

FLUKE®



PRODUCT GUIDE

2023-2024





FLUKE IRR2-BT

83.0 W
440 °C

MINI
Probe 2.5m
HOLD
UNITS
FUNCTION
Probe 1.5m
ZERO

FLUKE MDA-560 MOTOR DRIVE ANALYZER

120 U
200 kWps
21 ns
210 ns
EVT/s

SHAFT VOLTAGE DISCHARGE EVENTS/s

dU	dt	< 50 ns
> 10 U		190
7.5 - 10.0 U		198
5.0 - 7.5 U		165

400ns EVENT: <50ns >10U X

SAVE TO REPORT
EVENTS ON/OFF
MOTOR SHAFT
WAVEFORM TABLE

MOTOR DRIVE ANALYZER

ZERO
V~A
V~A
mA
OFF
HOLD
AUTO 2sec

5.2 A

FLUKE
393 FC CAT III 1500V
CLAMP METER

What's New at Fluke



Fluke 1770 Series Power Quality Analyzers

The faster, easier way to perform power quality studies.

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

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



Fluke 393 FC Solar Clamp Meter

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

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

For more on the Fluke 393 FC CAT III 1500 V Clamp Meter, see page 30

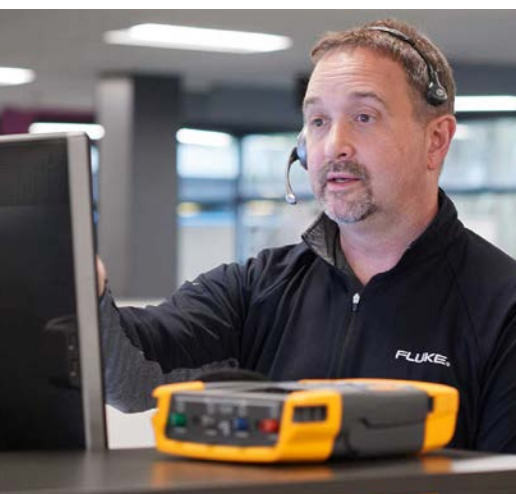


Fluke SMFT-1000 Solar Multifunction Tester

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

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

For more on the Fluke SMFT-1000, see page 74



Fluke Premium Care

Reduce unplanned expenses and get the most out of your tools.

When you invest in the best equipment in the industry, you want your money to go as far as possible.

Fluke Premium Care provides coverage above and beyond your tool's original product warranty, so you don't need to worry about unexpected downtime caused by damaged test equipment, accessories, or tools in need of calibration or repair.

For more on the Fluke Premium Care plans, see pages 12-13



Fluke FEV100 Adapter Kit for Electric Vehicle Charging Stations

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

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

For more on the Fluke FEV100 Adapter Kit, see page 76



Fluke Networks LinkIQ® Cable+Network Tester

Cable Testing you Trust. Network Testing you Need.

- Cable Performance testing up to 10GBASE-T
- Network features include: ping, switch diagnostics (name, port / VLAN number, and advertised data rates).
- Ethernet Alliance certified PoE Verification of PoE class (1-8) and power,
- Displays cable length, wire map, and distance to open or short
- Manage results and print reports from LinkWare™ PC

For more on the LinkIQ, see page 182



Fluke MDA-550 Series III Motor Drive Analyzer

Simplify complex motor-drive troubleshooting.

- Measure key motor drive parameters
- Provides guided measurements for motor-drive input with graphical step-by-step voltage and current connection diagrams
- Create reports quickly and easily
- Measure additional electrical parameters with full 500 MHz oscilloscope

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



Fluke 831 Laser Shaft Alignment Tool

Precision laser alignment made easy.

- Fast, easy, and precise alignment that adapts to your needs
- Rugged build and the highest-in-class IP rating
- Single-laser technology for the fastest, most accurate laser alignment
- Cloud connection enables real-time collaboration
- Use up to 8 measurement points to achieve precision alignment on vertical machines

For more on the Fluke 831, see page 139



Fluke Connect™

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

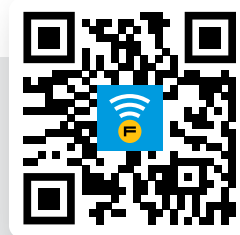


South America contato@ohmini.com.br North America contact@ohmini-inc.com



SEE IT. SAVE IT. SHARE IT.

All the facts, right in the field.



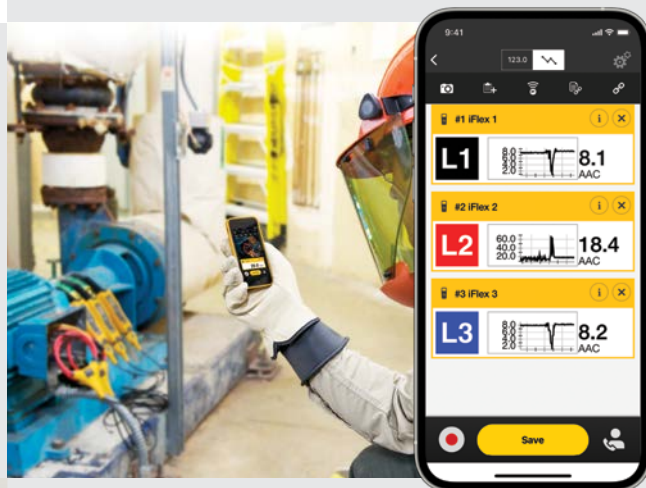
Get the FREE Fluke Connect™ App!

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



Troubleshoot faster

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



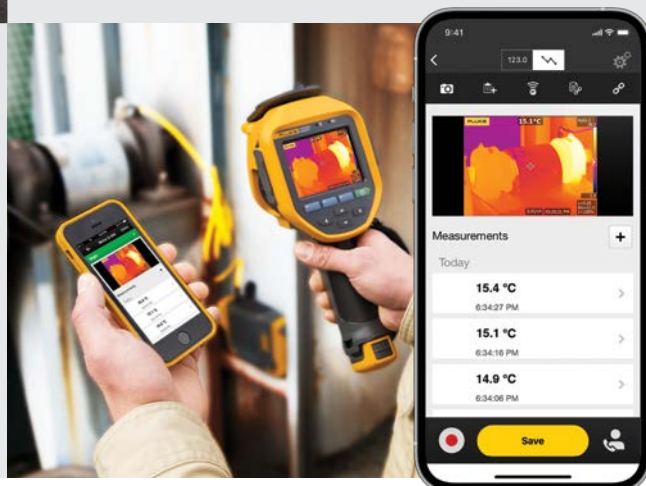
Share from anywhere

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

Save Time Reporting

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

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



Fluke Connect™ Selection Guide

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

Fluke Connect™ tools	Fluke Connect™ App – iOS and Android™	TiX580 Infrared Camera	Ti480 PRO Infrared Camera	PTi120/TiSxx Series Infrared Cameras	3000 FC Digital Multimeter	902 FC True-RMS HVAC Clamp Module	378/377/376/375/374/393 FC Clamp Meters	a3000/a3001 FC AC Current Clamp Modules	a3002 FC AC/DC Current Clamp Module	a3003/a3004 FC DC Current Clamp Modules	v3000 FC AC Voltage Module	v3001 FC DC Voltage Module	t3000 FC Temperature Module	1555/1550C Insulation Resistance Testers	1742/1746/1748 Power Quality Loggers	1732/1734/1736/1738 Electrical Loggers	729 FC Automatic Pressure Calibrator	787B/789 ProcessMeter™	1587 FC Insulation Multimeter	1664 FC Multifunction Installation Tester	805 FC Vibration Tester	125B/124B/123B ScopeMeters®	279 FC Digital Thermal Multimeter	1630-2 FC Earth Ground Clamp	368/369 FC Leakage Current Clamps
Fluke Connect™ App – iOS and Android	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TiX580 Infrared Camera	•				•	•	•	•	•	•	•	•	•												
Ti480PRO Infrared Camera	•				•	•	•	•	•	•	•	•	•												
PTi120/TiSxx Series Infrared Cameras	•				•	•	•	•	•	•	•	•	•												
3000 FC Digital Multimeter	•	•	•					•	•	•	•	•	•		•	•									
a3000/a3001 FC AC Current Clamp Modules	•	•	•	•	•										•	•									
902 FC True-RMS HVAC Clamp Meter	•	•	•	•	•										•	•									
378/377/376/375/374/393 FC True-RMS Clamp Meters	•	•	•	•	•										•	•									
a3002 FC AC/DC Current Clamp Module	•	•	•	•	•										•	•									
a3003/a3004 FC DC Current Clamp Modules	•	•	•	•	•										•	•									
v3000 FC AC Voltage Module	•	•	•	•	•										•	•									
v3001 FC DC Voltage Module	•	•	•	•	•										•	•									
t3000 FC Temperature Module	•	•	•	•	•										•	•									
1555/1550C Insulation Resistance Testers	•																								
1742/1746/1748 Power Quality Loggers	•				•	•	•	•	•	•	•	•	•												
1732/1734/1736/1738 Electrical Loggers	•				•	•	•	•	•	•	•	•	•												
787B/789 ProcessMeter™	•																								
1587 FC Insulation Multimeter	•																								
1664 FC Installation Tester	•																								
805 FC Vibration Tester	•																								
125B/124B/123B ScopeMeters®	•																								
279 FC Thermal Multimeter	•																								
1630-2 FC Earth Ground Clamp	•																								
368/369 FC Leakage Current Clamps	•																								
ir3000 FC Wireless Connector	•	Connect adapter to: Fluke 787B, 789, 289, 287, 1550C, 1555																							

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



Fluke a3000 FC

a3000 FC Wireless AC Current Clamp Module

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

- Measure up to 400 A AC
- Logging function: record and save up to 65 000 readings
- Use as a standalone meter or as part of a system
- Inrush function
- Weight: 0.22 kg (7.76 oz)
- Three-year warranty



Fluke a3001 FC

a3001 FC Wireless iFlex™ AC Current Module

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

- Measure up to 2500 A AC
- Logging function: record and save up to 65 000 readings
- Use as a standalone meter or as part of a system
- Inrush function
- Weight: 0.22 kg (7.76 oz)
- Three-year warranty



Fluke a3002 FC

a3002 FC Wireless AC/DC Current Module

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

- Measure up to 400 A AC or 400 A DC with i410
- Measure up to 600 A AC or 1000 A DC with i1010
- Use as a meter alone or as part of a system
- Record and save up to 65 000 readings
- Weight: 0.25 kg (8.81 oz)
- Three-year warranty



Specifications	a3000 FC	a3001 FC	a3002 FC
Range	0.5 A to 400.0 A AC	0.5 A to 2500 A AC	up to 600 A AC and 1000 A DC (with 11010 Current Clamp)
Resolution	0.1 A		
Accuracy	400.0 A: 2 % ±5 digits (10 Hz to 100 Hz), 2.5 % ±5 digits (100 Hz to 500 Hz)	3 % ±5 digits (5 Hz to 500 Hz)	AC: 1.0 % + 3 DC: 0.5 % + 3 (45 Hz to 1000 Hz)
Inrush	Max displayed reading: 999.9 A		
Crest Factor (50Hz/60Hz)	3 at 500 A, 2.5 at 600 A, 1.42 at 1000 A, add 2% for C.F. > 2	3.0 at 1100 A, 2.5 at 1400 A, 1.42 at 2500 A, add 2% for C.F. > 2	
LCD w/backlight	3½ digits		3½ digits, 6000 counts, 4/sec update rate
Log rate/interval	1 sec minimum/adjustable by PC or FC App		
Battery type/life	2 AA, NEDA 15 A, IEC LR6 / 400 hours		
RF communications	2.4 GHZ ISM Band		
RF communication range	Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft)		
Operating & Storage temp	-10° C to 50° C / -40° C to 60° C (14° F to 122° F / -40° F to 140° F)		
Temperature coefficient	Add 0.1 × (specified accuracy)/° C (<18° C or >28° C (<64° F or >82° F))		
Operating humidity	0% to 90% (0° C to 35° C (32° F to 95° F)), 0% to 75% (35° C to 40° C (95° F to 104° F)), 0% to 45% (40° C to 50° C (104° F to 122° F))		
EMC	EN 61326-1:2006		
Safety compliance	IEC 61010-1, 600 V CAT III, Pollution Degree 2	IEC 61010-1, 600 V CAT IV/1000 V CAT III, Pollution Degree 2	
Safety rating	CAT III 600 V	CAT IV 600 V, CAT III 1000 V	
Certifications	CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE		
Ingress Protection rating	IP30	IP42	
Jaw Opening	64 mm (2.5 in)	25.4 cm (1 in) coil	
Size (H×W×D)	16.5 × 6.35 × 3.56 cm (6.5 × 2.5 × 1.4 in)	16.5 × 6.35 × 1.4 cm (6.5 × 2.5 × 0.5 in)	16.0 × 6.6 × 3.8 cm (6.3 × 2.6 × 1.5 in)
Save and record	Up to 65 000 readings		

Recommended Accessories


i410/i1010
Current Clamp
(for a3002 FC)

PC Adapter
Fluke Connect™
Wireless PC Adapter

Recommended Kits

Bundle and Save


**Fluke Wireless a3000 FC
Current Clamp Kit**

**Fluke Wireless a3001 FC
iFlex™ AC Current Kit**

Included Accessories

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

Ordering Information

FLK-A3000 FC Wireless AC Current Clamp Module

FLK-A3001 FC Wireless iFlex™ AC Current Module

FLK-A3002 FC Wireless AC/DC Current Module

FLK-A3000 FC KIT Wireless AC Current Clamp Kit

FLK-A3001 FC KIT Wireless iFlex™ AC Current Kit

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

Fluke Connect™



Fluke a3003 FC and a3004 FC Wireless Current Clamp Modules



Fluke a3003 FC



Fluke a3004 FC



a3003 FC Wireless 2000 A DC Current Clamp Module

The a3003 is the tool of choice for high current DC ammeter applications that require measurements up to 2000 A DC.

The extra-wide jaw easily clamps around large conductors, typically found in mining, utility, marine, rail or other heavy manufacturing industries where large DC currents or large current carrying cables are found.

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

- Measures from 10 A to 2000 A DC
- Large jaw size (64mm (2.5 in)) for measuring large, high current conductors
- Logging function: record and save up to 65 000 readings
- Weight: 0.65 kg (1.43 lb)
- Three-year warranty

a3004 FC Wireless 4-20 mA DC Clamp Module

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

- Send data to your laptop and go from logging to analysis and diagnosis.
- Use the Fluke Connect™ wireless USB adapter to collect logged data from remote modules by walking past a working module and downloading logged data
- Logging function: record and save up to 65 000 readings
- Perform for analysis with your PC and share the results using Fluke Cloud™ storage and ShareLive™ video call
- Weight: 0.3 kg (10.58 oz)
- Three-year warranty

Recommended Accessories



PC Adapter
Fluke Connect™ Wireless PC Adapter



Get the FREE Fluke Connect™ App!

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



Specifications	a3003 FC	a3004 FC
Range	1.0 A to 999.9 A DC 1000 A to 2000 A DC	0.05 mA to 20.99 mA DC 21.0 mA to 99.9 mA DC
Resolution	0.1 A 1 A	0.01 mA 0.1 mA
Accuracy	2% ±5 digits 2.5% ±5 digits	0.2% ±5 digits 1.0% ±5 digits
LCD w/backlight	3½ digits	
Log rate/interval	1 sec minimum/adjustable by PC or front panel	
Battery type	2 AA, NEDA 15A, IEC LR6	
Battery life	120 hours	45 hours
Memory	Record up to 65 000 readings	
RF communications	2.4 GHz ISM Band	
RF communication range	Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft)	
Operating Temperature	-10° C to 50° C (14° F to 122° F)	
Storage Temperature	-40° C to 60° C (-40° F to 140° F)	
Temperature coefficient	Add 0.1 × (specified accuracy) / ° C (< 18° C or > 28° C (< 64° F or > 82° F))	
Operating humidity	90% at 35° C (95° F), 75% at 40° C (104° F), 45% at 50° C (122° F)	
Altitude	Operating 2000 m (6561 ft), Storage 12 000 m (39,370 ft)	
EMC	IEC 61326-1	
Safety compliance	IEC 61010-1, CAT IV 600 V, CAT III 1000 V	
Safety rating	CAT IV 600 V, CAT III 1000 V	
Certifications	cCSAus, CE, FCC: T68-FBLE IC: 6627A-FBLE	
Ingress Protection rating	IP42	
Jaw Opening	64 mm (2.5 in)	4.5 mm (0.18 in)
Size (H×W×D)	16.5 × 6.35 × 3.56 cm (6.5 × 2.5 × 1.4 in)	16.5 × 6.35 × 1.4 cm (6.5 × 2.5 × 0.5 in)

Included Accessories

2000 A Clamp Attachment (a3003),
4-20 mA Clamp Attachment (a3004),
Batteries, Hanging Strap,
Quick Start Guide.

Ordering Information

FLK-A3003FC	Wireless DC Current Clamp Module
FLK-A3004FC	Wireless DC 4-20 mA Current Module

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



Fluke v3000 FC AC and v3001 FC DC Wireless Voltage Modules



Fluke v3000 FC



v3000 FC Wireless True-RMS AC Voltage Module

A fully functional true-RMS Voltage Module that wirelessly relays AC voltage measurements to other Fluke Connect™ enabled master units.

- True-RMS AC Voltage Module
- Measure up to 1000 V
- Use as a standalone meter or as part of the system
- Record and save up to 65 000 readings
- Weight: 0.22 kg (7.76 oz)
- Three-year warranty

AC Voltage

Range ¹	Resolution	Accuracy ^{2,3,4}	
		45 Hz to 500 Hz	500 Hz to 1 kHz
6.00 V	0.001 V	1.0% + 3	2.0% + 3
60.00 V	0.01 V		
600.0 V	0.1 V		
1000 V	1 V		

¹ All AC voltage ranges are specified from 1% of range to 100% of range.

² Crest factor of ≤ 3 at full scale up to 500 V, decreasing linearly to crest factor ≤ 1.5 at 1000 V.

³ For nonsinusoidal waveforms, add -(2% of reading + 2% full scale) typical, for crest factor up to 3.

⁴ Do not exceed 10° V-Hz.



Fluke v3001 FC



v3001 FC Wireless DC Voltage Module

A fully functional DC Voltage Module that wirelessly relays DC voltage measurements to other Fluke Connect™ enabled master units.

- Measure up to 1000 V DC
- Use as a standalone meter or as part of the system
- Record and save up to 65 000 readings
- Weight: 0.26 kg (9.17 oz)
- Three-year warranty

DC Voltage

Function	Range	Resolution	Accuracy
mV DC	600.0 mV	0.1 mV	0.09% + 3
	6.00V	0.001 V	
	60.00 V	0.01 V	0.09% + 3
V DC	600.0 V	0.1 V	
	1000 V	1 V	0.15% + 2

Specifications

v3000 FC / v3001 FC

LCD w/backlight	3½ digits, 6000 counts, updates 4/sec
Battery type	2 AA, NEDA 15A, IEC LR6
Log rate/Interval	Adjustable by PC from 1 sec to 1 hr, default 1 min
Battery life	400 hours
Memory	Record up to 65 000 readings
RF communications	2.4 GHz ISM Band
RF communication range	Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft)
Operating temperature	-10° C to +50° C (14° F to 122° F)
Storage temperature	-40° C to +60° C (-40° F to 140° F)
Temperature coefficient	0.1 × (specified accuracy)/° C (< 18° C or > 28° C (<64° F or >82° F))
Operating humidity	90% at 35° C (95° F), 75% at 40° C (104° F), 45% at 50° C (122° F)
Altitude	Operating 2000 m (6561 ft), Storage 12 000 m (39,370 ft)
EMC	EN 61326-1
Safety compliance	IEC 61010-1, IEC 61010-2-030
Safety rating	CAT IV 600 V, CAT III 1000 V
Certifications	CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE
Ingress Protection (IP) rating	IP42
Pollution Degree	2
Size (H×W×D)	16.5 × 6.35 × 1.4 cm (6.5 × 2.5 × 0.5 in)

Recommended Accessories


AC87
Heavy Duty Bus
Bar Clip Set

AC220
SureGrip™
Alligator Clips

PC Adapter
Fluke Connect™
Wireless PC Adapter

Recommended Kits Bundle & Save



Fluke Wireless v3000 FC AC Voltage Kit



Fluke Wireless v3001 FC DC Voltage Kit



Fluke Wireless v3003 FC AC-DC Voltage Measurement Kit

Included Accessories

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

v3001 FC: TL222 Test Leads, AC220 Alligator Clips, Magnetic Hanging Strap

Ordering Information

FLK-V3000FC	Wireless AC Voltage Module
FLK-V3001FC	Wireless DC Voltage Module
FLK-V3000 FC KIT	Wireless AC Voltage Kit
FLK-V3001 FC KIT	Wireless DC Voltage Kit
FLK-V3003 FC KIT	Wireless AC-DC Voltage Measurement Kit

Fluke Connect™



Fluke t3000 FC Wireless K-Type Temperature Module



Fluke t3000 FC



The Fluke t3000 FC Wireless K-Type Temperature Module is one member of a family of wireless test tools that let you share test data using the Fluke Connect™ app with ShareLive™ video call.

Fluke Connect™ Wireless Test Tools put tools, not your body, near live electrical panels. It's simple. Connect the t3000 FC wireless temperature module, or any of the other Fluke Connect™ remote modules, and read the results at a safe distance on the Fluke Connect™ Wireless Multimeter or a portable PC.

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

Using t3000 FC temperature modules, you can:

- Spot temperature differences between three-phases in 1/3 the time of previous methods.
- Send data to your laptop and go from logging to analysis and diagnosis
- Record over time to monitor circuit load changes for an hour, a shift or a week
- Use the Fluke Connect™ wireless USB adapter to collect logged data from remote modules by walking past a working module and downloading logged data
- Perform analysis on your PC and share the results using Fluke Cloud™ storage and ShareLive™ video call. View data or graphs to get input from team members
- Logging function: record up to 65 000 readings
- Three-year warranty

Recommended Accessories



80PK-24
SureGrip™ Air
Temperature Probe

80PK-9
General
Purpose Probe



80PK-11
Type-K Flexible
Cuff Thermocouple
Temperature Probe



PC Adapter
Fluke Connect™
Wireless PC Adapter

Recommended Kits

Bundle & Save



**Fluke Wireless t3000 FC
Temperature Kit**

Specifications	t3000 FC
Range	K-type: -200° C to 1000° C (Temperature probe dependent)
Resolution	0.1° C (0.2° C)
Accuracy	±[0.5 % + 0.3° C (0.54° F) counts]
Input terminals	Thermocouple, K-type mini
LCD w/backlight	3 ½ digits
Log rate/interval	1 sec minimum/adjustable by PC and FC app on smart phone
Battery type	2 AA, NEDA 15A, IEC LR6
Battery life	400 hours
Memory	Record up to 65 000 readings
RF communications	2.4 GHz ISM Band
RF communication range	Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft)
Operating temperature	-10° C to 50° C (14° F to 122° F)
Storage temperature	-40° C to 60° C (-40° F to 140° F)
Temperature coefficient	0.01% of reading +0.03° C per ° C (+0.54° F per ° F)
Temperature scale	ITS-90
Operating humidity	90% at 35° C (95° F), 75% at 40° C (104° F), 45% at 50° C (122° F)
Altitude	Operating 2000 m (6561 ft), Storage 12 000 m (39,370 ft)
EMC	IEC 61326-1
Safety compliance	IEC 61010-1, 30 V, Pollution Degree 2
Certifications	CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE
Ingress Protection rating	IP42
Size (H×W×D) and Weight	16.5 × 6.35 × 1.4 cm (6.5 × 2.5 × 0.5 in); 0.22 kg (7.76 oz)



Get the FREE Fluke Connect™ App!

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



Included Accessories

80PK-1 K-Type Bead Thermocouple
Magnetic Hanging Strap.

Ordering Information

FLK-T3000FC Wireless K-Type
Temperature
Module

**FLK-T3000 FC
KIT** Wireless FC
Temperature Kit

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

Fluke Connect™ Accessories



Fluke Connect™



Fluke Connect™
ir3000FC Connector



Fluke Connect™ ir3000 FC Connector

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

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

Supported Fluke Tools:

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

Supported Smart Phones:

- Android 5.0 & above
- iOS 13 & above



Specifications	ir3000 FC
Battery type	Two AAA Alkaline batteries, NEDA 24A, IEC LR03
Battery life	6 hours of continuous transmission
RF communications	2.4 GHz ISM Band
RF communication range	Open air, unobstructed: Up to 20 m (65 ft). Obstructed, sheetrock wall: Up to 6.5 m (21 ft). Obstructed, concrete wall or steel electrical enclosure: Up to 3.5 m (11.5 ft)
Temperature	Operating: -10° C to 50° C (14° F to 122° F) Storage: -20° C to 60° C (-4° F to 140° F)
Certifications	CE, FCC: T68-IRFBL E , IC: 6627A-IRFBL E
Size (H×W×L)	3.2 × 7.6 × 6.4 cm (1.25 × 3 × 2.5 in)
Compatibility*	Fluke 287, 289, 789, 1550C, 1555

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



Get the FREE Fluke Connect™ App!

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



Fluke Connect™ Wireless PC Adapter

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

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

Includes Windows SW3000 software.



Fluke Connect™
PC Adapter



Ordering Information

FLUKE-IR3000 FC	Fluke Connect™ ir3000 Connector
FLK-PC3000 FC	Fluke Connect™ Wireless PC Adapter
FLK-FC-SD CARD	Fluke Connect™ Wireless SD Card

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



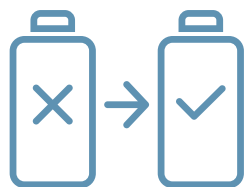
Fluke Premium Care

Coverage that prevents unexpected downtime caused by damaged test equipment, accessories, or tools in need of calibration or repair.



Accidental damage and repair

Avoid costly repairs and rest easy knowing that any damage to your test tool is covered



Replacement of damaged accessories

Replace damaged accessories that could be affecting the accuracy of your test results at no extra cost



Annual tool inspection, calibration, cleaning, and updating

Ensure your test tool is providing accurate results and adheres to regulatory compliance by leaving it in the hands of our experts



Expedited calibration and repair

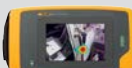
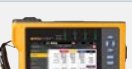
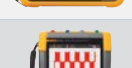
Skip the wait—your calibration or repair will be expedited so you can get back to your tool and work faster

	Standard warranty	Premium Care Standard	Premium Care Gold
Repair manufacturing defects	●	●	●
Accidental damage and repair		●	●
Replacement of damaged accessories		●	●
Annual calibration or performance check		●	●
Expedited calibration and repair		●	●
Priority tech support		●	●
Software updates		●	●
Expedited shipping		●	●
Loaner equipment			●

See Terms and Conditions at www.fluke.com/premiumcare for more details. Prices subject to change without notice.

Potential cost savings

Contact your local Fluke dealer representative to obtain a quote for your specific products.

Product covered	Potential cost without Premium Care*	Potential cost with Premium Care 1-year Standard plan*
 ii910 Precision Acoustic Imager	\$5000	\$2300
 ii900 Industrial Acoustic Imager	\$4200	\$1900
 1770 SeriesPower Quality Analyzers	\$2400	\$1100
 MDA Series Motor Drive Analyzers	\$2500	\$800
 190 Series ScopeMeter™ Portable Oscilloscope	\$2100	\$700

*Costs are approximated as price varies depending on model, accessory, shipping location, etc.

Fluke Premium Care support plans selection chart

Description		Choose your Fluke Premium Care service level			
		1-year Standard	3-year Standard	1-year Gold	3-year Gold
Acoustic imagers	Fluke ii900 Industrial Acoustic Imager	FPC1S-II900-1	FPC3S-II900-1	-	-
	Fluke ii910 Precision Acoustic Imager	FPC1S-II910-1	FPC3S-II910-1	-	-
	Fluke ii900 Industrial Acoustic Imager with Fluke PremiumCare Bundle	FLUKE-II900/FPC	-	-	-
	Fluke ii910 Precision Acoustic Imager with Fluke Premium Care Bundle	FLUKE-II910/FPC	-	-	-
PQ analyzers	Fluke 1770 Series Power Quality Analyzers (1773, 1775, 1777)	FPC1S-FPQ170-1	FPC3S-FPQ170-1	FPC1G-FPQ170-1	FPC3G-FPQ170-1
	Fluke 1775 Power Quality Analyzer with Fluke Premium Care Bundle	FLUKE-1775/FPC	-	-	-
Motor drive analyzers	Fluke MDA-550-III Motor Drive Analyzer	FPC1S-MDA-500-1	FPC3S-MDA-500-1	FPC1G-MDA-500-1	FPC3G-MDA-500-1
	Fluke MDA-550-III Motor Drive Analyzer with Fluke Premium Care Bundle	FLUKE-MDA-550/FPC	-	-	-
Scope meters	Fluke ScopeMeter 190 Series III (190-062, 190-102, 190-104, 190-202, 190-204, 190-502, 190-504)	FPC1S-SCM190-1	FPC3S-SCM190-1	FPC1G-SCM190-1	FPC3G-SCM190-1
	Fluke 190-504-III ScopeMeter Test Tool with Fluke Premium Care Bundle	FLUKE-190-504/FPC	-	-	-



Find out more at: www.fluke.com/premiumcare
or contact your local Fluke authorized distributor



Digital Multimeters

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



[illegible]

Clamp Meters

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



Clamp Meter Selection Guide

Fluke Clamp Meters		Residential/Commercial Electrical				General Purpose				Industrial Electrical				HVAC/R				Leakage		Wireless	
		323	324	325	365	373	374 FC	375 FC	376 FC	377 FC	378 FC	381	393 FC	902 FC	353	355	368 FC/369 FC				
Measurements																					
AC current		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AC voltage		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Resistance		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Continuity		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DC voltage		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DC current		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
True-RMS		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Frequency		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AC + DC voltage		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AC + DC current		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Min/Max/Avg		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Temperature		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Capacitance		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Special Features																					
Measurement logging		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Inrush current mode		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low Pass filter for VFDs		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
18-inch iFlex™		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Wireless		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FieldSense™		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PQ indicator		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DC power		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Display																					
Display hold		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Backlight		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Specifications																					
Jaw opening		30 mm (1.18 in)	30 mm (1.18 in)	30 mm (1.18 in)	18 mm (0.7 in)	32 mm (1.26 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)	30 mm (1.2 in)	59 mm (2.3 in)	59 mm (2.3 in)	40 mm (1.5 in)/61 mm (2.4 in)	34 mm (1.33 in)	34 mm (1.33 in)	254 mm (10 in) coil
Max wire size		300 mm² (11.81 in²)	300 mm² (11.81 in²)	300 mm² (11.81 in²)	17 mm (0.67 in)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	300 mm² (11.81 in²)	400 mm² or 3× 240 mm² (15.74 in² or 3× 9.44 in²)	400 mm² or 3× 240 mm² (15.74 in² or 3× 9.44 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	400 mm² (15.74 in²)	
Current range AC		0 to 400.0 A	0 to 400.0 A/400.0 A	0 to 400.0 A/400.0 A	0 to 200.0 A	0 to 600.0 A	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 600.0 A (2500 A with iFlex™)	0 to 1400 A	0 to 1400 A	0 to 60 A	0 to 400 A	0 to 2500 A	
Accuracy AC current (60/60 Hz)		2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	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	
AC Response		True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	True-RMS	
Current range DC		0 to 400.0 A	0 to 400.0 A	0 to 400.0 A	0 to 200 A	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 200 μA	0 to 2000 A	0 to 2000 A	0 to 2000 A	0 to 2000 A	0 to 2000 A	
Accuracy DC current		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 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 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 600.0 V	0 to 600.0 V	0 to 600.0 V	0 to 600.0 V	
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 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 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 600.0 V	0 to 600.0 V	0 to 600.0 V	0 to 600.0 V	
Accuracy AC voltage		1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	2% ±5 counts	1% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1% ±5 counts	1.5% ±5 counts	1.5% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	
Voltage range DC		0 to 600.0 V	0 to 600.0 V	0 to 600.0 V	0 to 600.0 V	0 to 600.0 V	0 to 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 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 600.0 V	0 to 600.0 V	0 to 600.0 V	0 to 600.0 V	
Accuracy DC voltage		1.0% ±5 counts	1.0% ±5 counts	1.0% ±5 counts	2% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	1% ±5 counts	
Resistance range		0 to 4000 Ω	0 to 4000 Ω	0 to 40 kΩ	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 60 kΩ	0 to 60 kΩ	0 to 60 kΩ	0 to 9999 Ω	0 to 60 kΩ	0 to 60 kΩ	0 to 1000 Hz	0 to 1000 Hz	0 to 1000 Hz	
Frequency range		0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	0 to 4000 Hz	
Warranty and Safety																					
Warranty (years)		2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	
Safety Compliance (IEC 61010-2-032)		CAT IV 300 V, CAT III 600 V	CAT IV 300 V, CAT III 600 V	CAT IV 300 V, CAT III 600 V	CAT III 600 V	CAT III 600 V, CAT IV 300 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V	
Fluke Connect™		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Fluke Connect™ App compatible		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Clamp Meters





Battery Analyzers

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

Fluke BT500 Series Battery Analyzers



Fluke BT521

Fluke BT510



More battery tests. Less time.

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

- The world's fastest battery measurements - reduce time of a typical battery measurement by 50% from 8 seconds to 4 seconds
- Unique Industry leading CAT III 600 V safety rating
- **Key measurements:** Battery resistance, DC and AC voltage, DC and AC current, ripple voltage, frequency and battery temp
- **Sequence measurement mode:** Automatic or manual sequence testing of battery strings with automatic measurement storage including voltage, resistance and temperature (with BTL21 intelligent test probe)
- **Optimized user interface:** Quick, guided setup ensures you're capturing the right data every time.
- **Intelligent test probe set (BT520 and BT521):** Integrated LCD display, infrared temperature measurement (BT521 only), verbal audio feedback and captures voltage readings and temperature logging automatically or via integrated save button
- Three-year warranty

Functions	Range	Resolution	Accuracy	BT510	BT520*	BT521*
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 Vac and Aac) 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 (32° F to 140° F)	1° C	2° C			•
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					

*BT520ANG and BT521ANG for angled probe models

Specifications

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

¹ The measurement is based on AC injection method. The injected source signal is <100 mA, 1 kHz.

² Trigger level VAC: 10 mV, AAC: 10 A

Recommended Accessories



BP500
Lithium-ion Battery
3000mAh



i410
AC/DC Current Clamp



FLUKE-BT520ANG
Angled Battery Analyzer
Test Probe



BTL10
Basic Battery Analyzer
Test Leads



BTL20
Interactive Battery
Analyzer Test Probe



BTL21
Intelligent Test Probe



BT521 Intelligent Test Probes with integrated display

Included Accessories

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

Ordering Information

FLK-BT510	Basic Battery Analyzer
FLK-BT520	Battery Analyzer
FLK-BT521	Advanced Battery Analyzer
FLK-BT520 ANG	Battery Analyzer with Angled Probes
FLK-BT521 ANG	Battery Analyzer with Angled Probes

Contact your local distributor for price and availability.

fluke.com/wtb

Electrical Testers

The Fluke line of electrical testers and voltage detectors are designed for use in every application and in nearly any environment. From non-contact voltage detectors and voltage testers with continuity detectors, to open-jaw current testers and open fork testers with FieldSense™ technology (for capturing voltage and current measurements without test leads), these testers are accurate, safe and easy to use. You'll also find motor phase rotation testers and voltage meters that are safer than solenoid testers.



Laser Levels

From point and line to rotary lasers, Fluke laser levels provide bright, crisp reference points and lines for quick and accurate layout of many jobs.

PLS tools were developed out of necessity by professional contractors with of 50 years of experience in commercial and residential interior and external layouts.



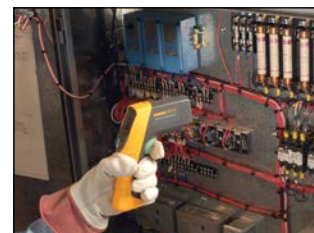
Infrared Thermometers

Don't get burned by a motor, or have hot and cold air blowing in your face from your HVAC system or blowers while taking measurements. You can trust Fluke Infrared Thermometers to get accurate temperature readings from a safe distance.

Infrared Thermometer Selection Guide

							
Temperature range	Fluke 62 MAX -30 to 500° C (-22° F to 932° F)	Fluke 62 MAX+ -30 to 650° C (-22° F to 1,202° F)	Fluke 64 MAX -30 to 600° C (-22° F to 1,112° F)	Fluke 561 -40 to 550° C (-40° F to 1,022° F)	Fluke 566 -40 to 650° C (-40° F to 1,202° F)	Fluke 568/568Ex -40 to 800° C (-40° F to 1,472° F)	Fluke 572-2 -30 to 900° C (-22° F to 1,652° F)
Distance to spot	10:1	12:1	20:1	12:1	30:1	50:1	60:1
Thermometer display	Digital Infrared	Digital Infrared	Digital Infrared	Digital Infrared	Digital Infrared	Digital Infrared	Digital Infrared
Accuracy	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Response time	<500 ms	<300 ms	<500 ms	<500 ms	<500 ms	<500 ms	<500 ms
Recommended distance to spot	Up to 2 m (6.56 ft)	Up to 2 m (6.56 ft)	Up to 2 m (6.56 ft)	Up to 2.5 m (6.56 ft)	Up to 4.5 m (14.76 ft)	Up to 7.5 m (24.6 ft)	Up to 9 m (29.52 ft)
Adjustable emissivity	•	•	•	•	•	•	•
MIN/MAX readings	•	•	•	•	•	•	•
AVG readings	•	•	•	•	•	•	•
DIF readings	•	•	•	•	•	•	•
Backlit LCD	•	•	•	•	•	•	•
Audible Hi/Lo alarm			•		•	•	•
Visible Hi/Lo alarm			•		•	•	•
Includes contact probe				•			
Probe input (types)				Thermocouple K	Thermocouple K	Thermocouple K	Thermocouple K
Data logging (number of measurements)			99 points		20 points	99 points	99 points
PC interface						USB	USB 2.0
Software compatible						•	•

Recommended Applications



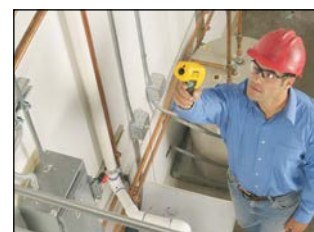
Plant/Facilities Maintenance

Preventive and Predictive Maintenance
Energy Audits
Vehicle and Fleet Maintenance Programs
Faulty Electrical/Circuit Connections
Petrochemical/Hazardous Locations
Motors, Pumps and Bearings



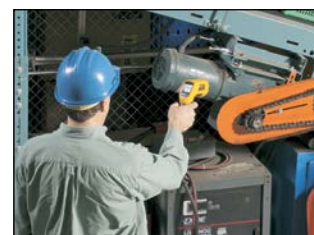
Heating/Ventilation/Air Conditioning/Refrigeration

Leaky Ductwork
Thermostats
Temperature Balancing
Steam Distribution Systems
Compressor Lines



Manufacturing Processes

Molding Temperature Measurement
Printing
Paper and Converting
Thermoforming Plastics
Electronics
Paint Curing/Drying
Food
Chemical
Pharmaceutical



Safety and protection

Fire Localization
Hazardous Materials
Faulty Ballasts
Search and Rescue
Smoldering Embers
Equipment Maintenance

A full-page background image showing a male worker in a high-visibility yellow safety jacket with reflective silver stripes, a white hard hat, and safety glasses. He is holding a large, orange and black Fluke thermal imager up to his eye, looking through the viewfinder. The background is an industrial power plant with large blue and grey electrical insulators and metal structures under an overcast sky.

Industrial Imaging

Through the latest advancements in technology—Fluke thermal imaging, video borescopes, and acoustic imaging tools help expedite inspections and make crucial maintenance decisions easier.

- Fluke Thermal Imagers offer the highest resolution necessary to identify areas of concern for non-invasive preventive maintenance inspection.
- Fluke Video Borescopes offer industrial tough solution for inspecting machinery with difficult to reach spaces.
- Acoustic Imagers provide leading edge technology taking ultrasonic leak detection to a new level of efficiency and accuracy.

Infrared Camera Selection Guide



	PTi120	TiS20+/ Ti20+ MAX	TiS55+	TiS60+	Ti75+	Ti401 PRO	Ti480 PRO	TiX580
Key Features								
Infrared Resolution	120 × 90 (10,800 pixels)		256 × 192 (49,152 pixels)	320 × 240 (76,800 pixels)	384 × 288 (110,592 pixels)		640 × 480 (307,200 pixels)	
SuperResolution							Yes, in software.	
Temperature Range	-20° C to 400° C (150° F to 752° F) (-4° F to 752° F for TiS20+)	-20° C to 550° C (-4° F to +1,022° F)	-20° C to 550° C (-4° F to +1,022° F)	-20° C to 400° C (-4° F to +752° F)	-20° C to 550° C (-4° F to +1,022° F)	-20° C to +650° C (-4° F to +1,202° F)	-20° C to +1,000° C (-4° F to 1,832° F)	
IFOV with Standard Lens (spatial resolution)	7.6 mrad, D:S 130:1	1.91 mrad	1.91 mrad	1.86 mrad, D:S 532:1	1.91 mrad		0.93 mrad, D:S 1065:1	
Field of View	50° H × 38° V	28° H × 20° V	28° H × 20° V	34.1° H × 25.6° V	42° H × 30° V		34° H × 24° V	
Minimum Focus Distance	50 cm (19.68 in)	50 cm (19.68 in)	50 cm (19.68 in)	46 cm (18.11 in)	50 cm (19.68 in)		15 cm (5.9 in)	
MultiSharp Focus							Yes, focused throughout the field of view	
LaserSharp Auto Focus	Fixed Focus		Manual Focus	Fixed Focus	Manual Focus	Yes, for consistently in-focus images. Every. Single. Time		
Laser Distance Meter						Yes, calculates distance to the target for precisely focused images and displays distance on screen		
Advanced Manual Focus	Fixed Focus		Manual Focus	Fixed Focus	Manual Focus		Yes	
Wireless Connectivity			Yes, to PC, iPhone™ and iPad™ (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN (where available)					
Fluke Connect™ App Compatible		Yes*, connect your camera to your smartphone, and images taken automatically upload to the Fluke Connect™ app for saving and sharing						
IR-Fusion Technology								
Battery Life	≥ 2 hours continuous (without WiFi)	≥ 5 hours continuous (without WiFi)	3.5 hours continuous (without WiFi)	4 hours continuous use per battery pack	3.5 hours continuous (without WiFi)		2-3 hours continuous use per battery pack	
Warranty								



Industrial Imaging

Renewable Energy

The solar industry is accelerating with an estimated market value of nearly \$370 billion by 2030. With market growth comes improved solar technology and a more affordable transition to solar. Solar technicians and managers need to be able to install and service equipment quickly, safely and efficiently.



RENEWABLE ENERGY TOOLS

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

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



Irradiance and Temperature

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

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

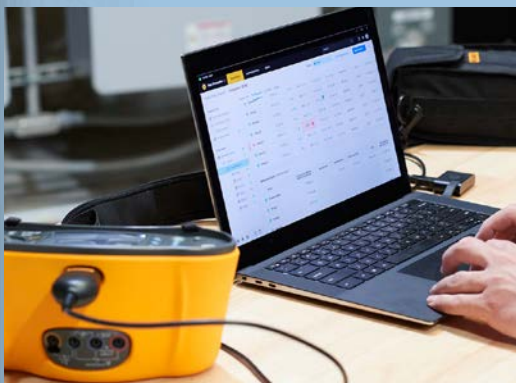
See pages 72-73



Multifunction Tests and I-V Curve Tracing

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

Fluke's multifunction PV tester includes a full sequence of safety and performance tests quickly and accurately to save you time and money with features like auto testing, instant on-screen I-V curve results, and a unique "Keep the Leads" system which allows for multiple tests through a one-time setup of test leads. See page 74



Solar Data Management and Reporting Software

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

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

See page 75



Electric Vehicle Charging Station Operation

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

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

See page 76

Solar Technician/Installer

Focus:

- Mechanical and electrical design
- Conduct commissioning
- Troubleshooting

Job needs:

- ▲ Irradiance meter/PV tester
- Digital multimeter
- Clamp meter
- Temperature/Thermal
- Insulation and power quality
- Insulated hand tools
- ▼ Earth ground

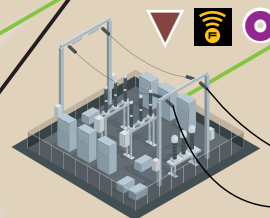
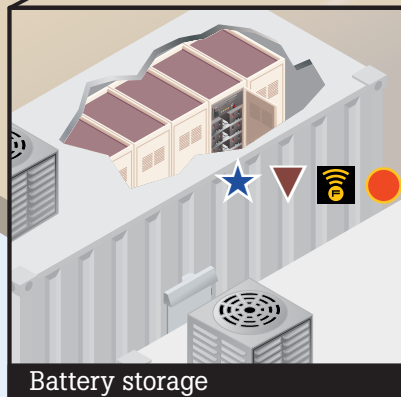
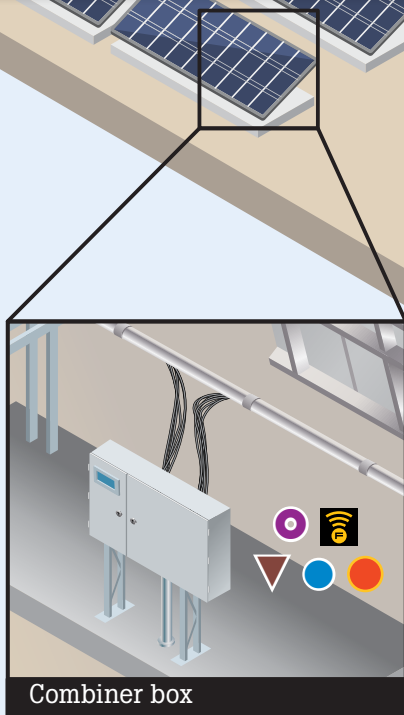
PV Designer/Electrician

Focus:

- Conduct commissioning
- Preventative maintenance
- Troubleshooting

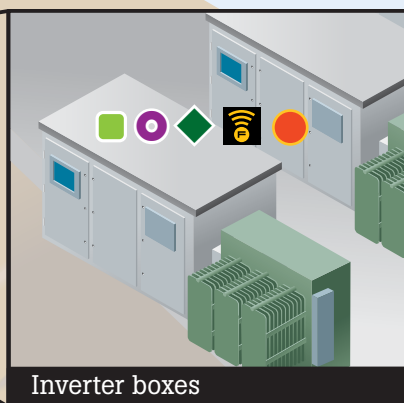
Job needs:

- ▲ Irradiance meter/PV tester
- Digital multimeter
- Clamp meter
- Temperature/Thermal
- Insulation and power quality
- Insulated hand tools
- ▼ Earth ground



Solar energy solutions

Clean Tech			Electrical Measurement Tools			Insulation and Power Quality			Temperature
Multifunction PV tester	Irradiance meter	EVSE tester	Digital multimeter	Clamp meter	FC wireless multimeter kit	Insulation tester	Insulation tester	Power quality analyzer	Thermal imager
SMFT-1000	IRR2-BT	FEV100	87V MAX	393 FC	v3003 FC Kit	1587 FC	1555 FC	1777	Ti480 PRO



Solar Advisor

Focus:

- Mechanical and electric design
- Troubleshooting

Job needs:

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

Operations and Maintenance Manager

Focus:

- Lead preventative maintenance
- Troubleshooting
- Monitoring

Job needs:

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

Solar energy solutions

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



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

	Battery Analyzer	Earth Ground		Software		Accessories	
Temperature	Battery analyzer	Earth ground	Stakeless clamp	Fluke Connect™	TruTest™	Insulated hand tools	Test leads
 64 MAX	 BT521	 1625-2	 1630-2				 PVLEAD1, PVLEAD3



Environmental Testing

To maintain acceptable temperature, humidity and ventilation levels for occupant health and comfort, and to help regulate building health and manage increasing energy costs, rely on Fluke's range of HVAC & environmental testing equipment.



South America contato@ohmini.com.br North America contact@ohmini-inc.com

Indoor Air Quality Meter Selection Guide



Models	Fluke 971	Fluke 922	Fluke 985	Fluke CO-220
Record storage	99	99	10000	
Downloadable data	No	No	USB or Ethernet	No
Battery type	(4) AAA	(4) AA	Rechargeable Li-Ion 7.4 V 2600 mAh	(1) 9V
Warranty	2 years	2 years	1 year	1 year
Indoor air diagnostic applications				
Air velocity		•		
Air pressure		•		
Air flow (volume)		•		
Carbon dioxide				
Carbon monoxide				•
Temperature	•	•		
Humidity	•	•		
Dew point/wet bulb	•			
Particle concentration counting			•	
Air pressure/air velocity/air flow				
Air pressure range		±4000 Pascals/±16 in H ₂ O/±400 mm H ₂ O/±40 m bar/±0.6 psi		
Air pressure accuracy		±1% + 1 Pascal/±1% + 0.01 in H ₂ O/±1% + 0.1 mm H ₂ O/±1% + 0.01 m bar/±1% + 0.001 psi		
Air velocity range		250 to 16000 fpm/1 to 80 m/s		
Air velocity accuracy		±2.5% of reading at 2000 fpm (10.00 m/s)		
Air flow (volume) range		0 to 99,999 cfm		
Air flow (volume) accuracy		Accuracy is a function of velocity and duct size		
Temperature relative humidity				
Temperature range	-20° C to 60° C (-4°F to 140°F)	0° C to 50° C (32°F to 122°F)		
Temperature accuracy	0° C to 45° C (±0.5° C); -20° C to 0° C and 45° C to 60° C (±1.0° C)	0° C to 50° C (±0.01° C)		
Relative humidity range	5% to 95% RH	0% to 90% RH		
Relative humidity accuracy	10% to 90% RH @ 23° C (±2.5% RH); < 10% or > 90% RH @ 23° C (±5.0% RH)	0% to 90% RH @ 23° C (±2.0% RH)		
Carbon dioxide/carbon monoxide				
Carbon dioxide range				
Carbon dioxide accuracy				
Carbon monoxide range				0 to 1000 ppm
Carbon monoxide accuracy				5% or ±2 PPM
Particle counting				
Flow rate			2.83 L/min (0.1 cfm)	
Particle size range			0.3 µm - 10.0 µm (6 channel)	
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)	
Concentration limits			10% @ 4 000 000 particles per ft³ (per ISO 21501)	

Insulation Testers

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



Insulation Tester Selection Guide

Insulation Test Functions		1503	1507	1577	1587 FC	1550C	1555
Test Voltages		500 V, 1000 V	50 V, 100 V, 250 V, 500 V, 1000 V	500 V, 1000 V	50 V, 100 V, 250 V, 500 V, 1000 V	250 V, 500 V, 1000 V, 2500 V, 5000 V	250 V, 500 V, 1000 V, 2500 V, 5000 V, 10 000 V
Insulation Resistance Test Range		0.1 MΩ - 2 GΩ	0.01 MΩ - 10 GΩ	0.1 MΩ - 600 MΩ	0.01 MΩ - 2 GΩ	200 kΩ - 1 TΩ	200 kΩ - 2 TΩ
Polarisation Index/Dielectric Absorption Ratio							
Auto Discharge		•	•		•	•	•
Time Ramp Test (Breakdown)				•	•	•	•
Pass/Fail Comparison							
Estimated Number of Insulation resistance Tests		1000	1000	1000	1000	1000 @ 5000 V	1000 @ 10 000 V
Voltage > 30 V Warning		•	•	•	•	•	•
Memory						(99 locations)	(99 locations)
Remote Test Probe		•	•	•	•		
Lo Ohms		•	•				
Display		Digital LCD (200 mA)	Digital LCD (200 mA)	Digital LCD	Digital LCD	LCD / Analog Bar Graph	LCD / Analog Bar Graph
Continuity							
Multimeter Functionality							
AC/DC Volts		•	•	•	•		
Current				•	•		
Resistance		•	•	•	•		
Temperature (contact)					•		
Temperature Compensation					•		
Lo-Pass Filter					•		
Capacitance					•	•	•
Diode Test					•		
Frequency					•		
MIN/MAX					•		
Fluke Connect™ enabled					•	•+	•+
Other							
Hold/Lock		•	•	•	•	•	•
Backlight		•	•	•	•		
Software						•	•
Warranty (in years)		1	1	3	3	3	3
Battery		4 × AA (NEDA 15A or IEC LR6)	4 × AA (NEDA 15A or IEC LR6)	4 × AA (NEDA 15A or IEC LR6)	4 × AA (NEDA 15A or IEC LR6)	Rechargeable	Rechargeable

+ With Fluke IR FC Connector.





Earth Ground Testers

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

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

and maintained grounding system, they will find unintended paths that could include people.

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



Installation Testers

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



Power Quality

Whether you work in an industrial plant, manufacturing facility or a utility, Fluke Power Quality and energy management tools make it easy to record and analyze the power quality and energy data necessary to maintain the best performance and reliability.

Power Quality Tools Selection Guide

Application use		Single-Phase						Three-Phase					
Basic measurements		VR1710	1732/34	1736/38	1742	1746	1773	1775	1777				
Energy Studies													
Measure V, I, kW, Cos/DPF, kWhr			•	•	•	•	•	•	•			•	•
Measure MIN/MAX and AVG values	Get detailed power and energy consumption profiles during energy audits and pinpoint savings opportunities		•	•	•	•	•	•	•			•	•
Waste energy monetization													
Basic Harmonics Study													
THD measurement (V & I)	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		•										•	•
Event capture and transients with waveforms												•	•
8kV transients								1 MHz	20 MHz				
Features													
Inrush				•			•	•	•			•	•
Flicker					•		•	•	•			•	•
Transients								•	•			•	•
Mains signaling							•	•	•			•	•
Event waveform capture				•			•	•	•			•	•



Portable Oscilloscopes

ScopeMeter™ Portable Oscilloscopes take you into territory that standard bench oscilloscopes can't readily withstand — harsh, hazardous and dirty industrial environments. These hand-held instruments combine the performance of a bench oscilloscope with a multimeter and paperless recorder for installing, commissioning and maintaining industrial and electronic equipment out in the field.



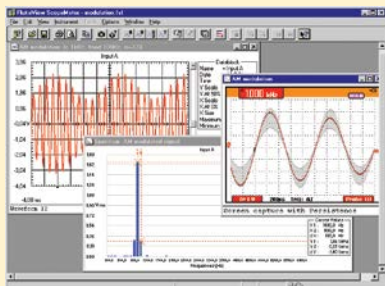
Portable Oscilloscope Selection Guide



120B Series				190 Series III						MDA Series III	
Models	123B	124B	125B	190-062	190-102	190-104	190-202	190-204	190-502	190-504	MDA-550
Bandwidth	20 MHz	40 MHz	40 MHz	60 MHz	100 MHz	100 MHz	200 MHz	200 MHz	500 MHz	500 MHz	500 MHz
Input Channels											
2 scope/DMM Channels	•	•	•								
2 scope Channels + 1 DMM				•	•		•		•		
4 Channels						•		•		•	•
Isolated Inputs				•	•	•	•	•	•	•	•
Triggering											
Connect-and-View™	•	•	•	•	•	•	•	•	•	•	•
IntellaSet™ Technology	•	•	•								
Advanced Triggering				•	•	•	•	•	•	•	•
Advanced Measurement Function											
Cursors		•	•	•	•	•	•	•	•	•	•
TrendPlot™	•	•	•	•	•	•	•	•	•	•	•
ScopeRecord™	•	•	•	•	•	•	•	•	•	•	•
100 screen Replay				•	•	•	•	•	•	•	•
Industrial Bus Health			•								
Harmonics			•								•
FFT				•	•	•	•	•	•	•	•
Power Measurements			•	•	•	•	•	•	•	•	•
Waveform Mathematics			•	•	•	•	•	•	•	•	•
Guided Motor-Drive Analysis											
Motor Drive Input (V, I, Unbalance)											•
Motor Drive Input Harmonics (2-150)											•
Motor Drive DC Bus											•
Motor Drive Output PWM (V, I, dV/dt, overshoot)											•
Motor Drive Input PWM (V, I, dV/dt, overshoot)											•
Motor Shaft Voltage Discharges											•
IEC 61010-2-030 Safety											
CAT III 1000 V				•	•	•	•	•	•	•	•
CAT IV 600 V	•	•	•	•	•	•	•	•	•	•	•
Power											
Li-ion	•	•	•	•	•	•	•	•	•	•	•
Battery (hours)	7	7	7	3.5 (opt 8)	3.5 (opt 8)	7	3.5 (opt 8)	7	7	7	7
General Specifications											
Size (H × W × D)	259 × 132 × 55 mm (10.2 x 5.2 x 2.15 in)			270 × 190 × 70 mm (10.5 × 7.5 × 2.8 in)							
Weight	1.4 kg (3.2 lb)			2.2 kg (4.8 lb)							
Compatible Software											
Fluke Connect™ App	•	•	•	•	•	•	•	•	•	•	•
FlukeView-2				•	•	•	•	•	•	•	•

FlukeView™ ScopeMeter® Software for Documenting, Archiving and Analyzing Waveforms

Get more out of your ScopeMeter with FlukeView ScopeMeter SW90W software for Windows™



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



Process Calibration Tools

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

PROCESS CALIBRATION TOOLS

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

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

For complete information on all your calibration needs visit [Fluke.com/ProcessTools](https://www.fluke.com/ProcessTools) or one of the product pages within this catalog.



mA Loop Calibration

Loop calibrators are essential tools for working with 4-20 mA current loops. Fluke Loop Calibrators provide mA sourcing, simulation and measurement, readouts in both mA and % of span, 24 V loop supply, simple operation, and accuracy you can count on.

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

See pages 113 to 114



Electrical and Multifunction Calibration

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

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

See pages 115



Temperature Calibration

Fluke Temperature Calibrators simulate process sensors for testing temperature instrumentation. Specifically designed for the field, these lightweight compact tools are EMI tolerant and offer an easy-to-use single push button interface. When paired with a temperature sensor they can take high accuracy temperature measurements to verify process temperatures and ensure the highest product quality and safety.

Fluke offers a variety of bench and field temperature calibrators designed for your unique calibration and testing requirements.

See pages 118 to 122



Pressure Calibration

Instrumentation is found in virtually every process plant. Periodic calibration of these instruments is required to keep plants operating efficiently and safely. Fluke offers a wide range of pressure calibration tools with precision pressure measurement from 15 psi/1 bar to 10 000 psi/690 bar boasting 0.02% full-scale accuracy to help you quickly and reliably calibrate your pressure instruments.

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

See pages 124 to 131

Maintenance Manager

Focus: Maintaining plant uptime and maintenance efficiency

What issues do you face?

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

Fluke solutions:

- Temperature
- ↻ Pressure
- ◆ Standards
- ▲ Process tools

Quality Manager

Focus: Maintaining and documenting product quality

What issues do you face?

- Complying with quality regulations
- Maintaining documentation of processes

Fluke solutions:

- Temperature
- ↻ Pressure
- ◆ Standards
- ▲ Process tools
- Software

Field Calibration Technician

Focus: Calibrating and verifying measurement devices

What issues do you face?

- Making accurate measurements
- Documenting procedures
- Increasing throughput

Fluke solutions:

- Temperature
- ↻ Pressure
- ◆ Standards
- ▲ Process tools
- Software
- ◆ Field Metrology Wells

Instrumentation Technician

Focus: Maintaining and verifying instrumentation throughout the plant

What issues do you face?

- Monitor and maintain sensors and transmissions
- Accurate measurements

Fluke solutions:

- Temperature
- ↻ Pressure
- ◆ Standards
- ▲ Process tools
- Software
- ◆ Field Metrology Wells



Bench Pressure Controllers



2271A

P3130

Bench Temperature Sources



9100S

9144

Process Calibrators



707

725

754

789



Process Calibration Solutions

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

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

mA Loop Calibrator	Handheld Pressure Calibrators	Deadweight Testers	Pressure Gauges	Temperature Readouts	Software Solutions
	  	 			
773	700PTP 719 PRO 729/729 PRO	P5510 P5514B	700G/730G	1524	DPC/TRACK 2

Mechanical Maintenance

Fluke Mechanical Maintenance Testers are designed specifically for maintenance professionals who need to quickly and easily perform precision shaft alignments on most rotating machines in the plant and perform vibration analysis and evaluate alignment to understand the root cause of equipment condition.



Intrinsically Safe Test Tools

Intrinsically Safe (Ex) test tools have been certified for use in potentially explosive atmospheres. Certified Ex tools have been engineered to prevent the release of energy sufficient to cause ignition of the explosive atmospheres for which the equipment is rated (gasses, dusts, flyings etc.) under any normal use or foreseeable fault condition within the equipment.

Insulated Hand Tools

Safe, rugged and with a lifetime warranty, Fluke premium insulated hand tools, are forged from German steel and built to last a lifetime





Accessories

Accessories increase the functionality of your test tool and increase your safety and proficiency. Your digital multimeter can become a thermometer, clamp meter, or even a pressure gauge. With Fluke genuine accessories, you can broaden the ability to take meter measurements in different environments to meet your industrial, electrical, and electronic needs.

Combo Kits





FLUKE networks®

Cabling, whether it is copper or fiber optic, is a major cause of downtime on time-sensitive industrial networks. Losing just a few data packets in a short time can cause a machine to shut down. This is especially true in industrial environments, where network cables are exposed to vibration, flexing, moisture, temperature changes and electromagnetic interference (EMI) from motor drives and other devices.

COPPER CABLE TROUBLESHOOTING AND CONNECTIVITY

MicroScanner™ Industrial Ethernet Cable Verifier

- Graphically displays length, wiremap, opens/shorts and distance to fault
- Detects the class (0-8) from PoE, PoE+ and PoE++ (802.3at/af/bt) switches
- Identifies presence and speed of an active switch connected to the cable
- Tests RJ-45 connections and includes adapters for M8D, M12D, and M12X connectors



 **Search for:**
MS2-100-IE, MS-POE-IE

LinkIQ™ Industrial Ethernet Cable + Network Tester

- Cable Performance testing up to 10GBASE-T via frequency-based measurements
- Network features including: IPv4 and v6 ping, nearest switch diagnostics (IP address, name, port / VLAN number, and advertised data rates)
- Ethernet Alliance certified PoE Verification – Detects the PoE class (1-8) and power, and performs a load test of available PoE from the connected switch
- Displays cable length, wire map, and distance to open or short
- Manage results and print reports from LinkWare™ PC
- Tests RJ-45 connections and includes adapters for M8D, M-12D, and M-12X



 **Search for:**
LIQ-100, LIQ-100-IE, LIQ-KIT, LIQ-KIT-IE

SOLUTIONS FOR FIBER OPTIC CONTAMINATION

The #1 problem affecting Industrial Ethernet fiber cables.

FI-500 FiberInspector™ Micro

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



 **Search for:**
FI-500, FI-525

Fiber Optic Cleaning Kits



The complete solution for precision end-face fiber optic cable cleaning

 **Search for:**
NFC-Kit-Case, NFC-Kit-Box

FEATURED COPPER CABLE TEST SOLUTIONS



	Pro 3000	IntelliTone™ Pro	Micro-Mapper	TS100	MS2-100 MS2-100-IE	MS-POE MS-POE-IE	LIQ-100 LIQ-100-IE
Switch Port Testing							
Switch presence		✓			✓	✓	✓
Identify switch name, port ID and VLAN							✓
Identify Ethernet Speed to 10 Gb/s						✓	✓
Identify PoE Capability						✓	✓
Cable Verification							
Digital toning		✓			✓	✓	✓
Analog toning	✓	✓	✓	✓	✓	✓	✓
Cable wire map		✓	✓		Graphical	Graphical	Graphical
Cable length				✓	✓	✓	✓
Qualify cabling speed (10/100/1000/10G)							✓
Cable Troubleshooting							
Identify open/short	✓	✓	✓	✓	✓	✓	✓
Distance to open/short				✓	✓	✓	✓
Identify crosstalk fault							✓
Identify impedance fault							✓



MS-POE-KIT

MicroScanner™ PoE Cable Verifier

- PoE Switch Verification – Determine if a switch port can provide enough power by reporting PoE class (0-8).
- Powered Pairs – Graphically identifies powered pairs. Including Dual Signature where the switch port delivers power on 2 or 4 pairs (802.3bt or PoE ++).
- Active Switch Detection – Determine if a cable is connected to a switch port and port speed up to 10G.
- Cable Testing – Identify any shorted, open or crossed wires at both ends, length of each pair, and send tones to find cables.
- PoE Injector verification – Display injector voltage level
- IE model tests common connector types including RJ11, RJ45, Coax, and Industrial Ethernet connector types (M12X, M12D, and M8D)



Search for:
MS-POE, MS-POE-IE, MS-POE-KIT



FEATURED COPPER CABLE TEST SOLUTIONS



Pro3000™ Analog Tone and Probe

- Tone and trace on non-active networks
- Identify exact pair with SmartTone™ technology and five distinct tones
- Loud speaker on probe easy to hear through drywall, wood, and other material
- Clear - Innovative filter technology blocks interference ("buzz") that makes tracing difficult ("F" models only)
- Clips allow easy access to individual pairs and RJ11 easily connects to telephone jacks—no need for adapters

Search for:
PRO3000F60-KIT Tone and Probe Kit



TS™100 Cable Fault Finder

- Numeric distance display
- Identify pairs with SmartTone™ generation technology
- Identify and locate distance to opens and shorts
- Works on any two or more conductor cable up to 3000 feet (915 metres)

Search for:
26500000 TS100 with BNC to Alligator Clips



IntelliTone™ Pro 200 LAN Tone and Probe

- Digital toning eliminates noise and false signals
- SmartTone™ analog toning isolates individual wire pairs
- Locates cables safely and effectively on active networks
- Visible end-to-end continuity test
- Built in wire mapper
- Works on twisted pair, audio, and video cabling

Search for:
MT-8200-60-KIT



MicroMapper™

- Simple verification of wiremaps and identification of faults with LEDs
- Tests twisted pair cables for open circuits, shorts, crossed pairs, reversed pairs and split pairs
- Remote identifier enables one-person testing
- Built-in tone generator for tracing installed cables hidden in walls, floors and ceilings. Works with Pro3000™ Tone and Probe (sold separately)

Search for:
MT-8200-49A

TELEPHONE TEST SET COMPARISON



	TS™54 TDR	TS™52 PRO	TS™22A	TS™22	TS™25D	TS™30	TS™19
TDR to detect shorts, opens, and distance to open	✓						
Built-in toner	✓						
Display—back lit LCD and glow-in-the-dark keypad	✓	✓			LCD only		
Extended range high-impedance DataSafe operation in monitor mode	✓	✓			✓		
Data lockout protection Data lockout override	✓	✓			✓		
DSL/POTS filtering technology	✓	✓			✓		
Low/high voltage indication	✓	✓			✓		
Low current (mA) indication	✓	✓			✓		
Over voltage and Over current protection	✓	✓	✓	✓	✓	✓	
Two-way speakerphone for true hands-free conversations	✓	✓	✓				
One-way amplified speaker for hands-free monitoring	✓	✓	✓	✓	✓		
Waterproof—exceeds American Military Spec. MIL-STD-810E	✓	✓					
DropSafe—passes 20 foot (6 meter) drop test onto concrete	✓	✓	✓	✓		✓	
Polarity indication in talk mode	✓	✓	✓	✓	✓	✓	✓
Stores nine 18-digit numbers in repertory dialer (speed dialing)	✓	✓	✓	✓	✓		

4-, 6-, and 8-Wire Modular Adapters

- Easily complete testing and obtain circuit access on working lines without disrupting service
- Clear circuit markings on the sides and bottom of the unit
- Test line status with the 4-wire modular adapter



Model	Description
10113000	4 wire
10210100	4-wire in-line
10210101	4-wire in-line with K-Plug
10220100	6-wire in-line
10220101	6-wire in-line with K-Plug
10230100	8-wire in-line
10230101	8-wire in-line with K-Plug



TERMINATION TOOLS AND ADAPTERS

Ergonomic design, high-quality materials and Fluke Networks quality for separating, stripping and cutting wire. Perfect tools for your every job.



	Modular Crimper	Need-L-Lock™ Crimping Pliers	D-Snips™	Cable Strippers	Probe Pic	Can Wrenches
SKU	11212530	11294000	44300000	44210015	44600000	44007000



D914™ Series Impact Tools

- Hook, spudger and blade storage tools are built into the handle
- Select low impact for 24/26 gauge wire or high impact for 22-gauge wire
- Optional Phillips-head or flat screwdriver blade
- Supports a variety of torque tool bits and sockets
- Easy blade insertion, locks in place
- D914S features soft touch rubber handle and ergonomic design

Search for:
10061501 D914S impact tool with EverSharp 110, EverSharp 66 blade and free blade



JackRapid™ Punchdown Tool

- Terminate jacks eight times faster than traditional impact tools. The patented design seats and terminates all wires simultaneously. Built-in blade cuts off the excess wire eliminating the need for a secondary trim step
- High-quality, consistent terminations
- Ergonomic design reduces hand fatigue
- Convenient, built-in stripper
- Multiple versions support several jack manufacturers



Pro-Tool™ Kits

- Ergonomically designed Dur-a-Grip™ pouch for convenient tool storage on belt
- D914™ and D814™ industry standard punchdown tools make for solid terminations
- Easy-to-use cable stripper quickly rings and slits many types of cable
- Probe Pic checks for loose or damaged connections
- Cut and strip wire with Electricians' D-Snips™
- Three kit combinations available

Search for:
11293000

Punchdown Blades

Model	Description
10176500	EverSharp 110 blade
10178600	EverSharp 110/66 cut blade
10056500	EverSharp 66 blade
10565000	Krone blade
10565110	Krone/110 cut blade
10176000	110 blade
10436001	Centerpunch blade
10465001	3M System D blade
10645001	Wood screw starter punch
10665000	BIX blade
10056000	66 blade
10057000	630 blade
10979002	Blade storage case

JackRapid™

Model	Description
JR-PAN-2	For Panduit NK6X88M, NK688M, NKP5E88M
JR-ADC-2	For ADC C6a CopperTen™ UTP RJ45 jack and C6 TrueNet™ KM8 UTP RJ45
JR-ORT-2	For Ortronics™ TJ5E00, TJ600, TJ610
JR-SYS-2	For Systimax™ MGS400, MGS600, MFP420, MFP520 and Commscope™ UNJ10G
JR-LEV-2	For Leviton™ 61110, 5G110, 6110G
JR-SYS-UNI-1	For Systimax MPS100E, C5, M1BH and Commscope UNJ600/500/300
JR-LEV-1	For Leviton 41106, 41108, 5G108

Fluke Support

Distributor Support

Please contact our customer care team for the following:

- Prices
- Lead times
- Orders
- Feedback

Phone: 800-443-5853

Email: fluke-info@fluke.com



Contact Us

Technical Support

Please contact our customer technical support team for the following enquiries:

- Product Technical Support
- Something not working
- Technical Product Information and questions

Phone: 800-87-FLUKE (800-873-5853)

Submit a support request here:

fluke.com/en-us/support/technical-support



Tech Support

Calibration and Product Repair

Phone: 877-355-3225

Email: service.status@fluke.com



Calibration
us.flukecal.com/



Repairs
fluke.com/en-us/support/repair



Limited Lifetime Warranty



Lifetime is defined as seven years after Fluke discontinues manufacturing the product, but the warranty period shall be at least ten years from date of purchase; (Lifetime Warranty applies to products manufactured after October 1996).

The warranty does not cover manuals, fuses, disposable batteries, damage from neglect, misuse, contamination, alteration, accident or abnormal conditions of operation or handling, including failures caused by use outside of the product's specifications, or normal wear and tear of mechanical components. This warranty covers the original purchaser only and is not transferable.

Fluke Warranty

Fluke obligations regarding product warranties are outlined on the Fluke website at fluke.co/warranty

Fluke's warranty will always apply to Fluke branded products imported or supplied by Fluke.

1. Our warranty does not apply to any products purchased at auction (whether online or otherwise).
If you buy a Fluke product at auction then we do not warrant that product; and
2. Our warranty does not apply to any Grey Products that you buy from a non-Fluke Authorized Distributor.

Fluke recognizes that it is the right of every Consumer to decide who they purchase products from. However, if the Consumer chooses to purchase Fluke branded products from any supplier other than Fluke (where applicable), or a non-authorized distributor or reseller.

If you would like to know which distributors or resellers stock Fluke branded products that come with our warranty, then please refer to the Where to Buy section of our website at fluke.com/wtb



Warranties

fluke.com/en-us/support/warranties

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Fluke sells its products only through its network of Authorized Distributors and Wholesalers at fluke.com/wtb

FLUKE®

Authorized Distributor

Fluke stands behind their products. We strive to provide quality products, exceptional customer service, and a warranty that protects your investment in the event your product should encounter any issues. To ensure you receive the quality service you deserve, we select Fluke Authorized Distributors and Service Centers that we believe share our vision of quality and service and provide you with 100% genuine Fluke product.

Benefits of purchasing from an authorized Fluke reseller*

- The confidence that you've purchased a genuine Fluke product
- Your Fluke investment is covered by the Fluke warranty
- Exclusive deals and promotional offers
- Get the Fluke Service you expect
- Product training and support

Find your local Fluke authorized reseller at: fluke.com/wtb

*If you are currently purchasing via a local electrical wholesaler that is not on our Where to Buy Page, please contact them direct and ensure they are purchasing from a Fluke Authorized Distributor.



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