WIDE2

Wide Angle Infrared Smart Lens

FLK-LENS/ 25MAC2

25 Micron Macro Infrared Smart Lens



Fluke DS703 FC **Diagnostic Video Borescope**



Fluke DS703 FC

6

Gritty, industrial, expensive equipment? Diagnose before teardown with the durability of Fluke Industrial inspections require a powerful diagnostic borescope designed to stand up to the dirtiest, most harsh environments. Fluke Diagnostic Scopes put high-resolution images in the palm of your hand.

- High definition probe with dual-view camera High Resolution
- DS703 FC- 1280 × 720 (921,600 pixels) · Processing speeds that render a smooth, clear, consistent image
- 17.78 cm (7 in)' LCD screen for easy viewing
- Improved battery charging and management
- Macro to micro zoom function
- Adjustable lighting to capture the best image
- Up is Up™ technology for an appropriate orientation, regardless of the probe location
- True 720p video
- Two-year warranty

Fluke DS703 FC High Resolution Diagnostic Scope with Fluke Connect™

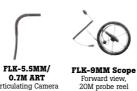
Rugged, high-definition industrial 1280 × 720 resolution Diagnostic Scope with Wi-Fi capability. 22.86 cm (7 in) capacitive touch screen for accurate diagnostics in difficult to reach spaces. 720p video recording inspection camera. Up is Up™ technology rotates the display screen to allow for consistent image display, regardless of the orientation of the probe.

| | DS703 FC | | | | | |
|-----------------------------|---|--|--|--|--|--|
| | | | | | | |
| LCD screen | Timel Conseiting touch among | | | | | |
| Туре | 7 inch Capacitive touch screen | | | | | |
| Refresh rate | 30 hz | | | | | |
| LED backlight | Adjust display brightness for optimal viewing | | | | | |
| Communication | | | | | | |
| Wireless interface | WiFi 802.11b/g/n, Range: 10.06 m (33 ft) | | | | | |
| Data transfer | USB and micro HDMI cable | | | | | |
| FlukeConnect™ | Save and share images via FlukeConnect™ | | | | | |
| Instant upload to the cloud | Yes, with FlukeConnect™ | | | | | |
| General features | | | | | | |
| Color palettes | Visible light, grayscale or inverted | | | | | |
| Internal memory | 6 GB | | | | | |
| Physical buttons | Intuitive, easy to navigate button technology, 4 functional keys, 4 navigational, one capture or select button | | | | | |
| Carrying case | Protective EVA case | | | | | |
| Strap | Hand Strap and Neck Strap included | | | | | |
| Power adapter | AC adapter/battery charger input | | | | | |
| Battery | 6400mAh 3.7 volt rechargeable internal li-ion battery | | | | | |
| Battery life | 3 hours at 50 % LED brightness | | | | | |
| Dimensions | 17.73 x 22.48 cm (6.98 x 8.85 in) | | | | | |
| Weight | 0.88 Kg (1.95 lbs) | | | | | |
| General specifications and | safety | | | | | |
| Tablet | IP54, dust protected and protected against water projected from a nozzle | | | | | |
| Drop test | 2 meter (6.56 feet) | | | | | |
| Operating temperature | 0 °C to 45 °C (32 °F to 113 °F), 50 °C (122 °F) for less than 10 minutes | | | | | |
| Storage temperature | -40 °C to 60 °C (-40 °F to 140 °F) | | | | | |
| Operating humidity | 90 % at 35 °C (95 °F), 75 % at 40 °C (104 °F), 45 % at 50 °C (122 °F) | | | | | |
| Warranty | 2 years | | | | | |
| - | | | | | | |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

Recommended Accessories FLK-3.8MM Scope FLK-8.5MM Scope

FLK-5.5MM Scope FLK-8.5MM Scope





Included Accessories

Hand strap, neck strap, USB cable, AC power supply/battery charger, TPAK Magnetic Hanger, protective EVA case.

Ordering Information FLK-DS703 High Resolution FC **Diagnostic Scope**

Contact your local distributor for price and availability. fluke.com/findus

Fluke ii900 Sonic Leak Detection **Industrial Imager**



A fast, simple way to detect compressed air, steam, gas and vacuum leaks.

Equipped with an array of microphones for an expanded field-of-view, the handheld Fluke ii900 Sonic Industrial Imager enables maintenance teams to quickly and accurately locate air, gas and vacuum leaks in compressed air systems; even in noisy environments

- 17.78 cm (7 in) 1280 × 800 LCD with capacitive touchscreen
- Frequency band of 2 kHz to 52 kHz (detected 150 ml/min leak at 7 bar for 10 mins)
- Capture images in JPEG or PNG format with user

• Two-year warranty

input notes function • Capture videos in MP4 format

\Ø Fluke ii900

SoundSight[™] Technology

Specifically designed for noisy production facilities, new SoundSight[™] technology is simple to learn and easy to implement. The 7" LCD touchscreen overlays a SoundMap™ on a visual image for quick leak location identification. The straightforward, intuitive interface allows technicians to isolate the sound frequency of the leak to filter out loud background noise. In a matter of hours, the team can inspect the entire plant during peak operations. For the first time, you can quickly and easily identify the air leak repairs needed to ensure efficient operations and reduce utility bills. Images can be saved and exported for reporting purposes. Never leave air leaks unattended again.

With minimal training, the ii900 enables you to:

- · Quickly and easily locate leaks
- Optimize air compressors-delay the capital expense of installing additional compressors
- Ensure proper air pressure to pneumatic equipment
- · Lower energy and gas costs
- · Reduce leak detection time
- Improve reliability of the production line
- · Make leak detection part of the typical maintenance routine
- Train the team in a matter of minutes
- · Validate repairs on the spot

| Key Features | ii900 |
|--------------------------------|---|
| Sensor | |
| # of Microphones | 64 digital MEMS micropl |
| Frequency Band | 2 kHz to 52 kHz |
| Sound Pressure Sensitivity | 150 ml/min leak at 7 bar from |
| Operation Distance Range | 0.5 to 70 meters (1.64 to 2 |
| Built-in Digital Camera (visib | le light) |
| Field of view | 63°± 5° |
| Focus | Fixed lens |
| Acoustic Measurements | |
| Measurement Range | 15.4 dB SPL to 115.2 dB SPL ±1 5.6 dB SPL to 102.5 dB SPL ±2 d 28.4 dB SPL to 131.1 dB SPL ±1 d 41.8 dB SPL to 133.1 dB SPL ±3 d |
| General Specifications | |
| Battery Life | 6 hours/battery (product includes |
| Ingress Protection (main unit) | IP40 protection against particles 1 |
| Sensor Head Rating | IP51 protection against dust and o |
| | |

Try the Virtual Demo See sound now. Take a virtual tour of the Fluke ii900 and ii910 Acoustic Imagers.



64 **Industrial Imaging**



• SoundMap[™] overlay for visual leak detection

Manual frequency filtering

Recommended Accessories



4500 mAh capacit Li-ion Batter



FLK-TIX5XX-NECK



EBC290 Battery Charg



CXT1000

Industrial Imaging





Included Accessories

AC Power Supply, Battery Pack Charger, Two Lithium-ion Smart Battery Packs, USB Cable, Rugged, Hard Carrying Case, Two Rubber Array Covers, Adjustable Hand Strap and Neck Strap.

Ordering Information

Fluke-II900

Sonic Industrial Imager

Contact your local distributor for price and availability. fluke.com/findus

dB SPL 2 kHz dB SPL 19 kHz dB SPL 35 kHz dB SPL 52 kHz

nones

10 meters

229.6 ft)

spare battery) 1mm or greater dripping water



fluke.com/sea.ii900



Fluke ii910 Precision Acoustic Imager



Fluke ii910

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A fast, easy way to detect, locate and analyze partial discharge in one tool.

The ii910 is the all-in-one tool maintenance teams have been waiting for when it comes to leak and partial discharge (PD) issues. Quickly scan the environment and get all the pictures/videos you need with simple one-button capture. No additional tools, equipment or cumbersome cables required. The ii910 Acoustic Imager's ground-breaking technology makes it a cost-efficient, safe, effective, and comfortable tool for teams who inspect and maintain power distribution and industrial high voltage equipment.

- 17.78 cm (7 in) 1280 × 800 LCD with capacitive touchscreen
- Detection range of 0.5 m to 120 m
- Frequency band of 2 kHz to 100 kHz
- SoundMap[™] overlay for visual PD detection
- Captures videos in MP4 format
- Manual frequency filtering
- Two-year warranty

SoundSight[™] Technology for partial discharge detection

Partial Discharge is a very serious issue that you need to be able to monitor quickly and easily. Whether you are inspecting insulators, transformers, switch gears or high voltage powerlines you need to be sure that you spot a problem quickly and early. Partial discharge that goes unchecked can cause blackouts, fires, explosions, or death from arc flashes. In addition to the danger that partial discharge poses to human lives and the environment, there is a significant monetary risk of downtime. Having equipment go down can cost millions of dollars per hour of downtime.

The Fluke ii910 Precision Acoustic Imager is the perfect tool for teams that are constantly inspecting and maintaining power distribution and industrial high voltage equipment. The ii910 provides a safe quick and easy way to detect and locate partial discharge in order to maintain high voltage equipment and prevent catastrophic events. With SoundSight™ technology the ii910 translates the sounds that it hears into a visual representation so that you can quickly locate problem areas. The higher frequency capability of the ii910 allows for earlier detection to facilitate early maintenance planning.

| Key Features | ii910 | | | | | | | | |
|-------------------------------|---|--|--|--|--|--|--|--|--|
| Sensor | | | | | | | | | |
| Frequency Band | 2 kHz to 100 kHz | | | | | | | | |
| Nominal Frame Rate | 25 fps | | | | | | | | |
| Detection Range | 0.5 to 120 m (1.64 to 393.7 ft) | | | | | | | | |
| Built-in Digital Camera | visible light) | | | | | | | | |
| Field of View | 63° ±5° | | | | | | | | |
| Focus | Fixed lens | | | | | | | | |
| Display | | | | | | | | | |
| Size | 22.86 cm (7 in) LCD with backlight, under-sunlight readable | | | | | | | | |
| Resolution | 1280 × 800 (1,024000 pixels) | | | | | | | | |
| Touchscreen | Capacitive | | | | | | | | |
| Acoustic Image | Yes, SoundMap™ image | | | | | | | | |
| Acoustic Measurements | | | | | | | | | |
| Measurement Range | 12.1 dB SPL to 114.6 dB SPL ±1 dB SPL 2 kHz 4.4 dB SPL to 101.2 dB SPL ±2 dB SPL 19 kHz 12.8 dB SPL to 119.2 dB SPL ±1 dB SPL 35 kHz 19.8 dB SPL to 116.1 dB SPL ±3 dB SPL 52 kHz 41.4 dB SPL to 129.0 dB SPL ±1 dB SPL 80 kHz 54.4 dB SPL to 135.5 dB SPL ±1 dB SPL 100 kHz | | | | | | | | |
| Auto Max/Min dB Gain | Auto or manual, user selectable | | | | | | | | |
| Frequency Band Selection | User selectable through user-made pre-sets or manual entry | | | | | | | | |
| General Specifications | | | | | | | | | |
| Battery Life | 6 hours/battery (product includes spare battery) | | | | | | | | |
| Main Unit Rating | IP40 protection against particles 1 mm or greater | | | | | | | | |
| Weight | 2.15 kg (4.74 lbs) | | | | | | | | |
| General Safety | IEC 61010-1 | | | | | | | | |



Recommended Accessories





Included Accessories

AC Power Supply, Battery Pack Charger, Two Lithium-ion Smart Battery Packs, USB Cable, Rugged Hard Carrying Case, Two Rubber Array Covers, Adjustable Hand and Neck Strap.

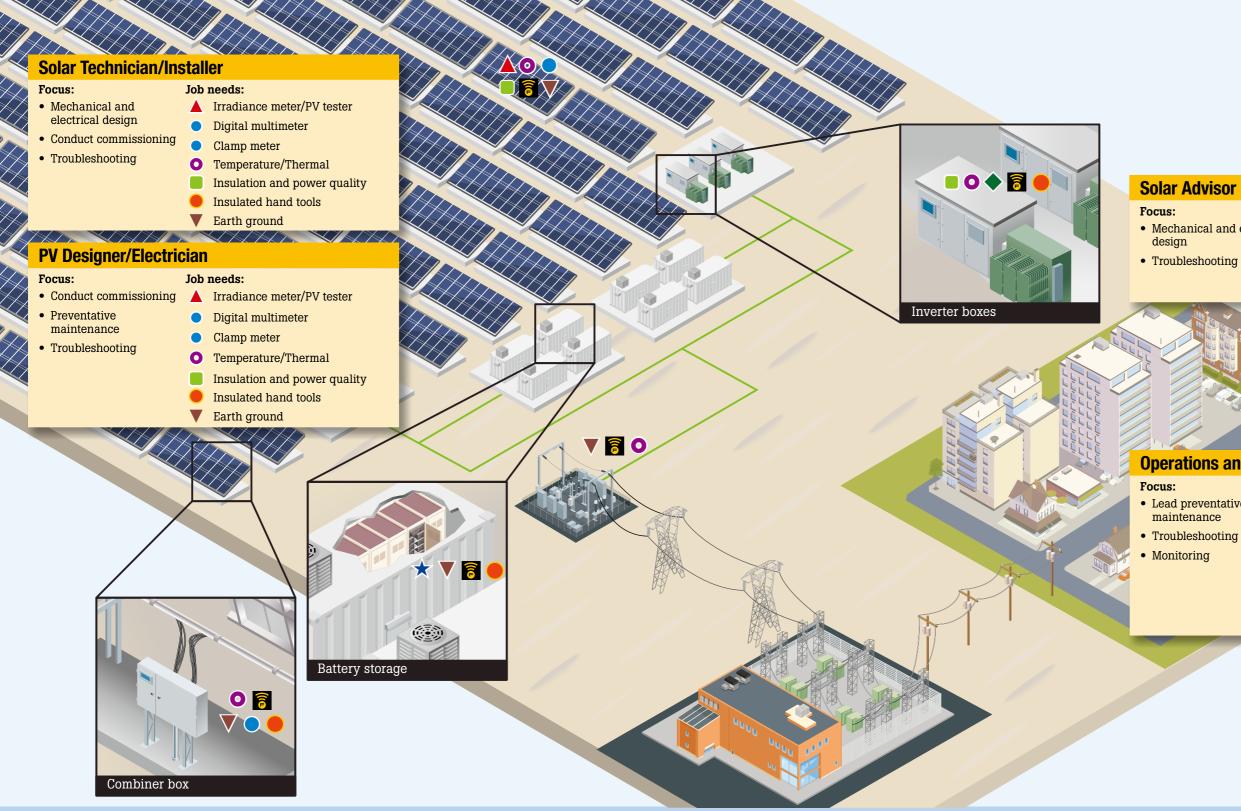
Ordering Information Fluke-II910 Precision Acoustic Imager

Contact your local distributor for price and availability. fluke.com/findus

fluke.com/sea.ii910

market value of nearly \$370 billion by 2030. With and managers need to be able to install and service equipment quickly, safely and efficiently.





Solar energy solutions

Learn how Fluke solutions can save you time and money while increasing your productivity at www.fluke.com

| Clean Tech Electrical Measurement Tools | | Insulation and Power Quality | | Temperature | | Battery Analyzer | Earth Ground | | Software | | Accessories | | | | | |
|---|---------------------|------------------------------|-------------|-------------------------------|-------------------|-------------------|---------------------------|-------------------|-------------|------------------|--------------|-----------------|----------------------------|----------|----------------------|--------------------|
| Multifunction PV tester | Irradiance meter | Digital multimeter | Clamp meter | FC wireless multimeter kit | Insulation tester | Insulation tester | Power quality analyzer | Thermal imager | Temperature | Battery analyzer | Earth ground | Stakeless clamp | Fluke Connect [™] | TruTest™ | Insulated hand tools | Test leads |
| SMFT-1000 | IRR2-BT | 87V MAX | 393 FC | v3003 FC Kit | 1587 FC | 1555 FC | 1777 | Ti480 PRO | 64 MAX | ★ BT521 | 1625-2 | 1630-2 | | | f f f f Å Å Å | PVLEAD 1, PVLEAD 3 |



Solar Advisor

- Mechanical and electric
- Troubleshooting

Job needs:

- ▲ Irradiance meter/PV tester
- Digital multimeter
- Clamp meter
- Temperature/Thermal

Operations and Maintenance Manager

- Lead preventative maintenance

- ▲ Irradiance meter/PV tester
- Digital multimeter
- Clamp meter
- Temperature/Thermal
- Insulation and power quality
- ★ Battery analyzer
- Insulated hand tools

Solar energy solutions

Get more information on solar energy solutions at www.fluke.com/sea.solar Based on you. Built by Fluke.



RENEWABLE ENERGY TOOLS

Solar energy and electric vehicle charging infrastructure are expanding worldwide at a fast pace. From grid-tied and off-grid, to hybrid and backup systems, critical infrastructure must be maintained for reliability and efficiency.

The growth of the solar energy industry requires new solar testing equipment solutions for electricians, PV installers, and technicians. From solar clamp meters, solar irradiance meters and photovoltaic testers for residential needs, to commissioning a new PV array or routine maintenance on a solar farm or photovoltaic power station, Fluke testing equipment has you covered.



Irradiance and Temperature

Fluke Irradiance Meters have been designed from the ground up to simplify the installation, commissioning, and troubleshooting of photovoltaic arrays, measuring irradiance, temperature, inclination and direction of the solar array in a single handheld tool.

Whether working on a roof-mounted system or on a large field installation, Fluke Irradiance Meters are the single-handed solution that every solar installer and technician needs in their tool bag.

See pages 72



Multifunction Tests and I-V Curve Tracing

Test that PV systems are performing to their optimal power output as well as operating safely. Designed for PV professionals that provide installation, commissioning and maintenance services, you can rely on Fluke to provide a complete PV testing solution that conforms to IEC 62446-1 standards.

Fluke's multifunction PV tester includes a full sequence of safety and performance tests quickly and accurately to save you time and money with features like auto testing, instant on-screen I-V curve results, and a unique "Keep the Leads" system which allows for multiple tests through a one-time setup of test leads. See page 73



See page 74

Electric Vehicle Charging Station Operation

You can perform a variety of tests including ground fault checks, insulation of wires, measuring voltage and duty cycle to see max current available for charging all with one adapter. The adapter acts as an electric vehicle when connected to an EVSE for easy performance and maintenance testing. See page 75





Solar Data Management and Reporting Software

Whether you are analyzing panel efficiency through I-V curves, or safety testing the system through the Category 1 test regime in conformance to IEC 62446-1, proper data management is critical for producing easy-to-understand reports for clients.

TruTest[™] enables solar testing, asset management, data storage and reporting on a single software platform that covers certification and documentation needs.

Test the safety and performance of type 1 or connector for Tesla[™] station, level 1 or level 2 electric vehicle AC charging stations (EVSEs) with Fluke's EVSE testing solutions. Verify an EVSE is working properly after install, during periodic maintenance or troubleshooting.



Fluke IRR1-SOL Solar Irradiance Meter



One easy-to-use tool for testing solar panels and PV systems.

The Fluke IRR1-SOL Irradiance Meter has been designed from the ground up to simplify the installation, commissioning and troubleshooting of photovoltaic arrays and solar panels. Whether surveying, installing, executing maintenance, or checking the performance of solar panels or photovoltaic systems there are four critical measurements that technicians require, and that the Fluke IRR1-SOL Irradiance Meter delivers:

- Solar irradiance: Make instantaneous measurements to determine the watt per square meter solar irradiation, required by the IEC 62446-1 standard
- Ambient and PV module temperature: Measure temperature by either placing the meter directly on the panel or by connecting the external probe
- Array orientation: Find cardinal direction with the built-in compass
- Tilt angles: Verify inclination of a roof or panel with the tilt function

Built to go where you go

With a rugged, compact design, a protective carrying case, and an easy-to-read, high contrast LCD screen to read measurements in direct sunlight, the IRR1-SOL can go where you go. The simple user interface, instantaneous solar irradiation measurements, and built-in temperature sensor make it easy to meet the IEC 62446-1 requirements for testing, documenting, and maintaining photovoltaic systems.

| Key Features | IRR1-SOL |
|------------------------|---|
| Irradiance | |
| Measuring Range | 50 to 1400 W/m ² |
| Resolution | 1 W/m ² |
| Measuring Accuracy | ±(5% + 5 Digit) |
| Temperature Measurer | nent |
| Measuring Range (° C) | -30° C to 100° C (-22 °F to 212 °F) |
| Resolution | 0.1 °C (0.2 °F / 1 °F @>100 °F) |
| Measuring Accuracy | ±1° C (±2 °F) @ -10° C to 75° C (14 °F to 167 °F) ±2° C (±4 °F) @ -30° C to -10° C (-22 °F to 14 °F) ±2° C (±4 °F) @ 75° C to 100° C (167 °F to 212 °F) |
| Note: Temperature meas | surement response time: ~ 30 seconds |
| Inclination Angle | |
| Measuring Range | -90° to +90° |
| Resolution | 0.1° |
| Measuring Accuracy | ±1.5° @ -50° to +50°, ±2.5° @ -85° to -50° and +50° to +85°, ±3.5° @ -90° to -85° and +85° to +90° |
| Compass | |
| Measuring Range | 0° to 360° |
| Resolution | 1° |
| Measuring Accuracy | ±7° |
| Note: | |

a) Compass Measurements valid for device inclination between -20° and +20° to horizontal. Measurements taken outside that range appear as "---". b) Result is referred to magnetic North

| Protection | |
|-------------------------------|--------------------------|
| Ingress Protection | IEC 60529: IP40 |
| General Specifications | |
| Battery Life (typical) | 50 hour (≤9000 readings) |
| Weight | 231 g (8.14 oz) |

The IRR1-SOL features:

- A high precision monocrystalline solar sensor for irradiance measurements up to 1400 W/m²
- Two options for temperature measurement – a built-in sensor and an external suction mount probe
- An integrated compass
- An inclination sensor for the tilt function

Learn More







fluke.com/sea.sola

Work in the Solar Industry? Visit the link to learn how Fluke

tools can help with the future of power.



Included Accessories

FLK-80PR-IRR External Temperature Probe with Suction Cup, C250 Carrying Case with Shoulder Strap, Four AA Alkaline Batteries and User Manual.

Ordering Information

FLK-IRR1-SOL Solar Irradiance Meter

Fluke SMFT-1000 Multifunction PV Tester and Performance Analyzer, I-V Curve Tracer Kit



All-in-one test solution to verify PV system performance and safety, expedite client reporting

Test that PV systems are performing to their optimal power output as well as operating safely with the Fluke SMFT-1000 multifunction tester with I-V curve tracing. Designed for PV professionals that provide installation, commissioning and maintenance services to systems that operate at 1000 V DC or under, the SMFT-1000 provides a complete PV testing solution that conforms to IEC 62446-1 standards. Through Fluke's TruTest™ Software, measurement data from solar site installation and commissioning testing can be easily imported, organized and analyzed for effortless reporting without having to bring a laptop on-site.

Critical testing features for periodic inspection of PV systems

Full sequence safety testing - IEC 62446-1 Category 1:

- Protective resistance earth (RLO)
- · Voltage on open circuit, including polarity (VOC)
- Short circuit current (ISC)
- Insulation resistance (RINS)
- ROI and system performance testing IEC 62446-1 Category 2:
- I-V Curve tracing and software analysis with TruTest™
 - Irradiance, temperature, tilt, cardinal direction

| Specifications | | SMFT-1000 | |
|---|------------------|---|--|
| Protective conductor resistance (RLO) | | | |
| Display range | Measuring range | Resolution | |
| 0.00 Ω - 19.99 Ω | 0.20 Ω - 19.99 Ω | 0.01 Ω | |
| 20.0 Ω- 199.9 Ω | 20.0 Ω - 199.9 Ω | 0.1 Ω | |
| 200 Ω - 2000 Ω | 200 Ω - 2000 Ω | 1 Ω | |
| Test current | | \geq 200 mA (\leq 2 Ω + Rcomp | |
| Test voltage | | 4 V DC 10 V DC | |
| Polarity reversing | | Yes | |
| Test lead zero (Rcomp) | | Up to 3 Ω | |
| PV module/PV string, open-circuit voltage (Voc) | | | |
| 0.0 V - 99.9 V | 5.0 V - 99.9 V | 0.1 V | |
| 100 V - 1000 V | 100 V - 1000 V | 1 V | |
| Polarity test | | Yes | |
| | | | |

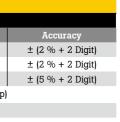
| General Specifications | |
|-------------------------------|--|
| Weight | 1.4 kg (3.09 lb) |
| Battery | 6 AA IEC LR6 |
| Operating temperature | 0 °C to 50 °C (32 °F to 122 °F |
| Storage temperature | -30 °C to 60 °C (-22 °F to 140 °F) batteri |
| Operating altitude | up to 2000 m |
| Storage altitude | up to 2000 m |



Included with SMFT-1000:

- Fluke SMFT-1000-BP Professional Tool Backpack
- SMFT-1000 Multifunction PV Analyzer
- Carry Strap
- Fuse Pack
- Adapter Cable IRDA Optical-to-USB - Zero Adapter
- IRR2-BT Wireless Solar Irradiance Meter Pro
- 80PR-IRR External **Temperature** Probe
- Mounting Bracket for solar panel
- Carry Case
- i100 AC/DC Current Clamp 100 A
- TPAK Magnet Set • TP1000 Test Probe with
- Remote Test Button
- TL1000 Test Lead Set
- TL1000-MC4 Test Lead Set
- TL1000/30M Test Lead on Reel
- Coupler set
- (6) AA Batteries







ies removed

Recommended tools for use with the SMFT-1000

- TruTest[™] Data Management and Reporting Software
- 393 FC CAT III 1500 V Solar Clamp Meter
- 87V MAX True-rms Digital Multimeter
- 1587 FC Insulation Multimeter
- Ti480 PRO Infrared Camera
- 1625-2 GEO Earth Ground Tester
- 500 Series Battery Analyzers
- Pomona PVLEAD3 MC4 Solar Clamp Test Lead Set

Ordering Information

SMFT-1000* Multifunction PV Tester and Performance Analyzer, I-V Curve Tracer

* Also available as a kit with Advanced TruTest[™] Software and MC4 Solar Clamp Test Lead Set

Contact your local distributor for price and availability. fluke.com/findus



Renewable Energy

Fluke TruTest[™] Solar Data Management and Reporting Software



The easy-to-use data management solution

Fluke TruTest[™] Software is designed to eliminate the hassle associated with traditional solar system data management and reporting. Whether you are analyzing panel efficiency through I-V curves, or safety testing the system through the Category 1 test regime in conformance to IEC 62446-1, proper data management is critical for producing easy-to-understand reports for clients. Compatible with the Fluke SMFT-1000 Multifunction PV Tester and Performance Analyzer, TruTest[™] Software allows you to quickly and easily import measurement results directly from your solar multifunction tester to computer, organize and analyze the data, compare individual asset data against previous measurements imported and provide a comprehensive and visual client report.

With a streamlined user interface and intuitive workflow, measurement data can be easily formatted into printable test certificates and reports complete with your company logo and electronic signature.

- Easily manage measurement data
- Ouickly create test certificates and reports
- Free updates for 5 years after installation
- · Easy data collection and database transfers
- Enables manual data entry
- Intuitive user interface
- Fast and simple operations

System Requirements

| Туре | Requirement |
|--------------------------|---|
| Operating system | Microfoft Windows 10, 64-bit and 32-bit (recommended) Microfoft Windows 8/8.1, 64-bit and 32-bit Microfoft Windows 7 with Service Pack 1, 64-bit and 32-bit |
| System memory | Minimum 4 GB RAM (64-bir) or 2 GB RAM (32-bit) |
| Hard disk space | Minimum 2 GB available hard disk space |
| Display resolution | Minimum screen resolution 1366 x 768 |
| Communication interfaces | USB |

Comprehensive reporting

Fluke TruTest[™] Software simplifies the

reporting process so you can produce

easy-to understand test certificates and

reports as quickly as possible, saving you

time and money. Easily visualize the status

of assets with clear pass/fail results. Tests

in accordance with standards such as IEC

62446-1 and EU directive 2009/104/EC

(BetrSichV) are available at the touch of

a button, and a pre-configured template

ensures that no matter your testing

covered

standards TruTest[™] Software has you

Streamlined data management

Manage test results, client and site data with ease, and create reports quickly using the intuitive, modern user interface and custom-report builder.

Single solar platform

TruTest[™] enables solar testing, asset management, data storage and reporting on a single software platform that covers certification and documentation needs.

Dashboard interface

On-screen intuitive dashboard interface allows the user to see the status of all their clients instantly and navigate to further levels of detail if desired.

Valid in selected countries.

Check with your local Fluke representative on availability.

Demo software and software packages Free demonstration software is

available at www.fluke.com/ trutestsoftware. After downloading start the installation by double clicking on the software file. The setup program will guide you through the installation procedure. Please follow the installation instructions displayed on the screen.

After purchasing TruTest[™] Lite or TruTest[™] Advanced, you will be provided with a code that will give you full access to the features purchased.



fluke.com/sea.solar



| FLK-TRUTEST- LITE Software | TruTest Lite Software Package license code |
|---------------------------------|---|
| FLK-TRUTEST- ADV Software | TruTest Advanced Software Package with enhanced functionality license code |
| FLK-TRUTEST-CD Software Disc | TruTest Software disc (if unable to download from website). License code sold sold |

Contact your local distributor for price and availability. fluke.com/findus

Fluke FEV300 Adapter Kit for Electric Vehicle **Charging Stations**



Fluke FEV300

Test the functionality and safety of electrical vehicle charging stations, easily and reliably

Test the safety and performance of type 1 or connector for Tesla[™] station, level 1 or level 2 electric vehicle ac charging stations (EVSEs) with the Fluke FEV300. This test adapter simulates the presence of an electrical vehicle, allowing the user to conduct tests in combination with appropriate test instruments such as a digital multimeter or oscilloscope. Use the FEV300 to verify an EVSE is working properly after install and during periodic maintenance or troubleshoot an EVSE if it is not delivering the appropriate charge.

Use the FEV300 to:

- · Check that an electric vehicle charging station including protective earth is correctly wired and functioning properly with the PE pre-test feature
- · Perform GFCI troubleshooting of an EVSE and verify if it is operating within safety standards
- Test different charging states of an EVSE with CP state simulation
- · Verify charging voltage and maximum available current using a digital multimeter

Available Measurements:

- · PE grounding system pre-test (verifies that there is no presence of dangerous voltage at the ground terminal)
- Phase indicator (presence of voltage)
- CP State simulation (A, B, C, D) for Control Pilot
- CP and PE Error simulation (Control Pilot CP signal short-circuited to PE) (interruption of PE conductor)
- GFCI ground fault circuit interrupter test
- · Measurements on live conductors (L1, L2/N) and on PE ground conductor

Features:

- PE Pre-Test for grounding protection against dangerous voltage
- CP Control Pilot for vehicle simulation
- PE and CP Error notification
- GFCI testing
- Compatibility with the Fluke portfolio to measure voltage, waveform, loop impedance and resistance
- Complies with SAE J1772 standards

Simplicity & Convenience

Perform a variety of tests including ground fault checks, insulation of wires, measuring voltage and duty cycle to see max current available for charging all in one adapter. The adapter safely integrates with the Fluke portfolio of test and measurement tools. No need to bring an electric vehicle onsite for EVSE testing: the adapter acts as an electric vehicle when connected to an EVSE for easy performance and maintenance testing.

The FEV300 is also available in several Fluke eMobility kits:



Ordering Information





FEV300/TV1 & TSI

Included in the FEV300 Electrical Vehicle Charging Station Test Adapter Kit

- Fluke FEV300/BASIC Test Adapter
- Fluke FEV-COM/TY1 Type 1 Connector & Cable
- Soft Carrying Case

Work in the eMobility eMobility and EVSE solutions industry?

Visit us to learn how Fluke tools can help with eMobility and EVSE solutions.

fluke.com\sea.emobility



The FEV300 is compatible with the Fluke portfolio of test and measurement tools.

Recommended tools:

- 87V Industrial Multimeter
- 376 FC True-RMS Clamp Meter with iFlex
- 1587 FC Insulation Multimeter
- 1738 Three-Phase Power Quality Logger
- 1630-2 FC Earth Ground Clamp
- BT521 Advanced Battery Analyzer
- 1664 FC Installation Multifunction Testers
- 125B Industrial ScopeMeter® Handheld Oscilloscope

Ordering Information

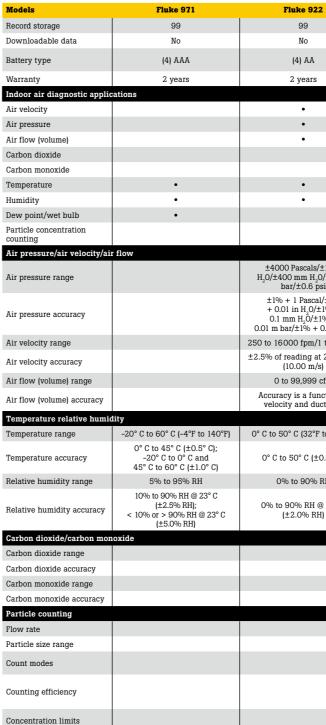
FLK-FEV300 Adapter Kit for Electric Vehicle **Charging Stations**





Indoor Air Quality Meter Selection Guide











| 2 | Fluke 985 | Fluke CO-220 |
|-----------------------------------|--|---------------|
| | 10000 | |
| | USB or Ethernet | No |
| | Rechargeable Li-Ion 7.4 V 2600 mAh | (1) 9V |
| | 1 year | 1 year |
| | | |
| | | |
| | | |
| | | |
| | | • |
| | | |
| | | |
| | | |
| | • | |
| | | |
| ±16 in)/±40 m si | | |
| /±1% 1% + 1% + 0.001 psi | | |
| to 80 m/s | | |
| 2000 fpm | | |
| cfm | | |
| ction of ct size | | |
| | | |
| to 122°F) | | |
| 0.01° C) | | |
| RH | | |
| 0 23° C I) | | |
| | | |
| | | |
| | | |
| | | 0 to 1000 ppm |
| | | 5% or ±2 PPM |
| | 2.83 L/min (0.1 cfm) | |
| | 0.3 μm - 10.0 μm (6 channel) | |
| | Raw counts, #/m³, #/ft³, #/liter in Cumulative or Differential mode | |
| | 50% @ 0.3 μm; 100% for particles > 0.45 μm (per ISO 21501) | |
| | 10% @ 4000000 particles | |
| | per ft3 (per ISO 21501) | |

Environmental Testing



Fluke 922 Airflow Meter/Micromanometer



The Fluke 922 helps you analyze airflow easily

The Fluke 922 makes airflow measurements easy by combining three functions-differential pressure, airflow, and velocity-into a single, rugged meter. The 922 was designed and built for how (and where) you do your job. Its performance, ruggedness and ease of use set the Fluke 922 apart from the competition. The bright white display and ruggedized holster and wrist strap let you take the Fluke 922 into less than ideal environments. Color-coded hoses help you keep track of where your readings are coming from. The simple, intuitive interface means you can measure pressure, velocity, or airflow at the push of a button.

- · Powerful meter provides differential and static pressure, air velocity and flow readings
- Convenient color-coded hoses help proper interpretation of pressure readings
- Easy to use without sacrificing performance
- Bright, backlit display for clear viewing
- · User-defined duct shape and size for maximum airflow accuracy
- · Resolution down to 0.001 in H20
- 99 point data storage capacity
- Min/Max/Average/Hold functions for easy data analysis
- · Auto power off saves battery life • Two-year warranty

Use the Fluke 922 Micromanometer to:

- · Measure pressure drops across key HVAC equipment to drive peak performance and extend equipment life
- Match ventilation to occupant loads
- Monitor indoor vs. outdoor pressure relationships and manage the building envelope
- Promote indoor comfort and guality
- · Perform duct traversals for accurate airflow readings

| Specifications | 922 |
|--------------------------------|--|
| Operating Temperature | 0°C to 50°C (32°F to 122°F) |
| Storage Temperature | -40°C to 60°C (-40°F to 140°F) |
| Operating Relative Humidity | Non condensing (<10°C (50° F)) 90% RH (10° C to 30° C (50° F to 86° F)) 75% RH (30° C to 40° C (86° F to 104° F)) 45% RH (40° C to 50° C (104° F to 122° F)) without Condensation |
| Ingress Protection (IEC 60529) | IP40 |
| Operating Altitude | 2000 m (6,561 ft) |
| Storage Altitude | 12000 m (39,370 ft) |
| EMC | Meets requirements for IEC 61326-1 |
| Vibration | MIL-PREF-28800F, Class 3 |
| Max Pressure at Each Port | 10 psi |
| Data storage | 99 readings |
| Weight | 0.64 kg (1.41 lb) |
| Battery | Four AA batteries |
| Battery Life | 375 hours without backlight, 80 hours with backlight |

| | Range | Accuracy |
|----------------------|---|---|
| Air pressure | ±4000 Pa ±16 inH ₂ 0 ±400 mmH ₂ 0 ±40 mbar ±0.6 psi | ±1% + 1 Pa ±1% + 0.01 inH ₂ 0 ±1% + 0.1 mmH ₂ 0 ±1% + 0.01 mbar ±1% + 0.001 psi |
| Air velocity | 1 to 80 m/s (250 fpm to 16000 fpm) | 10.00 m/s (±2.5% of reading at 2000 fpm) |
| Air flow (volume) | 0 to 99,999 cfm 0 to 99,999 m ³ /hr 0 to 99,999 l/s | Accuracy is a function of velocity and duct size |
| Temperature | 0° C to 50° C (32°F to 122°F) | 0.1° C (0.2° F) |

Recommended Accessories PT12 TPAK Pitot Tube 30.48 cm gnetic Meter Hanger Mag CXT170

Recommended Kits Bundle & Save



Fluke 922 Airflow Meter/ Micromanometer Kit



Included Accessories Fluke 922: Two Rubber Hoses, Wrist Strap, Four AA Batteries 1.5 V Alkaline, User Manual and Soft Carrying Case. Fluke 922 Kit: Fluke 922 Airflow Meter, 30 cm (12 in) Pitot Tube, ToolPak, Two Rubber Hoses, Wrist Strap, Four AA Batteries, User Manual and Hard Carrying Case. **Ordering Information** FLUKE-922 Airflow Meter

FLUKE-922/KIT Airflow Meter Kit

Contact your local distributor for price and availability. fluke.com/findus

Fluke 985 Airborne Particle Counter



Fluke 985

Æ

and monitoring indoor air guality issues and verifying HVAC filter performance in critical locations. With its easy to read and fully configurable channel display, lightweight yet rugged form, and highly accurate measurements, the Fluke 985 is the perfect tool for the maintenance, HVAC, and IAO professional

- Six channels and particle size range of 0.3 μm to **10.0 um:** Assures accurate measurements even for critical locations requiring ISO Class 5 – 9 certification
- Ultra-lightweight and ergonomic design: Promises easy single-hand operation in tight or awkward spaces with less operator fatique
- Long battery life: Ten hours of standard-use battery life to last a full work day
- Large 8.9 cm (3.5 inch) QVGC color display: Easy navigation and viewing with the intuitive icons and large font options
- On-screen data presentation: Data can be viewed in a traditional tabular or trend graph view at the user's preference
- Personalized setting and configurations: Customizable settings for the display, sample methods, and alarm settings for sample count
- Data export options: Download data to a PC using a USB memory stick, USB cable or Ethernet connection. No special software is required to download or view data
- Optional password control: Confirms security when required
- USB/Ethernet charge cradle: Assures device is always ready to go when needed One-year warranty

| Specifications | 985 |
|-----------------------|---|
| Channels | 0.3 µm, 0.5 µm, 1.0 µm, 2.0 µm, 5.0 µm, 10.0 µm |
| Flow rate | 2.83 L/min (0.1 cfm) |
| Light source | 775 nm to 795 nm, 90mW class 3B laser |
| Count modes | Raw counts, $\#/m^3$, $\#/ft^3$, $\#/liter$ in Cumulative or Differential mode |
| Counting efficiency | 50% @ 0.3 μm; 100% for particles > 0.45 μm (per ISO 21501) |
| Zero count | 1 count/5 minute (JIS B9921) |
| Concentration limits | 10% at 4000000 particles per ft3 (per ISO 21501) |
| Data storage | 10000 records (rotating buffer) |
| Alarms | Counts, low battery, sensor fail |
| Delay time | 0 to 24 hours |
| Sample inlet | Isokinetic probe |
| Security | Administrator password control (optional) |
| Communication mode | USB or Ethernet |
| Calibration | PSL particles in air (NIST traceable) |
| Size (HxWxD) | 27.2 × 9.9 × 5.3 cm (10.7 x 3.9 x 2.1 in) |
| Weight | 0.68 kg (1.5 lb) |
| Power adapter | 100 V AC to 240 V AC, 12 V DC, 2.5 A |
| Rechargeable battery | Li-ion 7.4 V 2600 mAh; 10 hours typical use (5 hours continuous sampling) / 3.5 hours) |
| Operating environment | 10° C to 40° C (50°F to $104^\circ\text{F})$ / < 95% RH, non-condensing |
| Storage environment | -10° C to 50° C (14°F to 122°F) /Up to 98% RH, non-condensing |
| | |

FLUKE

Troubleshooting indoor air quality made easy

The Fluke 985 Particle Counter is ideal for troubleshooting

• 10000 record storage: Quick access to historical data

Specialty Model

CO-220 Carbon **Monoxide Meter**

Measures CO levels in industrial environments and commercial or residential buildings where accumulation of combustion gas is possible.

- Stand-alone CO meter that does not require a digital multimeter
- Large backlit LCD displays CO levels from O ppm to 999ppm
- · Beeper triggers with increasing frequency as CO levels rise
- MAX hold function stores and displays the maximum CO level
- Automatic sensor zeroing and self-test upon startup

CO-205 Aspirator Kit

The CO-205 flue gas sampling accessory kit contains all the components necessary to provide a clean sample for the Fluke family of gas measuring devices.

The CO-205 Accessory Kit includes:

- Stainless steel sampling tube
- · Industrial-grade hand operated aspirator to draw flue sample
- Easily replaceable particulate filter
- · Specially designed nose cap for connection to the Fluke CO-220

Included Accessories

Fluke 985: Cradle for charging and USB and Ethernet Communications, ENET Cat5e 7-foot Cable, USB A to Mini-B 6-foot Cable, 12V DC Power Supply, Zero Count Inlet-Filter, Filter Adapter, Sample Inlet Protective Cap, Hard Case, Getting Started Manual and User Manual (CD)

Fluke CO-220: C50 Soft Carrying Case and Battery.

Ordering Information FI IIKE-085 Darticle Counte

| | i artiolo obalitor |
|--------------|--------------------------|
| FLUKE-CO-220 | Carbon Monoxide Meter |
| FLUKE-CO-205 | Aspirator Kit |

Contact your local distributor for price and availability. fluke.com/findus



Environmental Testing



Fluke 971 Temperature Humidity Meter



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

It is invaluable for facility maintenance and utility technicians, HVAC-service contractors, and specialists who assess indoor air quality (IAQ). Lightweight and easy to hold, it's the perfect tool for monitoring problem areas. With a rugged holster and protected sensor, the Fluke 971 is built to perform and made to last.

- New and improved digital sensor for faster response times
- Backlit dual display of humidity and temperature
- Measures dew point and wet bulb temperatures
- 99 record storage capacity
- Ergonomic design with belt clip and protective holster
- Compact and lightweight at 188 g (6.63 oz)
- Temperature range from -20° C to 60° C (-4° F to 140° F)
- Relative humidity from 5% to 95%
- Min/Max/Avg/Hold functions
- Low battery indicator
- One-year warranty



| Specifications | 971 |
|---|---|
| Temperature range | -20° C to 60° C (-4° F to 140° F) |
| Temperature accuracy 0° C to 45° C (32°F to 113°F) -20 °C to 0° C and 45° C to 60° C (-4°F to 32°F and 113°F to 140°F) | ±0.5° C (±1.0°F) ±1.0° C (±2.0°F) |
| Resolution | 0.1° C (0.1° F) |
| Response time (temperature) | 500 ms |
| Temperature sensor type | NTC |
| Relative humidity range | 5% to 95% R.H. |
| Relative humidity accuracy 10% to 90% R.H. @ 23° C (73.4°F) <10%, >90% R.H. @ 23° C (73.4°F) | ±2.5% R.H. ±5.0% R.H. |
| Humidity sensor | Electronic capacitance polymer film sensor |
| Data storage | 99 points |
| Response time (humidity) | For 90% of total range - 60 sec with 1 m/s air movement |

General

| Operating temperature | Temperature: -20° C to 60° C (-4° F to 140° F) Humidity: 0° C to 60° C (32° F to 140° F) |
|-----------------------|---|
| Storage temperature | -20° C to 55° C (-4° F to 131° F) |
| Battery life | 4 AAA alkaline, 200 hours |
| Safety | Complies with EN61326-1 |
| Size (HxWxD) | 194 mm × 60 mm × 34 mm |
| Weight | 0.18 kg (6.63 oz) |

Fluke RLD2 UV Refrigerant Leak Detector Flashlight

Leak detection made easy. The compact, easy-touse, RLD2 UV flashlight uncovers refrigerant leaks

instantly. Use the UV light to

find the leakage area, then, use the laser pointer to pinpoint the exact leak location. With 100000 hours of life, and four operating modes, this versatile leak detector is a must have for HVAC technicians.

- Six UV LEDs (395 nm wavelength) detect leak detection dyes
- Laser pointer clearly locates center of the UV field for accuracy
- Three LED flashlight with 100000 hour LED life
- Four operating modes: flashlight, UV light, laser light, UV/laser light combination
- Convenient detachable key chain carabiner and AAA battery included

Recommended Accessories



Included Accessories

Fluke 971: Four AAA Alkaline Batteries, Operation Manual. Fluke RLD2: Chain Carabiner and Batteries.

Ordering Information

FLUKE-971Temperature
Humidity MeterFLUKE-RLD2Refrigerant Leak

Detector

Contact your local distributor for price and availability. fluke.com/findus

Insulation Testers

Whether you work on motors, generators, cables, or switch gear, Fluke digital insulation resistance testers deliver advanced performance and noise-free, reliable results. And they are designed to be safe, simple to use and gimmick-free. A perfect solution for insulation testing, troubleshooting, commissioning and preventive maintenance applications.





Insulation Tester Selection Guide

| | | | ずの言 | | 1 AP | (A) |
|--|--------------------------------|--------------------------------------|--------------------------------|--------------------------------------|---|---|
| Insulation Test Functions | 1503 | 1507 | 1577 | 1587 FC | 15500 | 1555 |
| Test Voltages | 500 V, 1000 V | 50 V, 100 V, 250 V, 500 V, 1000 V | 500 V, 1000 V | 50 V, 100 V, 250 V, 500 V, 1000 V | 250 V, 500 V, 1000 V, 2500 V, 5000 V | 250 V, 500 V, 1000 V, 2500 V, 5000 V, 10 000 V |
| Insulation Resistance Test Range | 0.1 MΩ - 2 GΩ | 0.01 MΩ - 10 GΩ | 0.1 MΩ - 600 MΩ | 0.01 MΩ - 2 GΩ | 200 kn - 1 Tn | 200 kr - 2 tr |
| Polarisation Index/Dielectric Absorption Ratio | | • | | • | • | • |
| Auto Discharge | • | • | • | • | • | • |
| Time Ramp Test (Breakdown) | | | | | • | • |
| Pass/Fail Comparison | | • | | | | |
| Estimated Number of Insulation resistance Tests | 1000 | 1000 | 1000 | 1000 | 1000 @ 5000 V | 1000 @ 10 000 V |
| Voltage >30 V Warning | • | • | • | • | • | • |
| Memory | | | | • | (99 locations) | (99 locations) |
| Remote Test Probe | • | • | • | • | | |
| Lo Ohms | • | • | | | | |
| Display | Digital LCD | Digital LCD | Digital LCD | Digital LCD | LCD / Analog Bar Graph | LCD / Analog Bar Graph |
| Continuity | (200 mA) | (200 mA) | • | • | | |
| Multimeter Functionality | | | | | | |
| AC/DC Volts | • | • | • | • | | |
| Current | | | • | • | | |
| Resistance | • | • | • | • | | |
| Temperature (contact) | | | | • | | |
| Temperature Compensation | | | | • | | |
| Lo-Pass Filter | | | | • | | |
| Capacitance | | | | • | • | • |
| Diode Test | | | | • | | |
| Frequency | | | | • | | |
| MIN/MAX | | | | • | | |
| + Fluke Connect™ enabled | | | | • | • | è |
| Other | | | | | | |
| Hold/Lock | • | • | • | • | • | • |
| a Backlight | • | • | • | • | | |
| 24 Software | | | | | • | • |
| Warranty (in years) | 1 | 1 | ς | с | ę | ю |
| Battery | 4× AA (NEDA 15A or IEC LR6) | 4× AA (NEDA 15A or IEC LR6) | 4× AA (NEDA 15A or IEC LR6) | 4× AA (NEDA 15A or IEC LR6) | Rechargeable | Rechargeable |
| | | | | | | |

Fluke 1587 FC and 1577 Insulation Multimeters



True RMS

C 🗟 🙆

Two powerful tools in one.

The Fluke 1587 FC and 1577 Insulation Multimeters combine a digital 1 kV insulation tester with a fullfeatured, true-RMS digital multimeter in a single compact, handheld unit, which provides maximum versatility for both troubleshooting and preventive maintenance.

- Insulation test (1587 FC: 0.01 M Ω to 2 G Ω) (1577: 0.1 MΩ to 600 MΩ)
- Insulation test voltages (1587 FC: 50 V, 100 V, 250 V, 500 V, 1000 V), (1577: 500 V, 1000 V) for many applications
- Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- Filter for motor drive measurements (1587 FC only)
- resistance (Ω) , and continuity • Capacitance, diode test, temperature, Min/Max, and
- frequency (Hz) (1587 FC only) · Auto power off to save battery power
- Large display with backlight and large digits
- Included accessories: Remote probe, test leads and probes, alligator clips, (Type K thermocouple, 1587 FC only)
- Accepts optional Fluke TPAK magnetic hanging system to free your hands for other work
- Rugged, utility hard case allows you to bring everything you need for the job • Three-year warranty

The Fluke 1587 FC Insulation Multimeter adds four powerful diagnostic functions through the Fluke Connect[™] Measurements app:

- PI/DAR timed ratio tests with TrendIt[™] graphs identifies moisture and contaminated insulation problems faster
- Memory storage through Fluke Connect[™] eliminates writing down results, reduces errors and saves data for historical tracking over time
- Temperature compensation through app for establishing accurate baselines and relevant historical comparisons

| Specifications | 1587 FC |
|--|----------------|
| Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V | • |
| Insulation test voltages 500 V, 1000 V | |
| Insulation resistance | 0.01 MΩ to 2.0 |
| Auto-discharge of capacitive voltage | • |
| Insulation test smoothing reading | • |
| Frequency | • |
| Capacitance | • |
| Diode test | • |
| Temperature | • |
| Min/Max | • |
| Low-pass filter (for work on VSDs) | • |
| AC/DC voltage | • |
| DC millivolts | • |
| AC/DC milliamps | • |
| Resistance | 0.1 Ω to 50 I |
| Continuity | • |
| Remote probe, test leads, alligator clips | • |
| Type K thermocouple | • |
| Rugged, utility hard case | • |
| Auto power off | • |
| | |

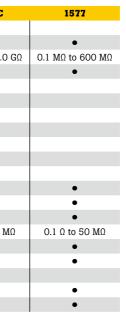
Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

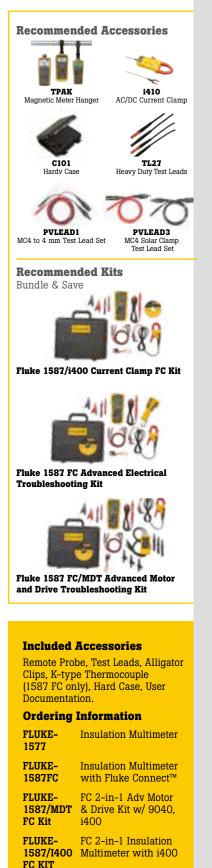


Insulation Testers



• AC/DC voltage, DC millivolts, AC/DC milliamps,





Contact your local distributor for price and availability. fluke.com/findus

1587KIT/ FC 2-in-1 Adv Elec Kit 62MAX+FC w/62MAX+ i400



Fluke 1555 and 1550C Insulation Resistance Testers



Powerful troubleshooting and predictive maintenance tools.

The Fluke 1555 and redesigned Fluke 1550C Insulation Resistance Testers offer digital insulation testing up to 10 kV, making them ideal for testing a wide range of high voltage equipment including switchgear, motors, generators and cables.

- Capacitance and leakage current measurement
- Ramp function for breakdown testing
- · Warning function alerts the user that line voltage is present and gives a voltage reading up to 600 V AC or DC for increased user safety
- Measurements can be stored in up to 99 memory locations, and each location is assigned a unique, defined label for easy recall • Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup
- Three-year warranty

The tester's accuracy is specified for one year after calibration at operating temperatures of 0° C to 35° C (32° F to 95° F). For operating temperatures outside the range (-20° C to 0° C and 35° C to 50° C) (-4° F to 32° F and 95° F to 122° F), add \pm .25% per ° C, except on the 20% bands add $\pm 1\%$ per ° C.

| | Insulation resistance measur | rement |
|------------------------|--|---|
| Test voltage (DC) | Range | Accuracy (±reading) |
| 250 V | < 250 kΩ 250 kΩ to 5 GΩ 5 GΩ to 50 GΩ > 50 GΩ | unspecified 5% 20% unspecified |
| 500 V | < 500 kΩ 500 kΩ to 10 GΩ 10 GΩ to 100 GΩ > 100 GΩ | unspecified 5% 20% unspecified |
| 1000 V | < 1 ΜΩ 1 ΜΩ to 20 GΩ 20 GΩ to 200 GΩ > 200 GΩ | unspecified 5% 20% unspecified |
| 2500 V | < 2.5 MΩ 2.5 MΩ to 50 GΩ 50 GΩ to 500 GΩ > 500 GΩ | unspecified 5% 20% unspecified |
| 5000 V | < 5 ΜΩ 5 ΜΩ to 100 GΩ 100 GΩ to 1 ΤΩ > 1 ΤΩ | unspecified 5% 20% unspecified |
| 10000 V (1555 only) | < 10 ΜΩ 10 ΜΩ to 200 GΩ 200 GΩ to 2 TΩ > 2 TΩ | unspecified 5% 20% unspecified |
| | | |

| Functions | Range | Accuracy (±reading) |
|-------------------------|-------------------------------|----------------------|
| Leakage current | 1 nA to 2 mA | ±(5% + 2 nA) |
| Capacitance measurement | 0.01 uF to 15.00 µF | ±(15% rdg + 0.03 μF) |
| Live circuit warning | 30 V to 600 V AC/DC, 50/60 Hz | ±(15% + 2 V) |

Combine the IR3000 FC Connector and Fluke Connect™, to perform advanced insulation testing for preventive and PdM tasks through:



Insulation Testers

84

- PI (polarity index) and DAR (dielectric absorption ratio) tests with TrendIt[™] graphs to identify problems faster
- Wireless transfer of test results from the tool to Fluke Connect[™] eliminates error-prone paperwork and saves your technician's time
- Temperature compensation through Fluke Connect[™] App helps establish accurate baselines and relevant historical comparisons

Recommended Accessories Fluke 1550C TLK1550-RTLC FVF-BASIC egral Test Lead and 10 kV Clamp Fhi eView™ ro Software CXT1555 IR189USB Pelican Carrying Case IR3000FC 1550 ir3000 Connector

Recommended Kits Bundle & Save Fluke 1550C 5 kV Insulation

Tester Kit

Fluke 1550C FC 5 kV Insulation **Tester Kit with IR 3000FC** Fluke 1555 10 kV Insulation **Tester Kit**

Fluke 1555 10 kV Insulation **Tester Kit with IR 3000FC**

Included Accessories

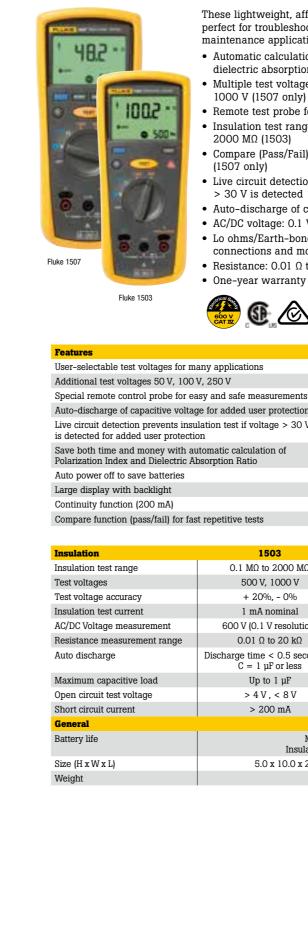
Test Cables with Alligator Clips (red, black, green), Infrared Adapter with Interface Cable FlukeView[™] Forms Basic CD, AC Power Cord, Soft Carrying Case, User Manual, Ouick Reference Card, Software License Agreement, Registration Card, FlukeView[™] Forms Installation Guide, USB-IR Cable Installation Guide, IP67 Hard Case (Kit only), Certificate of Calibration (Kit only), Ruggedized Alligator Clips (Kit and 1555 only), IR3000FC 1550 Connector (FC models only).

Ordering Information

FLUKE-1550C 5 kV Insulation Tester FLUKE-1550C 5 kV Insulation Tester with IR 3000FC FC FLUKE-1555 10 kV Insulation Tester FLUKE-1555 10 kV Insulation FC Tester with IR 3000FC FLUKE-1550C 5 kV Insulation Tester KIT Kit FLUKE-1550C 5 kV Insulation Tester FC KIT Kit with IR 3000FC FLUKE-1555 10 kV Insulation KIT Tester Kit FLUKE-1555 10 kV Insulation Tester FC KIT Kit with IR 3000FC

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

Fluke 1507 and 1503 Insulation Resistance Testers



These lightweight, affordable insulation testers are perfect for troubleshooting, commissioning and preventive maintenance applications.

- Automatic calculation of polarization index and dielectric absorption ratio (1507 only)
- Multiple test voltages: 50 V, 100 V, 250 V, 500 V, 1000 V (1507 only)
- Remote test probe for rapid testing • Insulation test range 0.01 M Ω to 10 G Ω (1507), 0.1 M Ω to
- 2000 MΩ (1503) · Compare (Pass/Fail) function for repetitive tests
- (1507 only) · Live circuit detection prevents insulation test if voltage
- > 30 V is detected
- Auto-discharge of capacitive voltage
- AC/DC voltage: 0.1 V to 600 V
- connections and motor windings
- Resistance: 0.01 Ω to 20.00 Ω



| Features | 1503 | 1507 |
|---|------|------|
| User-selectable test voltages for many applications | • | • |
| Additional test voltages 50 V, 100 V, 250 V | | • |
| Special remote control probe for easy and safe measurements | • | • |
| Auto-discharge of capacitive voltage for added user protection | • | • |
| Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection | • | • |
| Save both time and money with automatic calculation of Polarization Index and Dielectric Absorption Ratio | | • |
| Auto power off to save batteries | • | • |
| Large display with backlight | • | • |
| Continuity function (200 mA) | • | • |
| Compare function (pass/fail) for fast repetitive tests | | • |

| Insulation | 1503 | |
|------------------------------|---|------------|
| Insulation test range | 0.1 MΩ to 2000 MΩ | |
| Test voltages | 500 V, 1000 V | 50 V, 10 |
| Test voltage accuracy | + 20%, - 0% | |
| Insulation test current | 1 mA nominal | |
| AC/DC Voltage measurement | 600 V (0.1 V resolution) | 60 |
| Resistance measurement range | 0.01 Ω to 20 kΩ | |
| Auto discharge | Discharge time < 0.5 second for $C = 1 \ \mu F$ or less | Dischai |
| Maximum capacitive load | Up to 1 µF | |
| Open circuit test voltage | > 4 V , < 8 V | |
| Short circuit current | > 200 mA | |
| General | | |
| Battery life | Meter: 10 Insulation Tes | |
| Size (H x W x L) | 5.0 x 10.0 x 20.3 cm | (1.97 x 3. |
| Weight | 550 g | (1.2 lb) |
| | | |



Insulation Testers

• Lo ohms/Earth-bond continuity (200 mA) for checking

1507

0.01 MΩ to 10 GΩ 00 V, 250 V, 500 V, 1000 V + 20%, - 0% 1 mA nominal 00 V (0.1 V resolution) 0.01 Ω to 20 kΩ arge time < 0.5 second for $C = 1 \ \mu F \text{ or less}$ Up to 1 µF >4V.<8V > 200 mA

) tests 3.94 x 8.00 in)

Recommended Accessories









Stray Voltage Adapter Test Lead Kit



TLK289

TL27 Heavy Duty Test Lead Set



Soft Carrying

PVLEAD1

MC4 to 4 mm Test Lead Set



PVLEAD3

MC4 Solar Clamp Test Lead Set

Fluke 1507/1503 Applications



Insulation test at a distribution panel



Wiring test in a small distribution box - all in one spot

Included Accessories

TL224 Test Leads, TP74 Test Probes, Clips PN 1958654 (red) and PN 1958646 (black), Holster, Remote Probe and User Manual

Ordering Information

| FLUKE-1507 | Insulation Tester |
|------------|-------------------|
| FLUKE-1503 | Insulation Tester |



Fluke 1535 and 1537 2500V Insulation Resistance Meter



Fluke 1535 features:

- Up to 500 G Ω insulation resistance measurement range
- Fast-measurement design, faster & stable resistance reading, higher efficiency
- Automatic calculation of polarization index (PI) and dielectric absorption ratio (DAR)
- Low power design meets the requirements of high-intensity work: up to 1300 times of 2500 V measurement, and up to 6500 times of 250 V measurements*
- High-safety design with dangerous voltage alarm function, and complies with CAT IV 600V standard and China power industry specifications DLT845
- The new high-reliability design, all specifications are met even under the environment of 50 °C temperature and 80% RH; all probes and corresponding ports are tested for 30,000 mating test

Fluke 1537 adds the following features based-on the above features:

- AC/DC voltage and resistance measurement
- Short-circuit current >5 mA, faster and more accurate
- Fine-tunable test voltage: 250 V to 2500 V,100 V step/li>
- Step mode with linear increment test voltage (100 V/s), breakdown voltage indication
- Automatic calculation of dielectric discharge rate (DD), find insulation problems that are not easily detectable in multilayer insulation
- User-defined label, timing test, measurement results storage
- Download data with provided PC software
- 3 years warranty

| Specifications | | Fluke 1535 & | 1537 Insulati | on resistance i | meters | | | | |
|---|------------|------------------|--------------------|-----------------------|----------------------|--------------------|----------------------|----------------------|--------------------|
| Range | | < 200kΩ | 200 kΩ to 500kΩ | 0.50 MΩ to 5.00 MΩ | 5.0 MΩ to 50.0 MΩ | 50 MΩ to 500 MΩ | 0.5 GΩ to 5.00 GΩ | 5.0 GΩ to 50.0 GΩ | 50 GΩ to 500 GΩ |
| Resolution | | Not specified | 1 kΩ | 10 kΩ | 100 kΩ | 1 MΩ | 10 MΩ | 500 MΩ | 5 GΩ |
| Accuracy | | Not specified | 5 % | 5 % | 5 % | 5 % | 5 % | 5 to 20% | 20% |
| Leakage current me | asurement | | | | | | | | |
| Range 1 nA to mA | | | | | | | | | |
| Accuracy $\pm (0\% + 2 \text{ nA})$ | | | | | | | | | |
| Capacitance measu | rement | | | | | | | | |
| Range 0.01 µ F to 2.00 µF | | | | | | | | | |
| Accuracy $\pm (15 \% rdg + 0.03 \mu F)$ | | | | | | | | | |
| Test voltage for insulation resistance | | | | | | | | | |
| Range | | 250 V to 2500 | V | | | | | | |
| Accuracy ±(3 % + 3 V) | | | | | | | | | |
| Timer | | | | | | | | | |
| Range 0 to 99 min | | | | | | | | | |
| Resolution | | Setting: 1 min | Alert: 1 s | | | | | | |
| Warning for energiz | ed circuit | _ | | | | | | | |
| Warning range | | >30 V | | | | | | | |
| * Shortage current | 1535 > 2 n | nA 153 | 87 > 5 mA | | | | | | |
| | | ACV/DCV/res | istance measu | rement (1537 o | only) | | | | |
| VAC | | | | | | | | | |
| Pango | | 0 17 to 600 0 17 | | | | | | | |

| VAC | | | |
|----------------------------|------------------------------|-----------------|--------------------|
| Range | 0 V to 600.0 V | | |
| Resolution | 0.1 V | | |
| Accuracy, ±(% rdg + digit) | ±(2 % +10) (45 Hz to 500 Hz) | | |
| VDC | | | |
| Range | 0 V to 600.0 V | | |
| Resolution | 0.1 V | | |
| Accuracy, ±(% rdg + digit) | ±(2 % +10) | | |
| Resistance | | | |
| Range | 0 Ω to 600.0 Ω | 600 Ω to 6000 Ω | 6.00 Ω to 60.00 kΩ |
| Resolution | 0.1 Ω | 1Ω | 10 Ω |
| Accuracy, ±(% rdg + digit) | ±(2 % +10) | | |

Earth Ground Testers

Poor grounding contributes to unnecessary downtime, but a lack of good grounding is dangerous and increases the risk of equipment failure.

Without an effective grounding system, you could be exposed to the risk of electric shock, instrumentation errors, harmonic distortion issues, power factor problems and a host of possible intermittent events. If fault currents have no path to the ground through a properly designed and maintained grounding system, they will find unintended paths that could include people.

Good grounding is more than a safety measure it also prevents damage to industrial plants and equipment. A good grounding system will improve the reliability of equipment and reduce the likelihood of damage due to lightning or fault currents.

Fluke 1630-2 FC Earth Ground Clamp Meter



6

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Stakeless earth ground loop and AC leakage current clamp for fast, safe indoor/outdoor earth ground resistance and AC leakage current tests.

Heavy-duty clamp jaw stays in alignment and in calibration even in every day, on-the-job industrial environments. Test the grounding components of equipment in hardto-reach spaces, including areas that are indoors or fully paved and do not permit driving auxiliary test stakes. Stay on line-identify ground loop resistance without the need to disconnect then reconnect the earth electrode from the system.

Stakeless measurement

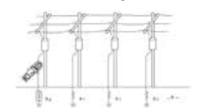
The 1630-2 FC clamp measures earth ground loop resistances for multi-grounded systems using the dualclamp jaw. This test technique eliminates the dangerous and time-consuming activity of disconnecting parallel grounds, as well as the process of finding suitable locations for auxiliary test stakes. You can also perform ground tests in places that were previously difficult: inside buildings, on power pylons or anywhere you don't have access to soil to place auxiliary test stakes. With this test method, a twoprocess measurement is made around the earth ground wire or bus bar using the specially-designed jaw of the 1630-2 FC clamp. Auxiliary test stakes are not used at all. A known voltage is induced by the source in the clamp, and the current is measured by the sensor in the clamp. The tester automatically determines the earth loop resistance for this section of the earthing system. One-year warranty.

Electrical specifications Maximum voltage to earth 1000 V ground Battery type AA alkaline IEC/EN LR6 (x4) More than 15 hours Battery life 40 Hz to 1 kHz Frequency range IEC 60529: IP30 with jaw closed Ingress protection Digital 9999 counts LCD reading Refresh rate 4 Hz Reference temperature 23 °C ±5 °C (73 °F ±9 °F) Display Reading Minimum Maximum Input (Ω) Specification with Loop Resistance Standard 0.47 0.41 0.53 0.5 0.44 0.55 9.55 10.45 10 100 96 104.0 Data logging capacity Minimum of 32760 measurements Safety IEC 61010-1: Pollution Degree 2, IEC 61557-1 General Measurement | IEC 61010-2-032: CAT IV 600 V / CAT III 1000 V Current clamp for leakage IEC 61557-13: Class 2, ≤30 A/m current measurements Resistance to Earth IEC 61557-5 Effectiveness of the IEC 61557-16: cutoff frequency 20 kHz (-3 dB)

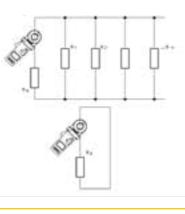
| General specifications | |
|------------------------|---|
| Conductor size | 40 mm (1.57 in) approximately |
| Dimensions (L x W x H) | 283 x 105 x 48 mm (11.1 x 4.1 x 1.9 in) |
| Weight | 880g (31 oz) |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

Ground Resistance Measurement Principle



Equivalent Circuit Diagram





Included Accessories Hard Case, Loop Resistance Standard,

Four AA Batteries, Safety Information Guide and Quick Reference Guide.

Ordering Information Fluke-1630-2 FC Earth Ground Loop and

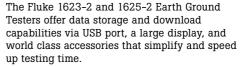
Leakage Clamp Fluke-1630-2 Earth Ground Loop and Leakage Clamp

Contact your local distributor for price and availability. fluke.com/findus

Fluke 1620-2 Series Geo Earth Ground Testers







These unique earth ground testers that can perform all four types of earth ground measurement:

- 3 and 4-Pole Fall-of-Potential (using stakes)
- 4-Pole Soil Resistivity testing (using stakes)
- Selective testing (using 1 clamp and stakes)
- Stakeless testing (using 2 clamps only)
- IP56 rated for outdoor use · Professional carrying case
- · USB data storage and transfer
 - Two-year warranty

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

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

Earth ground resistance and soil resistivity should be measured when:

• Designing earth ground systems

Fluke 1623-2

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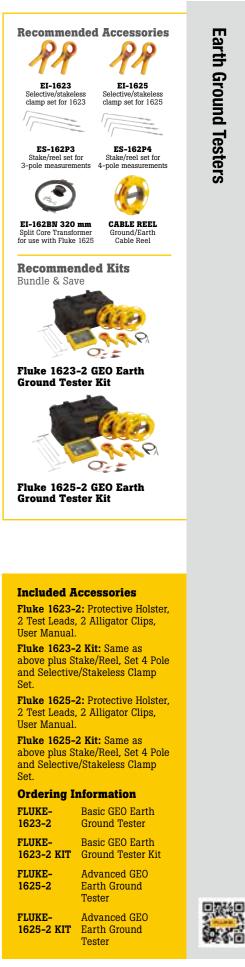
- · Installing new ground system and electrical equipment
- · Periodically testing ground and lightning protection systems
- Installing large electrical equipment such as transformers, switchgears, machines, etc.

| Features | 1623-2 | 1625-2 |
|---|--------------|--------------|
| One-button measurement concept | • | |
| 3- and 4-pole Fall of Potential, earth resistance loop testing | • | • |
| 4-Pole soil resistivity testing | • | • |
| 2-Pole resistance measurement AC | | • |
| 2-and 4-pole resistance measurement DC | | • |
| Selective testing, no disconnection of ground conductor (1 clamp) | • | • |
| Stakeless testing, quick ground loop testing (2 clamps) | • | • |
| Measuring frequency 128 Hz | • | |
| Earth impedance measurement at 55 Hz | | • |
| Automatic frequency control (AFC) (94 - 128 Hz) | | • |
| Measuring voltage switchable 20/48V | | • |
| Programmable limits, settings | | • |
| Continuity with buzzer | | • |
| Dust/water resistance | IP56 | IP56 |
| Safety rating | CAT II 300 V | CAT II 300 V |

| Specifications | 1623-2 | 1625-2 | | |
|------------------------|--|--|--|--|
| Resistance ranges | 0 to 20 kΩ | 0 to 300 kΩ | | |
| Operating error | ±10% | ±5% | | |
| Test voltage | 48 V | 20 / 48 V | | |
| Short circuit current | > 50 mA | 250 mA | | |
| Weight | 1.1 kg (2.43 lb) (including batteries) | 1.1 kg (2.43 lb) (including batteries) | | |
| Dimensions (W x H x D) | 250 x 133 x 187 mm (9.75 x 5.25 x 7.35 in) | | | |
| Battery type | AA alkaline IE | C/EN LR6 (x6) | | |

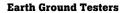
These products are for unpowered installations measuring grounding connections

protective measures



Earth **Ground Testers**

FLUKE





Fluke 1660 Series Multifunction Installation Testers





Fluke 1663

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Fluke 1662

Fluke 1660 Series Multifunction Installation Testers verify the safety of electrical installations in domestic, commercial and industrial applications. They can ensure that fixed wiring is safe and correctly installed to meet the requirements of IEC 60364 and all relevant local standards. Three-year warranty.

Fluke 1664 FC – The complete

tester for advanced users The Fluke 1664 FC is the only installation tester that protects connected appliances from damage during insulation tests, and allows you to share your test results wirelessly by smartphone with coworkers or customers. Fluke's patented Insulation PreTest 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, the Fluke 1664 FC offers you the power of Fluke Connect[™]. Now you can send test results straight from your Fluke 1664 FC to your smartphone, and transmit those results to other members of your team.

Fluke 1663 - The ideal tester for professional troubleshooters

This instrument is ideal for professional users' high-end functionality, advanced measurement capability, yet it is still easy to use.

Fluke 1662 - A solid, basic installation tester

The Fluke 1662 gives you Fluke reliability, simple operation and all the testing power you need for basic installation testing.

| Measurement function | 1664 |
|--|--------|
| Insulation PreTest safety function | • |
| Insulation at L-N, N-PE inputs | • |
| Auto Test sequence | • |
| Loop and line resistance– $m\Omega$ resolution | • |
| Continuity at L-N, N-PE inputs | • |
| Test smooth dc sensitive RCDs (Type B/B+) | • |
| Earth resistance | • |
| Wiring polarity checker, detects broken PE and N wires | • |
| Insulation resistance | • |
| Continuity and resistance | • |
| Measure motor windings with continuity test (@ 10 mA) | • |
| Loop and line resistance | • |
| Prospective earth fault current (PEFC/IK) | • |
| Prospective short-circuit current (PSC/IK) | • |
| RCD trip time | • |
| RCD trip current (ramp test) | • |
| Measures trip time and current for RCD type A and AC in one test $% \left({{\boldsymbol{A}}_{i}} \right)$ | • |
| Automatic RCD test sequence | • |
| Phase sequence test | • |
| Other features | |
| Fluke Connect™ compatibility | • |
| ShareLive™ calling | • |
| On/Off switchable auto-start for RCD and Looptest | • |
| Self-test | • |
| Memory, interface | |
| Z Max memory | • |
| Memory | • |
| $\ensuremath{IR\text{-}USB}$ and \ensuremath{BLE} interface (when used with optional FVF software) | IR-USI |
| | |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

Testers

Safety and performance are two of the most critical requirements for any electrical system. Good quality insulation, a properly working grounding system and active protection assure the safety of people, electrical systems and buildings, and protect them against electrocution, fire and other equipment damage.

| FC | 1663 | 1662 |
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| B/BLE | IR-USB | IR-USB |
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Zero Adapter, Heavy Duty Mains Cord, STD Standard Test Lead Set, Padded Carrying and Waist Strap, Quick Reference Guide, TP165X Remote Control Probe and Lead Set, User Manual on CD.

Ordering Information

| Fluke | Multifunction Installation |
|-------|---|
| 1664 | Tester with Auto Test, |
| FC | Insulation PreTest, Fluke |
| | Connect [™] compatibility with FlukeView [™] Forms Software |
| | Multifunction Installation |

Tester with FlukeView[™] Forms Software

Fluke Multifunction Installation 1662 Tester

Contact your local distributor for price and availability. fluke.com/findus



FLUKE



Power Quality Tools Selection Guide

| Basic measurements Annli | | Single- Phase | | | | Three-Phase | | | |
|---|--|------------------|---------|---------|------|-------------|------|-------|--------|
| | Application use | VR1710 | 1732/34 | 1736/38 | 1742 | 1746/1748 | 1773 | 1775 | 1777 |
| Energy Studies | | | | | | | | | |
| Whr | theilod normer and one condition | | • | • | • | • | • | • | • |
| Weasure MIN/MAX and AVG profile values | Get detailed power and energy consumption profiles during energy audits and pinpoint savings opportunities | | • | • | • | • | • | • | • |
| Waste energy monetization | | | | | | | | | |
| Basic Harmonics Study | | | | | | | | | |
| THD measurement (V & I) Discov | Discover the source of distortion in your | • | • | • | • | • | • | • | • |
| Harmonics 1 to 25 for V & I loads | installation, so that you can filter those loads or move them to separate circuits | • (V only) | | • | | • | • | • | • |
| Advanced Harmonics Study | | | | | | | | | |
| Full harmonic spectrum | If distorting loads are causing problems in | | | • | | • | • | • | • |
| your ins Power harmonics data to i solution | your installation, you need comprehensive data to identify the source and create a solution | | | | | | • | • | • |
| Basic Industrial PQ Troubleshooting | | | | | | | | | |
| Oscilloscope function When | When troubleshooting in the field, graphical | | | • | | | • | • | • |
| Voltage dips and swells proble | data enables you to trace the source of the problem at hand | • | | • | | • | • | • | • |
| Advanced Industrial PQ Troubleshooting | ing | | | | | | | | |
| Comprehensive logging capability | Complex installations often require a deeper dive into measurement data. Multiple loads | | | • | • | • | • | • | • |
| Transient capture | may be interacting randomly to cause a | • | | • | | | • | • | • |
| Flicker | single problem | • | | | • | • | • | • | • |
| Event capture and transients with waveforms | forms | | | | | | | • | • |
| 8kV transients | | | | | | | | 1 MHz | 20 MHz |
| Features | | | | | | | | | |
| Inrush | | | | • | | • | • | • | • |
| Flicker | | | | | • | • | • | • | • |
| Transients | | | | | | | | • | • |
| Mains signaling | | | | | | • | • | • | • |
| Event waveform capture | | | | • | | | • | • | • |





NFW Fluke 1770 Series Power Quality Analyzers



The faster, easier way to perform power quality studies.

Fluke 1770 Series Three-Phase Power Quality Analyzers eliminate the complexities of power quality logging, troubleshooting, and analysis. Engineered to be the faster, easier way to perform power quality studies, the 1770 Series offers automatic measurements, a straightforward user interface and setup, best-in-class specifications, and a simplified reporting platform. The instrument can also be powered directly from the measurement circuit, eliminating the need to find a power outlet or use a lengthy extension cord. With the 1770 Series vou'll never miss a critical power quality event-from fast transients up to 8 kV, harmonics up to 30 kHz, dips and swells, as well as the voltage, current, and power measurements that enable you to characterize your electrical system.

- True power quality tool: Captures all the key measurements you need to determine power quality health automatically without additional setup, including key power quality parameters harmonics, dips, swells, unbalance, inrush etc.
- AC/DC applications: Measure AC up to 6000 A and DC up to 2000 A
- High speed transients: 20 MS/s (1777) & 1 MS/s sampling up to 8 kV to enable capture of high voltage, high speed transients that can cause physical damage to equipment.
- Class A compliant: Perform tests knowing you are fully compliant with stringent international IEC 6100-4-30 Class A standards
- Power quality health summary: Automatically evaluate power quality inputs against the EN 50160 electrical standard, providing detailed troubleshooting of problem areas
- Real time data: At-a-glance "Advanced Power Quality Health" summary screen with graphical representation, allows you to analyze real time data and zoomed views while all your recording needs are taken care of
- Simple guided setup functionality: Auto-detection of system type (WYE/Delta/Frequency 50-60 Hz/Nominal voltage) and auto-population of non-system-specific parameters
- Ease of operation: High resolution capacitive touch-screen and button user interface ensures that gloved operation is simple and easy providing clear results in seconds
- Power system connection and instrument setup autocorrection: Automatically detect and correct errors in voltage and current wiring, manual correction also available
- Automatic parasitic power from measurement line: Power internal battery with 120/240 V AC adapter or direct connection to measurement line (up to 600 V AC)
- Customized views and reporting: Create custom views to operate more efficiently and simply. Using Energy Analyze Plus software custom reporting templates can be created
- Highest safety rating in the industry: CAT III 1000 V / CAT IV 600 V rated for use at service entrance
- Easy access to data: with 8 GB of internal memory, expandable to 32 GB, continual powering of measurement circuits and advanced communication options such as WIFI and LTE communication, no event or data will be missed
- Two-year warranty

| | 1773 | 1775 | 1777 |
|---|------|-------|--------|
| Applications | | | |
| Harmonic surveys | • | • | • |
| Basic power and power quality studies | • | • | • |
| Energy surveys and load testing | • | • | • |
| Nuisance circuit breaker tripping | | • | • |
| Advanced power and power quality studies | | • | • |
| Discovery of equipment failures caused by transients | | • | • |
| Utility power quality surveys | | • | • |
| Diagnose electronic equipment damage with capture of high speed, high magnitude (8 kV) voltage transients | | | • |
| Features | | | |
| Event capture with table | • | • | • |
| Event capture and transient with waveforms | | • | • |
| High speed transient capture with waveshape analysis in FEA+ application software | | 1 MHz | 20 MHz |



Captures all the key measurements you need to determine power quality health.



Log up to 10 sessions of 8 weeks with 1-minute ervals and 100 events.



Fluke 1777 Power Quality Analyzer kit with included iFlex[™] and Alligator clips.

| | | Fluke 1770 Series Power Quality Analyzers |
|---|----------------------|---|
| Voltage inpu | ıts | |
| Number of in | puts | 4 inputs, 3 phases and neutral referenced to |
| Measuremen | t category | CAT III 1000 V / CAT IV 600 |
| Maximum inj | put voltage | 1000 V rms / 1000 V DC (1700 |
| Nominal volta | age range | Wye and single phase: variable (50 V Delta: Variable (100 V – 1000 IEC 61000-4-30 Class A compliance for the no 100 V – 690 V |
| Input impeda | ance | $10~\text{M}\Omega$ between P-P and P-N, 5 M Ω betwee |
| Bandwidth | | DC to 30 kHz for PQ measurements, exclu |
| Resolution | | 24-bit synchronous samplin |
| Sampling fre | quency | 80 kS/s at 50/60 Hz |
| Scaling | | 1:1, variable for use of potential tra |
| Voltage tran | sients | |
| Measuremen | t range | ±8 kVpk |
| Sampling rat | e | 1775: 1 MS/s 1777: 1 MS/s, 20 MS/s |
| Bandwidth | | DC to 1 MHz |
| Trigger | | Adjustable trigger level. Triggers on high-frequen |
| Resolution | | 14-bit synchronous samplin |
| Current inpu | uts | |
| Number of in | puts | 4 inputs 3 phases and Neutral, range selected auton |
| Range | AC | 1 A to 1500 A with 117XX-FLEX1 1 A to 1500 A with 117XX-FLEX1 3 A to 3000 A with 117XX-FLEX3 6 A to 6000 A with 117XX-FLEX3 40 mA to 400 A with clamp i40 4 A to 400 A with clamp i400 |
| | DC | 20 A to 2000 A with 80i-2010-E |
| Bandwidth | | DC to 30 kHz |
| Resolution | | 24-bit synchronous samplin |
| Sampling fre | quency | 80 kS/s at 50/60 Hz |
| Scaling | | 1:1, variable |
| | | Clamp: 50 mV / 500 mV rms; 0 Rogowski Coil: 15 mV / 150 mV rms at 50 Hz, 18 m |
| Input voltage | • | |
| Input voltage | | |
| | | CF 4 all at nominal probe rar |
| Input impeda Aux inputs | ance | CF 4 all at nominal probe rar |
| Input impeda Aux inputs | ance ction with 1 | CF 4 all at nominal probe rar 11 kΩ |
| Input impeda Aux inputs Wired conne | ance ction with 1 | CF 4 all at nominal probe rar 11 kΩ 7xx-AUX adapter |

Fluke P0400 Electrical Measurement Window



Fluke PQ400

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).

- Permanently connected voltage and current sensors located inside the electrical panel allow you to make power quality and energy measurements using the external access points without opening the panel door
- Automatic probe detection for Fluke 1740, 1730 and 1770 series power quality analyzers and energy loggers and compatible clamps
- Full 360 degree rotation allows the PQ400 window to be oriented in any direction
- · Simple installation using a step drill bit and electrohydraulic hole punch
- IP67 with cover closed, IP50 with cover opened and all connectors attached
- Five-year warranty





to PE (5 connectors) УC

00 Vpk) V - 1000 V) (V 0 iominal voltages (V_{din})

een P-PE and N-PE uding transients

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ansformers





i40s-EL/3pk 40 A Clamp-on Current Transforme (individual or 3pk)

I400S AC Curr

Power Quality

cy components >1.5 kHz

matically to attached sensor 1500 12 1500 24 3000 24 6000 36 Os-EL)s-EL EL clamp

lina

CF 2.8 mV / 180 mV rms at 60 Hz;

±1000 V DC

Included Accessories

17XX iFlex[™] 1500 A 24 IN, Voltage Test Lead 3-Phase+N, 4x AC285 Black Alligator Clips, 1x AC285 Green Alligator Clip, USB-C Cable, Line Cord, FLK-17XX 0.18 M Test Lead Set, Green Test Lead, Cable Marker Set, WiFi/BLE Module (1775, 1777), Magnet Probe (1775, 1777), Hanger Kit (1775, 1777), Black Soft Case (1775), Hardcase (1777)

PO400: Enclosure, 4× Male-Male Cable 2 m for iFlex[™] Current Probes, Cable Marker Set 3P+N+PE, Cable Ties, Instruction Sheet

Ordering Information

| FLUKE-1773 | Three-Phase Power Quality Analyzer w/ Accessories |
|------------|---|
| FLUKE- | Three-Phase |

1773/BASIC Power Quality Analyzer Only FLUKE-1775 Three-Phase Power

Quality Analyzer w/ Accessories

FLUKE-Three-Phase 1775/BASIC Power Quality Analyzer Only

FLUKE-1777 Three-Phase Power Quality Analyzer w/ Accessories

FLUKE-Three-Phase 1777/BASIC Power Quality Analyzer Only

FLUKE-PQ400

Power Quality Window



Fluke 1732 and 1734 Three-Phase **Electrical Energy Loggers**



Fluke 1734



reach — discover where you're wasting energy, optimize your facility's energy use and reduce your bill

The Fluke 1732 and 1734 Three-Phase Electrical Energy Loggers introduce a new simplicity to discovering sources of electrical energy waste. Discover when and where energy in your facility is being consumed-from the service entrance to individual circuits. Access and share data remotely with your team via the Fluke Connect™ app so you can maintain safer working distances and make critical decisions in real-time, reducing the need for protective equipment, site

Profiling energy use across your facility helps you identify opportunities for energy savings, and provides you with the data you need to act on them. The new Energy Analyze software package allows you to compare multiple data points over time to build a complete picture of energy use, which is the first step to reduce the cost of your energy bill.

- Key measurements: Automatically capture and log voltage, current, power, power factor, energy and associated values
- Fluke Connect[™] compatible: View data locally on the instrument, via Fluke Connect[™] mobile app and desktop software or through your facilities' WiFi infrastructure
- Convenient instrument powering: Power instrument directly from the measured circuit
- Highest safety rating in the industry: CAT IV 600 V / CAT III 1000 V rated for use at the service entrance and downstream
- Measure all three-phases: With included three flexible current probes
- Fully integrated logging: Connect other Fluke Connect[™] devices to the Fluke 1734 to simultaneously log up to two other measurement parameters, virtually any parameter available on a Fluke Connect[™] wireless digital multimeter or module
- Energy Analyze Plus application software: Download and analyze every detail of energy consumption with our automated reporting
- One-year warranty

| Specific | ations | | | |
|-------------------|---------------------|-------------------------|-------------------------|---|
| Parame | ter | Range | Max resolution | Intrinsic accuracy at reference conditions (% of reading +% of full scale) |
| Voltage | | 1000 V | 0.1 V | ±(0.2% + 0.01%) |
| | i17xx-flex 1500 12" | 150 A | 0.1 A | ±(1% + 0.02%) |
| | | 1500 A | 1 A | ±(1% + 0.02%) |
| | i17xx-flex 3000 24" | 300 A | 1 A | ±(1% + 0.03%) |
| Current | | 3000 A | 10 A | ±(1% + 0.03%) |
| Current | i17xx-flex 6000 36" | 600 A | 1 A | ±(1.5% + 0.03%) |
| | | 6000 A | 10 A | ±(1.5% + 0.03%) |
| | i40s-EL clamp | 4 A | 1 mA | ±(0.7% + 0.02%) |
| | | 40 A | 10 mA | ±(0.7% + 0.02%) |
| Frequen | су | 42.5 Hz to 69 Hz | 0.01 Hz | ±(0.1%) |
| Aux inpu | ıt | ±10 V DC | 0.1 mV | ±(0.2% + 0.02%) |
| Voltage | min/max | 1000 V | 0.1 V | ±(1% + 0.1%) |
| Current | min/max | defined by accessory | defined by accessory | ±(5% + 0.2%) |
| THD on | voltage | 1000% | 0.1% | ±0.5 |
| THD on | current | 1000% | 0.1% | ±0.5 |
| Voltage 50th | harmonics 2nd | 1000 V | 0.1 V | ≥ 10 V: ±5% of reading < 10 V: ±0.5 V |
| Current 1 50th | harmonics 2nd | defined by accessory | defined by accessory | \geq 3% of current range: ±5% of reading < 3% of current range: ±0.15% of range |
| Unbalan | се | 100% | 0.1% | ±0.2 |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

Energy logging is now within your

visits and check-ins.

i17XX-FLEX 6000 6000 A 36 inch iFlex^m Current Clamps (Purchase as individual, 3pk or 4pk) 40 A Clamp-on Curren Transformer 3 pack

i17XX-FLEX 1500

500 A 12 inch iFlex[™]

Current Clamps

Q

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0



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Recommended Accessories

Test Lead Set, 1000V CAT III, Non-stackable Test Lead Set, 1000V CAT III, Non-stackable Connectors: 0.1 m: Red/Blk Connectors: 1.5 m: Red/Blk

00

i17XX-FLEX 3000

000 A 24 inch iFlex

i40s-EL/3pk

O





Included Accessories

Power Supply, Voltage Test Leads, 4× Alligator Clips, 3× 12 inch 1,500A Flexible Current Probe, Soft Case, Energy Analyse Plus Software, Line Cords, Colour Coding Set and Documentation on USB Flash Drive, Magnetic Hanging Strap (1734) and Magnetic Voltage Probes (1734).

Ordering Information

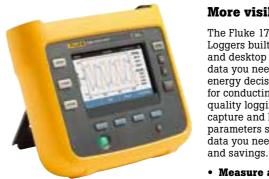
FLUKE Energy Logger (incl. current 1732/INTL probes)

FLUKE Energy Logger, 1734/B Basic Version with Fluke Connect[™] (excl. current probes)

FLUKE Energy Logger 1734/INTL (incl. current probes)

Contact your local distributor for price and availability. fluke.com/findus

Fluke 1736 and 1738 **Three-Phase Power Loggers**











• One-year warranty

function.

panel

measurement trends.



Fluke 1738

| | Three-Phase Energy Loggers | | Three-Phase Energy Loggers | | |
|--|---------------------------------------|---|---|-------------------------------|--|
| | 1732 Energy Logger | 1734 Energy Logger | 1736 Power Logger | 1738 Advanced Power Logger | |
| Load studies | • | • | • | • | |
| Energy assessments | • | • | • | • | |
| Neutral Current Measurement (four current channels) | - | - | • | • | |
| Harmonics measurements | - | - | • | • | |
| Voltage event capture | - | - | • | • | |
| Advanced analysis: Waveform and Inrush event capture PQ Health (EN 51060) | - | - | Upgrade package* | • | |
| Fully integrated logging with Fluke Connect™ | Upgrade package* | • | Upgrade package* | • | |
| WiFi | Optional | • | • | • | |
| Wi-Fi / Bluetooth | Optional | • | Optional | • | |
| Magnetic probe set | Optional | • | Optional | • | |
| Magnetic hanger | Optional | • | Optional | • | |
| Connection via WiFi router | Requires FREE s available upon pro | software license oduct registration. | Requires FREE software license available upon product registration | | |

*Upgrade packages are available to upgrade existing 1732 Energy Loggers with the same features of the 1734 Energy logger, and to upgrade existing 1736 Power Loggers with the same features and capabilities of the 1738 Advanced Power Logger. Please note that 1732 and 1734 Energy Loggers cannot be upgraded with the functionality of 1736 and 1738 Power Loggers

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.

96 **Power Quality**





More visibility, reduced uncertainty

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

• Measure all three-phases and neutral with included 4 flexible current probes.

• **Comprehensive logging:** More than 20 separate logging sessions can be stored on the instruments. In fact, all measured values are automatically logged so you never lose

• Capture dips, swells, and inrush currents:

Includes event waveform snapshot and high resolution RMS profile, along with date, timestamp and severity to help pinpoint potential root causes of power quality issues Optimized user interface: Capture the right data every time with quick, guided, graphical setup and reduce uncertainty about your connections with the intelligent verification

Complete "in-the-field" setup through the front panel or Fluke Connect[™] App: No need to return to the workshop for download and

setup or to take a computer to the electrical

Energy Analyze Plus application software: Download and analyze every detail of energy consumption and power quality state of health with our automated reporting.



1736/UPGRADE Upgrade Kit fo: 1736 to 1738

C17XX Soft Case

Included Accessories

Power Supply, Voltage Test Leads, 4× Alligator Clips, 4× 12 inch 1500A Flexible Current Probe, Soft Case, Energy Analyze Plus Software, WiFi Adapter, Line Cords, Color Coding Set and Documentation on USB Flash Drive, Magnetic Hanging Strap (1738) and 4× Magnetic Voltage Probes (1738).

Ordering Information FLUKE Power Logger, 1736/B Basic Version (excl. current probes) FLUKE-Power Logger, 1736/INTL (excl. current probes) FIUKE Power Logger. **Advanced Version** 1738/B (excl. current probes) FLUKE-Power Logger, 1738/INTL Advanced Version (excl. current probes)

Contact your local distributor for price and availability. fluke.com/findus



Power [.] Quality

Fluke 1742, 1746 and 1748 **Three-Phase Power Quality Loggers**



Fluke 1746





Troubleshoot, quantify energy usage and perform quality of service surveys easier than ever

The Fluke 1742, 1746 and 1748 Three-Phase Power Quality Loggers give you fast, easy access to the data you need to make critical power quality and energy decisions in real time, and with the included Energy Analyze Plus software package you can easily create detailed reports.

Fully compliant with international power quality standards such as IEC 61000-4-30 Class A including local compliance to a variety of national and international standards and capable of simultaneously logging up to 500 parameters while also capturing events, the Fluke 1740 Series helps uncover intermittent and hard-to-find power quality issues more easily than ever. Energy Analyze Plus software quickly assesses the quality of power at the service entrance, substation, or at the load, according to national and international standards.

- "In-workshop" or "in-the-field" setup and download through PC application software using USB Memory Stick, Wi-Fi download, wired ethernet connection or via USB cable
- One-touch reporting: Create standardized reports or export data in PQDIF or NeQual compatible format for use with third-party software
- Capture dips, swells and interruptions
- Measures harmonics and interharmonics for voltage and current; also includes unbalance, flicker and rapid voltage changes
- · Two-year warranty (battery not included)

| Measure all power quality and power | 1742 Power | 1746 Power | 1748 Power |
|--|------------------------------|------------------------------|------------------------------|
| paramaters | Quality Logger | Quality Logger | Quality Logger |
| Functions | | | |
| Energy | • | • | • |
| Basic Power Quality | Optional | • | • |
| Advanced Power Quality | Optional | Optional | • |
| Selection Guide | 1742 Power Quality Logger | 1746 Power Quality Logger | 1748 Power Quality Logger |
| Functions | | | |
| Voltage, current, power, power factor, frequency | • | • | • |
| Energy forward/reverse | • | • | • |
| Peak Demand | • | • | • |
| THD | • | • | • |
| Voltage and current harmonics (to 50th) | - | • | • |
| Flicker | • | • | • |
| Unbalance | - | • | • |
| Rapid voltage change events | - | • | • |
| Interharmonics (to 50th) | - | • | • |
| Dips, swells, interruption and transient events tables | - | • | • |
| Mains signaling | - | • | • |
| Inrush current | - | • | • |
| Transients (low frequency)/Waveform deviation events | - | - | • |
| Recording | | | |
| Trend | • | • | • |
| Waveform snapshots | - | - | • |
| RMS profile | - | - | • |
| Communication | | | |
| Ethernet | • | • | • |
| USB (mini B) | • | • | • |
| WiFi download Instrument to device | • | • | • |
| Wifi download via WiFi hub (requires registration) | Opt. | Opt. | Opt. |



Recommended Accessories 0 0 00 i17XX-FLEX1.5KIP i17XX-FLEX3KIP P65 iFlex[™] 1.5KA 60 cm (24") Current Probes IP65 iFlex[™] 3KA 60 cm (24") Current Probes Purchase as indivi 3pk or 4pk) ase as indivi 3pk or 4pk) 00 Par Par Par 00 i17XX-FLEX6KIP i40S-EL/3PK 40 A Clamp-On Current Transformer P65 iFlex[™] 6KA 90 cm (36") Current Probes chase as indiv 3pk or 4pk) s individual or 3pkl P P **IP65 VOLT CONN** MP1-3R/1B P65 Rated Voltag Magnet Probe 1 (3× Red, 1× Black) Connector



3PHVL-1730-5M Cable Assembly, Voltage Test Lead 3-Phase+N 5 m



iarv Input Adapte

Included Accessories

4× Flexible Current Probes, USB Stick, USB Cable, 3PHVL-1730 3-Phase + Neutral Voltage Test Lead, Test Lead Set Red/Black 0.18m, Test Lead Set Red/Black 1.5m, 4× Alligator Clips, 173X/174X Soft Case, Cable Marker Kit, MP1-3R/1B-Magnet Probe 1 Set (3 Red, 1 Black) and Hanger Kit (1748). **Ordering Information** FLUKE-Three-Phase Power 1742/15/INTL Quality Logger

| FLUKE- | Three-Phase Power |
|--------------|-------------------|
| 1742/30/INTL | Quality Logger |
| FLUKE- | Three-Phase Power |
| 1746/15/INTL | Quality Logger |
| FLUKE- | Three-Phase Power |
| 1746/30/INTL | Quality Logger |
| FLUKE- | Three-Phase Power |
| 1748/15/INTL | Quality Logger |
| FLUKE- | Three-Phase Power |
| 1748/30/INTL | Quality Logger |

Contact your local distributor for price and availability. fluke.com/findus

Fluke Norma 6000 Series Portable Power Analyzers



Fluke Norma 6003+



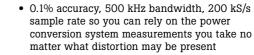
Fluke Norma 6004+



The Fluke Norma 6000 Series Portable Wide-band Precision Power Analyzers gives you more freedom than ever before to make high accuracy power measurements wherever you need. Designed for portability the lightweight, battery powered Fluke 6000 Series eliminates the need to carry large analyzers into the field, allowing you to make measurements directly at the load in nearly any environment. By measuring directly at the load, you can discover how the equipment operates under real-world conditions, with real-world variables, not just at a test bench or in the lab. • Measure three-phase power and DC output power

at the same time (available in 3 or 4 channel), with voltage and current inputs on each channel

6003+ and 6004+



- Take precision power measurements almost anywhere - highly portable, battery powered analyzer weighing only 3.5 kg and 9.3 cm depth with up to 10 hours of battery life
- View critical data in the field on the main display meter, including waveform, harmonics up to the 100th, vector and trend
- Ensure high common-mode rejection and allow flexible configurations according to measurement requirements using the electrically isolated channels
- with continuous logging via 32 GB of onboard storage
- screen or a remote PC connection (USB or RS485),
- included PC software (Fluke NormaView Software) Three-year warranty

| | Norma 6003 | Norma 6003+ | Norma 6004 | Norma 6004+ | | | | | | | |
|---|---|--|----------------------|-------------|--|--|--|--|--|--|--|
| Number of channels for voltage/current | 3/3 | 3/3 | 4/4 | 4/4 | | | | | | | |
| Motor speed/torque measurement | - | Yes | - | Yes | | | | | | | |
| Basic accuracy | 0.1% | | | | | | | | | | |
| Channel-to-channel isolation | | Yes | | | | | | | | | |
| Main Function | | Meter, Scope, Harm | ionic, Phasor, Trend | | | | | | | | |
| Measuring Parameters *Available in N6003+ and N6004+ only | Crest Factor, Forn Harmonic Distor currents, Active Po Shift, Efficiency, Ir | RMS, DC Component, AC Component, Rectified Mean, Peak Value, Peak-Peak, Crest Factor, Form Factor, Fundamental Component, Fundamental Content, Harmonic Distortion, Harmonic Content, Harmonic Factor for voltages and currents, Active Power, Reactive Power, Apparent Power, Power Factor, Phase Shift, Efficiency, Impedance, Electric Energy, Charge/Discharge capacity (Ah), Frequency, Motor Speed*, Torque*, Mechanical Power*, Mechanical Energy* | | | | | | | | | |
| Ingress Protection (IEC 60529) | | IP | 50 | | | | | | | | |
| Safety Compliance (IEC 61010-2-030) | | CAT III 1000 V | , CAT IV 600 V | | | | | | | | |
| Color screen | | 14.48 cm (5.7 ir | ı), backlight, 4:3 | | | | | | | | |
| Lithium battery | | 10.8 V/5000 | mAh, 54 Wh | | | | | | | | |
| Communication Interface | | USB/RS485 | | | | | | | | | |
| PC Software | | Fluke Norma | view Software | | | | | | | | |
| Storage Capacity | | 32 | GB | | | | | | | | |

98



• Make mechanical torgue and speed measurements using the included inputs and outputs of the Fluke

• User-adjustable measurement rate from 100 ms to 1 s • Easy in-field set up using the large 5.7" front LCD Online measuring, data download and analysis with

Recommended Accessories







BP291 Additional Battery



80I-2010S/3PK 2000 A AC/DC irrent Clamp 3 pack Cur



U1500s High Voltage ntial Probe

Power Quality



Included Accessories

Battery BP291, Power Supply Adapter (18V DC, CAT IV 600V Adapter), Power Line Cord, Soft Case, Mains Adapter Set, Test Lead Set, USB (mini B) Cable, RS-485/Synchrony Adapter (3.81 mm, black, 3 pin), Speed / Torque Adapter (3.81 mm, black, 6 pin), USB Flash Drive for PC SW and User Manual.

3-Channel Models: Test Leads, 1.5 m, 3× Red, 3× Black, 6× Blue, Alligator Clips, 3× Red, 3× Black, 6× Blue

4-Channel Models: Test Leads, 1.5 m, 4× Red, 4× Black, 8× Blue, Alligator Clips, 4× Red, 4× Black, 8× Blue

Ordering Information

| NORMA 6003 | 3-Channel Portable Power Analyzer |
|----------------|---|
| NORMA 6003+ | 3-Channel Portable Power Analyzer with Speed/Torque Inputs |
| NORMA 6004 | 4-Channel Portable Power Analyzer |
| NORMA | 4-Channel Portable |

6004+ Power Analyzer with Speed/Torque Inputs



Fluke VR1710 Single Phase Voltage Quality Recorder



Easy-to-use solution for detecting and recording voltage quality problems

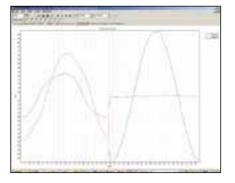
The Fluke VR1710 is a single-phase, plug-in voltage quality recorder that provides fast and easy recording of voltage trends, dropouts, harmonics and general power quality—including dips and surges—to help maintenance and facilities management personnel easily pinpoint the root cause of voltage problems. Voltage quality parameters including RMS average, transients, flicker, and harmonics up to the 32nd are recorded using a userselected average period from 1 second to 20 minutes.

- Fast and easy recording of voltage trends, dropouts and power quality: Easily pinpoint the root cause of single-phase voltage problems
- Extremely easy to use: Plugs directly into the mains power socket and capture data
- Quickly see what happened and when: Min, Max, average RMS values (1/4 cycle) with time stamp and transient display (>100 µs) with time stamp
- Easily identify problems: Power quality or equipment related Flicker recording to EN 61000-4-15, individual harmonic and THD values with trends
- Includes PowerLog software: For quick download, analysis and automatic reporting
- Save time: Generate power quality reports automatically with pre-set templates
- One-year warranty

| a mar | Teny and | 1.2554 | 1.36 |
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| | - | | |

PowerLog Setup – Simple set up of internal clock, logging periods, and intervals with default values for quick results.

PowerLog View – Data presentation showing RMS voltage and harmonic trends, actual transients, summary information and statistics in accordance with EN50160.



Actual transient display (> 100 µs) with time stamp – Quickly identify issues with included graphical software.



Includes PowerLog software

Included Accessories

USB Cable, PowerLog Software CD, Power Cord Adapter.

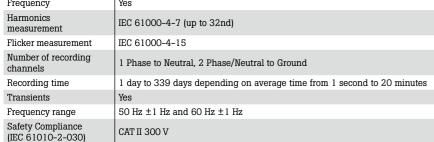
Ordering Information FLK-VR1710 Voltage Quality

Recorder

Contact your local distributor for price and availability. fluke.com/findus

| Applications | |
|------------------------|--|
| Voltage recording | Monitors and records supply voltage; measures RMS average, minimum and maximum values, and checks whether the socket outlet is providing voltage within tolerance. |
| Distortion measurement | Measure frequency and harmonics; check whether the distorting loads (UPS systems, drives, etc.) are affecting your other equipment. |
| Flicker measurement | Quantify the affects of switching loads on lighting systems. |
| Voltage transients | Capture those intermittent, momentary events that may be affecting your equipment: the full waveform is captured with date, timestamp, and duration. |

Specifications 70 V to 300 V 0.5% of range Operating voltage Min/Max/Avg RMS value Resolution 0.12 V Number of events 175000 Dips/Interruptions Yes Time resolution 5 ms Voltage resolution 0.12 V Over-voltages Yes Frequency Yes Harmonics IEC 61000-4-7 (up to 32nd) measurement IEC 61000-4-15 Flicker measurement Number of recording





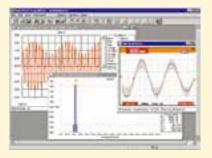
Portable Oscilloscopes

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.

Portable Oscilloscope Selection Guide

| | 1999 | 100 | 619 | HERE | 10000 | The state of the s | HUBB | HORES | HILLING | HIDEB | STATES. |
|--|--------|--------------------------------|--------|-------------|---|--|-------------|-------------|---------|---------|-------------|
| | 1 | 120B Serie | S | | 190 Series III | | | | | | |
| Models | 123B | 124B | 125B | 190-062 | 190-102 | 190-104 | 190-202 | 190-204 | 190-502 | 190-504 | MDA-550-III |
| Bandwidth | 20 MHz | 40 MHz | 40 MHz | 60 MHz | 100 MHz | 100 MHz | 200 MHz | 200 MHz | 500 MHz | 500 MHz | 500 MHz |
| Input Channels | | | | | | | | | | | |
| 2 scope/DMM Channels | • | • | • | | | | | | | | |
| 2 scope Channels + 1 DMM | | | | • | • | | • | | • | | |
| 4 Channels | | | | | | • | | • | | • | • |
| Isolated Inputs | | | | • | • | • | • | • | • | • | • |
| Triggering | | | | 1 | | | | | | | |
| Connect-and-View™ | • | • | • | • | • | • | • | • | • | • | • |
| IntellaSet™ Technology | • | • | • | | | | | | | | |
| Advanced Triggering | | | | • | • | • | • | • | • | • | • |
| Advanced Measurement Fun | nction | | | | | | | | | | |
| Cursors | | • | • | • | • | • | • | • | • | • | • |
| TrendPlot™ | • | • | • | • | • | • | • | • | • | • | • |
| ScopeRecord™ | • | • | • | • | • | • | • | • | • | • | • |
| 100 screen Replay | | | | • | • | • | • | • | • | • | • |
| Industrial Bus Health | | | • | | | | | | | | |
| Harmonics | | | • | | | | | | | | • |
| FFT | | | | • | • | • | • | • | • | • | • |
| Power Measurements | | | • | • | • | • | • | • | • | • | • |
| Waveform Mathematics | | | • | • | • | • | • | • | • | • | • |
| Guided Motor-Drive Analysi | is | | | | | | | | | | |
| Motor Drive Input (V, I, Unbalance) | | | | | | | | | | | • |
| Motor Drive Input Harmonics (2-150) | | | | | | | | | | | • |
| Motor Drive DC Bus | | | | | | | | | | | • |
| Motor Drive Output PWM (V, I, dV/dt, overshoot) | | | | | | | | | | | • |
| Motor Drive Input PWM (V, I, dV/dt, overshoot) | | | | | | | | | | | • |
| Motor Shaft Voltage Discharges | | | | | | | | | | | • |
| IEC 61010-2-030 Safety | | | | | | | | | | | |
| CAT III 1000 V | | | | • | • | • | • | • | • | • | • |
| CAT IV 600 V | • | • | • | • | • | • | • | • | • | • | • |
| Power | | | | | | | | | | | |
| Li-ion | • | • | • | • | • | • | • | • | • | • | • |
| Battery (hours) | 7 | 7 | 7 | 3.5 (opt 8) | 3.5 (opt 8) | 7 | 3.5 (opt 8) | 7 | 7 | 7 | 7 |
| General Specifications | · | | | | · | | | | | | |
| Size (H \times W \times D) | | 9 × 132 × 55 .2 x 5.2 x 2.1 | | | 270 × 190 × 70 mm (10.5 × 7.5 × 2.8 in) | | | | | | |
| Weight Compatible Software | | 1.4 kg (3.2 lb |) | | | | 2.2 | kg (4.8 lb) | | | |
| Fluke Connect™ App | • | • | • | • | • | • | • | • | • | • | • |
| | - | | | | • | | | | | | • |
| FlukeView-2 | | | | • | • | • | • | • | • | • | • |

FlukeView 2TM ScopeMeter[®] Software for Documenting, Archiving and Analyzing Waveforms Get more out of your ScopeMeter with FlukeView2 ScopeMeter SW90W software for Windows™



- Copy screen images into your reports and documentation
- Store instrument's screen copies on the PC, in color
- Capture and store waveform data from your ScopeMeter on your PC
- Record your current waveform online
- Create and archive waveform references for easy comparison
- · Copy waveform data into your spreadsheet for detailed analysis
- Export data to another analysis program
- Use cursors for parameter measurement
- · Add user text to instrument setups and send them to the instrument for operator reference and instructions

NEW

Fluke MDA-550 Series III Motor Drive Analyzer



Simplify complex motor-drive troubleshooting

The Fluke MDA-550 Motor Drive Analyzer simplifies the troubleshooting process for variable frequency drives. Onscreen step-by-step guided measurements to show you where to make voltage and current connections. Preset measurement profiles ensure you 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.

- · Measure key motor-drive parameters including voltage, current, DC Bus voltage level and AC ripple, voltage and current unbalance and harmonics, voltage modulation, and motor shaft voltage discharges
- Perform extended harmonics measurements to identify the effects of low and high order harmonics on your electrical power system
- · 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
- Preset measurement profiles collect data based on the chosen test procedure and reduce the need for complex configuration
- oscilloscope, meter and recording capability
- USB & WIFI connectivity for quick and easy data transfer
- Three-year warranty

| Test Points |
|---|
| V-A-Hz |
| V pk, Vmax, Vmin, V pk-to-pk, Crest facto |
| V AC+DC unbalance, V pk-to-pk |
| A AC+DC unbalance, A pk-to-pk |
| |
| V DC, V pk-to-pk, V pk max |
| V AC, V pk-to-pk, Hz |
| |
| V-A-Hz, V PWM, V/Hz |
| V PWM unbalance, V pk-to-pk |
| A AC+DC unbalance, A pk-to-pk |
| Phase-phase, Phase-ground, Phase-DC+, V pwm, V pk-to-pk, Hz, V/Hz, Delta V, Del Overshoot |
| |
| V-A-Hz, V PWM, V pk, A ac+dc, A pk, V/H |
| V PWM unbalance, V pk-to-pk |
| A AC+DC unbalance, A pk-to-pk |
| Phase-phase, Phase-ground: V PWM, V pk-to-pk, Hz, V/Hz, Delta V, De Overshoot |
| Shaft voltage events: V pk-to-pk, Delta V, Rise/fall time, Delta V |
| Voltage and Current Harmonics: V and A fundamental, Hz fundamental, % |
| |

- Capture additional parameters with full 500 MHz

, Phase-DC- : elta V/s, Risetime peak,

Hz, Crest factor

elta V/s, Risetime peak,

V/s, Events/s

%THD, %THD/TDD



Recommended Accessories

SB-500

Shaft Voltag

Brush Se

SVS-500

Shaft Voltage

BP291 4500 mAh capacity Li-ion Battery

Current Clamp, 1x SVS-500 Shaft Voltage Set (3x brush, Probe Holder, Two-Piece **Extension Rod and Magnetic** Base), Large Size, Protective Carrying Case with Rollers (C437-II), FlukeView-2 PC Software (Full Version) and WiFi Dongle.

Ordering Information

MDA-550-III

FLUKE- Motor Drive Analyzer 4CH CLR PRO

Contact your local distributor for price and availability. fluke.com/findus



fluke.com/sea.mda



FLUKE



Fluke ScopeMeter® 190 Series III **Portable Oscilloscopes**

Fluke ScopeMeter 190 Series III Portable Oscilloscopes

are high-performance scopes built for harsh industrial

oscilloscopes come with 2 or 4 independently insulated

environments. These high-performance portable

input channels, an IP51 dust and drip proof rating

Choose from 500 MHz, 200 MHz, 100 MHz or 60 MHz

bandwidth models. Now plant maintenance engineers

can take a 2- or 4-channel scope into the harsh world

• Up to four independent floating isolated inputs, up to

• Up to 5 GS/s real time sampling (depending on model

• CAT III 1000 V/CAT IV 600 V safety rated instrument

• Up to seven hours of battery operation using BP291

automatic triggering on fast, slow and even complex

100 100

WE SHALL HALF

Cursors and zoom features of the Fluke 190 Series III help you to

analyse the captured TrendPlot.

• Security slot: lock down oscilloscope with

Connect-and-View[™] triggering for intelligent,

· Automatic capture and REPLAY of 100 screens

• USB & WIFI connectivity for quick & easy data

• ScopeRecord[™] Roll mode gives 30000 points per

input channel for low frequency signal analysis

Kensington[™] lock while unattended

• IP51 rating, dust and drip-proof

• Deep memory: 10000 points per trace waveform

and a CAT III 1000 V/CAT IV 600 V safety rating.

of industrial electronics.

and channels used)

for industrial environments

1000V

capture

signals

transfer

• Three-year warranty



Series III NEW



Fluke 190-204 Series III NEW



Use the 27000 points memory of ScopeRecord and zoom in for maximum detail

| Specifications | 190-062 | 190-102 | 190-202 | 190-502 | 190-104 | 190-204 | 190-504 |
|--|------------------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|
| Bandwidth (MHz) | 60 | 100 | 200 | 500 | 100 | 200 | 500 |
| Scope Inputs | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Dedicated DMM | 1 | 1 | 1 | 1 | - | - | - |
| Dual Input Trendplot™ | • | • | • | • | - | - | - |
| Four Input Trendplot [™] | - | - | - | - | • | • | • |
| ScopeRecord Mode | • | • | • | • | • | • | • |
| Automatic Capture & Replay Mode | • | • | • | • | • | • | • |
| Cursors | • | • | • | • | • | • | • |
| Zoom | • | • | • | • | • | • | • |
| Bus Health Test Mode | - | - | - | - | - | - | - |
| Advanced Power Measurements | • | • | • | • | • | • | • |
| IEC 61010-2-030 CAT III Safety Rating | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V |
| IEC 61010-2-030 CAT IV Safety Rating | 600 V | 600 V | 600 V | 600 V | 600 V | 600 V | 600 V |
| Battery | 4 hr Li-ion (8 hr Opt) | 4 hr Li-ion (8 hr Opt) | 7 hr Li-ion |
| Optical RS-232 | - | - | - | - | - | - | - |
| Isolated USB | • | • | • | • | • | • | • |
| Isolated USB Memory | • | • | • | • | • | • | • |

Included Accessories

Fluke 190 4-Channel Models: VPS410-II (200/500 MHz models) or VPS421 (60/100 MHz models) Voltage Probes, Double Capacity BP291 Li-ion Battery, BC190 Battery Charger, Hanging Strap, Adjustable Hand Strap, User Manual on CD-ROM, FlukeView Demo Package and USB Interface Cable for PC connectivity.

Fluke 190 2-Channel Models: VPS410-II (200/500 MHz models) or VPS421 (60/100 MHz models) Voltage Probes, 1 blue), Single Capacity BP290 Li-ion Battery, TL175 Test Leads.

Fluke /S (SCC-290 Kit) Models: FlukeView[™] ScopeMeter[™] Software and C290 Hard Carrying Case.

Ordering Information

| FLUKE- | ScopeMeter 60MHz, |
|-----------|--------------------------|
| 190-062 | 2 Channel |
| FLUKE- | ScopeMeter 60MHz, 2 |
| 190-062/S | Channel with SCC-290 Kit |
| FLUKE- | ScopeMeter 100MHz, 2 |
| 190-102 | Channel |
| FLUKE- | ScopeMeter 100MHz, 2 |
| 190-102/S | Channel with SCC-290 Kit |
| FLUKE- | ScopeMeter 100MHz, |
| 190-104 | 4 Channel |
| FLUKE- | ScopeMeter 100MHz, 4 |
| 190-104/S | Channel with SCC-290 Kit |
| FLUKE- | ScopeMeter 200MHz, |
| 190-202 | 2 Channel |
| FLUKE- | ScopeMeter 200MHz, 2 |
| 190-202/S | Channel with SCC-290 Kit |
| FLUKE- | ScopeMeter 200MHz, |
| 190-204 | 4 Channel |
| FLUKE- | ScopeMeter 200MHz, 4 |
| 190-204/S | Channel with SCC-290 Kit |
| FLUKE- | ScopeMeter 500MHz, |
| 190-502 | 2 Channel |
| FLUKE- | ScopeMeter 500MHz, 2 |
| 190-502/S | Channel with SCC-290 Kit |
| FLUKE- | ScopeMeter 500MHz, |
| 190-504 | 4 Channel |
| FLUKE- | ScopeMeter 500MHz, 4 |
| 190-504/S | Channel with SCC-290 Kit |
| | |

Contact your local distributor for price and availability. fluke.com/findus

Fluke ScopeMeter® 120B Series Industrial Hand-Held Oscilloscopes



Simplified testing, more insight and faster electro-mechanical troubleshooting

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

The 120B Series Industrial ScopeMeter Test Tools include innovative functions designed to help technicians troubleshoot faster and get the answers they need to keep their systems up and running. Display Waveforms with Connect-and-View[™] trigger and setup technology, and automatically view related numerical measurements using Fluke IntellaSet[™] technology, all without making manual measurement adjustments.

• Dual-input digital oscilloscope and multimeter

- 40 MHz or 20 MHz oscilloscope bandwidth
- Two 5000-count true-RMS digital multimeters Connect-and-View[™] trigger simplicity for hands-off operation
- IntellaSet[™] technology automatically and intelligently adjusts numerical readout based on the measured signal
- Dual-input waveform and meter reading recorder for trending data over extended periods
- With Recorder Event Detect capabilities and expandable micro SD memory, recording can be performed for up to 14 days
- The ScopeMeter 125B Bus Health Test analyzes the electrical signals on the Industrial Network Bus and gives a clear "Good", "Weak" or "Bad" indication mark for each of the relevant parameters used in CAN-bus, Profi-bus, Foundation Field, RS2-232 and more • Three-year warranty

| Specifications | 123B | 124B | 125B |
|--|------|------|------|
| Full Function Dual Input Scope and Meter | • | • | • |
| Oscilloscope Bandwidth (MHz) | 20 | 40 | 40 |
| Meter and Scope Recorder | • | • | • |
| Scope Cursor Measurements | - | • | • |
| Power and Harmonics Measurements | - | - | • |
| Bus Health | - | - | • |
| 10:1 Voltage Probe | - | • | • |
| i400s AC Current Clamp | - | - | • |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.





elded Test Lead Set CAT IV 600 V



ot 2 Banana to 3NC Adapter



i400s



HC120-IV

Set of 2 Hook Clip

VPS41

40 MHz CAT IV 600 V

AC Current Clamp AC/DC Current Clamp



Fluke i5s AC Current Clamp

Not Availab

SP120B Sc



C120B

SCC120B



Fluke 120B: Li-Ion Battery Pack. Charger/Power Adapter, 10:1 Voltage Probe (124B, 125B) i400s AC Current Clamp (125B), 2 Shielded Test Leads with Ground Leads, Black Test Lead, Red and Blue Hook Clips, Banana to BNC Adapter, USB Angled Adapter and WiFi USB Adapter.

Fluke 120B/S: Also include Soft Carry Case, FlukeView[™] for Windows[™] Software, Magnetic Hanger and Screen Protector.

Ordering Information

| FLUKE-123B | Industrial 20MHz ScopeMeter Kit |
|------------------|------------------------------------|
| FLUKE- 123B/S | Industrial 20MHz ScopeMeter Kit |
| FLUKE-124B | Industrial 40MHz ScopeMeter Kit |
| FLUKE- 124B/S | Industrial 40MHz ScopeMeter Kit |
| FLUKE-125B | Industrial 40MHz ScopeMeter Kit |
| FLUKE- | Industrial 40MHz ScopeMeter Kit |

Contact your local distributor for price and availability. fluke.com/findus



FLUKE



PROCESS CALIBRATIO

Working in a process environment such as pharmaceutical manufacturing, refining, or other industrial areas can be challenging. Whether you're working at a bench, out in the plant, or in the field, you need accurate tools that you can count on.

Finding the right tools for the specific challenges you face every day is important, so we've provided an 'at-a-glance' guide to the wide range of multifunction, mA loop, pressure and temperature calibrators that we carry.



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, 24 V loop supply, simple operation, and accuracy you can count on.

Fluke offers the widest variety of mA calibration and test tools in the industry to address virtually all types of mA loop testing.

See pages 113 to 114

Electrical and Multifunction Calibration

Fluke Multifunction Calibration Tools are designed to calibrate almost anything. These calibration tools source and measure almost all process parameters, and documenting models even document the results.

Fluke offers a broad range of field and bench calibrators to source, simulate and measure pressure, temperature and electrical signals, to help you verify and adjust your equipment for almost any process measurement or control parameter.

See pages 115

Temperature Calibration

Fluke Temperature Calibrators simulate process sensors for testing temperature instrumentation. Specifically designed for the field, these lightweight compact tools are EMI tolerant 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 offers a variety of bench and field temperature calibrators designed for your unique calibration and testing requirements.

See pages 118 to 123

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 15 psi/1 bar to 10000 psi/690 bar boasting 0.02% full-scale accuracy to help you quickly and reliably calibrate your pressure instruments.

You'll find everything from simple test gauges to calibrators with built in electric test pumps. All are easy to use and feature rugged and reliable construction and an industry best 3-year warranty.

See pages 124 to 135



100.000

20.010

Whether you're calibrating pressure, temperatu mA loop, or a combination of these, Fluke pro calibration tools are easy to use and deliver th accuracy and rugged reliability you need for bench or field use.













mA Loop Calibration

Pressure Calibration

Maintenance Manager

Focus: Maintaining plant uptime and maintenance efficiency

What issues do you face?

- Ensuring continuous uptime
- Maintaining good ROI for equipment
- Compliance
- Process improvement
- Increase efficiency

Fluke solutions:

- Temperature
- Pressure
- Standards
- A Process tools

Field Calibration Technician

Focus: Calibrating and verifying measurement devices

What issues do you face?

- Making accurate measurements
- Documenting procedures
- Increasing throughput

Fluke solutions:

- Temperature
- Pressure
- Standards
- A Process tools
- Software
- Field Metrology Wells

Quality Manager

Focus: Maintaining and documenting product quality

What issues do you face?

- Complying with quality regulations
- Maintaining documentation of processes

Fluke solutions:

- Temperature
- Pressure
- 🚸 Standards
- A Process tools
- Software

Instrumentation Technician

Focus: Maintaining and verifying instrumentation throughout the plant

What issues do you face?

- Monitor and maintain sensors and transmissions
- Accurate measurements

Fluke solutions:

- Temperature
- Pressure
- Standards
- A Process tools
- Software
- Field Metrology Wells



* Diagram is not intended to be an exact representation. Diagram components are not to scale and are for illustration purposes only.

| Bench Pressure Controllers | Bench Temperature Sources | | Process Ca | librators | | mĀ Loop Calibrator | H | landheld Pro Calibrato | | Deadwei | ght Testers | Pressure Gauges | Temperature Readouts | Software Solutions |
|-------------------------------|---------------------------|-----|------------|-----------|-----|-----------------------|--------|---------------------------|-------------|---------|-------------|--------------------|-------------------------|--------------------|
| | | | | | | | Á | | | N 8 | | | | |
| 2271A P3130 | 9100S 9144 | 707 | 725 | 754 | 789 | 773 | 700PTP | 719 PRO | 729/729 PRO | P5510 | P5514B | 700G/730G | 1524 | DPC/TRACK 2 |



Process Calibration Solutions

Get more information on Fluke Process Calibration solutions at www.fluke.com/en-sg/products/calibration-tools Based on you. Built by Fluke.

Process Calibration Tools Selection Guide

| | Documenting Process Calibators | Multifi Process C | Multifunction Process Calibrators | Tempe | Temperature Calibrators | ators | | Press | Pressure Calibrators | STO | | Automatic Pressure Calibrator | | | Loop Calibrators | brators | | | Process- Meters [™] |
|---|--------------------------------------|---|--|----------------------|-------------------------|----------------------------------|--|--|--|--|--|--|-------|-------|------------------|---------------------------|--------|--------------|---------------------------------|
| | 754 / 753 | 725 | 726 | 724 | 714B | 7128 | 718 / 718Ex | Z1 Z | 719 | 719Pro | 721 | 729 | 715 | 705 | TOT | 01 <i>1</i> 011 011 | 122 | 772 / 773 | 789 ^s / 787B |
| Voltage DC | 300 V | 30 V | 30V | 30 V | 75 mV | | | | | 30 V | 30 V | 30 V | 10V | 28 V | 28 V | 30 V | | - / 30 V | 1000 V |
| Voltage AC (True RMS) | 300 V | | | | | | | | | | | | | | | | | | 1 000 V |
| Resistance | 10 kΩ | 3200 Ω | 4000 Ω | 3200 Ω | | 4000 Ω | | | | | | | | | | | | | 40 MΩ |
| Current DC | 1 10 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 24 mA | 100 mA | 100 mA | 30 mA, 1 A |
| Current AC | | | | | | | | | | | | | | | | | | | |
| Frequency | 50 kHz | 10 kHz | 15 kHz | | | | | | | | | | | | | | | | 20 kHz |
| Pressure | • | • | • | | | | -12 to 300 psi ² (4 ranges) | -12 to 10,000 psi ² (10 ranges) | -12 to 100 psi ² (2 ranges) | -12 to 300 psi ² (3 ranges) | input 1: -0.97 bar to 2,48 bar input 2: -0.83 bar to 345 bar ³ | -12 to 300 psi ² (3 ranges) | | | | | | | |
| Temperature | | | | | | ı | | | | -50° C to 15 | to 150° C4 (-58° F to 302° F4) | 302° F4) | | | | | | | |
| Temperature: RTD types | ω | 7 | 8 | Г | | 13 | | | | | - | | | | | | | | |
| TC types | 13 | 12 | 12 | 12 | 17 | | | | | | | | | | | | | | |
| Source/Simulate | | | | | | | | | | | | | | | | | | | |
| Voltage DC | 15 V | 10 N | 20 V | 10 V | 75 mV | | | | | | | 30 V | 10 V | | | | | -/ 10 V | |
| Resistance | 10 kΩ | 3200 Ω | 4000 Ω | 3200 Ω | | 4000 Ω | | | | | | | | | | | | | |
| mA DC/% scale | 22 mA | 24 mA | 24 mA | | | | | | • | • | | 24 mA | 24 mA | 24 mA | 24 mA | • | | 24 mA | 24 mA |
| mA source; auto step, auto ramp | • | • | • | | | | | | | | | • | • | • | • | • | | • | • |
| Frequency | 50 kHz | 10 kHz | 15 kHz | | | | | | | | | | | | | | | | |
| Temperature: RTD types | ω | Ζ | 00 | 7 | | 13 | | | | | | | | | | | | | |
| Temperature: TC types | 13 | 10 | 10 | 10 | 17 | | | | | | | | | | | | | | |
| Record | | | | | | | | | | | | | | | | | | | |
| Min/Max | • | | | | | | • | | • | • | | • | | | | | | | |
| Hold | | | | | | | • | • | • | | | | | | | | • | • | • |
| As Found/ As Left results | • | | | | | | | | | | | • | | | | | | | |
| Log data | • | | | | | | | | | | | • | | | | •/- | | | |
| Upload data to PC | • | | | | | | | | | | | • | | | | •/- | | | • |
| Remote operation | | -/• | • | | | | | | | | | • | | | | | | | |
| reatures recommendation | | 11110 | | | | | | | | | | | | | | | | | |
| Ardding door | 26 V | 24 V/ 12 V | 24 V | 24 V | | | 24V/- | 24 V | 24 V | 24 V | 24 V | 24 V | 24 V | 24 V | 24 V | 24 V | | 24 V | 24 V/- |
| HART™ communication | 754 only | | | | | | | | | | | • | | | | •/- | | | |
| Integrated hand pressure pump | | | | | | | • | | | | | | | | | | | | |
| Electric Pump | | | | | | | | | • | • | • | • | | | | | | | |
| Intrinsically safe (ATEX) | | | | | | | 718 Ex | | | | 721Ex | | | | | | | | |
| Ttraceable certification | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | | |
| Warranty in years | ю | ი | e | e | ო | e | e | e | e | e | e | e | e | e | e | e | ო | ო | ი |
| ¹ Fluke 750 Pressure Modules Required ² Ranges for the internal sensor | Required Jr | ³ Ranges dep ⁴ By using op | ³ Ranges depending on version ⁴ By using optional 720 RTD Probe accessory | on Probe accessor | | Fluke 789 & 7. Fluke ir3000 F | ⁵ Fluke 789 & 787B are Fluke Connect ³⁸ compatible with Fluke ir3000 FC Connector (sold separately) | onnect ^m compa id separately) | tible with | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Fluke 787B and 789 ProcessMeter[™]



6

Double the troubleshooting power so you can do more, while carrying a lot less

The Fluke 787B and 789 ProcessMeter[™] double 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, Fluke has a ProcessMeter[™] test tool designed specifically to meet your needs.

Fluke 787B and 789 key features

- 20 mA DC current source/measure/simulate
- Simultaneous mA and % of scale readout
- IEC 61010-2-030: CAT III 1000 V, CAT IV 600 V • Fluke Connect[™] compatibility for wireless data logging
- (with ir3000FC module)
- Precision 1000 V, 440 mA true-RMS digital multimeter • Frequency measurement to 20 kHz
- Min/Max/Average/Hold/Relative modes
- Diode test and continuity beeper
- Manual step mA output (100%, 25%, Coarse, Fine) plus Auto Step and Auto Ramp
- Externally accessible battery for easy battery changes
- Three-year warranty

Fluke 789 additional features

• 24 V loop power supply • HART mode setting with loop power (adds 250 ohm resistor)

| Measurement Function | Range and Resolution | Best Accuracy (% of reading + LSD) |
|------------------------------|---|---------------------------------------|
| V DC | 400.0 mV, 4.00 V, 40.00 V, 400.0 V, 1000 V | 0.1% + 1 |
| V AC (True-RMS) | 400.0 mV, 4.00 V, 40.00 V, 400.0 V, 1000 V | 0.7% + 2 |
| mA DC | 30.00 mA | 0.05% + 2 |
| A DC | 1.00 A (0.44 A continuous) | 0.2% + 2 |
| A AC | 1.00 A (0.44 A continuous) | 1% + 2 |
| Resistance | 400.0 Ω, 4.00 kΩ, 40.00 kΩ, 400.0 kΩ, 4.0 MΩ, 40 MΩ | 0.2% + 1 |
| Frequency (0.5 Hz to 20 kHz) | 199.99 Hz, 1999.9 Hz, 19.99 kHz | 0.005% + 1 |
| Diode Test | 2.00 V (shows diode voltage drop) | 2% + 1 |
| Continuity | Beeps for resistance < approx. 100 ohms | |

| Output Function | Range and Re |
|-------------------------|-----------------|
| DC Current Output | 0.00 to 20.00 r |
| (Internal Battery | mA, (selectable |
| Operation) | Over-range to 2 |
| DC Current Simulate | 0.00 to 20.00 r |
| (Ext. 15 V to 48 V loop | mĀ, (selectable |
| supply) | Over-range to 2 |
| 24 V Loop Supply* | Minimum 24 V |
| Current Adjustment | Manual: Coarse |
| Modes | 100% step |
| | Automatic: Slov |

*24 V Loop Supply available on 789 ProcessMeter™ only.

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.





TPAK ToolPak Meter Hanging Kit

| ability | Accuracy |
|----------------|----------|
| iance or, , | 0.05% |
| , | 0.05% |
| @ 20 mA | > 24 V |
| | |





ir3000 FC Fluke Connect™ ir3000 Connector



80T-150UA Universal Temperature Probe



80PK-8 Pipe Clamp Temperature Prob



TL220

C37XT eva Foam Hard Cas







Fluke Connect[™] 789 ProcessMeter™ and **Temperature Kit**

Included Accessories

TL71 Test Lead Set. AC72 Alligator Clips, Four AA Alkaline Batteries, User Manual and Quick Reference Guide.

| 110 | 0.11 | Track | O HING | <u>_</u> | |
|-----|-------|-----------|--------|----------|------|
| | Cert. | 111 | orm | а., | OIL. |
| | | | | | |

| F | LUKE | -787B | Process | /leter" |
|---|------|-------|---------|---------|
| | | | | |

- FLUKE-789 ProcessMeter
- FLUKE-789/ Fluke Connect 789 T3000FC ProcessMeter[™] & Temperature Kit

FLUKE-FVF-SC2

Fluke Connect™ IR3000 FC Infrared Connector

FlukeView[™] Forms Software (incl. Interface Cable)





Fluke 771, 772 and 773 mA Process Clamp Meters



Fluke 771



Don't break the loop on 4-20 mA signal measurements and save time with the Fluke 771, 772 and 773 Milliamp Process Clamp Meters. Three-year warranty, (one-year provided on mA clamp assembly and cable).

Use the Fluke 772 and 773 to:

- Source 4-20 mA signals for testing control system I/O or I/Ps
- Simulate 4-20 mA signals for testing control system I/O
- Measure 4-20 mA signals with in-circuit measurement
- Power a transmitter with the 24 V loop power supply
- Automatically ramp and step change the 4-20 mA output for remote testing

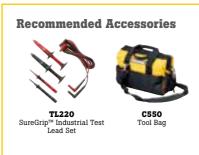
Use the Fluke 773 to:

- Measure DC voltage to verify 24 V power supplies or voltage I/O signals
- Source DC voltage to test voltage input devices • Scaled mA output signal enables a logging DMM (289) to record 4-20 mA signal without
- breaking the loop • mA in/out: simultaneously source a mA signal
- while measuring a mA signal with the clamp

| | mA measure w/jaw | mA measure in circuit | mĀ source | mA sim | Loop power 24 V | V DC source 0-10 V | V DC measure 0-30 V | Scaled mA output to mA input | mA in/ out |
|-----|------------------------|--------------------------------|--------------|-----------|-----------------------|--------------------------|---------------------------|------------------------------------|---------------|
| 771 | • | - | - | - | - | - | - | - | - |
| 772 | • | • | • | • | • | - | - | - | - |
| 773 | • | • | • | • | • | • | • | • | • |

| Specifications | Function | Resolution and range | Accuracy | Notes |
|----------------|-----------------|----------------------|-----------------|--|
| 771, 772, 773 | mA measurement | 0 to 20.99 mA | 0.2% + 5 counts | Measured by clamp |
| | | 21.0 mA to 100.0 mA | 1% + 5 counts | - |
| 772 and 773 | mA measurement | 0 to 24.00 mA | 0.2% + 2 counts | Measured in series with test jacks |
| 772 and 773 | mA source | 0 to 24.00 mA | 0.2% + 2 counts | Maximum mA drive: 24 mA into 1000 ohms |
| 772 and 773 | mA simulate | 0 to 24.00 mA | 0.2% + 2 counts | Maximum voltage 50 V DC |
| 773 | Voltage source | 0 to 10.00 V DC | 0.2% + 2 counts | 2 mA maximum drive current |
| 773 | Voltage measure | 0 to 30.00 V DC | 0.2% + 2 counts | - |

| | 771 | 772 | 773 |
|-----------------------------------|--|---------------------------------------|------------------|
| Battery | Two 1.5 V, Alkaline, IEC LR6 | Four 1.5 V, Alkali | ine, IEC LR6 |
| Working hours | 40 hours typical | 12 hours @ 12 mA so | ource into 500 Ω |
| Size (H×W×L) | 59 mm × 38 mm × 212 mm (2.32 in × 1.5 in × 8.35 in) | 43.7 mm × 70 mm (2.87 in × 5.75 in | |
| Weight | 260 g (9.17 oz) | 410 g (14. | 46 oz) |
| Operating temperature | -10° C | to 50°C (14° F to 122° F) | |
| Ingress Protection (IEC 60529) | | IP40 | |



Fluke 771, 772 and 773 mA **Process Clamp Meters pay for** themselves

- The more you use them the more money you save
- Measuring 4-20 mA signals (five) times without operator intervention can pay for the 771
- Saving a trip back to shop to get a loop calibrator can pay for the price difference of the 772
- Saving a trip back to the shop for a voltage test source can pay for the price difference of the 773



Included Accessories

Fluke 771: Soft Carrying Case, User Manua

Fluke 772/773: Four AA Alkaline Batteries (installed), Soft Carrying Case, TL75 Test Leads, AC 72 Detachable Clip, TL940 Mini-hook Test Leads, Instruction Sheet, Hanging Tool with Hook and Loop Strap.

Ordering Information

- FLUKE-771 Milliamp Process Clamp Meter
- FLUKE-772 Milliamp Process Clamp Meter

FLUKE-773 Milliamp Process Clamp Meter

Contact your local distributor for price and availability. fluke.com/findus

Fluke 709, 709H and 710 **Precision Loop Calibrators**



The Fluke 709 and 709H mA Loop Calibrators and 710 Valve Tester are designed to save time and produce high-guality results. These calibrators are built around a user-friendly interface with a Quick-Set rotary encoder knob. This tool reduces the time it takes to measure or source current, and power up a loop. The protective holster easily fits into a technician's hand and the large backlit display is easy to read, even in dark, cramped worked areas.

- Best-in-class accuracy at 0.01% reading
- HART[™] Communications (709H, 710) to communicate with and test HART smart instruments • Compact rugged design
- Intuitive user interface with quick-set knob for fast setup, easy to use

communications

software

Fluke 710



Fluke 709H

HART



HART[™] Communication The Fluke 709H offers a built-in HART modem to provide the communication capability to perform the

• Three-year warranty

- following commands: • Read message, tag, descriptor and calibration date
- Read sensor PV information and PV output information
- · Read long tag
- Write PV ranges (upper and lower)
 - · Enter/exit fixed current mode and set zero offset
 - Trim DAC zero (mA output 4 mA) and trim DAC gain

Valve Testing

The Fluke 710 has powerful valve-testing functions including preconfigured valve signature test, speed test, step test, manual test and bump/partial stroke test. The instrument comes with ValveTrack[™] desktop software where you can upload valve test results, logged measurements and HART device configurations captured in the field.

| Key Features | 709 | 709H | 710 |
|------------------------------------|-----------------|-----------------|-----------------|
| mA measure (range and accuracy) | 0-24 mA @ 0.01% | 0-24 mA @ 0.01% | 0-24 mA @ 0.01% |
| mA source/simulate | 0-24 mA @ 0.01% | 0-24 mA @ 0.01% | 0-24 mA @ 0.01% |
| DC volts measure | 0-30 V @ 0.01% | 0-30 V @ 0.01% | 0-30 V @ 0.01% |
| DC volts source | | | |
| 24 V loop power | • | • | • |
| Auto step/ramp | • | • | • |
| Documenting and log data | | Option | • |
| HART communication | | • | • |
| Valve testing | Analog | Analog | Analog/HART |

HART is a registered trade mark of the HART Communications Foundation

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(SP

(mA output 20 mA)



· 24 V DC loop power with mA measure mode Resolution of 1 µA on mA ranges • Built in selectable 250 Ω resistor for HART

• Simple two wire connection for all measurements • Valve test (source and simulate defined mA values with % keys for valve testing)

• Upload logged mA measurements and HART device data using the 709H with optional 709H/TRACK









TL80A Basic Elec Test Lead Set See page 152



C195 Case

SureGrip™ Alligator Clips



TL220 Test Lead Set See page 152

Included Accessories

709: AC175 Alligator Clip Set, TL75 Test Leads, Soft Case, Six AAA Batteries (installed), Product Manual (CD), Quick Reference Guide, Safety Information.

709H: 754-8016 Alligator Clip Set, 75X-8014 Stackable Lead Set, TP220-4201 Test Probes, AC280-5001 SureGrip Hook Clips, Soft Case, Six AAA Batteries (installed), Product Manual (CD), Quick Reference Guide, Safety Information.

710: Stackable Test Lead Set, Extended Tooth Alligator Clip Set, TP220 Test Probes, AC280 SureGrip[™] Hook Clips, Lemo to USB Cable ValveTrack™ Software (free download), Softcase, Six AAA batteries (installed).

Note: All models include Traceable Calibration Certificate.

Ordering Information

| FLUKE-709 | Precision Loop Calibrator |
|--------------------------|--|
| FLUKE- 709H | Precision Loop Calibrator with HART™ |
| FLUKE- 709H/ TRACK | HART™ Data- Logging Communications Software |
| FLUKE-710 | Valve Tester |



Fluke 715, 707, and 705 Loop Calibrators

Complete family of Volt/mA calibrators



œ

• Source or simulate 4-20 mA loop current

transmitters

• 24 V loop supply with simultaneous current measurement

Fluke 715 Volt/mA Calibrator

• Source voltage to 200 mV or 20 V

- Ramp and Step Ramp output functions
- Three-year warranty

Fluke 707 and 705

• Innovative output adjustment dial on 707 provides 1 µA and 100 µA resolution and one-hand operation

• Measure loop current (0 to 20 mA, 4-20 mA) signals with 0.01% accuracy and 1 µA resolution

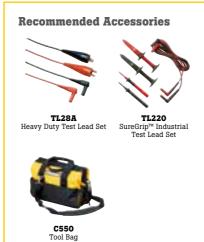
Measure voltage output process signals from PLCs,

- Large display and simple interface for ease of use • Simultaneous mA and % readout for quick, easy
- interpretation of readings • mA accuracy of 0.01% on the Fluke 707
- and 0.02% on the 705 HART mode on 707 connects 250 ohm resistor in
- series with 24 V loop for compatibility with HART™ communicators
- Push button 25% steps for fast, easy linearity checks
- "Span Check" for fast confirmation of zero and span • Selectable slow and fast linear step ramp provide ramping outputs for valve slewing, remote testing and loop functional tests
- 24 V internal loop supply, so you can power and read a transmitter at the same time without carrying a DMM
- 0 to 20 mA or 4-20 mA default start up modes • Three-year warranty

Fluke 707

12.753

| | 705/707 | 715 |
|----------------------------------|--|----------------------------------|
| Voltage measurement | | |
| Range | 0 V to 28 V | 0 mV to 200 mV / 0 V to 25 V |
| Resolution | 1 mV | 10 µV / 1 mV |
| Accuracy | 705: 0.02% Rdg + 1 LSD 707: 0.01% Rdg + 2 LSD | 0.01% Rdg + 2 LSD |
| Current measurement | | |
| Range | 0 mA to 24 mA | 0 mA to 24 mA |
| Resolution | 0.001 mA | 0.001 mA |
| Accuracy | 705: 0.02% Rdg + 2 LSD 707: 0.01% Rdg + 2 LSD | 0.01% + 2 LSD |
| Current sourcing | | |
| Range | 0 mA to 20 mA or 4 mA to 20 mA $$ | 0 mA to 20 mA or 4 mA to 20 mA |
| Accuracy | 705: 0.02% Rdg + 2 LSD 707: 0.01% Rdg + 2 LSD | 0.01% Rdg + 2 LSD |
| Drive capability | 705: 1000 Ω @ 24 mA 707: 1200 Ω @ 24 mA | 1000 Ω @ 24 mA |
| Loop power while measuring mA | 24 | V |
| Display current and % of span | Yes | mA or % |
| Auto step, auto ramp | Ye | es |
| Span Check | Ye | es |
| Battery life | 18 hours typical, at 1 | 12 mA current source |
| Voltage sourcing | - | 0 mV to 200 mV or 0 V to 20 V $$ |





Included Accessories

Fluke 705/707: Test Leads, AC175 Alligator Clips, Single 9V Alkaline Battery, Instruction Sheet, Traceable Calibration Certificate.

Fluke 715: Yellow Holster (H80M excl. TPAK), Test Leads and AC175 Alligator Clips, Single 9V Alkaline Battery, Instruction Sheet, Traceable Calibration Certificate.

Ordering Information

| FLUKE-705 | Loop Calibrator |
|-----------|--------------------|
| FLUKE-707 | Loop Calibrator |
| FLUKE-715 | Volt/mA Calibrator |

Contact your local distributor for price and availability. fluke.com/findus

Fluke 725 and 726 Multifunction **Process Calibrators**



Fluke 725

/& **@**

More calibration power!

- Two separate channels; measure, source and view process signals simultaneously
- Measure volts, mA, RTDs, thermocouples, frequency, and resistance to test sensors and transmitters
- Source/simulate volts, mA, thermocouples, RTDs,
- frequency, and pressure to calibrate transmitters • Measure pressure using any of 50 Fluke 750Pxx Pressure Modules
- Source mA with simultaneous pressure measurement to conduct valve and I/P tests
- · Perform fast linearity tests with auto step and auto ramp
- Power transmitters during test using 24 V loop supply
- and simultaneous mA measurement • Store frequently-used test setups for later use
- Three-year warranty

726 additional features:

- More precise measurement and calibration source performance, accuracies of 0.01%
- Transmitter error % calculation • Memory storage for up to 8 calibration results
- Frequency totalizer and frequency pulse train source mode
- HART mode inserts 250 ohm resistor in mA measure
- and source for compatibility with HART instrumentation
- Integrated pressure switch test
 - · Custom RTD curves, add calibration constants for certified RTD probes for enhanced temperature measurement

| Function or Source | Range or Type | Resolution | Accu | iracy | Not | tes |
|-----------------------------------|--|--|------------------------------|-----------------|-------------------|---|
| Voltage | 0 to 100 mV 725: 0 to 10V (source) 0 to 20V (source) 725/726: 0 to 30V (measure) | 0.01 mV 0.001 V 0.001 V 0.001 V | 0.01 0.02 2 LSI | % Rdg + | Ma | x load, 1 mA |
| mA | 0 to 24 | 0.001 mA | | Rdg +2 LSD 725, | | x load, 5/726:)0 Ω |
| mV (TC terminals) | -10.00 mV to +75.00 mV | 0.01 mV | 0.01 0.02 range | | | |
| Ohms | 15 Ω to 3200 Ω 5 Ω to 4000 Ω | 0.01 Ω to 0.1 Ω | 0.10 | Ω to 1.0 Ω % | | |
| Hz - CPM | 2.0 to 1000 CPM 1 to 1000 Hz 1.0 to 10.0 kHz 10.0 to 15.0 kHz | 0.1 CPM 1 Hz 0.1 kHz 0.1 kHz | ±0.0 ±0.0 ±0.2 ±0.0 | 5% 5% | 5 V 1 V squ | urce; p-p 7 - 20 V p-p arewave, 1 V offset |
| Loop Supply | 725/726: 24 V DC | N/A | 10% | | | |
| T/C | J, K, T, E, L, N, U, XK | 0.1°C | to 0.1 | | | |
| T/C | B, R, S, BP | 1°C | to 1.2 | | | |
| RTDs | Cu (10) , Ni 120 (672) Pt 100, 200, 500, 1000 (385) Pt 100 (3916), Pt 100 (3926) | 0.01°C 0.1°C | to 0. | 15°C | | |
| Simultaneous func | (, | | 1.00.01 | Channel | д | Channel |
| 24.00 mA DC | non oupublicy | | | M | | M or S |
| 24.00 mA DC with 24 V loop supply | | | | М | | _ |
| 100.00 mV DC | | | | - | | M or S |

| | 24.00 mA DC |
|---|--|
| | 24.00 mA DC with 24 V loop supply |
| | 100.00 mV DC |
| | 30.00 V DC measure |
| | 20.00 V DC measure; 10.00 V DC source; 20.00 V DC source |
| | 15 to 3200 Ohms (725); 5 to 4000 Ohms (726) |
| | Thermocouple J, K, T, E, R, S, B, M, L, U, N, XK, BP |
| | RTD Cu 10 , Ni120; Pt100 (392); Pt100 (JIS); Pt100, 200, 500, 1000 (385), XK and BP |
| | Pressure (requires Fluke 750PXX Modules) |
| | Frequency; 10 kHz; (15 kHz) |
| 1 | M = Measure, S = Source/Simulate |
| 1 | Unique 726 features are in bold |



| - | M or S |
|---|-------------|
| М | - |
| - | M or S |
| М | M used as S |
| - | M or S |
| | |

Recommended Accessories



TL220 SureGrip™ Industrial Test Lead Set



80PK-27 ndustrial Surface Temperature Probe



750PXX



C125

700PRV essure Relie Valve Kit





Included Accessories

TL75 Test Lead Set (TL75), AC70A Test Clip Set (725), AC72 Test Clip Set (726), Stackable Test Lead Set, Four AA Batteries, Traceable Calibration Certificate

Ordering Information FLUKE-725 Multifunction

Process Calibrator FLUKE-726 Precision

Multifunction Process Calibrator



Fluke 750 Series Documenting Process Calibrators

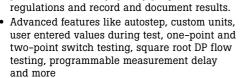
ALC: N 0000 NOT 151 18 ----Fluke 753

Fluke 754



HART is a registered trade mark of the HART Communications Foundation

- Whether you're calibrating instruments, troubleshooting a problem or running routine maintenance, Fluke's 753 and 754 Series Process Calibrators can help you get the job done faster. They do so many different tasks, so quickly and so well and they are the only process calibrators you need to carry.
- Measure volts, mA, RTDs, thermocouples, frequency, and ohms to test sensors, transmitters etc.
- Source/simulate volts, mA, thermocouples, RTDs, frequency, ohms, and pressure to calibrate transmitters
- Power transmitters during test using loop supply with simultaneous mA measurement
- Measure pressure using any of Fluke's 50 pressure modules
- Measure and source simultaneously with one compact, rugged, reliable tool
- Create and run automated as-found/as-left procedures to satisfy quality programs or



- Control the temperature of selected HART[™] Scientific Dry Blocks
- Handle fast pulsed RTD transmitters and PLCs in RTD source mode with 1 ms response time
- Three-year warranty

Fluke 753: A complete Documenting Calibrator

The Fluke 753 is a complete multifunction documenting calibrator. It includes a PC interface that lets you load procedures, lists and instructions created with softwareor unload data for printing, archiving, and analysis. The 753 can hold a full week of calibrations and procedures.

Fluke 754: Get HART-ability™

The Fluke 754 offers all of the capabilities of the 753, plus the ability to calibrate, maintain and troubleshoot HART instrumentation. Integrated HART communication functions permit you to monitor, control and calibrate HART instrumentation. It handles fast pulsed instruments such as RTD transmitters and PLCs responding to pulses within 1 ms.

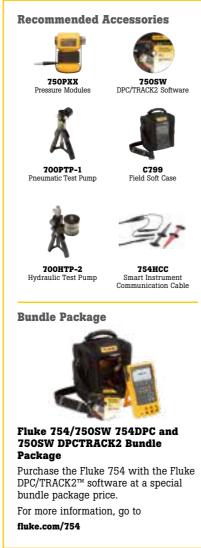
Instrumentation Management Software

The Fluke 753 and 754 are compatible with Fluke 750SW DPC/TRACK2 software and with software from Cornerstone, Emerson, Honeywell, On Time Support, Prime Technologies, Yokogowa, Intools, Meridium.

For more information, visit www.fluke.com

| Functions | Measure | Sourcing |
|---------------|---|-----------------------------------|
| DC voltage | 0.02% reading + 0.005% full scale | 0.01% output + 0.005% full scale |
| DC current | 0.01% reading + 5 µA | 0.01% output + 0.003 mA |
| Resistance | 0.05% reading + 50 mΩ | 0.01% output + 240 mΩ |
| Frequency | 0 to 50kKHz, ±0.5 Hz to 1100 Hz | 0 to 50 kHz, ±0.1 Hz to 1099.9 Hz |
| Thermocouples | 0.3° C (0.54° F) | 0.2° C (0.36° F) |
| RTDs | 0.3° C (0.54° F) | 0.1° C (0.18° F) |
| Pressure | To 0.02% of full scale, per pressure modu | ile specifications |

| Battery life | Typically over eight hours |
|-----------------------|---|
| Internal battery pack | Li ion 4400 mAh |
| Battery replacement | Via twist lock fastener without opening calibrator |
| Weight | 1.2 kg (2.7 lb) |
| Size (HxWxD) | 136 x 245 x 63 mm (5.4 x 9.6 x 2.5 in) |
| RTDs | 0.3° C |
| Pressure | To 0.02% of full scale, per pressure module specifications - see page 124 |



Included Accessories

Stackable Test Leads (3 sets), TP220 Test Probes (3 sets) with extended Tooth Alligator Clips (3 sets), AC280 Hook Clips (2 sets), BP7240 Li-ion Battery Pack, BC7240 Battery Charger, C799 Field Soft Case, USB Communication Cable, Getting Started Guide, Instruction Manual on CDROM, Traceable Certificate of Calibration, DPCTrack[™]2 Sample Software that enables upload and printing of calibration records, HART™ Communication Cable (754 only).

| oruering into | Imation |
|---------------------|---|
| FLUKE-753 | Documenting Process Calibrator |
| FLUKE-754 | Documenting Process Calibrator HART™ |
| FLUKE-754/ 750SW | 754DPC and 750SW DPCTRACK2 Bundle Package |
| FLUKE-750SW | DPC/TRACK2 Software |

Fluke 154 HART[™] Calibration Assistant



HART[™] Calibration assistance at your fingertips. Combine with a Fluke Calibrator for a total HART **Calibration Solution.**

The Fluke 154 puts HART device configuration at your fingertips. An Android[™] based tablet user interface makes HART configuration easy. The external wireless modem allows you to connect the modem to the transmitter being tested so you can communicate to the device remotely. HART transmitters can often be found in confined spaces that are difficult to access, or are out of reach. The Fluke 154 helps reduce the need to stand right next to the device being tested or configured so you can work from a safer, more convenient location.

When you combine the Fluke 154 Communicator with a Fluke 750 Series Documenting Process Calibrator, or a Fluke 720 Series Multifunction Process Calibrator you have a complete HART calibration and configuration solution.

- Full HART Device Description (DD) support of all HART devices • Configure HART devices
- Perform HART trim on HART devices when used
- Monitor device PV, SV, TV, QV and other
- measured HART variables · Quarterly HART DD updates for free
- · Convenient wireless connectivity to HART modem
- · Easy to use, fast connect and view HART data
- Store HART device configurations
- Long range wireless communication up to
- 76.2 m (250 ft) • Three-year warranty

| Tablet | |
|--------------------------|---------------------------------------|
| Operating System | Android 5.0 or newer |
| Processor | ARM or Atom |
| Memory RAM | 1 GB |
| Memory ROM | 2 GB |
| Screen | 960 × 540 qHD |
| Communication Port | Bluetooth |
| HART™ Modem | |
| Enclosure | |
| Dimensions (LxWxH) | 10.16 x 2.5 x 6.9 cm (4 x 1 x 2.75 in |
| Fotal Unit Weight | 0.16 kg (0.36 lbs) |
| HART Cable Length | 1.2 m (4 ft) |
| HART Cable Connectors | Mini-Grabber |
| HART™ Interface | |
| Interface | Capacitive coupling |
| Output | 600 mVpp |
| Leakage | < 10 uA |
| Connections | Across loop resistor or HART field de |
| Specifications | HART 4, HART 5, HART 6, HART 7 |
| HART Physical Layer Spec | HCF_SPEC-54 |
| Specification | Bluetooth v2.0 |
| Frequency | 2.4 GHz |
| Class 1 Master Distance | 83.8 m (275 ft) |
| Battery Type | Rechargeable Li-ion |
| Battery Life | 19 hours continuous use |
| Humidity | 0% to 90% (non-condensing) |
| | |

Available in limited regions only.





with a Fluke 750 or 720 Series Calibrator



Process **Calibration Tools Multifunction Calibration**

Included Accessories

Tablet Charger and USB, Micro-cable, Fluke HART[™] App (installed), HART Modem, USB Mini-Cable, Hook Test Clips, Alligator Clips, Magnetic Hanging Strap, Case, Manual installed on Tablet

Ordering Information Fluke 154 HART Calibration Assistant



Fluke 712B, 714B and 724 **Temperature Calibrators**

Accuracy and simplicity

temperature and loop calibration.

and millivolts

temperature signal

linearity checks

100% settings

measurements

of tests

calibration

Three-vear warranty

temperature signal

linearity checks

settings

Fluke 712B RTD Calibrator

Fluke 714B Thermocouple Calibrator

The Fluke 712B and 714B are designed for both simplicity, ease

of use and high accuracy. They are a powerful combination of

· Measure and simulate 17 different thermocouple types

• Measure 4-20 mA signals while simultaneously sourcing a

Configurable 0% and 100% source settings for quick 25%

• Hanging tool designed in and included with every unit

• Linear ramp and 25% step auto ramp based on 0% and

· Dual inputs and backlit display for easy interpretation of

· 1 and 2 year specifications and traceable certificate of

· Power-down settings remembered at power up for easy restart

· Measure and simulate 13 different RTD types and resistance

• Measure 4-20 mA signals while simultaneously sourcing a

• Configurable 0% and 100% source settings for quick 25%

· Dual inputs and backlit display for easy interpretation of

· 1-year and 2-year specifications and traceable certificate of

• Linear ramp and 25% step auto ramp based on 0% and 100%



Fluke 714B



Fluke 712B



calibration Three-year warranty

measurements

| Operating Temperature -10° C to 50° C (14° F to 122° F)Operating Altitude 2000 m (6561 ft)Relative Humidity (% RH operating without condensation)Non condensing 90% (10° C to 30° C (14° F to 86° F)), 75% (30° C to 40° C (86° F to 104° F)), 45% (40° C to 50° C (104° F to 122° F)) (Without condensation)Vibration RequirementsMIL-T-28800E, Class 2Drop Test Requirements1 m ($3.28 	ext{ ft}$) Ingress ProtectionIngress ProtectionIEC 61010-1, Max 30 V to earth, Pollution Degree 2SafetyIEC 61010-1, Max 30 V to earth, Pollution Degree 2Power SupplyFour AA NEDA 15A IEC LR6 batteriesDC mA Measurement0.001 mAAccuracy (% of reading + counts)0.01\% + 0.000 n to $400.00 n$, 400.0Ω to 400.00Ω Ohms Range0.01\% + 0.05 n, 0.01\% + 0.5 \OmegaOhms Range1.0 Ω to 400.0Ω n to 400.00Ω , 1500.0Ω to 400.00Ω Accuracy (% of reading + counts)0.01\% + 0.1 Ω , 0.01\% + 0.05 Ω , 0.01\% + 0.5 Ω Ohms Range0.01\% + 0.1 Ω , 0.01\% + 0.5 Ω | eneral Specifications | 712B | 714B |
|--|---------------------------------|--|----------------------------|
| Relative Humidity (% RH operating without condensation)Non condensing 90% (10° C to 30° C (14° F to 86° F)), 75% (30° C to 40° C (86° F to 104° F)), 45% (40° C to 50° C (104° F to 122° F)) (Without condensation)Vibration RequirementsMIL-T-28800E, Class 2Drop Test Requirements1 m (3.28 ft) Ingress ProtectionIngress ProtectionIEC 61010-1, Max 30 V to earth, Pollution Degree 2Power SupplyFour AA NEDA 15A IEC LR6 batteriesDC mA Measurement0.001 mARange0.001 mAAccuracy (% of reading + counts)0.01% + 0.05 \Omega, 0.01% + 0.5 \OmegaOhms Range0.01% + 0.05 \Omega, 0.01% + 0.05 \Omega, 0.01% + 0.5 \OmegaOhms Range1.0 \Omega to 400.0 \Omega, 1.00 \Omega to 400.0 \Omega, to 1500.0 \Omega, 1500.0 \Omega to 4000.0 \OmegaAccuracy (% of reading + counts)0.01% + 0.1 \Omega, 0.01% + 0.05 \Omega, 0.01% + 0.5 \OmegaOhms Range1.0 \Omega to 400.0 \Omega, 1.00 \Omega to 400.0 \Omega, to 1500.0 \Omega to 4000.0 \OmegaAccuracy (% of reading + counts)0.01% + 0.1 \Omega, 0.01% + 0.05 \Omega, 0.01% + 0.5 \Omega | perating Temperature | -10° C to 50° C (14° F to 122 | ° F) |
| (% RH operating without condensation)Note of solution (30° C to 40° C (86° F to 104° F)), T5% (30° C to 40° C (86° F to 104° F)), 45% (40° C to 50° C (104° F to 122° F)) (Without condensation)Vibration RequirementsMIL-T-28800E, Class 2Drop Test Requirements1 m (3.28 ft)Ingress ProtectionIEC 61010-1, Max 30 V to earth, Pollution Degree 2Power SupplyFour AA NEDA 15A IEC LR6 batteriesDC mA Measurement0.001 mAResolution0-24 mARange0.001 mAAccuracy (% of reading + counts)0.010 Ω to 400.00 Ω , 400.0 Ω to 4000.0 Ω Ohms Source0.01% + 0.05 Ω , 0.01% + 0.5 Ω Ohms Range1.0 Ω to 400.0 Ω , 1500.0 Ω to 4000.0 Ω to 1500.0 Ω to 4000.0 Ω | perating Altitude | 2000 m (6561 ft) | |
| Initial ProductionInitial ProductionDrop Test Requirements1 m (3.28 ft)Ingress ProtectionIEC 60529: IP52SafetyIEC 61010-1, Max 30 V to earth, Pollution Degree 2Power SupplyFour AA NEDA 15A IEC LR6 batteriesDC mA MeasurementResolution0.24 mARange0.001 mAAccuracy (% of reading + counts)0.000 Ω to 400.00 Ω , 400.0 Ω to 4000.0 Ω Ohms MeasurementOhms MeasurementOhms MeasurementOhms MeasurementOhms MeasurementOhms MeasurementOhms SourceOhms SourceI 0.01% + 0.05 Ω , 0.01% + 0.5 Ω Ohms Range1.0 Ω to 400.0 Ω , 1500.0 Ω to 400.00 Ω , to 1500.0 Ω , 1500.0 Ω Accuracy (% of reading + counts)0.01% + 0.1 Ω , 0.01% + 0.05 Ω , 0.01% + Ω , 5 Ω | % RH operating without | 75% (30° C to 40° C (86° F to 10 |)4° F)), |
| Ingress Protection IEC 60529: IP52 Safety IEC 61010-1, Max 30 V to earth, Pollution Degree 2 Power Supply Four AA NEDA 15A IEC LR6 batteries DC mA Measurement $0-24 \text{ mA}$ Resolution $0-24 \text{ mA}$ Range 0.001 mA Accuracy (% of reading + counts) $0.01\% + 2 \mu A$ Ohms Measurement $0.000 \Omega to 400.00 \Omega$, 4000.0Ω , 4000.0Ω , 4000.0Ω , 4000.0Ω Accuracy (% of reading + counts) $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source $0.01\% + 0.00 \Omega to 4000.0 \Omega$, $100\Omega \Omega to 4000.0 \Omega$, 4000.0Ω , $100 \Omega to 4000.0 \Omega$, 4000.0Ω , 500.0Ω , 500.0Ω , 1500.0Ω , 4000.0Ω , 40000.0Ω , 400000.0Ω , 4000000Ω , 40000000Ω , 4000000Ω , 4000000Ω , $400000 $ | ibration Requirements | MIL-T-28800E, Class 2 | |
| Safety IEC 61010-1, Max 30 V to earth, Pollution Degree 2 Power Supply Four AA NEDA 15A IEC LR6 batteries DC mA Measurement 0.001 mA Range 0.001 mA Accuracy (% of reading + counts) $0.01\% + 2 \mu A$ Ohms Measurement $0.000 \Omega to 400.00 \Omega$, 400.00Ω , 400.00Ω Accuracy (% of reading + counts) $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Range $1.0 \Omega to 400.0 \Omega$, $1.00 \Omega to 400.00 \Omega$, 400.0Ω , $to 1500.0 \Omega$, 50 , $0.01\% + 0.5 \Omega$, $0.01\% + 0.5 \Omega$, $0.01\% + 0.5 \Omega$ | rop Test Requirements | 1 m (3.28 ft) | |
| Power Supply Four AA NEDA 15A IEC LR6 batteries DC mA Measurement | ngress Protection | IEC 60529: IP52 | |
| DC mA Measurement Resolution $0-24 \text{ mA}$ Range 0.001 mA Accuracy (% of reading + counts) $0.01\% + 2 \mu A$ Ohms Measurement Ohms range 0.00Ω to 400.00Ω , 4000.0Ω Accuracy (% of reading + counts) $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source $0.01\% + 0.00 \Omega$ to 400.00Ω , 400.0Ω Ohms Range 1.0Ω to 400.0Ω , 1.00Ω to 400.00Ω , 400.0Ω Accuracy (% of reading + counts) $0.01\% + 0.1 \Omega$, $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ | afety | IEC 61010-1, Max 30 V to earth, Pollut | ion Degree 2 |
| Resolution $0-24 \text{ mA}$ Range 0.001 mA Accuracy (% of reading + counts) $0.01\% + 2 \mu A$ Ohms Measurement $0.000 \Omega \text{ to } 400.00 \Omega$, 400.00Ω , 4000.0Ω Ohms range $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source $0.01\% + 0.05 \Omega$, $0.01\% + 0.05 \Omega$ | ower Supply | Four AA NEDA 15A IEC LR6 batt | teries |
| Range 0.001 mA Range 0.001 mA Accuracy (% of reading + counts) $0.01\% + 2 \mu A$ Ohms Measurement 0.000 Ω to 400.00 Ω , 4000.0 Ω Ohms range $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source 0.01\% + 0.00 Ω to 400.00 Ω , 400.0 Ω Ohms Range 1.0 Ω to 400.0 Ω , 1500.0 Ω to 4000.0 Ω Accuracy (% of reading + counts) $0.01\% + 0.1 \Omega$, $0.01\% + 0.05 \Omega$, $0.01\% + 0.05 \Omega$ | C mA Measurement | | |
| Accuracy (% of reading + counts) $0.01\% + 2 \mu A$ Ohms Measurement 0.00Ω to 400.00Ω , 400.00Ω Ohms range $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Accuracy (% of reading + counts) $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source 1.0Ω to 400.0Ω , 1.00Ω to 400.00Ω , 400.0Ω Accuracy (% of reading + counts) $0.01\% + 0.1 \Omega$, $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Accuracy (% of reading + counts) $0.01\% + 0.1 \Omega$, $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ | esolution | 0-24 mA | |
| Ohms Measurement 0.00Ω to 400.00Ω , 400.00Ω , 400.0Ω Ohms range $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Accuracy (% of reading + counts) $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ Ohms Source 1.0Ω to 400.0Ω , 1.00Ω to 400.00Ω , 400.0Ω Ohms Range 1.0Ω to 400.0Ω , 1500.0Ω to 4000.0Ω Accuracy (% of reading + counts) $0.01\% + 0.1 \Omega$, $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ | ange | 0.001 mA | |
| Ohms range $0.00 \Omega \text{ to } 400.00 \Omega, 400.00 \Omega, 400.0 \Omega$ Accuracy (% of reading + counts) $0.01\% + 0.05 \Omega, 0.01\% + 0.5 \Omega$ Ohms Source 1.0 \Omega to 400.0 \Omega, 1.00 \Omega to 400.00 \Omega, 400.0 \Omega, to 1500.0 \Omega, 1500.0 \Omega to 4000.0 \Omega, 400.0 \Omega, to 1500.0 \Omega, 1500.0 \Omega, 0.01\% + 0.05 \Omega, 0.00\% + 0.00\% + 0.00\% + 0.00\% + 0.00\% + 0.00\% + 0.00\% + 0.00\% + 0.00 | ccuracy (% of reading + counts) | 0.01% + 2 µA | |
| $400.0 \ \Omega$ to $4000.0 \ \Omega$ Accuracy (% of reading + counts) $0.01\% + 0.05 \ \Omega, 0.01\% + 0.5 \ \Omega$ Ohms Source 1.0 \ \Omega to 400.0 \ \Omega, 1.00 \ \Omega to 400.00 \ \Omega, 400.0 \ \Omega Ohms Range 1.0 \ \Omega to 400.0 \ \Omega, 1.00 \ \Omega to 4000.0 \ \Omega Accuracy (% of reading + counts) 0.01% + 0.1 \ \Omega, 0.01% + 0.05 \ \Omega, 0.01% + 1.00 \ \Omega | hms Measurement | | |
| Ohms Source 1.0 Ω to 400.0 Ω , 1.00 Ω to 400.00 Ω , 400.0 Ω Ohms Range 1.0 Ω to 400.0 Ω , 1500.0 Ω to 4000.0 Ω Accuracy (% of reading + counts) 0.01% + 0.1 Ω , 0.01% + 0.05 Ω , 0.01% + 0.5 Ω | hms range | | |
| Ohms Range 1.0Ω to 400.0Ω , 1.00Ω to 400.00Ω , 400.0Ω to 1500.0 \Omega, 1500.0 \Omega to 4000.0Ω Accuracy (% of reading + counts) 0.1Ω , $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ | ccuracy (% of reading +counts) | 0.01% + 0.05 Ω, 0.01% + 0.5 Ω | |
| to 1500.0 Ω, 1500.0 Ω to 4000.0 Ω Accuracy (% of reading + counts) $0.01\% + 0.1 \Omega$, $0.01\% + 0.05 \Omega$, $0.01\% + 0.5 \Omega$ | hms Source | | |
| 0.5 Ω, 0.01% + 0.5 Ω | hms Range | | |
| Resolution | ccuracy (% of reading + counts) | | |
| | esolution | | |
| 0.00 Ω to 400.00 Ω 0.01 Ω | | | |
| 400.0 Ω to 4000.0 Ω 0.1 Ω | | 0.1 Ω | |
| Millivolt Measurement & Source | | | 10 11 55 11 |
| | | | -10 mV to 75 mV |
| | 0 | | 0.01 mV 0.01% + 10 mV |

Specialty Model Fluke 724 Temperature Calibrator

- · Easy to read dual display allows for input and output simultaneous view
- Source/measure TCs, RTDs, volts and ohms
- Measure mA while supplying loop power

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• 25% and 100% stepping, auto-step and auto ramp

Recommended Accessories



Fluke 712/724





C25 C101 Meter Hard Case Large Soft Case

Included Accessories

Fluke 714B/712B: Magnetic Hanging Tool, Batteries, Manual, Traceable Calibration Certificate and Test Leads. Fluke 724: TL75 Test Leads, AC175 Test Clips, Stackable Test Leads (1 pair), Spare Fuse, User Manual and

Traceable Certificate of Calibration. **Ordering Information** FLUKE-714B Thermocouple Temperature Calibrator FLUKE-712B **RTD** Calibrator FLUKE-724 Temperature Calibrator



Fluke Calibration 1523 and 1524 **Reference Thermometers**

The Fluke Calibration 1523/1524 Reference Thermometers measure, graph and record PRTs, thermocouples and thermistors. You can measure up to 0.3 seconds per sample and plot and scale trends in real time. Both thermometers have memory for up to 25 readings with statistics. The 1524 has two inputs with data logging memory for 15000 measurements with date and time stamps.

- High accuracy PRTs: ±0.01° C; Thermocouples: ±0.24° C; Thermistors: ±0.002° C
- · A simple user interface to see trends quickly
- Optional on a PC LogWare II software to monitor and log
- more data over time
- One-year warranty

Models Included accessories

| mouorb | Indiada addebberreb |
|---------|---|
| | Fluke 1523 Bundled with: |
| 1523-P2 | 5628 PRT (-200° C to 660° C (-3 25 ohm, 6.35 mm × 305 mm (0 Universal TC INFO-CON Connecto |
| 1523-P3 | 5627A PRT (-200° C to 420° C (- 100 ohm, 6.35 mm × 305 mm (Universal TC INFO-CON Connected |
| 1523-P4 | 5615 PRT (-200° C to 420° C (-3 100 ohm, 6.35 mm × 305 mm (Universal TC INFO-CON Connector |
| | Fluke 1524 Bundled with: |
| 1524-P2 | 5628 PRT, Universal TC INFO-CO and Case |
| 1524-P3 | 5627A PRT, Universal TC INFO-C and Case |
| 1524-P4 | 5615 PRT, Universal TC INFO-CO and Case |

Fluke Calibration 1551A Ex and **1552A Ex Stik Thermometer Readouts**

Fluke 1552A Ex

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Fluke 1523

Best substitute for precision mercury-filled glass thermometers

The Fluke 1551A Ex and 1552A Ex Stik Thermometers are an accurate and repeatable substitute for mercury-in-glass thermometers. Whether working outdoors in environments where potentially explosive gases may be present or on the floor of a processing plant, these intrinsically-safe, battery operated, portable reference thermometers are designed to go where you work.

- User-configurable temperature Trend/Stability indicator
- Optional data logging to internal memory
- 300-hour battery life
- NVLAP-accredited, NIST-traceable calibration included
- Accuracy of ±0.05° C (±0.09°F) over full range
 - Intrinsically safe (ATEX and IECEx compliant) Ex ib IIB T4 Gb
 - Two models to choose from (-50° C to 160° C (-58° F to 320° F)) or -80° C to 300° C (-112° F to 572° F))

| ٠ | One-year | warranty |
|---|----------|----------|
| | | |

| Models | | |
|---|--|--|
| 1551A-9* | 1551A Ex Thermometer, Fixed RTD, -50° C to 160° C (-58° F to 4.8 mm \times 229 mm (0.18 in \times 9.01 in) | |
| 1551A-12* | 1551A Ex Thermometer, Fixed RTD, -50° C to 160° C (-58° F to 6.35 mm \times 305 mm (0.25 in \times 12 in) | |
| 1551A-20* | 1551A Ex Thermometer, Fixed RTD, -50° C to 160° C (-58° F to 6.35 mm \times 508 mm (0.25 in \times 20 in) | |
| 1552A-12* | 1552A Ex Thermometer, Fixed PRT, -80° C to 300° C (-112° F t 6.35 mm \times 305 mm (0.25 in \times 12 in) | |
| *Datalogging option models also available og DI | | |

*Datalogging option models also available as -DI

Process Calibration Tools

Temperature Calibration



· Smart connectors to load probe information automatically

328° F to 1 220° F) 0.25 in × 12 in)), or, TPAK and Case -328° F to 788° F), (0.25 in × 12 in)), tor, TPAK and Case 328° F to 788° F), $(0.25 \text{ in } \times 12 \text{ in}))$ or, TPAK and Case

ON Connector, TPAK

CON Connector, TPAK

ON Connector, TPAK

320° F),

320° F),

320° F),

to 572° F),



- measurement using Fluke 750P Series Pressure Modules
- Measures 4-20 mA loop current
- Includes certificate of calibration traceable to national standards
- Thermocouple output/input: -10 mV to 75 mV ±(30 ppm of reading +2 µV)
- Transmitter output: 0 mA to 24 mA (input with loop power) \pm (100 ppm +1 μ A)
- Resistance output: 5 Ω to 400 Ω ±0.01 Ω





Fluke Calibration 9100S and 9102S Handheld Dry-Well Temperature Calibrators



The Fluke Calibration 9100S and 9102S are the world's smallest, lightest and most portable dry-wells. With an easy-to-use interface and temperature range to 375° C (707° F) the 9100S is ideal for checking RTDs, thermocouples, and small bimetal thermometers in the field. For work in the temperature range of -10° C to 122° C (14° F to 251° F) the 9102S is ideal for dial gauges, digital thermometers, bulb switches, and other sensors

-**1508**

Fluke 9100S

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that need calibration below ambient. 9102S Handheld Dry-Well

- Smallest dry-wells in the world
- Interchangeable and customizable inserts available • Ranges from -10° C to 122° C (14° F to 251° F)
- Accuracy to ±0.25° C (±0.45° F)
- Stability of ±0.05° C (±0.09° F) at 0° C (32° F)
- One-vear warranty

9100S Handheld Dry-Well

- High performance, convenience and easy-to-use
- Ranges from 35° C to 375° C (95°F to 707°F)
- Accuracy: ±0.25° C at 50° C; ±0.25° C at 100° C; ±0.5° C at 375° C (±0.45° F at 122° F; ±0.45° F at 212° F: ±0.9° F at 707° F)
- NIST traceable calibration
- One-year warranty

Fluke Calibration 1586A **Data Acquisition System**





1586A Super DAQ Precision Temperature Scanner

The 1586A Super DAQ automates calibration when connected to a Fluke Calibration temperature source. It is a powerful thermometer readout and the most accurate and flexible temperature data acquisition system on the market.

- Measure thermocouples, PRTs, thermistors, DC voltage, DC current, and resistance
- Best-in-class temperature measurement accuracy
- PRTs: ±0.005° C (±0.009° F)
- Thermocouples: ±0.3° C (±0.54° F) (Type K,T,J w/ internal CJC)

Optional: ISO I7025 Accredited Calibration available for 1586A models

- Thermistors: ±0.002° C (±0.004° F)
- One-year warranty

Recommended Accessories Fluke 91005/91025

1586-CASE Rugged Carrying (9100S) Carrying Case (1586A Super DAQ)

Ordering Information 9100S-A- HDRC Handheld Dry-

| 56 | Well, Block A, High-Temp |
|---------------|--|
| 100S-B- 56 | HDRC Handheld Dry- Well, Block B, High-Temp |
| 100S-C- 56 | HDRC Handheld Dry- Well, Block C, High-Temp |
| 100S-D- 56 | HDRC Handheld Dry- Well, Block D, High-Temp |
| 1028-256 | HDRC Handheld Dry- Well, Low-Temp |
| 586A | Super-DAQ Precision Temperature Scanner |
| 586A/1DS | Super-DAQ Precision Temperature Scanner, 1 DAQ-STAQ Multiplexer |
| 586A/2DS | Super-DAQ Precision Temperature Scanner, 2 DAQ-STAQ Multiplexers |

1586A/DS Super-DAO Precision -HC Temperature Scanner, 1 High-Capacity Module, 1 **DAQ-STAQ Multiplexer**

1586A/1HC Super-DAQ Precision Temperature Scanner 1 High-Capacity Module

1586A/2HC Super-DAQ Precision Temperature Scanner, 2 High-Capacity Modules

Contact your local distributor for price and availability. fluke.com/findus

Fluke Calibration 9142, 9143 and 9144 **Field Metrology Wells**



Fluke 9144

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Field temperature calibration with precision and speed

Whether you need to calibrate 4-20 mA transmitters or a simple thermostatic switch, a Fluke Calibration Field Metrology Well is the right tool for the job. With three models covering the range of -25° C to 660° C, this family of Metrology Wells calibrates a wide range of sensor types. The optional process version (models 914X-X-P) provides a built-in two-channel thermometer readout that measures PRTs, RTDs, thermocouples, and 4-20 mA transmitters which includes the 24 V loop supply to power the transmitter.

- Lightweight, portable, and fast
- 9142 -25° C to 150° C ±0.2° C (-13° F to 302° F ±0.4° F)
- 9143 33° C to 350° C ±0.2° C (91° F to 662° F ±0.4° F)
- 9144 50° C to 660° C ±0.35° C to 420° C, ±0.5° C to 660° C
- Cool to -25° C (-13° F) in 15 minutes and heat to 660° C (1.220° F) in 15 minutes
- Built-in two-channel readout for PRT, RTD, thermocouple, 4-20 mA current
- True reference thermometry with accuracy to ±0.01° C
 - Automate calibration with the Fluke 754 or Fluke 1586A or use on-board automation with process version
 - One-year warranty

| Models | | Well inserts X in the model number to D, E, or F as appropriate f |
|-------------------|---|--|
| 9142 - X | Field Metrology Well, -25° C to 150° C (-13° F to 302°) | 9142-INSA Insert A, |
| 9142 - X-P | Field Metrology Well, -25° C to 150° C (-13° F to 302°), process version | 9142-INSB Insert B, 9142-INSC Insert C, 9142-INSC Insert C, 9142-INSC 9142-INSC Insert C, 9142-INSC 9142-I |
| 9143 - X | Field Metrology Well, 33° C to 350° C (91° F to 662° F | 9143-INSA Insert A, |
| 9143 - X-P | Field Metrology Well, 33° C to 350° C (91° F to 662° F), process version | 9143-INSB Insert B, 9143-INSC Insert C, 9143-I |
| 9144-X | Field Metrology Well, 50° C to 660° C (122° F to 1,220° F) | 9144-INSA Insert A, |
| 9144-X-P | Field Metrology Well, 50° C to 660° C (122° F to 1,220° F), process version | 9144-INSB Insert B, 9144-INSC Insert C, |

Fluke Calibration 9103 and 9140 Field Dry-Well Calibrators



Fluke 9140

Models

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9103-X Field Dry-Well Calibrator,

9140-X Field Dry-Well Calibrator,

35° C to 350° C (95° F to 662° F)

-25° C to 140° C (-13° F to 284° F)

Fluke Calibration 9103 and 9140 Field Dry-Well Calibrators beat every other comparable dry-well in the industry in performance, size, weight, convenience, ease of calibration, software, and price. The heating and cooling rate of each of these dry-wells is adjustable from the front panel, and thermal switches can be checked for actuation testing. Multiple-hole inserts are available for a variety of probe sizes.

- Lightweight and very portable
- Two models ranging from -25° C to 350° C (-13° F to 662° F)
- Accuracy to ±0.25° C
- Stability to ±0.02° C
- · RS-232 and Interface-it software included
- Easy to recalibrate
- One-year warranty

| Insert A: | 1.6 mm (1/16 |
|-----------|-------------------------------|
| | 4.8 mm (3/16 |
| | 9.5 mm (3/8 |
| Insert B: | 2 at 4.8 mm (1/4 in) and 2 |
| Insert C: | Six at 6.35 n |
| Insert D: | 2 at 3 mm (0 (0.157 in) an |

120

(add "/C" to the model number)





(122° F to 1,220° F ±0.63° F to 788° F, ±0.9° F to 1,220° F)

be replaced with A, B, C, for the desired insert.

9142, misc holes 9142, comp holes 9142, 6 × 0.25 in holes

9143 misc holes 9143, comp holes 9143, 6 × 0.25 in holes

9144, misc holes 9144, comp holes 9144. 6 × 0.25 in holes

Specify X, X = A, B, C, or D included insert

6 in), 3.2 mm (1/8 in), 6 in), 6.35 mm (1/4 in), 3 in) and 12.7 mm (1/2 in) (3/16 in),, 2 at 6.35 mm 2 at 9.5 mm (3/8 in) mm (1/4 in) 0.118 in), 2 at 4 mm nd 2 at 6 mm (0.236 in)











Carrying Case



(914X)

9316 Rugged Carrying Case

Complete Solution Fluke 754 with 914X Series Field Metrology Well

By combining the automating and documenting capabilities of the Fluke 754 Documenting Process Calibrator (see page 116) with Fluke Calibration's intelligent and stable family of field drywells and micro-baths. vou have the capability to test the process sensor and the entire loop.

This combination of equipment allows you to easily verify the characteristics of the temperature sensor and measurement electronics. Using this information, the entire loop can be adjusted to optimize system measurement performance.



FLUKE

Calibration



Fluke Calibration 6109A/7109A **Portable Calibration Baths**



Four times more calibration throughput with twice the accuracy of Micro-Baths and dry-block calibrators

The Fluke Calibration 6109A and 7109A Portable Calibration Baths let process industry professionals calibrate four times more sanitary sensors per batch in less time and with twice the accuracy of other baths in this class. Up to four tri-clamp sanitary sensors fit easily into these baths for calibration at ±0.1° C temperature display accuracy. Throughput is even higher for sanitary RTDs with small or no flanges.

Fluke 6109A



· Wide temperature ranges cover most process applications - 6109A: 35° C to 250° C (95° F to 482°)

• Calibrate up to four tri-clamp sanitary sensors at the same

- 7109A: -25° C to 140° C (-13 ° F to 284° F)
- Excellent display accuracy of ±0.1° C (±0.18° F)provides 4:1 test uncertainty ratio (TUR) for critical applications
- One-year warranty

time

| | 6109A | 7109A |
|--------------------------------------|--|---|
| Range (at 25° C ambient temperature) | 35° C to 250° C (95° F to 482°) | -25° C to 140° C (-15° C cover off (-13° F to 284° F (5° F cover off)) |
| Accuracy (MAX possible error) | 0.1° C (0.18° F) | 0.1° C (0.18° F) |
| Display resolution | 0.01, 0.001° | 0.1 , 0.001° |
| Stability | 0.015° C (0.027° F) | 0.01° C (0.018° F) |
| Typical uniformity | 0.03° C up to 200° C (0.054° F up to 392° F) 0.04° C above 200° C (0.072° F up to 392° F) | 0.02° C (0.036° F) |

Fluke Calibration 1502A/1504 Tweener Thermometer Readouts



Fluke 1502A

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Best performance thermometers in their price range

The 1502A and 1504 Tweener Thermometer Readouts are low-cost high-accuracy digital thermometers featuring accuracy of up to ±0.006° C (±0.011° F) (Fluke 1502A) and up to $\pm 0.002^{\circ}$ C ($\pm 0.004^{\circ}$ F) (Fluke 1504).

The 1502A is designed to be used with 25 Ω and 100 Ω RTDs and SPRTs.

The 1504 Thermometer Readout is designed to be used with thermistors or RTDs with a nominal resistance of 1000 Ω or greater. One-year warranty.

Fluke Calibration 1620A Precision **Thermo-Hygrometer**



The most accurate temperature and humidity graphical data loggers on the market

Now you can easily monitor and record conditions throughout your entire facility with the DewK's new Ethernet and wireless capabilities, and set your upgraded LogWare III software to notify you immediately of changing conditions.



calibration for both temperature and humidity, complete with data and NIST traceability. The 1620A-S reads temperature to $\pm 0.25^{\circ}$ C ($\pm 0.45^{\circ}$ F) over its calibrated range of 15° C to 35° C (59° F to 95° F). Relative humidity readings are to ±2% RH from 20% RH to 70% RH. One-year warranty.

Recommended Accessories Fluke 6109A/7109A 7109-2027 7109-CASE Carrving Case Holding Fixture 4 7109-2051 7109-2080 Single Probe Clamp Kit Fluke 1502A/1504 9301 2505 Carrying Case, fits weener and 12 in probe Spare Connecto P

Serial Ca

Ordering Information

250

| 109A | 35° C to 250° C |
|--------|---|
| 109A-P | Portable Calibration Bath with Process Electronics, 35° C to 250° C |
| 109A | Portable Calibration Bath, -25° C to 140° C |
| 109A-P | Portable Calibration Bath |

with Process Electronics, -25° C to 140° C

1502A Tweener PRT Readout 1502A-Tweener PRT Readout, 2506 with IEEE-488

- 1504 Tweener Thermistor Readout
- 1504-2506 Tweener Thermistor Readout, with IEEE-488
- 1620A-H The "DewK" Thermo-Hygrometer, High-Accuracy Value Kit
- 1621A-H The "DewK" Thermo-Hygrometer, High-Accuracy Value Kit
- 1620A-S The "DewK" Thermo-Hygrometer, Standard-Accuracy Value Kit
- 1621A-S The "DewK" Thermo-Hygrometer, Standard-Accuracy Value
- 9936A LogWare III Software

Contact your local distributor for price and availability. fluke.com/findus

Fluke Calibration 9132/9133 Portable Infrared Calibrator



Fluke 9133

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temperature calibration

Whether you're using in-line or handheld infrared pyrometers, you need good calibration standards to verify their accuracy. Our portable IR calibrators provide stable blackbody targets for calibrating non-contact IR thermometers from -30° C to 500° C (-22° F to 932° F).

These units feature a temperature-controlled measurement surface with a diameter of 57 mm (2.25 in). The target temperature can be controlled in set-point increments of 0.1° from -30° C to 500° C (-22° F to 932° F) and a well is located directly behind the blackbody surface for contact calibration. • Certify IR pyrometers from -30° C to 500° C (-22° F

- to 932° F)
- Large 57 mm (2.25 in) blackbody target • RTD reference well for contact temperature measurement
- · Small, compact design
- One-year warranty

| General Specifications | 9132 | |
|------------------------|--|-------------------------|
| Temperature Range | 50° C to 500° C (122° F to 932° F) | –30° C to (–22° F to |
| Accuracy | ±0.5° C at 100° C (±0.9° F at 212° F) ±0.8° C at 500° C (±1.4° F at 932° F) | ± |
| Target Size | 57 mm (2.25 in) | |
| Target Emissivity | 0.95 (±0.02 from 8 to 14 µm) | 0.95 (: |
| Heating Time | 30 minutes (50° C to 500° C (122° F to 932° F)) | 15 mi |
| Cooling Time | 30 minutes (500° C to 100° C (932° F to 212° F)) | 15 mi |

Fluke Calibration 4180/4181 **Precision Infrared Calibrators**





Accredited performance for point and shoot calibrations

Now it's easy to increase your IR temperature measurement accuracy with the Fluke Calibration 4180 and 4181 Precision Infrared Calibrators. These infrared temperature calibrators give more consistent, accurate and reliable calibrations because emissivity is radiometrically calibrated, and the target size minimizes size of source effect errors. In addition, these infrared calibrators simplify calibration because they uniquely compensate for errors caused by thermometer emissivity settings.

- · Calibrated radiometrically for meaningful, consistent results
- Accurate, reliable performance from -15° C to 500° C (5° F to 932° F)
- calibrating most thermometers · Accredited radiometric calibration report
- · One-year warranty

The 1620A accepts inputs from up to two sensors, which may be mounted directly on the unit or remotely. Each sensor comes with a NVLAP-accredited certificate of



| 10 | and the second se | |
|-----------------------|---|--|
| 08 able Kit | 2361 Spare Power Supply 100 to 240 V AC (1620A) | |
| | | |
| | | |



Precision when you need it for infrared

Recommended Accessories



9308 Carrying Case



4180-CASE Carrying Case (4180 or 4181)



9302 Carrying Cas



4180-APRT 2" Aperture (4180 or 4181)



9133

to 150° C at 23° C ambient to 302° F at 73° F ambient) ±0.4° C (±0.72° F)

57 mm (2.25 in)

±0.02 from 8 to 14 µm) ninutes (25° C to 150° C (77° F to 302° F)) inutes (25° C to -20° C (77° F to -4° F))

• Large target size of 152 mm (5.98 in) is required for

| Ordering Information | | | | |
|----------------------|---|--|--|--|
| 9312-256 | Portable IR Calibrator 50° C to 500° C | | | |
| 9133-256 | Portable IR Calibrator -30° C to 150° C | | | |
| 4180 | Precision Infrared Calibrator, –15° C to 120° C | | | |
| 4181 | Precision Infrared Calibrator, 35° C to | | | |

Contact your local distributor for price and availability. fluke.com/findus

500° C



Fluke 750P and 750PEx Series Pressure Modules



Precision pressure measurement for Fluke 750 and 720 Series Calibrators

The Fluke 750P Series Pressure Modules are the ideal pressure modules to enable gage, differential and absolute pressure measurement with Fluke 750 and 740 Series DPCs and 725, 726 MPCs to measure pressure. Covers pressure calibrations from 0 to 1 inH₂0 to 10000 psi (2.5 mbar to 690 bar).

- 0.02% reference uncertainty
- · 6-month and 1-year specifications
- Intrinsically safe models are Class I Div 1 Groups A-D T4, Ta = -10° C to $+50^{\circ}$ C (14° F to 122° F), ATEX II 1G Ex ia IIC T4 Ga compliant
- Ships with Traceable Certificate of Calibration
- Three-year warranty

| Model Parameter/Range | | Burst Rating ⁶ | Hi Side Media ² | Lo Side Media ² | Reference Uncertainty ⁴ |
|-----------------------|--|------------------------------|-------------------------------|-------------------------------|---------------------------------------|
| Differential | | | | | |
| 750P00 | 0 to 1 in H_0 (0 to 2.5 mbar) | 30X | Dry Air | Dry Air | ±0.15% |
| 750P01 ⁴ | 0 to 10 in H ₂ 0 (0 to 25 mbar) | 3X | Dry Air | Dry Air | ±0.1% |
| 750P02 | 0 to 1 psi (0 to 70 mbar) | 3X | Dry Air | Dry Air | ±0.05% |
| 750P22 | 0 to 1 psi (0 to 70 mbar) | 3X | 316 SS | Dry Air | ±0.05% |
| 750P03 | 0 to 5 psi (0 to 350 mbar) | 3X | Dry Air | Dry Air | ±0.02% |
| 750P23 | 0 to 5 psi (0 to 350 mbar) | 4X | 316 SS | Dry Air | ±0.02% |
| 750P04 | 0 to 15 psi (0 to 1 bar) | 3X | Dry Air | Dry Air | ±0.01% |
| 750P24 ⁴ | 0 to 15 psi (0 to 1 bar) | 4X | 316 SS | Dry Air | ±0.01% |
| Gage | | | | | |
| 750P05 ⁴ | 0 to 30 psi (0 to 2 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750P06 ⁴ | 0 to 100 psi (0 to 7 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750P27 ⁴ | 0 to 300 psi (0 to 20 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750P07 | 0 to 500 psi (0 to 35 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750P08 | 0 to 1000 psi (0 to 70 bar) | 3X | 316 SS | N/A | ±0.01% |
| 750P094 | 0 to 1500 psi (0 to 100 bar) | 3X | 316 SS | N/A | ±0.01% |
| 750P2000 | 0 to 2000 psi (0 to 140 bar) | 3X | 316 SS | N/A | ±0.01% |
| High | | | | 1 | |
| 750P29 ⁴ | 0 to 3000 psi (0 to 200 bar) | 3X | 316 SS | N/A | ±0.01% |
| 750P30 | 0 to 5000 psi (0 to 340 bar) | 3X | 316 SS | N/A | ±0.01% |
| 750P31 | 0 to 10000 psi (0 to 700 bar) | 2X | 316 SS | N/A | ±0.01% |
| Absolute | | 1 | 1 | | |
| 750PA3 | 0 to 5 psia (0 to 350 mbar) | 4X | 316 SS | N/A | ±0.03% |
| 750PA4 ⁴ | 0 to 15 psia (0 to 1 bar) | 4X | 316 SS | N/A | ±0.03% |
| 750PA5 | 0 to 30 psia (0 to 2 bar) | 4X | 316 SS | N/A | ±0.03% |
| 750PA6 | 0 to 100 psia (0 to 7 bar) | 4X | 316 SS | N/A | ±0.03% |
| 750PA27 | 0 to 300 psia (0 to 20 bar) | 4X | 316 SS | N/A | ±0.03% |
| 750PA7 | 0 to 500 psia (0 to 35 bar) | 4X | 316 SS | N/A | ±0.03% |
| 750PA8 | 0 to 1000 psia (0 to 70 bar) | 3X | 316 SS | N/A | ±0.03% |
| 750PA9 | 0 to 1500 psia (0 to 100 bar) | 3X | 316 SS | N/A | ±0.03% |
| Vacuum | | | | | |
| 750PV3 | -5 psi (-350 mbar) | 4X | 316 SS | Dry Air | ±0.03% |
| 750PV4 | -15 psi (-1 bar) | 4X | 316 SS | Dry Air | ±0.03% |
| Dual | | | | | |
| 750PD2 | -1 to 1 psi (-70 to 70 mbar) | 4X | 316 SS | Dry Air | ±0.05% |
| 750PD3 | -5 to 5 psi (-350 to 350 mbar) | 4X | 316 SS | Dry Air | ±0.03% |
| 750PD10 | -10 to 10 psi (-700 to 700 mbar) | 4X | 316 SS | Dry Air | ±0.02% |
| 750PD4 | -15 to 15 psi (-1 to 1 bar) | 4X | 316 SS | Dry Air | ±0.01% |
| 750PD5 | -15 to 30 psi (-1 to 2 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750PD50 | -15 to 50 psi (-1 to 3.5 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750PD6 | -15 to 100 psi (-1 to 7 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750PD7 | -15 to 200 psi (-1 to 14 bar) | 4X | 316 SS | N/A | ±0.01% |
| 750PD27 | -15 to 300 psi (-1 to 20 bar) | 4X | 316 SS | N/A | ±0.01% |

For a complete list of Fluke Pressure Modules, go to fluke.com

- 1. Total uncertainty, % of full span for temperature range 0° C to +50° C, one year interval. Total uncertainty, 1.0% of full span for temperature range -10° C to 0° C, one year interval. No 6 month specification available for range -10° C to 0° C.
- to 0° C

2. "NON-CORROSIVE GASES" indicates dry air or non-corrosive gas as compatible media. "Stainless Steel 316-SS"

indicates media compatible with Type 316 Stainless Steel. 3. Specifications % of Full Span unless otherwise noted.

4. Intrinsically Safe press ure module available in this pressure range price and availability. fluke.com/findus





Fluke 717, 718 and 719 Pressure Calibrators

Accurate and rugged, temperature calibration tools



Fluke 717 Pressure Calibrators

- · Measure up to 10000 psi/690 bar sensor (10000G model)
- · Compatible with non-corrosive gases and liquids
- 10 pressure ranges available

Fluke 718 Pressure Calibrators

- 1, 30, 100 and 300 psi ranges available
- Pump to 300 psi, 20 bar with internal pump
 - 718-1G includes special low volume pump and high measurement resolution for low
 - pressure calibration

Fluke 719 Electric Pressure Calibrators

- Electric pump enables one-handed pressure pumping and makes pressure calibration guicker and easier
- Best in class 0.02% pressure measurement accuracy
- Programmable pump limit settings can (SP eliminate over-pressurization-set 'pump to' pressure values
 - Two ranges, 30 psi and 100 psi

Fluke 717, 718 and 719 common features

- · Pressure switch test makes a difficult task easy, captures set, reset and deadband values of a pressure switch
- 717 and 718 measure pressure to 0.02% of full scale with internal sensor
- · Measure mA with 0.01% accuracy and 0.001 mA resolution, while providing 24 V loop power
- Three-year warranty

| Models | Range | Resolution | Comr |
|------------------------|---|---|---------------|
| 717-1G 718-1G | +/- 1 psi, 27.5 inH ₂ 0, | +0.001 psi, 0.001 kPa, | Fluke |
| 110-10 | (-7 - +7 kPa) | 0.001 inH ₂ 0 | Incluc |
| 717-15G | -12 to 15 psi, -83 to 103 kPa | 0.001 ps1, 0.01 kPa, 0.01 inH ₂ 0 | - |
| 717-30G | 10 to 1 20 mai | 0.001 mgi 0.001 ltDa | Fluke |
| 718-30G* and 719-30G | -12 to + 30 psi, (-83 to 207 kPa) | 0.001 psi, 0.001 kPa, 0.001 inH ₂ 0 | air on pump |
| 717-100G | -12 to + 100 psi, | 0.01 psi, 0.01 kPa, | Fluke |
| 718-100G* | (-83 to 690 kPa) | 0.01 inH ₂ 0 | air on pump |
| 717-300G | -12 to +300 psi, | 0.01 psi, 0.01 kPa, | Fluke |
| 718-300G* and 719-100G | (-83 to +2070 kPa) | $0.01 \text{ psi}, 0.01 \text{ kPa}, 0.01 \text{ inH}_20$ | incluc |
| 717-500G | 0-500 psi, 0-3450 kPa | 0.01 psi, 0.1 kPa | Comp gases |
| 717-1000G | 0–1000 psi, 0–6900 kPa | 0.01 psi, 0.1 kPa | Comp gases |
| 717-1500G | 0-1500 psi, 0-10342 kPa | 0.1 psi, 1 kPa | Comp gases |
| 717-3000G | 0-3000 psi, 0-20700 kPa | 0.1 psi, 1 kPa | Comp gases |
| 717-5000G | 0-5000 psi, 0-34500 kPa | 0.1 psi, 1 kPa | Comp gases |
| 717-10000G | 0-10000 psi, 0-69000 kPa | 1 psi, 1 kPa | Comp gases |
| Pressure accuracy | y 0.03% of range, 1 year. 0.02% for 6 months, 717 and 7 year, 718 and 717-300G 0.03% 6 months, 0.05% 1 year | | |
| mA measurement | 0-24 mA range | 0.001 mA resolution | Accur |
| Loop power | 24 V DC | | Accur |
| | | | |

*Intrinsically safe models available, see page 141.

Contact your local distributor for



Fluke 719



Fluke 718



Fluke 717

Specialty Model

Fluke 718Ex **Intrinsically Safe Pressure Calibrator**

The Fluke 718Ex offers a convenient, self contained solution for pressure measurements and calibration.



- 😥 II 1G Ex ia IIC T4
- 30, 100, and 300 psi ranges (2, 7, and 20 bar)
- Pressure measurement to 0.05% of full span, using an internal pressure sensor.
- Pressure measurement to 200 bar using any of eight intrinsically safe Fluke 750PEx Pressure Modules





700ILF In-Line Filter



Low Pressure Test Pump



700HTP-2



C116 Large Soft Case

e 718 dry air only and ides on-board pump

e 718 and Fluke 719 dry nly and includes on-board

e 718 and Fluke 719 dry nly and includes on-board

e 718 dry air only and ides on-board pump

patible with non-corrosive s and fluids patible with non-corrosive s and fluids patible with non-corrosive

s and fluids patible with non-corrosive s and fluids

patible with non-corrosive s and fluids patible with non-corrosive

s and fluids -1G: 0.05% 6 months, 1

 $aracy: \pm 0.01\% + 1$ count tracy: ±10%

Included Accessories

t Pump

Fluke 717/718/719: Protective Yellow Holster with Test Lead Storage, Instruction Sheet, 9 V Alkaline Battery (1x 717, 2x 718 & 719), Test Leads and Alligator Clips, Hose Kit (719), Traceable Calibration Report and Data.

Fluke 718Ex: Protective Red Holster, TL75 Test Leads, AC72 Test Clips, User Manual (CD), Fluke 718Ex CCD, Traceable Calibration Report and Data.

Ordering Information

FLUKE-717 Pressure Calibrator. **10000G, 1G** 10000 PSI - 1 PSI (10 models)

300G, 100G, 30G

30G

FLUKE-718 Pressure Calibrator

FLUKE-718Ex Intrinsically Safe 300G, 100G, Pressure Calibrator

FLUKE-719 Electric Pressure 100G, 30G Calibrator 100PSI, 30 PSI





Fluke 721 and 721Ex **Precision Pressure Calibrators**



Pressure calibration and temperature measurement for custody transfer applications

The Fluke 721 and 721Ex Precision Pressure Calibrators with dual isolated pressure sensors are the ideal tool for gas custody transfer applications allowing you to take simultaneous static and differential pressure measurements with a single tool.

The 721 and 721Ex can be configured by selecting either a 16 PSI (1.1 bar) or 36 psi (2.48 bar) low pressure sensor then adding any of 7 high pressure ranges including 100, 300, 500, 1000, 1500, 3000 or 5000 psi (6.9, 20, 24.5, 69, 103.4, 200, 345 bar).

- Intrinsically Safe (721Ex version only) IECEx and II 2G ia IIB T3 Gb (Zone 1)
- Ideal for gas flow calibration (custody transfer) applications
- Two isolated, stainless steel, pressure sensors with 0.02% accuracy
- Switch test on both pressure inputs
- Pt100 RTD input for temperature measurement, (probe optional)
- Measures 4-20 mA signals
- Internal 24 V loop power supply can power a transmitter under test (721 models only)
- Three-year warranty

| | Low Pressure Sensor | | | High Pressure Sensor | | |
|--|----------------------|------------|------------------------|--------------------------------------|-----------------------|------------------------|
| Model | Range 1 | Resolution | Accuracy | Range 2 | Resolution | Accuracy |
| Fluke-721-1601 Fluke-721Ex-1601 16PSIG, 100PSIG | | | | -12 to +100 psi -0.83 to 6.9 bar | 0.01 psi 0.001 bar | 0.02% of full scale |
| Fluke-721-1603 Fluke-721Ex-1603 16PSIG, 300PSIG | | | | -12 to +300 psi -0.83 to 20 bar | 0.01 psi 0.001 bar | |
| Fluke-721-1605 16PSIG, 500PSIG | -14 to | | | -12 to +500 psi -0.83 to 34.5 bar | 0.01 psi 0.001 bar | |
| Fluke-721-1610 16PSIG, 1000PSIG | +16 psi -0.97 to | | | 0 psi to +1000 psi 0.00 to 69 bar | 0.1 psi 0.001 bar | |
| Fluke-721-1615 Fluke-721Ex-1615 16PSIG, 1500PSIG | 1.1 bar | | 0.02% of full scale | 0 to +1500 psi 0.00 to 103.4 bar | 0.1 psi 0.001 bar | |
| Fluke-721-1630 Fluke-721Ex-1630 16PSIG, 3000PSIG | | | | 0 to +3000 psi 0.00 to 200 bar | 0.1 psi 0.01 bar | |
| Fluke-721-1650 16PSIG, 5000PSIG | | | | 0 to +5000 psi 0.00 to 345 bar | 0.1 psi 0.01 bar | 0.03% of full scale |
| Fluke-721-3601 36PSIG, 100PSIG | | | | -12 to +100 psi -0.83 to 6.9 bar | 0.01 psi 0.001 bar | 0.02% of full scale |
| Fluke-721-3603 36PSIG, 300PSIG | | | | -12 to +300 psi -0.83 to 20 bar | 0.01 psi 0.001 bar | |
| Fluke-721-3605 36PSIG, 500PSIG | | | | -12 to +500 psi -0.83 to 34.5 bar | 0.01 psi 0.001 bar | |
| Fluke-721-3610 36PSIG, 1000PSIG | -14 to +36 psi | | | 0 to +1000 psi 0.00 to 69 bar | 0.1 psi 0.001 bar | |
| Fluke-721-3615 Fluke-721Ex-3615 36PSIG, 1500PSIG | -0.97 to 2.48 bar | | | 0 to +1500 psi 0.00 to 103.4 bar | 0.1 psi 0.01 bar | |
| Fluke-721-3630 Fluke-721Ex-3630 36PSIG, 3000PSIG | | | | 0 to +3000 psi 0.00 to 200 bar | 0.1 psi 0.01 bar | |
| Fluke-721-3650 Fluke-721Ex-3650 36PSIG, 5000PSIG | | | | 0 to +5000 psi 0.00 to 345 bar | 0.1 psi 0.01 bar | 0.03% of full scale |



Included Accessories

Fluke 721/Ex: Soft Case, Four AA Batteries, Manual, Traceable Calibration Certificate, Test Leads.

Ordering Information

| Ordering Inform | hation |
|---|--|
| FLUKE-721-3650 | Dual Sensor Pressure Calibrator |
| FLUKE-721-3630 | Dual Sensor Pressure Calibrator |
| FLUKE-721-3615 | Dual Sensor Pressure Calibrator |
| FLUKE-721-3610 | Dual Sensor Pressure Calibrator |
| FLUKE-721-3605 | Dual Sensor Pressure Calibrator |
| FLUKE-721-3603 | Dual Sensor Pressure Calibrator |
| FLUKE-721-3601 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1650 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1630 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1615 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1610 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1605 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1603 | Dual Sensor Pressure Calibrator |
| FLUKE-721-1601 | Dual Sensor Pressure Calibrator |
| Intrinsically Safe r select ranges (add model numbers). | nodels available in Ex to the above |
| FLUKE-720RTD | RTD Probe for Fluke 721 and 719Pro |
| FLUKE- 720RTDUA | Universal RTD Adapter for Fluke |

Fluke 719Pro Pressure Calibrators



Fluke 719Pro

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Integrated electric pump - now to 300 psi/20 bar

The Fluke 719Pro is an exciting enhancement of the popular original 719 pressure calibrators. Notable improvements include expanding the pressure measurement range of the 100 psi model up to 150 psi and the addition of a 300 psi range. The 719Pro adds a backlit display and precision temperature measurement with the addition of an accessory RTD probe available as a new accessory.

- Electric pump for one-handed pressure calibration
- Best in class pressure measurement uncertainty of 0.02% · Variable release rate bleed valve for easy pressure
- adjustment • 30 psi, 150 psi and the long requested 300 psi (2,10 and 20 bar) pressure ranges
- Programmable pressure calibrator pump limit eliminates over-pressurization and allows the user to program target pressures for pumping
- · Extended pressure measurement range with any of 50 750PXX Pressure Modules
- · Source mA with simultaneous pressure measurement to test valves and I/Ps
- Simulate mA signals to troubleshoot 4-20 mA loops
- Test pressure switches with built in switch test function
- Power transmitters during test using 24 V loop supply with simultaneous mA measurement
- Three-year warranty

| Pressure measurement | t | Range | | Re | solution |
|--|---|-------------------------------------|----------------------|------------------|---|
| Fluke-719Pro-30G | | -12 to 30 psi /-0.8 to 2 bar | | 0.001 psi, 0.001 | |
| Fluke-719Pro-150G | | -12 to 150 psi /-0 | .8 to 10 bar | 0. | 01 psi, 0.001 b |
| Fluke-719Pro-300G | | -12 to 300 psi / -0 | 0.8 to 20 bar | 0. | 01 psi, 0.001 b |
| Function | | Range | Resolution | | Accuracy (1 |
| mA DC (simulation & measurement) | | 0-24 mA DC | 0.001 mA | | ±(0.01% of real |
| Volts DC (measurement only | y) | 30 V DC | 0.001 V | | ±(0.01% of re |
| Temperature (measurement only, Pt100 RTD) | nt | -50 to 150° C (-58° F to 302° F) | 0.01° C (0.02° F) | | Temperature : |
| Loop power supply | | 24 V DC | N/A | | 24 mA at 24 \ |
| Temperature effect (all functions) | | | | | Add ±0.002% outside of 15° (Add ±0.004% outside of 59° |
| Environmental | | | | | |
| Operating temperature | | | -10° C to 50° | С | (14° F to 122° F |
| Storage temperature (with | tho | ut batteries) | -20° C to 60° | C (| -4° F to 140° F |
| Power requirements | | | | | |
| Battery | 8 standard alkaline AA batteries | | | | |
| Battery life | 300 pump cycles to 150 psi minimum; 1000 pump (100 pump cycles to 300 psi minimum | | 1000 pump cy | | |
| | | | | | |
| Physical | | | | | |
| Size (HxWxD) | | .1 x 11.2 x 7.0 cm | • | 3 in |) |
| Weight | W | ith holster 1.2 kg (2 | 2.5 lb) | | |
| Connections | | | | | |
| Pressure | 1/ | 8 inch female NPT | | | |
| Electrical | | andard banana jacl | ks | | |
| RTD | | pin miniature circu | | | |
| External module | 6 pin miniature circular | | | | |
| | | | | | |

721 and 719Pro



Accuracy ±0.02% of bar full scale, 6 bar months bar

vear)

eading + 2 counts)

eading + 2 counts) ±0.1° C (0.18° F)

% F.S./° C for temps ° C to 35° C % F.S./° F for temps ° F to 95° F)

cycles to 30 psi;

Pressure Modules

Fluke 750 Series Pressure

Modules

- 50 Pressure Modules
- 0.02% reference uncertainty
- · Ranges from 1.00 in H₂0 (0.24 kPa) to 10000 psi (68.94 MPa)
- Gage, differential, dual range, absolute and vacuum measurement models
- Rugged cases protect the modules from harsh environments
- Temperature compensated 0° C to 50° C



Fluke Process Calibrators in this catalog displaying the Pressure Enabled symbol display readings from the 750 Series Pressure Modules.

Recommended Accessories





720RTD RTD Probe for 721 and 719PRC

720URTDA Universal RTD adapte for 721 and 719PR0



71XTRAP Liquid and Dirt Trap for 718, 719 & 719PRC

Included Accessories

Test Leads with Alligator Clips, Printed User Manual/CD-ROM, Fluid Trap, Carrying Case, 1/4 inch NPT to 1/4 inch ISO Adapter, Accessory Hose Kit with (2) 1/8 inch Ouick Fit Adapters and 1 meter of hose, Traceable Certificate of Calibration.

Ordering Information

FLUKE-719PRO-30G Calibrator. 30PSIG

FLUKE-719PRO-150G

FLUKE-719PRO-300G

Electric Pressure Calibrator, 150PSIG

Electric Pressure

Electric Pressure Calibrator, **300PSIG**

TRAP

FLUKE-71X- Liquid & Dirt Trap for Fluke 718, 719 and 719Pro



Fluke 700G Precision Pressure Test Gauges





Fluke 700G with 700PTP-1

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Specifications

Size (HxWxD)

Pressure connection

sequential run number.

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Anglan Linkson Al

100.74

interest Tal

Housing/Weight

Display Power

Battery life

Pressure Gauges designed to handle all your Pressure Calibration needs

With best-in-class accuracy and measurements, the Fluke 700G Series Precision Pressure Test Gauges were designed to handle all of your pressure calibration needs. The 700G Series Gauges are rugged and easy to use, with 23 models ranging from ± 10 in H₂O/20 mbar to 10000 psi/690 bar including absolute pressure ranges.

When combined with the Fluke 700PTPK or 700HTPK you've got a complete pressure testing solution for up to 600 psi (40 bar) with the PTP-1 pneumatic pump and up to 10000 psi (690 bar) with the HTP-2 hydraulic pump.

- Precision pressure measurement from ± 10 inH₂O/20 mbar to 10000 psi/690 bar
- · Absolute pressure measurement ranges 15, 30, 100, 300 psi
- Accuracy to 0.05% of full scale
- Reference class gauge accuracies to 0.04% of reading
- Easy to use, rugged construction for reliable performance
- CSA; Class 1, Div 2, Groups A-D rating
- 😥 II 3G Ex ic IIB T6 Gc
- Combine the Pneumatic Test Pump Kits and Hydraulic Test Pump Kits with any Fluke-700G Series Gauge, 1000 psi (69 bar) or less, to make a complete pressure testing
- · Log up to 8493 pressure measurements to memory (requires 700G/TRACK software)

5.5 digits, 16.53 mm (0.65 in) high 20-segment bar graph, 0 to 100%

1,500 hours without backlight (continuous on), 2000 hours at slow sample rate

• Use with Fluke 700G Series Gauges to

• Configure logging event reading rate,

duration and measurement units

display or export measurements

perform real time data logging to a PC

Series Gauges for a remote logging event

· Upload measurements logged remotely and

• Includes communication cable for connection

Download logging configurations to the 700G

• Three-year warranty

12.7 × 11.4 × 3.7 cm (5 × 4.5 × 1.5 in)

Cast ZNAL 0.56 kg (1.22 lb) with holster

The Fluke 700G/Track Data Logging Software (700G only) makes managing your

instruments and calibration data easy to do. With the Fluke 700G-Track Software,

you can gauge and record (log) multiple data sets, each of which is identified by a

to a PC

1/4 in NPT Male

700G/TRACK Logging Software

Distant Lines | Lines | Lines |

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Designation of the

Indian XII

Intelligit in standing

Three AA alkaline batteries

Recommended Kits



Fluke-700PTPK Pneumatic **Test Kit**

- · Combine with any Fluke-700G Series Gauge, 1000 psi (69 bar) or less, to make a complete pressure testing kit
- Connect the 700G Series gauge directly to the included PTP-1 hand gump



Fluke 700HTPK Hydraulic Test Kit

- Combine with any Fluke-700G Series Gauge, 1000 psi (69 bar) range or greater, to make a complete pressure testing kit
- Generate pressure up to 10000 psi, 690 bar with the included 700HTP-2 test pump
- Hard case protects pump and gauge and allows gauge to remain connected to the pump



Fluke-700PTPK2 Premium **Pneumatic Test Pump Kit**

- Premium, no tools required gauge connector
- One premium transmitter test hose kit and adapters



Fluke-700HTPK2 Premium Hydraulic Test Pump Kit

- Hydraulic Hand Pump
- Premium, no tools required gauge
- connector One premium transmitter test hose kit and adapters

| | | Descet | Recommended Kits |
|---------------------------|--|-----------------------|---|
| Resolution | Accuracy | Burst Pressure | Bundle & Save |
| 0.001 inH20 0.001 mbar | Positive Pressure ±0.1% of range, | 3 psi 210 mbar | 6 |
| 0.001 psi 0.001 mbar | Vacuum ±0.1% of range | 5 psi 350 mbar | |
| 0.001 psi 0.001 bar | | 60 psi 4 bar | Fluke 700MTH Premium |
| 0.001 psi 0.001 bar | | 120 psi 8 bar | Transmitter Test Hose Kit |
| 0.01 psi 0.001 bar | | 400 psi 26 bar | Easy to use premium pressur transmitter test hose kit for |
| 0.01 psi 0.001 bar | | 1200 psi 80 bar | connection to 1/4" female metric/BSP |
| 0.01 psi 0.001 bar | Positive Pressure ±0.05% of range, | 2000 psi 138 bar | 5000 psi rating Includes 1/8" NPT connection |
| 0.1 psi 0.001 bar | Vacuum ±0.1% of range | 4000 psi 266 bar | for permanent mount to a calibrator or test pump |
| 0.1 psi 0.01 bar | | 8000 psi 550 bar | - 10 × |
| 0.1 psi 0.01 bar | | 10000 psi 690 bar | |
| 0.1 psi 0.01 bar | | 10000 psi 690 bar | 1 S 4 C |
| 1 psi 0.01 bar | | 20000 psi 1035 bar | Fluke 700TTH5K Premium Transmitter Test Hose Kit |
| 0.001 psi 0.001 bar | | 60 psi 4 bar | Easy to use premium pressur transmitter test hose kit for |
| 0.001 psi 0.001 bar | 0.05% -6 | 120 psi 8 bar | use with female 1/4: NPT connections |
| 0.01 psi 0.001 bar | 0.05% of range | 400 psi 27 bar | 5000 psi rating Includes 1/8" NPT connection |
| 0.01 psi 0.001 bar | | 1200 psi 80 bar | for permanent mount to a calibrator or test pump |
| 0.001 psi 0.001 bar | Positive Pressure ±0.04% of reading ±0.01% of range, Vacuum ±0.1% of range | 90 psi 6 bar | |
| 0.01 psi 0.001 bar | | 400 psi 27 bar | Included Accessories |
| 0.01 psi 0.001 bar | | 2000 psi 138 bar | 700G: Manual on CD-ROM, |
| 0.1 psi 0.001 bar | Positive Pressure ±0.04% of reading ±0.01% of range, Vacuum ±0.1% of range | 4000 psi 275 bar | Traceable Certificate of Calibration, 1/4" NPT to 1/4" ISC |
| 0.1 psi 0.01 bar | | 10000 psi 690 bar | Adapter. Ordering Information |
| 0.1 psi 0.01 bar | | 15000 psi 1035 bar | Please refer to the table on the left for Fluke 700G Models |
| 1 psi 0.01 bar | | 20000 psi 1380 bar | 700G- Datalogging TRACK Software and Cal |
| | 0.01 bar 0°C to 50°C (32 °F | | 0.01 bar 1380 bar 0°C to 50°C (32 °F to 122 °F) to rated accuracy |

Media compatibility:

• 10 inH₂0, 1, 15, 30 psi: any clean dry non-corrosive gas

• 100, 300, 500, 1000 psi: any liquids or gases compatible with 316 stainless steel

 Above 1000 psi: any non-flammable, non-toxic, non-explosive, non-oxidizing liquid or gas compatible with 316 stainless stee

- Pneumatic Hand Pump



10000 psi/690 bar FLUKE-Pneumatic Test 700PTPK Pump Kit, 0 to 600 psi/40 bar FLUKE-Premium Hydraulic 700HTPK2 Test Pump Kit

FLUKE-

700HTPK

FLUKE- Premium Pneumatic 700PTPK2 Test Pump Kit

Hydraulic Test

Pump Kit, O to

FLUKE- Premium Hose Kit, **700TTH5K** 5000 psi

FLUKE- Premium Hose Kit **700TTH10K** 10000psi



Fluke Calibration 2700G Series **Reference Pressure Gauges**



The Fluke Calibration 2700G Reference Pressure Gauges provide best-in-class measurement performance in a rugged, easy-to-use, economical package, Improved measurement accuracy allows them to be used for a wide variety of applications. It is ideal for calibrating pressure measurement devices such as pressure gauges, transmitters, transducers, and switches. In addition, they can be used as a check standard or to provide process measurements with data logging.

- · Precision pressure measurement from 100 kPa (15 psi) to 70 MPa (10000 psi)
- Accuracy to 0.02% of full scale
- Easy-to-use, rugged construction for reliable performance
- Combine with a Fluke PTP or HTP pump kit or P551X comparison test pump for a complete pressure testing solution
- One-year warranty

Fluke Calibration P5510 **Pneumatic Comparison Test Pump**



The P5510 Pneumatic Comparison Test Pump is designed for testing pressure measuring instruments against master test instruments. This cost effective instrument provides precise control for important calibration requirements and includes many features found in our line of pneumatic deadweight testers.

One-year warranty.



Higher pressure ranges available: Fluke P5513 Gas Comparison Test Pump Pressure range 0 to 20 MPa (3000 psi); Vacuum -80 kPa (-12 psi)

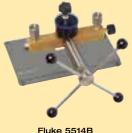
Fluke P5514B Gas Comparison Test Pump Pressure range 0 to 70 MPa (10k psi)

Fluke P5515 Gas Comparison Test Pump Pressure range 0 to 140 MPa (20k psi)

P5531 Dirt/Moisture Trap Designed to mount directly on the deadweight tester and featuring an acrylic chamber for visibility of contaminates, this unit utilizes the standard test port adapters for easy instrument connections.

P5532 Dirt/Moisture Trap This high pressure version is provided with an aluminum central chamber for safety and uses the standard test port adapters.

Complete Bench Top Pressure Calibration Solution



Combine P5500 Comparison Test Pumps with one or more 2700G Reference Pressure Gauges for a complete 0.02% accuracy calibration system

The 2700G has an easy-to-use interface that allows you to configure the sampling rate, tare value, damping and auto off time interval as well as reset the min/max pressure

The unique test port design of the P5500 Series allows for hand tight connection of the 2700G without using PTFE tape.

- P5510: integrated pneumatic hand pump with pressure generation to 300 psi (2 MPa), vacuum to -12 psi (-80 kPa)
- P5513: pneumatic pressure adjustment to 3000 psi (21 MPa) with fine adjust inlet and outlet valves and precise screw press
- P5514B: hydraulic pressure generation and adjustment to 10000 psi (70 MPa) with fine screw press and reservoir
- P5515: integrated hydraulic pressure generation and adjustment to 20000 psi (140 MPa) with high volume priming pump and fine screw press

Included Accessories

Fluke 2700G Gauges: 1/4 NPT Female to 1/4 BSP Male Adapter, 1/4 NPT Female to M2OX1.5 Adapter, Universal AC Power Supply, USB Communication Cable, Manual on CD, Calibration Certificate showing traceability.

Optional: ISO 17025 Accredited Calibration available for 2700G and P551X/2700G models (add "/C" to the below model number).

Ordering Information

| Uraering | Information | | | |
|--|--|--|--|--|
| 2700G- BG100K | Reference Pressure Gauge, -15 to 15 psi | | | |
| 2700G- BG200K | Reference Pressure Gauge, -15 to 30 psi | | | |
| 2700G- BG700K | Reference Pressure Gauge, -12 to 100 psi | | | |
| 2700G- BG2M | Reference Pressure Gauge, -12 to 300 psi | | | |
| 2700G- BG3.5M | Reference Pressure Gauge, -12 to 500 psi | | | |
| 2700G- BG7M | Reference Pressure Gauge, -12 to 1000 psi | | | |
| 2700G- G20M | Reference Pressure Gauge, O to 3000 psi | | | |
| 2700G- G35M | Reference Pressure Gauge, O to 5000 psi | | | |
| 2700G- G70M | Reference Pressure Gauge, 0 to 10000 psi | | | |
| 25510- 2M | Pneumatic Comparison Test Pump | | | |
| 20M | Pneumatic Comparison Test Pump | | | |
| P5514B- 70M* | Hydraulic Comparison Test Pump, Viton Seals O to 10000 psi (70 MPa) | | | |
| P5515- 140M* | Hydraulic Comparison Test Pump, Viton Seals O to 20000 psi (140 MPa) | | | |
| Ethylene P. available, o numbers. | ropylene Seals option also add –EP to the above model | | | |
| P5510- 2700G-1 | P5510 Pneumatic Calibrator, 2 MPA (300 psi), 1 Gauge | | | |
| P5513- 2700G-1 | P5513 Pneumatic Calibrator, 20 MPA (3000 psi), 1 Gauge | | | |
| P5514B- 2700G-1 | P5514B Pneumatic Calibrator, 70 MPA (10000 psi), 1 Gauge | | | |
| P5515- 2700G-1 | P5515 Pneumatic Calibrator, 70 MPA (10000 psi), 1 Gauge | | | |
| P551X-2700G Kits available with 3 gauge option, replace –1 with –3 to the above model numbers. | | | | |
| 05521 | Dirt/Moisturo Trop | | | |

Dirt/Moisture Trap P5531 0 to 500 psi (35 bar)

P5532 Dirt/Moisture Trap 0 to 3.00 psi (210 bar)

Fluke Calibration 700HPPK Pneumatic Test Pump Kit





the field, without liquid contamination or the hazard of a pressurized gas cylinder.

The Fluke Calibration 700HPPK Pneumatic Test Pump Kit generates and adjusts pneumatic pressures up to 21 MPa (3000 psi), without requiring a nitrogen bottle or other external pressure supply. It supplies pressure to devices under test (DUTs) that include transmitters, controllers, pilots, digital and analog gauges, and more. It's the perfect solution for generating high pressure in the field, where conditions and operating surfaces can vary.

The 700HPPK is the ideal choice for calibration technicians, test engineers, and instrument technicians working in industries like natural gas transmission and distribution, process, aerospace and defense, who need a simple-to-use, safe and portable pressure source that they can depend on in a wide variety of conditions.

The 700HPPK contains both a calibration manifold and high pressure pump to generate and finely adjust pressures. A second model, the 700HPP, is available for people who only prefer a high pressure source. Use the 700HPPK Test Pump Kits with 2700G Reference Pressure Gauges or 700G Precision Pressure Gauges for a complete pressure calibration solution. · Generate and adjust pneumatic pressures up to

- 21 MPa (3000 psi)
- on any surface
- 30 cm³ volume
- pressure, connecting reference and test devices on bench and in the field, and isolating and venting pressure
- Easily switch out reference gauges without requiring PTFE tape or tools
- 2 m (6.5 ft) pressure line and assorted pressure fittings enable a wide variety of possible connections
- In-line filter and desiccant systems protect device from contamination from the DUT
- One-year warranty

| General specifications | 700HPP | | |
|--|---|------------|--|
| Maximum working pressure | 21 MPa, | 3000 psi | |
| Time to generate full scale pressure with 10 cc volume (g) | 20 | | |
| Weight | 5.5 kg (12.2 lbs.) | 7. | |
| Dimensions | 66 × 25 × 13 cm (26 in x 10 in x 5 in) | 66 (26 | |
| Reference gauge connection | 1/4 NPT, qu | lick conne | |
| Inlet supply contaminations protection filter | Desiccant filter | | |
| DUT contamination protection filter | - | | |
| Fine adjustment resolution | - | C | |
| Maximum leak rate | - | C | |



Generates 21 MPa (3000 psi) easily in

• Rugged, portable and stable enough to go anywhere

• Reaches pressure in 20 seconds to full scale into a

• Detachable pressure adjustment system for adjusting

700HPPK

7.2 kg (15.8 lbs.) 66 × 30.5 × 13 cm (26 in x 12 in x 5 in) nnect

| 100 micron | |
|---------------|--|
| 0.05% reading | |
| 0.01% reading | |









700HPF-BSI High Pressure Premium Fittings BSP Fittings



7000 Calibrato



700HPF-NPT nas, NPT Fittings



700HPF-MET High Pressure Premium Fittings, Metric Fittings



2700G

Gauges

Process **Calibration Tools Pressure Calibration**

Included Accessories

Fluke Calibration 700HPPK: Canvas Carrying Bag, High **Pressure Pneumatic Quick** Service Kit (seals for pump), Dry Pac Refill, Silicone Grease, High Pressure Hose, Test Port Adapters

Ordering Information 700HPPK-

700HPP-N

700HPP-BSP

| NPT | High Pressure Pneumatic Pump/ Comparator, 21 MPa (3000 psi), NPT |
|-----|--|
| IPT | High Pressure |

Pump, 21 MPa (3000 psi), NPT

700HPPK-BSP High Pressure Pneumatic Test Pump/ Comparator, 21 MPa (3000 psi), BCP

> High Pressure **Pneumatic Test** Pump, 21 MPa (3000 psi), BSP

700HPPK-MET High Pressure Pneumatic Pump Comparator. 21MPa (3000 psi), Metric

700HPP-MET High Pressure Pneumatic Test Pump, 21MPa (300 psi), Metric



Fluke Calibration P3000 Deadweight Testers



to calibrate virtually any pressure sensing device, including transducers, transmitters, gauges or pressure switches. All units provided with accredited calibration.

P3000 Pneumatic Deadweight Tester

The P3000 Series is the culmination of over 50 years

of experience in the production and design of high

With features designed to improve accuracy and

operation, these deadweight testers can be used

performance, increase reliability and simplify

performance pressure standards.

High performance gas deadweight testers with unique suspended piston design for vacuum calibration

- 0.01% of reading accuracy standard (0.008% optional)
- 3 to 500 psi (0.2 to 35 bar) pressure • Optional low range 0.03 to 1 bar vacuum
- (1 to 30 inHg) • Integrated vacuum and pressure pump available to 2 MPa (300 psi)

P3100 Hydraulic Deadweight Tester

Fluke P3000

Highly accurate oil deadweight tester with quick and easy-to use single and dual piston deadweight models

- Pressure ranges to 140MPa (20000 psi, 1400 bar)
- 0.01% of reading accuracy standard (0.008% optional)
- Built in pressure generation and adjustment
- Single or dual piston formats

P3200 Hydraulic Deadweight Tester

Hydraulic deadweight tester specially designed to use water as a test medium.

• Pressure ranges to 70MPa (10000 psi, 700 bar)

- 0.01% of reading accuracy standard (0.008% optional)
- Built in pressure generation and adjustment is standard
- Single or dual piston formats
- Water media

Accuracy*

±0.01% of reading (±0.008% optional)

*Accuracy based on% of reading from 10% to 100% of the piston range when used in accordance with the corrections found on the calibration certificate. Below 10% ±(accuracy class) × 10% of the piston range.

| Mass and PCU Materials of Construction |
|--|
|--|

| Standard weight material | Series 3 non-magnetic austenitic stainless steel | | |
|--|---|---|--|
| Weight density | 7.8 g/cm ³ | | |
| Optional fractional weights | Solution heat treated aluminum | | |
| Weight density | 2.7 g/cm ³ | | |
| Models P3011, P3012, P3013, P3022, P3023, P3025 (V) | Piston Material: Cylinder Material: Coefficient of Expansion: | Ceramic Martensitic steel 11 ppm/° C | |
| Models P3014, P3015, P3025 (P) P3031, P3032 (P & V) | Piston Material: Cylinder Material: Coefficient of Expansion: | Tungsten carbide Martensitic steel 16.5 ppm/° C | |

Real-time auditing

PressCal Software

PressCal software provides a guick and effective solution to enhance the pressure measure uncertainty of Deadweight Testers.

PressCal features an easy-to-use user I allows you to enter all the necessary co and parameters to accurately determine generated by the DWT.

PressCal also provides:

- Automatic certificate generation
- Customer details management



Included Accessories

ISO 17025 Accredited Calibration Certificate, Operating Fluid (where applicable), Spare Seals, Adaptors for 1/8, 1/4, 3/8, 1/2 NPT and BSP, and Metric Adaptors (M20 and M14).

Ordering Information

| Ordering Information | | | |
|----------------------|-----------------------------------|--|--|
| * -P indicate | es built-in pump optional. | | |
| P3011- | Vacuum Deadweight | | |
| KPA-P* | Tester (-100 kPa) | | |
| P3011- | Vacuum Deadweight | | |
| INHG-P* | Tester (-30 inHg) | | |
| P3011- | Vacuum Deadweight | | |
| MBAR-P* | Tester (-1000 mbar) | | |
| P3011- | Vacuum Deadweight | | |
| MMHG-P* | Tester (-760 mmHg) | | |
| P3012- | Gas Deadweight Tester, | | |
| KPA-P | 100 kPa, with Pump | | |
| P3012- | Gas Deadweight Tester, | | |
| MBAR-P | 1000 mbar, with Pump | | |
| P3012- | Gas Deadweight Tester, | | |
| INH20-P | 400 inH ₂ 0, with Pump | | |
| P3013- | Gas Deadweight Tester, | | |
| KPA-P | 200 kPa, with Pump | | |
| P3013- | Gas Deadweight Tester, | | |
| MBAR-P | 2000 mbar, with Pump | | |
| P3013- | Gas Deadweight Tester, | | |
| INH20-P | 800 inH ₂ 0, with Pump | | |
| P3014- | Gas Deadweight Tester, | | |
| KGCM2-P | 10 kgf/cm2, with Pump | | |
| P3014- | Gas Deadweight Tester, | | |
| PSI-P | 150 psi, with Pump | | |
| P3014- | Gas Deadweight Tester, | | |
| KPA-P | 1000 kPa, with Pump | | |
| P3014- | Gas Deadweight Tester, | | |
| MPA-P | MPa, with Pump | | |
| P3015- | Gas Deadweight Tester, | | |
| BAR-P* | 35 bar | | |
| P3015- | Gas Deadweight Tester, | | |
| KGCM2-P* | 35 kgf/cm2 | | |
| P3015- | Gas Deadweight Tester, | | |
| PSI-P* | 500 psi | | |
| P3015- | Gas Deadweight Tester, | | |
| KPA-P* | 3500 kPa | | |

Contact your local distributor for price and availability. fluke.com/findus

3.5 MPa

P3015-

MPA-P

Fluke 730G Smart Digital Pressure Calibrator



solution for bench or field.

The Fluke 730G Smart Digital Pressure Calibrator with internal HART communication, designed in a pressure gauge form. In conjunction with a pressure test pump, the 730G enables high-efficiency and high-accuracy measurement and calibration of pressure gauges, pressure switches, pressure transmitters, which makes it ideal for mobile metrology labs, metrology institutes and enterprises to establish pressure laboratories.

- Pressure measurement from ±10 inH20/2.5 kPa to 10000 psi/69 MPa
- Four absolute pressure measurement range 15 PSIA (103 kPa), 30 PSIA (207 kPa), 100 PSIA (690 kPa), 300 PSIA (2 MPa)
- scale, 0.02% optional and 0.01% current and voltage accuracy
- Current measurement range: 0-24mA; voltage measurement range: 0-30VDC
- 24V loop powered, no external power supply needed
- software for paperless reporting.
- Combine with the Fluke 730 series test pumps for high accuracy and precise pressure measurement for up to 10,000 psi.

| Specifications | |
|---------------------|---|
| Size (HxWxD) | 155 mm x 130 mm x 44 mm (6.1" x 5.1" x 1.7") |
| Pressure connection | 1/4 in NPT Male |
| Weight | 850g (1.87 lb) |
| Display | LCD |
| Power | One rechargeable Lithium battery |
| Battery life | 25 hours continuously (without 24 V loop power), or 8 h loop power) |

132 **Process Calibration Tools** Gas Deadweight Tester,

Choice of 12 pressure units



A compact, digital pressure calibrator

• Pressure measurement accuracy 0.05% of full

• Storage up to 128 sets of calibration data • Compatible with 730G/PCSW management

hours continuously (24 V

Recommended Kits Combine with any Fluke 730G Series Calibrator



Fluke-730LTP/40K

environment

- Pressure range -40 KPa to 40 KPa Ultra-fine precision adjustment to
- support low pressure calibration • Special insulation to reduce the influence of external temperature



Fluke-730LTP/600K

- Pressure range -95KPa to 600KPa
- Pressure is generated by the combination of the pressure rod and screw for faster and smoother pressure increase and decrease
- Safely switch between pressure and vacuum



Fluke-730PTP/10M

- Pressure range -95 KPa to 10 MPa
- Multi-stage boost system design makes the process 5 times more efficient
- Safety lock ensures safe switching between positive and negative pressure



Fluke-730HTP/70M

- Pressure range 0 KPa to 70 MPa
- The screw press design supports high pressure range with less effort.
- Fine pressure adjustment capability with shut-off valve for stable measurements.





Fluke 729 Pro Automatic **Pressure Calibrator**

A RAN WALL F

Key par

Pressure

Control stability

Replaceable pressure control modules

| | ortable pressure calil eplaceable module | brator with |
|-----------------|--|---|
| | Automatic pressure generati 1000psi Replaceable pressure contro Built-in test template, one-k HART communication Pressure leakage testing Automatic fine-pressure adj stabilization Powerful, replaceable Li-ion Quick pressure release valve Optional portable manifold Extend measurement range modules Measure temperature with 7 Bright dual-three-channel / Weight < 5kg Rugged and portable design warranty | ol modules tey calibration ustment, automatic pre- h battery e with a muffler with quick connection with 750P Series press 720RTD probe color graphic display |
| rameters | 729pro 7M | 729pro 4M |
| e control range | (-13 to 1000) psi | (-13 to 600) psi |

| Warranty | 3 years | |
|--------------------------------------|---------------|-------------------|
| Internal pressure measurement module | | |
| Pressure module | Pressure type | Range |
| FLK-PMM-200K | Gauge | (-15 to 30) psi |
| FLK-PMM-200KA | Absolute | (0 to 30) psi |
| FLK-PMM-2000K | Gauge | (-14 to 300) psi |
| FLK-PMM-4000K | Gauge | (-14 to 600) psi |
| FLK-PMM-7000K | Gauge | (-14 to 1000) psi |
| FLK-PMM-7000KA | Absolute | (0 to 1000) psi |

6 modules

| (| eplaceable module |
|---|---|
| • | Automatic pressure generation and regulation to 1000psi |
| • | Replaceable pressure control modules |
|) | Built-in test template, one-key calibration |
|) | HART communication |
| | Pressure leakage testing |

- tomatic pressure
- ffler
- onnection
- Series pressure
- be c display
- ard 3-year

0.005% of FS, minimum

4 modules

200KA sure module, absolute, (0 to 30) psi FLK-PMM-Replaceable pressure module, (-14 7000K to 1000) psi FLK-PMM-Replaceable pressure module, (-14 4000K to 600) psi

Ordering Information

4M

7M

FLK-729PRO

FLK-PMM-

FLK-PMM-

FLK-PMM-

FLK-PMM-

7000KA

2000K

200K

FLK-729PRO Fluke 729 Pro

Automatic Pressure

Automatic Pressure

Calibrator, 7Mpa

Replaceable pres-

sure module, (-15

Replaceable pres-

sure module, (-14

Replaceable pres-

sure module, abso-

lute, (0 to 1000) psi

Replaceable pres-

to 30) psi

to 300) psi

calibrator, 4Mpa

Fluke 729 Pro

Contact your local distributor for price and availability. fluke.com/findus



Fluke 729 Automatic Pressure Calibrator







Portable automatic pressure calibrator simplifies pressure calibration

The Fluke 729 Automatic Pressure Calibrator has been 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.

The Fluke 729 can also automatically test multiple pressure test points and automatically document the results. Calibration is as easy as typing in the starting and ending pressure and the number of test points and tolerance level; the 729 does the rest.

With three ranges to choose from 30 psi (2 bar, 200 kPa), 150 psi (10 bar, 1 MPa) and 300 psi (20 bar, 2 MPa), the Fluke 729 Automatic Pressure Calibrator is designed to perform when and where you need.

- Easily document the process using on-board test templates
- Automatic internal fine-pressure adjustment
- Measure, source and simulate 4 to 20 mA signals
- 24 V loop power for powering transmitters for tests • HART[™] communication for testing HART smart transmitters
- Built-in leak testing for verifying test setups for leakage
- Fluke Connect[™] App compatibility
- Measure temperature with optional 720RTD probe
- Measure VDC for testing 1 V DC to 5 V DC output transmitters
- Compatible with Fluke 700G Series and 750 Series Pressure Modules
- Upload documented test results to DPCTrack2[™] Calibration Management Software to manage your
- instrumentation, create scheduled tests and reports and manage calibration data
 - Three-year warranty

| Pressure specification* | |
|---|-------------------------|
| One-year specification | 0.02% of full scale |
| Control specification | 0.005% full scale minir |
| *See manual for detailed specifications | |

| Model | Psi range, | Bar range, | kPa range, | |
|-------------|-------------|-------------|-------------|--|
| | resolution | resolution | resolution | |
| 729 30G | -12.0000 to | -0.82737 to | -82.737 to | |
| | 30.0000 psi | 2.06842 bar | 206.843 kPa | |
| 729 150G | -12.000 to | -0.8273 to | -82.73 to | |
| | 150.000 psi | 10.3421 bar | 1034.21 kPa | |
| 729 300G | -12.000 to | -0.8273 to | -82.73 to | |
| | 300.000 psi | 20.6843 bar | 2068.43 kPa | |
| 729 30G FC | -12.0000 to | -0.82737 to | -82.737 to | |
| | 30.0000 psi | 2.06842 bar | 206.843 kPa | |
| 729 150G FC | -12.000 to | -0.8273 to | -82.73 to | |
| | 150.000 psi | 10.3421 bar | 1034.21 kPa | |
| 729 300G FC | -12.000 to | -0.8273 to | -82.73 to | |
| | 300.000 psi | 20.6843 bar | 2068.43 kPa | |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.





• Automatic pressure generation and regulation to 300 psi

mum

Comment

No wireless communication

No wireless communication

No wireless communication

Wireless communication for Fluke Connect[™]

Wireless communication for Fluke Connect™

Wireless communication for Fluke Connect™





750 SW DPC/ TRACK2



720URTDA



FLUKE 750F Series Press Modules

versal RTD Adapter fo: 721 and 719Pro



Process Calibration Tools

Included Accessories

Soft Case, Stackable Test Leads, AC280 Hook Clips, Alligator Clips, Test Probes, Magnetic Hanger Kit, Carrying Strap, Power Supply, Rechargeable Battery (installed), Hose Kit with Push Fit Adapters, Hanging Clip, USB Cable, 1/8 in FNPT to 1/4 in FNPT Adapter, 1/8 in FNPT to F-M20 Adapter, 1/8 in FNPT to 1/4 in FBSP Adapter, PTFE Tape, (2) Sintered Filters, Liquid Dirt Trap, Water Trap Drain and Valve Tuning Hoses, Wireless Adapter (FC Models only), Quick Start Guide, Safety Sheet.

Ordering Information

| FLK-729 30G | 30 psi, 2 bar Automatic Pressure Calibrator |
|------------------------|---|
| FLK-729 150G | 150 psi, 10 bar Automatic Pressure Calibrator |
| FLK-729 300G | 300 psi, 20 bar Automatic Pressure Calibrator |
| FLK-729 30G FC | 30 psi, 2 bar Automatic Pressure Calibrator with Fluke Connect™ |
| FLK-729 150G FC | 150 psi, 10 bar Automatic Pressure Calibrator with Fluke Connect™ |
| FLK-729 300G FC | 300 psi, 20 bar Automatic Pressure Calibrator with Fluke Connect™ |
| FLUKE-729/ 750SW BU | 300 psi, 20 bar Automatic Pressure Calibrator and DPCTRACK2 Software Bundle |





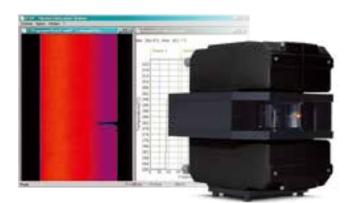


Process Instruments

The ability to quickly and accurately measure and verify temperatures throughout the manufacturing process has enabled innovators and producers to bring their projects to life, successfully deliver scalable results, and overall help the world function better.

Thermal profiling and non-contact monitoring solutions optimize the production process for just about every sector. From the manufacturing of consumer goods to large scale construction initiatives and mining, our tools help to ensure precision, safety and consistency.

For more information, visit flukeprocessinstruments.com







Edge-to-edge Thermal Imaging to see it all.

Designed for the harshest environments, the MP Linescanner Series provides accurate, edge-toedge, real-time thermal imaging and temperature measurements for continuous processes. See it all with up to 300Hz scan speed and 1024 data points per scan, allowing you to find faulty temperatures, such as hot spots, before an error occurs.

See what you've been missing.

Visualize the unheard and unseen with the power of acoustic imaging. The SV600 Fixed Acoustic Imager enables users to continuously detect, locate and visualize air and gas leaks or changes in sound signatures before they become costly problems. As a fixed, automated solution, the SV600 integrates with your process and eliminates the need for lengthy fault-finding processes such as soapy water tests, when used as part of your product leak testing process.

Expand your view, expand your understanding

The ThermoView TV40 is a high-performance industrial fixed thermal imaging system that allows you to expand your understanding by providing continuous infrared and visual feeds to visualize temperature data. The TV40 offers a fully integrated temperature control, monitoring, and data archiving solution.

Mechanical Maintenance

Fluke Mechanical Maintenance Testers are designed specifically for maintenance professionals who need to quickly and easily perform precision shaft alignments on most rotating machines in the plant and perform vibration analysis and evaluate alignment to understand the root cause of equipment condition.



Fluke 805 FC Vibration Meter

Forget the pens, think meter



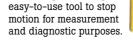
The Fluke 805 FC is not a vibration pen; it's a meter. A Fluke meter that eliminates the confusion of vibration screening and provides reliable measurements you can trust to make critical go or no-go maintenance decisions. With the Fluke 805 FC, you can identify the strength and severity of vibration and easily track data over time to monitor an asset's condition.

- Innovative sensor design minimizes measurement variations caused by device angle or contact pressure
- Consistent data quality at both low and high frequency ranges • Four-level severity scale assesses urgency of problems for
- overall vibration and bearing condition
- Exportable data via USB
- Trending in Microsoft[™] Excel using pre-built templates
- Overall vibration measurement (10 Hz to 1000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines
- Crest Factor+ technology provides reliable bearing assessment using direct sensor tip measurements between 4000 Hz and 20000 Hz
- Compare vibration levels with ISO-10816 severity scales and store results to the Fluke Connect[™] Cloud
- Fluke Connect[™] Share-Live[™] video call
- Colored lighting system (green, red) and on-screen comments indicate how much pressure needs to be applied to take measurements
- Temperature measurement with Spot Infrared Sensor increases diagnostic capabilities
- On-board memory holds and saves up to 3500 measurements

| One-year warranty | | | | |
|-------------------------|--|--|--|--|
| | | | | |
| Specifications | | | | |
| Vibration meter | Low frequency range (overall measurement) | 10 Hz to 1000 Hz | | |
| | High frequency range | 4000 Hz to 20000 Hz | | |
| | (CF+ measurement) | | | |
| | Severity levels | Good, Satisfactory, Unsatisfactory, Unacceptable | | |
| | Vibration limit | 50 g peak (100 g peak-peak) | | |
| | A/D converter | 16-bit | | |
| | Signal to noise ratio | 80 dB | | |
| | Sampling rate | Low frequency: 20000 Hz; | | |
| | | High frequency: 80000 Hz | | |
| | Real-time clock backup | Coin battery | | |
| Sensor | Sensitivity | 100 mV/g ±10% | | |
| | Measurement range | 0.01 g to 50 g | | |
| | Low frequency range | 10 Hz to 1000 Hz | | |
| | (overall measurement) | | | |
| | High frequency range | 4000 Hz to 20000 Hz | | |
| | (CF+ measurement) | | | |
| | Resolution | 0.01 g | | |
| | Accuracy | At 100 Hz ±5% of measured value | | |
| Infrared thermometer | Range | -20° C to 200° C (-4 °F to 392 °F) | | |
| (temperature | Accuracy | ±2° C (4 °F) | | |
| measurement) | Focal length | Fixed, at ~3.8 cm (1.5 in) | | |
| External sensor | Frequency range | 10 Hz to 1000 Hz | | |
| (Supported, but not | Bias voltage (to supply power) | 20 V DC to 22 V DC | | |
| provided) | Bias Current (to supply power) | Maximum 5 mA | | |
| Firmware | External interfaces | USB 2.0 (full speed) communication | | |
| | Data capacity | Database on internal flash memory | | |
| | Memory | Up to 3500 measurements | | |
| Environmental | IP rating | IP54 | | |
| | Drop test | 1 meter (3.38 ft) | | |
| General | Battery type | AA (2) Alkaline or Lithium-ion 2 V DC | | |
| specifications | Battery life | 250 measurements | | |
| | Size (LxWxH) and Weight | 25.72 × 16.19 × 9.84 cm (10.13 × 6.38 × 3.875 in), 1.16 kg g (2.55 lb) | | |
| | Connectors | USB mini-B 7-pin, stereo audio output jack | | |
| | | (3.5 mm Audio Plug), external sensor jack | | |

(SMB connector)

Recommended Accessories Fluke 805ES External As nbly Vibration Senso Fluke 820-2 LED Stroboscope The Fluke 820-2 LED Stroboscope is a simple.



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 strobe with high intensity LED head, ideal for stop motion diagnostics, mechanical troubleshooting, and process or product research and development.

- High intensity 7-LED array-4800 lux @ 6000 FPM/30 cm (flashes per minute)
- High efficiency LED solid-state light source with uniform flash characteristics allow for higher flash rates-30-300000 FPM
- Digital pulse width modulation for exceptionally sharp images at high speeds
- Rugged, durable design utilizes solid-state LEDs with no filaments, gases, hollow cavities, or glass
- Quartz-accuracy control system provides high accuracy - $\pm(0.02\% + 1 \text{ digit})$
- Multi-line LCD display
- Check the rotating speed of machinery without physical contact or need for reflective tape

Included Accessories

USB Cable, Storage Case, Belt Holster, Ouick Reference Guide CD-ROM (includes MS Excel Template and Documentation) and Two AA Batteries.

Ordering Information

| FLUKE-805FC | Fluke Connect™ Vibration Meter |
|-------------|--|
| FLUKE 805ES | External Vibration Sensor for 805 Vibration Meter |
| FLK-820-2 | LED |

Stroboscope Contact your local distributor for price and availability.

fluke.com/findus

Fluke 810 Vibration Tester

Take a vibration expert along



Get answers now!

The Fluke 810 Vibration Tester is the most advanced troubleshooting tool for mechanical maintenance teams who need an answer now. It is a unique new kind of troubleshooting tool, engineered to detect and evaluate the most common mechanical problems. The Fluke 810 Vibration Tester uses a simple step-by-step process to report on machine faults the first time measurements are taken, without prior machine history.

- Easily determine the root cause, location and severity of common mechanical faults
- Efficiently prioritize and plan equipment repair or replacement
- · Effectively deploy maintenance resources at the point of greatest impact
- Three-year warranty

Simple 3 Step Process

The Fluke 810 helps you locate and diagnose common mechanical problems and prioritize repair actions in three simple steps:



condition.

1. Setup: Vibration testing has never been easier. The Fluke 810 asks for basic machine information you already know, like RPM and horsepower. Its onboard info feature gives you field tips for setting up and taking measurements like a professional.

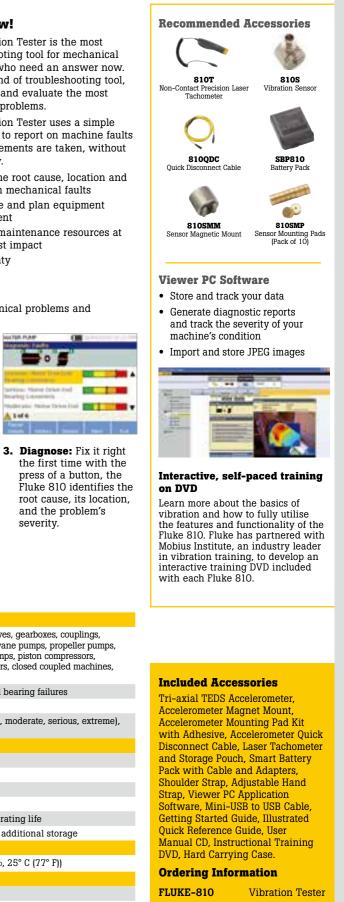


| Diagnostic specifications | |
|--------------------------------|--|
| Analysis for | Motors, fans, blowers, belts and chain drives, gearboxe centrifugal pumps, piston pumps, sliding vane pumps, screw pumps, rotary thread/gear/lobe pumps, piston c centrifugal compressors, screw compressors, closed co spindles |
| Standard faults | Unbalance, looseness, misalignment and bearing fail |
| Motor rotational speed range | 200 rpm to 12000 rpm |
| Diagnosis details | Plain-text diagnosis, fault severity (slight, moderate, s repair details, cited peaks, spectra |
| Tester specifications | |
| Ingress Protection (IEC 60529) | IP54 |
| A/D converter | 4 channel, 24 bit |
| Dynamic range | 128 dB |
| FFT resolution | 800 lines |
| Battery | Lithium-ion, rechargeable, 8 hours operating life |
| Onboard storage capacity | 2 GB internal + user accessible slot for additional s |
| Sensor specifications | |
| Sensor type | Tri-axial accelerometer , 100 mV/g (±5%, 25° C (77° |
| Tachometer specifications | |
| Tachometer type | Laser Diode Class 2 |

Fluke Connect (FC) available in selected countries. Contact your local Fluke distributors to find out more.



Mechanical Maintenance



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Intrinsically Safe Test Tools

for Hazardous Areas

Intrinsically Safe (Ex) test tools have been certified for use in potentially explosive atmospheres. Certified Ex tools have been engineered to prevent the release of energy sufficient to cause ignition of the explosive atmospheres for which the equipment is rated (gasses, dusts, flyings etc.) under any normal use or foreseeable fault condition within the equipment.



ATEX – The primary intrinsically safe standard, which has been set in the European Union with the Directive 94/9/EC, commonly called ATEX (ATmosphères EXplosibles).

| Fluke Pr | oducts | ATEX | certified | Certi |
|----------|--|--------------|--|---------------------------------------|
| | 28 II Ex Intrinsically Safe True-RMS Multimeter | | II 2G Ex ia IIC T4 Gb I M1 Ex ia I Ma | Class I Class I Ex ia I IP67 |
| | 718Ex Intrinsically Safe Pressure Calibrator | & | II 1G Ex ia IIC T4 Ga | I.S. Cla |
| | 721Ex Intrinsically Safe Precision Pressure Calibrator | æ | II 2G Ex ia IIB T3 Gb | IECEx: |
| - | 750PEx Intrinsically Safe Pressure Modules | | II 1G Ex ia IIC T4 Ga | IECEx: |
| 9 | 568Ex Intrinsically Safe Infrared Thermometer | • | II 2G Ex ia IIC T4 Gb | Class I Class I Class I |
| ¢ | 700G Series Intrinsically Safe Pressure Gauges | | II 3G Ex ic IIB T6 Gc | CSA CI |
| | 1551A Ex/1552A Ex Intrinsically Safe "Stik" Thermometers | | II 2G Ex ib IIB T4 Gb | IECEx: |
| | Fluke FL-45 Ex Intrinsically Safe Flashlight | | II 1G Ex ia IIC T5 Ga I M1 Ex ia I Ma | Class I Class I Class I IP67 |
| | Fluke FL-120 Ex Intrinsically Safe Flashlight | | II 1G Ex ia IIC T4 Ga I M1 Ex ia I Ma | Class I Class I Class I IP6X |
| | Fluke FL-150 Ex Intrinsically Safe Flashlight | | II 1G Ex ia IIC T4 Ga I M1 Ex ia I Ma | Class I Class I Class I IP67 |
| ø | Fluke HL-200 Ex Intrinsically Safe Headlamp | | II 1G Ex ia IIC T4 Ga | Class I Class I Class I IP67 |

Intrinsically Safe Test Tools

Intrinsically Safe (Ex) test tools have been certified for use in potentially explosive atmospheres. Certified Ex tools have been engineered to prevent the release of energy sufficient to cause ignition of the explosive atmospheres for which the equipment is rated (gasses, dusts, flyings etc.) under any normal use or foreseeable fault condition within the equipment.



fication

I, Div 1, Groups A,B,C,D T4 I, Zone 1, AEx ia IIC T4 IIC T4

Class I, Div 1, Groups A,B,C,D T4

:: Ex ia IIB T3 Gb

:: Ex ia llC T4 Ga

I, Div 1, Groups A,B,C,D, T4 I, Div 2, Groups A,B,C,D, T4 I, Zone 1, AEx ia IIC T4 Gb

Class I, Div. 2 Groups A,B,C,D

:: Ex ib IIB T4 Gb

s I Div 1 and 2 Group A,B,C,D s II Div 1 and 2 Group E,F,G s III T5

s I Div 1 and 2 Group A,B,C,D s II Div 1 and 2 Group E,F,G s III T4

s I Div 1 and 2 Group A,B,C,D s II Div 1 and 2 Group E,F,G s III T4

s I Div 1 and 2 Group A,B,C,D s II Div 1 and 2 Group E,F,G s III T4



Ordering Information

| FLUKE-28IIEX/ ETL | Intrinsically Safe True- RMS Digital Multimeter |
|--|--|
| FLUKE-718EX (30, 100, 300G ranges) | Intrinsically Safe Pressu Calibrator |
| FLUKE-721EX | Intrinsically Safe Pressu Calibrator |
| FLUKE-750PEX (750P: 01, 05, 06, 09, 24, 27, 29, A4Ex) | Intrinsically Safe Pressu Modules |
| FLUKE-568EX | Intrinsically Safe Infrare Thermomete |
| FLUKE-700G | Pressure Te Gauges (23 ranges) O to 10 in H2O up to 10000 psi |
| FLUKE-1551AEX FLUKE-1552AEX | "Stik" Thermomete 1551A: -50 160C 1552A: -80 300C |
| FLUKE-568EX | Intrinsically Safe Infrare Thermomete |
| FL-45 EX | 45 Lumen Intrinsically Safe Flashlight |
| FL-120 EX | 120 Lumen Intrinsically Safe Flashlight |
| FL-150 EX | 150 Lumen Intrinsically Safe Flashlight |
| HL-200 EX | 200 Lumen Intrinsically Safe Headlamp |





Insulated **Hand Tools**

Safe, rugged and with a lifetime warranty, Fluke premium insulated hand tools, are forged from German steel and built to last a lifetime

Fluke Insulated Hand Tools



Fluke Insulated Screwdrivers

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. 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 10000 volts.

- 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

Fluke insulated pliers and cutters give you a range of options when the job requires jaws with bite. All Fluke pliers and cutters are built with German CMV steel.

Long Nose Pliers

- Unique milled wave pattern 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
- 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 from being
- pinched

Heavy Duty Combination Pliers

- · Secure hold by aggressive serrated jaws and 4-point gripping hole
- Powerful gripping jaw, yet 20% lighter weight than



• Slim shape for better access to wires in tight spaces other designs





the workpiece with less slippage than other designs





Insulated Hand Tools

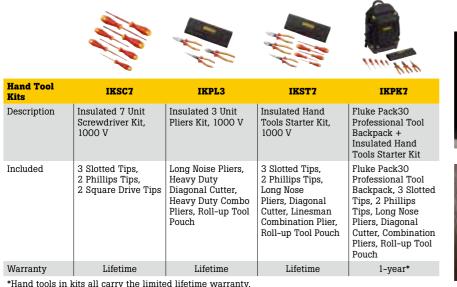
Ordering Information

- **ISLS3** Insulated Slotted Screwdriver 3/32x3 in, 2.5 mm x 75 mm, 1000V
- **ISLS5** Insulated Slotted Screwdriver 5/32x4 in, 4 mm x 100 mm, 1000V
- ISLS8 Insulated Slotted Screwdriver 1/4x5 in, 6 mm x 125 mm, 1000V
- IPHS1 Insulated Phillips Screwdriver #1, 3 in, 75 mm, 1000V
- **IPHS2** Insulated Phillips Screwdriver #2, 4 in, 100 mm, 1000V
- Insulated Squared ISOS1 Screwdriver #1, 4 in, 100 mm, 1000V
- ISQS2 Insulated Squared Screwdriver #2, 5 in, 125 mm, 1000V
- **INLP8** Insulated Long Nose /w Side Cutter, 8 in, 200mm, 1000V
- **INDC8** Insulated High Leverage Diagonal Cutter, 8 in, 200mm, 1000V
- **INPP10** Insulated Pump Plier Fast adjustable, 10 in, 250 mm, 1000V
- **INCP8** Insulated Linesman Combination Plier. 8 in. 200 mm, 1000

Contact your local distributor for price and availability. fluke.com/findus



Fluke Insulated Hand Tools Kits







*Hand tools in kits all carry the limited lifetime warranty.



| Tools + Hand Tool Kits | IBT6K | IB875K | IB117K | IB179K | IB376K |
|------------------------------|--|---|--|--|--|
| Description | Fluke T6 Electrical Tester + Insulated Hand Tools Starter Kit | Fluke 87V Industrial Multimeter + Insulated Hand Tools Starter Kit | Fluke 117 Electrician's Multimeter + Insulated Hand Tools Starter Kit | Fluke 179 True-RMS Digital Multimeter + Insulated Hand Tools Starter Kit | Fluke 376FC True-RMS Clamp Meter + Insulated Hand Tools Starter Kit |
| Included | Fluke T6 Electrical Tester, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch | Fluke 87V Industrial Multimeter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch | Fluke 117 Electrician's Multimeter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch | Fluke 179 True-RMS Digital Multimeter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch | Fluke 376FC True-RMS Clamp Meter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch |
| Warranty | 2-year* | Lifetime | 3-year* | Lifetime | Lifetime |

*Hand tools in kits all carry the limited lifetime warranty.



| Accessories | RUPO | FackSU | 1825 |
|-------------|--|--|--|
| Description | Roll-up Tool Pouch. Holds up to 3 pliers and 5 screwdrivers, rolls shut, closes with hook and loop fasteners | Over 30 pockets in six main storage compartments. Rugged, waterproof base protects your tools. | Tool bucket with a 5.2-gallon capacity, hard exterior shell, and plastic waterproof base to protect tools. |
| Included | Tools not included | Tools not included | Tools not included |
| Warranty | 1-year | 1-year (extendable) | 1-year |

*Insulated Hand Tool Lifetime Limited Warranty

Each Fluke Insulated Hand Tool will be free from defects in material and workmanship for its lifetime. As used herein, "lifetime" is defined as seven years after Fluke discontinues manufacturing the product, but the warranty period shall be at least fifteen years from the date of purchase. This warranty does not cover damage from neglect, missue, contamination, alteration, accident or ahommal conditions of operation or handling, damage or normal wear and tear of mechanical components. This warranty covers the original purchaser only and is not transferable.

To establish original ownership and prove date of purchase, please complete and return the registration card accompanying the product, or register your product on fluke.com/registration. Fluke will, at its option, repair at no charge, replace or refund the purchase price of a defective product purchased through a Fluke authorized sales outlet and at the applicable international price. Fluke reserves the right to charge for importation costs of repair/replacement parts if the product purchased in one country is sent for repair elsewhere.

If the product is defective, contact the authorized seller you purchased the tool from for immediate replacement or your nearest Fluke authorized service center to obtain return authorization information, then send the product to that service center, with a description of the difficulty, postage and insurance prepaid (FOB Destination). Fluke assumes no risk for damage in transit: Fluke will pay return transportation for product replaced or replaced in-warranty. Before making any non-warranty repair, Fluke will estimate cost and obtain authorization, then invoice you for repair and return transportation.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY. AUTHORIZED RESELLERS ARE NOT AUTHORIZED TO EXTEND ANY DIFFERENT WARRANTY ON FLUKE'S BEHALF.



| Orderin | g Information |
|---------|---|
| IKSC7 | Insulated 7 Unit Screwdriver Kit, 1000 V |
| IKPL3 | Insulated 3 Unit Pliers Kit, 1000 V |
| IKST7 | Insulated Hand Tools Starter Kit, 1000 V |
| IKPK7 | Pack30 Professional Tool Backpack + Insulated Hand Tools Starter Kit |
| IBT6K | Fluke T6 Electrical Tester + Insulated Hand Tools Starter Kit |
| IB875K | Fluke 87V Industrial Multimeter + Insulated Hand Tools Starter Kit |
| IB117K | Fluke 117 Electrician's Multimeter + Insulated Hand Tools Starter Kit |

- **IB179K** Fluke 179 True-RMS Digital Multimeter + Insulated Hand Tools Starter Kit
- IB376K Fluke 376FC True-RMS Clamp Meter + Insulated Hand Tools Starter Kit
- RUP8 Roll-up Tool Pouch PACK30 Professional Tool
- Backpack
- **TB25** Fluke TB25 Tool Bucket Organizer Bag, 5.2 gal

Contact your local distributor for price and availability. fluke.com/findus



IR CAMERA ACCESSORIES

Battery and Charger Compatibility

Prevent the unexpected loss of power with our rugged and rechargeable battery packs and keep your Fluke Infrared Camera charged while you're on the road with our car chargers.

| Model Number | TiS20+/TiS20+MAX, 55+, 60+, 75+ | TiS55+, TiS60+, TiS75+ | Ti401 Pro, Ti480 Pro | TiX580 |
|--|------------------------------------|------------------------|----------------------|--------|
| TI-SBC3B Battery Charging Base | • | • | • | • |
| TI-SBP3 Rechargeable Lithium-ion Smart Battery Pack | • | • | • | |
| TI-SBP4 Rechargeable Lithium-ion Smart Battery Pack | | | | • |
| TI-CAR CHARGER | • | • | • | • |
| FLK-XBattery | | | | |

Sun Visor Compatibility

Instantly reduce LCD screen glare and reflections in bright sunlight or other areas where ambient lighting conditions are bright with our durable, heavy-duty plastic visor. It can be used inside or outside, and easily clips onto to your Fluke Infrared Camera without the need for any additional hardware.

| Model Number | Ti401 Pro, Ti480 Pro |
|--------------|----------------------|
| TI-VISOR3 | • |

Tripod Base Compatibility

Lightweight, one-piece mounting accessory quickly and easily attaches to your Fluke Infrared Camera and allows you to mount to a standard tripod or monopod for those applications or situations that require a more stable or semi-fixed platform.

| Model Number | TiS20+/ TiS20+MAX / TiS55+ / TiS60+ / TiS75+ / Ti401Pro / Ti480Pro |
|--------------|--|
| TI-TRIPOD3 | • |

TEST LEADS. PROBES AND CLIPS

Test Leads, Probes and Clins Co

| Model Number | TL175 | TL26A | TL40 | TL71 | TL75 | TL76 | TL221 | TL222 | TL224 | TL910 |
|-------------------------|-------|-------|-------------|------|----------|---------------|--------------|----------------|-----------|-------|
| Test Leads | | | | | | | | | | |
| 110/114/115/ 116/117 | • | • | • | • | • | • | • | • | • | • |
| 175/177/179 | • | • | • | • | • | • | • | • | • | • |
| 87V | • | • | • | • | • | • | • | • | • | • |
| 287/289 | • | • | • | • | • | • | • | • | • | • |
| 8845A/8846A | • | • | • | • | • | • | • | • | • | • |
| 120 Series | • | • | • | • | • | • | • | • | • | • |
| 190 Series | • | • | • | • | • | • | • | • | • | • |
| 323/324/325 | • | • | • | • | • | • | • | • | • | • |
| 370 Series, 381 | • | • | • | • | • | • | • | • | • | • |
| 705/707 | • | • | • | • | • | • | • | • | • | • |
| 712 | • | • | • | • | • | • | • | • | • | • |
| 715 | • | • | • | • | • | • | • | • | • | • |
| 716/717 | • | • | • | • | • | • | • | • | • | • |
| 718 | • | • | • | • | • | • | • | • | • | • |
| 725/726 | • | • | • | • | • | • | • | • | • | • |
| 787B/789 | • | • | • | • | • | • | • | • | • | • |
| 1577/1587 FC | • | • | • | • | • | • | • | • | • | • |
| Clips and Probe | s | | | | | | | | | |
| AC175 | | | | • | • | • | | | | |
| AC87 | | | | | | | • | • | • | |
| AC89 | | | | | | | • | • | • | |
| AC220 | | | | | | | • | • | • | |
| AC280 | | | | | | | • | • | • | |
| AC238A | | | | | | | • | • | • | |
| AC285 | | | | | | | • | • | • | |
| AC288 | | | | | | | • | • | • | |
| FTP-1 | | | | | | | • | • | • | |
| TLK290 | | | | | | | • | • | • | |
| TLK291 | | | | | | | • | • | • | |
| TP1 | | | | | | | • | • | • | |
| TP2 | | | | | | | • | • | • | |
| TP4 | | | | | | | • | • | • | |
| TP38 | | | | | | | • | • | • | |
| TP74 | | | | | | | • | • | • | |
| TP80 | | | | | | | • | • | • | |
| TP175 | | | | | | | • | • | • | |
| TP220 | | | | | | | • | • | • | |
| TP912 | | | | | | | | | | • |
| TP920 | | | | • | • | | | | | |
| T5 Starter Kit | | | | | (compati | ble with T5/T | +/T+Pro/330 |) Series Clamp | o Meters) | |



Test Leads, Probes and Clips

Test Lead/Probe-in-One



TL175 TwistGuard™ Test Leads

- Probes meet IEC 61010-031 requirements for safety
- · Patented extendable tip guard meets CAT III 1000 V, CAT IV 600 V requirements while providing the flexibility you need for CAT II measurements
- Probes always show correct category rating for tip length being used



TL75 Hard Point™ Test Lead Set

One pair (red, black) comfort grip probes with PVC-insulated, right-angle shrouded 4 mm banana plugs.

• Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



TL71 Premium Test Lead Set

One pair (red, black) comfort grip probes with flexible silicone insulated, rightangle test leads.

- · Heat and cold resistant
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



TL76 2mm/4mm Test Lead Set

One pair (red, black) silicone test leads with right angle shrouded 4 mm banana plugs.

- · Removable lantern tip for easy access to terminal blocks. 2 mm diameter
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



TL40 Retractable Tip Test Lead Set One pair (red, black) flexible silicone insulated test leads with sharp needle point tips adjustable to desired length from 0 to 76 mm.

- Extra hard probe tips to
- provide long service life

Fluke Accessories

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• Safety rating: CAT II 600 V, 3 A rating



TL26A 60 in 5-Way Test Lead Set One pair (red, black) silicone-insulated leads with five different ways to connect.

- · U-shaped nose for blade-shaped terminals
- Notched jaw for gripping screw heads, bare wire or terminals
- Serrated teeth for gripping threaded or wire-wrapped terminals
- · Sharp needle cluster for piercing small gauge (#22-#28 AWG) wires
- Large piercing needle
- Safety rating: 30 V, 10 A



TL910 Electronic Test Probes

One pair (red, black) leads with very small tips to access hard-to-reach electronic test points.

- Includes three sets of spring-loaded gold tips and two sets of stainless steel tips
- Tip length up to 100 mm
- Tip diameter: 1 mm
 - Safety rating: CAT II 1000 V, 3 A



TP912 Replacement Tips for TL910 Five sets of spring-loaded, tips to

refurbish TL910 Electronic Test Probes.

- · Very small 1mm tips to access hardto-reach electronic test pointsProbe tip length up to 100 mm
- Three sets of gold-plated and two sets of stainless steel tips



simplifies measurement when accessing

TP165X Remote Control Probe Probe with integrated test button

- hard-to-reach points. • Probe designed for 1500 Series Insulation and 1650/1660 Series Installation Testers
- Tip length up to 18.66 mm
- Tip diameter: 1 mm
- Safety rating: CAT II 1000 V, (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A
- IC test adapter CAT II 300 V,



NEW TL1500DC 1500 V DC Test Lead Set

Test leads specially developed for solar. wind and battery applications. Rugged design for rough outdoor environments.

- · Safe and accurate voltage measurements up to 1500 V DC
- Safety rating: CAT III 1500 V, CAT IV 600 V

Probe-in-one clips



AC288 SureGrip™ **Terminal Block** Probe

One pair (red, black) of probes features a retractable probe tip for connections to clamp and screw type terminal blocks.

- Designed for increased safety, while providing the flexibility to reach deep connection points
- 1mm diameter probe tip extends out to 8.4 mm length
- Recommended for use with the TL224, TL222, TL221 test leads
- Safety rating: CAT III 1000 V, CAT IV 600 V, 1 A



AC175 Alligator Clip Set

One pair (red, black) slide-on alligator clips.

- 8mm clip opening
- Slide-on alligator clips are compatible with TL71, TL75, TL175 and TP175 test probes
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A



TP920 Test Probe Adapter Set

Three pairs (red, black) push-on adapters.

- · Includes IC test adapters, extended probe tips, and medium alligator clips
- Maximum opening 7.6 mm
- Safety rating: extended probe tips CAT II 300 V, medium alligator clips CAT II 1000 V

Test Leads, Probes and Clips

Modular Test Leads



1000 V, 10 A

Test Probes

nickel-plated jaws.

to 9.5 mm

1000 V, 10 A

hook-style clips.

1000 V, 3 A

pincers open to 5 mm.

Test Clip

bars

insulated wire



TL221 SureGrip™ Test Lead **Extensions Set**

One pair (red. black) silicone-insulated leads with safety-shrouded, 4 mm banana plugs.

- Couplers have female connectors on both ends
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A



TL222 SureGrip[™] Silicone Insulated Test Leads

One pair (red, black) silicone-insulated test leads (red, black) with safetyshrouded,

- 4 mm banana plugs.
- Right angle connectors on both ends



TL224 SureGrip™ Insulated Test Leads

One pair (red, black) silicone-insulated test leads with safety-shrouded 4 mm banana plugs.

- Right angle connector on one end and straight connector on the other
- Safety rating: CAT IV 600 V, CAT III 1000 V. 10 A



TL27 Heavy-duty Test Lead Set

One pair (red, black) rugged, EPDM-insulated test leads with safetyshrouded 4 mm banana plugs.

• Straight connectors on both ends

Test Lead Holder

H900 Test Lead Holder

storing test lead wires.

other surfaces

diameter

Heavy-duty holder for conveniently

• For test lead wires up to 8mm in

• Overall dimensions (LxWxH):

279 mm × 89 mm × 32 mm

• Mounting holes for securing to wall or

• Safety rating: CAT III 1000 V, 10 A



Accessories

Modular Test Probes



AC285/-FTP SureGrip™ Alligator Clips

One pair (red, black) large alligator clips with insulated, nickel-plated steel jaws. • Multi-purpose tooth pattern grips from fine gauge wire to a 20 mm bolt Safety rating: CAT IV 600 V. CAT III

• AC285-FTP includes AC285 and adapters for FTP-1 or FTPL-1 Fused



AC220 SureGrip[™] Alligator Clips One pair (red, black) of small, insulated,

· Blunt tip grabs round screw heads up

• Safety rating: CAT IV 600 V, CAT III



AC280 SureGrip™ Hook Clips One pair (red, black) nickel-plated

• Hook opening 6.4 mm at front Base opening of 0.2 mm • Safety rating: CAT IV 600 V, CAT III



AC283A SureGrip™ Pincer Clips One pair (red, black) nickel-plated

• 11.4 cm flexible insulated shaft • Safety rating: CAT II 1000 V, 1 A



Ideal probe for establishing accurate contact through insulation. • Pierces 0.25 mm to 1.5 mm

• Safety rating: 1000 V, 10 A



One pair (red, black) flat, right angle clips designed for connecting to bus

 Adjustable collar provides two ranges of jaw openings up to 30 mm • Safety rating: CAT III 600 V, 5 A



TP175 TwistGuard™ Test Probes

- Modular test probes of the popular TL175 Test Leads
- Patented extendable tip guard meets CAT III 1000 V, CAT IV 600 V requirements while providing the flexibility you need for CAT II measurements
- 2 mm diameter stainless steel probe tips



TP220 SureGrip[™] Industrial Test Probes

One pair (red, black) industrial test probes with stainless steel tip.

- Sharp, 12 mm tips
- Safety rating: CAT II 1000 V (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



TP1 Slim Reach™ Test Probes

One pair (red. black) slender probes with flat stainless steel blade to hold securely in blade-type electrical wall sockets.

- Tip length up to 14.7 mm
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)

TP2 Slim Reach™ Test Probes

One pair (red, black) slender stainless steel probes for accessing closelyspaced or recessed terminals such as in electronic environments.

- 2 mm diameter tip
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



TP4 Slim Reach™ Test Probes

One pair (red, black) slender stainless steel probes for accessing closelyspaced or recessed electrical terminals.

- 4 mm diameter probe tip designed to fit securely into IEC (C13 and C14) electrical wall outlets
- Safety rating: CAT II 1000 V, 10 A



Fluke Accessories

Test Leads, Probes and Clips



TP80 Electronic Test Probes One pair (red, black) electronics test probes.

- · IC-insulated cap prevents shortening of IC legs for probing high density components or boards
- Tip length up to 3.9 mm
- Tip diameter: 1 mm
- Safety rating: CAT III 1000 V, 1 A



TP74 Lantern Tip Test Probes

One pair (red, black) featuring nickelplated brass ends.

- Banana-style 4 mm spring contacts • Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with
- protective cap)



TP38 Slim Reach™ Test Probes

One pair (red, black) slender stainless steel probes for accessing closelyspaced or recessed terminals.

- Tip length: 24 mm which includes the insulated part of the tip
- Probe tip insulated to 4 mm from the end
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A

Patch Cords



TL932 Patch Cords (90 cm)

One pair (red, black) multi-stacking banana plug patch cords, 90 cm long.

- Nickel-plated, 4 mm banana plugs
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC. 15 A



TL930 Patch Cords (60 cm)

One pair (red, black) multi-stacking banana plug patch cords, 61 cm long.

- Nickel-plated, 4 mm banana plugs
- 61 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 15 A



TL935 Patch Cords (60 cm, 90 cm, 120 cm)

Three sets (red and black pairs) of multi-stacking banana plug patch cords in different lengths.

- Nickel-plated, 4 mm banana plugs • 60 cm, 90 cm, and 120 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 15 A



TL940 Mini-Hook Test Leads

One pair (red, black) of test leads with multi-stacking 4 mm banana plugs and mini-hooks.

- · Mini-hooks attach to component leads up to 1.5 mm diameter
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 3 A



TL950 Mini-Pincer Test Leads

One pair (red, black) of test leads with multi-stacking 4 mm banana plugs and mini-pincers.

- Mini-pincers open to 2.3 mm
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 3 A



TL960 Micro-Hook Test Leads One pair (red, black) of test leads with

micro-hooks. • Micro-hooks attach to component

multi-stacking 4 mm banana plugs and

- leads up to 1 mm diameter
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 3 A



TL970 Hook and Pincer Set

- TL940 Mini-Hook Test Lead Set
- TL950 Mini-Pincer Test Lead Set
- TL960 Micro-Hook Test Lead Set



FTP-1 / FTPL-1 SureGrip[™] Fused Test Probes

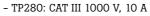
- · Built-in fuses for added protection
- 2 mm threaded probe tips include removable 4 mm lantern-style spring contacts
- FTPL-1 comes with a set of TL224 SureGrip[™] Insulated Test Leads
- Safety rating: CAT II 1000 V (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



TL238 SureGrip™ Test Lead Set for High Energy Environments

This kit is specially designed for high energy environments. Three-piece kit:

- TP238 SureGrip™ Insulated Test Probe Set
- TP280 SureGrip™ Test Probe Extender
- TL224 SureGrip™ Insulated Test
- Leads
- Safety rating: - TP238 and TL224: CAT IV 600 V, CAT III 1000 V, 10 A





TLK290 Flexible Socket Probe Set

Set includes three flexible socket probes and a large alligator clip for use with 4mm shrouded test leads.

- · Test probes are for use on motor and three-phase sockets
- · Probes have flexible test points that fit securely between 4 mm and 8 mm sockets
- Safety rating: CAT II 1000 V, 8 A



TLK291 Fused Test Probe Set

One pair (red, black) fused test probes. Probes fit on modular leads or on fixedlead test tools.

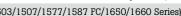
- Each probe contains a 500 mA/1000 V/IR:50 kA fuse
- Safety rating: CAT IV 600 V, CAT III 1000 V



| Model number | TL27 | TL80A | TL81A | TL220 | TL223 | TL225 | TL238 | TLK-220 | TLK-225 | TLK287 | TLK28 |
|-------------------------|-------------|-------|-------|--------------|--------------|-------|--------------|----------------|----------------|---------------|-------|
| Test Lead Sets and Kits | | | | | | | | | | | |
| 110/114/115/116/117 | • | • | • | • | • | • | • | • | • | • | • |
| 27 II | • | • | • | • | • | • | • | • | • | • | • |
| 175/177 | • | • | • | • | • | • | • | • | • | • | • |
| 179 | • | • | • | • | • | • | • | • | • | • | • |
| 87V | • | • | • | • | • | • | • | • | • | • | • |
| 287/289 | • | • | • | • | • | • | • | • | • | • | • |
| 8845A/8846A | • | • | • | • | • | • | • | • | • | • | • |
| 120/B Series | • | • | • | • | • | • | • | • | • | • | • |
| 190/-II Series | • | • | • | • | • | • | • | • | • | • | • |
| 323/324/325 | • | • | • | • | • | • | • | • | • | • | • |
| 370 Series, 381 | • | • | • | • | • | • | • | • | • | • | • |
| 705/707 | • | • | • | • | • | • | • | • | • | • | • |
| 712 | • | • | • | • | • | • | • | • | • | • | • |
| 715 | • | • | • | • | • | • | • | • | • | • | • |
| 717 | • | • | • | • | • | • | • | • | • | • | • |
| 718 | • | • | • | • | • | • | • | • | • | • | • |
| 725/726 | • | • | • | • | • | • | • | • | • | • | • |
| 787B/789 | • | • | • | • | • | • | • | • | • | • | • |
| 1577/1587 FC | • | • | • | • | • | • | • | • | • | • | • |
| Clips and Probes | | | | | | | | | , | | |
| AC175 | | • | • | | | | | | | | |
| AC87 | • | | • | • | • | • | • | • | • | • | • |
| AC89 | • | | • | • | • | • | • | • | • | • | • |
| AC220 | • | | • | • | • | • | • | • | • | • | • |
| AC280 | • | | • | • | • | • | • | • | • | • | • |
| AC238A | • | | • | • | • | • | • | • | • | • | • |
| AC285 | • | | • | • | • | • | • | • | • | • | • |
| FTP-1 | • | | • | • | • | • | • | • | • | • | • |
| TLK290 | | | • | • | • | • | • | • | • | • | • |
| TLK291 | | | • | • | • | • | • | • | • | • | • |
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| TP2 | • | | • | • | • | • | • | • | • | • | • |
| TP4 | • | | • | • | • | • | • | • | • | • | • |
| TP38 | • | | • | • | • | • | • | • | • | • | • |
| TP74 | • | | • | • | • | • | • | • | • | • | • |
| TP80 | • | | • | • | • | • | • | • | • | • | • |
| TP175 | • | | • | • | • | • | • | • | • | • | • |
| TP220 | • | | • | • | • | • | • | • | • | • | • |
| TP912 | | | | | | | | | | • | |
| TP920 | | • | • | | | | | | | | |
| T5 Starter Kit | | | | | | | | s Clamp Met | | | |



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Test Lead Sets and Kits



TLK289 Industrial Master Test Lead Set

Designed for electrical and electronics testing including clips and probes for dependable contact with a variety of test points. Includes:

- One pair each (red, black): AC285 Large Jaw Alligator Clips AC220 Plunger Style Alligator Clips AC280 SureGrip[™] Hook Clips TP220 SureGrip[™] Industrial Test Probes
- TPAK ToolPak[™]
- 80BK-A Integrated DMM Temperature Probe
- C116 Soft Carrying Case



TLK287 Electronics Master Test Lead Set

The perfect test lead set for electronics test and design. Includes 11 items:

- Precision electronic probes with multiple spring-loaded sharp tips to maximize contact with SMD test points
- Micro-grabbers and leads to enable fine SMD testing
- Mini-alligator clips, grabbers, and probes
- Modular test leads and lead-probe combinations
- Couplers for long lead applications



TL81A Deluxe Electronic Test Lead Kit

This 11-item kit includes pouch and two each (red, black) of:

- Test leads with a safety-shrouded, right angle banana connector on one end and a stainless steel test probe on the other. Rated up to 10 A.
- Insulated alligator clips. Rated up to 10 A
- Insulated probe tip extenders. Rated up to 3 A
- Modular test probes with banana jack connector. Rated up to 10 A
- Modular hook-style clip test leads. Rated up to 5 A
- Modular pinch-style clip test leads. Rated up to 5 A
- Modular alligator clips. Rated up to 10 A
- Slide-on IC probe tip adapters (rated up to 3 A) and test lead couplers
- Bare spade lug. Rated up to 10 A



TL220 SureGrip™ Industrial Test Lead Set

Handy all-in-one set that includes essential test items for industrial environments. Three-item set includes:

- AC220 Plunger Style Alligator Clips
 TP220 SureGrip[™] Industrial Test Probes CAT II 1000 V, 10 A without protective cap
- TL224 SureGrip[™] Silicone Insulated Test Leads
- Safety rating: All CAT IV 600 V, CAT III 1000 V



TL80A Basic Electronic Test Lead Kit

The fundamental accessories for testing are included in this four-item kit:

- Medium alligator clip
- CAT II 1000 V, 10 A • Extended probe tips
- CAT II 300 V. 3 A
- TL71 Premium Test Lead Set
- C75 Accessory Case



TLK-225 SureGrip™ Master Accessory Set

Set includes all the SureGrip[™] leads, clips, and probes in a handy roll-up pouch. This 13-item set includes:

- AC220 Plunger Style Alligator Clips
- AC280 SureGrip[™] Hook Clips
- AC238A SureGrip[™] Pincer Clips
- AC285 Large Jaw Alligator Clips
- TP175 TwistGuard[™] Test Probes
- TL224 SureGrip[™] Insulated Test Leads
 Six-pocket Storage Pouch
- Safety rating: all CAT IV 600 V, CAT III
- 1000 V



TL223 SureGrip™ Electrical Test Lead Set

All-in-one set includes three test lead accessories:

- AC220 Plunger Style Alligator Clips
- TP1 Slim Reach Test Probes
- TL224 SureGrip[™] Insulated Test Leads
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



TLK-220 SureGrip™ Industrial Test Lead Kit

Special-value SureGrip™ five-piece kit for industrial applications, in a roomy carrying case. Kit includes:

- AC220 Plunger Style Alligator Clips
- AC285 Large Jaw Alligator Clips
 TP220 SureGrip[™] Industrial Test
- TP220 SureGrip[™] Industrial Test Probes
- TL224 SureGrip[™] Insulated Test Leads
 C116 Zippered Vinyl Case with Moveable Divider
- Safety rating: CAT II 1000 V (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



T5 Starter Kit

Special-value three-piece kit for the electrical professional with a Fluke T5 Voltage, Continuity and Current Tester. Kit includes:

- TP238 Insulated Test Probes
- AC285 Large Jaw Alligator Clips
- C33 Soft Carrying Case
- Safety rating: all CAT IV 600 V, CAT III 1000 V



TLS430 Test Leads and Alligator Clips

Test lead replacement set for the Fluke 430 Series II Three-Phase Power Quality Analyzers.

- Set includes five of each (4 black,
- 1 green) test leads and alligator clips • Safety rating: CAT IV 600 V, CAT III
- 1000 V

TL225 SureGrip[™] Stray Voltage Adapter Test Lead Kit

The Fluke TL225 adds low input impedance to a multimeter, desensitizing it to low energy and eliminating ghost or stray voltages. Four-piece kit includes:

- SV225 Stray Voltage Adapter
- TL224 SureGrip[™] Insulated Test Leads
 TP238 Insulated Test Probes
- TP238 Insulated Test
- C75 Accessory Case
 Safety rating: All CAT IV 6
- Safety rating: All CAT IV 600 V, CAT III 1000 V, 10 A

TEMPERATURE ACCESSORIES

| | Bead | | HVAC | Immersion | Surface | Air | Piercing | General Purpose | Industrial Surface | Pipe Clamp |
|------------------------|-----------------------------|--|---|--------------------------------------|---|--|---|---|--|---|
| | 80BK-A | 80PK-1 80PJ-1 | 80PK-11 | 80PK-22 | 80PK-3A | 80 PK-2 4 | 80PK-25 80PT-25 | 80 PK- 26 | 80PK-27 | 80PK-8 |
| Lowest Temperature | -40 (-40 |)° C)° F) | -30° C (-22° F) | -40° C (-40° F) | 0° C (32° F) | -40° C (-40° F) | Type K: -40° C (-40° F) Type T: -196° C (-321 "F) | -40° C (-40° F) | -127° C (-196° F) | -29° C (-20° F) |
| Highest Temperature | 200 | 0° C 0° F) | 105° C (221 "F) | 1090° C (1994 "F) | 260° C (500°F) | 816° C 1500 "F) | 350° C (662 "F) | 816° C (1500"F) | 600° C (1112 "F) | 149° C (300 "F) |
| Probe Material | Type K v teflon in | vire with sulation | Velcro | Inconel 600 | Type K sensor with teflon body | Inconel | 316 Stainless Steel | 304 Stainless Steel | 304 Stainless Steel | Type K sensor with PVC body |
| Probe Length | 1 m (3.3 ft | 1 m (3.3 ft) lead wire | | 21.27 cm (8.375 in) | 9.52 cm (3.75 in) | 21.59 cm (8.5 in) | 10.16 cm (4 in) | 21.57 cm (8.5 in) | 20.32 cm (8 in) | for pipes from 6.4 mm (0.25 in) to 34.9 mm (1.375 in) |
| Cable Length | | 1 m | (3.3 ft) | | 1.3 m (4 ft) | 1 m (3.3 ft) | | | | |
| Connection | Standard banana jack | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug | Molded thermocouple plug |
| SureGrip Handle | No | No | No | Yes | No | Yes | Yes | Yes | Yes | No |
| Key Feature | troubleshoo secured in p | or initial ting. Can be place with a met. | Velcro probe allows hands-free temperature measurement. | For use in liquids or in gels. | Exposed junction for direct contact with flat or slightly convex surfaces. | Perforated baffle for air and non- caustic gas measurements. | Probe material safe for use in foods. Sharp tip pierces solid surfaces. | Use for general purpose air or surface measurements. | Low conductivity stainless steel minimizes thermal shunting. Extra rugged. | Clamps securely to pipe. Measurements are repeatable to 0.56° C (1° F) |
| Thermocouple Types | К | K, J | К | К | К | К | К, Т | К | К | К |

Temperature Compatibility 80PJ-1/ 80PT-Model Number 80AK-A 80BK-A 80PK 80TK 80PJ-9 25 110/114/115/ 116 116 116/117 27 II ٠ 175/177 * • 179 • ٠ 87V ٠ ٠ ▲ 287/289 • • ▲ 8845/8846 * . 43B * ٠ 120/B Series • * 190/-II Series * ٠ 51/52/53/54 II • • ٠ 63 714 ٠ ٠ ٠ 715 * ٠ 725/726 . ٠ ٠ 787B/789 * ٠ 902 ٠ ٠ ٠ 1587 FC • • 1577 • 561 ٠

● Compatible; ***** Requires 80TK; ▲ Requires 80AK-A; 116 only: requires 80AK-A

| 80T- 150UA | 80PJ- EXT | 80PK- EXT | 80PT- EXT | 80CK-M | 80CJ-M | 80PR- 60 |
|---------------|--------------|--------------|--------------|---------|--------|-------------|
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Accessories

FLUKE



Temperature Accessories



80PJ-1 or 80PK-1 Bead Probe

80PJ-9 or 80PK-9 **General Purpose Probe**

Type J or K thermocouple probe for general purpose applications. Ideal for troubleshooting.

- 1 mm probe with Teflon[™] insulation
- Measurement range: -40° C to 260° C (-40° F to 500° F)

Type J or K thermocouple probe for

surface makes good contact.

(-40° F to 500° F)

• 1 m lead

• 15.25 cm stainless steel probe

air and non-caustic gases. The sharp

tip pierces pipe insulation and the flat

• Measurement range: -40° C to 260° C

80PK-26 SureGrip™ Tapered Probe

Type K thermocouple probe with tapered tip for speedy air, surface, noncaustic gas, and liquid measurements.

• 203 mm stainless steel probe

(-40° F to 1500° F)

80PK-3A Surface Probe

(-40° F to 500° F)

• 1 m lead

Piercing Probe

• 1 m lead

tip pierces solid surfaces.

• Measurement range:

Type K thermocouple with exposed

junction for flat or slightly convex

surfaces such as plates and rollers.

80PK-27 SureGrip[™] Industrial

Surface Temperature Probe

Type K thermocouple probe for

surfaces in rugged environments.

• 20.32 cm stainless steel probe

• Measurement range: -127° C to

80PK-25 or 80PT-25 SureGrip™

• 10.16 cm stainless steel probe

Type K or T thermocouple suitable for

food industry, liquids, and gels. Sharp

600° C (-196° F to 1112° F)

• 9.52 cm probe with Teflon[™] insulation • Measurement range: 0° C to 260° C

• Measurement range: -40° C to 816° C

• Bead protected by perforated baffle • Measurement range: -40° C to 816° C (-40° F to 1500° F)

80PK-24 SureGrip[™] Air Probe

• 21.59 cm (8.5 in) Inconel[™] probe

for air and non-caustic gas measurements.

Type K thermocouple probe

80PK-22 SureGrip[™] Immersion Probe

Type K thermocouple probe for use in liquids and gels.

1 m lead

1 m lead

• 21.27 cm (8.375 in) Inconel[™] probe • Measurement range: -40° C to 1090° C (-40° F to 1994° F)



80PK-8 and 80PK-10 Pipe Clamp Probe

Type K thermocouple clamps securely to pipes for fast temperature and superheat measurements.

- Durable ribbon sensor
- 80PK-8 for pipe diameters
- 6.4 mm to 34.9 mm
- 80PK-10 for pipe diameters 32 mm to 64 mm
 - Measurements are repeatable to 0.56° C
 - Measurement range: -29° C to 149° C (-20° F to 300° F)



80PK-11 Type-K Velcro[™] Thermocouple Probe

Type K Velcro cuff for use with any temperature-measuring instrument that accepts type K thermocouples.

- Use multiples and leave in place for route-based routine maintenance
- 48 cm Velcro[™] cuff
- Measurement range: -30° C to 105° C (-22° F to 221° F)



80PK-18 Pipe Clamp Temperature Probe Kit

- Includes both 80PK-8 and 80PK-10 Type K clamps
 - · Provides full range of pipe measurement sizes
 - · Includes soft carrying case
- 662° F) - Type T: -196° C to 350° C (-321° F to 932° F)

- Type K: -40° C to 350° C (-40° F to



80PR-60 RTD Temperature Probe

This probe expands the utility of an RTD non-contact infrared thermometer by simultaneously taking contact and noncontact temperature readings.

- For use with the Fluke 66 and 68 Infrared Thermometers
- 90 mm platinum 1 kΩ probe
- 3.5 mm phono type jack
- Measurement range: -40° C to 260° C (-40° F to 500° F)



80AK-A Thermocouple Adapter

Adapts type K thermocouple mini-connector to dual shrouded 4 mm banana plug inputs.

- Measurement range and
- accuracy: probe dependent · Suitable for low voltage applications (below 30 V AC, 60 V DC)



80BK-A Integrated DMM Temperature Probe

Convenient, integrated type K thermocouple probe with standard shrouded 4 mm banana jack.

- Compatible with Fluke DMM with temperature measurement functions
- Measurement range: -40° C to 260° C (-40° F to 500° F)



80TK Thermocouple Module

This module converts a DMM to a thermometer and is designed for use with type K thermocouples in low voltage applications.

- Voltage range: below 24 V AC, 60 V DC
- Measurement range: -50° C to 1000° C (-58° F to 1,832° F) (probe dependent)



80T-150UA Universal **Temperature Probe**

Adapts any DMM using shrouded 4 mm banana plugs. This fast, accurate integrated probe is designed for low-voltage applications.

- · For air, surface, and non-corrosive applications
- Voltage range: below 24 V AC, 60 V DC
- 15.7 cm probe tip
- Measurement range: -50° C to 150° C (-58° F to 302° F)
- Output: switchable, from 1 mV/° C to $1 \text{ mV/}^{\circ}\text{F}$

AC CURRENT CLAMPS

AC Current Clamp Specifications

| | i200 | i200s | i400 | i400s | i800 | i1000s | i3000s | i2000 Flex | i3000s Flex | i6000s |
|----------------------------------|--------------------------------------|------------------------------------|--------------------------------------|---|---|---|--|---|---|--|
| AC current range | 1 Å to 200 Å | 1 A to 200 A | 1 Å to 400 Å | 0.5 A to 400 A | 1 A to 800 A | 0.2 A to 1000 A | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A | 60 A to 6000 A |
| Accuracy | 3% + 0.5 A 48 Hz to 65 Hz | 1% + 0.5 A 48 Hz to 65 Hz | 2% + 0.06 A 45 Hz to 400 Hz | 0.5 A to 40 A, 2% + 0.01 A, 5 A to 400 A, 2% + 0.04 A, 45 Hz to 400 Hz | 0.1 A to 10 A ±3% + 0.01 A, 10 A to 200 A ±2%, 200 A to 800 A ±1% | 0.2 to 10 A: 3% + 0.1 A 10 A to 100 A: 2% + 0.5 A 100 A to 1000 A: 1% + 1 A 48 Hz to 65 Hz | 1 to 30 A: 2% + 0.1 A 1 to 300 A: 2% + 0.5 A 1 to 3000 A: 2% + 2 A 48 Hz to 65 Hz | ±1% of range 45 Hz to 65 Hz Ranges: 20 A, 200 A, 2000 A | ±1% of range, 45 Hz to 65 Hz Ranges: 30 A, 300 A, 3000 A | ±1% of range 45 Hz to 65 Hz |
| Bandwidth (-3 dB) | 40 Hz to 40 kHz | 40 Hz to 40 kHz | 5 kHz to 20 kHz | 5 Hz to 10 kHz | 30 Hz to 10 kHz (typical) | 5 Hz to 100 kHz | 10 Hz to 100 kHz | 10 Hz to 20 kHz | 10 Hz to 50 kHz | 10 Hz to 50 kHz |
| Maximum conductor diameter | 20 mm | 20 mm | 32 mm | 32 mm | 54 mm | 54 mm | 64 × 100 mm | 177 mm | 177 mm or 265 mm | 193 mm c 289 mm |
| Maximum conductor size | 150 mm ² | 150 mm ² | 400 mm ² | 400 mm ² | 2× 240 mm ² or 1× 500 mm ² | 2× 240 mm ² or 1× 500 mm ² | 64 mm | 610 mm circumfer- ence | 610 mm or 915 mm circumfer- ence | 610 mm c 915 mm |
| Output levels | 1 mA/A | 10 mV/A 100 mV/A | 1 mA/A | 10 mV/A 1 mV/A | 1 mA/A | 1 mV/A 10 mV/A 100 mV/A | 10 mV/A 1 mV/A 0.1 mV/A | 100 mV/A 10 mV/A 1 mV/A | 100 mV/A 10 mV/A 1 mV/A | 50 mV/A 5 mV/A 0.5 mV/A |
| Output cable | 1.5 m shrouded banana plugs | 2 m to BNC termination | 1.5 m shrouded banana plugs | 2.5 m to BNC termination | 1.6 m shrouded banana plugs | 1.6 m to BNC termination | 2.1 m to BNC termination | 2 m with double shrouded banana plugs | 2.1 m to BNC termination | 2 m to BN0 4 mm plug adapter supplied |
| Warranty | One-year | One-year | One-year | One-year | One-year | One-year | One-year | One-year | One-year | One-year |
| Safety rating | CAT III 600 V | CAT III 600 V | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 |

AC Current Clamp Selection Guide

| | i200 | i200s | i400 | i400s | i800 | i1000s | i3000s | i2000 Flex1 | i3000s Flex |
|--------------|-------------------|-----------------|-------------------|--------------------|-------------------|---------------------|--------------------|--------------------|--------------------|
| 110/114/116 | | 1 A to 200 A | | 0.6 A to 400 A* | | 0.6 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 115/117 | 60 A to 200 A | 1 A to 200 A | 60 A to 400 A | 0.6 A to 400 A* | 60 A to 800 A | 0.6 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 233 | 60 A to 200 A | 1 A to 200 A | 60 A to 400 A | 0.6 A to 400 A* | 60 A to 800 A | 0.6 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 27 II | 2 A to 200 A | 1 A to 200 A | 2 A to 400 A | 1 A to 400 A* | 2 A to 800 A | 0.1 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 28 II | 1.8 A to 200 A | 1 A to 200 A | 1.8 A to 400 A | 1.8 A to 400 A | 1.8 A to 800 A | 0.2 A to 1000 A* | 2 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 77 IV | | 1 A to 200 A | | 1 A to 400 A* | | 0.1 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 175/177/179 | 3 A to 200 A | 1 A to 200 A | 3 A to 400 A | 1 A to 400 A* | 3 A to 800 A | 0.3 A to 1000 A* | 3 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 1577/1587 FC | 3 A to 200 A | 1 A to 200 A | 3 A to 400 A | 3 A to 400 A* | 3 A to 400 A | 0.3 A to 1000 A* | 3 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 83V/88V | 2 A to 200 A | 1 A to 200 A | 2 A to 400 A | 1 A to 400 A* | 2 A to 800 A | 0.1 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 87V | 2 A to 200 A | 1 A to 200 A | 2 A to 400 A | 2 A to 400 A* | 2 A to 800 A | 0.2 A to 1000 A* | 2 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 287/289 | 1 A to 200 A | 1 A to 200 A | 1 A to 400 A | 0.5 A to 400 A* | 1 A to 800 A | 0.2 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 43B | | 1 A to 200 A | | 0.35 A to 400 A | | 0.1 A to 1000 A | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 434/435-II | | 1 A to 200 A | | 1.2 A to 400 A | | 0.3 A to 1000 A | 1.2 A to 3000 A | i430Flex- TF-II | i430Flex- TF-II |
| 120/B | | 1 A to 200 A | | 2.5 A to 400 A | | 0.25 Å to 1000 Å | 2.5 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 190/-II | | 1 A to 200 A | | 1 A to 400 A | | 0.1 A to 1000 A | 1 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |
| 8808A | 1 A to 200 A | 1 A to 200 A | 1 A to 400 A | 0.5 A to 400 A* | 1 A to 800 A | 0.1 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A* | 3 A to 3000 A* |
| 8845A/8846A | 1 A to 200 A | 1 A to 200 A | 1 A to 400 A | 1 A to 400 A* | 1 A to 800 A | 0.2 A to 1000 A* | 1 A to 3000 A | 2 A to 2000 A* | 3 A to 3000 A* |
| 787B/789 | 50 A to 200 A | 1 A to 200 A | 50 A to 400 A | 2 A to 400 A* | 50 A to 440 A | 0.2 A to 1000 A* | 2 A to 3000 A | 2 A to 2000 A | 3 A to 3000 A |





FLUKE





i800 AC Current Clamp

This AC current clamp is designed to extend the current measuring capability of a digital multimeter to 800 A AC. It is compatible with a digital multimeter that accepts shrouded 4 mm banana plugs and has an AC milliamp range.

- Current range: 100 mA to 800 A RMS AC
- Frequency range: 30 Hz to 10 kHz (-3 dB)
- Safety rating: CAT III 600 V



i400 AC Current Clamp

This high-safety current clamp for digital multimeters is a single range 400 A AC clamp that is designed to offer maximum utility in a very compact shape. The division ratio is 1000:1.

- Current range: 1 A to 400 A AC
 Frequency range: 5 kHz to 20 kHz [-3 dB]
- Safety rating: CAT IV 600 V, CAT III 1000 V



i400s AC Current Clamp

This high-safety compact current clamp with BNC output is a companion to a ScopeMeter® or Power Quality Meter to measure up to 400 A AC.

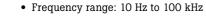
- Current range: 0.5 A to 400 A AC
 Frequency range: 5 Hz to 10 kHz (-3
- dB)
- Optional PM9081/001 Dual Banana Plug Male to Female BNC Adapter is available for digital multimeters
- Safety rating: CAT IV 600 V, CAT III 1000 V



i200 AC Current Clamp

This small-sized, single-range current clamp features safety-shrouded 4mm banana plugs. It is compatible with most Digital Multimeters and other current measurement devices that accept shrouded 4 mm banana plugs and have an AC milliamp range.

- Current range: 1 A to 200 A AC
- Frequency range: 40 Hz to 40 kHzSafety rating: CAT III 600 V
- Salety fating: CAT III 600 V



use with multimeters with

4mm banana input plugs.

i3000s AC Current Clamp

This AC current clamp is designed

as a clamp-on unit for use with

a dual banana to BNC adapter for

• Current range: 1 A to 3000 A

Oscilloscopes. It also includes

i200s AC Current Clamp

banana inputs.

switchable

This small-sized dual-range current

clamp offers voltage output using a

banana-to-BNC adapter allows the

safety-insulated BNC connector. A dual

clamp to be connected to meters with

• Current ranges: 0.1 A and 200 A AC

• Frequency range: 40 Hz to 10 kHz

• Safety rating: CAT III 600 V

i2000 Flex AC Current Clamp

hard-to-reach areas.

A AC switchable

i1000s AC Current Clamp

harmonics.

This current probe can be used to

measure currents up to 2000 A when

used in conjunction with multimeters,

recorders, or data loggers. The flexible

and lightweight measuring head allows

quick and easy installation on thick and

• Current range: 20 A, 200 A, and 2000

Frequency range: 10 Hz to 20 kHz
Safety rating: CAT III 600 V

This large AC current clamp expands

applications in industrial and power

environments by connecting directly

to an oscilloscope using a reinforced coaxial cable and an insulated BNC

connector. It is ideal for measuring

distorted current waveform RMS and

• Current range: 0.1 A to 1000 A AC

• Frequency range: 10 Hz to 100 kHz

• Accurate displays due to a passive

on rapidly-rising di/dt waveforms

• Safety rating: CAT III 600 V

filter that eliminates noise and ring

• Safety rating: CAT III 600 V



i3000s Flex-24 or -36 AC Current Clamp

i3000s Flex-24 is available in a convenient four-pack (i3000s Flex 4 Pack)

The flex clamp uses the Rogowski (aircored coil) principle and can be used to measure three ranges of currents up to 3000 A when used in conjunction with oscilloscopes, recorders or data loggers. The flexible and lightweight measuring head allows quick and easy installation in hard-to-reach areas without batteries or an external power source. This clamp fits around large conductors and is available in 610 mm and 914 mm lengths.

- Current range: 30 A, 300 A, and 3000 A switchable
- Frequency range: 10 Hz to 50 kHz
- Safety rating: CAT III 600 V



i5s AC Current Clamp

Also available in a convenient three-pack (i5sPQ3)

This compact 5 A AC clamp, specially configured to provide low-current accuracy while taking measurements on secondary current transformers, expands the use of Fluke 430 Series Three-Phase Power Quality Analyzers.

- Current range: 10 mA to 5 A
- Frequency range: 40 Hz to 5 kHz
- Safety rating: CAT III 600 V (for insulated conductors only)



i6000s Flex-24 or -36 AC Current Clamp

This AC current clamp with itsflexible and lightweight measuring head allows quick and easy installation in hardto-reach areas without batteries or an external power source. This clamp fits around large conductors and is available in both 610 mm and 914 mm lengths.

- Current range: 60 A, 600 A, and 6000 A switchable
- Frequency range: 10 Hz to 50 kHz (-3 dB)
- Safety rating: CAT III 600 V

AC/DC CURRENT CLAMPS

AC/DC Current Clamp Specifications

| | 80i-110s | i410 | i1010 | i30 | i30s | i310s |
|----------------------------------|---|---|---|---|------------------------------|---|
| DC range | 0.1 A to 100 A | 1 A to 400 A | 1 A to 1000 A | 30 mA to 30 A | 30 mA to 30 A | 0.1 A to 450 A |
| AC range | 0.1 A to 70 A | 1 A to 400 A | 1 A to 600 A | 30 mA to 20 A RMS | 30 mA to 20 A RSM | 0.1 A to 300 A |
| Accuracy | 0.1 A to 10 A; AC to 1 kHz: ±3% + 50 mA; up to 100 A add 15%; up to 20 kHz add 12% | 3.5% + 0.5 A for DC or AC (45 to 400 Hz) | 2% + 0.5 A for DC or AC (45 to 400 Hz) | ±1% of reading, ±2 mA | ±1% of reading, ±2 mA | 30 A range: 1% + 50 mA 300 A range: 1% + 300 mA |
| Bandwidth (-3 dB) | 100 kHz | 3 kHz | 10 kHz | dc to 20 kHz (-0.5 dB) | dc to 100 kHz (-0.5 dB) | dc to 20 kHz |
| Zero error adjustment | • | • | • | • | • | • |
| Maximum conductor diameter | 11.8 mm | 30 mm | 30 mm | 19 mm | 19 mm | 19 mm |
| Maximum conductor size | 35 mm ² | 1× 400 mm ² or 2× 240 mm ² | 1 × 400 mm ² or 2 × 240 mm ² | 120 mm ² | 120 mm ² | 120 mm ² |
| Output levels | 10 mV/A, 100 mV/A | 1 mV/A | 1 mV/A | 100 mV/A | 100 mV/A | 1 mV/A, 10 mV/A |
| Output cable | 1.6 meter with BNC termination | 1.2 meter with shrouded banana plugs | 1.2 meter with shrouded banana plugs | 1.5 meter with shrouded dual banana plugs | 2 meter with BNC termination | 2 meter with BNC termination and a BNC to safety shrouded banana adapter |
| Battery life | 40 hours | 60 hours | 60 hours | 30 hours | 30 hours | 30 hours |
| Warranty | One-year | One-year | One-year | One-year | One-year | One-year |
| Safety | CAT II 600 V; CAT III 300 V | CAT III 600 V | CAT III 600 V | CAT III 300 V | CAT III 300 V | CAT III 300 V |

AC/DC Current Clamp Selection Guide

| | 80i-110s | i410 | i1010 | i30 | i30s | i310s |
|---------------|---|--|---|--------------------|--|---|
| 114/115/ | 0.1 A to 100 A DC/ | 1.4 A to 400 A DC/ | 1.4 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| 116/117 | 0.1 A to 70 A AC* | 6 A to 400 A AC | 6 A to 600 A AC | 60 mA to 20 A AC | 60 mA to 20 A AC | 0.6 A to 300 A AC |
| 233 | 0.1 A to 100 A DC/ | 1.4 A to 400 A DC/ | 1.4 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 6 A to 400 A AC | 6 A to 600 A AC | 60 mA to 20 A AC | 60 mA to 20 A AC | 0.6 A to 300 A AC |
| 27 II | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 1 A to 400 A AC | 1 A to 600 A AC | 30 mA to 20 A AC | 30 mA to 20 A AC | 0.1 A to 300 A AC |
| 28 II | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.2 A to 70 A AC* | 6 A to 400 A AC | 6 A to 600 A AC | 60 mA to 20 A AC | 60 mA to 20 A AC | 2 A to 300 A AC |
| 77 IV | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 5 A to 400 A AC | 5 A to 600 A AC | 40 mA to 20 A AC | 40 mA to 20 A AC | 0.4 A to 300 A AC |
| 175/177/179 | 0.11 A to 100 A DC/ | 1.6 A to 400 A DC/ | 1.6 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.3 A to 70 A AC* | 30 A to 400 A AC | 30 A to 600 A AC | 300 mA to 20 A AC | 300 mA to 20 A AC | 3 A to 300 A AC |
| 1577/1587 | 0.1 A to 100 A DC/ | 1.2 Å to 400 Å DC/ | 1.2 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| FC | 0.3 A to 70 A AC* | 30 Å to 400 Å ÅC | 30 A to 600 A AC | 300 mA to 20 A AC | 300 mA to 20 A AC | 3 A to 300 A AC |
| 83V/88V | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 1 A to 400 A AC | 1 A to 600 A AC | 30 mA to 20 A AC | 30 mA to 20 A AC | 0.1 A to 300 A AC |
| 87V | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.2 A to 70 A AC* | 20 A to 400 A AC | 20 A to 600 A AC | 200 mA to 20 A AC | 200 mA to 20 A AC | 2 A to 300 A AC |
| 287/289 | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 1 A to 400 A AC | 1 A to 600 A AC | 30 mA to 20 A AC | 30 mA to 20 A AC | 0.1 A to 300 A AC |
| 123/124 | 0.1 A to 100 A DC/ 0.25 A to 70 A AC | 1 A to 400 A DC/ 25 A to 400 A AC** | 1 A to 1000 A DC/ 25 A to 600 A AC** | | 30 mA to 30 A DC/ 250 mA to 20 A AC | 0.1 A to 450 A DC/ 2.5 A to 300 A AC |
| 190 Series II | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC | 5 A to 400 A AC** | 5 A to 600 A AC** | 50 mA to 20 A AC** | 50 mA to 20 A AC | 0.5 A to 300 A AC |
| 8808A | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 2 A to 400 A AC | 2 A to 600 A AC | 30 mA to 20 A AC | 30 mA to 20 A AC | 0.2 A to 300 A AC |
| 8845A/8846A | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 30 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.1 A to 70 A AC* | 1 A to 400 A AC | 1 A to 600 A AC | 30 mA to 20 A AC | 30 mA to 20 A AC | 0.1 A to 300 A AC |
| 705/707 | 0.1 A to 100 A DC, | 4 A to 400 A DC, | 4 A to 1000 A DC, | 40 mA to 30 A DC, | 40 mA to 30 A DC, | 0.4 A to 450 A DC |
| | no AC* | no AC | No AC | no AC | no AC | no AC |
| 715 | 0.1 A to 100 A DC, | 4 A to 400 A DC, | 4 A to 1000 A DC, | 40 mA to 30 A DC, | 40 mA to 30 A DC, | 0.1 A to 450 A DC |
| | no AC* | no AC | No AC | no AC | no AC | no AC |
| 787B/789 | 0.1 A to 100 A DC/ | 1 A to 400 A DC/ | 1 A to 1000 A DC/ | 30 mA to 30 A DC/ | 3 mA to 30 A DC/ | 0.1 A to 450 A DC/ |
| | 0.2 A to 70 A AC* | 20 A to 400 A AC | 20 A to 600 A AC | 200 mA to 20 A AC | 200 mA to 20 A AC | 2 A to 300 A AC |

* Requires PM9081 Adapter ** Requires PM9082/001 Adapte



AC/DC Current Clamps



i410 AC/DC Current Clamp

This battery-powered Hall-effect probe measures 1 A to 400 A with large-claw clamp that gives access to difficult-toreach areas. It is compatible with most multimeters and other devices that measure AC and DC current and accepts shrouded 4 mm banana plugs.

- On/Off LED indicator
- AC and DC current range: 1 A to 400 A
- Frequency range: DC to 3 kHz
- Safety rating: CAT III 600 V



i410-KIT AC/DC Current Clamp and Carry Case Kit

This special-value kit for electrical professionals adds AC and DC current measurement capabilities to a digital multimeter. A roomy carrying case holds a meter and the current clamp plus test leads, probes and manuals. Kit includes:

- i410 AC/DC Current Clamp
- C116 Soft Carrying Case



i1010 AC/DC Current Clamp

This clamp measures both AC and DC currents with a large-jaw, battery-powered Hall-effect probe that gives access to difficult-to-reach areas. It is compatible with most Fluke multimeters and any other devices that measure AC and DC current and accept shrouded 4 mm banana plugs.

- On/Off LED indicator
- AC current range: 1 A to 600 A AC
- DC current range: 0.5 A to 1000 A DC
- Frequency range: DC to 10 kHz
- Safety rating: CAT III 600 V RMS



i1010-Kit AC/DC Current Clamp and Carry Case Kit

This special-value kit for electrical professional adds AC and DC current measurement capabilities to a digital multimeter. A roomy carrying case holds a meter and the current clamp plus test leads, probes and manuals. Kit includes:

- i1010 AC/DC Current Clamp
- C116 Soft Carrying Case

i30 AC/DC Current Clamp

current measurement

(-0.5 dB)

Based on Hall-effect technology, this

used in conjunction with multimeters,

recorders and other suitable recording

instruments for accurate non-intrusive

• AC current range: 30 mA to 20 A RMS

• DC current range: 30 mA to 30 A

• Frequency range: DC to 20 kHz

• Safety rating: CAT III 300 V

i30s AC/DC Current Clamp

Based on Hall effect technology, this

with ScopeMeter[®] and other suitable

recording instruments for accurate non-

• AC current range: 30 mA to 20 A RMS

AC and DC current. It may be used

• DC current range: 30 mA to 30 A

• Frequency range: DC to 100 kHz

intrusive current measurement.

• Safety rating: CAT III 300 V

battery-powered clamp measures both

battery-powered clamp measures

both AC and DC current. It may be



i310s AC/DC Current Clamp

Based on Hall-effect technology, this battery-powered clamp measures both AC and DC current. This clamp is especially useful for current measurements on inverters, switching power supplies, industrial controllers, automotive diagnostics, and other applications requiring current measurements and/or waveform analysis.

- AC current range: 0.1 A to 300 A
- DC current range: 0.1 A to 300 A
- Frequency range: DC to 20 kHz
- Safety rating: CAT III 300 V



80i-110s AC/DC Current Clamp

This clamp is compatible with ScopeMeters[®], power harmonics analyzers, multimeters, and other voltage measurement devices that have BNC input connectors.

- AC current range: 0.1 A to 70 A
- DC current range: 0.1 A to 100 A
- Frequency range: DC to 100 kHzOptional PM9081/001 Dual Banana
- Optional PM9087/001 Dual Banana Plug Male to Female BNC Adapter is available for digital multimeters
 Safar actions: CMT II COO M
- Safety rating: CAT II 600 V

Did you know?

Does your current probe read zero current when you clamp it around a power cord?

That's because the power cord has both the hot and neutral current carrying wire in it. If both wires are in the jaws of the clamp meter, the fields cancel each other out, and the current clamp will read nothing. You need to put just one current-carrying conductor in the jaw of the current clamp. If you don't have access to the separate wires within the cord, use a line splitter tool to avoid breaking the circuit.

CASES. HOLSTERS & HAN

| Fluke Tool | 110/114/115/116/117 | 175/177/179 | 287/289 | 27 II/28 II | 61 | 72 IV | 83V/87V/88V | 233 | 287/289 | 323/324/325 | 373/374/375/376/902 | 353/355 | 365 | 393 FC | 1503/1507/1577/1587 | 9040/9062 | 430/173X/174X Series | 120B Series | 190 Series | 51/52/53/54 II | 561 | 570 Series | 705/707 | 712/714/715/717 | 718 | 724/725/726 | 753/754 | 787B | 789 | 922 | 971 | T5/T6/T+/T+Pro | T90/T110/T130/T150 |
|-----------------|---------------------|-------------|---------|-------------|----|-------|-------------|-----|---------|-------------|---------------------|---------|-----|--------|---------------------|-----------|----------------------|-------------|------------|----------------|-------|------------|---------|-----------------|-----|-------------|---------|------|-----|-----|-----|----------------|--------------------|
| Soft Cases | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C23 | • | | _ | | • | • | | • | | • | | | | | | | | | | | | | | | | | | | | • | • | | |
| C25 | • | • | | • | | • | • | • | | • | | | | | • | • | | | | • | | | | • | | | | • | • | • | • | | |
| C33 | | | | | | • | | | | • | • | | | | | | | | | | | | | | | | | • | | | | • | |
| C35 | • | • | | • | | • | • | • | | | | | | | • | | | • | | • | | | • | • | • | - | | • | • | • | | | |
| C43 C50 | • | | | | | | | • | | | | • | | | | | | • | | • | | | | | • | • | | | | | | | |
| C30 | • | | | | | | | | | | | | For | mult | inle | test | lead | and | l acc | esso | ries | | | | | | | | | | | | |
| C90 | | • | | | | • | | | | | | | 101 | mun | ipic | lost | louu. | and | | | 105 | | | | | | | | | • | | | |
| C115 | • | • | | • | | • | • | • | | | | | | | • | | | • | | • | | | • | • | • | • | | • | • | | | | |
| C116 | • | • | • | | | • | • | • | | | | | | | • | | | • | | • | | | • | • | • | • | | • | • | | | | |
| C150 | | | | | | • | | | | • | • | | | | | | | | | | | | | | | | | • | | | | • | • |
| C280 | • | • | | | | • | • | • | | | | | | | • | | | • | | • | | | • | • | • | • | | • | • | | | | |
| C345 | | | | | | | | | | | | For | mul | tiple | met | ers, t | est l | eads | and | acce | essor | ies | | | | | | | | | | | |
| C550 | | | | | | | | | | | | For | mul | tiple | met | ers, t | test l | eads | and | acce | essor | ies | | | | | | | | | | | |
| C781 | | | • | | | | | | | | | | | | • | | | • | | | | | | | • | • | • | | • | | | | |
| C789 | | | | | | | | | | | | | | | | | | • | | | | | | | • | | • | • | • | | | | |
| Hard Case: | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C101 | | • | | • | • | | • | • | • | • | • | | | | • | • | | | | • | | | • | • | • | • | | • | • | | • | | • |
| C11XT | • | • | _ | • | | | | | | • | | | | | | | | | | | | | | | | | | | | | | | |
| C37XT | • | • | | • | | | • | • | | • | • | | | • | • | | | | | | | | | | | • | | • | • | | | • | |
| CXT80 CXT170 | • | • | | • | | | • | • | | | | | | | • | | | | | | | | | • | | | | • | • | | | | |
| CXT170 | • | • | • | | | • | | | | | | | | | • | | | | | • | | | | • | | | | • | • | | | | |
| CXT1000 | | | • | | | | | | | | | For | mul | tiple | mete | ers a | cces | sorie | s and | d oth | er to | ols | | | | | | • | • | | | | |
| C1600 | | | | | | | | | | | | | | - | | | | | | d oth | | | | | | | | | | | | | |
| Leather Ca | ses | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C510 | | • | | | | • | • | | | | | | | | • | | | | | • | | | | • | | • | | • | • | | | | |
| C520A | | | | | | | • | | | | | | | | | | | | | | | | | | | | | | | | | • | |
| H80M | | | | | | | | | | | | | | | | | | | | | | | | | | | | • | | • | | | |
| Holster | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| НЗ | | | | | | | | | | • | • | | | | | | | | | | | | | | | | | | | | | | |
| Н5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | • | |
| H15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | T+/T +Pro | • |
| Hangers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ToolPak | • | • | | | | • | • | • | • | | | | | | | • | | | | • | | | | 715 | | • | | | • | | | | |

ELUKE

Accessories

FLUKE

NUBLIC AND A DIST OF C



Cases, Holsters and Hangers

Soft Cases



C25 Large Soft Case for DMMs Zippered carrying case with padding and inside pocket for holding accessories.

- Made of polyester
- Dimensions (HxWxD): 218 × 128 × 64 mm $(8.6 \times 5 \times 2.5 \text{ in})$



C33 Soft Carrying Case

Zippered carrying case with durable vinyl exterior and belt loop. Inner pocket stores test leads and small accessories.

• Made of polyester • Dimensions (HxWxD): 280 × 115 × 55 mm $(11 \times 3.6 \times 2 \text{ in})$



C35 Soft Carrying Case

Case top opens laterally to allow use of test tool without removing it from the case and includes a Velcro[™] strap to secure the tool.

- Made of durable polyester 600D
- Dimensions (HxWxD): 220 × 140 × 65 mm $(8.6 \times 5.5 \times 2.5 \text{ in})$



C43 Soft Carrying Case

Zippered carrying case includes inner front pocket with closure and two pockets to store test leads or small accessories.

• Made of durable polyester 600D • Dimensions (HxWxD): 318 × 230 × 90 mm (12.5 × 7.5 × 3.5 in)

Fluke Accessories

160



C50 Meter Case

Zippered and padded case featuring an inside strap as well as a belt loop for convenient carrying. Also includes an inside pocket for holding accessories.

• Made of polyester • Dimensions (HxWxD): 192 × 90 × 38 mm $(7.56 \times 3.5 \times 1.5 \text{ in})$



C60 Accessory Case

The Fluke C60 is a soft case compatible with many Fluke test tools including: T6 and T5 Series, T+/T+PRO, 110 Series, 170 Series.

 Made of polvester • Dimensions (HxWxD): 379 × 206 × 79 mm (14.9 × 8.1 × 3.1 in)



C75 Accessory Case

Zippered carrying case designed for carrying small accessories. Includes two inside pockets.

- · Made of polyester • Dimensions (HxWxD):
- 179 × 103 × 26 mm $(7 \times 4 \times 1 \text{ in})$



C115 Soft Carrying Case

Includes two padded pockets for protection of two test tools, and a pouch for test leads and other accessories

• Made of durable polyester 600D • Dimensions (HxWxD): 240 × 205 × 75 mm $(9.4 \times 8 \times 3 \text{ in})$



C116 Soft Carrying Case

Provides adjustable padded space with a moveable Velcro[™] divider.

- Made of durable polyester 600D
- Dimensions (HxWxD): 240 × 230 × 65 mm
- (9.4 × 9 × 2.5 in)



C150 Soft Carrying Case

Zippered carrying case with inner pocket for storing test leads and small accessories

• High quality 1000D fabric • Dimensions (HxWxD): 298 x 114 x 56 mm (11.7 x 4.5 x 2.2 in)



C280 Soft Case

Designed especially for larger format test tools. Includes detachable, extendable shoulder strap and an inner front pocket with closure and dual pouch pockets for test tools and accessories

- Made of durable polyester 600D
- Dimensions (HxWxD): 230 × 185 × 65 mm (9 x 7.3 x 2.5 in)



C345 Soft Case

The perfect case for carrying a wide range of Fluke handheld test tools and accessories. Includes an elastic accessory strap and mesh accessory retainer as well as an outer pouch, outer zipper packet and two slash pockets for convenient accessory storage.

- Made of durable polyester 600D
- Dimensions (HxWxD): 360 × 200 × 240 mm (14.2 x 7.8 x 9.4 in)

Cases, Holsters and Hangers



Pack30 Professional Tool Backpack

- · Lightweight take the load off your back
- Rugged, waterproof bottom base protects your tools and keeps them upright
- Over 30 pockets in six main storage compartments



C550 Tool Bag

Rugged, weather-resistant tool bag, features a large 25 pocket storage compartment and steel-reinforced frame.

• Dimensions (HxWxD): 333 × 513 × 231 mm $(13.1 \times 20.2 \times 9.1 \text{ in})$



NEW

TB25 Tool Bucket Organizer Bag Tool bucket with a 5.2-gallon capacity, hard exterior shell, and plastic waterproof base

• 19 interior and 9 exterior pockets • Dimensions (HxWxD): 425 × 305 × 330 mm $(16.7 \times 12 \times 13 \text{ in})$



C570 Soft Case

- Designed specifically for the Fluke 560 and 570 Series Infrared Theremometers
- Dimensions (HxWxD): 240 × 89 to 170 × 56 mm $(9.4 \times 3.5 \text{ to } 6.7 \times 2.2 \text{ in})$



C195 Soft Carry Case

- · Zippered with multiple storage compartments & shoulder strap
- Dimensions (HxWxD): 513 × 331 × 231 mm (16.7 × 12 × 13 in)



C125/C781 Meter Case

Zippered case, designed for carrying a meter as well as a detachable external pouch for holding test leads.

- Made of durable polyester 600D
- Dimensions (HxWxD): 269 × 141 × 90 mm (10.6 × 5.5 × 3.5 in)

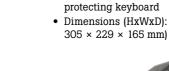
C789 Meter and Accessory Case Large carrying case with three compartments, removable handle, and shoulder strap. Holds a meter and multiple accessories.

 Made of durable polyester 600D • Dimensions (HxWxD): 308 × 256 × 77 mm $(12.1 \times 10 \times 3 \text{ in})$



C799 Soft Field Case

For use with Fluke 750 Series Documenting Process Calibrators · Allows instrument to be operated inside case with clear front





C101 Hard Case

Tough polypropylene case with configurable diced foam interior to store and protect tools and accessories. Exterior dimensions (HxWxD):

305 × 360 × 105 mm $(12 \times 14.2 \times 4.1 \text{ in})$

Hard Cases



C290 Hard Shell Protective Carry Case

For use with Fluke 190 Series II ScopeMeters[®]

• Dimensions (HxWxD): 378 × 487 × 147 mm (14.88 × 19.17 × 5.78 in)

C1600 Gear Box



Accessories





305 × 229 × 165 mm) (12 × 9 × 6.5 in)







A rugged, molded plastic case with a deep interior and lift-out tray. • Includes five hook and loop straps to wrap cords and test leads • Dimensions (HxWxD): 260 × 390 × 200 mm (10.2 × 15.3 × 7.8 in)



C11XT EVA Foam Hard Case

NEW

NEW

Includes a large pocket on one side for multiple accessories and a mesh pocket on the other side for one test tool.

- For use with 11x and 17x multimeters, and 32x clamp meters
- Dimensions (HxWxD): 240 x 155 x 105 mm $(9.4 \times 6.1 \times 4.1 \text{ in})$



C37XT EVA Foam Hard Case

Features a divider with elastic straps to hold one test tool, with two pockets and straps for accessories. Also includes space to secure an iFlex[™] probe.

• Dimensions (HxWxD): 397 × 346 × 122 mm (15.6 × 13.6 × 4.8 in)



CXT Extreme Case Series

- CXT1000: for multiple meters, accessories and other test tools (Dimensions (HxWxD):
- 343 mm × 465 mm × 178 mm • CXT1000 features a diced foam interior for custom storage configuration
- Unbreakable, watertight, airtight, dust proof, chemical resistant and corrosion proof
- CXT80: for use with 87V, 80 Series, 187/189, 27 II/28 II series
- CXT170: for use with 170 Series. 114/115/116/117, 77 III, and 77 IV
- CXT280: for use with 287 or 289 • Dimensions (HxWxD):
- 279 × 318 × 127 mm $(11 \times 12.5 \times 5 \text{ in})$

Leather Cases



C510 Leather Meter Case

Rugged leather case features a large belt loop and a top flap to secure the tool. Made of top-grain cowhide with heavy-duty stitching and reinforced rivets.

• Dimensions (HxWxD): 287 × 179 × 106 mm $(11.3 \times 7 \times 4.2 \text{ in})$



Holsters, Hangers and Light Kits

Holsters



H5 Electrical Tester Holster

Rugged fabric holster designed to hold Fluke T3 and T5 Electrical Testers. It features a built-in belt loop and flap for test lead storage.

• Dimensions (HxWxD): $192 \times 90 \times 38 \text{ mm} (7.5 \times 3.5 \times 1.5 \text{ in})$



HT6 Holster

For use with models T6-600 and T6-1000

• Flap for test lead storage and built-in belt loop



H15 Electrical Tester Holster

Rugged fabric holster designed to hold Fluke T90. T110. T130 and T150 Two-Pole Testers.

- High quality 1000D fabric
- Dimensions (HxWxD): $279 \times 92 \times 51 \text{ mm} (11 \times 3.6 \times 2 \text{ in})$



H80M Protective Holster with Magnetic Hanging Strap

Convenient snap-on holster with a magnetic hanging system enables hands-free work while protecting digital multimeters or calibration tools.

- Includes a hanging magnet, general purpose hanger, and hook/loop straps
- Dimensions (HxWxD): $190 \times 95 \times 43 \text{ mm} (7.5 \times 3.7 \times 1.7 \text{ in})$



TPAK ToolPak™ Magnetic Meter Hanger

Hang your meter in a variety of ways for convenient hands-free operation.

Attaches to the back of many Fluke meters, including 110, 170, 180, 280 Series, 83V and 87V DMMs, 724, 725 and 789 Process Calibrators, 70 Series III DMMs. 1503, 1507, 1577 and 1587 FC Insulation Multimeters and 50 Series II Digital Thermometers.

Lights

Hangers



L200 Probe Light

Small, rugged light that easily attaches to any Fluke test probe, illuminates the contact area and frees hands for work.

- Bright white LED with 120 hours of battery life
- Two 3 V watch batteries included



L205 Mini Hat Light

Rugged, high-intensity Xenon work light with pre-focused optical-quality reflector attaches to a baseball cap to allow hands-free work.

- · Includes waterproof ABS case that won't crack or chip
- Two AAA batteries included



L206 Deluxe LED Hat Light

Attach this water-resistant light to a hard hat, a baseball hat, or even a panel door for hands-free bright light where needed. Includes a 360° rotating clip, special hard-hat attachment, and neck lanyard.

(Hat not included).

- Three LEDs with 40-hour battery life
- Three AAA battery included



L210 Probe Light Kit

Two probe extenders 20 cm fit modular test probes and keep hands away from live circuits. Ultra-bright white LED provides 120 hours of battery life. Kit includes:

- L200 Probe Light
- SureGrip™ test probe extenders
- Two 3 V watch batteries included
- · Probe extenders safety rating: CAT III 1000 V, 10 A



L211 Probe Light Kit

This special-value combo pairs the new L200 Probe Light with one of the most popular test leads by Fluke and a handy carrying case. Probe light attaches to any Fluke test probe to free both hands for work. Kit includes:

- L200 Probe Light
- TL71 Premium Test Lead Set
- C75 Accessory Case



L215 SureGrip[™] Kit with Probe Light and Probe Extender

Kit includes:

- L200 Probe Light • SureGrip[™] Test Probe Extenders,
- 20 cm • TP220 SureGrip[™] Industrial Test
- Probes TL224 SureGrip[™] Insulated Test
- Leads
- · Foldable pouch with six pockets and hook & loop closure
- · Safety rating:
- TP220: CAT II 1000 V, 10 A.
- (CAT III 1000 V, CAT IV 600 V with protective cap)
- TL224: CAT III 1000 V, CAT IV 600 V,
- 10 A
- Probe extenders: CAT III 1000 V, 10 A

ER ACCESSORIES

High Frequency



12.000



85RF High Frequency Probe

Converts a DC voltmeter with an input impedance of 10 megohms into a high frequency (100 kHz to 500 MHz) RF voltmeter

- Voltage range: 0.25 V to 3 V AC RMS
- Maximum input: 30 V RMS, 200 V DC
- AC to DC ratio: 1:1
- · Ratio accuracy at 25 MHz and loaded with 10 $M\Omega$

Fiber Optics



FOM Fiber Optic Meter

Allows testing and maintenance of fiber optic cables without buying a new meter. It plugs directly into any digital multimeter with mV DC function and and accurately verify fiber optic cable system loss.

- Wavelengths: 1550, 1300, 850 & nm
- · Light sources sold separately



FOS-850 and FOS-850/1300 Fiber **Optic Light Source**

Both of these fiber optics accessories are designed to offer a variety of light sources for testing different cable lengths.

• Wavelengths: FOS-850: 850 nm: FOS-850/1300: 850 and 1300 nm





software. · Small adapter to connect the cable to the 189, 287, 289, 1653B or the 1550C is included

Stray voltage can appear in electrical installations, due to the capacity between wires. This may result in erroneous readings on high impedance meters. The SV225 solves this without compromising safety.

a 10 M Ω input impedance to quickly

spacing

• Safety rating: CAT III 1000 V, CAT IV 600 V

Fluke ConnectTM



Included with FVFSC2 and FVF-Basic



• On energized wires, the meter will indicate the real voltage On non-energized circuits the meter will read close to zero (even if there are stray voltages) · Can be used on all meters with standard 19mm (0.75 in) input

Note: This adapter should not be used on lowvoltage control circuits or where the circuit under test could be adversely-affected by this low impedance load. The adapter is designed to handle continuously-applied power system voltages without damage. However, this adapter is intended to be used intermittently to determine whether a circuit is energized.



ir3000 FC Connector for Fluke Connect[™]

- Get all the benefits of the Fluke Connect[™] app, and be on the same page, even while in different places • Wirelessly share measurements with
- your team-anywhere, anytime • Connect the Fluke 289/287
- Multimeters, Fluke 1550C/1555 Insulation Testers and Fluke 789 ProcessMeter[™] with the ir3000 FC



PC3000 Wireless PC Adapter

- Fluke PC3000 FC Adapter and software
- Must be connected to the USB port in order to enable communication between FC modules and software.
- SW3000 supports up to two PC3000 FC Adapters



FLUKE



AUTOMOTIVE ACCESSORIES



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BP880 BNC to Female Double Stacking Banana Plug

Converts a BNC scope lead to a dual banana plug for connection to a digital multimeter to provide hands-free testing in controlled voltage environments.

- Voltage range: up to 500 V AC RMS
- 4 mm banana plug is nickel-plated, beryllium copper for low contact resistance



BP881 BNC to Male Double Stacking Banana

Easily connects a digital multimeter to a BNC patch cord to provide handsfree testing in controlled voltage environments. This adapter connects accessories that have a male BNC output.

- Voltage range: up to 500 V AC RMS
- 4 mm banana plug is nickel-plated, beryllium copper for low contact resistance



TL28A Automotive Test Lead Set

Silicone-insulated test leads (red, black) with large, solid copper alligator clips with 12.7 mm opening and serrated teeth.

• 1.5 m test leads

164

• Safety rating: 30 V, 10 A



TL82 Automotive Pin and Socket Adapter Set

This collection of male and female adapters provides firm connection to pin-and-socket connectors. Rated to 60 V DC. Set includes:

- Two retractable shrouded test leads (red, black) 1.2 m
- Eight pin-and-socket adapters with flexible tips (red, black):
- Size 22 contact 0.76 mm, rated 5 A
- Size 20 contact 1.02 mm, rated 7.5 A
- Size 16 contact 1.60 mm, rated 13 A - Size 12 contact 2.36 mm, rated 23 A

Fluke Accessories



TLK281 SureGrip[™] Automotive Test Lead Kit

Sharp stainless steel probes can be used to contact the wire conductor or pinpoint tests on a circuit or relay while the large-jaw alligator clips ensure a good ground on the engine or connection to battery terminals. Rated to 60 V DC. Kit includes:

- TP81 Insulation Piercing Clip Set
- TL224 SureGrip[™] Insulated Test
- Leads • TP220 SureGrip[™] Industrial Test
- Probes • AC220 SureGrip™ Alligator Clips
- AC285 SureGrip[™] Alligator Clips
 Soft case



TLK282 SureGrip[™] Deluxe Automotive Test Lead Kit

This kit includes everything in the TLK281 Kit plus a few extras. The back probe pins slide past weatherpack connectors on fuel injectors, TPS, and MAP sensors. A hook probe with plunger actuation allows quick connection to pins or exposed conductors. Rated to 60 V DC. Kit includes:

- TP81 Insulation Piercing Clip SetTP40 Automotive Back Probe Pins
- (five)
 TL224 SureGrip™ Insulated Test
- Leads
- TP220 SureGrip™ Industrial Test Probes
- AC220 SureGrip™ Alligator Clips
 AC285 SureGrip™ Alligator Clips
- AC280 SureGrip™ Hingator Clips
 AC280 SureGrip™ Hook Clips
- Soft Case



TP40 Automotive Back Probe Pins

Flexible and formable 31-75 mm pins provide an easy connection past weather-pack seals to connector conductors. These five pins are a must-have for fuel injectors, TPS, and MAP sensors, as well as for any underhood or under-vehicle connector with weather-pack seals.

- 4 mm banana jack accepts digital
- multimeter and banana jack leads
- Easily connects to modular leads
- Rated to 60 V DC



TP81/TP82 Insulation Piercing Clip Set

Two stainless steel probes (red, black) pierce insulation on 14, 16 and 18 gauge wire. Needle depth can be controlled to minimise insulation damage. Essential for use under hood or under dash. Can be used on fuel injectors or sensors while providing complete insulation to grounding. Probe connects to a banana jack that accepts all digital multimeter and banana jack leads (such as the TL224 SureGrip[™] Insulated Test Leads).

- TP81 has non-rotating 4 mm banana jack to prevent leads from tangling
- Rated to 60 V DC
- TP82 is for use with test leads with 2 mm probes



TP88 Rigid Back Probe Pins

Better than a test probe alone, these rigid back probe pins easily pass between a weather-pack seal and wire. A sharp point ensures good contact to the electrical connector, and insulation protects the pin from shorting to other wires. Rated to 60 V DC

- Slides onto 2 mm test probes
- Probe length: 51 mm



RPM80 Inductive Pick-Up/ External Trigger

- Provides RPM measurement capability when clipped on spark plug wire
- For use with Fluke 88 Series and 78 Series Digital Multimeters.

PORTABLE OSCILLOSCOPE ACCESSORIES

Compatibility Chart

Voltage Probes

VPS41 Voltage Probe Set 10:1, 40 MHz, Bl (Black)

VPS410-II-X Ind. Voltage Probe 10:1, 500 MHz, × = B (Blue), G (Grey), R (Re VPS421-X High working voltage ruggedized probe set, 100:1, 150 MHz, x= B (Blue), G (Grey), R (Red) or V (Green)

VPS210-X Voltage Probes, 200 MHz, R (Red), G (Grey)

STL120-IV Shielded Test Lead Set 1:1, B (Blue) & R (Red)

Probe Accessories

AS400 Probe Accessory Extension Set 1

RS400 Probe Accessory Replacement Set for VPS400 Series Voltage Probes

RS500 Probe Accessory Replacement Set for VPS510 Series Voltage Probes

AC Current Clamps

i3000s AC Current Clamp

i3000s Flex-24/36 AC Current Clamp, 610 mm (24 in. and 36 in.)

i1000s AC Current Probe

i400s AC Current Clamp

i200s AC Current Clamp

i5s AC Current Clamp

AC/DC Current Clamps

80i-110s AC/DC Current Clamp

i1010 AC/DC Current Clamp

i410 AC/DC Current Clamp

i30s AC/DC Current Clamp

Automotive

SCC128 Automotive Troubleshooting Kit for 120 Series

SCC198 Automotive Troubleshooting Kit for 190 Series

SCC298 Automotive Troubleshooting Kit for Fluke 190 Series II

Test Lead Accessories

TOST ACUM MODESSONICS

TL175 TwistGuard™ Test Leads

Cables and Adapters

Miscellanous

700-IV Current Shunt

<code>PM9091</code> 50 Ω Coaxial BNC Cable Set (3 \times 1.5 m)

PM9092 50 Ω Coaxial BNC Cable Set (3 × 0.5 m),

BB120-II Shielded Banana to Female BNC Adapter*

EBC290 External Battery Charger for BP290 and BP291

BHT190 Break-Out Adapters for Industrial Bus Connections

* "s" version clamps require BB120-II Adapter when used with the Fluke 120B Series

HH290 Hanging Hook for ScopeMeter[®] 190-Series II

BC190/830 Mains Adapter/Battery Charger

BC430/820 Mains Adapter/Battery Charger

BP190 Rechargeable NiMH Battery Pack

BP290 Li-ion Battery Pack, 2400 mAh

BP291 Li-ion Battery Pack. 4800 mAh

OC4USB USB Interface Cable

PM9093 Male BNC to Dual Female BNC Adapter, CAT III 600 V

PM9081 Dual Banana Plug (Male) to Female BNC Adapter, CAT III 600 V PM9082 Dual Banana Jack (Female) to Male BNC Adapter, CAT III 600 V

TRM50 Coaxial Feed-through BNC Male to BNC Female Cable Terminator

| | 120B Series | 190 Series III |
|------------------|-------------|----------------|
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| ed) or V (Green) | | • |
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Portable Oscilloscope Accessories



VPS421-X High Working Voltage Ruggedized Probe

- Set includes: VPS421-X 100:1, 150MHz
- X = Red, Blue, Grey or Green
- 100:1 Voltage Probe, with safety
- shrouded 4 mm tip 1 red / black • Hook Clip for 4 mm shrouded Probe Tip (black)
- Reference Lead with 4 mm Banana Plug (black)
- Alligator Clip for 4 mm Banana Plug (2 black)
- Test Probe for 4 mm Banana Plug (black)



AS400 Probe Accessory Extension Set

For VPS400 Series Probes

- CAT III 1000 V/CAT IV 600 V
- Reference lead w/ 4 mm plug (Blk) 60 cm
- Reference lead with hook clip (Blk) 22 cm
- Large jaw probe clip (black)
- CAT II 1000 V
- 2 mm test probe for probe tip (1×, black)
- 4 mm test probe for probe tip (1×, black)



RS400 Probe Replacement Set

For VPS400 Series Probes and VPS210 Series Probes

- CAT III 1000 V/CAT IV 600 V
- 1× Probe hook clip (black)
- Ground lead w/ mini alligator clip • 2× Insulation sleeve (black)
- 30 V
- 2× Ground spring (black)



RS500 Probe Replacement Set

- For VPS510 Series Probes
- CAT II 300 V
- 1× hook clip (black)

166

- 1× ground lead with mini alligator clip
- 2× insulation sleeves for probe's
- ground contact (black) • 1× BNC to probe tip adapter (black)
- 30 V
- 2× ground browsers (black)

Fluke Accessories

• 1× insulated mini screwdriver, for probe adjustment purposes



TP920 Test Probe Adapter Set Suited for STL120 Test Leads (STL120-III.

not compatible), TL71, TL75 & TL76 Test Leads

Rated for 3 A max



PM9091 Set of 3× Coaxial Cables with BNC Connectors

- Length: 1.5 m each
- Impedance: 50 Ω • Color: 2× Red. 2× Black. 2× Grev
- Max signal voltage: 300 Vrms • Max voltage to ground: CAT III 600 V per IEC 61010-031



PM9092 Set of Coaxial Cables with **BNC Connectors**

- Length: 0.5 m each
- Impedance: 50 Ω
- Color: 1× Red, 1× Black, 1× Grey
- Max signal voltage: 300 V
- Max voltage to ground: CAT III 600 V per IEC 61010-031



PM9093 Adapter BNC (Male) to Dual BNC (Female) in T model (6)

- Color: 2× Black
- Max signal voltage: CAT III 300 V per IEC 61010-031 • Max voltage to ground: CAT III 600 V
- per IEC 61010-031



PM9081 Adapter BNC (Female) to Dual Banana Jack

- Color: 2× Red, 2× Black
- Max signal voltage: CAT III 600 Vrms per IEC 61010-031
- Max voltage to ground: CAT III 600 V / CAT II 1000 V per IEC/EN61010



PM9082 Adapter BNC (Male) to Dual **Banana** Jack

- Color: 2× red, 2× black
- Max signal voltage: CAT III
- 600 V per IEC 61010-031
- Max voltage to ground: CAT III 600 V / CAT II 1000 V per IEC/EN61010



HC120 Hook Clips

- Color: 1× red, 1× grey
- Max voltage: CAT III 600 V per IEC 61010-031
- · Nickel plated steel



BB120-II Adapter BNC (Female) to Shielded Banana Jack

- Set of 2
- Max signal voltage: CAT III 300 V per IEC 61010-031
- Max voltage to ground: CAT III 600 V per IEC 61010-031



TRM50 Coaxial Feed-through BNC (Male) to BNC (female) Cable Terminator

- Set of 2
- Impedance: 50 Ω
- Max voltage over ground:
- CAT III 1000 V
- Max power 1 W



BHT190 Bus Health Test Break-out Adapter Set

- · Board with M12 connectors (male to female, 5 pins)
- DB-9 connectors (male to female, 9 pins + shield)
- RJ-45 connector, with short patch cable providing male to female interconnection (8 pins)



EBC290 External Charger

• Power supply not included

For Fluke 120B and 190 Series II and Series III ScopeMeter[®] Oscilloscope

- Charging time (BP291): five hours, giving an operating time of up to seven hours
- DC input voltage: 15 V to 23 V, 714 mA nom. (DC input from BC190: 17.8 V / 0.84 A max)



Accessories

| i430-FLEXI-TF-II | i5sPQ3 | 3210-PR -TF-II |
|--|-------------------------------------|--|
| 4 phase 3000 A Flexible current clamp set | 3 phase 5 A Current clamp set | 1000 A Single phase flexible current clamp |
| | | • |
| • | • | |
| 3000 A | 5 A | 1000 A |
| 30 A 3000 A | 0.01 A 6 A | 0.5 A 1000 A |
| 100 kA | 70 A | 1000 A |
| 30 A | 10 mA | 0.5 A |
| 1% | 1% | $\pm 1\%$ of reading |
| 10 Hz 7 kHz | 40 Hz 5 kHz | 40 Hz 5 kHz |
| 61 cm | Clamp opening: 15 mm | 61 cm |
| 0.08 mV/A @50 Hz | 400 mV/A | 2 mV/A |
| 2.5 | 2.5 | 3 |
| CAT III 1000 V CAT IV 600 V | CAT III 600 V | CAT III 1000 V CAT IV 600 V |

POWER OUALITY ACCESSORIES

i400s

Single phase 400 A

current clamp

(4 required)

.

40 A

400 A

0.5 A ... 40 A

5 A ... 400 A

1000 A

05A

2% + 0.15 A

45 Hz ... 3 kHz

Clamp opening:

32 mm

10 mV/A

1 mV/A

2.5

CAT III 1000 V

CAT IV 600 V

Fluke i17XX-

Flex 6000A

36 IN

6000 A Single

phase flexible

current clamp

IP50

6 A to 600 A,

60 A to 6000 A

1 A ... 600 A

10 A ... 6000 A

6000 A

6 A

0.70%

40 Hz to 5 kHz

122 cm (48 in)

n/a

2

CAT III 1000 V

CAT IV 600 V

Fluke i17XX-

Flex 3000A

24 IN

3000 A Single

phase flexible

current clamp

IP50

3 A to 300 A,

30 A to 3000 A

1 A ... 300 A

10 A ... 3000 A

3000 A

ЗA

0.70%

40 Hz to 5 kHz

61 cm (24 in)

n/a

2

CAT III 1000 V

CAT IV 600 V

i3000 Flex

4PK

4 phase 3000 A Flexible

current clamp set

٠

30 A

300 A

3000 A

1 A ... 30 A

1 A ... 300 A

1 A ... 2400 A

4000 A

1 A

2% + 2 A

10 Hz ... 100 kHz

10 mV/A

1 mV/A 0.1 mV/A

2.1

CAT III 600 V

Fluke i17XX-

Flex 1500A

12 IN

1500 A Single

phase flexible

current clamp

IP50

٠

1 A to 150 A,

10 A to 1500 A

1 A ... 150 A

10 A to 1500 A

1500 A

1 A

0.70%

40 Hz to 5 kHz

30.5 cm (12 in)

n/a

2

CAT III 1000 V

CAT IV 600 V

Fluke Model

Number

Description

Fluke 1750

Range(s)

Range

Lowest Measurable

Current

Fluke 43X -II

Nominal Current

Cont. AC Current

Highest Current

Basic Accuracy

(48 ... 65 Hz)1)

Usable Frequency

Flex Head Length

Output Level(s)

Output Cable (m)

Fluke Model

Number

Description

1742/46/48

1732/34/36/38

Nominal Current

Cont. AC Current

Highest Current

Fluke

Fluke

Range(s)

Range

Lowest

Current

Measurable

Basic Accuracy

Usable Frequency

Flex Head Length

Output Level(s)

Safety Rating

Output Cable (m)

(48 to 65 Hz)

¹ Basic accuracy: % reading plus floorspec n/a = not applicable

Safety Rating

| Fluke i17XX i40s-EL Clamp- On Current Transformer | Fluke i17XX- Flex 1500A 12 IN | Fluke i17XX- Flex 3000A 24 IN | Fluke i17XX- Flex 6000A 36 IN |
|--|--|--|--|
| 4/40 A Current clamp (3 required) | 1500 A Single phase flexible current clamp IP65 | 3000 A Single phase flexible current clamp IP65 | 6000 A Single phase flexible current clamp IP65 |
| • | • | • | ٠ |
| • | | | |
| 40 mA to 4 A, 0.4 A to 40 A | 1 A to 150 A, 10 A to 1500 A | 3 A to 300 A, 30 A to 3000 A | 6 A to 600 A, 60 A to 6000 A |
| 1 A 150 A 10 A 1500 A | 1 A 150 A 10 A to 1500 A | 1 A 300 A 10 A 3000 A | 1 A 600 A 10 A 6000 A |
| 200 A | 1500 A | 3000 A | 6000 A |
| 0.04 A | 1 A | 3 A | 6 A |
| 0.50% | 0.70% | 0.70% | 0.70% |
| 40 Hz to 5 kHz | 40 Hz to 5 kHz | 40 Hz to 5 kHz | 40 Hz to 5 kHz |
| n/a | 30.5 cm (12 in) | 61 cm (24 in) | 122 cm (48 in) |
| n/a | n/a | n/a | n/a |
| 2 | 2 | 2 | 2 |
| CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V |



Power Quality Accessories

Fluke 430 Series-II



i430-FLEXI-TF-II/4PK 6000 A Thin **Flexible Current Probe**

- 6000 A current range
- 61 cm (24 in) length
- Available in single and 4 pack



i400s AC Current Clamp

400 A AC current range

- 32 mm (1.25 in) jaw size
- Optional PM9081/001 Dual Banana Plug Male to Female BNC Adapter is available for digital multimeters



I5SPQ3 5 A Current Clamp, 3 pack

- 5 A AC Current Clamp for 430 Series-II
- 15 mm (0.6 in) jaw size



TLS430 Test Lead and Alligator Clip Set

- · Test lead replacement set for the 430 Series-II
- Set includes five test leads and five alligator clips (4 black, 1 green)



WC100 Color Coding Clips and **Regional Decals**

Cable markers for 3-phase +N leads



C1740 SOFT CASE Soft Case with compartments and shoulder strap for 430 Series II



C437-II Hard Case Black waterproof case with wheels



BP290 Battery 430 Series-II Replacement Battery Pack



BP291 Battery

430 Series-II Double Capacity Replacement Battery Pack



BC430/820 Battery Charger Battery Charger for 430 Series II

Fluke 1730 & 1740 Series



I17XX-FLEX iFlex™ Current Clamps

- iFlex[™] probes connect directly to the 173X Energy or Power Logger, displaying current measurements without error, prone scaling factors
- available in 30.5, 61, and 91.5 cm (12, 24, and 36 in) models • Available to order in single, three, or

Fluke 17XX iFlex[™] cables are

four pack





IP65 rating is obtained when connected to the 1740 Series only.

- 1.5 kA 61 cm (24 in) length
- 3 kA 61 cm (24 in) length
- 6 kA 122 cm (48 in) length
- Available in single, 3 and 4 packs



3PHVL Voltage Cable Assembly

- Voltage Measurement Lead Set for
- 1730 & 1740
- Flat, four wire cable



17XX i40s-EL Clamp-on Current Transformers

- · Suitable for making measurements up to 40 A, and also measures accurately on 1 A and 5 A secondary current transformers
- The i40s-EL jaw is capable of being clamped on current conductors up to 15mm in diameter



MP1-Magnet Probe 1 Magnetic probe tips for voltage test leads with 4 mm banana connectors.

MP1-3R/1B Magnetic Voltage Probes 3 Red/1 Black Magnet Probes for 4 mm Banana



I17XX-FLEX5M-EXT Fluke 17XX IFLEXI Extension Cable 5 m



FLUKE-17XX-TL 0.2M Test Lead Set

- CAT III 1000 V, Non-Stack Conn;
- Available in:0.2 m; Red/Blk



Fluke 1730-HANGER STRAP

Two piece hanging kit for the Fluke 173X Energy or Power Logger.

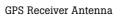


FLUKE-174X-HANGER

Hanger Kit includes strap and magnetic hanger used with 174X Series.

Image Not Availai FLUKE-174X GPS-REC

Power Quality Accessories



F17XX CABLE MARKERS Cable Marker Kit for 173X, 174X and 177x Series

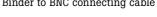


BP1730-BATTERY 173X & 174X Series Replacement Battery Pack



1730-CABLE Auxiliary Input Cable

• Input -10 V to +10 V DC





Auxiliary input adapter for 1740 Series

5 A AC current range • 15 mm (0.6 in) jaw size

I40S-PR 1750. 40 A CURRENT CLAMP

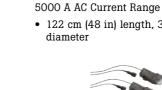
40 A AC Current Range • 15 mm (0.6 in) jaw size



4000 A AC Current Range

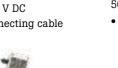


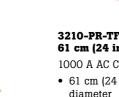
• Binder to BNC connecting cable













Fluke 1750/ET



diameter

122 cm (48in)



Accessories



• 61 cm (24 in) length, 20 cm (7.8 in)



5000 A AC Current Range • 61 cm (24 in) length, 20 cm (7.8 in)



3312-PR-TF-II 1000 A Thin FLEXI

• 122 cm (48 in) length, 38 cm (15 in)



I5S-PR 1750, 5 A Current Clamp







1750/CASE Transit Case

Rugged-hard water tight transit case with rollers

TPS FLEX 24-TF-II Thin Flexible Current Probe

200 A/1000 A AC current range

• 61 cm (24 in) length, 20 cm (7.8 in) diameter

TPS FLEX 36-TF-II Thin Flexible Current Probe

3000 A/6000 A AC current range

• 91 cm (36 in) length, 29 cm (11.4 in) diameter



TPS Clamp 10 A/1 A Clip-on Current Transformer

- Three 15 mm (0.6 in) options available
- TPS Clamp 10 A/1 A Clip-on Current Transformer – 1 A/10 A AC
- TPS Clamp 200 A/20 A Clip-on Current Transformer – 20 A/200 A AC
- TPS Clamp 50 A/5 A Clip-on Current Transformer – 5 A/50 A AC

Fluke NORMA 6000



80I-2010S Current Clamp

Measure up to 2000 A AC and/or DC on large conductors with 0.8% accuracy

• 81.5 mm (3.2 in) jaw opening

80I-2010S/3PK Current Clamp

3 pack. Measure up to 2000 A AC and/ or DC on large conductors with 0.8% accuracy.



Fluke Accessories

Fluke 805 FC Vibration Meter



805ES External Sensor Assembly

- External vibration sensor that is ideal in situations where it is either difficult or impractical to use the onboard vibration sensor tip of the 805 Vibration Meter
- Low-profile 90-degree sensor body allows the sensor to get into tight spots
- Rugged, coiled cable minimizes dangling, while stretching to more than 2.1 m (7 ft) when needed
- Powerful "U" shaped magnet mount creates a firm connection to flat, or curved measurement surfaces

Fluke 810 Vibration Tester



810QDC Quick Disconnect Cable

2.4 m (8 ft) guick-disconnect cable connects the triaxial vibration sensor



810SC-20 Sensor Cable

6.1 m (20 ft) cable connects the triaxial vibration sensor to the Fluke 810 Vibration Tester



810S Triaxial Vibration Sensor

Triaxial vibration sensor captures vibration data in all three primary axes simultaneously for faster, more accurate data collection



810SMM Sensor Magnetic Mounts

- High-power magnet attaches firmly to motors and machinery
- Parallel magnet tips engage both flat and cylindrical surfaces

170

810SMP Sensor Mounting Pads for Vibration Sensors (pack of 10)

10-pack of Sensor Mounting Pads provide standardized sensor attachment points on critical equipment.



810T Tachometer

- · Noncontact tachometer for use with the Fluke 810 Vibration Tester: to measure the speed of motors; conveyor belts; and other moving and rotational systems
- Measures from 6 to 99999 rpm with accuracy to +/-0.05%
- Takes noncontact measurements using a laser beam that works at a distance of 1 to 100 cm for user safety
- Integral 50 cm cable connects the tachometer to the vibration tester for power and measurement data recording



810PA AC Power Adapter AC power adapter with international plug set



SBP810 Smart Battery Pack

Lithium-ion battery pack provides eight hours of runtime under normal operating conditions

Fluke 830 Laser Alignment



830/SHIMS Precision Alignment Shim Kit

- Stainless steel precut shims are more accurate and designed to speed up the alignment job, when even minutes of downtime count.
- Burr-free for higher accuracy in alignment
- · Time-saving permanent thickness/ dimension marking
- · Reusable, corrosion-resistant highquality stainless steel
- Two machine foot sizes and eight thicknesses that fit almost all machine feet

PROCESS CALIBRATION ACCESSORIE

and 719PRO

71X. Hose Kit



700PTPK2 Pneumatic Test Kit

- Combine with any Fluke 700G Series Gauge, 1000 psi (69 bar) or less, to make a complete pressure testing kit
- · Generate pressure up to 600 psi, 40 bar with the 700PTP-1 Test Pump • Connect the 700G Series Gauge directly to the included PTP-1 Hand Pump



700HTPK/2 Hydraulic Test Kit

- · Combine with any Fluke-700G Series Gauge, 1000 psi (69 bar) range or greater, to make a complete pressure testing kit
- Generate pressure up to 10000 psi. 690 bar with the included 700HTP-2 Test Pump
- Connect the 700G Series Gauge directly to the HTP-2 Hand Pump



700LTP-1 Low Pressure Test Pump

- Hand-operated pressure pump designed to generate either vacuum
- to -13 psi / -0.90 bar or pressure to 100 psi / 6.9 bar
- · Has two pressure ports with quick fit connectors
- For use with Fluke 750 Series Pressure Modules and Fluke 717 Pressure Calibrators



700PTP-1 Pneumatic Test Pump

A handheld pressure pump designed to generate either vacuum to -11.6 psi/-0.8 bar or pressure to 600 psi/40 bar



700HTP-2 Hydraulic Test Pump

- Generate pressure up to 10000 psi/700bar
- Use the Fluke 700PRV adjustable relief valves to limit pressure from 1360 psi to 5450 psi

- **700ILF In-line Filter**
- Can be used to isolate the calibrator from incidental contact with fluids • Useful with the 718 Fluke Calibrator

 10000 psi, 690 bar working pressure test hose



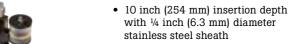
700PMP Pressure Pump

• Output fitting is 1/8 FNPT



720RTD RTD Probe

Pressure Calibrators





720URTDA Universal RTD Adapter

Fluke Universal RTD Adapter 720URTDA for Fluke 721 Precision Pressure Calibrators and Fluke 719Pro Electric Pressure Calibrators

FLUKE

Accessories



71XTrap Liquid and Dirt Trap • Works with pressure up to 500 psi • Designed to work with the Fluke 718



• Compatible with Fluke 717 and 718 Calibrators 100 psi and below · Kit contains three translucent hoses (1 m long) and one 1/8 to 1/4 NPT female-female adapter



to help keep moisture or oils from contaminating the on-board pump



700HTH-1 Hydraulic Test Hose



• Provides pressure up to 150 psi/1000 kPa



Fluke-720RTD Temperature Probe is for use with Fluke 721 Precision Pressure Calibrators and Fluke 719Pro Electric





Fluke-700TTH5K **Premium Test Hose Kit**

Easy to use premium pressure transmitter test hose kit for connection to 1/4" female metric/BSP

- 5000 psi rating
- Includes 6 mm (1/4 in) NPT connection for permanent mount to a calibrator or test pump



Fluke-700TTH10K **Premium Test Hose Kit**

Easy to use premium pressure transmitter test hose kit for use with female M20 connections

• 6 mm (1/4 in) NPT

Includes:

- One (1) 10000 psi rated, premium test hose
- Premium, no tools required M20 adapter



700-IV Current Shunt

- Conversion factor: 10 mV = 1 mA
- Accuracy (% of input, one-year): 0.02%
- Input current: 0 mA to 55 mA
- Input resistance: 250 Ω nominal
- Output resistance: 10 Ω nominal



- Consists of a relief valve settable from 725 to 5800 PSI (50 to 200 bar) to be used with the 700HTP-1 Hydraulic Test Pump
- The 3 mm (1/8 in) NPT male thread to fit directly into the Fluke 700HTP-1 Pressure Pump



BP7235 NiMH Battery Pack

- 7.2V 3500 mAh rechargeable NiMH battery pack
- Provides typical 16-hour battery life when used in 700 or 740 Calibrator
- Dimensions: 150 × 56 × 22 mm $(5.9 \times 2.2 \times 0.8 \text{ in})$
- Weight: 310 g (11 oz)



BP7240 Li-Ion Battery Pack

• Battery pack for Fluke 75X Documenting Process Calibrators



Fluke Accessories





| Models | P/N 803293 11A 1000V | 440 mA, 1000 V | 9/N 2219339 315 mA 1000V | 440 mA fuse assembly |
|---|-------------------------|----------------|-----------------------------|----------------------|
| 107, 115, 117, 233 | • | | | |
| 175, 177, 179, 83V, 87V, 287, 289. 27 II, 28 II, 88V, 77 IV, 87V MAX | • | • | | |
| 3000 FC, 1577, 1587 FC BT508, BT510, BT521 | | • | | |
| 787, 787B, 789 | | • qty 2 | | |
| 1503, 1507 | | | • | |
| 28 II Ex | • | | | • |

SOFTWARE

Take your Fluke tools even further with the ability to analyze, interrogate remotely, export and create in depth reports on your PC and smart phone via Fluke's extensive software and application library.

| Fluke Product Group | Fluke Software | Compatible Fluke Tools | Availability |
|----------------------------|---|---|------------------------------------|
| Industrial imagers and | Fluke Connect™ Desktop | PTi120 400C Pocket Infrared Camera TiS20+/TiS20+ Max/TiS55+/TiS75+/TiS60+ Ti480Pro/TiX580 Infrared Camera | Free download via www.fluke.com |
| infrared cameras | Fluke SmartView™ | Fluke VT06/08 Visual Infrared Thermometers TiS20+/TiS20+ Max/TiS55+/TiS75+/TiS60+ Ti480Pro/TiX580 Infrared Camera | Free download via www.fluke.com |
| | Fluke Baseline | Ti300/400/400+/450/401PR0/480/480PR0, TiX500/501/580/520/560 vInfrared Cameras | Free download via www.fluke.com |
| Fluke Connect™ | Fluke SW3000FC | Fluke Connect™ Modules, 3000FC DMM, 902FC, 376FC/375FC/374FC Must be used with PC3000FC USB dongle | Free download vi www.fluke.com |
| ScopeMeters™ | FlukeView™ for ScopeMeter™ | Fluke 190 Series II ScopeMeters™, Fluke 120 Series ScopeMeter™, Fluke 19xB/C Series, Fluke 2x5C Series, | Sold separately |
| - | FlukeView™2 for ScopeMeters™ (Sold as SW90W) | Fluke 190 Series III ScopeMeters™ 120B Series ScopeMeters™ MDA-510/550/550-III Motor Drive Analyzer ScopeMeter™ | Sold separately |
| | Energy Analyze Plus | Fluke 1748/1746/1742, Fluke 1738/1736/1734/1732, 1730 Power & Energy Loggers | Free download vi www.fluke.com |
| Power quality tools | PowerLog 430-II | Fluke 438-II/437-II/435-II/434-II Power Quality Analyzers | Free download vi www.fluke.com |
| Power quality tools | PowerLog Classic | Fluke 345, VR1710, 1735 and 435/434/433 Power Quality Analyzers | Free download vi www.fluke.com |
| | Power Analyzer Software | Norma 6000 Series | Free download vi www.fluke.com |
| Battery testers | Battery Management Software | Fluke BT521/BT5210/BT510 Battery Testers | Free download vi www.fluke.com |
| | DPC/TRACK2 | Fluke 754/753 Documenting Process Calibrators | Sold separately |
| Process calibration tools | 709H/Track HART™ Communications Software | Fluke 709/H Precision Loop Calibrator with HART | Sold separately |
| | 700G/Track | Fluke 700G Pressure Gauges (with Interface Cable) | Sold separately |
| Vibration and alignment | Viewer Software | Fluke 810 Vibration Tester | Free download vi www.fluke.com |
| | FlukeView™ Forms Basic FVF-SC5 (no cables included) | Software only, no cable (for all instruments listed below) | |
| | FlukeView™ Forms Basic FVF-BASIC (with USB/IR cable) | Fluke 289/287 Multimeters, 789/787B ProcessMeters™, 1555/1550B Insulation Resistance Testers, 180 Series Meters | |
| General meters and testers | FlukeView™ Forms plus Designer FVF-SC2 (with USB/IR cable) | Fluke 1664FC/1663/1662, 1654B/1653B/1653/1652C Multifunction Installation Testers, Fluke 55-II B/53-II B Thermometers | Sold separately |
| | FlukeView [™] Forms plus Designer FVF-SC4 (with USB/Serial cable) | Fluke 8846A, 8845A, 8808A, 45 Bench Digital Multimeters | |
| | FlukeView™ Forms plus Designer FVF-UG | Software only upgrade, from FlukeView™ Forms Basic to FlukeView™ Forms plus Designer | |
| Solar data management | Fluke TruTest™ Solar Data Management and Reporting Software | Fluke SMFT-1000 Multifunction PV Tester and Performance Analyzer | Sold separately www.fluke.com |





Multimeter Kits



Fluke 279 FC/iFlex™ TRMS Thermal **Multimeter Combo Kit**

- 279 FC TRMS Thermal Multimeter
- Current Probe
- TL175 Test Leads
- Rechargeable Lithium-ion Battery and Charger
- Hanging Strap



Fluke 287/289 FlukeView[™] Forms **Combo Kit**

- Fluke 287/289 True-RMS Electronics
- Logging Multimeter
- FlukeView[™] Forms Software and Cable
- 80BK-A Thermocouple Probe
- TL224 Test Leads with 175 Modular Probe Tips
- TL71 Probe Caps



Fluke 287/289 FlukeView™ Forms **Combo/ with IR Connector**

- Fluke 287/289 True-RMS Industrial Logging Multimeter
- FlukeView[™] Forms Software with Cable
- 80BK-A Thermocouple Probe
- TL71 Silicone Test Lead Set
- AC175 Alligator Clips
- C280 Soft Case
- Fluke IR 3000FC Connector
- AMP Jack Plugset



Fluke 87V/E2 Industrial Electrician Combo Kit

- Fluke 87V True-RMS Industrial Multimeter
- TL224 Silicone Test Leads

- TPAK Magnetic Hanging Kit
- 80BK-A Thermocouple Probe
- C35 Soft Meter Case



TL75 Test Lead Set

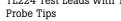
Fluke 87V Industrial Multimeter Service Kit

- Fluke 87V Industrial Multimeter
- 45.72 cm (18 in) iFlex[™] Flexible
- Soft Carrying Case



- - TL238 SureGrip[™] Test Probes

Multimeter



AC175 Alligator Clips



C280 Soft Case



Fluke 88V/A Automotive Multimeter • Fluke 88V Automotive Multimeter

- TL224 Silicone Test Leads
- AC285 Alligator Clips
- TP220 Test Probes
- RPM 80 Inductive RPM • TPAK ToolPak[™] Magnetic Meter

Holster

- Hanging Kit

- TPAK Magnetic Hanging Kit



- AC220 Alligator Clips
- TP238 Test Probes

- Thermocouple • C115 Deluxe Soft Carrying Case with Shoulder Strap

TL175 Test Lead Set

• 80PK-1 Bead Probe







• Fluke i400 400 A AC Current Clamp • 80BK-A Temperature Probe

AC175 Alligator Clip Set



Fluke 87V MAX Electrician Combo Kit

• Fluke 87V MAX True-RMS Digital

• TL224 SureGrip[™] Insulated Test Leads • AC220 SureGrip[™] Alligator Clips • ToolPak[™] Magnetic Meter Hanging Kit • 80BK-A Temperature Probe • C35 Soft Carrying Case



• 80BK-A Thermocouple Probe • Til0 Soft Carrying Case

• 9V Battery (installed) • Two Automotive Back Probe Pins • Insulation Piercing Probe



Fluke 116/323 HVAC Combo Kit • Fluke 116 HVAC Multimeter • Fluke 323 Clamp Meter

• TPAK Magnetic Hanging Kit

• 80AK-A Thermocouple Adapter • 80PK-1 Flexible Cuff Pipe Clamp



Fluke 116/62 MAX+ HVAC Technician's Combo Kit

- Fluke 116 HVAC Multimeter
- Fluke 62 MAX+ Infrared Thermometer
- TL175 Test Lead Set
- TPAK Magnetic Hanging Kit
- 80BK-A Thermocouple Probe
- 80AK-A Thermocouple Adapter
- 80PK-11 Flexible Cuff Pipe Clam Thermocouple
- C115 Deluxe Soft Carrying Case with Shoulder Strap



Fluke 117/323 Electricians **Multimeter Combo Kit**

- Fluke 117 True-RMS Multimeter
- Fluke 323 Clamp Meter
- TL175 Test Lead Set
- TPAK Magnetic Hanging Kit
- C115 Deluxe Soft Carrying Case with Shoulder Strap



Fluke 179/EDA2 Industrial **Electronics Combo Kit**

- Fluke 179 Multimeter
- 80BK-A Integrated DMM Temperature Probe
- Installed 9V Battery
- AC280 SureGrip[™] Hook Clips
- TL910 Electronic Test Probes
- TL224 SureGrip[™] Insulated Test Leads
- TPAK ToolPakTM Magnetic Meter Hanger
- Soft Carry Case



Fluke 179 Industrial Multimeter Service Kit

- Fluke 179 True-RMS Multimeter
- Fluke 323 True-RMS Camp Meter
- 80BK-A Temperature Probe
- TL75 Test Lead Set
- AC175 Alligator Clip Set



Fluke 289 Industrial Multimeter Service Kit

- Fluke 289 True-RMS Multimeter
- Fluke i400 400 A AC Current Clamp
- TL71 Flexible Silicone Test Lead Kit
- AC175 Alligator Clip Set





Multimeter Kits



Fluke 3000 FC General **Maintenance System**

- Fluke 3000 FC Series Wireless Multimeter
- Fluke v3000 Voltage Module
- Fluke v3001 Voltage Module
- Fluke a3001 FC Wireless iFlex[™] AC
- TL224, TL222, TL175 Test Leads
- AC285, AC220, AC175 Alligator Clips
- iFlex[™] i2500-10 Flexible Current Probe
- Magnetic Hanging Strap (3)
- Fluke Connect[™] Wireless PC Adapter Modular 3-Compartment Soft Carry
- Case



Fluke 3000 FC Industrial System

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3001 FC Wireless iFlex[™] AC (3)
- Fluke v3000 Voltage Module
- TL224 Test Leads
- TL175 Test Leads
- AC285 Alligator Clips
- AC175 Alligator Clips
- iFlex[™] i2500-10 Flexible Current Probe (3)
- Magnetic Hanging Strap (4)
- Fluke Connect[™] Wireless PC Adapter
- Modular 3-Compartment Soft Carry Case



Fluke 3000 FC HVAC System

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3000 FC Wireless AC • Fluke t3000 Thermocouple
- Thermometer
- TL175 Test Leads
- AC175 Alligator Clips
- 80PK-1 K-Type Bead Thermocouple
- Magnetic Hanging Strap
- Fluke Connect[™] Wireless PC Adapter
- Modular 3-Compartment Soft Carry Case



Fluke 3000 FC/1AC-II Wireless **Multimeter and Non-Contact Voltage Detector Kit**

- Fluke 3000 FC Series Multimeter
- Fluke 1AC-II VoltAlert[™] Tester
- TL224 Test Leads
- TP175 Industrial Test Probes
- AC220 Alligator Clips
- C35 Soft Meter Case

Fluke Kits

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• TPAK Magnetic Hanging Kit



Fluke 3000 FC/TPAK Wireless **Multimeter and Magnetic Hanger Combo Kit**

- Fluke 3000 FC Series Wireless Multimeter
- TL75 Test Leads
- C35 Soft Meter Case
- TPAK Magnetic Hanging Kit



Fluke 3000FC/EDA2 Combo Kit

- 3000 FC Series Wireless Multimeter
- TL910 Electronic Test Probes
- TL224 Silicone Test Leads
- AC280 Heavy Duty Hook Clips C35 Soft Meter Case
- ToolPak[™] Magnetic Hanging Kit



Fluke a3000 FC Wireless AC Current **Clamp** Kit

- Fluke 3000 FC Series Wireless Multimeter • Fluke a3000 FC Wireless AC Current
- Clamp Module • TL175 Test Leads
- AC175 Alligator Clips
- Modular 3-Compartment Soft Carry Case



Fluke a3001 FC Wireless iFlex™ AC **Current Clamp Kit**

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3001 FC Wireless iFlex[™] AC Current Module
- TL175 Test Leads
- AC175 Alligator Clips
- iFlex[™] i2500-10 Flexible Current Probe
- Magnetic Hanging Strap
- Modular 3-Compartment Soft Carry Case
- TL224 Test Leads
 - AC175 Alligator Clips AC285 Alligator Clips

Measurement Kit

• TL175 Test Leads

• TL222 Test Leads

- AC220 Alligator Clips
- Magnetic Hanging Straps (2) Modular 3-Compartment Soft

Fluke Wireless t3000 FC Temperature Kit

• Fluke 3000 FC Series Wireless Multimeter

• Fluke t3000 K-Type Thermocouple

• 80PK-1 K-Type Bead Thermocouple

• Other K-Type Temperature Probes also

Modular 3-Compartment Soft Carry Case

Fluke 3000 FC Series Wireless Multimeter

Thermometer

available

• TL175 Test Leads

• AC175 Alligator Clips

Magnetic Hanging Strap

Fluke Wireless v3000 FC

Fluke v3000 AC Voltage Module

• Modular 3-Compartment Carry Case

AC Voltage Kit

• TL175 Test Leads

• TL224 Test Leads

• AC175 Alligator Clips

AC285 Alligator Clips

• Magnetic Hanging Strap

Fluke Wireless v3001 FC

• Fluke 3000 FC Series Wireless

• Fluke v3001 DC Voltage Module

DC Voltage Kit

Multimeter

TL175 Test Leads

TL222 Test Leads

Carry Case

AC175 Alligator Clips

AC220 Alligator Clips

Magnetic Hanging Strap

• Modular 3-Compartment Soft

Fluke v3003 FC Wireless AC-DC Voltage

• Fluke 3000 FC Series Wireless Multimeter

• Fluke v3000 AC Voltage Module

• Fluke v3001 DC Voltage Module

- Carry Case



Renewable Energy Tester Kits

SOLAR:

Fluke 393 FC Clamp Meter and MC4 **Test Leads Bundle**

Fluke 393 FC Clamp, IRR1 Irradiance

- Meter, MC4 Test Leads Bundle
- Fluke 87V MAX DMM and PVLEAD1 **MC4 Test Leads Bundle**

Multimeter

Hard Case

TL224 Test Leads

Troubleshooting Kit

• TL224 Test Leads

Multimeter

Hard Case

Multimeter

Hard Case

TL224 Test Leads

C60 Soft Case

Electric Vehicle Charging Test Kits Insulation Tester Kits

FLK-FEV300/TY1 KIT

- Fluke FEV300 EV Charging Station Test Adapter
- Type 1 Connector Plug (SAE J1772)
- Fluke 87V Digital Multimeter
- Fluke TL224 Test Leads

FLK-FEV300/TY1 KIT2

• Fluke TL224 Test Leads

Electrical Tester Kits

Fluke T6-1000/PRV240FS Kit

FieldSense™

C60 Soft Case

Fluke T6-HT6-1AC Kit

H-T6 Holster

• Fluke T6-1000 Electrical Tester

• Fluke 1AC-II VoltAlert[™] Tester

• Fluke T6-1000 Electrical Tester

• Fluke PRV240FS Proving Unit with

- Fluke FEV300 EV Charging Station Test Adapter
- Type 1 Connector Plug (SAE J1772)
- Fluke 125B ScopeMeter[®]
- Fluke 87V Digital Multimeter



Kits



Fluke T6-600/62MAX+/1AC Kit • Fluke T6-600 Electrical Tester • Fluke 62MAX+ Infrared Thermometer • Fluke 1AC-II VoltAlert[™] Tester



Fluke 1587/i400 Current Clamp FC Kit • Fluke 1587 FC 2-in-1 Insulation

 Fluke i400 Current Clamp TP165X Remote Test Probe

• AC285 Alligator Clips • 80BK-A Thermocouple Probe



Fluke 1587 FC Advanced Electrical

• Fluke 1587 FC 2-in-1 Insulation

• Fluke i400 Current Clamp • Fluke 62 MAX+ Infrared Thermometer TP165X Remote Test Probe

 AC285 Alligator Clips • 80BK-A Thermocouple Probe



Fluke 1587/MDT FC Advanced Motor and Drive Troubleshooting Kit

• Fluke 1587 FC 2-in-1 Insulation Digital

• Fluke i400 Current Clamp • Fluke 9040 Phase Rotation Indicator TP165X Remote Test Probe

• AC285 Alligator Clips 80BK-A Thermocouple Probe



Fluke 1550C 5 kV Insulation Tester Kit

- Fluke 1550C Insulation Resistance
- Tester • TL1550B Alligator Clips and Test Lead Set
- TLK1550 Heavy Duty Alligator and Test Lead Set
- FlukeView[™] Forms Basic CD
- Infrared Adapter to USB Cable
- IP67 Hard Case
- AC Power Cord



Fluke 1550C Insulation Tester Kit w/ ir3000 FC

- Fluke 1550C 5 kV Insulation Tester
- Fluke ir3000 FC Connector
- · Test cables with alligator clips
- IP67 Hard Case



Fluke 1623-2 GEO Earth Ground **Tester Kit**

- Fluke 1623-2 GEO Earth Ground Tester
- GEOX Probe Cable
- EI-1623 Clamp Set
- 3 Cable Reels
- 4 Earth Ground Stakes
- C1620 Carrying Case



Fluke 1625-2 GEO Earth Ground **Tester Kit**

- Fluke 1623-2 GEO Earth Ground Tester
- GEOX Probe Cable
- EI-1623 Clamp Set
- 3 Cable Reels
- 4 Earth Ground Stakes
- C1620 Carrying Case



PLS Laser Level Kits



PLS 3R/G KIT, 3-Point Red/Green Laser Kit

- PLS 3R/G Laser Level
- PLS Canvas Pouch
- PLS BP5 Alkaline Battery Pack
- PLS FS Floor Stand
- PLS MLB Magnetic L-Bracket
- PLS R/GRT4 Red/Green Reflective Target



PLS 5R/G KIT, 5-Point Red/Green Laser Kit

- PLS 5R/G Laser Level
- PLS Canvas Pouch
- PLS BP5 Alkaline Battery Pack
- PLS FS Floor Stand
- PLS MLB Magnetic L-Bracket
- PLS Pendulum Target
- PLS R/GRT4 Red/Green Reflective Target



PLS 6R/G RBP KIT, Cross Line Red/ Green Laser Kit

- PLS 6R/G Laser Level
- PLS Canvas Pouch
- PLS RBP5 Li-ion Battery Pack
- PLS UB9 Universal Ceiling and Wall Bracket
- PLS FS Floor Stand
- PLS MLB Magnetic L-Bracket
- PLS R/GRT4 Red/Green Reflective Target
- Power Supply



PLS 6R/G RBP SYS, Cross Line and Point Red/Green Laser System

- PLS 6R/G Laser Level
- PLS Canvas Pouch
- PLS RBP5 Li-ion Battery Pack
- PLS SLD Red/Green Laser Line Detector
- PLS 60520 SLD Clamp
- PLS FS Floor Stand
- PLS MLB Magnetic L-Bracket
 PLS R/GRT4 Red/Green Reflective
- Target

Fluke Kits

Power Supply

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PLS 180R/G RBP KIT, Cross Line Red/Green Laser Kit

- PLS 180R/G Laser Level
- PLS Canvas Pouch
- PLS RBP5 Li-ion Battery Pack
 PLS UB9 Universal Ceiling and Wall Bracket
- PLS MLB Magnetic L-Bracket
 PLS R/GRT4 Red/Green Reflective
- TargetPower Supply



PLS 180R/G RBP SYS, Cross Line Red/Green Laser System

- PLS 180R/G Laser Level
- PLS Canvas Pouch
- PLS RBP5 Li-ion Battery Pack
- PLS SLD Red/Green Laser Line Detector
- PLS 60520 SLD ClampPLS UB9 Universal Ceiling and Wall
- BracketPLS MLB Magnetic L-Bracket
- PLS R/GRT4 Red/Green Reflective
- Target • Power Supply



PLS 3x360R/G Kit, Three-plane Red/ Green Laser Kit

- PLS 3x360R/G Laser Level
- PLS Canvas Pouch
- Blow Mold Case
- Power Supply
- PLS RBP5 Li-ion Battery Pack
- PLS 3x360 Magnetic L-Bracket
- PLS R/GRT4 Red/Green Reflective Target



PLS H2 KIT, Horizontal Red/Green Rotary Laser Kit

- PLS H2 Rotary Laser Level
- PLS BP10 Alkaline Battery Tray
 PLS RBP10 NiMH Rechargeable Battery Tray with BC20 Universal Charging
- PLS XLD Rotary Laser Detector
- PLS XLD Rotary L
 PLS XLD Clamp
- PLS XLD Clamp
 PLS R/GRT4 Red/Green Reflective
- Target
- PLS TPOD500 Elevator Tripod
- PLS GR16 Grade Rod



PLS H2 SYS, Horizontal Red/Green Rotary Laser System

- PLS H2 Rotary Laser Level
- PLS BP10 Alkaline Battery Tray
- PLS RBP10 NiMH Rechargeable Battery Tray with BC20 Universal Charging Cord
- PLS XLD Rotary Laser Detector
- PLS XLD Clamp
- PLS R/GRT4 Red/Green Reflective
 Target



PLS HV2R/G KIT, Manual Slope Red/ Green Rotary Laser Kit

- PLS HV2R/G Rotary Laser Level
- PLS BP10 Alkaline Battery Tray
- PLS RBP10 NiMH Rechargeable Battery Tray with BC20 Universal Charging Cord
- PLS RC2 Remote Control
- PLS XLD Rotary Laser Detector
- PLS XLD Clamp
- PLS WCB10 Rotary Wall and Ceiling Mount
 Non
- PLS R/GRT4 Red/Green Reflective Target
- PLS TPOD500 Elevator Tripod
- PLS GR16 Grade Rod



PLS HV2R/G SYS, Manual Slope Red/ Green Rotary Laser System

Tray with BC20 Universal Charging

• PLS WCB10 Rotary Wall and Ceiling

• PLS R/GRT4 Red/Green Reflective

- PLS HV2R/G Rotary Laser Level
- PLS BP10 Alkaline Battery TrayPLS RBP10 NiMH Rechargeable Battery

• PLS RC2 Remote Control

• PLS XLD Clamp

• PLS XLD Rotary Laser Detector

Cord

Mount

Target



Kits



(IKPK7)

w Side Cutter

Diagonal Cutter

Combination Plier

• RUP8 Roll Up Pouch

w Side Cutter

Diagonal Cutter

Combination Plier

• RUP8 Roll Up Pouch

w Side Cutter

Diagonal Cutter

Combination Plier

• RUP8 Roll Up Pouch

Insulated Hand Tool Kits

Fluke Insulated 7 Unit

2.5 mm. 75 mm

4 mm, 100 mm

6 mm, 125 mm

#1.75 mm

#2.100 mm

#1, 100 mm

#2.125 mm

Fluke Insulated 3 Unit

• INLP8 Insulated Long Nose /

INDC8 Insulated Heavy Duty

• INCP8 Insulated Linesman

Fluke Insulated Hand Tools

• ISLS3 Insulated Slotted Screwdriver

ISLS5 Insulated Slotted Screwdriver

• ISLS8 Insulated Slotted Screwdriver

• IPHS1 Insulated Phillips Screwdriver

• IPHS2 Insulated Phillips Screwdriver

• INLP8 Insulated Long Nose /

• INDC8 Insulated Heavy Duty

• INCP8 Insulated Linesman

Starter Kit (IKST7)

2.5 mm, 75 mm

4 mm, 100 mm

6 mm, 125 mm

#1, 75 mm

#2, 100 mm

w Side Cutter

Diagonal Cutter

Combination Plier

• RUP8 Roll Up Pouch

Pliers Kit (IKPL3)

w Side Cutter

Diagonal Cutter

Combination Plier

• RUP8 Roll Up Pouch

Screwdriver Kit (IKSC7)

• ISLS3 Insulated Slotted Screwdriver

ISLS5 Insulated Slotted Screwdriver

ISLS8 Insulated Slotted Screwdriver

• IPHS1 Insulated Phillips Screwdriver

• IPHS2 Insulated Phillips Screwdriver

• ISQS1 Insulated Squared Screwdriver

ISQS2 Insulated Squared Screwdriver

Fluke Pack30 Professional Tool Backpack + Insulated Hand Tools Kit

Fluke Pack30 Professional Backpack
ISLS3 Insulated Slotted Screwdriver
ISLS5 Insulated Slotted Screwdriver
ISLS8 Insulated Slotted Screwdriver
IPHS1 Insulated Phillips Screwdriver
IPHS2 Insulated Phillips Screwdriver
INLP8 Insulated Long Nose /

• INDC8 Insulated Heavy Duty

• INCP8 Insulated Linesman



Fluke T6-1000 Electrical Tester + Insulated Hand Tools Kit (IBT6K)

Fluke T6-1000 Electrical Tester
ISLS3 Insulated Slotted Screwdriver
ISLS5 Insulated Slotted Screwdriver
ISLS8 Insulated Slotted Screwdriver
IPHS1 Insulated Phillips Screwdriver
IPHS2 Insulated Phillips Screwdriver
INLP8 Insulated Long Nose /

• INDC8 Insulated Heavy Duty

• INCP8 Insulated Linesman



Fluke 117 Electrician's Multimeter + Insulated Hand Tools Kit (IB117K)

Fluke 117 Electrician's Multimeter
ISLS3 Insulated Slotted Screwdriver
ISLS5 Insulated Slotted Screwdriver
ISLS8 Insulated Slotted Screwdriver
IPHS1 Insulated Phillips Screwdriver
IPHS2 Insulated Phillips Screwdriver
INLP8 Insulated Long Nose /

• INDC8 Insulated Heavy Duty

INCP8 Insulated Linesman



Fluke 87V Industrial Multimeter + Insulated Hand Tools Kit (IB875K)

- Fluke 87V Industrial MultimeterISLS3 Insulated Slotted Screwdriver
- ISLSS Insulated Slotted Screwdriver
 ISLS5 Insulated Slotted Screwdriver
- ISLSS Insulated Slotted Screwdriver
 ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



Fluke 376 FC True-RMS Clamp Meter + Insulated Hand Tools Kit (IB376K)

- Fluke 376 FC AC/DC Clamp Meter
- iFlex[™] Flexible Current Probe
- TPAK Magnetic Hanging Strap
- TL75 Test Leads
- ISLS3 Insulated Slotted Screwdriver
- ISLS5 Insulated Slotted Screwdriver
- ISLSS Insulated Slotted Screwdriver
 ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



Other Kits

Infrared Thermometer Kits

Fluke 417D/62MAX+ Laser Distance **Meter/Infrared Thermometer Combo** Kit

- Fluke 417D Laser Distance Meter
- Fluke 62 MAX+ Infrared Thermometer

Indoor Air Quality Kits



Fluke 922 Airflow Meter/ **Micromanometer Kit**

- Fluke 922 Airflow Meter
- 12 inch Pitot Tube
- Two Rubber Hoses
- TPAK Magnetic Strip
- TPAK Strap, 9 inches
- TPAK Latch Tab User Manual
- Hard Carrying Case

Process Calibration Kits



Fluke 700PTPK Pneumatic Test Pump Kit

- 700PTP-1 Pneumatic Hand Pump
- Hose Kit (1) and Adapters
- Hard Case



Fluke 700HTPK Hydraulic Test Pump Kit

- 700HTP-2 Hydraulic Hand Pump
- Hose Kit (1) and Adapters
- Hard Case



Fluke 700PTPK2 Premium Pneumatic Test Pump Kit

- 700PTP-1 Pneumatic Hand Pump
- Premium, "no tools required" Gauge Connector
- Premium Transmitter Test Hose Kit (1) and Adapters
- Hard Case



Fluke 700HTPK2 Premium Hydraulic Test Pump Kit

- 700HTP-2 Hydraulic Hand Pump • Premium, "no tools required" Gauge
- Connector • Premium Transmitter Test Hose Kit (1) and Adapters
- Hard Case



Fluke Connect[™] 789 ProcessMeter[™] and Temperature Kit

- Fluke 789 ProcessMeter™
- Fluke t3000 FC Wireless K-Type Temperature Module
- Fluke ir3000 FC Connector
- TL71 Premium Test Lead Set
- AC72 Alligator Clips
- 4 AA Alkaline Batteries (installed)
- User Manual
- Quick Reference Guide



cause of downtime on time-sensitive industrial networks. Losing just a few data packets in a short time can cause a machine to shut down. This is especially true in industrial environments, where network cables are exposed to vibration, flexing, moisture, temperature changes and electromagnetic interference (EMI) from motor drives and

PROFESSIONAL DATA COMMUNICATION **TOOLS AND TESTERS**

COPPER CABLE TROUBLESHOOTING AND CONNECTIVITY

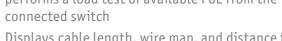
MicroScanner[™] Industrial Ethernet **Cable Verifier**

- Graphically displays length, wiremap, opens/ shorts and distance to fault
- Detects the class (0-8) from PoE, PoE+ and PoE++ (802.3at/af/bt) switches
- Identifies presence and speed of an active switch connected to the cable
- Tests RJ-45 connections and includes adapters for
- M8D, M12D, and M12X connectors



LinkIQ[™] Industrial Ethernet Cable + Network Tester

- Cable Performance testing up to 10GBASE-T via frequencybased measurements
- Network features including: IPv4 and v6 ping, nearest switch diagnostics (IP address, name, port / VLAN number, and advertised data rates)
- Ethernet Alliance certified PoE Verification – Detects the PoE class (1-8) and power, and performs a load test of available PoE from the



- Displays cable length, wire map, and distance to open or short
- Manage results and print reports from LinkWare™ PC
- Tests RJ-45 connections and includes adapters for M8D, M-12D, and M-12X

Search for: LIQ-100, LIQ-100-IE, LIQ-KIT, LIQ-KIT-IE

SOLUTIONS FOR FIBER OPTIC CONTAMINATION

The #1 problem affecting Industrial Ethernet fiber cables.

FI-500 FiberInspector[™] Micro

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



Fluke Networks





The complete solution for precision end-face fiber optic cable cleaning



Search for: NFC-Kit-Case, NFC-Kit-Box

FEATURED COPPER CABLE TEST SOLUTIONS



| | 4 | | | | | | |
|--|----------|---------------------|------------------|-------|-----------------------|---------------------|-----------------------|
| | Pro 3000 | IntelliTone™ Pro | Micro- Mapper | TS100 | MS2-100 MS2-100-IE | MS-POE MS-POE-IE | LIQ-100 LIQ-100-IE |
| Switch Port Testing | | | | | | | |
| Switch presence | | 1 | | | 1 | 1 | 1 |
| Identify switch name, port ID and VLAN | | | | | | | 1 |
| Identify Ethernet Speed to 10 Gb/s | | | | | | 1 | 1 |
| Identify PoE Capability | | | | | | 1 | 1 |
| Cable Verification | | | | | | | |
| Digital toning | | 1 | | | 1 | 1 | 1 |
| Analog toning | 1 | 1 | \checkmark | 1 | 1 | 1 | 1 |
| Cable wire map | | 1 | \checkmark | | Graphical | Graphical | Graphical |
| Cable length | | | | 1 | 1 | 1 | 1 |
| Qualify cabling speed (10/100/1000/10G) | | | | | | | 1 |
| Cable Troubleshooting | | | | | | | |
| Identify open/short | 1 | 1 | \checkmark | 1 | 1 | 1 | 1 |
| Distance to open/short | | | | 1 | 1 | 1 | 1 |
| Identify crosstalk fault | | | | | | | 1 |
| Identify impedance fault | | | | | | | 1 |

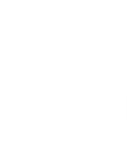
- IE model tests common connector types including RJ11, RJ45, Coax, and Industrial Ethernet connector types (M12X, M12D, and M8D)

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Fiber Optic Cleaning Kits







MS-POE-KIT



MicroScanner[™] PoE Cable Verifier

- PoE Switch Verification Determine if a switch port can provide enough power by reporting PoE class (0-8).
- Powered Pairs Graphically identifies powered pairs. Including Dual Signature where the switch port delivers power on 2 or 4 pairs (802.3bt or PoE ++).
- Active Switch Detection Determine if a cable is connected to a switch port and port speed up to 10G.
- Cable Testing Identify any shorted, open or crossed wires at both ends, length of each pair, and send tones to find cables. • PoE Injector verification - Display injector voltage level
- Search for: MS-POE, MS-POE-IE, MS-POE-KIT



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FEATURED COPPER CABLE TEST SOLUTIONS



Pro3000[™] Analog Tone and Probe

- Tone and trace on non-active networks
- Identify exact pair with SmartTone[™] technology and five distinct tones
- Loud speaker on probe easy to hear through drywall, wood, and other material
- Clear Innovative filter technology blocks interference ("buzz") that makes tracing difficult ("F" models only)
- Clips allow easy access to individual pairs and RJ11 easily connects to telephone jacks—no need for adapters



| PR03000F60-KIT | Tone | and |
|----------------|------|-----|
| Probe Kit | | |



TS™100 Cable Fault Finder

- Numeric distance display
- Identify pairs with SmartTone[™] generation technology
- Identify and locate distance to opens and shorts
- Works on any two or more conductor cable up to 3000 feet (915 metres)







IntelliTone[™] Pro 200 LAN Tone and Probe

- Digital toning eliminates noise and false signals
- SmartTone[™] analog toning isolates individual wire pairs
- Locates cables safely and effectively on active networks
- Visible end-to-end continuity test
- Built in wire mapper
- Works on twisted pair, audio, and video cabling





- Simple verification of wiremaps and identification of faults with LEDs
- Tests twisted pair cables for open circuits, shorts, crossed pairs, reversed pairs and split pairs
- Remote identifier enables one-person testing
- Built-in tone generator for tracing installed cables hidden in walls, floors and ceilings. Works with Pro3000[™] Tone and Probe (sold separately)



TELEPHONE TEST SET COMPARISON



| | - | - | | | | | |
|---|-----------|-----------|--------------|-------|----------|-------|-------|
| | TS™54 TDR | TS™52 PRO | TS™22A | TS™22 | TS™25D | TS™30 | TS™19 |
| TDR to detect shorts, opens, and distance to open | 1 | | | | | | |
| Built-in toner | 1 | | | | | | |
| Display—back lit LCD and glow-in-the- the dark keypad | ✓ | ✓ | | | LCD only | | |
| Extended range high-impedance DataSafe operation in monitor mode | ✓ | ✓ | | | ✓ | | |
| Data lockout protection Data lockout override | 1 | 1 | | | ✓ | | |
| DSL/POTS filtering technology | ✓ | ✓ | | | ✓ | | |
| Low/high voltage indication | ✓ | ✓ | | | ✓ | | |
| Low current (mA) indication | 1 | ✓ | | | 1 | | |
| Over voltage and Over current protection | 1 | 1 | \checkmark | ✓ | ✓ | ✓ | |
| Two-way speakerphone for true hands- free conversations | ✓ | 1 | ✓ | | | | |
| One-way amplified speaker for hands- free monitoring | ✓ | 1 | ✓ | ✓ | ✓ | | |
| Waterproof—exceeds American Military Spec. MIL-STD-810E | ✓ | 1 | | | | | |
| DropSafe—passes 20 foot (6 meter) drop test onto concrete | ✓ | 1 | ✓ | ✓ | | ✓ | |
| Polarity indication in talk mode | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Stores nine 18-digit numbers in repertory dialer (speed dialing) | 1 | 1 | 1 | 1 | 1 | | |

4-, 6-, and 8-Wire Modular Adapters

- Easily complete testing and obtain circuit access on working lines without disrupting service
- Clear circuit markings on the sides and bottom of the unit
- Test line status with the 4-wire modular adapter









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| Model | Description |
|----------|----------------------------|
| 10113000 | 4 wire |
| 10210100 | 4-wire in-line |
| 10210101 | 4-wire in-line with K-Plug |
| 10220100 | 6-wire in-line |
| 10220101 | 6-wire in-line with K-Plug |
| 10230100 | 8-wire in-line |
| 10230101 | 8-wire in-line with K-Plug |
| | |



TERMINATION TOOLS AND ADAPTERS

Ergonomic design, high-quality materials and Fluke Networks quality for separating, stripping and cutting wire. Perfect tools for your every job.





D914[™] Series Impact Tools

- Hook, spudger and blade storage tools are built into the handle
- Select low impact for 24/26 gauge wire or high impact for 22-gauge wire
- Optional Phillips-head or flat screwdriver blade
- Supports a variety of torque tool bits and sockets
- Easy blade insertion, locks in place
- D914S features soft touch rubber handle and ergonomic design

Search for: 10061501 D914S impact tool with EverSharp 110, Ever-Sharp 66 blade and free blade

Punchdown Blades

| Model | Description |
|----------|----------------------------|
| 10176500 | EverSharp 110 blade |
| 10178600 | EverSharp 110/66 cut blade |
| 10056500 | EverSharp 66 blade |
| 10565000 | Krone blade |
| 10565110 | Krone/110 cut blade |
| 10176000 | 110 blade |
| 10436001 | Centerpunch blade |
| 10465001 | 3M System D blade |
| 10645001 | Wood screw starter punch |
| 10665000 | BIX blade |
| 10056000 | 66 blade |
| 10057000 | 630 blade |
| 10979002 | Blade storage case |



JackRapid[™] Punchdown Tool

- Terminate jacks eight times faster than traditional impact tools. The patented design seats and terminates all wires simultaneously. Built-in blade cuts off the excess
- wire eliminating the need for a secondary trim step • High-quality, consistent
- terminations
- Ergonomic design reduces hand fatigue
- Convenient, built-in stripper
- Multiple versions support several jack manufacturers

JackRapid™

| Model | Description |
|--------------|--|
| JR-PAN-2 | For Panduit NK6X88M, NK688M, NKP5E88M |
| JR-ADC-2 | For ADC C6a CopperTen™ UTP RJ45 jack and C6 TrueNet™ KM8 UTP RJ45 |
| JR-ORT-2 | For Ortronics™ TJ5E00, TJ600, TJ610 |
| JR-SYS-2 | For Systimax™ MGS400, MGS600, MFP420, MFP520 and Commscope™ UNJ10G |
| JR-LEV-2 | For Leviton™ 61110, 5G110, 6110G |
| JR-SYS-UNI-1 | For Systimax MPS100E, C5, M1BH and Commscope UNJ600/500/300 |
| JR-LEV-1 | For Leviton 41106, 41108, 5G108 |

44007000

Pro-Tool[™] Kits

- Ergonomically designed Dur-a-Grip[™] pouch for convenient tool storage on belt
- D914[™] and D814[™] industry standard punchdown tools make for solid terminations
- Easy-to-use cable stripper quickly rings and slits many types of cable
- Probe Pic checks for loose or damaged connections
- Cut and strip wire with Electricians' D-Snips™
- Three kit combinations available



| INDE | X | | | | FLUKE |
|--|--------------------------|--|----------------------------|--|---------------------------------------|
| | | 2 | | 7 | |
| TEST TOOLS | | 233 27 II 2700G-BG | 20 22 130 | 700G 700G-TRACK | 128 128, 129 |
| 1 110 113 | 21 21 | 2700G-G 279 FC I/B KIT | 130 130 14 | 700HPPK 700HTPK KIT 700HTPK2 KIT | 131 128, 129, 171 128, 129, 171 |
| 114 115 116 | 21 21 21 | 279 FC/IFLEX 28 II 28 II EX/AU | 14 22 22 | 700PTPK KIT 700PTPK2 700PTPK2 KIT | 128, 129, 171 171 128, 129, 171 |
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| 117 117/323 KIT 154 HART | 21 21, 175 117 | 289 289/FVF KIT | 16 16, 175 | 709 709H 709H/TRACK | 113 113 113, 173 |
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| 1663 1664 FC 1732/B | 91 91 96 | 410 417D | 47 46 | 787B 789 | 111 111 |
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| 1736/B 1736/INTL 1738/B | 97 97 97 | 424D 5 | 46 | 805 FC 810 83V | 138 139 17 |
| 1738/INTL 1742/15/INTL 1742/30/INTL | 97 98 98 | 51 II 52 II 53 II B | 53 53 53 | 87V 87V IND KIT 87V MAX | 17 175 17 |
| 1746/15/INTL 1746/30/INTL | 98 98 | 54 II B 561 566 | 53 52 52 | 87V MAX KIT 87V/E2 KIT 8808A | 175 17 25 |
| 1748/15/INTL 1748/30/INTL 175 177 | 98 98 19 19 | 568 568EX 572-2 | 52 52, 141 52 | 8808A/SU 88-5 88-5/A KIT | 25 18 18 |
| 1773 1775 1777 | 94 94 94 | 6 6109A | 122 | 9 902 FC | 34 |
| 179 IMSK KIT 179/EDA2 1AC II 1LAC II | 175 175 40 40 | 62MAX 62MAX+ 62MAX+/323/1AC 64MAX | 51 51 51 51 | 9040 9100S 9100S-A-256 9100S-B-256 9100S-C-256 | 41 120 120 120 120 |
| | | | | 9100S-D-256 | 120 |

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