FLUKE®



Connected Solutions

2017-2018 Test Tools Catalog

See insert for new products

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





CONTENTS

What is Fluke? 2–3

New products
Fluke Connect® 4
Fluke 3500 Series 5
Fluke 279 FC 6
Fluke 376 FC 7
Fluke 902 FC 8
Fluke 438-II 9
Fluke 1664, 1663, 1662 10–11
Fluke Connect compatibility guide 12
Fluke Connect wireless tools 13
Fluke TiX500, Ti450 14
Fluke TiS75 15
Fluke 154 HART 16
Fluke PRV240 17

Digital multimeters
Selection guide 18–19
Fluke 3000 FC 20
Fluke 179, 177, 175 21
Fluke 289, 287 22
Fluke 87V 23
Fluke 27-II, 28-II, 28-II EX 24
Fluke 233 25
Fluke 117, 116, 115, 114, 113 26
Fluke 88-V, 77-IV 27

Clamp Meters
Selection guide 28–29
Fluke 373, 374 FC, 375 FC, 376 FC 30
Fluke 325, 324, 323 30
Fluke 381, 365 31
Fluke 902, 368 FC, 369 FC 32
Fluke a3000 FC, a3001 FC, a3002 FC, a3003 FC, a3004 FC 33
Fluke 353, 355 34

Wireless Tools
Fluke a3000 FC, a3001 FC, a3002 FC, a3003 FC, a3004 FC 35
Fluke v3000 FC, v3001 FC 35
Fluke t3000 FC 35
Fluke ir3000 FC 35
PC300 FC 35

Bench meters
Fluke 8846A, 8845A, 8808A 36

Laser distance meters
Fluke 424D, 419D, 414D 37

Earth ground testers
Selection guide 38
Fluke 1625-2, 1623-2 38
Fluke 1625-2 Kit, 1623-2 Kit 38
Fluke 1621, 1630 39

Electrical testers
Fluke T5, T+Pro, T+ 40
Fluke T5-1000, T5-600 40
Fluke 2AC, 1AC-II, 1LAC-II, LVD2 40

Indoor air quality tools
Fluke 971, 985 41
Fluke 975V, 975 42
Fluke 922, 922/Kit 42
Fluke RLD2 42
Fluke CO-205, CO-220 42

Fluorescent light tester
Fluke 1000FLT 43

Insulation testers
Fluke 1587 FC, 1577 44
Fluke 1507, 1503 45
Fluke 1555, 1550C, 1555 KIT, 1550C KIT 46

Power quality analyzers
Selection guide 47
Fluke 438-II, 437-II, 435-II, 434-II 48
Fluke 1730 48
Fluke 1736, 1738 49
Fluke 345, 43B, VR1710 50
Norma 4000, 5000 51
Fluke 1745, 1744, 1743 51
Fluke 1750, 1760 52

Battery analyzers
Fluke BT521, BT520, BT510 53

Process calibration tools
Selection guide 54
Fluke 771, 772, 773 55
Fluke 789, 787 56
Fluke 715, 707, 705 57
Fluke 754, 753 58
Fluke 709, 709H 58
Fluke 726, 725 59
Fluke 724, 712B, 714B 60
Fluke 9142, 9143, 9144 61
Fluke 9103, 9140 61
Fluke 4180, 4181 61
Fluke 9190A 61
Fluke 1523, 1524 62
Fluke 1586A 62
Fluke 7526A 62
Fluke 1551A Ex, 1552A Ex 62
Fluke 719, 719PRO 63
Fluke 718 63
Fluke 717 63
Fluke 750P 63
Fluke 721 64
Fluke 700G, 700RG Series 64
Fluke 2700G series 65
Fluke P5500 65
Fluke 3130 66
Fluke P3000 66

Intrinsically safe products
Fluke 28 II Ex 67
Fluke 707 Ex 67
Fluke 718 Ex 67
Fluke 721 Ex 67
Fluke 725 Ex 67
Fluke 700P Ex 67
Fluke 568 Ex 67
700G Series Pressure Gauges 67
1551A EX, 1552A Ex “Stik” Thermometers 67

ScopeMeter® test tools
Selection guide 68
Fluke 125/B, 124/B, 123/B 69
Fluke 190-502 70
Fluke 190-104 70
Fluke 190-202 70
Fluke 190-102 70
Fluke 190-062 70
Fluke 190-504 71

Infrared tools
Selection guide 72–73

Fluke Expert Series
Fluke TiX1000/660/640 74
Fluke TiX560/520/500 74

Fluke Professional Series
Fluke Ti450/400/300 75
Fluke Smartview Software 75

Fluke Performance Series
Fluke TiS75/65/60/55/50/45/40 76
Fluke TiS45/40, TiS20, TiS10 76

Fluke Visual IR-Thermometers and IR-Windows
Fluke VT04/VT04A 77
Fluke CV400/401/300/301/200 77
Fluke CLKT100/75/50 77
Fluke 62 Max+, 62 Max, 59 Max, 572-2 78
Fluke 54-2-B, 53-2-B, 52-2, 51-2 78
Fluke 568, 566, 561, 61, 63 79

Alignment tools
Fluke 830 80

Stroboscopes
Fluke 820-2 81

Vibration
Fluke 810 82
Fluke 805 FC 83

Accessories
Cases and holsters 84–86
Sets and kits 87
Test leads, probes and clips 88
Fluke SureGrip™ accessories 89
Fluke temperature accessories 90–91
Fluke current clamps 92–93
Fluke lights and hangers 94
Specialty accessories 95



John M. Fluke, Sr.

Aerial photo of Fluke Park, Everett, WA



Going Green

What is Fluke?

Fluke Corporation is the world leader in the manufacture, distribution and service of electronic test tools and software. Sales and service subsidiaries are located in Europe, North America, South America, Asia and Australia. Fluke Corporation has authorized distributor and manufacturer representative channels in more than 100 countries and employs approximately 2,400 people.

From industrial electronic installation, maintenance and service, to precision measurement and quality control, Fluke tools help keep business and industry around the globe up and running.

> **"We must always recognize the customer is our boss. We exist to serve their needs and they have the right to a little more than they thought they paid for."**
>
> **John M. Fluke, Sr.**

Why choose Fluke?

With more than 60 years of innovation, Fluke tools are designed with you in mind.

- Fluke tools are known for portability, ruggedness, safety ease of use, accuracy and rigid standards of quality.
- Our after-service team offers a range of capabilities beyond repairing and calibrating your instrument.
- We help you keep up on the latest technologies and safety standards with hands-on seminars, online trainings and quick reads.
- Over 40 of our tools now use the Fluke Connect® app and online dashboard to help you save and share data, act on events, and increase workplace safety.

Our core values:

- Customers talk, we listen
- Results matter
- Innovation: defines our future
- Continuous improvement is our way of life
- The best team wins
- Our customer has the right to get a little bit more than they paid for

Going green – minimizing our environmental impact

To reduce our carbon footprint, Fluke is eliminating paper manuals, inserts and software CDs in product shipments. We are "Going Green" on more products every day.

Join us in helping the environment by choosing paperless options. If you want a hard copy, we will help you download one online or deliver one at no cost–anywhere in the world.
Learn more at: www.fluke.com/productinfo

Social media

We want to hear what you think of our products and services.

"Wouldn't be without mine." T. Green

"Boy, what will they think of next?" C. Harris and D. Williams

"The job keeps me up and running. Fluke keeps me safe". D. Julio

"Love all products that are Fluke, I'm a 3rd generation user and thank you: for such great quality and dependable products, we will ALWAYS use Fluke." C. Jones

"I don't have to second guess with Fluke meters, I trust my life with them!" C. Jackson

Below are our social media channels, we invite you to join the conversation!

www.facebook.com/fluke.corporation

www.twitter.com/flukecorp

www.youtube.com/flukecorporation

Winning tools

Plant Engineering PRODUCT of the YEAR Winner 2015

FLUKE CONNECT

Fluke Connect® Assets

EC&M CATEGORY WINNER PRODUCT OF THE YEAR 16

Fluke Connect® Assets



EC&M CATEGORY WINNER PRODUCT OF THE YEAR 16

TiX560 Infrared Camera



DD 2016 DEALER DESIGN AWARDS the NEWS | GOLD

902 FC True-rms Wireless HVAC Clamp Meter

Fluke social media posts



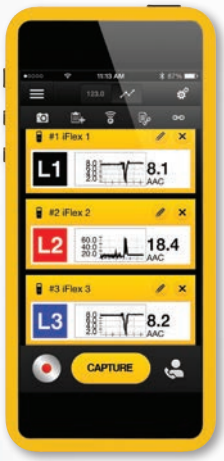




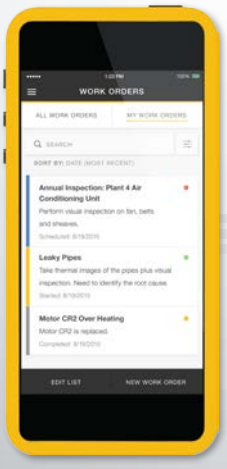
NEW PRODUCTS

FLUKE CONNECT®





Instantly trend and monitor intermittent problems with TrendIt™ graphs.



Wirelessly save measurements directly from your test tools into work orders—only available with Fluke Connect®

Fluke Connect

An integrated system of wireless test tools and asset management software.

Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect® system.

- Eliminate data-entry errors by saving measurement data directly from the tool and associating it with the work order, report or asset record
- Maximize uptime and make confident maintenance decisions with data you can trust and trace
- Access baseline, historical and current measurements by asset
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer
- Share your measurement data using ShareLive™ video calls and emails

Fluke Connect enabled products include:

Current meters
Digital multimeters
Installation testers
Portable oscilloscopes
Temperature meters
Voltage meters
Vibration meters
Process tools
Infrared cameras



Download on the App Store | ANDROID APP ON Google Play

Sign up for your free trial at: flukeconnect.com/freetrial

WiFi or cellular service is required to share data. Smart phone, wireless service and data plan not included with purchase. First 5 GB of storage is free. Phone support details can be viewed at fluke.com/phones.

Free Trial Terms: Open to those 18 years or older (or the age of majority under applicable law, whichever is older). Free trial is for a limited duration and is offered for a limited time. Void where prohibited by law. Terms and conditions are available upon registration.

Screens adjusted slightly to accommodate print. Smartphone is not included with purchase.

Within your provider's wireless service area and subject to your plan's pricing and other terms. Fluke Connect is not available in all countries. Some Fluke Connect features require a subscription subject to payment terms and may not be available in all countries.

Fluke 3500 Series Condition Monitoring System

Fluke is revolutionizing industrial condition monitoring with the first portable, easy-to-install system that you can access from anywhere, anytime.

The Fluke Condition Monitoring System integrates sensor measurements, analytics, cloud storage, alarms and communication tools all in one system. And, it installs in a matter of minutes.

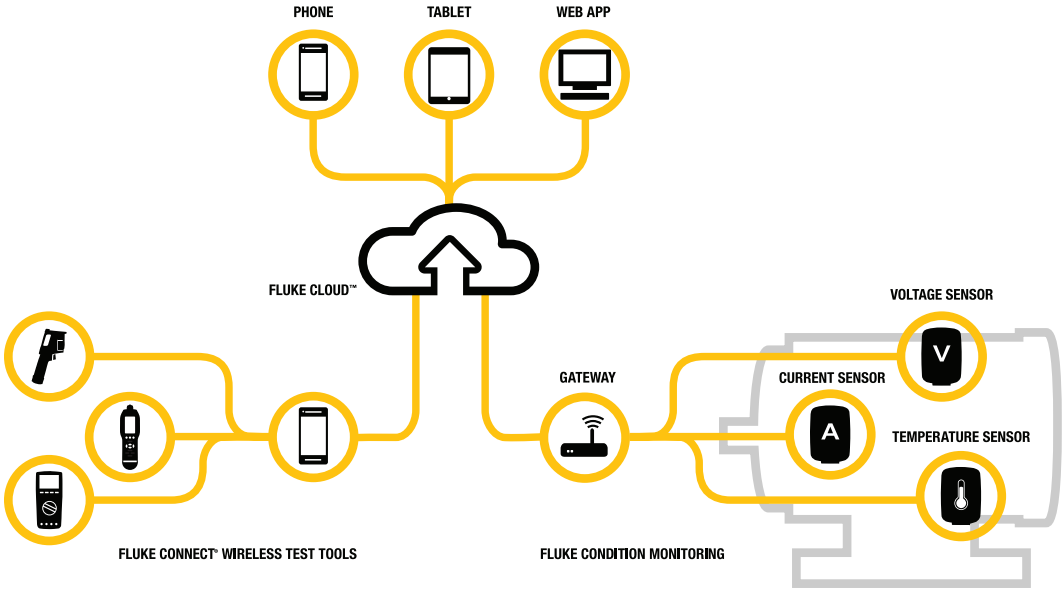
Get an overall picture of the health of your equipment with a history of measurements before, during and after an event. The Fluke Connect® condition monitoring software will send you an alarm anytime your equipment is working outside of normal perimeters. The system scales to your plant, whether your equipment is aging but heavily relied on or new complex and more challenging to maintain. With easy to use Fluke technology, set up and start monitoring in less than an hour – even in tight, difficult to reach spots.



Fluke 3501 FC Gateway

Product highlights

- Provides continuous monitoring for your equipment
- Helps get to the root cause faster
- Monitors equipment from anywhere
- Delivers real-time alarms
- Features fast and cost-effective set up and maintenance





Fluke 3520 FC AC Current iFlex Sensor

Ordering information

Models	Included
FLK-3501 FC Gateway	Gateway, antenna, power supply, mounting bracket, rail mounting clip, Tpak magnetic hanger, hang strap
FLK-3510 FC AC Voltage Sensor	Sensor, test leads, AC285 alligator clips, magnetic hanging strap
FLK-3511 FC DC Voltage Sensor	Sensor, TL220 test leads, AC220 alligator clips, magnetic hanging strap
FLK-3520 FC AC Current iFlex Sensor	Sensor, iFlex® current probe, magnetic hanging strap
FLK-3521 FC DC 2000A Current Sensor	Sensor, 2000 A dc current clamp, magnetic hanging strap
FLK-3530 FC K-Type Temperature Sensor	Sensor, k-type thermocouple thermometer, magnetic hanging strap
FLK-3540 FC 3-Phase Power Monitor	Power monitor, 3 iFlex current clamps, voltage test lead 3-Phase+N, 2 test lead sets, cable marker set
FLK-CXT 3500 Rugged Hard Case with Foam insert	



www.fluke.com/flukeconnecttools

FLUKE CONNECT

Fluke 279 FC True-rms Thermal Multimeter

Find. Repair. Validate. Report.

The 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.

Locate the problem immediately

Thermal imaging multimeters are a first-line troubleshooting tool for electrical equipment that can check hot spots on high-voltage equipment and transformers, detect heating of fuses, wires, insulators, connectors, splices and switches. Scanning with the 279 FC's thermal imager reveals many electrical issues rapidly and from a safe distance. By combining two tools into one, the thermal multimeter lightens the load and increases productivity.

Expanded functionality

Compatible with iFlex® (a flexible current clamp) to expand your measurement capabilities and get into tight, hard to reach spaces for current measurement (up to 2500 A ac). The large full-color LCD screen makes for easier and clearer viewing of images and readings. The 10 hour+ rechargeable battery keeps you going all day long under normal conditions.

Communicate your results

With built-in Fluke Connect®, transmit wirelessly to a smartphone and save time on reporting to validate work is complete. Troubleshoot better by instantly trending and monitoring measurements live on your smartphone screen. Create and email reports right from the field.



Fluke 279 FC Thermal Multimeter



With built-in Fluke Connect, transmit results wirelessly to a smartphone and save time on reporting to validate work is complete.

Specifications

DMM	
Voltage ac/dc	1000 V
Current ac	2500 A ac (with iFlex Flexible Current probe)
Resistance	50 M Ω
Frequency	100 kHz
Capacitance	9,999 µF
Continutity/Diode test/ Min Max/Display hold	•
Infrared camera	
Resolution	80 x 60
Temperature range	-10 °C to 200 °C (14 °F to 392 °F)
Other	
Safety rating	CAT III 1000 V, CAT IV 600 V
Warranty	Three year

Ordering information

Models	Included accessories
FLK-279 FC TRMS Thermal Multimeter	TL75 test leads, rechargeable lithium ion battery and charger
FLK-279 FC/iFlex TRMS Thermal Multimeter	18-inch (45.72 cm) iFlex flexible current probe, TL175 test leads, rechargeable lithium ion battery, charger, hanging strap and soft carrying case

Quickly find, repair, validate and report many electrical issues.



Fluke 376 FC True-rms Wireless AC/DC Clamp Meter

Expand your measurement range with increased flexibility

The Fluke 376 FC offers advanced troubleshooting performance. The iFlex® flexible current probe allows for easy measurement around wires in tight spaces. In addition, the Fluke 376 FC is now part of the Fluke Connect® family of wireless test tools. Now you can:

- Troubleshoot faster: Instantly log, trend, and monitor intermittent problems with a 65,000 measurement internal memory and Trendit graphs
- Work safer: Connect your meter to your phone through Bluetooth, clamp your meter around a conductor and walk up to 30 m (98 ft) away from the point of measurement
- Save time reporting: Easily create reports by capturing measurements from your meter and email them right from the field
- Innovative flexible current probe: Measure around cumbersome conductors and improve wire access in tight spaces
- Share from anywhere: Stay on the same page when you and your team are in different places with Sharelive™ videocall



Specifications

Functions	Range and resolution
Safety rating	CAT III 1000 V, CAT IV 600 V
A ac range	999.9 A with clamp jaws, 2500 A with iFlex® flexible current clamp
A dc range	999.9 A
Best resolution	0.1 A
V ac range	1000 V
V dc range	1000 V
mV dc range	500 mV
Ohms range	60.00 kΩ
Frequency	5 - 500.0 Hz
Capacitance	1 µF - 1,000 µF
Auto shutoff	•
True rms	•
Display hold	•
Inrush measurements	•
Backlight	•
DC Zero	•
Min/Max	•
Fluke Connect® compatible	•
VFD low-pass filter	•
Logging	•
iFlex® flexible current clamp	Included

Ordering information

Models	Included accessories
FLUKE-376 FC, Wireless True-rms AC/DC Clamp meter with iFlex	18-inch (45.72 cm) iFlex flexible current probe, test leads, TPAK magnetic hanging strap, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries





FLUKE CONNECT

Fluke 902 FC True-rms HVAC Clamp Meter



Improve productivity in the field

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

Applications for HVAC

- 600 A ac current measurement
- 600 V ac and dc voltage measurement
- Temperature measurement from –10 °C to 400 °C (14 °F to 752 °F)
- 1000 µF capacitance measurement
- DC current measurement to 200 µA
- True-rms voltage and current for accurate measurements on non-linear signals
- Resistance measurement to 60 kΩ
- Min and max recording to capture variations automatically

Applications for HVAC

- Get more done faster and safer with Fluke Connect by capturing measurements wirelessly. Save your measurement to Fluke Cloud™ storage for further analysis
- Read measurements on your phone at a safe distance
- Instantly trend and monitor measurements live on your phone screen
- Ergonomic design fits in your hand and can be used while wearing PPE gear
- Three-year warranty





Specifications

General specifications		
A ac (via Jaw)	Range	60.00/600.0 A
	Resolution	0.01/ 0.1A
	Accuracy	2.0 % ± 5 digit (45–65 Hz) 2.5 % ± 5 digit (65–400 Hz)
	Crest Factor (50 Hz or 60 Hz)	2.5 MIN @ 220 A 3.0 MIN @ 180 A > 1.4 MIN @ 600 A Add 2 % for CF > 400A
V ac	Resolution	0.1 V
	Accuracy (45–400 Hz)	1.5% ± 5 digits
	Range	600.0 V
V dc	Resolution	0.1 V
	Accuracy	1 % ± 5 digits
	Range	600.0 V
Ohms	Resolution	0.1/1/10
	Accuracy	1 % ± 5 digits
	Range	600/6000/60.00kΩ
Capacitance	Resolution	0.1/1 µF
	Accuracy	1 % ± 4 digits
	Range	100.0/1000 µF
µA	Resolution	0.1 µA
	Accuracy	1% ± 5 digits
	Range	200 µA
Contact temperature	Resolution	0.1 C/F
	Accuracy	1 % ± 8 digits
	Range	-10 °C to 400 °C (14 °F to 752 °F)
Continuity beeper	Beeper volume	75 dBA nom. 15 cm. from case front
	On thresh	<= 30 Ω

Ordering information

Models	Included accessories
FLK-902 FC HVAC Clamp Meter	TL75 test leads, 80BK integrated DMM temperature probe, 2 AA alkaline batteries, soft carrying case, users' manual, Statement of Calibration

FLUKE®

Fluke 438-II Power Quality and Motor Analyzer

FLUKE CONNECT®



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

The new Fluke 438-II Power Quality and Motor Analyzer adds key mechanical measurement capabilities for electric motors to the advanced power quality analysis functions of the Fluke 430 Series II Power Quality Analyzers. Quickly and easily measure and analyze key electrical and mechanical performance parameters such as power, harmonics, unbalance, motor speed, torque and mechanical power without the need of mechanical sensors.

- Measure key parameters on direct-on-line motors including torque, RPM, mechanical power and motor efficiency
- Perform dynamic motor analysis by plotting of motor de-rating factor against load according to NEMA guidelines
- Calculate mechanical power and efficiency without the need of mechanical sensors, just connect to the input conductors and you're ready to go
- Measure electrical power parameters such as voltage, current, power, apparent power, power factor, harmonic distortion and unbalance to identify characteristics that impact motor efficiency
- Identify power quality issues such as dips, swells, transients, harmonics and unbalance
- PowerWave data technology captures fast RMS data, and shows half-cycle averages and waveforms to characterize electrical system dynamics (generator start-ups, UPS switching etc)
- Waveform capture function captures 100/120 cycles (50/60 Hz) of each event detected event, in all modes, without set-up
- Automatic transient mode captures waveform data at 200 kS/s on all phases simultaneously up to 6 kV
- Fluke Connect® Compatible* View data locally on the instrument, via Fluke Connect mobile app and PowerLog 430-II desktop software

Specifications

Motor measurement	Range	Resolution	Resolution	Default limit
Mechanical motor power	0.7 kW to 746 kW 1 hp to 1000 hp	0.1 kW 0.1 hp	± 3 %[1] ± 3 %[1]	100 % = rated power 100 % = rated power
Torque	0 Nm to 10 000 Nm 0 lb ft to 10 000 lb ft	0.1 Nm 0.1 lb ft	± 5 %[1] ± 5 %[1]	100 % = rated torque 100 % = rated torque
rpm	0 rpm to 3600 rpm	1 rpm	± 3 %[1]	100 % = rated rpm
Efficiency	0 % to 100 %	0.10 %	± 3 %[1]	NA
Unbalance (NEMA)	0 % to 100 %	0.10 %	± 0.15 %	5%
Harmonics voltage factor (NEMA)	0 to 0.20	0.1	± 1.5 %	0.15
Unbalance derating factor	0.7 to 1.0	0.1	indicative	NA
Harmonics derating factor	0.7 to 1.0	0.1	indicative	NA
Total NEMA derating factor	0.5 to 1.0	0.1	indicative	NA



Ordering information

Models	Included accessories
FLUKE-438-II Three-Phase Power Quality and Motor Analyzer	Test lead set, i430 thin flexible current probes (4), battery, power adapter, combination WiFi/SD card*, Soft carry case, CD Rom with PowerLog 430-II software and user documentation
FLUKE-430-II/MA	Upgrade option for 434-II, 435-II, and 437-II Power Quality Analyzers with firmware license code

*** Not all models are available in all countries. Check with your local Fluke representative.**

www.fluke.com/438

Fluke 1660 Series Multifunction Installation Testers



Installation Testers: A Multifunction Tester that Offers Great Versatility

The new Fluke 1660 Series Installation Testers are the only installation testers that help prevent damage to connected appliances and also allow users to send test results wirelessly via smartphone directly from the field.

Fluke Connect© compatible (1664 FC only)

View test results on your smartphone via Fluke Connect® mobile app and Data Management Software (Fluke DMS, sold separately). Download the free Fluke Connect app to enable wireless data transmission and Fluke Cloud™ storage.

Insulation pretest (1664 FC only)

The new Fluke 1660 Series Installation Testers are the only installation testers that help prevent damage to connected appliances.

Auto test sequence (1664 FC only)

Start a sequence of seven critical tests with one press of the TEST button.

Product highlights

- Heavy duty, single input line cord, guards against failures in the field
- Z Max memory function for loop/line test
- Three-year standard warranty
- Safety rating (IEC/EN 61010): CAT III 500 V, CAT IV 300 V

Key product capabilities

The 1660 Series 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 60364-6 and all relevant local standards.

Fluke 1664 FC

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 patent pending 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. You can get feedback, suggestions and even have work orders sent to your job site. You can also save your test results to Fluke Cloud™ storage. No more writing down data on paper with the possibility of transcription errors. Cloud storage gives you a fast, secure and accurate way to storing all your test data and create test certificates with Fluke DMS.

Fluke 1663

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



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.

Specifications

General specifications	
Size	10 cm (L) x 25 cm (W) x 12.5 cm (H)
Weight (incl. batteries)	approx. 1.3 kg
Battery size, quantity	1.5 V type AA (IEC LR6), 6 pcs.
Sealing	IP 40
Safety	Complies with IEC/EN61010-1, UL61010, ANSI/ISA –s82.02.01 and CAN/CSA c22.2 No. 1010)
Safety rating (IEC/EN61010)	CAT III 500 V, CAT IV 300 V
Performance	EC/EN61557-1 to IEC/EN61557-7 and IEC/EN61557-10

Selection guide

	1664 FC	1663	1662
Insulation-PreTest™ safety function	•		
Insulation at L-N, L-PE, N-PE inputs	•		
Auto Test sequence	•		
Loop and line resistance—mΩ resolution	•		
Continuity at L-N, L-PE, N-PE inputs	•	•	
Test smooth dc sensitive RCDs (Type B/B+)	•	•	
Earth resistance	•	•	
Voltage trms (ac and dc) and frequency	•	•	•
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	•	•	•
RCD variable test current	•	•	•
Automatic RCD test sequence	•	•	•
Phase sequence test	•	•	•
Z Max Memory	•	•	
Memory	•	•	•
IR-USB and BLE interface (when used with optional Fluke DMS and FVF software)	IR-USB/ BLE	IR-USB	IR-USB

Ordering information

Models	Included accessories
FLK-1664 FC Multifunction Installation Tester	6x AA (IEC LR6) cell batteries, C1600 hard carrying case, 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 (FTP/UK fused probes, UK only), user's manual on CD
FLK-1663 Multifunction Installation Tester	
FLK-1662 Multifunction Installation Tester	



Fluke Connect® compatibility guide

The Fluke Connect app displays readings from up to 10 modules on the iPhone and six modules on an Andriod phone. The TiX560, TiX520, TiX500, Ti450, Ti400, Ti300, TiS75, TiS65, TiS60, TiS55, TiS50, TiS45, TiS40, TiS20 and TiS10 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.

	Fluke Connect App – iOS and Android™	TiX560/520/500 Thermal Imagers	Ti450/400/300 Thermal Imagers	TiSxx Series Thermal Imagers	3000 FC Digital Multimeter	a3000 FC AC Current Clamp Meter	902 FC True-rms HVAC Clamp Meter	376/375/374 FC True-rms Clamp Meters	a3001 FC iFlex® AC Current Meter	a3002 FC AC/DC Current Meter Module	a3003 FC 2000 A DC Current Clamp Meter	a3004 FC DC 4-20 mA Current Clamp Meter	v3000 FC AC Voltage Meter	v3001 FC DC Voltage Meter	t3000 FC Temperature Meter	438-II/437-II/435-II/434-II PQ Analyzers	789 ProcessMeter™	1587 Insulation Multimeter	1664 FC Installation Tester	805 FC Vibration Tester	125B/124B/123B ScopeMeters®	279 FC Thermal Multimeter	3500 Series Condition Monitoring System	ir3000 FC Wireless Connector
Fluke Connect App – iOS and Android™	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TiX560/520/500 Thermal Imagers	•				•	•			•	•	•	•	•	•	•									
Ti450/400/300/200 Thermal Imagers	•				•	•			•	•	•	•	•	•	•									
TiS75/65/60/55/50/45/40/20/10 Thermal Imagers	•				•	•			•	•	•	•	•	•	•									
3000 FC Digital Multimeter	•	•	•			•			•	•	•	•	•	•	•									
a3000 FC AC Current Clamp Meter	•	•	•		•																			
902 FC True-rms HVAC Clamp Meter	•																							
376/375/374 FC True-rms Clamp Meters	•																							
a3001 FC iFlex® AC Current Meter	•	•	•		•																			
a3002 FC AC/DC Current Meter Module	•	•	•		•																			
a3003 FC 2000 A DC Current Clamp Meter	•	•	•		•																			
a3004 FC 4-20 mA DC Current Meter	•	•	•		•																			
v3000 FC AC Voltage Meter	•	•	•		•																			
v3001 FC DC Voltage Meter	•	•	•		•																			
t3000 FC Temperature Meter	•	•	•		•																			
438-II/437-II/435-II/434-II Power Quality Analyzers	•																							
789 ProcessMeter™	•																							
1587 Insulation Multimeter	•																							
1664 FC Installation Tester	•																							
805 FC Vibration Tester	•																							
125B/124B/123B ScopeMeters®	•																							
279 FC Thermal Multimeter	•																							
3500 Series Condition Monitoring System	•																							
ir3000 FC Wireless Connector	•	Connect adapter to: Fluke 789, 289, 287																						

Wireless Fluke Connect® tools

Ordering information

Kits	Included
FLK-3000FC Industrial System	Wireless multimeter, 3 wireless iFlex current meters, 3 wireless ac voltage meters, 4 hanging straps with magnets, 2 test leads with clips, USB, CD, info pack, and soft case
FLK-3000FC GM, General Maintenance System	Wireless multimeter, wireless iFlex ac current meter, wireless ac voltage meter, wireless dc voltage meter, 3 test leads, alligator clips, and 3 magnetic hanging straps
FLK-3000FC HVAC System	Wireless multimeter, wireless ac current clamp meter, wireless temperature meter, test leads, alligator clips, K-type thermocouple, and magnetic hanging strap
FLK-Ti400 60HZ/FCA iFlex® Kit	Infrared camera, ac power supply and battery pack charger (including mains adapters), 2 lithium ion smart battery packs, micro SD memory card, USB cable, HDMI video cable, hard carrying case, soft transport bag, adjustable hand strap, international adapter set (9 Hz only), wireless multimeter, wireless iFlex A AC current module, test leads, alligator clips, flexible current probe, magnetic hanging strap, and soft case
FLK-Ti400 9HZ/FCA iFlex Kit	
FLK-A3000FC Kit, Wireless AC Current Clamp Kit	Wireless multimeter, wireless ac current clamp meter, test leads, alligator clips, and magnetic hanging strap
FLK-A3001FC Kit, Wireless iFlex® AC Current Clamp Kit	Wireless multimeter, wireless iFlex ac current meter, test leads, alligator clips, magnetic hanging strap
FLK-V3000FC Kit, Wireless AC Voltage Kit	Wireless multimeter, wireless ac voltage meter, 2 test leads, 2 alligator clips, and magnetic hanging strap
FLK-V3001FC Kit, Wireless DC Voltage Kit	Wireless multimeter, wireless dc voltage meter, 2 test leads, 2 alligator clips, and magnetic hanging strap
FLK-V3003FC Kit, Wireless AC/DC Voltage Measurement Kit	Wireless multimeter, ac voltage meter, dc voltage meter, hanging strap with magnets, 3 test leads, 4 alligator clips, info pack, and soft case

Kits—buy more, save more



General Maintenance System



HVAC System



Wireless AC Voltage Kit



Ti400/a3001 FC iFlex



FLUKE CONNECT

Fluke Infrared Cameras

Expert Series: TiX500
Tablet-sized screen. More details. Faster decisions.



See more details on the tablet-sized 5.7 inch screen, so you can easily make decisions in the field. Get maximum ergonomics and easily maneuver over, under and around targets with the 240° rotating lens. Go from being completely out-of-focus to clear accurate and in focus with MultiSharp™ Focus which captures multiple images and combines them to create one in focus image. Get instant focus with laser driven target detection only with LaserSharp® Auto Focus.

Make decisions in the field.

- See small details in the image and discover anomalies faster on the 5.7 inch tablet sized touchscreen—the largest in its class
- Edit and analyze images on camera—edit emissivity, enable color alarms and markers, and adjust IR-Fusion® visual and infrared image blending
- Wirelessly sync images directly from your camera to the Fluke Connect® app on your smartphone, and attach to an asset record or work order.

Inspect hard to reach targets.

- Easily maneuver over, under and around objects with the 240° rotating lens while viewing the screen at a comfortable angle
- See the details you need from far away, with interchangeable smart lenses—2x and 4x telephoto, wide angle, and 25 micron macro—no calibration required

Focus near and far in a single image.

- Capture a clear, accurate image focused throughout the field of view with MultiSharp™ Focus. Simply point and shoot—the camera automatically processes a stack of images focused near and far
- Get an instant in-focus image of your target. LaserSharp® Auto Focus uses a built-in laser distance meter that calculates and displays the distance from your designated target with pinpoint accuracy



Get tough shots from any angle with a 240° degree rotating lens and the only 5.7 inch LCD in its class.

Professional Series: Ti450
100% focused —every object, near and far



The Fluke Ti450 Infrared Camera with MultiSharp Focus delivers images focused throughout the camera's field of view, get 4x's the pixel data with SuperResolution, and wirelessly syncs images from the camera to the cloud for attachment to assets or work orders.

- Capture a clear, accurate image focused throughout the field of view with MultiSharp Focus. Simply point and shoot—the camera automatically processes a stack of images focused near and far
- Get an instant in-focus image of your designated target. LaserSharp® Auto Focus, exclusive to Fluke, uses a built-in laser distance meter that calculates and displays the distance from your designated target with pinpoint accuracy
- Get 4x the pixels with SuperResolution to create a 640 x 480 image
- Save time—wirelessly sync images directly from your camera to the Fluke Connect system, and attach to an asset record or work order
- Get the context of the visual and infrared details all in one precisely blended or picture-in-picture image with IR-Fusion® technology
- Monitor processes with video recording, video streaming, and remote control
- See the details you need with interchangeable smart lenses—2x and 4x telephoto and wide angle—no calibration required

MultiSharp™ Focus produces an image focused throughout the field of view.



FLUKE®

Fluke Infrared Cameras

FLUKE CONNECT®

Performance Series: TiS75
High performance manual focus 320 x 240 infrared camera

Professional quality images with features that help you easily and quickly both see and solve the problem.

- Quality 320 x 240 images with manual focus, get crisp images from as close as 0.15 m (6 in)
- See the location of the issue with blended IR and visual light images with 5MP visual light camera—patented IR-Fusion® technology
- 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.
- Wirelessly connect to other Fluke Connect tools[1]
- Removable 4GB micro SD card
- Voice annotation
- Smart battery with LED charge indicator



Specifications

	TiX500	Ti450	TiS75
Detector resolution	320 x 240 640 x 480 Super Resolution mode		320 x 240
IFOV (spatial resolution)	1.31 mRad		2.0 mRad
Field of view	24 °H x 17 °V		35.7 °H x 26.8 °V
Focus system	MultiSharp™ Focus, LaserSharp® Auto Focus with built-in laser distance meter and advanced manual focus		Manual focus
Wireless connectivity	Fluke Connect app compatible		
IR-Fusion technology	Yes, blended visual and infrared images		
Display	5.7 inch touchscreen LCD	3.5 inch touchscreen LCD	3.5 inch LCD
Design	Ergonomic FlexCam design with a 240 degree rotating lens	Rugged, ergonomic design for one-handed use	Rugged, lightweight, ergonomic design for one-handed use
Temperature measurement range	-20 °C to +650 °C (-4 °F to +1202 °F)	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +550 °C (-4 °F to +1022 °F)
Thermal sensitivity	≤ 0.05 °C at 30 °C target temp (50 mK)	≤ 0.05 °C at 30 °C target temp (50 mK) Filter Mode: ≤ 0.03 °C at 30 °C target temp (30mK)	≤ 0.08 °C at 30 °C target temp (80 mK)

Ordering information

Models	Included accessories
FLK-TiX500 9 Hz Infrared Camera; 320 x 240	AC power supply, battery pack charger (including universal ac adapters), two rugged lithium ion smart battery pack, USB cable, HDMI video cable; micro SD card, rugged, hard carrying case, adjustable neck and hand straps, and Bluetooth headset (where available)
FLK-TiX500 60 Hz Infrared Camera; 320 x 240	
FLK-Ti450 9 Hz Infrared Camera; 320 x 240	AC power supply, battery pack charger (including universal ac adapters), two rugged lithium ion smart battery packs, USB cable, HDMI video cable, 4GB micro SD card, rugged, hard carrying case, soft transport bag, and adjustable hand strap
FLK-Ti450 60 Hz Infrared Camera; 320 x 240	
FLK-TiS75 9 Hz Infrared Camera; 320 x 240	AC power supply, battery pack charger (including universal ac adapters), two rugged lithium ion smart battery packs, USB cable, micro SD card, rugged, hard carrying case, soft transport bag, and adjustable hand strap
FLK-TiS75 30 Hz Infrared Camera; 320 x 240	

[1]Fluke Connect® not available in all countries



Frontline troubleshooting at 320 x 240 resolution.

Wirelessly sync images directly from your camera to the Fluke Connect® system with your smartphone



FLUKE CONNECT

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 is a standalone tablet based HART® communication tool. The tablet configured with the "Fluke HART" mobile app utilizes a wireless HART modem that connects directly to the HART transmitter being tested or configured. When you combine your Fluke 154 HART Calibration Assistant with a Fluke 750 Series Documenting Process Calibrator, or a 720 Series Multifunction Process Calibrator you have a complete HART calibration and configuration solution.

The 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.

Fluke 154 features:

- Full HART Device Description (DD) of all HART devices
- Configure HART devices
- Perform HART trim on HART devices when used with a Fluke 750, or 720 series calibrator
- 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)

Multiple language support:

Select language from the Android operating system. Hart communication commands are limited to English per the HART device descriptions.

Wireless HART Modem:

Includes configurable connection cable that accepts either the hook clips for connecting to wires or the extended tooth alligator clips designed to connect to transmitter connection screw heads. Rechargeable lithium-ion battery lasts easily for several days of HART device configuration and testing activities. Rugged enclosure and test lead set designed for process environments

Store device configurations:

Store HART device configurations in ASCII or PDF file configurations.

HART support:

Complete access to all features of the HART device's DD including methods. Meets HART physical layer specification: HCF_SPEC-54

DD updates:

Download free DD updates from Fluke.com for 3 years. Updates available when DD updates released from the HART FieldComm group (approximately four times a year).



Hard side case:

Protects and stores tablet, modem, test leads and connection cable in a lightweight durable tote that is easy to carry.

Ordering information

Models	Included
FLK-154 HART Calibration Assistant	Tablet, tablet charger and USB, micro-cable, Fluke HART App. (installed), HART modem, USB mini-cable, proof of purchase for product activation, hook test clips, alligator clips, magnetic hanging strap, case, manual installed on tablet, and three-year warranty

Fluke PRV240 Proving Unit



Unique, compact, convenient

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.

Designed for safety and compliance

The Fluke PRV240 provides a safe method to verify that your electrical test tool is operating properly before you conduct any live tests. The concept of "Test Before Touch" (TBT) involves testing your meter against a known live source before and after the actual measurement. This sequence verifies that your test tool is operating properly during the actual measurement.

Verify your test tool without unnecessary exposure to shock and arc flash. Using the PRV240 reduces the need for personal protective equipment (PPE) when a known voltage source is not available for verification of your tester or multimeter before test before TBT are performed. PPE is still needed for absence of voltage testing when appropriate.

Key benefits

- Using the PRV240 reduces the risk of shock and arc flash by validating the functionality of test tools without placing yourself in a potentially hazardous electrical environment
- Sources both ac and dc steady-state voltage—supplies 240 V dc/ac
- A single LED indicates functionality, making this unit a simple-to-use solution for complying with TBT verification of your test tool
- Compatible with both high impedance or low impedance multimeters, clamp meters or two pole testers
- Voltage is sourced through recessed contacts that are activated when tested probes are inserted to avoid accidental contact
- Includes TPak™ Magnetic Hanging Strap
- Long battery life—5,000 tests per set of four AA batteries

Specifications

General specifications		
Output voltage	240 V ac rms or dc	± 10 % ≥ 1 MΩ
	LoZ >3 kΩ load	60 V ac typical
		50 V ac rms minimum
LED power indicator	Turns on when output voltage is present	
Battery	4 AA Alkaline batteries NEDA, 24 A IEC LR03	
Battery life	5000 (5-second duration) test cycles with >1 MΩ load, 300 tests minimum with > 3 kΩ load	
Operating temperature	-10 °C to +50 °C (32 °F to 95 °F)	
Operating humidity	0 % to 90 % (0 °C to 35 °C)	0 % to 70 % (35 °C to 55 °C, 95 °F to 131 °F)
Operating altitude	2000 m	
Dimensions	11.7 cm x 7.4 cm x 2.8 cm (4.6 in x 2.9 in x 1.1 in), Pollution Degree 2	
Weight	0.23 kg (8 oz) includes batteries	
Safety	EN 61010-1, EN 61010-2-030	
Warranty	One-year	
Electromagnetic Compatibility (EMC)	EN 61326-1	Portable EM environment; CISPR 11, Group 1, Class A
	US (FCC)	47 CFR 15 subpart B, this product is considered an exempt device per clause 15.103
	Korea (KCC)	Class A Equipment (Industrial Broadcasting & Communication Equipment)
	This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.	

Ordering information

Models	Included accessories
PRV240 Proving Unit	TPAK hanging strap, four AA batteries, instruction sheet



www.fluke.com/PRV240

Digital multimeter selection guide

	Advanced meters			Wireless meters		General purpose
Models	**87 V**	**289**	**287**	**233**	**3000 FC**	**179**
Basic features						
Counts	20000	50000	50000	6000	6000	6000
True-rms readings	ac	ac+dc	ac+dc	ac	ac	ac
Basic dc accuracy	0.05 %	0.025 %	0.025 %	0.25 %	0.09 %	0.09 %
Wide bandwidth	20 kHz	100 kHz	100 kHz			
Auto/manual ranging	•/•	•/•	•/•	•/•	•/•	•/•
ATEX II 2G Eex ia IICT4 safety rating Z1/Z2						
Measurements						
Voltage ac/dc	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Current ac/dc	10 A	10 A	10 A	10 A	400 mA	10 A
Resistance	50 MΩ	500 MΩ	500 MΩ	40 MΩ	50 MΩ	50 MΩ
Frequency	200 kHz	1 MHz	1 MHz	50 kHz	100 kHz	100 kHz
Capacitance	10,000 µF	50,000 µF	50,000 µF	10,000 µF	10,000 µF	10,000 µF
Temperature	+1090 °C	+1350 °C	+1350 °C	+400 °C		+400 °C
dB		60 dB	60 dB			
Conductance	50 nS	50 nS	50 nS			
Duty cycle/pulse width	•/–	•/•	•/•			
Continuity/diode test	•	•	•	•	•	•
Motor Drive (ASD) Measurements	•	•				
VoltAlert™, non-contact voltage detection						
VCHEK™						
LoZ: low input impedance		•				
Lo ohms		•				
Microamps	•	•	•			
Display						
Removable wireless display				•		
Remote wireless readings, connects to smart phone		(with ir3000 FC connector, sold separately)	(with ir3000 FC connector, sold separately)		•	
Dot matrix display		•	•		•	
Dual display		•	•		•	
Analog bargraph	•	•	•			•
Backlight	Two level	Two level	Two level	•	•	•
Graphical trend display		•	•			
Diagnostics and data						
Min/Max recording with time stamp	•/–	•/•	•/•	•/–	•/–	•/–
Fast Min/Max	250 µs	250 µs	250 µs			
Display Hold/Auto (Touch) Hold	•/•	•/•	•/•	•/•	•/•	•/•
Relative reference	•	•	•			
Stand alone logging		•	•		(with FC app)	
Trend Capture		•	•		(with FC app)	
Readings memories		10,000	10,000		(with FC app)	
USB interface		•	•			
Other features						
Real time clock		•	•			
Automatic selection, ac/dc volts						
Closed case calibration	•	•	•	•	•	•
Separate battery/fuse access	•/–	•/•	•/•	•	•	•
Automatic power off	•	•	•	•	•	•
Low battery indication	•	•	•	•	•	•
Operating temperature range	–20 °C, +55 °C	–20 °C, +55 °C	–20 °C, +55 °C	–10 °C, +50 °C	–10 °C, +50 °C	–10 °C, +50 °C
Warranty and electrical safety						
Warranty (years)	Limited lifetime	Limited lifetime	Limited lifetime	3	3	Lifetime
Input alert	•	•	•			
IP Rating	IP30				IP54	
Safety rating (EN 61010) CAT III	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Safety rating (EN 61010) CAT IV	600 V	600 V	600 V	600 V	600 V	600 V

	Compact meters					Specialty meters			
Models	**117**	**116**	**115**	**114**	**113**	**28 II**	**27 II**	**28IIEX**	**279 FC**
Basic features									
Counts	6000	6000	6000	6000	6000	20000	6000	20000	6000
True-rms readings	ac	ac	ac	ac	ac	ac		ac	ac
Basic dc accuracy	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.05 %	0.1 %	0.05 %	0.09 %
Wide bandwidth						20 kHz	30 kHz	20kHz	
Auto/manual ranging	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•
ATEX II 2G Eex ia IICT4 safety rating Z1/Z2								•	
Measurements									
Voltage ac/dc	600 V	600 V	600 V	600 V	600 V	1000 V	1000 V	1000 V	1000 V
Current ac/dc	10 A	600 µA	10 A			10 A	10 A	10 A	2500 A AC (with iFlex)
Resistance	40 MΩ	40 MΩ	40 MΩ	40 MΩ	60 kΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ
Frequency	100 kHz	100 kHz	100 kHz			200 kHz	200 kHz	200 kHz	100 kHz
Capacitance	10,000 µF	10,000 µF	10,000 µF		10,000 µF	10,000 µF	10,000 µF	10,000 µF	10,000 µF
Temperature		+400 °C				+1090 °C		+1090 °C	Infrared camera -10 °C to +200 °C
dB									
Conductance						60 nS	60 nS	60 nS	
Duty cycle/pulse width						•/–	•/–	•/–	
Continuity/diode test	•	•	•	•	•	•	•	•	•
Motor Drive (ASD) Measurements						•		•	•
VoltAlert™, non-contact voltage detection	•								
VCHEK™					•				
LoZ: low input impedance	•	•		•	•				
Lo ohms									
Microamps		•				•	•	•	
Display									
Removable wireless display									
Remote wireless readings, connects to smart phone									•
Dot matrix display									
Dual display									
Analog bargraph	•	•	•	•	•	•	•	•	
Backlight	•	•	•	•	•	Two level	Two level	Two level	•
Graphical trend display									
Diagnostics and data									
Min/Max recording with time stamp	•/–	•/–	•/–	•/–	•/–	•/–	•/–	•/–	•/–
Fast Min/Max						250 µs		250 µs	
Display Hold/Auto (Touch) Hold	•/–	•/–	•/–	•/–	•/–	•/•	•/•	•/•	•/•
Relative reference						•	•	•	
Stand alone logging									(with FC app)
Trend Capture									(with FC app)
Readings memories									(with FC app)
USB interface									
Other features									
Real time clock									
Automatic selection, ac/dc volts	•	•		•	•				
Closed case calibration	•	•	•	•	•	•	•	•	•
Separate battery/fuse access	•	•	•	•	•	•/•	•	•/–	•
Automatic power off	•	•	•	•	•	•	•	•	•
Low battery indication	•	•	•	•	•	•	•	•	•
Operating temperature range	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-40 °C, +55 °C	-40 °C, +55 °C	-15 °C, +50 °C	-15 °C, +50 °C
Warranty and electrical safety									
Warranty (years)	3	3	3	3	3	Limited lifetime	Limited lifetime	3	3
Input alert						•	•	•	
IP Rating	IP42	IP42	IP42	IP42	IP42	IP67	IP67	IP67	IP40
Safety rating (EN 61010) CAT III	600 V	600 V	600 V	600 V		1000 V	1000 V	1000 V	1000 V
Safety rating (EN 61010) CAT IV					600 V	600 V	600 V	600 V	600 V

Find how-to videos, application notes, and other useful resources on the digital multimeter product pages on www.fluke.com

FLUKE CONNECT

Fluke 3000 FC True-rms Wireless Multimeter



Reduce the risk of arc flash and stay safe

The Fluke 3000 FC True-rms Wireless Multimeter and Fluke Connect wireless test tools keep you safe from hazardous measurement situations. Just deenergize 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, from a safe distance, read the results on the 3000 FC True-rms Wireless Multimeter.

You can display the meter measurement, plus readings from up to three wireless modules. Better still, the Fluke 3000 FC True-rms 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.

The Fluke 3000 FC True-rms 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

Specifications

Functions	Range and resolution	Basic accuracy
AC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	1.0 % + 3
DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.09 % + 2
Continuity		Meter beeps at < 25 Ω, beeper detects opens or shorts of 250 µs or longer
Resistance	600 Ω, 600.0 Ω, 6.000 kΩ, 60.00 kΩ, 60.00 kΩ, 600.0 kΩ, 50.00 MΩ	0.5 % + 1
Diode test	2.000 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)	60.00 mA, 400.0 mA[3]	1.5 % + 3
mA dc[2]	60.00 mA, 400.0 mA[3]	0.5 % + 3
Frequency	0.01 Hz, 0.1 Hz, 0.001 kHz, 0.01 kHz	0.1 % + 1

[1]In the 9999 µF range for measurements to 1000 µF, 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]). **(Not compatible with Fluke CNX test tools)**

Ordering information

Models	Included accessories
FLK-3000FC FC Wireless Digital Multimeter	Test leads, alligator clips, holster, AA batteries installed, information packet

Kits—buy more, save more



FC Wireless v3003 AC-DC Voltage Measurement Kit



FC Wireless t3000 Temperature Kit

Recommended accessories



TL175 TwistGuard™ Test Leads



C3004 Soft Case

Fluke 170 Series Digital Multimeters



Maintenance experts can find most electrical and HVAC problems

The Fluke 170 Series True-rms Multimeters is simple to use with significant improvements over the original Fluke 70 Series.

- Wide 1000 V measurement range
- True-rms for precise measurement of non-linear signals
- Capacitance, resistance, continuity and frequency
- Built-in thermometer (Fluke 179 only)
- Backlight for work in dimly lit areas (Fluke 177 and 179 only)
- Min/Max/Avg to record signal fluctuations
- Display hold and auto hold
- Manual and automatic ranging
- Basic dc accuracy (179/0.09 %, 177/0.09 %, 175/0.15 %)
- Also available: 177 with true-rms and backlight and 175 with true-rms

Specifications

DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 0.09 % (Models 177 and 179) ± 0.15 % (Model 175)
AC voltage[1]	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 1.0 % of reading
DC current	60.00 mA, 400.0 mA, 6.000 A, 10.00 A[2]	± 1.0 % of reading
AC current[2]	60.00 mA, 400.0 mA, 6.000 A, 10.00 A[2]	± 1.5 % of reading
Resistance	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 50.00 MΩ	± 0.9 % of reading
Capacitance	1000 nF, 10.00 µF, 100.0 µF, 9999 µF	± 1.2 % of reading
Frequency[3]	99.99 Hz, 999.9 Hz, 9.999 Hz, 99.99 kHz	± 0.1 % of reading
Temperature (179 only)	-40 °C to +400 °C (-40 °F to +752 °F)	1.0 % of reading
Battery life	200 hours typical for alkaline	
Dimensions (HxWxL)	4.3 cm x 9.0 cm x 18.5 cm (1.7 in x 3.5 in x 7.3 in)	

[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.

Ordering information

Models	Included accessories
FLUKE-179 Digital Multimeter	Test leads, temperature probe, 9 V battery (installed), manual
FLUKE-177 Digital Multimeter	Test leads, 9 V battery (installed), manual
FLUKE-175 Digital Multimeter	Test leads, 9 V battery (installed), manual



Kits—buy more, save more



179/EDA2 Electronics Multimeter and Deluxe Accessory Combo Kit

Recommended accessories



TLK-225 SureGrip™ Master Accessory Set



C25 Meter Case





Fluke 289 and 287 True-rms Logging Multimeters

Find little problems before they become big ones

The Fluke 289 and 287 are high performance industrial logging multimeters. The large 50,000 count, 1/4 VGA dot matrix display and multiple on screen displays give you sharp, clear readings. Use the logging function with expanded memory for unattended monitoring of signals over time. With on-board TrendCapture, you can graphically review up 10,000 recorded events and logged readings. Then, zoom on trend provides an unprecedented ability to zoom in up to 14 times to view and analyze data—all without needing a PC.

- 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)
- Low-pass filter for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (289)
- Add the wireless data logging capabilities of Fluke Connect® with Share-Live™ video call with the if3000 FC connector
- True-rms ac bandwidth 100 kHz; dBV/dBm; dc mV resolution 1 µV; Megohm range up to 500 MΩ
- Conductance 50.00 nS
- Min/Max/Avg/duty cycle/pulse width
- Isolated optical DMM interface with USB PC connection
- Over 200 hours logging capacity with new power saving function
- Lo Ohm capability; Lo Z volts; Lo Pass Filter

Specifications

Functions	Range and resolution	Basic accuracy
AC or dc voltage	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V	0.025 % 0.4 % (true-rms) (ac)
AC current dc current	500.00 µA, 5000.0 µA, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A	0.15 % 0.7 % (true-rms)
Temperature (excluding probe)	-200.0 °C to 1350.0 °C (-328.0 °F to 2462.0 °F)	1.0 %
Resistance	50.000 Ω, 500.00 Ω, 5.0000 kΩ, 50.000 kΩ, 500.00 kΩ, 5.0000 MΩ, 50.00 MΩ, 500.0 MΩ	0.05 %
Capacitance	1.000 nF,10.00 nF, 100.0 nF, 1.000 µF, 10.00 µF, 100.0 µF, 1000 µF, 10.00 mF, 100 mF	1.0 %
Frequency	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 999.99 kHz	.005 %

Ordering information

Models	Included accessories
FLUKE-289 True-rms Industrial Logging Multimeter with TrendCapture	Test leads, alligator clips, holster, AA batteries installed, information packet
FLUKE-287 True-rms Electronics Logging Multimeter with TrendCapture	Test leads, alligator clips, holster, AA batteries installed, information packet



FLUKE CONNECT



Kits—buy more, save more



289/FVF True-rms Industrial Logging Multimeter Combo Kit with TrendCapture

Recommended accessories



TL175 TwistGuard™ Test Leads



ir3000 FC Connector

Fluke 87V Industrial Multimeters



The perfect DMM for a heavy industrial environment

The Fluke 87V Industrial Multimeter has measurement functions, trouble-shooting features, resolution and accuracy to solve industrial problems on motor drives, in-plant automation, power distribution and electro-mechanical equipment. The Fluke 87V Industrial Multimeter offers a unique function for accurate voltage and frequency measurements on adjustable speed motor drives and electrically noisy equipment. The large digit display with a bright, two level backlight makes it significantly easier to read.

Electrical safety

All inputs are protected to CAT III 1000 V and CAT IV 600 V. They can withstand impulses in excess of 8,000 V to help protect you from arc blast resulting from surges and spikes.

- Measure 20 A for up to 30 seconds, 10 A continuously
- Expanded capacitance range to 10,000 µF
- Peak capture to record transients as fast as 250 µs
- Measure up to 1000 V ac and dc
- Auto and manual ranging for maximum flexibility
- Frequency to 200 kHz and % duty cycle
- Min/Max/Avg recording to capture variations automatically
- Relative mode to remove test lead resistance from low ohms measurements
- Also available as 83V average responding multimeter

Specifications

Functions	Range and resolution	Basic accuracy	
		87V	83V
DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.05 %	0.1 %
AC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.7 % (true-rms)	0.5 %
DC current	600.0 µA, 6000 µA, 60.00 µA, 600.0 mA, 6.000 A, 10.00 A	0.2 %	0.4 %
AC current	600.0 µA, 6000 µA, 60.00 µA, 600.0 mA, 6.000 A, 10.00 A	1.0 % (true-rms)	1.2 %
Temperature (excluding 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 or 2 %	
Resistance	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 50.00 MΩ	0.2 %	0.4 %
Capacitance	10.00 nF, 100.0 nF, 1.000 µF, 10.00 µF, 100.0 µF, 9,999 µF	1.0 %	1.0 %
Frequency	199.99 Hz, 1.9999 kHz, 19.999 kHz, 199.99 kHz	0.005 %	0.005 %
Battery life	400 hours typical with backlight off		
Dimensions (LxWxD)/Weight	201 mm x 98 mm x 52 mm (7.9 in x 3.8 in x 2 in)/355 g (22 oz)		

Ordering information

Models	Included accessories
FLUKE-87-5 Industrial True-rms Multimeter with Temperature	Test leads, alligator clips, holster, batteries (installed), temperature probe (87V only), information packet
FLUKE-83-5 Industrial Multimeter	Test leads, alligator clips, holster, batteries (installed), temperature probe (87V only), information packet





Kits—buy more, save more



87V/E2 Industrial Electrician's Combo Kit

Recommended accessories



AC285 SureGrip™ Alligator Clips



CXT80 Extreme Case



Fluke 27 II, 28 II and 28 II Ex Digital Multimeters

Designed for tough work environments

The 27 II, 28 II and 28 II Ex Digital Multimeters all have IP67 waterproof and dustproof rating. They also have an extended operating temperature range of –15 °C to +55 °C (5 °F to 131 °F) and 95 % humidity. These meters offer unique functions for accurate voltage and frequency measurements on adjustable speed motor drives and electrically noisy equipment (28 II and 28 II Ex). A built in thermometer allows you to take temperature readings without having to carry a separate instrument.

- Resistance and continuity. Relative mode to remove test lead resistance from low ohms measurements
- MSHA, CSA and TÜV approvals (27 II, 28 II)
- Intrinsically safe certifications from the world's leading certification bodies (28 II Ex, pg 67)
- Tested to withstand a 3 m (10 ft) drop
- Wide 1000 V measurement range
- True-rms ac voltage and current for accurate measurements on non-linear signals (28 II, 28 II Ex)
- Low pass filter (28 II, 28 II Ex)
- Average responding voltage and current measurements (27 II)
- 10 A continuous (20 A for 30 seconds)
- Frequency and capacitance
- Record signal fluctuations using the Min/Max function

Specifications

	27 II	28 II	28 II Ex
Volts ac, dc	1000 V		
Amps ac, dc	10A		
Resistance	0.1 0 to 50 MΩ		
Display counts	6000	6000/19,999	6000/19,999
Temperature		-200 °C to +1090 °C	-200 °C to +1090 °C
Low pass filter (measurement on VSD's)		•	•
Safety rating (EN 61010)	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 cm x 10.0 cm x 19.81 cm (2.5 in x 3.93 in x 7.8 in)		
Weight with holster	698.5 g (1.54 lb)		

Ordering information

Models	Included accessories
FLUKE-28-II Industrial Multimeter	Test leads, temperature probe, alligator clips, batteries, holster, information pack
FLUKE-28-II EX Intrinsically Safe Industrial Multimeter See page 67 for more information	Test leads, temperature probe, alligator clips, batteries, holster, information pack
FLUKE-27-II Industrial Multimeter	Test leads, temperature probe, alligator clips, batteries, holster, information pack





Recommended accessories



TLK-225 SureGrip™ Master Accessory Set



PV350 Pressure-Vacuum Module



TL225 Stray Voltage Adapter Test Lead Kit



C550 Tool Bag

Fluke 233 Remote Display Digital Multimeter





Now, you can be in two places at once

The Fluke 233 Remote Display Digital Multimeter has a removable display that solves several problems. First, you no longer have to hold both the meter and the test leads to make a measurement. Second, it 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. Third, Fluke's wireless technology allows the display to be carried up to 9 m (30 feet) away from the point of measurement for added flexibility and 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
- Radio transmitter automatically turns off when the display is connected to the meter
- Record signal fluctuations using the Min/Max function
- Measure up to 1000 V ac and dc
- Measure up to 10 A (20 A for 30 seconds)
- 10,000 µF capacitance range
- Frequency up to 50 kHz
- Resistance, continuity and diode test
- Min/Max/Avg recording to capture variations automatically
- New, improved battery life

Specifications

Functions	Specifications	
DC voltage	Range	0.1 mV to 1000 V
	Accuracy	0.25 % + 2
AC voltage	Range	0.1 mV to 1000 V
	Accuracy	1.0 % + 3
DC current	Range	0.001 A to 10 A
	Accuracy	1.0 % + 3
AC current	Range	0.001 A to 10 A
	Accuracy	1.5 % + 3
Resistance	Range	0.1 Ω to 40 MΩ
Capacitance		1000 nF to 9999 µF
Frequency		0.1 Hz to 50.00 kHz
Temperature		-40 °C to +400 °C (-40 °F to 752 °F)
Power		Three AA batteries main body, two AA batteries display module
Battery life		400 hours
Safety rating		CAT IV 600 V, CAT III 1000 V
Size (HxWxL)		5.3 cm x 5.3 cm x 19.3 cm (2.08 in x 2.08 in x 7.6 in)
Weight		604 g (1.3 lb)

Ordering information

Models	Included accessories
FLUKE-233 Remote Display Multimeter	Test leads, temperature probe, alligator clips, batteries, information pack

Recommended accessories



80PK-22
SureGrip™ Immersion Temperature Probe



80AK-A Thermocouple Adapter



TL220 SureGrip™ Industrial Test Lead Set



TLK289 SureGrip™ Industrial Master Test Lead Set and Case





600 V CAT III
600 V CAT IV
True RMS
113 only

Fluke 11X Series True-rms Digital Multimeters

Dependable DMMs for electrical and HVAC purposes

The Fluke 117 Digital Multimeter includes integrated non-contact voltage detection to help get the job done faster. The Fluke 115 Digital Multimeter is the solution for a wide variety of electrical and electronic testing applications.

The Fluke 116 Digital Multimeter was specifically designed for the HVAC professional. The Fluke 114 Digital Multimeter is the best troubleshooting tool for "go/no-go" testing and the 113 is a basic electrical and utility multimeter.

- VoltAlert™ technology for integrated non-contact voltage detection (117)
- AutoVolt feature for automatic ac/dc voltage selection (117, 116, 114)
- Built in thermometer for HVAC applications (116)
- Microamps to test flame sensors (116)
- VCHEK™ LoZ low impedance measurement function to simultaneously test for voltage or continuity (113)
- LoZ: Low input impedance prevents false readings due to "ghost voltage" (117, 116, 114)
- Min/Max/Avg to record signal fluctuations
- Large display and white LED backlight to work in poorly lit areas more effectively
- Compact ergonomic design for one-handed operation

ToolPak compatible

Specifications

Functions	117	116	115	114	113
AC/DC voltage	600 V	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	60 kΩ
Capacitance	1 nF to 9,999 µF	1 nF to 9,999 µF	1 nF to 9,999 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	CAT IV 600 V

Ordering information

Models	Included accessories
FLUKE-117 Multimeter with Non-Contact Voltage	Test leads, holster, users manual and 9 V battery (installed)
FLUKE-116 HVAC Multimeter with Temperature and Microamps	Test leads, integrated temperature probe, holster, users manual and 9 V battery (installed)
FLUKE-115 Multimeter	Test leads, holster, users manual and 9 V battery (installed)
FLUKE-114 Electrical Multimeter	Test leads, holster, users manual and 9 V battery (installed)
FLUKE-113 Utility Meter	Test leads, holster, users manual and 9 V battery (installed)





Kits—buy more, save more



117/323 Electrician's Combo Kit



116/62 MAX+ HVAC Combo Kit

Recommended accessories



TL175 TwistGuard™ Test Leads



C115 Soft Carrying Case

Fluke 88V and 77 IV Digital Multimeters



Fluke 88V Automotive Multimeter—designed to help automotive professionals solve problems faster

The Fluke 88V Automotive Multimeter has the measurement functions, troubleshooting features and accuracy to solve virtually any problem with conventional and hybrid vehicles.

- Automotive test functions include dc and ac voltage, resistance and current
- Min/Max recording for logging the highest and lowest readings over time
- Frequency measurements for magnetic sensors and ac/dc frequency signals
- Duty cycle for variable duty cycle signals with selectable trigger, slope and level
- Pulse width for fuel injector on-time measurements
- Conductance testing for secondary ignition coils
- RPM measurements for DIS and conventional ignition systems
- Built-in thermometer

Fluke 77 IV Digital Multimeter—use to repair most electrical and electronic problems

The Fluke 77 IV Digital Multimeter 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
- Min/Max to record signal fluctuations
- Auto and manual ranging



Specifications

	88V	77IV
DC voltage	1000 V	1000 V
AC voltage	1000 V	1000 V
DC current	10 A	10 A
AC current	10 A	10 A
Resistance	50 MΩ	50 MΩ
Capacitance	9,999 µF	9,999 µF
Frequency	200.00 kHz	99.99 kHz
Duty Cycle	99.9 %	
Temperature	1994.0 °F (1090 °C)	
Conductance	60.00 nS	

Ordering information

Models	Included accessories
FLUKE-88-5 Automotive Multimeter	Test leads, 9 V battery (installed), information packet
FLUKE-77-4 Digital Multimeter	Test leads, 9 V battery (installed), information packet

Kits—buy more, save more



88V/A Automotive Multimeter Combo Kit

Recommended accessories



TLK282 Deluxe Automotive Test Lead Kit (88V)



TLK-225 SureGrip™ Master Accessory Kit (77 IV)



C35 Soft Carrying Case

Clamp meter selection guide

	Residential/commercial electrical			General purpose		
	323	324	325	365	373	374 FC
Measurements						
AC current	•	•	•	•	•	•
AC voltage	•	•	•	•	•	•
Resistance	•	•	•	•	•	•
Continuity	•	•	•	•	•	•
DC volts	•	•	•	•	•	•
DC current			•	•		•
True-rms	•	•	•	•	•	•
Frequency			•			
AC + DC voltage						
AC + DC current						
Min/Max/Avg			•			•
4–20 mA (0.01 mA resolution)						
Temperature		•	•			
Capacitance		•	•		•	•
Measurement logging						
Special features						
Inrush current mode						•
Low Pass filter for VFD's						
Harmonics, power, data logging						
18-inch (45.7 cm) iFlex Flexible Current Probe						Optional
10-inch (25.4 cm) iFlex Flexible Current Probe						Optional
Remote display						in phone app
Wireless						•
Display						
Display hold	•	•	•	•	•	•
Backlight		•	•	•	•	•
Graphing display						in phone app
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)
Max wire size	300 mm^2	300 mm^2	300 mm^2	17 mm (0.67 in)	400 mm^2	400 mm^2
Current range ac rms	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)
Accuracy ac current (50/60 Hz)	2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts
AC Response	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
Accuracy dc current			2 % ± 5 counts	2 % ± 5 counts		2 % ± 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
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
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
Accuracy dc voltage	1.0 % ± 5 counts	1.0 % ± 5 counts	1.0 % ± 5 counts	2 % ± 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
Frequency measurement range			5 Hz to 500 Hz			
Unit power						
Auto off	•	•	•		•	•
Warranty and safety						
Warranty (years)	2	2	2	3	3	3
Safety rating (EN 61010)	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
Fluke Connect						
Compatible with Fluke Connect® app						•
Compatible with Fluke Connect® Assets software						•

Find how-to videos, application notes, and other useful resources on the clamp meter product pages on www.fluke.com

General purpose	Industrial electrical		HVAC/R	High-end industrial, utility		Leakage	Wireless	
375 FC	376 FC	381	902 FC	353	355	368 FC/369 FC	a3000 FC	a3001 FC
•	•	•	•	•	•	•	•	•
•	•	•	•		•			
•	•	•	•		•			
•	•	•	•		•			
•	•	•	•		•			
•	•	•	•	•	•			
•	•	•	•	•	•	•	•	•
•	•	•		•	•			•
					•			
				•	•			
•	•	•	•	•	•			
			•					
•	•		•					
•	•					•	•	•
•	•	•		•	•		•	•
•	•	•		•	•			
Optional	Included	Included						Optional
Optional	Optional	Optional						Included
in phone app	in phone app	•	in phone app			in phone app	in phone app	in phone app
•	•					•	•	•
•	•	•	•	•	•	•	in phone app	in phone app
•	•	•	•	•	•	•	•	
in phone app	in phone app		in phone app			in phone app	in phone app	in phone app
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
400 mm^2	400 mm^2	400 mm^2	300 mm^2	400mm^2 or 3x 240 mm^2	400mm^2 or 3x 240 mm^2		400 mm^2	
0 to 600.0 A (2500 A with iFlex)	0 to 999.9 A (2500 A with iFlex)	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 400A	0 to 2500A
2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts	1.5 % ± 5 counts	1.5 % ± 5 counts	1 % ± 5 counts	2 % ± 5 counts	3 % ± 5 counts
True-rms	True-rms	True-rms	True-rms	True-rms	True-rms	True-rms	True-rms	True-rms
0 to 600.0 A	0 to 999.9 A	0 to 999.9 A	0 to 200 µA	0 to 2000 A	0 to 2000 A			
2 % ± 5 counts	2 % ± 5 counts	2 % ± 5 counts	1 % ± 5 counts	1.5 % ± 5 counts	1.5 % ± 5 counts			
0 to 1000 V	0 to 1000 V	0 to 1000 V	600.0 V		0 to 600.0 V			
1.5 % ± 5 counts	1.5 % ± 5 counts	1.5 % ± 5 counts	1 % ± 5 counts		1 % ± 5 counts			
0 to 1000 V	0 to 1000 V	0 to 1000 V	0 to 600.0 V		0 to 1000 V			
1 % ± 5 counts	1 % ± 5 counts	1 % ± 5 counts	1 % ± 5 counts		1 % ± 5 counts			
0 to 6000 Ω	0 to 60 kΩ	0 to 60 kΩ	0 to 9999 Ω		0 to 400 kΩ			
500 Hz	500 Hz	500 Hz		5 to 1000 Hz	5 to 1000 Hz	40 to 1000 Hz		
•	•	•	•	•	•	•	•	•
3	3	3	3	3	3	1	3	3
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 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 1000 V CAT IV 600 V
•	•		•			•	•	•
•	•		•			•	•	•

FLUKE CONNECT



Fluke 370 Series Clamp Meters

Unprecedented measurement flexibility

The Fluke 370 FC Series clamp meters offer advanced troubleshooting performance plus Fluke Connect features to log and transmit data wirelessly.

Now you are able to log and trend measurements (the 376 FC and 375 FC have internal memory for up to 65,000 measurements), capture measurements outside the arcflash zone with Bluetooth® connectivity to your Apple® or Android® devices, transmit results wirelessly via the Fluke Connect Measurements app, and create and send reports right from the field.

The Fluke 370 FC Series Clamp Meters have a large backlit display, true-rms standard, CAT IV safety rating and a durably constructed body. Additionally, the 376 FC, 375 FC and 374 FC are compatible with the iFlex® Flexible Current Probe that measure up to 2500a ac.

Ordering information

Models	Included accessories
FLUKE-373 True-rms Wireless AC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.
FLUKE-374 FC True-rms Wireless AC/DC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.
FLUKE-375 FC True-rms Wireless AC/DC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.
FLUKE-376 FC True-rms Wireless AC/DC Clamp Meter with iFlex	18-inch (45.7 cm) iFlex flexible current probe, test leads, TPAK magnetic hanging strap, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.

Find how-to videos, application notes, and other useful resources on the clamp meter product pages on www.fluke.com



Fluke 320 Series True-rms Clamp Meters

Go to work with the best

The small and rugged 320 Series True-rms Clamp Meters are the best general troubleshooting tools for commercial and residential electricians and are designed to verify the presence of load current, ac voltage and continuity of circuits, switches, fuses and contacts. The Fluke 325 also offers dc current and frequency measurements.

- 400 A ac current measurement (ac and dc current; 325 only) and 600 V ac and dc voltage measurement
- Resistance measurement to up to 40 kΩ (325) and 4 kΩ (323 and 324) with continuity
- CAT IV 300 V/CAT III 600 V safety rating

Ordering information

Models	Included accessories
FLUKE-325 True-rms Clamp Meter	Test leads, temperature probe, soft case and users manual
FLUKE-324 True-rms Clamp Meter	Test leads, temperature probe, soft case and users manual
FLUKE-323 True-rms Clamp Meter	Test leads, soft case and users manual



Recommended accessories

Fluke 370 Series



i2500-10
10 inch (25.4 cm)
iFlex® Flexible Current Probe

Fluke 370 Series



C43 Small Soft Case

Fluke 320 Series



TL175 TwistGuard™
Test Leads

Fluke 320 Series



L210 Probe Light and Extender

Fluke 381 Remote Display True-rms AC/DC Clamp Meter with iFlex®



The world's most advanced clamp meter

The Fluke 381 Clamp Meter combines iFlex® flexibility with remote reading capability for the ultimate in innovation and safety. The remote display reads measurements up to 9 m (30 feet) away and the included iFlex Flexible current probe (18-inch/45.7 cm circumference) lets you easily get into tight spaces.

- 2500 A ac current measurement with iFlex
- 1000 A ac and dc current measurement with fixed jaw
- 1000 V ac and dc voltage measurement
- Frequency measurement to 500 Hz
- 60 kΩ resistance measurement
- Min/Max/Avg and inrush recording
- CAT IV 600 V, CAT III 1000 V
- Three-year warranty

Ordering information

Models	Included accessories
FLUKE-381 Remote Display True-rms AC/DC Clamp Meter with iFlex	18-inch (45.7 cm) iFlex Flexible Current Probe, test leads, soft carrying case, instruction card, safety information sheet, five AA alkaline batteries

Fluke 365 Detachable Jaw True-rms AC/DC Clamp Meter



Where rugged meets reliable

The Fluke 365 Clamp Meter offers a small, detachable jaw—with 1.2 m of coil—that makes it easy to take and read measurements in tight or hard-to-reach places.

- 200 A ac and dc current measurement
- 600 V ac and dc voltage measurement
- 6000 Ω resistance measurement
- Built-in flashlight
- Large, easy-to-read backlight display
- Three-year warranty

Ordering information

Models	Included accessories
FLUKE-365 Detachable Jaw True-rms AC/DC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, five AA alkaline batteries

Recommended accessories

Fluke 381	Fluke 381	Fluke 365	Fluke 365
			
AC285 SureGrip™ Alligator Clips	**TLK289** Industrial Master Test Lead Set	**TL220** SureGrip™ Industrial Test Lead Set	**FTPL-1** SureGrip™ Fused Test Probe and Lead Set



FLUKE CONNECT

Fluke 902 FC True-rms Wireless HVAC Clamp Meter



Helps HVAC pros keep up with the demands of their job

HVAC technicians require a service tool they can depend on to consistently meet the expectations of their job. The Fluke 902 FC expands the existing line of quality Fluke clamp meters by delivering the features necessary to diagnose and repair HVAC systems. Combined with Fluke Connect®, the Fluke 902 FC helps technicians do their jobs safely and accurately.

- Capture and trend measurements safely from outside the arc blast zone and easily create and send reports from the field with Fluke Connect®
- Designed for HVAC applications with capacitance, dc current (µA) and temperature measurements
- Small body and jaws fit perfectly in your hand and into tight places
- True-rms voltage and current for accurate measurements of non-linear signals
- Three-year warranty

Ordering information

Models	Included accessories
FLUKE-902 FC True-rms Wireless HVAC Clamp Meter	Test leads, temperature probe, soft carrying case, users manual, two AA alkaline batteries

Fluke 368 FC/369 FC AC True-rms Leakage Current Clamp Meter



Reduce downtime – Test leakage currents without taking equipment offline

The Fluke 368/369 Series of true-rms leakage current clamp meters help users detect, document, record and compare leakage current readings over time as a means of preventing unplanned downtime, and identifying intermittent GFCI and RCD trips, all without taking equipment off line.

Current measurement

- Automatic ranging within the manually selected mA or A range
- Ranges 3/30 mA and 30/60 A
- Current resolution 1 µA/0.01 mA and 0.01 A/0.1 A
- Selectable filter 40 Hz to 70 Hz or wideband 40 Hz to 1 kHz
- Frequency range 40 Hz to 1 kHz
- Jaw size: 40 mm (1.55 in) on 368 FC and 61 mm (2.4 in) on 369 FC diameter
- Auto power off
- Torch light
- Logging
- Fluke Connect compatible

Ordering information

Models	Included accessories
FLUKE-368 FC AC Leakage Current Clamp Meter	Soft carrying case, users manual
FLUKE-369 FC AC Leakage Current Clamp Meter	Soft carrying case, users manual



Recommended accessories

Fluke 902	Fluke 902	Fluke 902	Fluke 902
			
AC220 SureGrip™ Alligator Clips	**AC175** Alligator Clip Set	**TL224** SureGrip™ Insulated Test Leads	**C33** Soft Carrying Case

Wireless Fluke Connect® Current Meters

Take three-phase measurements in one-third of the time

Testing 3-phase is now faster and cheaper. When your cabinet is de-energized, attach the 3000 FC Wireless Current Clamp to each phase. You can solve problems faster by seeing live measurements from multiple test points on a single screen. Then, send data to your laptop and go from logging to analysis and diagnosis using the Fluke Connect® app or Fluke Connect® Assets software.



Fluke a3000 FC Wireless AC Current Clamp Meter
A fully functional true-rms current clamp meter that wirelessly relays measurements to other Fluke Connect® enabled master units.
- Measure up to 400 A ac

Fluke a3001 FC Wireless iFlex AC Current Meter
A true-rms flexible current meter that wirelessly relays measurements to other Fluke Connect enabled master units.
- Record over time to monitor circuit load changes for an hour, a shift or a week
- Measure up to 2500 A ac

Fluke a3002 FC Wireless AC/DC Current Meter Module
- Measure up to 400 A ac or 400 A dc with i410 (sold separately)
- Measure up to 600 A ac or 1000 A dc with i1010 (sold separately)
- Use as a standalone meter or as part of the system

Fluke a3003 FC Wireless 2000 A DC Current Clamp Meter
- Measure up to 2000 A DC
- Large jaw size (64 mm) for measuring large, high current conductors
- Use the logging function for the recording and saving up to 65,000 readings

Fluke a3004 FC Wireless 4-20 mA DC Current Meter
- Measure 4 to 20 mA signals without "breaking the loop"
- Detachable clamp with extension cable for measurements in tight locations
- Use the logging function for the recording and saving up to 65,000 readings



Fluke a3003 FC Wireless 2000 A DC Current Clamp Meter



Fluke a3004 FC Wireless 4–20 mA DC Current Meter

Ordering information

Models	Included accessories
FLK-a3000 FC Wireless AC Current Clamp Meter	Information pack
FLK-a3001 FC Wireless iFlex AC Current Meter	iFlex current probe, information pack, magnetic hanger
FLK-a3002 FC Wireless AC/DC Current Meter Module	Information pack, magnetic hanger
FLK-a3003 FC Wireless 2000 A DC Current Clamp Meter	2000 A DC Clamp, information pack, magnetic hanger
FLK-a3004 FC Wireless 4–20 mA DC Current Meter	4–20 mA DC current probe, information pack, hanging strap



Fluke 353 and 355 AC/DC True-rms Clamp Meters

Versatile, professional, accurate

Confidently take reliable readings with the true-rms Fluke 355 and 353 Clamp Meters—the tools of choice for high current clamp-on amp meter measurements up to 2000 A.

- Reliably handle a wide range of high-current applications with 2000 A ac + dc true-rms, 1400 A ac, and 2000 A dc
- High voltage measurement of 1000 V ac + dc true-rms, 600 V ac, and 1000 V dc (355 only)
- Resistance to 400 kΩ (355 only)
- Continuity beeper (355 only)
- Frequency measurement to 1 kHz
- Selectable low-pass filter mode
- Min/Max/Avg

Ordering information

Models	Included accessories
FLUKE-355 AC/DC True-rms Clamp Meter	Soft carrying case, users manual
FLUKE-353 AC/DC True-rms Clamp Meter	Soft carrying case, users manual

Recommended accessories

Fluke 350 Series



TL175 TwistGuard™ Test Leads

Fluke 350 Series



80TK Thermocouple Module

Fluke 350 Series



C345 Large Soft Case

Fluke 350 Series



C1600 Gear Tool Box

Wireless Fluke Connect® Meters

Wirelessly relay measurements using Fluke Connect®

Eliminate data entry by wirelessly syncing measurements from your tool.

v3000 FC Wireless AC Voltage Meter (not shown)
- Measure up to 1000 V true-rms AC
- Use as a standalone meter or as part of the system
- Logging function for recording and saving up to 65,000 readings

v3001 FC Wireless DC Voltage Meter
- Measure up to 1000 V DC
- Use as a standalone meter or as part of the system
- Logging function for recording and saving up to 65,000 readings

t3000 FC Wireless K-type Temperature Meter
- Use as a standalone meter (-200 °C to 1372 °C, 328 °F to 2501 °F) or as part of the system
- Logging function for recording and saving up to 65,000 readings

ir3000 FC Connector
- Supports 289 and 287 true-rms DMM; 189 DMM and 789 ProcessMeter™
- Fits over the IR port of your existing Fluke tools
- Enables you to graph, save, and share readings with your team from your smart phone

pc3000 FC Wireless PC Adapter
- Collects up to 65,000 sets of time stamped min/max/avg readings from FC remote modules
- Display up to six simultaneous live readings via included Windows sw3000 FC Software



Fluke t3000 FC Wireless K-type Temperature Meter



Fluke v3001 FC Wireless DC Voltage Meter



Fluke ir3000 FC Connector



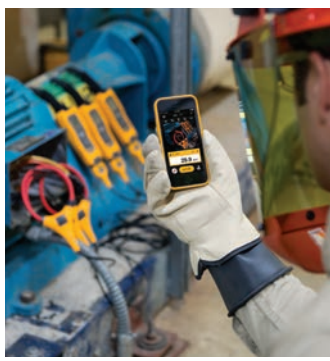
Fluke Connect Wireless PC Adapter

Ordering information

Models	Included accessories
FLK-a3000 FC Wireless AC Current Clamp Meter	Test leads, information pack, and alligator clips
FLK-a3001 FC Wireless iFlex® AC Current Meter	iFlex current probe, information pack, and magnetic hanger
FLK-a3002 FC Wireless AC/DC Current Meter	Magnetic hanger and information pack
FLK-a3003 FC Wireless 2000 A DC Current Clamp Meter	2000 A DC Clamp, information pack, and magnetic hanger
FLK-a3004 FC Wireless 4-20 mA DC Current Meter	4-20 mA DC current probe, information pack, and hanging strap
FLK-v3000 FC Wireless AC Voltage Meter	Test leads, alligator clips, magnetic hanger, and information pack
FLK-v3001 FC Wireless DC Voltage Meter	Test leads, alligator clips, magnetic hanger, and information pack
FLK-t3000 FC Wireless K-type Temperature Meter	Temperature probe, magnetic hanger, and information pack
FLUKE-ir3000 FC Connector	Compatible with: Fluke 789, 289, 287, 189
FLK-PC3000 Wireless PC Adapter	

FLUKE CONNECT®

The largest suite of connected test tools in the world



www.fluke.com/flukeconnecttools

Fluke 8846A, 8845A and 8808A Precision Bench Multimeters



Performs functions expected in multifunction digital multimeters

The Fluke 8846A/8845A 6.5 Digit Precision Multimeters measure volts, ohms and amps. Basic V dc accuracy of up to 0.0024 %, 10 A current range, and a wide ohms range give you an unbeatable combination of measurement capability.

Extend the meters' utility even more with their graphical display modes, including Trendplot™ paperless recorder mode, statistics and histograms—features you won't find on other multimeters

- 6.5 digit resolution
- Up to 0.0024 % accuracy
- Graphical analysis modes: TrendPlot, Histogram, and Statistics
- Dual measurement inputs: front/rear
- Wide measurement ranges
- IEEE, LAN, RS-232 interfaces
- USB memory device port (8846A)
- TL2X4 wire measurement technique
- Three-year warranty



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 0.015 %. The meter is easy to use and include innovative functions to simplify routine testing and precision 4 wire resistance measurements.

- 5.5 digit resolution
- Up to 0.015 % accuracy
- Sensitive dc leakage current ranges
- Front panel setup keys
- TL2X4 wire measurement technique
- Three-year warranty

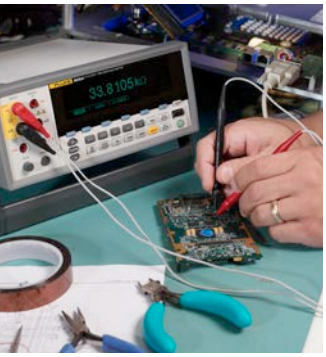


Built-in TrendPlot graphically plots extent of drift and intermittent events.



Histogram mode can reveal stability or noise problems.

Make true 4-wire measurements with just two leads.



Specifications

	Fluke 8808A	Fluke 8845A	8846A
Display	dual	dual, graphical	
Resolution (No. of digits)	5.5	6.5	
Measurements	V ac, V dc, I dc, I ac, Ω, Cont, Diode	V ac, V dc, I dc, I ac, Ω, Cont, Diode	
Basic V dc accuracy (% Reading + % Range)	0.015 + 0.003	0.0035 + 0.0005	0.0024 + 0.0005
Advanced measurements/ functions	2x4 wire ohms, freq, i-Leakage dedicated setup keys	2x4 wire ohms, freq, period	2x4 wire ohms, freq, period, capacitance, temp (RTD)
Math	Null, dBm, dB, Min, Max	Null, dBm, dB, Min, Max, Ave, Std Deviation, MX+B	
Analysis	Limit Compare	Limit Compare, TrendPlot, Histogram, Statistics	
USB memory device port			•
Interfaces	RS-232, USB via optional adapter	RS-232, IEEE-488.2, LAN, USB via optional adapter	
Safety rating	CAT II 600 V	CAT II 600 V	

Ordering information

Models	Included accessories
FLUKE-8846A 6.5 Digit Precision Multimeter, 24 ppm USB memory	Power cord, test lead set, programmers manual/users manual on CD, FVF-BASIC, FlukeView Forms Software Basic Version
FLUKE-8845A 6.5 Digit Precision Multimeter, 35 ppm	Power cord, test lead set, programmers manual/users manual on CD, FVF-BASIC, FlukeView Forms Software Basic Version
FLUKE-8808A 5.5 Digit Multimeter	Test leads, line cord, getting started guide, users manual on CD

Fluke 424D, 419D and 414D Laser Distance Meters

Measure farther, with greater accuracy, in more situations

The Fluke family of laser distance meters are essential tools in the tool bag. They provide, instant and accurate measurements up to ± 1 mm with no scales to interpret or misread. Just point, click, done. The 424D has an inclination sensor that helps with leveling, height tracking and, measuring around obstacles. Find area and volume, easily add and subtract distances and calculate height. Easily measure hard-to-access areas without climbing a ladder and without the need for a helper.





Complies with EN 60825-1:2007 (Class II)

Specifications

	Fluke 424D	Fluke 419D	Fluke 414D
Maximum measurement distance	100 m (330 ft)	80 m (260 ft)	50 m (165 ft)
Accuracy	± 1 mm (± 0.04 in)	± 1 mm (± 0.04 in)	± 2 mm (± 0.08 in)
Battery life (number of measurements)	5000	5000	3000
Area measurement	•	•	•
Volume measurement	•	•	•
Pythagoras calculations	Full	Full	1+2
Plus and minus calculations	•	•	•
Measurement storage	20 complete displays	20 complete displays	5 results
Min/Max	•	•	Yes(Pyth)
Tripod mount	•	•	
Corner angle measurement	•		
Stake out	•	•	
Inclination sensor	•		
Display	4 line	3 line	2 line
Automated end-piece correction	•	•	



Ordering information

Models	Included accessories
Fluke 424D Laser Distance Meter	Two AAA batteries, users manual on CD, quick reference guide, vinyl carrying pouch, and three-year warranty
Fluke 419D Laser Distance Meter	Two AAA batteries, users manual on CD, quick reference guide, vinyl carrying pouch, and three-year warranty
Fluke 414D Laser Distance Meter	Two AAA batteries, users manual on CD, quick reference guide, vinyl carrying pouch, and three-year warranty

Kits—buy more, save more



414D/62 MAX+ Kit 414D Laser Distance Meter and 62MAX+ IR Thermometer



Selection guide

	1630	1621	1623-2	1625-2
2-Pole (ac) resistance measurement		•	•	•
3-Pole earth measurement		•	•	•
Measurement frequency—128 Hz		•	•	
4-Pole earth ground and soil resistivity measurement			•	•
Selective testing			•	•
Stakeless testing (ground loop resistance)	•		•	•
Memory			•	•
USB port			•	•
Automatic Frequency Control (AFC) 94 Hz to 128 Hz				•
R* measurement				•
Adjustable limits				•

Fluke 1625-2 and 1623-2 Geo Earth Ground Testers

Simpler, faster testing

Grounding testers, like the Fluke 1623-2 and 1625-2, help maintain uptime and lower the risk of electric shock to users while helping solve intermittent power quality problems. The Fluke earth ground testers perform all four essential earth ground test methods that users demand:

- 3- and 4-pole Fall of Potential, earth resistance loop testing
- 4-pole soil resistivity testing
- Selective earth ground testing using one clamp
- Stakeless earth ground testing using two clamps

The 1623-2 and 1625-2 also make earth grounding tests faster and easier than previous methods because of automatic data collection and storage and faster setup. Color coded wires for easier identification and deploying of wire reels and stakes.

- IP56 rated for outdoor use
- USB data storage and transfer
- Automatic Frequency Control (AFC)—identifies existing interference and chooses a measurement frequency to minimize its effect, providing more accurate earth ground value
- R* measurement—calculates earth ground impedance at 55 Hz to more accurately reflect the earth ground resistance that a fault-to-earth ground would see
- Adjustable limits—for quicker testing



Faster setup, easier testing and deployment of wire reels and stakes.

Clamp-on transformer accessory for ground loop measurements on transmission pylons.



Ordering information

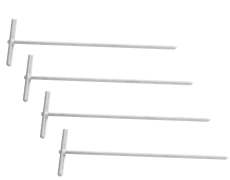
Models	Included accessories
FLUKE-1625-2 Advanced GEO Earth Ground Tester	Two test leads, USB cable, batteries, quick reference guide, users manual
FLUKE-1623-2 Basic GEO Earth Ground Tester	Two test leads, USB cable, batteries, quick reference guide, users manual
FLUKE-1625-2 KIT Advanced GEO Earth Ground Tester Kit	Two test leads, USB cable, 2 clamps (1 source, 1 sensing), carrying case, 4 earth ground stakes, 3 color coded cable reels, batteries, quick reference guide, users manual
FLUKE-1623-2 KIT Basic GEO Earth Ground Tester Kit	

These products are for unpowered installations measuring grounding connections.

Kits—buy more, save more



Fluke 1625-2 Kit



ES-162P4-2 Stake/reel set for 4-pole measurement

Recommended accessories



EI-1625 Selective/ stakeless clamp set for 1625-2



EI-162BN 320 mm (12.6 in) Split Core Transformer for use with Fluke 1625-2

Fluke 1621 Basic Earth Ground Tester



Earth ground tester for resistance measurement

The Fluke 1621 Earth Ground Tester is a rugged, easy-to-use tester for three-pole ground resistance measurements and two-pole ac resistance measurements.

Earth ground resistance is measured by installing earth ground test electrodes, and testing. With a simple user interface and intuitive functionality, the large, clear LCD display provides high visibility results in daylight or poor lighting conditions.

- Three-pole earth resistance measurements
- Two-pole AC resistance measurements
- Large dual backlit display
- Limit settings for automatic measurement evaluation
- CAT II 600 V
- Two-year warranty

Ordering information

Models	Included accessories
FLUKE-1621 Basic Earth Ground Tester	Two measuring leads with alligator clips, 2 m (6 ft), yellow protective holster, 9 V alkaline battery (LR61), users manual, CD

Fluke 1630 Earth Ground Clamp Meter



Safely measures ground loop resistance

The Fluke 1630 Earth Ground Clamp Meter is able to measure ground loop resistances—using the stakeless testing method. This test technique eliminates the dangerous, and time consuming activity, of disconnecting parallel grounds. You can also perform earth ground tests: inside buildings, on power pylons or anywhere you don't have access to soil.

With the stakeless testing method, no earth ground stakes are used at all. A known voltage is induced by one half of the clamp and the current is measured by the other half. The tester automatically determines the ground loop resistance at this grounding connection.

- Quick and easy use—no earth ground stakes are necessary
- Large, 35 mm (1.35 in) jaw opening
- Measures ground resistance from 0.025 Ω to 1500 Ω
- Measures ground leakage current from 0.2 mA to 30 A
- High and low alarming
- Automatic self calibration
- Rugged carrying case and resistance check loop included
- Two-year warranty
- CAT III 300 V, CAT II 600

Ordering information

Models	Included accessories
FLUKE-1630 Earth Ground Clamp Meter	Rugged carrying case with belt, resistance test loop, 9 V battery, users manual

Take leakage current or ground measurements on grounding systems with multiple parallel grounding electrodes (transformers, utility grounds, transmission tower grounds, and communication ground systems).



Kits—buy more, save more



Fluke 1621 Tester

Recommended accessories



Cable Reel 50 m Ground/earth wire (162.5 ft) for 1621



Cable Reel 25 m Ground/earth wire (81.25 ft) for 1621



ES-162P3 Stake/reel set for 3-pole measurements for 1621

Fluke T5, T+PRO and T+ Electrical Testers and VoltAlert™



Fluke T+PRO

Fluke T+PRO and T+ Electrical Testers

- Three forms of ac/dc voltage detection: Light, sound and vibration
- Detects live voltage even when batteries are dead
- Extra heavy-duty, replaceable test leads
- Rotary field indicator for troubleshooting three-phase systems
- Continuity beeper, LED flashlight and GFCI trip



Fluke T5-1000

Fluke T5-1000 and T5-600 Voltage, Continuity and Current Testers

- Excellent front-line troubleshooting and measurement tool
- Available in 600 V and 1000 V models
- OpenJaw™ current measurement
- Rotary switch selects volts, amps and ohms functions
- Heavy-duty test leads



Specifications

	T+PRO	T+	T5-1000	T5-600
Measure ac/dc voltage	Preset 12 V, 24 V, 48 V, 120 V, 208 V, 240 V, 277 V (Canada 347 V), 480 V, 600 V		1000 V	600 V
Measure ac current (avg)			100 A	100 A
Measure continuity	•	•	< 25 Ω	< 25 Ω
Measure resistance	9.99 kΩ		1000 Ω	1000 Ω
DC polarity indicator			•	•
Detachable probe tips w/optional tip styles	•	•	•	•
Digital display	•		•	•
Safety rating	CAT IV 600 V/ CAT III 1000 V	CAT IV 600 V/ CAT III 1000 V	1000 V Overvoltage CAT III	600 V Overvoltage CAT III
Warranty	Two-year	Two-year	Two-year	Two-year

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

Ordering information

Models	Included accessories
T+PRO and T+PRO CAN Electrical Tester	Attached test probes, lead wrap, users manual
T+ and T+ CAN Electrical Tester	Attached test probes, lead wrap, users manual
T5-1000 1000 V Voltage, Continuity and Current Tester	Detachable probes and instruction sheet
T5-600 600 V Voltage, Continuity and Current Tester	Detachable probes and instruction sheet



Fluke LVD2

Fluke 1AC-II

Fluke 2AC

Fluke VoltAlert™ Family

The next generation VoltAlert™ ac non-contact voltage testers from Fluke are easy to use. Electricians, maintenance, service and safety personnel, and homeowners can quickly test for energized circuits in the workplace or at home. Certified up to CAT IV 1000 V.

Specifications

	2AC	1AC-II	1LAC-II	LVD2
Voltage range	90 V ac to 1000 V ac	90 V ac to 1000 V ac	20 V ac to 90 V ac	90 V ac to 600 V ac
Audible alert		•	•	•
Flashlight				•
On/Off	Always on	•	•	•
Safety rating	CAT IV 1000 V	CAT IV 1000 V	CAT IV 1000 V	CAT IV 600 V



Ordering information

Models
2AC VoltAlert™ Voltage Detector
1AC-II VoltAlert™ Voltage Detector
1LAC-II VoltAlert™ Voltage Detector
LVD2 Volt Light

Indoor Air Quality Tools

Tools to help you maintain good IAQ



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. The Fluke 971 is invaluable for facility maintenance and utility technicians, HVAC–service contractors, and specialists who assess indoor air quality (IAQ). The Fluke 971 the perfect tool for monitoring problem areas. It 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
- Compact and lightweight at 188 g (6.6 oz)
- Min/Max/Avg/Hold functions

Specifications

Functions	Measurements
Temperature range	–20 °C to 60 °C (–4 °F to 140 °F)
Relative humidity range	5 % to 95 %
Temperature update rate	500 ms
Temperature sensor type	NTC
Response time (humidity)	For 90 % of total range – 60 sec. with 1 m/s air movement
Humidity sensor	Electronic capacitance polymer film sensor
Battery type	4 AAA alkaline batteries
Battery life	200 Hours
Safety approval	Electromagnetic compatibility: Complies with EN 61326-1

Find how-to videos, application notes and other resources on the indoor air quality product pages on www.fluke.com



Fluke 985 Airborne Particle Counter

The Fluke 985 Particle Counter is ideal for troubleshooting and monitoring indoor air quality issues and verifying HVAC filter performance in critical locations, and is the perfect tool for the maintenance, HVAC, and IAQ professional.

- Six channels and particle size range of 0.3 µm to 10.0 µm
- Large 3.5 inch QVGA color display
- 10,000 record storage: Quick access to historical data
- On–screen data presentation
- Personalized setting and configurations
- Download data to a PC using a USB memory stick, USB cable or Ethernet connection
- USB/Ethernet charge cradle

Specifications

Functions	Measurements
Flow rate	2.83 L/min (0.1 cfm)
Light source	775 nm to 795 nm, 90 mW class 3B laser
Count modes	Raw counts, #/m³, #/ft³, #/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 4,000,000 particles per ft³ (per ISO 21501)
Sample inlet	Isokinetic probe
Operating environment	10 °C to 40 °C (50 °F to 104 °F)/< 95 % non-condensing relative humidity
Warranty	One-year

Ordering information

Models	Included accessories
FLUKE-985 Airborne Particle Counter	Certificate of Calibration (NIST traceable), cradle for charging and convenient USB and Ethernet communications, ethernet cable, USB cable, power supply, zero count inlet filter, filter adapter, sample inlet protective cap, hard case, manual
FLUKE-971 Temperature Humidity Meter	Four AAA alkaline batteries, users manual

Monitor air humidity levels throughout your facility with the Fluke 971.





Fluke 975 AirMeter™

Simple, all-in-one air diagnostics

The Fluke 975 AirMeter™ combines five powerful air quality tools into one.

- Simultaneously measures, logs and displays temperature, humidity, CO_2 and CO
- % of outside air calculation, one-touch air flow and velocity with available probe (975V)
- Dew point and wet bulb temperature
- CO_2 and CO field calibration feature
- Min/Max/Avg on all measured and calculated readings, audible and visual threshold alarms
- Discrete or continuous data logging capacity, downloadable to PC via USB interface
- Automatically compensates for barometric pressure changes
- Two-year warranty

Specifications

	Range	Display resolution	Accuracy
Temperature	-20 °C to 50 °C (-5 °F to 122 °F)	0.1 °C (0.1 °F)	± 0.9 °C/± 1.62 °F from 40 °C to 60 °C ± 0.5 °C/± 1.00 °F from 5 °C to 40 °C ± 1.1 °C/± 1.98 °F from -20 °C to 5 °C
Relative humidity	10 % to 90 % RH non-condensing	1 %	± 2 % RH (10 % RH to 90 % RH)
Air velocity	50.0 fpm to 3000 fpm 0.25 m/s to 15 m/s	1 fpm (0.005 m/s)	± 4 % or 4 fpm* ± 4 % or 0.02 m/s* whichever is greater * Accuracy specification only valid for velocity readings above 0.25 m/s
CO_2	0 ppm to 5000 ppm	1 ppm	Warm up time 1 min (5 minutes for full specification) 2.75 % + 75 ppm
CO	0 ppm to 500 ppm	1 ppm	± 5 % or ± 3 ppm, whichever is greater, @ 20 °C and 50 % RH



Fluke 922 Airflow Meter/Micromanometer

The Fluke 922 makes your job easier by combining differential pressure, airflow and velocity into a single, rugged meter.

- Measures differential and static pressure, air velocity and flow readings
- User-defined duct shape and size for maximum airflow accuracy
- Min/Max/Avg/Hold functions

Specifications

	Range	Accuracy
Air pressure	± 4000 Pascals/± 16 in H_2O/± 400 mm H_2O/ ± 40 mbar/± 0.6 PSI	± 1 % + 1 Pascal/± 1 % + 0.01 in H_2O/ ± 1 % + 0.1 mm H_2O/± 1 % + 0.01 mbar/ ± 1 % + 0.0001 PSI
Air velocity	250 fpm to 16,000 fpm (1 to 80 m/s)	± 2.5 % of reading at 2000 fpm (10.00 m/s)
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 (0.1 °F)
Data storage	99 readings	



Fluke RLD2 UV Refrigerant Leak Detector Flashlight

Flashlight that uncovers refrigerant leaks instantly. Laser pointer to find exact leak location.

CO-220 Carbon Monoxide Meter

Check CO levels around furnaces and boilers. Tracks increasing frequency as CO levels rise.

CO-205 Aspirator Kit

A flue gas sampling accessory kit.

Ordering information

Models	Included accessories
FLUKE-975V AirMeter™ with Velocity	Calibration cap, air velocity probe (Fluke 975V only), FlukeView® Forms software, power adapter, international power plugs, hard carrying case, three AA alkaline batteries, users manual with safety information
FLUKE-975 AirMeter™	
FLUKE-922 Airflow Meter	Two rubber hoses, soft carrying case, four AA alkaline batteries 1.5 V, users manual
FLUKE-922/Kit Airflow Meter Kit	12 inch pitot tube, two rubber hoses, magnetic hanging strap, four AA alkaline batteries, users manual, hard carrying case
FLUKE-RLD2 Refrigerant Leak Detector Flashlight	
FLUKE-CO-220 Carbon Monoxide Meter	
FLUKE-CO-205 Aspirator Kit	

Fluke 1000FLT Fluorescent Light Tester



Take the trial and error out of fluorescent light testing

Save time and reduce costs by using the only tester that performs all five essential lighting tests in less than 30 seconds. The Fluke 1000FLT fluorescent light tester makes your job easier by quickly pinpointing problems and verifying operation of fluorescent lights and fixtures. It is easy to use and can survive on-the-job handling, including a two meter drop. Like all Fluke products, the 1000FLT is built to last, easy to maintain and is backed by a three-year warranty. Companies have made significant investments in fluorescent lighting; if your job requires keeping large numbers of these fluorescent lights shining, the Fluke 1000FLT is an indispensable tool.

- **Lamp test:** Test bulb without removing from fixture
- **Ballast test:** Easily determine if ballast is working
- **Non-contact voltage:** Quickly check for voltage presence
- **Pin continuity test:** Tests if filaments have continuity
- **Ballast-type test:** Determine if ballast is electronic or magnetic without taking fixture apart—identify energy wasting ballasts

Specifications

Functions	Measurements
Lamp test max output	3000 V peak-to-peak
Ballast test	20 kHz
Ballast type discriminator	≤3 m (10 ft) distance
Pin continuity test	< 1 kΩ
NCV (VoltAlert™)	85 V ac to 277 V ac 45 Hz to 67 Hz ≤ 10 cm (4 in) distance
Operating temperature	-10 °C to +50 °C (14 °F to +122 °F)
Storage temperature	Storage -40 °C to +60 °C (-40 °F to +140 °F)
Safety rating	IEC 61010-1, pollution degree 2
Warranty	Three-year

Ordering information

Models	Included accessories
FLUKE-1000FLT Fluorescent Light Tester	Quick reference guide, 4 AA alkaline batteries, holster



Quickly check for voltage presence without touching a live conductor.

Easily determine if ballast is working.





Fluke 1587 FC/1577 Insulation Multimeters

The High-Performance 2-in-1 Insulation DMM

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

The Fluke 1587 FC Insulation Multimeter adds four powerful new 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
- Historical tracking and trending of assets identifies degradation over time, allows real-time decisions to be made in the field with Fluke Connect® Assets (sold separately)

Specifications

	1587 FC	1577
PI/DAR timed ratio measurements with TrendIt™ graphs through Fluke Connect Measurements app	•	
Memory storage through Fluke Connect Measurements app	•	
Temperature Compensation through Fluke Connect Measurements app	•	
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 GΩ	0.1 MΩ to 600 MΩ
Auto-discharge of capacitive voltage	•	•
Insulation test smoothing reading	•	
Frequency	•	
Capacitance	•	
Diode test	•	
Temperature	•	
Min/Max	•	
VFD low-pass filter for accurate motor drive measurements	•	
AC/DC voltage	•	•
DC millivolts	•	•
AC/DC milliamps	•	•
Resistance	0.1 Ω to 50 MΩ	0.1 Ω to 50 MΩ
Continuity	•	•
Auto power off	•	•
Warranty (years)	3	3

Ordering information

Models	Included accessories
FLUKE-1587 FC Insulation Multimeter	Remote probe, test leads, alligator clips, K-type thermocouple, hard case, users documentation
FLUKE-1577 Insulation Multimeter	Remote probe, test leads, alligator clips, hard case, users documentation

Troubleshooting efficiency and maximum versatility while testing motors and VSDs accurately with Low-Pass filter.



Kits—buy more, save more



Fluke 1587 KIT/62MAX+ FC
Advanced Electrical Troubleshooting Kit



Fluke 1587/MDT FC
Advanced Motor and Drive Troubleshooting Kit

Recommended accessories



TLK289 Industrial Master Test Lead Set



i400 AC Current Clamp

Fluke 1507 and 1503 Insulation Resistance Testers



The quality, durability, and convenience you need

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 MΩ to 10 GΩ (1507), 0.1 MΩ to 2 GΩ (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
- Lo ohms/Earth-bond continuity (200 mA) for checking connections and motor windings
- Resistance: 0.01 Ω to 20.00 kΩ

Specifications

	1507	1503
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 10 GΩ	0.1 MΩ to 2 GΩ
Auto-discharge of capacitive voltage	•	•
Continuity function	200 mA acc. EN 61557-4	
Resistance	0.1 Ω to 20.00 kΩ	0.1 Ω to 20.00 kΩ
Auto power off	•	•
Warranty (years)	1	1

Ordering information

Models	Included accessories
FLUKE-1507 Insulation Tester	Remote probe, silicone test leads, test probes, large alligator clips, holster, users manual
FLUKE-1503 Insulation Tester	Remote probe, silicone test leads, test probes, large alligator clips, holster, users manual



Magnetic Meter Hanger frees up both hands to focus on making measurements safely.

Check connections and motor windings with Lo ohms/earth-bond continuity test.



Recommended accessories



TLK289 Industrial Master Test Lead Set



TL27 Heavy Duty Test Lead Set



C116 Soft Carrying Case



C101 Hard Case



1555 and 1550C Insulation Resistance Testers

Powerful troubleshooting and predictive maintenance tools

The Fluke 1555 and 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.

- Test voltages up to 5 kV (1550C) and 10 kV (1555) provide solutions for all applications
- 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, user-defined label for easy recall
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Capacitance and leakage current measurement
- Ramp function for breakdown testing

Selection guide

	1555	1550C
Insulation test voltages: User selectable 250 V to 5000 V		•
Insulation test voltages: User selectable 250 V to 10,000 V	•	
Insulation resistance	2 TΩ	1 TΩ
Auto-discharge of capacitive voltage	•	•
Warranty (years)	3	3

Specifications

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 MΩ 1 MΩ 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 MΩ 5 MΩ to 100 GΩ 100 GΩ to 1 TΩ > 1 TΩ	unspecified 5 % 20 % unspecified
10000 V (1555 only)	< 10 MΩ 10 MΩ to 200 GΩ 200 GΩ to 2 TΩ > 2 TΩ	unspecified 5 % 20 % unspecified
Functions		
Leakage current	1 nA to 2 mA	± (20 % + 2 nA)
Capacitance measurement	0.01 uF to 20.00 µF	± (15 % rdg + 0.03 µF)
Live circuit indicator	30 V to 1100 V ac/dc, 50/60 Hz	±(15 % + 2 V)

Ordering information

Models	Included accessories
FLUKE-1550C 5 kV Insulation Tester	Test leads with alligator clips, infrared adapter with interface cable, FlukeView Forms software, ac power cord, soft carrying case, quick reference guide, users manual
FLUKE-1555 10 kV Insulation Tester	
FLUKE-1550C KIT	Test leads with ruggedized alligator clips, infrared adapter with interface cable, FlukeView Forms software, AC power cord, hard carrying case, quick reference guide, users manual, NIST traceable certificate
FLUKE-1555 KIT	

Flexibility for testing wide range of high voltage applications.



FLUKE®



NEW PRODUCTS

2017–2018 Test Tools Catalog Insert



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

NEW PRODUCTS



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

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

Designed specifically for technicians and engineers who need the flexibility to troubleshoot, quantify energy usage and analyze power distribution systems the new Fluke 1740 Series Power Quality Loggers give you fast, easy access to the data you need.

Product highlights

- **Measure all power quality and power parameters:** 1748 logs over 500 different parameters for each averaging period.
- **One-click reporting:** Create detailed reports according the most common power quality standards in seconds. 1 to 1000 V ac or dc (T6-1000); 600 V ac or dc (T6-600)
- **Easy to use:** Auto-configuration check ensures every measurement campaign is right, the first time. Power the instrument from the measured line to simplify the connection process.
- **Comprehensive logging:** More than 20 separate logging sessions can be stored in the instrument. A comprehensive range of power and power quality variables are automatically logged so you never lose measurement trends.
- **Measure with premium accuracy:** Meets the rigorous IEC 61000-4-30 Class A Edition 3 standard for 'Testing and measurement techniques—Power quality measurement methods.



NEW PRODUCTS



Fluke 729 Automatic Pressure Calibrator

Portable automatic pressure calibrator simplifies pressure calibration

Designed 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 in an easy-to-use, rugged, portable package.

Product highlights

- Key pressure functions: Pressure sourcing/control and measurement
- Key electrical functions: mA source, simulate and measure. Measure mA with 24 V loop power. Measure Vdc and measure temperature (with optional RTD probe).
- Fluke Connect compatibility: With Fluke Connect® mobile app and desktop software compatibility, technicians can wirelessly monitor and log measured and sourced pressure values.
- Automatic pressure generation and regulation to 300 psi
- Easily document the process using onboard test templates
- Automatic internal fine-pressure adjustment
- Measure, source and simulate 4 to 20 mA signals
- 24 V loop power for powering transmitters for tests
- HART communication for testing HART smart transmitters



NEW PRODUCTS

Fluke 64 MAX Infrared Thermometer

The Fluke 64 MAX thermometer has the precision you need to do your job accurately and will not break your budget. Designed and tested to survive a 3-meter drop, you can count on this lightweight, compact infrared thermometer to work when you need it to–even in the harshest environments and when you're not able to be there.

- Precise laser technology for accurate (up to ± 1 °C or ± 1 % of reading whichever is greater) and repeatable measurements
- 30 hours of battery life to capture measurements over a long period of time
- Capture measurements unattended by setting time and desired interval between readings
- 99 data point logging
- IP54 rated for extra protection against airborne contaminants in harsh, dirty environment
- Flashlight and large, easy-to-read backlit LCD display for easy viewing even in dark settings





NEW PRODUCTS

FLUKE®



Fluke T6 Electrical Testers with FieldSense technology

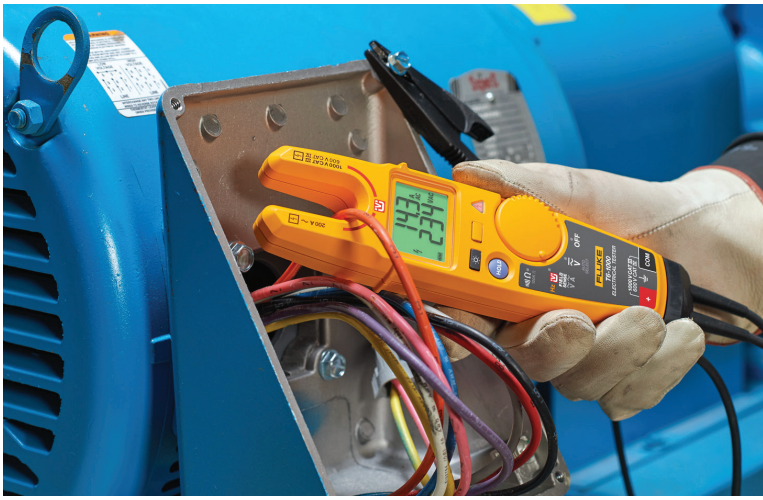
Measure voltage… without test leads

Measure voltage up to 1000 V ac through the open fork, without test lead contact to live voltage.[+] Without opening covers or removing wire nuts. On wires up to AWG 4/0 (120 mm^2), carrying as much as 200 A. It will change your job. Safer. Faster. Easier.

Product highlights

- FieldSense technology for ac voltage, current and frequency measurement without making electrical contact to live voltage[+]
- Simultaneous voltage and current display (T6-1000)–shows all power supply measurements at a glance for efficient trouble shooting for motors and other appliances
- 1 to 1000 V ac or dc (T6-1000); 600 V ac or dc (T6-600)
- 0.1 to 200 A ac
- Resistance 1 Ω to 100 kΩ (T6-1000), 1 Ω to 2000 Ω (T6-600)
- Frequency measurement 45 Hz to 66 Hz (T6-1000)
- 17.8 mm jaw opening works with most wire up to AWG 4/0 (120 mm^2)
- HOLD button temporarily freezes the reading for easy viewing
- Easy to read display with backlight
- Accepts optional Fluke TPAK Magnetic Meter Hanger for convenient operation
- Standard 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.



NEW PRODUCTS

Fluke Ti480 and TiX580—Bring your best to work.



With 640 x 480 resolution, the Ti480 and TiX580 infrared cameras allow users to perform thermal imaging inspections with more confidence and faster results than ever before—all with the ruggedness and ease-of-use expected from Fluke. Coming in point-and-shoot (Ti480) and rotating lens (TiX580) variations, these thermal imagers are truly built for purpose.

- Further enhance 640 x 480 images to 1280 x 960 with in-software SuperResolution
- Get an in-focus image with the touch of a button:
  - LaserSharp® Auto Focus uses a built-in laser distance meter to snap your image into focus by calculating the distance to your designated target with pinpoint accuracy
  - MultiSharp™ Focus delivers automatically focused images throughout your field of view, dramatically eliminating potential for misdiagnosis
- Blend infrared and visible light images easily with IR Fusion® Technology to quickly identify issues
- Compatible with powerful Fluke Connect® and SmartView® software, allowing users to edit images, generate reports and wirelessly share inspection findings while in the field
- Premium in-field viewing experience with the 5.7-inch responsive LCD touchscreen*
- Easily navigate over, under and around objects with the 240° rotating lens and see the image before you capture it*

*TiX580 only



Fluke Ti450 SF6—Infrared for every day. SF6 gas detection when you need it.



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

Using the technology from Fluke's top performing pistol grip camera, the Fluke Ti450 SF6 easily switches from infrared to gas mode. This makes it easy to change modes on the fly when you are in the field.

The Ti450 SF6 Gas Leak Detector tips the scales on performance and affordability. With its pistol grip comfort and point-and-shoot convenience, even the tough spots become easy to diagnose. With the added feature of SF^6 pinpoint detection, you can get the analysis you need anytime, anywhere.



For more product information, visit **www.fluke.co.uk**

©2017 Fluke Corporation. Specifications subject to change without notice. All trademarks are the property of their respective owners.
12/2017 6010346a-uken-insert

Modification of this document is not permitted without written permission from Fluke Corporation.

Power quality and energy tools selection guide

Basic measurements	Application use	Single-Phase			Three-Phase					
		VR1710	345	43B	1730	1736/38	1740	430-II	1750	1760
Energy studies										
Measure V, I, kW, Cos/ DPF, kWhr	Get detailed power and energy consumption profiles during energy audits and pinpoint savings opportunities		•	•	•	•	•	•	•	•
Measure MIN/MAX and AVG values			•	•	•	•	•	•	•	•
10 day logging			•	•	•	•	•	•	•	•
Waste energy monetization								•		
Basic harmonics study										
THD measurement (V & I)	Discover the source of distortion in your installation, so that you can filter those loads or move them to separate circuits	•	•	•	•	•	•	•	•	•
Harmonics 1 to 25 for V & I		• (V only)	•	•		•	•	•	•	•
Advanced harmonics study										
Full harmonic spectrum	If distorting loads are causing problems in your installation, you need comprehensive data to identify the source and create a solution		•	•		•	•	•	•	•
Power harmonics			•	•				•	•	•
Basic industrial PQ troubleshooting										
Oscilloscope function	When troubleshooting in the field, graphical data enables you to trace the source of the problem at hand		•	•		•		•	•	•
Voltage dips and swells		•		•		•	•	•	•	•
Advanced industrial PQ troubleshooting										
Comprehensive logging capability	Complex installations often require a deeper dive into measurement data. Multiple loads may be interacting randomly to cause a single problem		•	•		•	•	•	•	•
Transient capture		•		•		•		•	•	•
Flicker		•					•	•	•	•
Motor analysis										
Speed	Perform dynamic motor analysis by plotting of motor de-rating factor against load according to NEMA/IEC guidelines on direct on-line electric motors							•		
Torque								•		
Mechanical power								•		
Efficiency								•		
Features										
Inrush						•		•		
Flicker								•	•	•
Transients								•	•	•
Mains signaling								•	•	•
Power wave								•		
Event waveform capture						•		•	•	•
400 Hz								•		
Power inverter efficiency								•		

Find how-to videos, application notes and other resources on the power quality and ower and energy loggers product pages on www.fluke.com

FLUKE CONNECT

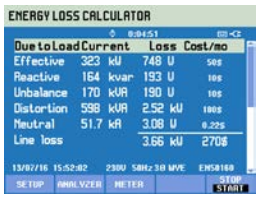
Fluke 430-II Series Three-Phase Power Quality and Motor Analyzers



Locate, predict, prevent power quality problems

The Fluke 434-II, 435-II, 437-II and 438-II help troubleshoot power quality problems in three- and single-phase power distribution systems. The Fluke patented energy loss algorithm, Unified Power Measurement, measures, quantifies and monetizes energy losses due to harmonics and unbalance issues, allowing the user to pinpoint the origin of energy waste within a system.

- Capture fast rms data in real time with PowerWave data capture; show single cycle rms value to characterize electrical system dynamics (generator start-ups, UPS switching etc.)
- Measure key parameters on direct-on-line motors including torque, RPM, mechanical power and motor efficiency (438-II, or with 430-II/MA upgrade option)
- CAT IV 600 V/CAT III 1000 V rated for use at the service entrance
- Automatic transient mode; capture 200 kHz waveform data on all phases simultaneously up to 6 kV for 435-II and 437-II
- Conduct tests according to the stringent international IEC 61000-4-30 Class-A standard intervals for 435-II and 437-II
- With included four iFlex flexible current probes, measure all three phases and neutral
- Download data wirelessly with the Fluke Connect® SD Card (not included with the INTL)
- Three-year warranty



Ordering information

Models	Included accessories
FLUKE-434-II Three-Phase Energy Analyzer **FLUKE-435-II** Three-Phase Power Quality and Energy Analyzer **Fluke-438-II** Three-Phase Power Quality and Motor Analyzer	Four thin flexible current probes, five test leads and clips, battery charger, Power Log software, USB cable, color localization set, soft carrying case, 8GB WiFi SD memory card, users manual on CD
FLUKE-437-II 400 Hz Three-Phase Power Quality and Energy Analyzer	Four thin flexible current probes, five test leads and clips, battery charger, Power Log software, USB cable, color localization set, hard carrying case with wheels, 8GB WiFi SD memory card, users manual on CD
Fluke-430-II/MA 430-II Motor Analyzer Upgrade Kit	Firmware license code



Fluke 1730 Three-Phase Electrical Energy Logger

Find sources of energy waste

The Fluke 1730 Three-Phase Electrical Energy Logger introduces a new simplicity to discovering sources of electrical energy waste. Profiling energy usage across your facility helps you identify opportunities for energy savings and provides you with the easy-to-understand data. The Fluke 1730 Energy Logger can be used for conducting energy surveys that require both a voltage and current connection. Load studies that require a current connection only for evaluating electrical demand capacity can also be performed.

- Quickly understand specific points of energy loss, reduce energy bills more easily than ever
- Optimized layout with specialized touch screen makes navigation easy—even with gloves on
- Advanced auto-correct feature eliminates costly errors due to improper connections
- Power directly from the measured voltage line (up to 500 V) or with conventional ac power cord



Ordering information

Models	Included accessories
1730/BASIC Three-Phase Electrical Energy Logger (excludes current probes)	Power supply, voltage test lead, dolphin clip, i1730-flex 1500 iFlex Flexible Current Probes, color-coded wire clips, power cord, test lead set with stackable plugs, dc power cable(s), USB cable A, mini USB, soft storage bag, input connector decal, information packet. Software included Software included (FEA, Fluke Energy Analyze)
1730/US Portable Energy Logger US version	
1730/EU Portable Energy Logger EU version	
1730/INTL Portable Energy Logger ITNL version	
FLUKE-1735 Three-Phase Power Logger	Four flexible current probes (15 A/150 A/3000 A), Power Log software, voltage leads and clips, color localization set, PC interface cable, international ac adapter (115 V/230 V, 50 Hz/60 Hz), soft carrying case, users manual, multi-language manual on CD

Fluke 1736 and 1738 Three-Phase Power Loggers



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

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

- **Measure all three phases and neutral** with included four 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 loose measurement trends.
- **Capture dips, swells, and inrush currents:** includes event waveform (1738 only) 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 function.
- **Fluke Connect® Compatible:** View data locally on the instrument, via Fluke Connect mobile app and desktop software or through your facilities' WiFi infrastructure

Specifications

Accuracy				
Parameter		Range	Resolution	Intrinsic accuracy at reference conditions (% of reading + % of full scale)
Voltage		1000 V	0.1 V	± (0.2 % + 0.01 %)
Current: Direct input	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 %)
		3000 A	10 A	± (1 % + 0.03 %)
	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 %)
Frequency		42.5 Hz to 69 Hz	0.01 Hz	± (0.1 %)
Aux input		± 10 V dc	0.1 mV	± (0.2 % + 0.02 %)

[1]Range = 1000 V x Irange

Ordering information

Models	Included accessories
FLUKE-1736 Three-Phase Power Logger	Instrument, power supply, voltage test leads, alligator clips (4x), 12 in 1,500 A flexible current probe (4x), soft case, Energy Analyze Plus software, WiFi adapter**, line cords, color coding set and documentation on USB flash drive
FLUKE-1738 Three-Phase Power Logger	Instrument, power supply, voltage test leads, alligator clips (4x), 12 in 1,500 A flexible current probe (4x), soft case, Energy Analyze Plus software, magnetic hanging strap, magnetic voltage probes (4x), WiFi/BLE adapter**, line cords, color coding set and documentation on USB flash drive
FLUKE-1738/Upgrade	Magnetic hanging strap, magnetic voltage probes (4x), WiFi/BLE adapter, Firmware license: PQ Health, Wave form Event Capture

**Not all models are available in all countries. Check with your local Fluke representative.



www.fluke.com/energylogger



Fluke 345 Power Quality Clamp Meter

Troubleshoot modern electrical loads

The Fluke 345 is more than a power meter. Combining the functions of a clamp meter, oscilloscope, data logger and digital power meter into one handy device. The Fluke 345 is ideal for working with variable frequency motor drives, high efficiency lighting and other loads using switching electronics.

- Clamp-on measurement of ac current up to 1400 A rms and dc current up to 2000 A without breaking the circuit
- CAT IV 600 V power analyzer is rated for use at the service entrance
- Clamp meter performs even in noisy environments with distorted waveforms present on electronic loads with low-pass filter
- Identify intermittent faults by logging any power quality parameter for minutes, or over a month, including harmonics
- Analyze, log and troubleshoot harmonics digitally or graphically
- Capture and analyze inrush current and nuisance tripping from 3 seconds to 300 seconds
- View graphs and generate reports using power analyzer with included Power Log software



Fluke 43B Power Quality Analyzer

Measurements to maintain power systems

The Fluke 43B Power Quality Analyzer troubleshoots power problems and diagnoses equipment failures. The 43B has 20 storage locations and can store data as well as screens.

- Voltage, current and power harmonics up to 51st, THD
- View voltage and current waveforms with the oscilloscope function
- Capture up to 40 voltage transients and waveform events
- Cursors give time and date of sags and swells for detailed event capture
- Analysis and reporting with FlukeView® software, supplied with USB connection lead
- Three-year warranty for analyzer, one-year warranty for accessories

Fluke VR1710 Power Quality Recorder

- Fast and easy recording of voltage trends, dropouts and power quality to easily pinpoint the root cause of single phase voltage problems
- Min, Max, and Average RMS values (1/4 cycle) with time stamp, transient display (>100 µs) with time stamp
- Identify problems with 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
- Generate power quality reports automatically with pre-set templates





Ordering information

Models	Included accessories
FLUKE-345 Clamp-On Power Meter	Test leads, alligator clips, test probes, Power Log software, USB cable, international ac adapter/battery eliminator, soft carrying case, users manual, multi-language manual on CD
FLUKE-43B Power Quality Analyzer	Voltage and current probes, FlukeView® software, power quality instructional CD, USB interface cable, line voltage adapter/battery charger, hard case, users manual
FLUKE-VR1710 Voltage Quality Recorder	USB cable, Power Log software CD, universal power cord adapters

Fluke Norma 4000 and 5000 Precision Power Analyzers



Fluke Norma 4000



Fluke Norma 5000

For field and laboratory testing

Fluke Norma 4000 and 5000 Precision Power Analyzers offer easy and straight-forward operation with unmatched price performance. Features include: 1 to 6 power phases, 144 mm (5.7 in) color display, harmonic analysis, scope mode, vector diagram display, recorder function, Fluke NormaView PC software and 4MB RAM data memory.

- A variety of standard configurations allows users to choose the exact functionality required for their unique application
- Inputs are galvanically isolated to avoid short circuits in all applications, and simultaneous parallel acquisition of all phases allows for accurate viewing of dynamic events dc to 3 MHz/10 MHz bandwidth for reliable measurement precision
- Voltage, current and power harmonics FFT analysis to the 40th harmonic, vector diagram, and Digital Oscilloscope (DSO) mode included in the base unit
- PI1 process interface to measure torque and speed with external sensors, plus four analog outputs for easy use on motor and drive applications
- Data download, analysis and report writing with supplied Fluke NormaView PC software

Fluke 1740 Series Three-Phase PQ Loggers



Fluke 1745



Fluke 1744/1743

Instruments to troubleshoot and analyze power distribution

The Fluke 1740 Series Three-Phase Power Quality Loggers include PQ Log software to quickly assesses the quality of power at the service entrance, substation, or at the load, according to the latest EN50160 standard.

- Setup in minutes with automatic current probe detection and powering
- Compact, fully-insulated housing and accessories fit easily in tight spaces, next to live power
- Included PQ Log software analyzes trends, creates statistical summaries, and generates detailed graphs and tables
- IEC61000-4-30 Class-A compliant voltage accuracy (0.1 %)

Specifications

	1743/1744	1745	1750
Measures common power parameters: V, A, W, VA, VAR, PF, energy, flicker, voltage events, and THD	•	•	•
Measures voltage and current harmonics to the 50th, unbalance, and mains signaling	•	•	•
Transient capture			•
PDA support			•
UPS ride through	3s	> 5 hours	5 min per interruption, 60 min total
Dimensions	170 mm x 125 mm x 55 mm (6.9 in x 5.1 in x 2.2 in)	282 mm x 216 mm x 74 mm (11.5 in x 8.8 in x 3 in)	215 mm x 310 mm x 35 mm (8.5 in x 12.2 in x 3.5 in)
Weight (approx.)	0.9 kg (2 lb)	1.4 kg (3 lb)	6.3 kg (14 lb)

Ordering information

Models	Included accessories
Norma 4000 High Precision Power Analyzer	Power supply cable, NormaView PC software, test certificate, calibration values, users manual
Norma 5000 High Precision Power Analyzer	
FLUKE-1745 Power Quality Logger – Memobox	Four flexible probes 15/150/1500/3000 A with 2 m cable, PQ Log software, RS-232 interface cable and USB adapter, four dolphin clips, test leads for voltages and power supply, color localization kit, carrying bag, test certificate with measurement values, users manual, multi-language manual CD
FLUKE-1744 Power Quality Logger – Memobox	
FLUKE-1743 Power Quality Logger – Memobox	

In the U.S., these power quality recorders are sold exclusively through power quality representatives. To request a demonstration, or to order, call 1-888-257-9897 or email questions to fpqsupport@fluke.com.





Fluke 1750 Three-Phase Power Recorder

Never miss capturing a disturbance

The Fluke 1750 Power Recorder and the Fluke Power Analyze software allows you to easily record three-phase power quality and monitor for power quality disturbances. These power meters automatically record every power quality parameter and event, on every cycle—all the time.

- All measurements comply with IEC61000-4-30 standards for correct evaluation of all measured values including voltage, current, power, harmonics, flicker etc.
- PDA wireless "front panel interface" provides a window into what the instrument is recording, enabling quick and reliable configuration even in awkward test locations
- Cross-channel and current triggering capture every measurement, on every channel, every time
- With intuitive PC software, easily analyze data and generate reports. Automated EN50160 reporting and compliance
- Voltage and current measurements on three phases, neutral and ground



Fluke 1760 Three-Phase Power Quality Recorder

Captures the most comprehensive details

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

- Use GPS time synchronization to correlate data with events or datasets from other instruments with precision
- Using flexible and fully configurable thresholds and scale factors, pinpoint specific issues by defining the detailed criteria for detection and recording of disturbances
- 10 MHz, 6000 Vpk waveform capture for a detailed picture of even the shortest event
- 2GB data memory enables detailed, simultaneous recording of numerous power parameters for long periods of time
- Comprehensive software provides trend diagrams for root cause analysis, statistical summaries, report writing and real-time data monitoring in the online mode
- Quick setup with automatic sensor detection; sensors are instrument powered, eliminating the need for batteries

Specifications

	1760TR	1760	1760TR BASIC	1760 BASIC
Online mode (oscilloscope, transients and events)	•	•	•	•
Fast transient analysis up to 10 MHz	•		•	
Four 600 V voltage probes	•	•		
Four dual-range flexible current probes (1000 A/200 A ac)	•	•		
GPS time sync receiver	•	•		



Ordering information

Models	Included accessories
FLUKE-1750 Three-Phase Power Recorder Kit	Acquisition unit, PDA and charger, power plug adapters, 4 x 400 A 3140-PR current probes (1750 only), 4 x 1000 A 3210-PR-TF iFlex current probes (1750-TF only), five test leads and clips, SD memory card, Fluke Power View and Fluke Power Analyze software, power cord with international plug set, ethernet cable, color localization set, users manual and CD
FLUKE-1750-B Three-Phase Power Recorder Basic Kit	
FLUKE 1750-TF Three-Phase Power Recorder Kit	
FLUKE-1760 Three-Phase Power Recorder	Acquisition unit, voltage and current probes (1760, 1760TR), GPS time sync receiver (1760TR, 1760TR Basic) Fluke PQ Analyze software, power cord with international plug set, ethernet cable, color localization set, users manual and CD
FLUKE-1760 Basic Three-Phase Power Recorder	
FLUKE-1760TR Three-Phase Power Recorder	
FLUKE-1760TR Basic Three-Phase Power Recorder	

In the U.S., these power quality recorders are sold exclusively through power quality representatives. To request a demonstration, or to order, call 1-888-257-9897 or email questions to fpqsupport@fluke.com.

Fluke BT500 Series Battery Analyzers



Reduced testing complexity, a simplified workflow and an intuitive user interface provide a new level of ease-of-use in battery testing

The new Fluke BT500 Series Battery Analyzer is ideal test tool for maintenance, trouble-shooting and performance testing of individual stationary batteries and battery banks used in critical battery back-up applications. Fluke 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. BT500 Series Battery Analyzers are designed for measurements on stationary batteries of all types.

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



Specifications

Functions	Range	Resolution	Accuracy	BT510	BT520	BT521
Battery resistance[1]	3 mΩ	0.001 mΩ	1 % + 8	•	•	•
	30 mΩ	0.01 mΩ	0.8 % + 6	•	•	•
	300 mΩ	0.1 mΩ	0.8 % + 6	•	•	•
	3000 mΩ	1 mΩ	0.8 % + 6	•	•	•
V dc	6 V	0.001 V	0.09 % + 5	•	•	•
	60 V	0.01 V	0.09 % + 5	•	•	•
	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 V ac and A ac)[2]	500 Hz	0.1 Hz	0.5 % + 8	•	•	•
AC voltage ripple (20 KHz Max)	600 mV	0.1 mV	3 % + 20	•	•	•
	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	1 °C	2 °C (4 °F)			•
Meter mode	999 records for each measurement position with time stamp					
Sequence mode	Up to 100 profiles and 100 profile templates (Each profile stores up to 450 batteries) with time stamp					

[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 A.

Ordering information

Models	Included accessories
FLUKE-BT521 Advanced Battery Analyzer	4-wire test pin (set), test lead (set), test leads with adapter, test probe set with extender and temperature sensor, ac/dc current clamp, lithium-ion battery, ac charger, mini-USB cable, shoulder strap, belt strap, magnetic hanging strap, software, soft carrying case, spare fuses (2), battery tags, and zero ohm calibration resistor
FLUKE-BT520 Battery Analyzer	4-wire test pin (set), test lead (set), test leads with adapter, test probe set with extender (no temperature sensor), lithium-ion battery, ac charger, mini-USB cable, shoulder strap, belt strap, magnetic hanging strap, software, soft carrying case, spare fuses (2), battery tags, and zero ohm calibration resistor
FLUKE-BT510 Battery Analyzer	4-wire test pin (set), est lead (set), test leads with adapter, lithium-ion battery, ac charger, mini-USB cable, shoulder strap, belt strap, magnetic hanging strap, software, soft carrying case, spare fuses (2), and zero ohm calibration resistor

Measure impedance with the Fluke BT521 Battery Analyzer.



PROCESS TOOLS SELECTION GUIDE

Models	Process mA Clamp Meter 773	ProcessMeter® Test Tool 789	Loop Calibrator 709H	Pressure Calibrator 719/719PRO	Temperature Calibrator 724	Precision Multifunction Process Calibrator 726	Intrinsically Safe Calibrator 725Ex	Documenting Process Calibrator 754
Measure								
V dc	30 V	1000 V	30 V		30 V	30 V	30 V	300 V
V ac (true-rms)		1000 V						300 V
Resistance		40 MΩ			3200 Ω	4000 Ω	3200 Ω	11 kΩ
A dc max	20.99, 99.9 mA	30 mA, 1 A	24 mA	24 mA	24 mA	24 mA	24 mA	110 mA
A ac max		•						
Frequency		20 kHz				15 kHz	10 kHz	50 kHz
Pressure				2 bar, 10 bar, 20 bar		•[1]	•[3]	•[1]
Temperature: RTDs				719Pro optional	7 types	8 types	7 types	8 types
Temperature: TCs					12 types	13 types	12 types	13 types
Source/Simulate								
V dc	10 V				10 V	20 V	10 V	15 V
Resistance					3200 Ω	4000 Ω	3200 Ω	11 kΩ
mA dc	24 mA	24 mA	24 mA	24 mA		24 mA	24 mA	22 mA
mA source; auto step, auto ramp	•	•	•	•		•	•	•
Frequency						15 kHz	10 kHz	50 kHz
Temperature: RTDs					7 types	8 types	7 types	8 types
Temperature: TCs					12 types	13 types	12 types	13 types
Record								
Min/Max		•		•				•
Hold	•	•		719				•
As found/As left results								•
Log data			•					•
Upload data to PC			•					•
Remote operation		•				•		
Features								
24 V loop supply	•	•	•	•	•	•	12 V	26 V
Non-contact mA measurement	•							
HART communication			•					•
Intrinsically safe (ATEX)							•	
Traceable calibration certification			•	•	•	•	•	•
Pressure enabled[2]				•		•	•[3]	•
Warranty (years)	3	3	3	3	3	3	3	3

[1]Fluke 750P Pressure Modules required.
[2]Fluke Process Calibrators in this guide displaying the Pressure Enabled symbol display readings from the 750P Series Pressure Modules.
[3]Fluke 700PEx Pressure Module required.

Model	914X/ 9190A	P3000	152X	9103/ 9140	418X	1620A	P5500	3130	2700G	1586A
Range	–95 °C to 660 °C	To 400 MPa (60,000 psi)	–200 °C to 420 °C	–25 °C to 350 °C	–15 °C to 500 °C	0 °C to 50 °C; 0 % to 100 % RH	To 70 MPa (20,000 psi)	Vacuum to 20 bar	–0.1 to 70 MPa (–15 to 10,000 psi)	Various
Measure										
Temperature	•		•	•	•	•				•
Pressure		•						•	•	
Humidity						•				
DC volt/ current								•		•
Source										
Temperature	•			•						
Pressure		•					•	•	•	
Thermocouple										

Fluke 771, 772 and 773 mA Process Clamp Meters



Measure output signals without breaking the loop

The Fluke 771, 772 and 773 mA Process Clamp Meters pay for themselves. These meters save time by measuring 4 to 20 mA signals (five) times faster than traditional DMMs without operator intervention, offering loop calibration, voltage testing and eliminate time wasting activities.

Use the Fluke 771, 772 and 773 to:

- Measure 4–20 mA signals without "breaking the loop," save time and money troubleshooting

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) or 709H Precision Loop Calibrator 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

Features

	mA measure w/jaw	mA measure In circuit	mA source	mA sim	Loop power 24 V	DCV source 0-10 V	DCV 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 mA to 20.99 mA 21.0 mA to 100.0 mA	0.2 % + 5 counts 1 % + 5 counts	Measured by clamp
772 and 773	mA measurement	0 mA to 24.00 mA	0.2 % + 2 counts	Measured in series with test jacks
772 and 773	mA source	0 mA to 24.00 mA	0.2 % + 2 counts	Maximum mA drive: 24 mA into 1,000 ohms
772 and 773	mA simulate	0 mA to 24.00 mA	0.2 % + 2 counts	Maximum voltage 50 V dc
773	Voltage source	0 V dc to 10.00 V dc	0.2 % + 2 counts	2 mA maximum drive current
773	Voltage measure	0 V dc to 30.00 V dc	0.2 % + 2 counts	

General specifications

	771	772	773
Battery	Two 1.5 V, Alkaline, IEC LR6	Four 1.5 V, Alkaline, IEC LR6	
Working hours	20 hours typical	12 hours @ 12 mA source into 500 ohms	
Size (HxWxL)	59 mm x 38 mm x 212 mm (2.32 in x 1.5 in x 8.35 in)	41.3 mm x 76 mm x 248 mm (1.625 in x 3 in x 9.75 in)	
Weight	260 g (9.1 oz)	415 g (14 oz)	
Operating temperature	-10 °C to 50 °C		
IP rating	IP 40		
Warranty	Three-year, one-year on mA clamp assembly and cable		

Ordering information

Models	Included accessories
FLUKE-771 Milliamp Process Clamp Meter	Soft carrying case, users manual
FLUKE-772 Milliamp Process Clamp Meter	Test leads, alligator clips and hanging strap, soft carrying case, users manual
FLUKE-773 Milliamp Process Clamp Meter	



Measure process and other automation 4 to 20 mA signals without breaking the loop.



FLUKE CONNECT
(789 only)



1000 V CAT III (787) 600 V CAT IV (789) True RMS

ToolPak compatible

Fluke Gold Instrument CarePlan



Fluke 789 ProcessMeter is two tools in one, a CAT IV 600V safety rated DMM and a full functioning mA loop calibrator. Perfect for instrumentation and I and E technicians.



Fluke 789 and 787 ProcessMeter™ Test Tools

Combine the functionality of a loop calibrator with the power of a digital multimeter

Fluke 789 ProcessMeter

The Fluke 789 ProcessMeter is the ultimate troubleshooting tool for process technicians. Add the wireless data logging capabilities of Fluke Connect® with ShareLive™ video call, and process technicians can do a lot more while carrying a lot less.

- Unique new wireless measurement logging capability
- 24 V loop power supply
- HART mode setting with loop power (adds 250 ohm resistor)
- 20 mA drive into 1200 ohms
- 0 % to 100 % mA Span Check buttons to toggle between 4–20 mA
- Infrared I/O serial port compatible with FlukeView® Forms Software

Fluke 787 ProcessMeter

- Simultaneous mA and % of scale readout on mA output
- 25 % Manual Step plus Auto Step and Auto Ramp on mA output
- Min/Max/Avg/Hold/Relative modes

Specifications

Measurement function	Best accuracy range and resolution	(% of reading + LSD)
V dc	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.1 % + 1
V ac (true-rms)	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.7 % + 2
mA dc	30.000 mA	.05 % + 2
A dc	1.000 A (0.440 A continuous)	0.2 % + 2
A ac	1.000 A (0.440 A continuous)	1 % + 2
Resistance	400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ	0.2 % + 1
Frequency (0.5 Hz to 20 kHz)	199.99 Hz, 1999.9 Hz, 19.999 kHz	0.005 % + 1
Diode test	789: 2.000 V (shows diode voltage drop) 787: 2.400 V (shows diode voltage drop)	2 % + 1
Continuity	Beeps for resistance < approx. 100 ohms	

Output function	Range and resolution	Drive capability	Accuracy (% of span)
DC current output-source mode (internal battery operation)	0.000 mA to 20.000 mA or 4.000 mA to 20.000 mA (selectable at power-up) Over-range to 24.000 mA	789: 24 V compliance or, 1,200 ohms, @ 20 mA 787: 12 V compliance or, 500 ohms, @ 20 mA	0.05 %
DC current output-simulate mode (external 24 V loop supply, up to 48 V on 789 only)	0.000 mA to 20.000 mA or 4.000 mA to 20.000 mA, (selectable at power-up) Over-range to 24.000 mA	1000 ohms, @ 20 mA	0.05 %
24 V loop supply	789: Minimum 24 V, 787: Not available	250 ohms @ 20 mA	> 24 V
Current adjustment modes	Manual: coarse, fine, 25 % and 100 % step (100 % step 789 only) Automatic: slow ramp, fast ramp, 25 % step		

General specifications	
Temperature range	18 °C to 28 °C for one year after calibration
Maximum voltage	1000 V rms (applied between any jack and earth ground)
Temperature	-40 °C to 60 °C (storage); -20 °C to 55 °C (operating)
Relative humidity	95 % up to 30 °C; 75 % up to 40 °C; 45 % up to 50 °C; 35 % up to 55 °C
Safety	IEC 61010-1: 600 V CAT IV / 1000 V CAT III
Size (HxWxL)/weight (787 w/ holster)	52 mm x 98 mm x 201 mm (2.06 in x 3.86 in x 7.93 in)/638 g (1.4 lb)
Size (HxWxL)/weight (789)	50 mm x 100 mm x 203 mm (1.97 in x 3.94 in x 8.00 in)/600 g (1.3 lb)
Warranty	Three-year

Ordering information

Models	Included accessories
FLUKE-789 ProcessMeter	Test leads, alligator clips, 4 AA alkaline batteries (installed), quick reference guide, users manual, multi-language manual CD
FLUKE-787 ProcessMeter	Test leads, alligator clips, holster with test lead storage, one 9 V alkaline battery (installed), quick reference guide, users manual, multi-language manual CD

Fluke 715, 707 and 705 Loop Calibrators

Delivers outstanding performance, durability and reliability



Fluke 715 Loop Calibrator

The Fluke 715 Volt/mA Calibrator can measure loop current as well as voltage output.

- Source voltage to 200 mV or 20 V
- Measure loop current (0–20 mA, 4–20 mA) signals with 0.01 % accuracy and 1 µA resolution
- Measure voltage output process signals from PLCs, transmitters
- Source or simulate 4–20 mA loop current
- 24 V loop supply with simultaneous current measurement
- Ramp and Step Ramp output functions

Fluke 707 and 705 Loop Calibrators

With large displays and simple interface, the Fluke 707 and 705 provide easy to use, one-hand operation.

- Innovative output adjustment dial on 707 for 1 µA and 100 µA resolution
- Simultaneous mA and % readout for quick, easy interpretation of readings
- mA accuracy of 0.015 % 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
- 0–20 mA or 4–20 mA default start up modes

Specifications

Functions	Fluke 705 and 707	Fluke 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: 0.025 % Rdg + 1 LSD 707, 707Ex: 0.015 % 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, 707Ex: 0.015 % 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: 0.025 % Rdg + 2 LSD 707, 707Ex: 0.015 % Rdg + 2 LSD	0.01 % Rdg + 2 LSD	
Drive capability	705: 1000 W @ 24 mA 707: 1200 W @ 24 mA 707Ex: 700 W @ 20 mA	1000 W @ 24 mA	
Loop power while measuring mA	24 V	24 V	
Voltage sourcing		0 mV to 200 mV or 0 V to 20 V	
Display current and % of span	•	mA or %	
Auto step, auto ramp	•	•	
Span Check	•	•	
Battery life	18 hours typical at 12 mA	18 hours typical at 12 mA	
Warranty	Three-year		



Fluke loop calibrators are reliable and accurate. The 709H adds basic HART communication (see page 58).

Ordering information

Models	Included accessories
FLUKE-715 Volt/mA Calibrator	Test leads, alligator clips, holster, traceable calibration report and data, single 9 V alkaline battery, instruction sheet (14 languages)
FLUKE-707 Loop Calibrator	
FLUKE-705 Loop Calibrator	





Fluke 753 and 754 Calibrators

Does the work of several tools for process systems

- Calibrate temperature, pressure, voltage, current, resistance and frequency instruments
- Built-in procedures for transmitters, square root transmitters, pressure and temperature switches
- Simultaneously measure and source
- Automatically capture calibration results
- Document procedures and results to meet ISO 9000, EPA, FDA, OSHA and other requirements
- Measure/simulate 13 types of thermocouples and eight RTDs

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.

753: A complete documenting calibrator

The 753 is a complete multifunction documenting calibrator and includes a PC interface that lets you load procedures, lists and instructions created with software—or unload data for printing, archiving, and analysis. The 753 can hold a full week of calibrations and procedures.

Fluke 709/709H Precision Current Loop Calibrators

- Best-in-class accuracy at 0.01 % reading
- HART Communication (709H only) communicate with and test HART smart instruments
- 24 V dc loop power with mA measure mode
- Built in selectable 250 Ω resistor for HART communications
- Valve test (source and simulate defined mA values with % keys)
- Upload logged mA measurements and HART device data using the 709H with optional 709H/TRACK software



75X Calibrator Specifications

	Measure	Sourcing
DC voltage	0.020 % 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 50 KHz, ± 0.5 Hz to 1100 Hz	0 to 50 KHz, ± 0.1 Hz to 1099.9 Hz
Thermocouples	0.3 °C	0.2 °C
RTDs	0.3 °C	0.1 °C
Pressure	To 0.025 % of full scale, per pressure module specifications (Fluke 750P Series)	
Battery life	Typically over eight hours	
Internal battery pack	Li ion 4400 mAh	
Size (HxWxD)	245 mm x 136 mm x 63 mm (9.6 in x 5.4 in x 2.5 in)	
Weight	1.2 kg (2.7 lb)	
Calibration cycles	One- and two-year	
Warranty	Three-year	

Calibrate and document the performance of HART smart pressure transmitters with the Fluke 754 and 750 Series Pressure Modules.



Ordering information

Models	Included accessories
FLUKE-754 Documenting Process Calibrator-HART	Three sets of stackable test leads, three sets of test probes with three sets of "extended tooth" alligator clips, two sets of hook clips, li-ion battery pack, battery charger, field soft case, USB communication cable, getting started guide, instruction manual on CD, traceable certificate of calibration, DPC/TRACK2 sample software that enables upload and printing of calibration records. HART communication cable (754 only)
FLUKE-753 Documenting Process Calibrator	
FLUKE-709 Precision Current Loop Calibrator	Test leads, test probes and alligator clips. Quick reference guide, traceable certificate of calibration, manual on CD. Additional hook clips (709H only) for HART communication
FLUKE-709H Precision Current Loop Calibrator-HART	

HART is a registered trade mark of the HART Communications Foundation.

Fluke 726 and 725 Multifunction Process Calibrators



(725)

Calibrate almost anything

The Fluke 726 and 725 measure and source nearly all process parameters. Interpret results without the help of a calculator and store measurement data for later analysis.

- Precise measurement and calibration source performance, accuracies of 0.01 % (726)
- Transmitter error % calculation, source/simulate volts, mA, thermocouples, RTDs, frequency, ohms and pressure to calibrate transmitters
- Memory storage for up to eight calibration setups
- Frequency totalizer and pulse train source mode for enhanced flowmeter testing (726)
- HART mode inserts 250 ohm resistor in mA measure and source mode
- Integrated pressure switch test to capture the set, reset and deadband of a switch (726)
- RTD curves, add temperature calibration constants for certified RTD probes
- Voltage input protection design for improved reliability
- Measure/source 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 features
- Intrinsically safe version available (725)

Measure and source

Functions	Range or type	Resolution	Accuracy	Notes
Voltage dc	0 to 100 mV 0 to 10 V (source) **0 to 20 V (source)** 0 to 30 V (measure)	0.001 mV 0.001 V 0.001 V 0.001 V	**0.01 %,** 0.02 % Rdg + 2 LSD	Max load, 1 mA
mA	0 to 24	0.001 mA	**0.01 %,** 0.02 % Rdg + 2 LSD	Max load, 1000 Ω
mV (TC terminals)	-10.00 mV to +75.00 mV	.01 mV	**0.01 %**, 0.02 % of range + 1 LSD	
Ohms	15 Ω to 3,200 Ω **5 Ω to 4,000 Ω**	0.01 Ω to 0.1 Ω	0.10 Ω to 1.0 Ω **0.015 %**	
Hz - CPM	2.0 to 1,000 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**	± 0.05 % ± 0.05 % ± 0.25 % **± 0.05 %**	Source; 5 V p-p **1 V to 20 V p-p** squarewave, -0.1 V offset
Loop supply	24 V dc	N/A	10 %	
T/C	J, K, T, E, L, N, U, XK	0.1 °C, 0.1 °F	to 0.7 °C **to 0.2 °C**	
T/C	B, R, S, BP	1 °C, 1 °F	to 1.7 °C **to 1.2 °C**	
RTDs	**Cu (10)**, Ni120 (672) Pt 100, 200, 500, 1000 (385) Pt 100 (3916), Pt 100 (3926)	**0.01 °C,** **0.01 °F** 0.1 °C, 0.1 °F	**to 0.15 °C** to 0.2 °C	

General specifications	
Storage/operating temperature	-20 °C to 71 °C/-10 °C to 55 °C (726: -10 °C to 50 °C)
Relative humidity	90 % (10 °C to 30 °C); 75 % (30 °C to 40 °C); 45 % (40 °C to 50 °C); 35 % (50 °C to 55 °C)
Shock	1 meter drop test
Battery life	25 hours typical (4 AA alkaline batteries)
Size (HxWxD)	200 mm x 96 mm x 47 mm (7.9 in x 3.8 in x 1.9 in)
Weight	650 g (23 oz)
Warranty	Three-year

Unique 726 specifications are bold.

Ordering information

Models	Included accessories
FLUKE-726 Precision Multifunction Process Calibrator	Test leads, test clips, one pair of stackable test leads, traceable certificate of calibration, product overview manual, users manual in 14 languages on CD
FLUKE-725 Multifunction Process Calibrator	



Calibrate temperature transmiters easily with Fluke 725 and 726 calibrators.

Add a 750P series pressure module to the 725 or 725 to make it a pressure calibrator.





Fluke 712B, 714B and 724 Temperature Calibrators

Highly accurate single function temperature calibrator

For the temperature calibration professional that wants a highly accurate, easy-to-use, single function temperature calibrator the 712B and 714B are ideal. For temperature calibration professionals, these temperature calibrators deliver outstanding performance, durability and reliability and each calibrator is EMI tolerant, dust- and splash-resistant, and features a removable battery door for quick battery changes.

- The 712B can measure and simulate (13) different RTD types and resistance
- The 714B can measure and simulate (17) different thermocouple types and millivolts
- Measure 4 to 20 mA signals while simultaneously sourcing a temperature signal
- The 724 specialty model will source/measure TCs, RTDs, volts and ohms as well as measure mA while supplying loop power
- Hanging tool designed in and included with every unit (712B and 714B)
- Configurable 0 % and 100 % source settings for quick 25 % linearity checks
- Linear ramp and 25 % step auto ramp based on 0 % and 100 % settings
- Dual inputs and backlit display for easy interpretation of measurements
- Power down settings remembered at power up for easy restart of tests
- One-year and two-year specifications and traceable certificate of calibration (712B and 714B)



Specifications

	Functions	Range	Resolution	Accuracy	Notes
712B	Measure/Simulate RTD	-200 °C to 800 °C (Pt 100-385)	0.1 °C, 0.1 °F	0.2 °C, 0.4 °F (Pt 100-385)	13 types Pt; 100 200 500 1000 (385); Pt 100 (392); Pt 100 (392) JIS; Ni 120 (672)
	Measure/Simulate Resistance	0.00 Ω to 400.00 Ω 400.0 Ω to 4000.0 Ω	0.01 Ω 0.1 Ω	0.015 % + 0.005 Ω 0.015 % + 0.05 Ω	
714B	Measure/Simulate Thermocouple	-200 °C to 1800 °C, depending on type (K, -200 °C to 1370 °C)	0.1 °C or °F (1 °C or °F; BRS)	0.5 °C, 0.8 °F (Type K)	17 TC types; J K T E R S B per NIST 175 and ITS-90 L U per DIN 43710 and PTS-68
	Measure/Simulate mV	10 mV to 75 mV	0.01 mV	0.015 % + 10 µV	

General specifications (712B/714B)	
Maximum voltage	30 V
Operating temperature	-10 °C to 50 °C
Power	4 AA alkaline batteries/NEDA code: 15A, IEC code: LR6
Safety/EMC	IEC 61010-1, Max 30 V to earth, Pollution Degree 2/IEC 61326-1, Portable
Size (HxWxD)	188.5 mm x 84 mm x 52 mm (7.42 in x 3.31 in x 2.04 in)
Weight	515 g (18.16 oz)
Warranty	Three-year

714B is the ideal tool for testing thermocouple input temperature transmitters.



Ordering information

Models	Included accessories
FLUKE-724 Temperature Calibrator	Test leads, test clips, one pair of stackable test leads, product overview manual, users manual in 14 languages on CD
FLUKE-714B Themocouple Calibrator	Test leads, alligator clips (excluding model 714), holster with test lead storage, single 9 V alkaline battery and instruction sheet (14 languages)
FLUKE-712B RTD Calibrator	

Fluke Calibration Temperature Sources

9142/9143/9144 Field Metrology Wells



Small dry wells for big field applications
Applications: Temperature instrument calibration, 4 to 20 mA loop test and calibration, temperature switch testing.

- Cool to –25 °C in 15 minutes (9142) and heat to 660 °C in 15 minutes (9144)
- Built-in two-channel readout for PRT, RTD, thermocouple, 4–20 mA current
- Stability to ± 0.01 °C
- Accredited calibration

9103/9140 Field Dry-Well Calibrators



Portable instruments with great performance
Applications: Temperature instrument calibration, temperature switch tests.

- Two models ranging from –25 °C to 350 °C
- Accuracy to ± 0.25 °C
- Stability to ± 0.02 °C

4180/4181 Precision Infrared Calibrators



Accredited performance for point-and-shoot calibrations
Applications: Infrared thermometer calibration.

- Calibrated radiometrically for meaningful, consistent results
- Accredited calibration accurate to ± 0.35 °C
- Wide coverage –15 °C to 500 °C
- Stability to ± 0.01 °C

9190A Ultra-Cool Field Metrology Well



Ultra-cool dry-block calibrator with best-in-class stability
Applications: Temperature instrument calibration, 4–20 mA loop test and calibration.

- Wide temperature range: –95 °C to 140 °C
- Accuracy to ± 0.05 °C
- Fast cooling time from 23 °C to –95 °C: 90 minutes

Ordering information

Models	Select an insert	Included accessories
9103 Field Dry-Well Calibrator, –25 °C to 140 °C **9140** Field Dry-Well Calibrator, 35 °C to 350 °C	Insert A: 1/16 in (1.6 mm), 1/8 in (3.2 mm), 3/16 in (4.8 mm), 1/4 in (6.35 mm), 3/8 in (9.5 mm) and 1/2 in (12.7 mm) Insert C: 6 at 1/4 in (6.35 mm)	Insert, insert removal tool, software, calibration certificate
9190A Field Metrology Well, –95 °C to 140 °C	9190-INSA: imperial misc holes	Insert, insert removal tool, manual, software, USB cable, accredited calibration certificate
9190A-P Field Metrology Well, –95 °C to 140 °C, process version	9190-INSC: 6 x 0.25 in holes	
9142 Field Metrology Well, –25 °C to 150 °C	9142-INSA, imperial misc holes	Insert, insert removal tool, test lead kit (process version), software, manual, accredited calibration certificate
9142-P Field Metrology Well, –25 °C to 150 °C, process version	9142-INSB, imperial comp holes 9142-INSC, 6 x 0.25 in holes	
9143 Field Metrology Well, 33 °C to 350 °C	9143-INSA, imperial misc holes	Insert, insert removal tool, test lead kit (process version), software, manual, accredited calibration certificate
9143-P Field Metrology Well, 33 °C to 350 °C, process version	9143-INSB, imperial comp holes 9143-INSC, 6 x 0.25 in holes	
9144 Field Metrology Well, 50 °C to 660 °C	9144-INSA, imperial misc holes	Insert, insert removal tool, test lead kit (process version), software, manual, accredited calibration certificate
9144-P Field Metrology Well, 50 °C to 660 °C, process version	9144-INSB, imperial comp holes 9144-INSC, 6 x 0.25 in holes	
4180 Precision Infrared Calibrator, –15 °C to 120 °C **4181** Precision Infrared Calibrator, 35 °C to 500 °C	N/A	Report of Calibration (NVLAP accredited), power cord, user's guide, documentation CD, target cover, serial cable

Pair the Fluke 753 or 754 with a dry-well calibrator to calibrate and document both temperature transmitter electronics and sensor performance.





1523 and 1524 Reference Thermometers

Measure, graph and record three sensor types with one tool

Get plug and play measurement of PRTs, RTDs, Thermistors, and Thermocouples with high accuracy. The model 1524 has two channels so you can do twice the work in half the time. Both instruments are handheld and battery powered with the option of using an included ac adapter.



1586A Super-DAQ Precision Temperature Scanner

Use as a multi-channel data logger in the factory or as a precision reference thermometer in the lab

The 1586A is the most accurate (± 0.002 °C), secure and flexible temperature data acquisition system on the market. The 1586A Super-DAQ scans and records temperature (PRTs, Thermocouples, and Thermistors), dc voltage, dc current, and resistance for up to 40 input channels and scan speeds as fast as 10 channels per second. The 20 channel High-Capacity Modules are for data logging, and 20 channel DAQ-STAQ Multiplexer is for lab applications.



7526A Precision Process Calibrator

The 7526A offers the best balance of economy and accuracy for bench top calibration of temperature and pressure process instrumentation. Easily calibrate RTD and thermocouple readouts, pressure gauges, temperature transmitters, digital process simulators, data loggers, multimeters and more.



1551A Ex and 1552A Ex "Stik" Thermometers

The easiest to use precision thermometer

Intrinsically safe (ATEX and IECEx compliant) with user-configurable temperature Trend/Stability indicator, 300-hour battery life, and optional data logging.

Ordering information

Models	Included accessories
1523-P1 1 channel thermometer readout bundle	5616 PRT, Smart connector for thermocouples, TPAK, and case
1524-P1 2 channel thermometer readout bundle	
1586A/1HC 120 Super-DAQ Precision Temperature Scanner, 120 V	High-Capacity Module, software CD
1586A/1HC 120/C Super-DAQ Precision Temperature Scanner, 120 V	High-Capacity Module, Accredited Calibration, software CD
1586A/1DS 120 Super-DAQ Precision Temperature Scanner, 120 V	DAQ-STAQ Multiplexer, software CD
1586A/1DS 120/C Super-DAQ Precision Temperature Scanner, 120 V	DAQ-STAQ Multiplexer, Accredited Calibration, software CD
1586A/2HC 120 Super-DAQ Precision Temperature Scanner, 120 V	2 High-Capacity Modules, software CD
1586A/2HC 120/C Super-DAQ Precision Temperature Scanner, 120 V	2 High-Capacity Modules, Accredited Calibration, software CD
1586A/2DS 120 Super-DAQ Precision Temperature Scanner, 120 V	2 DAQ-STAQ Multiplexers, software CD
1586A/2DS 120/C Super-DAQ Precision Temperature Scanner, 120 V	2 DAQ-STAQ Multiplexers, Accredited Calibration, software CD
1586-CASE 1586A Super-DAQ Carrying Case	Carrying case
1586/DS-CASE 1586A Super-DAQ/DAQ-STAQ Carrying Case	Carrying case
7526A Precision Process Calibrator	USB to serial adapter cable, thermocouple shorting jumper
7526A-CASE 7626A Carrying Case	Carrying case
1551A-9 Digital Thermometer, 9 in, –50 °C to 160 °C (-58 °F to 320 °F)	RS-232 cable, 3 AAA batteries
1551A-12 Digital Thermometer, 12 in, –50 °C to 160 °C (-58 °F to 320 °F)	RS-232 cable, 3 AAA batteries
1552A-12 Digital Thermometer, 12 in, -80 °C to 300 °C (-112 °F to 572 °F	RS-232 cable, 3 AAA batteries
1551-CASE 1551/1552 Carrying Case	Carrying case

Fluke Pressure Calibrators



Fluke 719 and 719PRO Electric Pressure Calibrators

- Electric pump enables one-handed pressure pumping
- Best in class 0.025 % pressure measurement accuracy
- Programmable pump limit settings can eliminate over-pressurization
- Precision vernier for fine pressure adjustment
- Variable release rate bleed valve for controlled pressure release
- Pressure switch test makes a difficult task easy, captures set, reset and deadband values of a pressure switch
- Measure mA with 0.015 % accuracy, while sourcing 24 V loop power
- 719: Two ranges, 30 psi and 100 psi
- 719PRO: Three ranges 30 psi, 150 psi and 300 psi
- 719PRO: Precision temperature measurement with optional 720RTD Probe

Fluke 718 Pressure Calibrators

- 1, 30, 100 and 300 psi ranges available
- Pump to 300 psi, 20 bar with internal hand pump (718-300G)
- 718-1G includes special low volume pump and high measurement resolution for low pressure calibration
- Precision vernier for fine pressure adjustment
- Variable release rate bleed valve for controlled pressure release
- Pressure switch test makes a difficult task easy, captures set, reset and deadband values of a pressure switch
- Measure pressure to 0.025 % of full scale
- Measure mA with 0.015 % accuracy, while sourcing 24 V loop power

Fluke 717 Pressure Calibrators



- Measure up to 10,000 psi/690 bar sensor (10000G model)
- Compatible with non-corrosive gases and liquids on 500 psi and higher ranges
- Pressure switch test makes a difficult task easy, captures set, reset and deadband values of a pressure switch
- Measure pressure to 0.025 % of full scale
- Measure mA with 0.015 % accuracy, while sourcing 24 V loop power

Fluke 750P Series Pressure Modules

50 pressure modules covers pressure calibrations from 0 to 1 in H_2O to 10000 psi 2.5 mBar to 690 bar.

- 0.025 % reference uncertainty
- 6-month and 1-year specifications
- Temperature compensated 0 °C to 50 °C
- Digital communication to calibrators, no analog losses or errors
- Gage, differential, dual range, absolute and vacuum measurement models

Ordering information

Models		Included accessories
FLUKE-719PRO 30G Electric Pressure Calibrator	**FLUKE-717 15G** Pressure Calibrator	Test leads, alligator clips, holster, test hose (719), one 9 V alkaline battery (two 9 V batteries in 718 and 719), 8 AA batteries in the 719PRO and safety sheet.
FLUKE-719PRO 150G Electric Pressure Calibrator	**FLUKE-717 30G** Pressure Calibrator	
FLUKE-719PRO 300G Electric Pressure Calibrator	**FLUKE-717 100G** Pressure Calibrator	
FLUKE-719 30G Electric Pressure Calibrator	**FLUKE-717 300G** Pressure Calibrator	
FLUKE-719-100G Electric Pressure Calibrator	**FLUKE-717 500G** Pressure Calibrator	
FLUKE-718 1G Pressure Calibrator	**FLUKE-717 1000G** Pressure Calibrator	
FLUKE-718 30US Pressure Calibrator	**FLUKE-717 1500G** Pressure Calibrator	
FLUKE-718 100US Pressure Calibrator	**FLUKE-717 3000G** Pressure Calibrator	
FLUKE-718 300G Pressure Calibrator	**FLUKE-717 5000G** Pressure Calibrator	
FLUKE-717 1G Pressure Calibrator	**FLUKE-717 10000G** Pressure Calibrator	

For a full list of Fluke 750P Series Pressure Calibrators, visit **www.fluke.com/pressure**.



Fluke 721 Precision Pressure Calibrator

Features dual-range isolated pressure sensors

- Ideal tool for gas custody transfer applications
- Take simultaneous static and differential pressure measurements with a single tool
- Best in class accuracy of 0.025 %, for gas measurement applications
- Pt100 RTD input for precision temperature measurement (probe optional)
- Measures 4 to 20 mA signals and provides 24 V loop power
- Measure up to 30 V dc to check 24 V loop power supplies
- Extend pressure measurement range with connection to external 750P Series Pressure Modules (50 ranges)
- I.S. rated models available. IS models do not have 24 V loop power, measure voltage or have connectivity to pressure modules

Specifications

Model	Low pressure sensor			High pressure sensor		
	Range sensor 1	Resolution sensor 1	Accuracy sensor 1	Range Sensor 2	Resolution sensor 2	Accuracy sensor 2
Fluke-721-1601	-14 psi to +16 psi	0.001 psi	0.025 % of full scale	-12 psi to +100 psi	0.01 psi	0.025 % of full scale
Fluke-721-1603				-12 psi to +300 psi	0.01 psi	
Fluke-721-1605				-12 psi to +500 psi	0.01 psi	
Fluke-721-1610				0 psi to +1000 psi	0.1 psi	
Fluke-721-1615				0 psi to +1500 psi	0.1 psi	
Fluke-721-1630				0 psi to +3000 psi	0.1 psi	
Fluke-721-1650				0 psi to +5000 psi	0.1 psi	0.035 % of full scale
Fluke-721-3601	-14 psi to +36 psi			-12 to +100 psi	0.01 psi	0.025 % of full scale
Fluke-721-3603				-12 psi to +300 psi	0.01 psi	
Fluke-721-3605				-12 psi to +500 psi	0.01 psi	
Fluke-721-3610				0 psi to +1000 psi	0.1 psi	
Fluke-721-3615				0 psi to +1500 psi	0.1 psi	
Fluke-721-3630				0 psi to +3000 psi	0.1 psi	
Fluke-721-3650				0 psi to +5000 psi	0.1 psi	0.035 % of full scale



Fluke 700G Series Precision Pressure Test Gauges

Twenty three ranges to choose from

- Seven Reference Class gauge ranges with ± .04 % of reading accuracy: 30 psi, 100 psi, 500 psi, 1000 psi, 3000 psi, 5000 psi, 10000 psi
- Two Low pressure measurement ranges with ± .1 of reading accuracy: 10 inH_2O, 1 psi
- Fourteen precision test gauge ranges with ± .05 % of reading accuracy: 15 psi, 30 psi, 100 psi, 300 psi, 500 psi, 1000 psi, 2000 psi, 3000 psi, 5000 psi, 10000 psi
- Four Absolute pressure measurement ranges: 15 psia, 30 psia, 100 psia, 300 psia
- CSA; Class 1, Div 2, Groups A–D rating
- ATEX rating: II 3 G Ex nA IIB T6
- Combine with the 700PTPK or 700HTPK pump kits for a complete pressure testing solution for up to 600 psi (40 bar) with the 700PTP–1 pneumatic pump and up to 10,000 psi (690 bar) with the 700HTP–2 hydraulic pump
- Log up to 8,493 pressure measurements to memory (requires 700G/TRACK software)
- Three–year warranty

Ordering information

Models	Included accessories
FLUKE-721 Precision Pressure Calibrator (all models)	Soft case, Four (4) AA batteries, manual, traceable calibration certificate, test leads
FLUKE-700G/700RG Precision Pressure Test Gauges (all models)	Manual on CD–ROM in 14 languages, traceable certificate of calibration, 1/4 in NPT to 1/4 in ISO adapter

For a full list of Fluke 750P Series Pressure Modules, visit **www.fluke.com/pressure**.

2700G Series Reference Pressure Gauges



Best-in-class measurement performance

The 2700G Reference Pressure Gauges provide best-in-class measurement performance in a rugged, easy-to-use, economical package. The 2700G is ideal for calibrating pressure gauges, transmitters, transducers, and switches. In addition, it can be used for data logging.

- Precision pressure measurement from 115 psi to 10,000 psi
- Accuracy to 0.02 % of full scale
- Combine with a Fluke PTP or HTP pump kit or P551X comparison test pump for a complete pressure testing solution

Ordering information

Models	Included accessories
2700G-BG100K Reference Pressure Gauge, –15 to 15 psi (–100 to 100 kPa)	Manual on CD-ROM in 14 languages, calibration certificate, ¼ NPT female to ¼ BSP male adapter, ¼ NPT female to M20X1.5 adapter, universal ac power supply, USB communication cable
2700G-BG200K Reference Pressure Gauge, –15 to 30 psi (–100 to 200 kPa)	
2700G-BG700K Reference Pressure Gauge, –12 to 100 psi (–80 to 700 kPa)	
2700G-BG2M Reference Pressure Gauge, –12 to 300 psi (–80 kPa to 2 MPa)	
2700G-BG3.5M Reference Pressure Gauge, –12 to 500 psi (–80 kPa to 3.5 MPa)	
2700G-BG7M Reference Pressure Gauge, –12 to 1000 psi (–80 kPa to 7 MPa)	
2700G-G20M Reference Pressure Gauge, 0 to 3000 psi (0 to 20 MPa)	
2700G-G35M Reference Pressure Gauge, 0 to 5000 psi (0 to 35 MPa)	
2700G-G70M Reference Pressure Gauge, 0 to 10 000 psi (0 to 70 MPa)	

P5500 Comparison Test Pumps



- Designed for testing pressure measuring instruments against master test instruments
- **P5510:** integrated pneumatic hand pump with pressure generation to 300 psi, vacuum to –12 psi
- **P5513:** pneumatic pressure adjustment to 3,000 psi with fine adjust inlet and outlet valves and precise screw press
- **P5514:** hydraulic pressure generation and adjustment to 10,000 psi with fine screw press and reservoir
- **P5515:** integrated hydraulic pressure generation and adjustment to 20,000 psi with high volume priming pump and fine screw press



3130 Portable Pressure Calibrator

- Internal pump can generate vacuum to –12 psi or pressure to 300 psi
- Supply pressure connection allowing the use of external gas supply up to 300 psi
- Measure or generate 4 to 20 mA

Ordering information

Base model	Available ranges
P5510 Gas/Vacuum Comparison Test Pump	Generation and control from vacuum to 300 psi (2 MPa)
P5513 High Pressure Gas Comparison Test Pump	Ranges to 3000 psi (20 MPa)
P5514 Hydraulic Comparison Test Pump	Generation and control to 10 k psi (70 MPa)
P5515 Hydraulic Comparison Test Pump	Generation and control to 20 k psi (140 MPa)
3130-G2M Portable Pressure Calibrator	–12 to 300 psi (–80 kPa to 2 MPa)



P3000 Deadweight Testers

- Piston/cylinder design provides stability and repeatability
- Built-in pressure generation and control options for vacuum, gas and hydraulic models
- Test station design with O-rings eliminates the need for PTFE tape or wrenches

Base model	Available ranges
P301X and P302X Deadweight Tester, gas/vacuum, 1 or 2 pistons	Ranges from vacuum to 500 psi (3.5 MPa)
P303X Deadweight Tester, liquid lubricated gas, single piston	Ranges to 2000 psi (14 MPa)
P31XX Deadweight Tester, oil, 1 or 2 pistons	Ranges to 20,000 psi (140 MPa)
P32XX Deadweight Tester, water-operated, 1 or 2 pistons	Ranges to 10,000 psi (70 MPa)
P38XX Deadweight Tester, oil, single piston	Ranges to 60,000 psi (400 MPa)

INTRINSICALLY SAFE PRODUCTS

Fluke products designed to intrinsic safety standards

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

Fluke products	ATEX certified	North American Certification
 28 II Ex: Intrinsically Safe True-rms Multimeter	II 2G Ex ia IIC T4 Gb II 2D Ex ia IIIC T130 °C Db I M1 Ex ia I Ma	Class I Zone 1 AEx ia IIC T4 Class II Zone 21 AEx iaD T130C **USA and Canada** Class 1 Div 1 Groups ABCD Class 1 Div 2 Groups ABCD Class 2 Div 1 Groups EFG Class III Ex ia IIC
 707Ex: Intrinsically Safe mA Calibrator	II 2 G Ex ia IIC T4	221839 Class I, Div 2, Groups A-D
 718Ex: Intrinsically Safe Pressure Calibrator	II 1 G Ex ia IIC T4	LR 110480 I.S. Class I, Div 1, Groups A-D T4
 721Ex: Intrinsically Safe Precision Pressure Calibrator	ATEX: II 2G Ex ia IIB T3 Gb	221839 IECEx II 2 G
 725Ex: Intrinsically Safe Multifunction Calibrator	II 1 G Ex ia IIB 171 °C	LR 110480 I.S. Class I, Div 1, Groups B-D, 171 °C
 700PEx: Intrinsically Safe Pressure Modules	II 1 G Ex ia IIC T4	221839 I.S. Class I, Div 1, Groups A-D T4
 568Ex: Intrinsically Safe Infrared Thermometer	ATEX/IECEx Zone 1 and 2	NEC-500/NEC-505 Class I Division 1 and 2
 700G Series Intrinsically Safe Pressure Gauges	II 3 G Ex ia IIB T6	LR 110480 CSA Class I, Div. 2 Groups A-D rating
 1551A/1552A: Intrinsically Safe "Stik" Thermometer	ATEX/IECEx Zone 1 and 2	NEC-500/NEC-505 Class I Division 1 and 2

Ordering information

Models
FLUKE-28 II Ex IS True-rms Multimeter
FLUKE-568 Ex Intrinsically Safe Infrared Thermometer
FLUKE-700G Pressure test Gauge, 23 pressure ranges from 0 to 10 inH20 up to 10,000 psi
FLUKE-700PEx Pressure Modules (700P: 01, 05, 06, 09, 24, 27, 29, A4Ex)
FLUKE-707Ex IS Loop Calibrator
FLUKE-718Ex IS Pressure Calibrator
FLUKE-721Ex Precision Pressure Calibrator
FLUKE-725Ex IS Multifuction Process Calibrator
1551A Ex "Stik" Thermometer –50 °C to 160 °C (-58 °F to 320 °F)
1552A Ex "Stik" Thermometer -80 °C to 300 °C (-112 °F to 572 °F)

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

APPROVED

Factory Mutual

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

Canadian Standards Association (CSA)

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

ATEX

The primary intrinsically safe standard, which has been set in the European Union with the Directive 2014/34/EU (replacing the 94/9/EC), and commonly called ATEX 114 (Atmosphères Explosibles), French for explosive atmospheres.

ETL

Accreditation body for North American regulations, NEC-500/NEC-505.

ScopeMeter® Test Tool selection guide

Handheld oscilloscopes for industrial, instrumentation and electronic applications

These handheld battery-powered oscilloscopes are easy to use, with a built-in multimeter, paperless recording and analysis capabilities. They are rugged and IP51 dust and drip-proof rated to IEC529 standards to withstand harsh environments.

	120B Series			190 Series II						
	123B	124B	125B	190-062	190-102	190-202	190-104	190-204	190-502	190-504
Bandwidth										
20 MHz	•									
40 MHz		•	•							
60 MHz				•						
100 MHz					•		•			
200 MHz						•		•		
500 MHz									•	•
Input channels										
2Ch + 2 DMM	•	•	•							
2Ch + DMM				•	•	•			•	
4Ch							•	•		•
Isolated inputs				•	•	•	•	•	•	•
Triggering										
Connect-and-View™	•	•	•	•	•	•	•	•	•	•
IntellaSet Technology	•	•	•							
Advanced triggering				•	•	•	•	•	•	•
Advanced measurement function										
Cursors		•	•	•	•	•	•	•	•	•
TrendPlot	•	•	•	•	•	•	•	•	•	•
ScopeRecord™	•	•	•	•	•	•	•	•	•	•
100 screen replay				•	•	•	•	•	•	•
Industrial BusHealth			•							
Harmonics			•							
FFT				•	•	•	•	•	•	•
Power measurements			•	•	•	•	•	•	•	•
Waveform mathematics			•	•	•	•	•	•	•	•
EN61010-1 safety										
CAT II 1000 V				•	•	•	•	•	•	•
CAT III 600 V				•	•	•	•	•	•	•
CAT III 1000 V				•	•	•	•	•	•	•
CAT IV 600 V	•	•	•	•	•	•	•	•	•	•
Interface										
Optical RS-232	•	•	•							
USB PC interface	Opt	Opt	Opt	•	•	•	•	•	•	•
Optional WiFi adapter	•	•	•							
USB memory port				•	•	•	•	•	•	•
Power										
Li-Ion	•	•	•	•	•	•	•	•	•	•
Battery (hours)	7	7	7	4 (opt 8)	4 (opt 8)	4 (opt 8)	7	7	7	7
General specifications										
Size (HxWxD)	259 mm x 132 mm x 55 mm (10.2 in x 5.2 in x 2.15 in)			270 mm x 190 mm x 70 mm (10.5 in x 7.5 in x 2.8 in)						
Weight	1.4 kg (3.2 lb)			2.2 kg (4.8 lb)						
Fluke Connect©										
Fluke Connect® app	•									

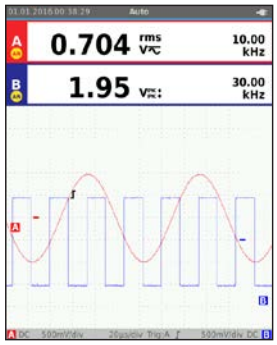
Find how-to videos, application notes and other resources on the scopemeter product pages on www.fluke.com

Fluke 120B Series Industrial ScopeMeter® Test Tools

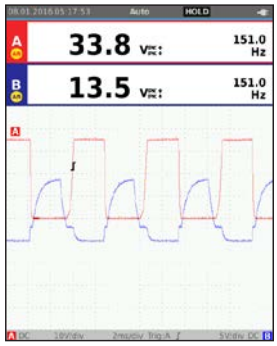
Three-in-one simplicity

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

- Dual-input digital oscilloscope and multimeter
- 40 MHz or 20 MHz oscilloscope bandwidth
- Two 5,000-count true-rms digital multimeters
- Dual-input waveform and meter reading recorder for trending data over extended periods
- Recorder Event Detect captures elusive intermittent signals on repetitive waveforms up to 4 kHz



Fluke Connect-and-View™ triggering with Auto Reading function using Fluke IntellaSet™ technology gives you quick access to the data you need.



Dual input oscilloscope, meter and paperless recorder.

Connect-and-View™ triggering for an instant, stable display

Fluke's unique Connect-and-View recognizes signal patterns and automatically and continuously sets up correct triggering. It provides a stable, reliable and repeatable display of virtually any signal.

IntellaSet™/AutoReading technology displays critical measurement data

The Auto Readings function with Fluke IntellaSet™ technology uses proprietary algorithms to intelligently analyze the measured waveform and automatically displays the most appropriate numerical measurements on screen, so you can get the data you need easier than ever before. As an example, when the measured waveform is a line voltage signal, the Vrms and Hz readings are automatically displayed, whereas if the measured waveform is a square wave, the Vpeak-peak and Hz readings are automatically displayed.

Fluke Connect mobile app compatibility

The Fluke Connect® Assets wireless system of software and wireless test tools enables technicians to reduce maintenance costs and increase uptime with accurate equipment records and maintenance data that is easy to interpret, and share. Compare and contrast test point measurement data and trends so you can better understand signal characteristics and changes over time.





Fluke 190 Series II ScopeMeter® Test Tools

Faster sample rates. More detail. Greater accuracy.

Safety rated for industrial applications, the 190 Series ScopeMeter portable oscilloscopes are the first high-performance four-channel scopes built for harsh industrial environments and can go where ordinary scopes can't. They combine rugged portability with high performance to take you all the way from troubleshooting microelectronics to power electronic applications.

For the first time, plant maintenance engineers and technicians can take a high-performance four-channel scope into the harsh world of industrial electronics. The new Fluke 190 Series II is the only portable oscilloscope with two or four independent isolated input channels, a CAT III 1000 V/CAT IV 600 V safety rating, and sealed case IP51 dust-proof and drip-proof rated.

- 60 MHz, 100 MHz, 200 MHz or 500 MHz bandwidth
- 2 or 4 independent isolated inputs, up to 1000 V
- High-speed sampling: Up to 5 GS/sec
- Deep memory: 10,000 points per trace waveform capture (scope mode)
- CAT III 1000 V/CAT IV 600 V safety rated for high voltage environments
- 5,000 count multimeter 2 channel models or 999 count volt meter 4 channel models
- Li-ion battery and easy-access battery door for extended usage

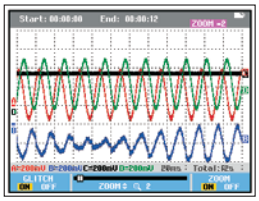
Automatic capture and replay of 100 screens

ScopeMeter Portable Oscilloscope users know how frustrating it is to see a one-time anomaly flash by—never to be seen again. With the ScopeMeter 190 Series II, you can look back in time with a touch of the replay button. The instrument continuously memorizes the last 100 screens, on a first in-first out basis. At any moment you can "freeze" the last 100 screens and scroll through picture-by-picture or replay as a "live" animation.

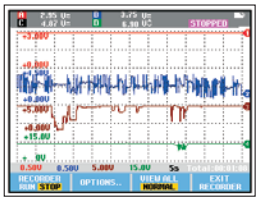
ScopeRecord™ mode for high-resolution waveform recording up to 48 hours

ScopeRecord memory stores up to 30,000 data points per channel, capturing fast intermittents and glitches as short as 8ns. Stores events like motion profiles, UPS, power supply and motor start-ups

The Envelope Trigger mode automatically recognizes a power failure and store the waveform data. With the waveform zoom (up to 100x) you can look at the smallest details.



Use the 27,000 points memory of ScopeRecord and zoom in for maximum detail.



Cursors and zoom features of the Fluke 190 Series II help you to analyze the captured TrendPlot.

TrendPlot™ Paperless Recorder

Find intermittent faults. Any number of factors like bad connections, dust, dirt, corrosion or broken wiring or connectors, line outages, sags, or starting and stopping of a motor can cause a machine to stop intermittently. You may not be around when it happens. Plot the minimum and maximum peak values and average over time—up to 22 days. Plot any combination of voltages, amps, temperature, frequency and phase for all four inputs, all with time and date stamp to pinpoint faults.

Ordering information

Models	Included accessories
FLUKE-190-502 Color ScopeMeter, 500 MHz, 2 channels plus DMM/Ext. input	Battery charger/mains adapter, Li-Ion battery pack, voltage probe sets, test leads, handstrap affixed to instrument, hangstrap (user selectable for left- or righthand use), multi-language users manuals on CD, FlukeView® demo package (with restricted functionality), USB interface cable for PC connectivity
FLUKE-190-504 Color ScopeMeter, 500 MHz, 4 channels	
FLUKE-190-204 Color ScopeMeter, 200 MHz, 4 channels	
FLUKE-190-104 Color ScopeMeter, 100 MHz, 4 channels	
FLUKE-190-202 Color ScopeMeter, 200 MHz, 2 channels plus DMM/Ext.input	
FLUKE-190-102 Color ScopeMeter, 100 MHz, 2 channels plus DMM/Ext.input	
FLUKE-190-062 Color ScopeMeter, 60 MHz, 2 channels plus DMM/Ext.input	



Kits—buy more, save more



SCC290 Kit

Recommended accessories



AS400 Probe Accessory Extension Set



BP291 4800 mAh High Capacity Battery



HH290 Hanging Hook

Fluke 190-504 ScopeMeter® Test Tool

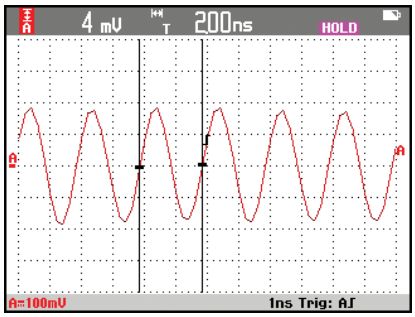


The worlds fastest handheld oscilloscope

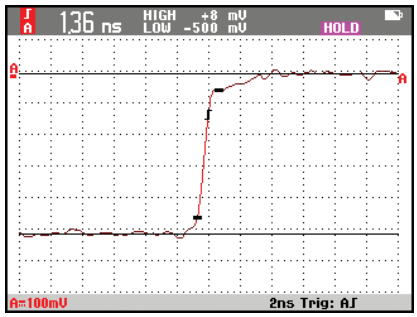
Now with 500 MHz bandwidth, four channels and 5 GS/s sampling speed. The powerful Fluke 190-504 Scopemeter extends your troubleshooting arsenal, showing you waveform shape, timing, distortion and disturbance in greater detail than ever before.

- Four independent isolated inputs, up to 1000 V
- Deep memory: 10,000 points per trace waveform capture
- CAT III 1000 V/CAT IV 600 V safety rated for high voltage environments
- 999 count multimeter
- Li-Ion battery and easy-access battery door for extended usage
- Isolated USB host port for direct data storage to a USB memory
- USB-B-device port for PC connectivity

The 190-504 ScopeMeter will capture and display unknown waveform shapes, amplitudes and any disturbances. To display at least the fifth harmonic component of a signal, select a scope with a bandwidth of at least five times the maximum clock rate of the device under test. The faster the sample interval, the more accurate and detailed the information the scope will display a signal edge (dV/dt) and peaks of any reflections or transients.



Accurately capture noise, distortion and other signal characteristics with 500 MHz bandwidth and 5 GS/sec sampling rate.



Rise time response accurately captures signals with fast edges with signs of reflections.

Ordering information

Models	Included accessories
FLUKE-190-504 Color ScopeMeter, 500 MHz, 4 channels	Battery charger/mains adapter, li-ion battery pack, voltage probe sets, 50 Ohm terminator, test leads, and strap affixed to instrument, hangstrap (user selectable for left- or righthand use), multilanguage users manuals on CD, FlukeView® demo package (with restricted functionality), USB interface cable for PC connectivity

Kits—buy more, save more



190-504S Kit

Recommended accessories



VPS510 Red, Green, Blue and Grey Voltage Probes



TRM50 50 Ohm Termination



VPS420 100:1 Voltage Probe

Infrared camera and visual IR thermometer selection guide

	Expert Series IR Cameras						Professional Series IR Cameras		
	TiX1000	TiX660	TiX640	TiX560	TiX520	TiX500	Ti450	Ti400	Ti300
Detector resolution	1024 x 768, 2048 x 1536 Super Res.	640 x 480, 1280 x 960 Super Res.	640 x 480	320 x 240 Super Resolution mode: 640 x 480				320 x 240	240 x 180
Field of view	32.4° H x 24.7° V	30.9 °H x 23.1 °V		24 °H x 17 °V					
Optional lenses	Capture spectacular images close up or from a distance with: 2 wide angle, 2 telephoto, 3 macro and 1 standard			Capture spectacular images close up or from a distance with pre-calibrated smart lenses: wide angle, 2x and 4x telephoto, 25 micron macro			2x and 4x telephoto and wide angle pre-calibrated smart lenses		
Wireless connectivity[1]	–			Fluke Connect® app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN[1]					
Focus system	LaserSharp® Auto Focus, autofocus, manual focus, and EverSharp multifocal recording		Autofocus, manual focus, and EverSharp multifocal recording	MultiSharp™ Focus, LaserSharp® Auto Focus with built-in laser distance meter and advanced manual focus					
IR-Fusion® technology/ visible context	IR-Fusion® AutoBlend™ mode and Picture-in-Picture, continuous blending			IR-Fusion® AutoBlend™ mode and Picture-in-Picture					
Display	5.6 inch color TFT display, 1280 × 800 pixel resolution, suitable for daylight operation			5.7 inch touchscreen LCD, 640 x 480 pixel resolution			3.5 inch touchscreen LCD, 640 x 480 pixel resolution		
Design	Camcorder with handle, tiltable LCoS color viewfinder display, 800 × 600 pixel resolution		Camcorder	Ergonomic FlexCam design with a 240 degree rotating lens			Rugged, ergonomic design for one-handed use		
Thermal sensitivity	≤ 0.05 °C at 30 °C target temp (50 mK)	≤ 0.03 °C at 30 °C target temp (30 mK)		≤ 0.045 °C at 30 °C target temp (45 mK); Filter mode ≤ 0.03 °C (30 mK)	≤ 0.05 °C at 30 °C target temp (50 mK); Filter mode ≤ 0.04 °C (40 mK)	≤ 0.05 °C at 30 °C target temp (50 mK)	≤ 0.05 °C at 30 °C target temp (50 mK); Filter mode ≤ 0.03 °C (30 mK)	≤ 0.05 °C at 30 °C target temp (50 mK)	
Temperature measurement range	–40°C to +1200 °C (–4 °F to 2192 °F) High temperature option–request at time of order: up to 2000°C (3632 °F)		–40 °C to +1200 °C (–4 °F to 2192 °F)	–20 °C to +1200 °C (–4 °F to +2192 °F)	–20 °C to +850 °C (–4 °F to +1562 °F)	–20 °C to +650 °C (–4 °F to +1202 °F)	–20 °C to +1200 °C (–4 °F to +2192 °F)		–20 °C to +650 °C (–4 °F to +1202 °F)
Frame rate	30 Hz (Sub-windowing options available up to 240 fps)	60 Hz (Subwindowing options available up to 240 fps)		60 Hz or 9 Hz					
Software	SmartView® software and Fluke Connect®[1]								
Documentation features	Voice annotation and text annotation			IR-PhotoNotes™, voice annotation, and text annotation					
Video recording	Standard and radiometric								
Streaming video (remote display)	Via HDMI; GigE Ethernet available in SmartView® software			Via USB or WiFi hot spot to PC or via HDMI to HDMI compatible screen					
Remote control	•			Yes, through SmartView® software or Fluke Connect® mobile app	–		Yes, through SmartView® software or Fluke Connect® mobile app		–
Alarms	High temperature, low temperature, time lapse – auto image capture, and isotherms (within range)								

[1]Within your provider's wireless service area; Fluke Connect is not available in all countries.

	Performance Series IR Cameras						Visual IR Thermometers
	TiS75	TiS65/TiS60	TiS55/TiS50	TiS45/TiS40	TiS20	TiS10	VT04/VT04A
Detector resolution	320 x 240	260 x 195	220 x 165	160 x 120	120 x 90	80 x 60	31 x 31
Field of view	35.7 °H x 26.8 °V						28 °H x 28 °V
Optional lenses	–						
Wireless connectivity[1]	Fluke Connect® app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN						
Focus system	Manual focus	TiS65 (Manual focus) TiS60 (Fixed focus)	TiS55 (Manual focus) TiS50 (Fixed focus)	TiS45 (Manual focus) TiS40 (Fixed focus)	Fixed focus		
IR-Fusion® technology/ visible context	5 presets (0 %, 25 %, 50 %, 75 %, 100 %)				3 presets (0 %, 50 %, 100 %)	–	Infrared heat map and visual image blending in 25 % increments; center box to outline the temperature measurement area
Display	3.5 inch (landscape) 320 x 240 LCD						2.2 inch portrait standard TFT LCD
Design	Rugged, lightweight, ergonomic design for one-handed use						Slim, pocket-sized design
Thermal sensitivity	≤ 0.08 °C at 30 °C target temp (80 mK)			≤ 0.09 °C at 30 °C target temp (90 mK)	≤ 0.10 °C at 30 °C target temp (100 mK)	≤ 0.15 °C at 30 °C target temp (150 mK)	250 mK
Temperature measurement range	–20 °C to +550 °C (–4 °F to 1022 °F)		–20 °C to +450 °C (–4 °F to 842 °F)	–20 °C to +350 °C (–4 °F to 662 °F)		–20 °C to +250 °C (–4 °F to 482 °F)	–10 °C to +250 °C (+14 °F to +482 °F)
Frame rate	30 Hz or 9 Hz	TiS65 (30 Hz or 9 Hz) TiS60 (9 Hz)	TiS55 (30 Hz or 9 Hz) TiS50 (9 Hz)	TiS45 (30 Hz or 9 Hz) TiS40 (9 Hz)	9 Hz		8 Hz
Software	SmartView® software and Fluke Connect®[1]						SmartView® software
Documentation features	IR-PhotoNotes™ (3 images), voice annotation		IR-PhotoNotes™ (1 image), voice annotation	Voice annotation	–		
Video recording	Standard and radiometric		–				
Streaming video (remote display)	Yes, to SmartView® software on a PC or to the Fluke Connect® app on a smartphone		–				
Remote control	–						
Alarms	High temperature, low temperature, time lapse – auto image capture, and isotherms (within range)			High temperature, low temperature, time lapse – auto image capture	–		High/low temperature alarms, time-lapse image capture, auto-monitor alarm

[1]Within your provider's wireless service area; Fluke Connect is not available in all countries.

Fluke Expert Series: TiX1000/660/640 and TiX560/520/500



TiX1000/660/640



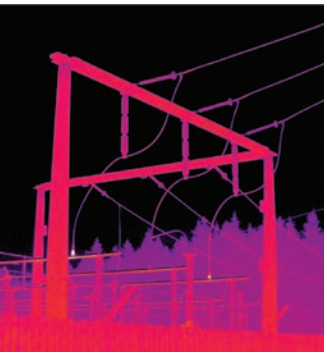
TiX560/520/500

Stunning HD and industry´s largest screen

See incredible detail in your target with SuperResolution and up to 3.1 million pixels. Navigate over, under and around hard-to-reach objects with a full 240 degree rotating lens. Easily view, annotate, edit and analyze images on the large tablet-like screen. Get advanced analytics such as streaming IR data and trend analysis.

- Easily navigate over, under and around objects with the 240° articulating lens (TiX560/520/500) or the articulating LCD display (TiX1000/660/640)
- MultiSharp™ Focus (TiX560/520/500) and EverSharp multifocal recording (TiX1000/660/640) give you clear, accurate focus throughout the field of view in one image, by capturing multiple images from varying focal distances
- LaserSharp® Auto Focus gives you the fastest way to precisely focused images by calculating the distance to your target with a laser distance meter[1]
- Capture spectacular images close up or from a distance with seven optional lenses including telephoto, wide angle, and macro (TiX1000/660/640) or inter-changeable smart lenses—2x and 4x telephoto, wide angle, and 25 micron macro (TiX560/520/500)
- Get premium in-field viewing with the 5.7 inch touchscreen LCD, the largest in its class (TiX560/520/500) or the 5.6 inch articulating display (TiX1000/660/640) along with a viewfinder that reduces outdoor glare (TiX1000/660)

[1]Compared to industrial infrared cameras without a user-designated laser-focus feature.



Apparent hot spots in electrical equipment.

Ordering information

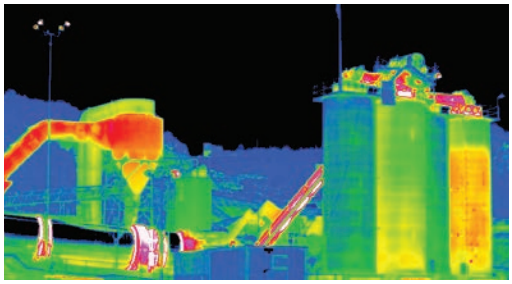
Models	Included accessories
FLK-TiX1000 30Hz Infrared Camera; 1024 x 768	Rechargeable battery (2 for TiX1000 and TiX660; 1 for TiX640), battery charger and adapter, ac adapter, SD card reader, FC SD card for Fluke Connect, protective lens cap, hand strap, neck strap, carrying case, warranty card, safety instructions, calibration certificate, printed manual in English and Chinese, multi-lingual manual CD, SmartView® software
FLK-TiX660 60Hz Infrared Camera; 640 x 480	
FLK-TiX640 60Hz Infrared Camera; 640 x 480	
FLK-TiX560 9Hz or 60Hz Infrared Camera; 320 x 240	AC power supply; battery pack charger (including universal AC adapters); two rugged lithium ion smart battery pack; USB cable; HDMI video cable; micro SD card; rugged, hard carrying case; adjustable neck and hand straps and quick start guide; Bluetooth headset (where available)
FLK-TiX520 9Hz or 60Hz Infrared Camera; 320 x 240	
FLK-TiX500 9Hz or 60Hz Infrared Camera; 320 x 240	

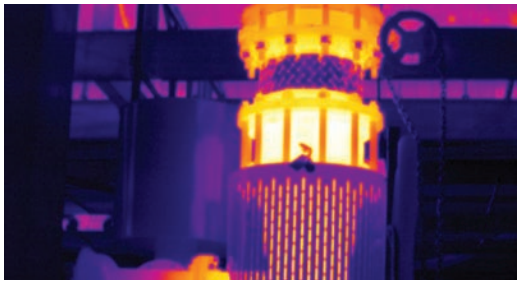
Get tough shots from any angle with a 240° degree rotating lens and the only 5.7 inch LCD in its class (TiX560/520/500).



Lens compatibility

Models	Lenses
TiX1000/660/640	FLK-XLENS/TELE; FLK-XLENS/SUPTELE; FLK-XLENS/WIDE; FLX-XLENS/SUPWIDE; FLX-XLENS/MACRO1; FLK-XLENS/MACRO2; FLK-XLENS/MACRO3
TiX560/520/500	FLK-LENS/TELE2; FLK-LENS/4XTELE2; FLK-LENS/WIDE2; FLK-LENS/25MAC2





Fluke Professional Series: Ti450/400/300

FLUKE CONNECT®

100 % Focused. Every object.

Get clear, accurate focus on objects near and far with MultiSharp™ focus, 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 4x the pixel data with SuperResolution, which captures multiple images and combines them to create a 640 x 480 image (Ti450)
- Inspect high-temperature components, up to 1200 °C (2192 °F)[1]
- Digitally document critical information with your infrared image using IR-PhotoNotes™, voice annotation, or text annotation
- Monitor processes with video recording, live video streaming, remote control[1], or auto capture

[1]Features vary by model.



Ordering information

Models	Included accessories
FLK-Ti450 9Hz or 60Hz Infrared Camera	Infrared camera with standard infrared lens; ac power supply and battery pack charger (including universal ac adapters); two rugged lithium ion smart battery packs; USB cable; HDMI video cable; 4GB micro SD card; rugged, hard carrying case; soft transport bag and adjustable hand strap and quick start guide
FLK-Ti400 9Hz or 60Hz Infrared Camera	
FLK-Ti300 9Hz or 60Hz Infrared Camera	

Lens compatibility

Models	Lenses
Ti450/400/300	FLK-LENS/TELE2; FLK-LENS/4XTELE2; FLK-LENS/WIDE2

Expand the capabilities of your infrared camera

Software for Fluke Infrared Cameras

Analyze images, adjust blending and palette, export to multiple file formats, and create professional reports with Fluke SmartView® desktop software, downloadable for free from the Fluke website, or the Fluke Connect® mobile app for your smartphone. The Fluke Connect® app also enables you to wirelessly sync images directly from your camera to your smartphone, where you can email images to colleagues and attach them to an asset record or work order.

Lenses and other accessories

Capture images close up or from a distance with optional lenses, available for the Expert and Professional Series cameras.

All Fluke Professional and Performance Series cameras feature interchangeable batteries. Expand your powering capabilities with a car charger, extra battery, or charging base.



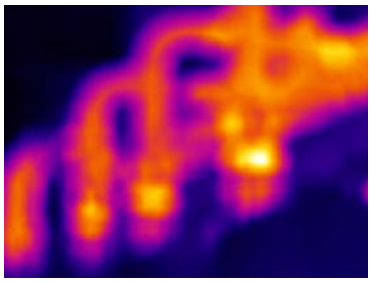
Built-in laster distance meter instantly calculates and displays the distance to your target.

Save time and instantly email images from the field with the Fluke Connect® app.

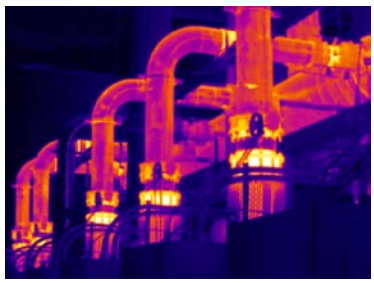


100% Focused–Every object. MultiSharp™

Go from being completely out of focus to:



100 % in focus with MultiSharp™ Focus, available on the Ti450.



FLUKE CONNECT®

Fluke Performance Series: TiS75/65/60/55/50/45/40/20/10



Easy-to-use frontline troubleshooting

Easily see potential problems with precisely blended IR and visual images–with a 5MP visual camera, up to 320 x 240 resolution, and a large 3.5 inch LCD. Get precise focus as close as 15 cm (6 in) with manual focus.

- With up to 320 x 240 resolution, you can see more detail in every image, even from a distance—detail that could indicate a potential issue
- Get the context of the visual and infrared details all in one precisely blended or picture-in-picture image with IR-Fusion® technology[1]
- Reduce the amount of time it takes to get an in focus image with manual or fixed focus options
- 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.
- Wirelessly connect to other Fluke Connect tools and pull in other measurements types like electrical and vibration into your thermal image.
- Removable 4GB micro SD card
- Digitally document critical information with your infrared image using IR-PhotoNotes™ or voice annotation[3]
- Monitor battery charge and avoid unexpected loss of power with the smart battery with LED charge indicator

[1]IR-Fusion® and picture-in-picture mode execution varies by model

[2]Within your provider's wireless service area; Fluke Connect® is not available in all countries. Subscription to Fluke Connect® Assets is required in order to use the asset management and work order function

[3]Varies by model; see page 73 for model specifications



Inspect industrial components.

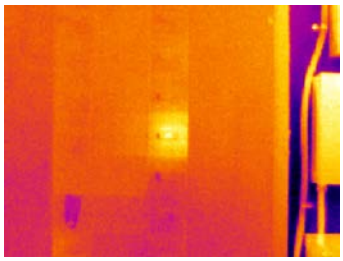
Designed for your environment.



Ordering information

Models	Included accessories
FLK-TiS75 30HZ Industrial Commercial Infrared Camera	Universal AC power adapter, lithium ion smart battery (TiS75, TiS65/60 includes 2 each—other models 1 each), USB cable, Micro SD card (TiS75, TiS65/60, TiS55/TiS50, TiS45), hard carrying case (TiS75, TiS65/60, TiS55/50, TiS45/40), soft transport bag, adjustable hand strap (TiS75, TiS65/60, TiS55/50, TiS45/40) and quick start guide. TiS75, TiS65/60 models include a two-bay battery charger.
FLK-TiS75 9HZ Industrial Commercial Infrared Camera	
FLK-TiS65 30HZ Industrial Commercial Infrared Camera	
FLK-TiS65 9HZ Industrial Commercial Infrared Camera	
FLK-TiS60 9HZ Industrial Commercial Infrared Camera	
FLK-TiS55 30HZ Industrial Commercial Infrared Camera	
FLK-TiS55 9HZ Industrial Commercial Infrared Camera	
FLK-TiS50 9HZ Industrial Commercial Infrared Camera	
FLK-TiS45 30HZ Industrial Commercial Infrared Camera	
FLK-TiS45 9HZ Industrial Commercial Infrared Camera	
FLK-TiS40 9HZ Industrial Commercial Infrared Camera	
FLK-TiS20 9HZ Industrial Commercial Infrared Camera	
FLK-TiS10 9HZ Industrial Commercial Infrared Camera	

Full infrared.



50 % blending, picture-in-picture mode



Picture-in-Picture.



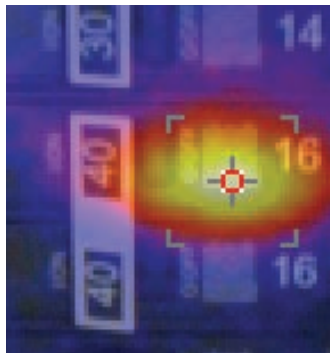
Fluke VT04/VT04A Visual IR Thermometer



Designed to see it all

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

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



50 % blended heat map.

Fluke IR Windows CV400/401/300/301/200 CLKT100/75/50

Increase the safety and speed of your electrical infrared inspections

A company's greatest investment is not the equipment that's behind the panel door. It's the electricians, engineers and inspectors who risk their lives every day doing their jobs.

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

* CV Series only



Fluke IR Windows enable you to inspect electrical equipment without opening panel doors.

Ordering information

Models	Included accessories
FLK-VT04A Visual IR Thermometer	Soft case, micro-SD card, micro-SD conversion adapter to standard, AA batteries (4), quick reference guide
FLK-VT04 Visual IR Thermometer	Hard case, micro-SD card, micro-SD conversion adapter to standard, lithium-ion rechargeable battery, micro USB charger/power supply (including worldwide adapters), quick reference guide

Ordering information

Models	Included accessories
CV400 4 in (95 mm) IR Window, Hand Turn Door Latch	Fluke IR Windows are supplied complete, assembled and ready for installation. In addition to the IR Window, each carton contains warranty statement and security key if that option is ordered.
CV401 4 in (95 mm) IR Window, Security Key Door Latch	
CV300 3 in (75 mm) IR Window, Hand Turn Door Latch	
CV301 3 in (75 mm) IR Window, Security Key Door Latch	
CV200 2 in (50 mm) IR Window, Hand Turn Door Latch	
FLK-100-CLKT 4 in (100mm) C-Range IR Window, Kwik Twist	Fluke IR Windows are supplied complete, assembled and ready for installation. In addition to the IR Window, each carton contains warranty statement
FLK-075-CLKT 3 in (75mm) C-Range IR Window, Kwik Twist	
FLK-050-CLKT 2 in (50mm) C-Range IR Window, Kwik Twist	





Fluke infrared thermometers: 62 MAX+, 62 MAX, 59 MAX and 572-2

Take measurements from a safe distance

Fluke has built infrared thermometers with the durability and accuracy you need to do your job, and all within your budget. These IR Thermometers offer precise laser technology for accurate and repeatable measurements.

Fluke 62 MAX+ highlights:
- Three-meter drop tested
- 12:1 distance to spot ratio
- Min/Max/Avg/Dif, Hi and Lo alarms
- Dual lasers for superior targeting

Fluke 62 MAX highlights:
- Single laser targeting
- 10:1 distance to spot ratio

Fluke 59 MAX highlights:
- 8:1 distance to spot ratio
- Min/Max/Avg/Dif, Hi and Lo alarms

Fluke 59 Max+ highlights:
- 10:1 distance to spot ratio
- Min/Max/Avg/Dif, Hi/Lo alarms

Specifications

	62 MAX+	62 MAX	59 MAX+	59 MAX
Temperature range	-30 °C to 650 °C (-22 °F to 1202 °F)	-30 °C to 500 °C (-22 °F to 932 °F)	-30 °C to 500 °C (-22 °F to 932 °F)	-30 °C to 350 °C (-22 °F to 662 °F)
Accuracy	± 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	± 1.5 °C or ± 1.5 % of reading, whichever is greater -10 °C to 0 °C: ± 2.0 -30 °C to -10 °C: ± 3.0	0° C: ± 1.5 °C or ± 1.5 % of reading, whichever is greater	≥ 0 °C: ± 2.0 °C or ± 2.0 % of reading, whichever is greater
Emissivity			0.10 to 1.00	0.10 to 1.00
Power	AA battery			
Compliance	EN/IEC 61010-1: 2001			
Laser safety	FDA and EN 60825-1 Class II			



Fluke 572-2 Thermometer

- Extremely wide measurement range from -30 °C to 900 °C (-22 °F to 1652 °F)
- 60:1 distance to spot ratio with dual laser sighting



Fluke 50 Series II Thermometers

Lab accuracy in a field thermometer

- Laboratory accuracy: ± (0.05 % + 0.3 °C)
- Large backlit dual display, in °C, °F, or Kelvin (K)
- Min/Max/Avg
- Supports a wide range of thermocouple types

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
- Download data to optional FlukeView® PC software

Ordering information

Models	Included accessories
FLUKE-62 MAX+ Infrared Thermometer, Dual Lasers	Instruction sheet, battery
FLUKE-62 MAX Infrared Thermometer, Single Laser	
FLUKE-59 MAX Infrared Thermometer	
FLUKE 572-2 High Temperature Infrared Thermometer	K-type thermocouple bead probe, durable hard case, USB 2.0 computer interface cable
FLUKE-54-2-B Datalogging Thermometer, Dual Input	Bead thermocouple(s), batteries, overview manual, instructional guide on CD
FLUKE-53-2-B Datalogging Thermometer, Single Input	Bead thermocouple(s), batteries, overview manual, instructional guide on CD
FLUKE-52-2 Digital Thermometer, Dual Input	
FLUKE-51-2 Digital Thermometer, Single Input	



Fluke 560 Series Infrared Thermometers





Stand up to tough industrial, electrical, HVAC, and mechanical environments

With a straight-forward user interface and soft-key menus, the Fluke 560 Series IR Thermometers make even complex measurements easy. With just a few pushes of a button you can easily adjust emissivity, record data, or turn on and off alarms.

- Measure up to 800 °C (1470 °F)
- Easily access advanced features with the soft-key buttons and graphical display
- Scan large areas or small objects; measure smaller objects from further away
- Compatibility with most type K thermocouples
- Confidently measure more surfaces, with adjustable emissivity and built-in materials table
- Log and download measurements for reporting (568)
- Audible and visual alarms alert you to measurements outside of set limits
- Pipe probe for superheat and sub-cooling; other contact and ambient measurements (561)
- Min/Max/Avg/Dif functions
- Includes KTC bead probe
- 1 % measurement accuracy

Specifications

	Fluke 561	Fluke 566	Fluke 568
Infrared temperature range	-40 °C to 535 °C (-40 °F to 995 °F)	-40 °C to 650 °C (-40 °F to 1202 °F)	-40 °C to 800 °C (-40 °F to 1472 °F)
Accuracy	Greater of ± 1 % or ± 1 °C (2 °F)		
Distance to Spot (D:S)	12:1	30:1	50:1
Sighting	Laser point		
Typical distance to target	Up to 2.5 m (7 ft)	Up to 4.5 m (15 ft)	Up to 7.5 m (25 ft)
Probe type	Thermocouple K		
Contact temperature range	-40 °C to 550 °C (-40 °F to 1022 °F)	-270 °C to 1372 °C (-454 °F to 2501 °F)	
Number of on-board memory locations		20	99
PC download and software			Yes, with FlukeView® Forms
Soft-key feature menu navigation		•	
Min/Max/Avg/Dif	Min/Max/Dif	Min/Max/Avg/Dif	
Material type adjustment (emissivity)	Hi/Med/Lo	Material table or 0.1 to 1.00 by 0.01	
High and low alarms		High and low alarms	
Hands-free logging			•
Battery	2 AA		
Warranty	Two-year		



Ordering information

Models	Included accessories
FLUKE-568 Infrared Thermometer	USB cable, FlukeView® Forms software, thermocouple type K bead probe, carrying case, two AA batteries, users manual, quickstart guide
FLUKE-566 Infrared Thermometer	Thermocouple type K bead probe, carrying case, two AA batteries, users manual and quickstart guide
FLUKE-561 Infrared Thermometer	Thermocouple type K pipe probe, carrying case, two AA batteries, users manual
FLUKE-61 Infrared Thermometer	9 V battery, instruction sheet
FLUKE-63 Infrared Thermometer	Wrist strap, carrying case, 9 V battery, users manual

The 568 allows for temperature measurement of small components.



www.fluke.com/thermometers



Fluke 830 Laser Shaft Alignment Tool

The ideal test tool to precision-align rotating shafts in your facility

The Fluke 830 Laser Shaft Alignment tool is easy-to-use, giving you fast, accurate and actionable answers that will keep your plant up and running. When it comes to laser shaft alignment, data is good but answers are better.

Unlike using the straightedge method or dial indicators, the Fluke 830 performs the complicated alignment calculations for you, meaning you'll have the answers you need to quickly align your machine and get your plant up and running fast. An enhanced user interface provides easy to understand results that don't require extensive alignment knowledge, and the unique "All-in-One" result screen shows you both coupling results and feet corrections (vertical and horizontal) in real terms making it easy to take corrective action.

- Single laser measurement technology means reduced errors from backlash resulting in better data accuracy
- Intuitive guided user interface quickly and easily complete machine alignments
- Compass measurement mode enables flexible, reliable and repeatable measurements using an active electronic inclinometer
- Dynamic machine tolerance check provides continuous evaluation of alignment adjustments so you know when your machine is in the acceptable range
- Unique extend mode handles gross misalignment by virtually increasing laser detector size
- Data protection ensures your data is there when you need it with auto save and resume capability

Specifications

Computer	
CPU	Intel XScale PXA270 running at 312 MHz
Memory	64 MB RAM, 64 MB flash
Display	TFT, transmissive (sunlight-readable), 65,535 colors, backlit LED Resolution: 320 x 240 pixel; Dimensions: 89 mm (3.5 in) diagonal
LED indicators	Multicolor LED for laser status, alignment condition and battery status
Power supply	Integrated lithium-ion polymer rechargeable battery: 7.4 V/2.6 Ah
External interface	USB host and USB device (slave), integrated wireless communication, Class 1, transmitting power 100 mW, RS-232 (serial) for sensor, AC adapter/charger socket
Environmental protection	IP65 (dustproof, water spray resistant), shockproof, relative humidity 10 % to 90 %
Sensor	
Measurement principle	Coaxial, reflected laser beam
Laser	Type: Ga-Al-As semiconductor laser Wavelength (typical) 675 nm (red, visible) Safety class: Class 2, FDA 21 CFR 1000 and 1040 Beam power: < 1 mW
Detector	Measurement area: unlimited, dynamically extendible (U.S. Patent 6,040,903) Resolution: 1 µm; Accuracy (avg): > 98 %
Inclinometer	Measurement range: 0° to 360°; Resolution: <1°
Environmental protection	IP67 (submersible, dustproof)
Prism	
Type	90° roof prism; Accuracy (avg): > 99 %
Environmental protection	IP67 (submersible, dustproof)



Rotate the shaft and receive instant measurement verification.



Ordering information

Models	Included accessories
FLUKE-830 Laser Shaft Alignment Tool	Laser sensor, laser prism, chain-type mounting bracket with 150 mm support posts 2x, 300 mm support post 4x, micro fiber cleaning cloth, sensor cable, PC cable, USB drive, USB drive cable, tape measure, wireless Bluetooth® module, power adapter, instruction kit, and carrying case

Fluke 820-2 LED Stroboscope



Ideal for stop motion diagnostics and frontline mechanical troubleshooting

The Fluke 820-2 LED Stroboscope lets you confidently investigate and observe potential mechanism failure on a variety of machinery, in a wide range of industries, without making physical contact with the machine, or shutting the machine down. The Fluke 820-2 is rugged, compact and easy-to-use making it the ideal portable strobe for stop motion diagnostics, mechanical troubleshooting and process or product research. Use stop motion diagnostics to identify the running speed of rotating equipment, identify part numbers or other markings, measure the speed of rotation or frequency of a rotating shaft, speaker, or mechanical part, troubleshoot belt drive machines and much more!

- High intensity 7-LED array—4,800 Lux @ 6,000 FPM/30 cm
- High efficiency LED solid-state light source with uniform flash characteristics allow for higher flash rates—30 FPM to 300,000 FPM (flashes per minute)
- 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—(one meter drop)
- Quartz-accuracy control system provides high accuracy—0.02 % (± 1 digit)
- Multi-line LCD display
- Check the rotating speed of machinery without physical contact or need for reflective tape
- Advance or retard flash timing for viewing gear teeth, cutting surfaces, repeats, or "drifting" equipment
- Simple push button operation with 2x and ÷2 buttons for easy adjustment

Specifications

Flash frequency	
Range	30 to 300,000 FPM 0.5 to 5000 Hz
Accuracy	0.02 %
Resolution	30 to 999 FPM = 0.1 1000 to 300,000 = 1 0.5 Hz to 999 Hz = 0.1 1000 Hz to 5000 Hz = 1
Frequency setting	FPM or Hz
External trigger	
Method	Connector to externally control trigger
High level	3 V to 32 V
Low level	< 1 V
Minimum pulse width	50 µs connection
Safety compliance	
Agency approvals	CE Class III (SELV) Pollution Degree 2
Impact resistance	1 m drop
Mechanical specifications	
Size (HxWxL)	5.71 cm x 6.09 cm x 19.05 cm (2.25 in x 2.4 in x 7.5 in)
Weight	0.24 kg (0.53 lb)

Identify running speeds using stop motion diagnostics.



Ordering information

Models	Included accessories
FLUKE-820 LED Stroboscope	Protective case and external trigger connector

www.fluke.com/820-2



Fluke 810 Vibration Tester

Get mechanical maintenance answers now!

The Fluke 810 Vibration Tester is the most advanced diagnostic tool for mechanical maintenance teams who need to keep machines up and running. The Fluke 810 is engineered to provide machine condition answers and evaluate the most common mechanical problems.

The Fluke 810 Vibration Tester uses a simple 3-step process to report on machine faults the first time measurements are taken, without prior machine history. To locate and diagnose common mechanical problems and prioritize repair actions, use these three simple steps: set-up with basic machine information; measure to quickly troubleshoot problems or monitor machine condition; and diagnose and identify the root cause, location and severity.

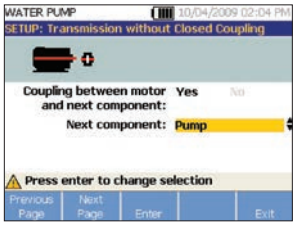
Use the Fluke 810 to:

- 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

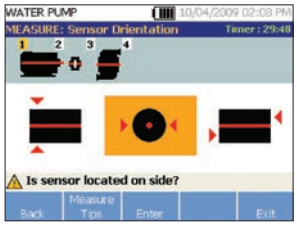


Viewer PC Software

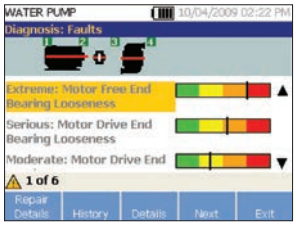
- Store and track your data
- Generate diagnostic reports and track the severity of your machine's condition
- Import and store JPEG images



1. Setup



2. Measure



3. Diagnose

Specifications

Diagnostic specifications	
Analysis for	Motors, fans, blowers, belts and chain drives, gearboxes, couplings, centrifugal pumps, piston pumps, sliding vane pumps, propeller pumps, screw pumps, rotary thread/gear/lobe pumps, piston compressors, centrifugal compressors, screw compressors, closed coupled machines, spindles
Standard faults	Unbalance, looseness, misalignment and bearing failures
Motor rotational speed range	200 rpm to 12000 rpm
Diagnosis details	Plain-text diagnosis, fault severity (slight, moderate, serious, extreme), repair details, cited peaks, spectra
Tester specifications	
IP rating	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 storage
Warranty	Three-year (tester), One-year (sensor and tachometer)
Sensor specifications	
Sensor type	Tri-axial accelerometer , 100 mV/g (± 5 %, 25 °C)
Tachometer specifications	
Tachometer type	Laser Diode Class 2



Ordering information

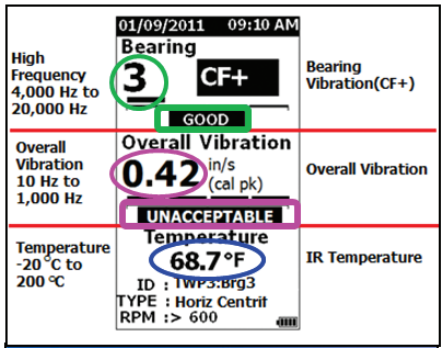
Models	Included accessories
FLUKE-810 Vibration Tester	Tri-axial accelerometer, magnet mount, mounting pad kit with adhesive, quick-disconnect accelerometer cable, laser tachometer with storage pouch, battery pack with cable and adapters, shoulder strap, adjustable hand strap, Viewer PC software, mini USB to USB cable, carrying case, training DVD, getting started guide, quick reference guide, and users manual on DVD

Fluke 805 FC Vibration Meter

Forget the pens. Think METER.

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

- 5 tools in 1: Overall vibration, bearing impacting, temperature, machine health severity, and bearing health severity
- Get authorization to take next steps in an instant if machine health is at risk via Fluke Connect®
- Four-level severity scale assesses urgency of vibration problems
- Vibration measurement for acceleration, velocity, and displacement units of measurement
- Colored lighting system (green, red) and on-screen comments indicate how much pressure needs to be applied to take measurements
- Non-contact temperature measurement increases machine health screening capabilities
- External accelerometer support for hard to reach locations





Specifications

Vibration meter	
Low frequency range (overall measurement)	10 Hz to 1,000 Hz
High frequency range (CF+ measurement)	4,000 Hz to 20,000 Hz
Severity levels	Good, Satisfactory, Unsatisfactory, Unacceptable
Vibration limit	50 g peak (100 g peak-peak)
A/D converter	16-bit
Sampling rate	Low frequency: 20,000 Hz; high frequency: 80,000 Hz
Sensor	
Sensitivity	100 mV/g ± 10 %
Measurement range	0.01 g to 50 g
Low frequency range (overall measurement)	10 Hz to 1,000 Hz
High frequency range (CF+ measurement)	4,000 Hz to 20,000 Hz
Resolution	0.01 g
Accuracy	At 100 Hz ± 5 % of measured value
Amplitude units	
Acceleration	g, m/sec2
Velocity	in/sec, mm/sec
Displacement	mils, mm
Infrared thermometer (temperature measurement)	
Range	-20 °C to 200 °C (-4 °F to 392 °F)
Accuracy	± 2 °C (4 °F)
Focal length	Fixed, at ~3.8 cm (1.5 in)
Environmental	
IP rating	IP54
Drop test	1 meter

What is Crest Factor+?

Crest Factor (CF) is used to identify bearing faults and is the ratio of the peak value/RMS value of a time domain vibration signal. As the bearing condition worsens, the CF+ value increases. Fluke has also included a four-level severity scale that identifies the bearing health.

More than an overall vibration meter—5 tools in 1

1. Low frequency vibration meter
2. High frequency vibration meter (bearings)
3. IR temperature meter
4. Machine health screening tool (37 machine categories)
5. Bearing health screening tool

Ordering information

Models	Includes
FLUKE-805 FC Vibration Meter	USB cable, storage case, belt holster, quick reference guide, (includes MS Excel template and documentation), and two AA batteries
FLUKE-805ES External Sensor	External vibration sensor with threaded mounting bolt, removable "U" shaped magnet mount, and 2.1336 m (7 ft) coiled cable

Fluke cases and holsters

A premium meter deserves a premium case

Soft cases

CAMO-C25 Camouflage Carrying Case
- High quality 1000D fabric
- Dimensions (HxWxD): 20.3 x 12.1 x 4.6 cm (8 x 4.8 x 1.8 in)



CAMO-C37 Camouflage Carrying Case
- High quality 1000D fabric
- Dimensions (HxWxD): 26.5 x 9 x 3 cm (10.5 x 3.5 x 1.2 in)



C75 Accessory Case
- Zippered carrying case
- Dimensions (HxWxD): 17.9 x 10.3 x 2.6 cm (7 x 4 x 1 in)



C50 Meter Case
- Case with inside pocket, belt loop and inside meter strap
- Dimensions (HxWxD): 19.2 x 9 x 3.8 cm (7.56 x 3.5 x 1.5 in)



C25 Large Soft Case for DMMs
- Case with padding and inside pocket
- Dimensions (HxWxD): 21.8 x 12.8 x 6.4 cm (8.6 x 5 x 2.52 in)



C90 Soft Case for DMMs
- Case with inside pocket and belt loop
- Dimensions (HxWxD): 20.5 x 9 x 7.2 cm (8 x 3.5 x 2.8 in)



C35 Soft Carrying Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 22 x 14 x 6.5 cm (8.7 x 5.5 x 2.6 in)



C23 Soft Carrying Case
- Case with inside pocket and belt loop
- Dimensions (HxWxD): 22.5 x 9.5 x 5.8 cm (8.9 x 3.75 x 2.3 in)



C280 Soft Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 23 x 18.5 x 6.5 cm (9 x 7.3 x 2.6 in)



C115 Soft Carrying Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 24 x 20.5 x 7.5 cm (9.5 x 8 x 3 in)



C116 Soft Carrying Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 24 x 23 x 6.5 cm (9.5 x 9 x 2.6 in)



C150 Soft Carrying Case
- High quality 1000D fabric
- Dimensions (HxWxD): 29.8 x 11.4 x 5.6 cm (11.75 x 4.5 x 2.2 in)



C781 Meter Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 26.9 x 14.1 x 9 cm (10.6 x 5.6 x 3.5 in)



C33 Soft Carrying Case
- Case with inside pocket and belt loop
- Dimensions (HxWxD): 28 x 11.5 x 5.5 cm (11 x 4.5 x 2.2 in)



C789 Meter and Accessory Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 30.8 x 25.6 x 7.7 cm (12 x 10 x 3 in)



C43 Soft Carrying Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 31.8 x 23 x 9 cm (12.5 x 9.1 x 3.5 in)



C550 Tool Bag
- Made of bal-listic cloth with heavy-duty hardware
- Dimensions (HxWxD): 33.3 x 51.3 x 23.1 cm (13 x 20.2 x 9.1 in)



C345 Soft Case
- Made of durable polyester 600D
- Dimensions (HxWxD): 36 x 20 x 24 cm (14 x 8 x 9.5 in)



Fluke cases and holsters

A premium meter deserves a premium case

Hard cases



CXT Series Extreme Cases

- Models CXT80, CXT170, and CXT280 for various meter compatibility
- Unbreakable, watertight, airtight, chemical resistant and corrosion proof



C101 Hard Case

- Dimensions (HxWxD): 30.5 x 36 x 10.5 cm (12 x 14.2 x 4.1 in)



C100 Universal Carrying Case

- Dimensions (HxWxD): 39.7 x 34.6 x 12.2 cm (15.7 x 13.6 x 4.8 in)



C1600 Gear Box

- Includes five hook and loop straps to wrap cords and test leads
- Dimensions (HxWxD): 26 x 39 x 20 cm (10 x 15 x 7.8 in)



CXT1000 Extreme Hard Case – New

- Rugged hard case that allows you to configure the diced foam interior and offers maximum protection
- Waterproof to a depth of 3 feet, airtight, and O-ring sealed for automatic pressure equalization
- Dimensions (HxWxD): 34.3 x 46.5 x 17.8 cm (13.5 x 18.3 x 7 in)

Leather cases



C520A Leather Tester Case

- Dimensions (HxWxD): 25.6 x 15.4 x 10.6 cm (10 x 6 x 4 in)



C510 Leather Meter Case

- Dimensions (HxWxD): 28.7 x 17.9 x 10.6 cm (11 x 7 x 4 in)

Holsters



H15 Electrical Tester Holster

- High quality 1000D fabric
- Dimensions (HxWxD): 27.9 x 9.2 x 5.1 cm (11 x 3.6 x 2 in)



H80M Protective Holster

- Includes a hanging magnet, general purpose hanger, and hook and loop straps
- Dimensions (HxWxD): 19 x 9.5 x 4.3 cm (7.5 x 3.7 x 1.7 in)



H5 Electrical Tester Holster

- Dimensions (HxWxD): 19.2 x 9 x 3.8 cm (7.5 x 3.5 x 1.5 in)



H3 Clamp Meter Holster

- Dimensions (HxWxD): 23.1 x 9 x 6.4 cm (9 x 3.5 x 2.5 in)



H6 IR Thermometer Holster

- Dimensions (HxWxD): 30.2 x 17.8 x 5.7 cm (11.9 x 7 x 2 in)



Fluke cases and holsters

A premium meter deserves a premium case

Cases and holsters selection guide

	113/114/115/116/117	27 II/28 II	77-4/175/177/179	83V/87V	233	287/289	8845A/8846A/8808A	120/190/22X Series	51-II/52-II/53-II B/54-II B	561/566/568	63/66/68	323/324/325	355	365/373/902	374 FC/375FC /376 FC/ 381	705/707	712/714/715/717/72X Series	718/719	753/754	787/789	T+/T+PRO	T5-600/T5-1000	1503/1507/1577/1587 FC
C12A	•															•							
C23	•		•	•	•							•											
Camo-C25	•	•	•	•	•	•			•			•					•			•	•		•
C25	•	•	•	•	•	•			•			•					•			•	•		•
C33												•		•	•						•	•	
C35			•		•																•	•	
Camo-C37												•		365	•						•		•
C43				•	•	•		•		•			•	•	•					•			
C50	•																				•		
C75	The C75 is designed to hold test leads, probes, clips and other required accessories																						
C90	•		•						•												•		
C100		•	•	•						•			•				71X			787			
C101	•	•	•	•	•	•		•	•		•	•		•	•	•	•	•		•		•	•
C115/C116	•	•	•	•	•	•		•						365			•	•		•			•
C125		•	•	83V	•																		
C150												•		•	•						•	•	
C280	•	•	•	•	•	•		•	•							•	•	•		•	•		
C345	The perfect case for carrying a wide range of Fluke handheld test tools and accessories																						
C510			•						•					•	•					787			
C520A																					•	•	
C550/C1600	The C550 and C1600 are large enough to hold accessories and multiple test tools																						
C781						•		•						•	•		72X	•	•	789			•
C789								•		•			•	365				•		•			
C799																			•				
C800			•	•						•			•	•	•		71X			787			
CXT80		•		•	•												72X			•			
CXT170	•		•						•								71X			•			•
CXT280						•														•			
CXT1000	The CXT1000 is designed to store, carry, and protect a wide range of Fluke test tools and accessories																						
H15																					•	•	





Fluke accessory sets and kits

Get an outstanding value with our most popular accessories



TL220 Industrial Test Lead Set

- Starter kit for industrial applications
- Includes 1 pair: AC220, TP220, TL224
- CAT II 1000 V, 10 A (TP220 only)
- CAT III 1000 V, CAT IV 600 V with protective cap



TL223 Electrical Test Lead Set

- Starter kit for electrical applications
- TP1 has flat blades for wall sockets
- Includes 1 pair: AC220, TP1, TL224
- CAT II 1000 V, 10 A (TP1 only)
- CAT III 1000 V, CAT IV 600 V with protective cap



TLK-220 SureGrip™ Accessory Kit with Meter Carrying Case

- Plunger style alligator clips
- Large jaw alligator clips
- Sharp test probes
- Right to straight test leads
- Zippered vinyl carry case with moveable divider
- Holds large DMMs



TLK287 Electronics Master Test Lead Set

The perfect test lead kit for today's electronics test and design.

- Precision electronic probes with multiple spring-loaded sharp tips to maximize contact with SMD test points
- Micro-grabbers and leads to enable fine SMD test
- Modular mini-alligator clips, grabbers, leads, probes, and couplers for virtually every electronics need



TLK289 Industrial Master Test Lead Set and Case

Designed for electrical and electronics test in today's industrial environment.

- SureGrip™ alligator clips, grabbers and hook clips for dependable contact with a variety of test points
- TP175 TwistGuard™ Test Probes
- Magnetic hanger for suspension of your DMM
- Temperature adapter with type K thermocouple for direct temperature measurement with your DMMs



TLK-225 SureGrip™ Master Accessory Kit

- TP175 TwistGuard™ Test Probes
- Plunger style alligator clips
- Plunger style hook clips
- Plunger style pincer clips
- Large jaw alligator clips
- Right to straight test leads
- Six-pocket storage pouch, keeps the entire set together

Test lead kits selection guide

	113/114/115/116/117	27 II/28 II/27	77 IV	175/177/179	83V/87V/233	287/289	434/435	8845A/8846A/8808A	120 Series	190 Series	225C	323/324/325	355	365/373	374 FC/375 FC/376 FC/381	902 FC	705/707	71X Series	724/725/726	753/754	787/789	T+/T+Pro	T5-600/T5-1000	1503/1507/1577/1587 FC
TLK287	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•			•
TLK289	116	•	•		•	•		•	•	•	•			•	•	•				•				
TL220	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•			•
TL223	•	•	•	•	•	•		•	•	•	•			•						•				
TL225	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•			•
TL238	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•			•
TL80A	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•			•
TL81A	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•			•
80K-8, 80K-15, 80K-40	dc only	•	•	•	•	•		•	•	•	•										•			



T5-Kit, Tester Starter Kit

Getting started kit for electricians who already own a Fluke T5 Tester.

- Test probes
- Large jaw alligator clips
- Zippered soft case

Fluke test leads, probes and clips

The best leads for all your measurement needs

For electronic applications



TL80A Basic Electronic Test Lead Set
- Six piece set with zippered case
- Probes, alligator clips and tip extenders for electronic applications
- CAT II 300 V
- CAT III 1000 V, CAT IV 600 V with protective cap

TL910 Electronic Test Probes with Replacement Tips



- Small profile provides accessibility
- Comes with five sets of replaceable tips
- Replacement tips: TP912
- CAT II 1000 V, 3 A

TP80 Electronic Test Probes



- Tapered tip ideal for probing electronic components or boards
- Removable guard for IC probing
- CAT III 1000 V, 10 A

TP920 Test Probe Adapter Kit



- IC test tip adapters, extended tips, medium alligator clips fit over TL71 and TL75 test lead sets
- IC test tip Adapter, 3 A
- Extended probe tip, 3 A
- Med. alligator clip, 5 A
- CAT II 300 V

TL40 Retractable Probe Assembly



- Retractable, insulated sharp probe tip
- CAT II 600 V, 3 A

TL26A Telecom Test Lead Set



- Five-way multipoint test clips for telecommunications applications
- Flexible silicone insulated leads are heat and cold resistant
- Rated 30 V, 8 A

For automotive applications

TP81 and TP82



- Stainless steel probe pierces insulation on 0.75 mm² to 2.00 mm² wire
- Design provides complete insulation while working on fuel injectors or sensors
- TP81 for use with modular test leads (Fluke TL224)
- TP82 slips over probe tips (Fluke TL71)
- Rated to 60 V dc

TP88 Rigid Backprobe Pin Set



- 51 mm (2 inch) long pins pass between the weather pack seal and wire
- Use with Fluke TL71 or TL75 test lead sets
- Rated to 60 V dc

TP40 Automotive Back Probe Pin Set



- Set of five 38 mm (1.5 inch) pins
- Rated to 60 V dc
- Provide an easy connection past weather pack seals to connector conductors
- Use with Fluke TL71 or TL75 test lead sets

TL82 Automotive Pin & Socket Adapter Set



- Collection of male and female adapters allows you to make firm connection to pin and socket connectors
- Adapters with flexible tips come in the following sizes: 0.3 mm² to 3.3 mm²
- Rated to 60 V dc

TLK281 Automotive Test Lead Kit
- Insulation piercing probes
- SureGrip™ silicone test leads
- SureGrip test probes
- SureGrip plunger style alligator clips
- SureGrip alligator clips
- Carrying case



TLK282 Deluxe Automotive Test Lead Kit
- Insulation piercing probes
- Set of five automotive back probe pins
- SureGrip silicone test leads
- SureGrip test probes
- SureGrip plunger style alligator clips
- SureGrip alligator clips
- SureGrip hook clips
- Carrying case



High-voltage probes

80K-6, 80K-15, 80K-40 High Voltage Probes
- Allows a digital multimeter to measure up to 6,000 volts peak, 15,000 volts peak and 40,000 volts peak respectively
- 1000:1 division ratio output when connected to 10 MΩ multimeter
- Ground clip included
- Intended for low energy applications that are referenced to ground
- 80K-15 (not available in Europe)

Note: intended for low energy applications only



Fluke SureGrip™ accessories

As tough as your meter

Modular test leads and test probes (use test probes with test leads)

TP175, TwistGuard™ Test Probes
- Converts probe tip length between 4 mm, a CAT III 1000 V, CAT IV 600 V measurement and 19 mm, a CAT II 1000 V measurement
- Fits standard modular test leads



FTPL-1 SureGrip™ Fused Test Probes with Leads
- FTP-1 Fused Test Probes with built-in fuses for added protection
- TL224 Silicone Insulated Test Leads
- CAT III 1000 V, CAT IV 600 V, 10 A



TL221 SureGrip™ Silicone Test Lead Extension Kit
- Superior strain relief
- Includes two adapters to extend leads 1.5 m
- CAT III 1000 V, CAT IV 600 V, 10 A



TL222 SureGrip™ Silicone Insulated Test Leads
- Superior strain relief
- Recommended for use with AC220, AC280, AC283 test clips
- CAT III 1000 V, CAT IV 600 V, 10 A



TL224 SureGrip™ Silicone Insulated Test Leads
- Superior strain relief
- 1.5 m silicone-insulated wire resists heat and cold
- CAT III 1000 V, CAT IV 600 V, 10 A



FTP-1 SureGrip™ Fused Test Probes
- Built-in fuses for added protection
- 2 mm threaded probe tips include removable 4 mm lantern-style spring contacts
- Removable GS38 insulated caps
- CAT III 1000 V, CAT IV 600 V, 10 A



TP1, TP2, TP4 and TP38 Slim Reach™ Test Probes
- Slender probe bodies for probing closely spaced or recessed points
- TP1 has a flat blade
- TP2 has 2 mm diameter tip
- TP4 has 4 mm diameter tip
- TP38 has stainless steel insulated probe to help lessen the risk of arc flash explosion
- CAT II 1000 V, 10 A
- CAT III 1000 V, CAT IV 600 V with protective cap (TP1 and TP2 only)
- CAT III 1000 V, CAT IV 600 V (TP38 only)



TP220 SureGrip™ Industrial Test Probes
- Sharp, 13 mm (.5 inch) stainless steel tip provides reliable contact
- Flexible finger barrier improves grip
- CAT II 1000 V, 10 A
- CAT III 1000 V, CAT IV 600 V with protective cap



Modular clips (use with test leads, includes one red, one black)

AC220 SureGrip™ Alligator Clips
- Insulated, nickel plated jaws grip objects up to 10 mm (.375 in)
- Blunt tip grabs round screw heads
- CAT III 1000 V, CAT IV 600 V, 10 A



AC280 SureGrip™ Hook Clips
- Profile narrows to 5.5 mm (.22 inch) at tip
- Hook opening 5 mm (.20 inch) at front, 2 mm (.08 inch) at base
- CAT III 1000 V, CAT IV 600 V, 3 A



AC283 SureGrip™ Pincer Clips
- 11.4 cm (4.5 inch) flexible, insulated shaft
- Nickel plated pincers open to 5 mm (.20 in)
- CAT III 1000 V, CAT IV 600 V, 1 A



AC285 SureGrip™ Alligator Clips
- Multi-purpose tooth pattern grips anything from fine gauge wire to a 19 mm (.75 in) nut
- Nickel-plated steel jaws
- Accepts standard modular 4 mm test leads
- CAT III 1000 V, CAT IV 600 V, 10 A



AC175 Threaded Alligator Clips
- Threads securely onto TL175 or TP175 probes
- Insulated alligator clips with flexible boots
- Jaw opening: 7 mm (0.275 in), jaw contact material: nickel-plated steel
- CAT III 1000 V, CAT IV 600 V



AC173 Extended Tooth Alligator Clips
- Extended tooth jaw with front placement for attaching to screw heads
- Accepts standard 4 mm modular test leads
- Jaw opening: 8 mm (0.31 in), jaw contact material: nickel-plated steel
- CAT III 1000 V, CAT IV 600 V



The new standard for safety

TL175 TwistGuard™ Test Leads



- Probes meet new EN 61010-031 requirements for safety
- Patented extendable tip guard meets new CAT III 1000 V, CAT IV 600 V requirements while providing the flexibility you need for CAT II measurements

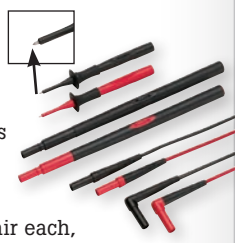


- **New** Wear-Guard™ test lead wear indicator that changes color when leads are damaged and in need of replacement



- Probes always show correct category rating for tip being used
- Advanced strain relief exceeds 5,000 bend life
- TP175 probes fit modular test leads

TL238 SureGrip™ Test Lead Set for high energy environments
- Insulated tip probes help lessen risk of arc flash explosion
- Probe extenders keep hands away from live current



- Includes one pair each, insulated test tip probes, probe extenders and TL224 Test Leads
- Probes and leads CAT III 1000 V, CAT IV 600 V, 10 A, extenders CAT III 1000 V 10 A

TL71 Premium DMM Test Lead Set
- Flexible silicone insulated leads are heat and cold resistant
- Distinctive comfort grip probes
- Recommended for µV measurements
- CAT II 1000 V, 10 A
- CAT III 1000 V, CAT IV 600 V with protective cap



TL75 Hard Point Test Lead Set
- Extremely hard alloy tips resist wear
- Distinctive comfort grip probes
- 1.5 m PVC leads
- CAT II 1000 V, 10 A
- CAT III 1000 V, CAT IV 600 V with protective cap

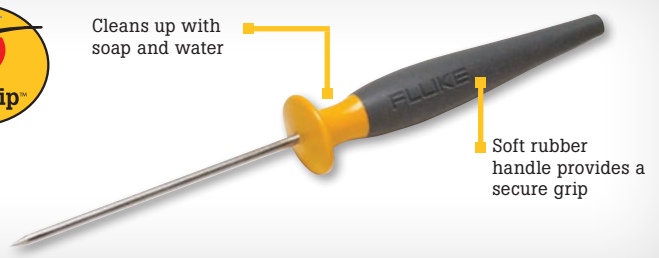


Fluke temperature accessories

Hot probes with cool designs

SureGrip™ temperature accessories

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



Specifications

	Bead	Bead	HVAC	Immersion	Surface	Air	Piercing	General purpose	Industrial surface
									
	80BK-A	80PK-1 80PJ-1	80PK-11	80PK-22	80PK-3A	80PK-24	80PK-25 80PT-25	80PK-26	80PK-27
Lowest temperature	-40 °C (-40 °F)		-30 °C (-22 °F)	-40 °C (-40 °F)	0 °C (32 °F)	-40 °C (-40 °F)	K Type: -40 °C (-40 °F) T Type: -196 °C (-321 °F)	-40 °C (-40 °F)	-127 °C (-196 °F)
Highest temperature	260 °C (500 °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)
Probe material	Type K wire with teflon insulation		Velcro	Inconel 600	Type K sensor with teflon body	Inconel	316 Stainless Steel	304 Stainless Steel	
Probe length	1 m lead wire		19 in Velcro cuff	21.27 cm (8.375 in)	9.525 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)
Cable length	1 m (3.3 ft)				1.3 m (4 ft)	1 m (3.3 ft)			
Connection	Standard banana jack	Molded thermocouple plug							
SureGrip handle				•		•	•	•	•
Key feature	Ideal for initial troubleshooting. Can be secured in place with a magnet.		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.
Thermocouple types	K	K, J	K	K			K, T	K	
Typical use									
General purpose	•	•	•	•	•	•	•	•	•
HVAC		•	•	•	•	•		•	•
Food service				•			•		
Industrial	•	•	•						•
Residential	•	•			•	•	•		
Commercial	•	•	•	•	•	•	•	•	•

The 80TK enables your meter to read temperature using mV.
For the Fluke Thermometer, 51, 52, 53, and 54 III, no adapter is necessary for thermocouple types K, J, T and E.

Temperature accessories selection guide

	113/114/115/116/117	175/177	179	233	3000 FC DMM	287/289	27-II/28-II	8845A/8846A/8808A	77 IV	83 V	87 V/88V	43B	120 Series	190 Series II	1577	1587 FC	51/52/53/54-II	561	566/568/572-2	705/707	714	715	724/725	753/754	787/789
Contact Probes																									
80PK-1/80PK-27	1	1	2	2	2	2	2	1	1	1	2	1	1	1	1	2	•	•	•	1	•	1	•	•	1
80PJ-1/80PJ-9																	•				•		•	•	
80PT-25																	•				•		•	•	
DMM Probes																									
80AK-A	•3		•	•		•	•5				•					•	•								
80BK-A	•3		•	•		•	•5				•					•									
80TK	•						•6	•	•	•		•	•	•	•					•		•		•	•
80T-150UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•			•		•		•	•
Miscellaneous																									
80CK-M	1	1	2	2	2	2	2	1	1	1	2	1	1	1	1	2	•	•	•	1	•	1	•	•	1
80CJ-M																	•				•		•	•	
80PK-EXT (4)	1	1	2	2	2	2	2	1	1	1	2	1	1	1	1	2	•	•	•	1	•	1	•	•	1
80PJ-EXT																	•				•		•	•	
80PT-EXT																	•				•		•	•	
80PT-EXT																	•				•		•	•	

1-Requires 80TK 2-Requires 80AK 3-Fluke 116 Only 4-Also requires 80CK-M 5-28 II only 6-27 II only

Fluke temperature accessories

Turn your digital multimeter into a thermometer

Other temperature accessories

80TK Thermocouple Module



- Converts type K thermocouple signals into mV output
- Connects to DMM via standard banana plugs
- Switch selectable °C or °F
- Range: -50 °C to 1000 °C (-58 °F to 1832 °F)
- Includes 80PK-1 probe

80T-150UA Universal Solid State Temperature Probe



- For measurement of air, surface and non-corrosive materials
- Measurement range: -50 °C to 150 °C (-58 °F to 302 °F)
- Output: 1 mV/°C or 1 mV/°F (switch selectable)
- Connects to DMM via standard banana plugs

80PK-8, 80PK-10, Pipe Clamp Temperature Probes



- Type K thermocouples clamp securely onto pipes for fast temperature and superheat measurements
- Durable ribbon sensors
- 1 m (39 in) lead
- Measure from -29 °C to 149 °C
- 80PK-8 for 6.4 mm to 34.9 mm (0.25 in to 1.375 in)
- 80PK-10 for 32 mm to 64 mm (1.25 in to 2.5 in)

80PK-18, Pipe Clamp Temperature Probe Kit



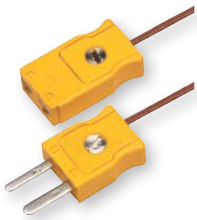
- Includes both 80PK-8 and 80PK-10 Type K clamps
- Provides full range of pipe measurement sizes
- Includes soft carrying case to conveniently keep both clamps handy for any situation

80CK-M and 80CJ-M Type K and J Male Mini-Connectors



- Isothermal screw terminal for K or J wire
- Suitable for up to 20 gauge thermocouple wire
- Color coded to industry standards (K-yellow, J-black)
- Two per package

80PJ-EXT, 80PK-EXT, 80PT-EXT Thermocouple Wire Extension Kits



For extending and repairing type J, K or T thermocouple wires.

- Kit includes 3 m (9 ft) of thermocouple wire and 1 pair of male/female mini-connectors
- Maximum continuous exposure temperature: 260 °C (500 °F)
- 80PK-EXT is compatible with type K thermometers; 80PJ-EXT is designed for type J thermometers, and 80PT-EXT is designed for type T thermometers



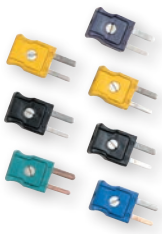
Thermocouple Plug Kits

700TC1



A kit of ten mini-plug connectors. One each of the following:
Type J (black)
Type K (yellow)
Type T (blue)
Type E (purple)
Type R/S (green)
Type B or Cu (white)
Type L (J-DIN) (blue)
Type U (T-DIN) (brown)
Type C (red)
Type N (orange)

700TC2



A kit of seven mini-plug connectors.
Type J (black), two
Type K (yellow), two
Type E (purple), one
Type T (blue), one
Type R/S (green), one

Process tools accessories

BP7240



- Li-ion rechargeable battery; nominal 7.2 volt, 4400 mA hr
- Use with 750 Series Calibrators

BP7235



- NiMH rechargeable battery; nominal 7.2 volt, 3500 mA hr
- Use in 700 and 740 Series Calibrators

700LTP-1 Low Pressure Test Pump



Hand operated pressure pump designed to generate either vacuum to -13 psi/-.90 bar or pressures to 100 psi/6.9 bar. Ideal for low pressure applications requiring accurate low pressure testing.

700ILF In-line Filter



The Fluke 700ILF can be used to isolate the calibrator from incidental contact with fluids. Particularly useful with the 718 calibrator to help keep moisture or oils from contaminating the on-board pump.

700PTP-1 Pneumatic Test Pump



The Fluke 700PTP is a hand-held 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



The Fluke 700HTP is designed to generate pressures up to 10,000 psi/700 bar. Use the Fluke 700PRV adjustable relief valves to limit pressures from 94 bar (1360 psi) to 376 bar (5450 psi)

700HTH-1 Hydraulic Test Hose



The 700HTH is a 10,000 psi, 700 bar test hose that connects to a calibration unit under test from a Fluke 700HTP hydraulic test pump.

700PMP Pressure Pump



The 700PMP is a hand-operated pressure pump to provide pressures up to 150 psi/1000 kPa. Output fitting is 1/8 FNPT.

Fluke 700-IV Current Shunt



Conversion factor:
10 mV = 1 mA
Accuracy (% of input, one-year): 0.025 %
Input current: 0 mA to 55 mA
Input resistance: 250 Ω nominal
Output resistance: 10 Ω nominal
Accuracy specification applies from +18 °C and 28 °C to 50 °C
Maximum input voltage: 30 V dc

Fluke ac current clamps



i200



i200s



i400



i400s



i800



i1000s



i3000s



i2000/i3000s/i6000s Flex

i2000 Flex, i3000s Flex-24 (24 in dia), i3000s Flex-36 (36 in dia), i6000s Flex-24 (24 in dia), i6000s Flex-36 (36 in dia)

AC current clamp specifications

	i200	i200s	i400	i400s	i800	i1000s	i3000s	i2000 Flex	i3000s Flex	i6000s
AC current range	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	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	.5 A to 40 A, 2 % + .015 A, 5 A to 400 A, 2 % + .04 A, 45 Hz to 400 Hz	0.1 A to 10 A ± 3 % + .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, (– 3 dB)
Maximum conductor diameter	20 mm (0.8 in)	20 mm (0.8 in)	32 mm (1.25 in)	32 mm (1.25 in)	54 mm (2.13 in)	54 mm (2.13 in)	64 x 100 mm (2.52 x 3.94 in)	177 mm (7 in)	177 mm (7 in) or 265 mm (10.4 in)	193 mm (7.6 in) or 289 mm (11.4 in)
Maximum conductor size	150 mm²	150 mm²	400 mm²	400 mm²	2x 240 mm² or 1x 500 mm²	2x 240 mm² or 1x 500 mm²	64 mm (2.52 in)	610 mm (24 in) circumference	610 mm or 915 mm circumference	610 mm (24 in) or 915mm (36 in)
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 BNC, 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 V

AC current clamp selection guide

	i200	i200s	i400	i400s	i800	i1000s	i3000s	i2000 Flex[1]	i3000s Flex
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
27II	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
28II	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 Insulation Meter	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 Power Quality Analyzer		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 Power Quality Analyzer		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 Series ScopeMeters		1 A to 200 A		2.5 A to 400 A		0.25 A to 1000 A	2.5 A to 3000 A	2 A to 2000 A	3 A to 3000 A
190 Series ScopeMeters		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*
787/789 Process Meters	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

* Requires PM9081/001 Adapters.
[1] Three range version.
[2] Current and watt readings will be multiples of 10 higher or lower than actual on some ranges.

Fluke ac/dc current clamps



80i-110s



i1010

i310s, i30s and i30 Hall Effect AC/DC Current Clamps
Especially useful for low current measurements down to 30 milliamps.



i30s



i410



i310s



i30

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 rms	0.1 A to 300 A
Accuracy	0.1 A to 10 A; dc 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 (0.46 in)	30 mm (1.18 in)	30 mm (1.18 in)	19 mm (0.75 in)	19 mm (0.75 in)	19 mm (0.75 in)
Maximum conductor size	35 mm²	1x 400 mm² or 2x 240 mm²	1x 400 mm² or 2x 240 mm²	120 mm²	120 mm²	120 mm²
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 meters 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
114/115/116/117	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1.4 A to 400 A dc/ 6 A to 400 A ac	1.4 A to 1000 A dc/ 6 A to 600 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	0.1 A to 450 A dc/ 0.6 A to 300 A ac
233	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1.4 A to 400 A dc/ 6 A to 400 A ac	1.4 A to 1000 A dc/ 6 A to 600 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	0.1 A to 450 A dc/ 0.6 A to 300 A ac
27II	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac
28II	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 6 A to 400 A ac	1 A to 1000 A dc/ 6 A to 600 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac
77-IV	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 5 A to 400 A ac	1 A to 1000 A dc/ 5 A to 600 A ac	30 mA to 30 A dc/ 40 mA to 20 A ac	30 mA to 30 A dc/ 40 mA to 20 A ac	0.1 A to 450 A dc/ 0.4 A to 300 A ac
175/177/179	0.11 A to 100 A dc/ 0.3 A to 70 A ac*	1.6 A to 400 A dc/ 30 A to 400 A ac	1.6 A to 1000 A dc/ 30 A to 600 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	0.1 A to 450 A dc/ 3 A to 300 A ac
1577/1587 FC Insulation Meter	0.1 A to 100 A dc/ 0.3 A to 70 A ac*	1.2 A to 400 A dc/ 30 A to 400 A ac	1.2 A to 1000 A dc/ 30 A to 600 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	0.1 A to 450 A dc/ 3 A to 300 A ac
83V/88V	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac
87V	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 20 A to 400 A ac	1 A to 1000 A dc/ 20 A to 600 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac
287/289	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac
123/124 ScopeMeters	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 ScopeMeters	0.1 A to 100 A dc/ 0.1 A to 70 A ac	1 A to 400 A dc/ 5 A to 400 A ac**	1 A to 1000 A dc/ 5 A to 600 A ac**	30 mA to 30 A dc/ 50 mA to 20 A ac**	30 mA to 30 A dc/ 50 mA to 20 A ac	0.1 A to 450 A dc/ 0.5 A to 300 A ac
8808A	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 2 A to 400 A ac	1 A to 1000 A dc/ 2 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.2 A to 300 A ac
8845A/8846A	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac
705/707	0.1 A to 100 A dc, no ac*	4 A to 400 A dc, no ac	4 A to 1000 A dc, No ac	40 mA to 30 A dc, no ac	40 mA to 30 A dc, no ac	0.4 A to 450 A dc, no ac
715	0.1 A to 100 A dc, no ac*	4 A to 400 A dc, no ac	4 A to 1000 A dc, No ac	40 mA to 30 A dc, no ac	40 mA to 30 A dc, no ac	0.1 A to 450 A dc, no ac
787/789 Process Meters	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 20 A to 400 A ac	1 A to 1000 A dc/ 20 A to 600 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	3 mA to 30 A dc/ 200 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac

* Requires PM9081 Adapter
** Requires PM9082/001 Adapter

Fluke lights and hangers

Free your hands and shed light on the contact point



LVD1 Volt Light

- Exclusive dual-sensitivity
- Detects voltages from 40 V ac to 300 V ac
- Voltage detector glows blue at 50 Hz to 60 Hz or 2.5 cm to 38 cm (1 in to 5 in) away from source
- Ultra-bright white LED with 100,000 hour bulb life
- AAA battery included



LVD2 Volt Light

- Non-contact ac voltage detector and bright white LED flashlight
- Detects voltage from 90 V to 600 V ac from one to 12.7 cm (5 inches) away
- CAT IV rated, one-year warranty



L205 Mini Hat Light

Rugged, high-intensity Xenon worklight.

- Attaches to a baseball cap
- Includes a hat clip
- Includes two AAA batteries
- Waterproof



L206 Deluxe LED Hat Light

(hard hat not included)

Attach it to a hard hat, a baseball cap, or even a panel door.

- Three super bright white LEDs never burn out
- Special hard-hat attachment included
- 40-hour battery life
- Includes three AAA batteries

TPAK ToolPak™ Magnetic Meter Hanger

- Free both hands to make measurements
- Hang your meter from metallic surfaces like panels and pipes
- Kit includes universal hanger clips (two), hook and loop straps (two lengths), adapter and strong magnet
- Attaches to back of many Fluke meters, including 110, 170, 180, 280 Series, 87V and 83V DMMs, 724, 725 and 789 Process Calibrators, 70 Series III DMMs, 1503, 1507, 1577 and 1587 Insulation Multimeters and 50 Series II Digital Thermometers





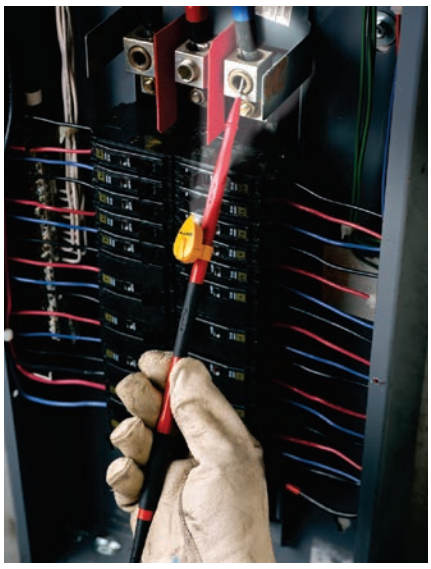
LeadWrap Test Lead Fasteners

- Keep your favorite leads together
- Hook and loop fasteners
- Three per package



L215 SureGrip™ Kit with Probe Light and Probe Extenders

- L200 probe light
- TP220 SureGrip test probes
- TL224 SureGrip test leads
- TP280 test probe extenders
- Soft foldable pouch, keeps the entire set together



L210 Probe Light and Probe Extenders

- 20.3 cm (8 in) probe extenders fit modular test probes
- Probe extender complies with EN 61010-031
- Bright white LED illuminates contact area
- Probe light fits on extender or test probe

Stray voltage



SV225

- Eliminates stray voltage due to capacitance between wires in electrical installations
- Compatible with all instruments and test leads that accept standard 4 mm shrouded banana connectors

Pressure and vacuum



PV350 Pressure Vacuum Module

- Digital pressure and vacuum measurements in a single module
- Measures HVAC/R, hydraulic and pneumatic pressures to 350 psig/2413 kPa (usable to 500 psig)
- Measures to 760 mmHg (29.9 in Hg) vacuum (not intended for measuring microns of vacuum)
- Compatible with most digital multimeters

FLUKE CONNECT

Fluke Connect®

ir3000 FC Connector

- 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 True-rms Logging Multimeter and the 789 ProcessMeter with the ir3000 FC Connector



Fluke Connect® Wireless SD Card



Wirelessly enable your Fluke TiX1000, TiX660, or TiX640 infrared camera with the Fluke Connect wireless SD card. Instantly upload, share and analyze data with anyone on your team. The Fluke Connect WiFi SD Card is included with compatible models, but is shipped separately due to country restrictions.

FlukeView® Forms

Harness the power of the data logging function on your Fluke Digital Multimeter, Thermometer or ProcessMeter. Log live readings while connected to a PC, or leave your Fluke 289, 789 or 54-II in place to capture up to 1,000 readings for download to a PC.



Choose the model that's right for you:

- **FVF-SC2:** Includes software and cable used with 280 Series DMMs and 789 ProcessMeters, and the 1550 and C/1555 Insulation Tester
- **FVF-SC3:** Includes software and cable used with 45 Bench Meters
- **FVF-SC4:** Includes software and cable used with 8845A and 8846A Multimeters

Go to **www.fluke.com/flukeviewforms** to download the demo.

FlukeView® Forms Basic

An abridged version of FlukeView Forms.

- Available for use with 280 Series DMMs and 789 ProcessMeters, only
- Upgrade to the full FlukeView Forms with FVF-UG
- Compatible with the 280 and 789 series only

Choose the model that's right for you:

- **FVF-Basic:** FlukeView Forms Basic transfers data from Fluke test tool to a PC. Displays readings in table or graphical format
- **FVF-SC2, -SC4:** FlukeView Forms Full provides Basic software functions plus customizable documents and templates
- **FVF-UG:** FlukeView Forms Upgrade, compatible with all forms of FlukeView Forms (Basic and Full)

Fuse selection guide

Replacement fuses for Fluke DMMs are available from your distributor. To order direct from Fluke call 1-800-44-FLUKE (U.S.) or email fluke-info@fluke.com.

Model	Fuse Requirements
21-III/75-III/73-III	P/N 871173 630 mA 250 V fuse P/N 803293 11 A 1000 V fuse
27 (S/N<7247001)	P/N 871173 630 mA 250 V fuse P/N 871202 3 A 600 V fuse P/N 892583 15 A 600 V fuse
27 (S/N>7247001	P/N 943121 440 mA 1000 V fuse P/N 803293 11 A 1000 V fuse
83/85/87 (S/N>6565000)	P/N 943121 440 mA 1000 V fuse P/N 803293 11 A 1000 V fuse
83-III/85-III/87-III 87-IV/89-IV/187/189/287/289/ 77-III/79-III/23-III/26-III/175/177/179/77-IV/27-II/28-II	P/N 943121 440 mA 1000 V fuse P/N 803293 11 A 1000 V fuse
111/112/115/117/233	P/N 803293 11 A 1000 V fuse
1577/1587	P/N 943121 440 mA 1000 V fuse
1503/1507	P/N 2279339 315 mA 1000 V fuse
787/789	P/N 943121 440 mA 1000 V fuse (Qty 2)

Selection Guide	110/111/112	114/115/116/117	27 II/28 II/27	175/177	179	80 Series III/83V	87/89 IV	87V	233	287/289/187/189	43B	120 Series	190 Series	51/52/53/54 II	705/707	715	725/726	741/743	744	787/789	1587 FC	1577
TPAK	•	•		•	•	83V	•	•	•	•				•			•			789	•	•
PV350 (pressure)	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•		•	•	•	•	•
FOM (fiber optic)	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•		•	•	•		

Model	Instrument compatibility	Cable
FVF-BASIC	Fluke 280 Series, 789, 1550B, 1653, 180 Series	USB/IR
FVF-SC2	Fluke 280 Series, 789, 1550B, 1653, 180 Series	USB/IR
FVF-SC4	Fluke 8808A, 8845A, 8846A, 45*	USB/Serial
IR189USB	USB cable for Fluke-18X, 28X DMMs	USB/IR

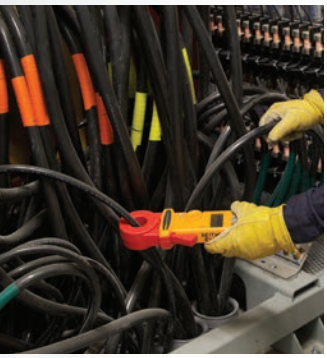
Expert resources and advice



You can depend on **www.fluke.com** to find the information you need to help you on the job—and, it's all formatted for your smart phone. Besides in-depth product information and specifications, learn best practices for using Fluke tools, watch expert how-to videos, register for webinars and more.

In the training section, you'll find our library of excellent content plus measurement and test tool basics that cover our core product features: what they're for and how to use them. In the community section, look at Fluke News Plus for information from industry professionals that can further help you take full advantage of your Fluke tools. Some of the materials available include:

- How-to videos
- Product videos
- Application notes
- White papers
- Case studies
- Webinars
- Training library
- Hands-on workshops
- Users manuals



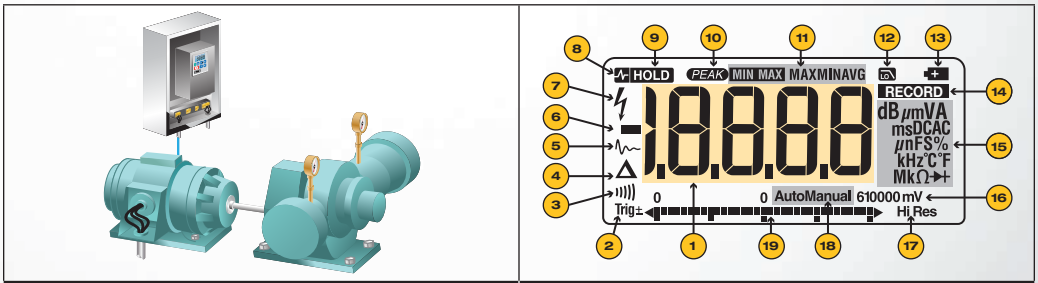
Applications/videos



www.fluke.com/training



Online fundamentals



www.fluke.com/measurebasics | **www.fluke.com/dmmbasics**



Online training



Prevent downtime with Fluke

How much does unexpected downtime cost your facility per minute, hour or day? Fluke tools can play a pivotal role in helping you identify equipment issues before they become problems and avoid costly delays.

By measuring key indicators on critical equipment and sharing that data immediately, you can discover impending failures and schedule maintenance. With over 40 connected wireless tools, Fluke Connect® lets you identify and diagnose problems quickly and confidently, while sharing your data when you want and with whom you want.



438-II



279 FC



TiX500



Organize your measurements by asset on location with the AutoRecord™ Plus feature in the Fluke Connect Assets software.

Fluke tools engineered for safety

Fluke tools are rigorously tested and have the highest safety category ratings to match your different work environments. Whether you work with electrical systems, motors and machinery or any of the many other professional jobs, our tools are engineered for safety. From digital multimeters to infrared cameras and IR windows to tracking measurements remotely, you can trust Fluke. Our new Fluke Connect® app and wireless enabled tools allow you to capture measurements up to 20 meters away from energized lines and moving machinery. You can safely troubleshoot issues and share the results with your team, anywhere, any time.

See the latest Fluke Connect enabled tools, download safety application notes and attend trainings at **www.fluke.com**



Ti450





Your authorized Fluke distributor

We're listening

Fluke has always listened to our customers and built the tools you want. Our ideas and the things that drive our intense development process, come straight from the job site and pros like you. Help us keep innovating, share your thoughts with us and with your peers. Visit our social media sites, tell us your ideas, tell us your stories, tell us what you think.

Fluke charged ideas



www.facebook.com/fluke.corporation



www.twitter.com/flukecorp



www.youtube.com/flukecorporation

Contact us:

United States
General product and sales information: 1-800-44-FLUKE
fluke-info@fluke.com

Fluke Infrared Cameras: 1-800-760-4523 (U.S. only) all other regions 1-425-446-4620

Service and calibration: 1-888-99-FLUKE
Parts: 1-800-526-4731

Canada
General product, sales, service, parts and calibration information: 1-800-36-FLUKE
canada@fluke.com

Australia
General product and sales information: (02) 8850-3333
Parts: (02) 8850-3333
Service and calibration: (02) 9771-9300

Singapore
General product and sales information: (65) 6799-5566
info.asean@fluke.com
Service, parts and calibration: (65) 6799-5588
service.asean@fluke.com

Japan
General product and sales information: +81-3-3434-0181
Service, parts and calibration: +81-3-3434-0188

Other countries: 1+(425) 446-5500

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

Fluke Corporation
PO Box 9090,
Everett, WA 98206 U.S.A.

Fluke Europe B.V.
PO Box 1186, 5602 BD
Eindhoven, The Netherlands

For more information call:
In the U.S.A. (800) 443-5853 or Fax (425) 446-5116
In Europe/M-East/Africa +31 (0) 40 2675 200 or Fax +31 (0) 40 2675 222
In Canada (800)-36-FLUKE or Fax (905) 890-6866
From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116
Web access: http://www.fluke.com

©2017 Fluke Corporation. Specifications subject to change without notice.
All trademarks are the property of their respective owners. Printed in U.S.A.
10/2017 6010004a-en

Modification of this document is not permitted without written permission from Fluke Corporation.