

**FLUKE**®



**2024**

**TEST TOOLS CATALOG**

Fluke



<b>What's New at Fluke</b> . . . . .	<b>2-3</b>	<b>Insulation Testers</b> . . . . .	<b>80-84</b>
● <b>Renewable Energy</b> . . . . .	<b>4-13</b>	Insulation Tester Selection Guide . . . . .	81
Renewable Energy Tools . . . . .	5	Insulation Multimeters . . . . .	82
Solar Solutions . . . . .	6	Insulation Resistance Testers . . . . .	83
Solar Irradiance Meters . . . . .	8	● <b>Earth Ground Testers</b> . . . . .	<b>85-87</b>
PV Tester and Performance Analyzer . . . . .	10	Earth Ground Clamp Meter . . . . .	86
Solar Data Management and Reporting Software . . . . .	11	Geo Earth Ground Testers . . . . .	87
EVSE Testing Kits . . . . .	12	● <b>Installation and Portable Appliance Testers</b> . . . . .	<b>88-91</b>
Electric Vehicle Charging Station Adapter . . . . .	13	Multifunction Installation Testers . . . . .	89
● <b>Fluke Connect™</b> . . . . .	<b>14-21</b>	Portable Appliance Testers . . . . .	90
Fluke Connect™ Selection Guide . . . . .	16	● <b>Power Quality</b> . . . . .	<b>92-100</b>
Wireless Current Clamp Modules . . . . .	17	Power Quality Tools Selection Guide . . . . .	93
Wireless Voltage Modules . . . . .	18	Three-Phase Power Quality Analyzers . . . . .	94
Wireless K-Type Temperature Module . . . . .	20	Electrical Measurement Window . . . . .	95
Fluke Connect™ Accessories . . . . .	21	Three-Phase Electrical Energy Loggers . . . . .	96
● <b>Fluke Premium Care</b> . . . . .	<b>22-23</b>	Three-Phase Power Loggers . . . . .	97
● <b>Digital Multimeters</b> . . . . .	<b>24-37</b>	Three-Phase Power Quality Loggers . . . . .	98
Digital Multimeter Selection Guide . . . . .	25	Portable Power Analyzers . . . . .	99
Digital Thermal Multimeter . . . . .	26	Single Phase Voltage Quality Recorder . . . . .	100
Wireless Digital Multimeter . . . . .	27	● <b>Portable Oscilloscopes</b> . . . . .	<b>101-105</b>
Logging Multimeters . . . . .	28	Portable Oscilloscope Selection Guide . . . . .	102
Digital Multimeters . . . . .	29	Motor Drive Analyzer . . . . .	103
Proving Units . . . . .	36	ScopeMeter® Portable Oscilloscopes . . . . .	104
Precision Bench Multimeters . . . . .	37	Industrial ScopeMeter™ Hand-Held Oscilloscopes . . . . .	105
● <b>Clamp Meters</b> . . . . .	<b>38-46</b>	● <b>Process Calibration Tools</b> . . . . .	<b>106-136</b>
Clamp Meter Selection Guide . . . . .	39	Process Calibration Solutions . . . . .	108
CAT III 1500 V Clamp Meter . . . . .	40	Process Calibration Tools Selection Guide . . . . .	110
Clamp Meters with FieldSense™ . . . . .	41	Process Meters . . . . .	111
AC/DC Clamp Meters . . . . .	42	Loop Calibration . . . . .	113
Remote Display Clamp Meter . . . . .	45	Electrical and Multifunction Calibration . . . . .	115
Detachable Jaw Clamp Meter . . . . .	45	Temperature Calibration . . . . .	118
HVAC Clamp Meter . . . . .	46	Pressure Calibration . . . . .	124
Leakage Current Clamp Meters . . . . .	46	● <b>Fluke Process Instruments</b> . . . . .	<b>137</b>
● <b>Battery Analyzers</b> . . . . .	<b>47-48</b>	● <b>Mechanical Maintenance</b> . . . . .	<b>138-141</b>
Battery Analyzers . . . . .	47	Vibration Meter . . . . .	139
● <b>Electrical Testers</b> . . . . .	<b>49-56</b>	Vibration Tester . . . . .	140
Electrical Testers . . . . .	50	Laser Shaft Alignment Tool . . . . .	141
Electrical Testers with FieldSense™ . . . . .	51	● <b>Intrinsically Safe Test Tools</b> . . . . .	<b>142-143</b>
Socket Tester . . . . .	52	Intrinsically Safe Test Tools . . . . .	143
Voltage and Continuity Testers . . . . .	53	● <b>Insulated Hand Tools</b> . . . . .	<b>144-146</b>
Phase Rotation Indicators . . . . .	54	Insulated Hand Tools . . . . .	145
Cable Locator . . . . .	55	Insulated Hand Tools Kits . . . . .	146
Laser Distance meters . . . . .	56	● <b>Accessories</b> . . . . .	<b>147-175</b>
● <b>Infrared Thermometers</b> . . . . .	<b>57-61</b>	IR Camera Accessories . . . . .	148
Infrared Thermometer Selection Guide . . . . .	58	Test Leads, Probes and Clips . . . . .	149
Visual Infrared Thermometers . . . . .	59	Test Lead Sets and Kits . . . . .	153
Infrared Thermometers . . . . .	60	Temperature Accessories . . . . .	155
Thermometers . . . . .	61	AC Current Clamps . . . . .	157
● <b>Industrial Imaging</b> . . . . .	<b>62-74</b>	AC/DC Current Clamps . . . . .	159
Infrared Camera Selection Guide . . . . .	63	Cases, Holsters and Hangers . . . . .	161
Thermal Imaging Software . . . . .	64	Holsters, Hangers and Light Kits . . . . .	162
Pocket Infrared Camera . . . . .	65	Other Accessories . . . . .	165
Performance Series Infrared Cameras . . . . .	66	Automotive Accessories . . . . .	166
Professional Series Infrared Cameras . . . . .	67	Portable Oscilloscopes Accessories . . . . .	167
Expert Series Infrared Cameras . . . . .	68	Power Quality Accessories . . . . .	169
Infrared Windows . . . . .	69	Vibration and Alignment . . . . .	172
Lenses . . . . .	70	Process Calibration Accessories . . . . .	173
Diagnostic Video Borescopes . . . . .	71	Fuse Compatibility . . . . .	174
Sonic Leak Detection Industrial Imager . . . . .	72	Software . . . . .	175
Precision Acoustic Imager . . . . .	73	● <b>Combo Kits</b> . . . . .	<b>176-182</b>
Mounted Infrared Cameras . . . . .	74	Multimeter Kits . . . . .	177
● <b>Environmental Testing</b> . . . . .	<b>75-79</b>	Tester Kits . . . . .	179
Indoor Air Quality Meter Selection Guide . . . . .	76	Insulated Hand Tool Kits . . . . .	181
Airflow Meter/Micromanometer . . . . .	77	Other Kits . . . . .	182
Airborne Particle Counter . . . . .	78	● <b>Fluke Networks</b> . . . . .	<b>183-189</b>
Temperature Humidity Meter . . . . .	79	<b>Fluke Support, Service &amp; Warranty</b> . . . . .	<b>190</b>

# 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 40



## 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 10



## 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 22-23



## Fluke FEV300 Electric Vehicle Charging Station Adapter

**Test and troubleshoot the functionality and safety of electrical vehicle power supply equipment, easily and reliably.**

- Simulate current capabilities of charging cables
- Simulate various vehicle charging states
- Simulate earth fault
- Includes Type 1 and Type 2 plug vehicle connectors
- Test in accordance with IEC/EN 61851-1 and IEC/HD 60364-7-722

For more on the Fluke FEV300 Charging Station Test Adapter kit, see page 13



## 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 184



## 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 141

# Renewable Energy

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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 page 8



## 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 10



## 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 11



## 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 13

## 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

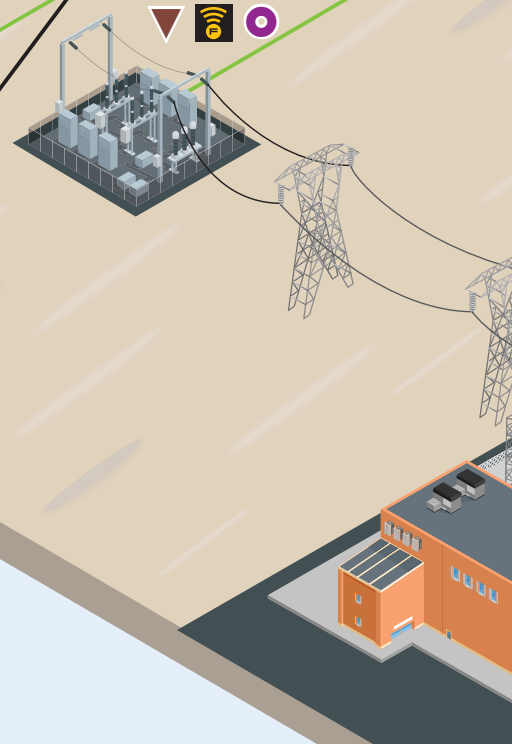
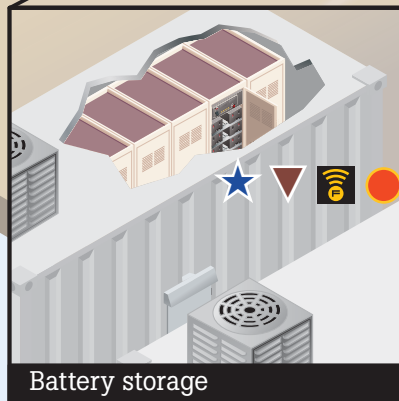
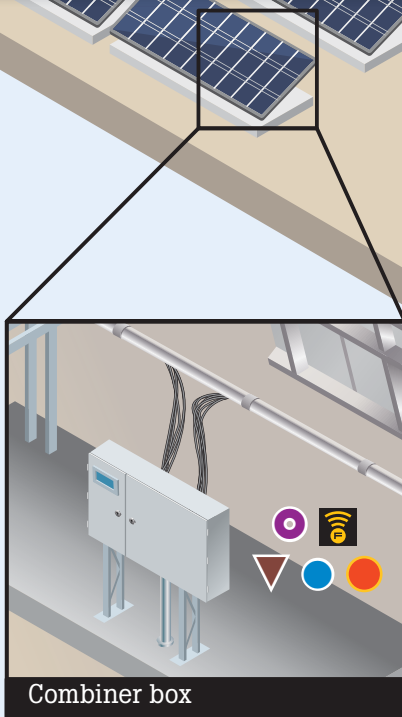
## PV Designer/Electrician

### Focus:











- Conduct commissioning
- Preventative maintenance
- Troubleshooting

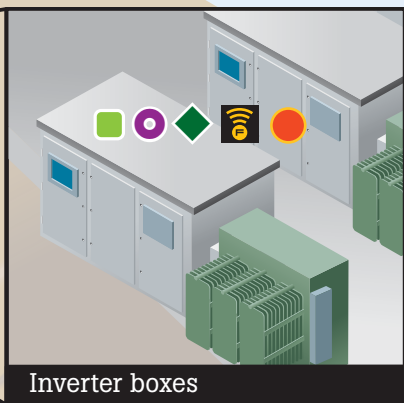
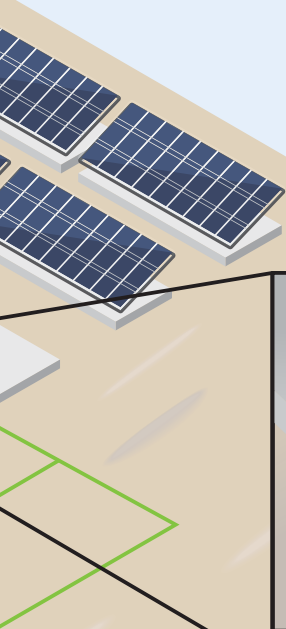
### Job needs:

- ▲ 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 [fluke.com/solar-energy-tools](http://fluke.com/solar-energy-tools)  
Based on you. **Built by Fluke.**

Learn how Fluke solutions can save you time and money while increasing your productivity at [www.fluke.com](http://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



# Fluke IRR1-SOL Solar Irradiance Meter



Fluke IRR1-SOL



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

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

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

### Built to go where you go

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

### The IRR1-SOL features:

- A high precision mono-crystalline solar sensor for irradiance measurements up to 1400 W/m<sup>2</sup>
- Two options for temperature measurement – a built-in sensor and an external suction mount probe
- An integrated compass
- An inclination sensor for the tilt function

### Learn More



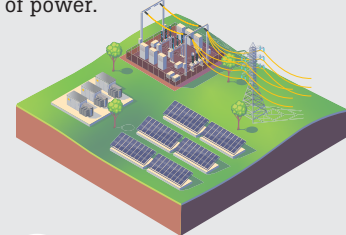
[fluke.com/solar-energy-tools](http://fluke.com/solar-energy-tools)



Key Features		IRR1-SOL
<b>Irradiance</b>		
Measuring Range		50 to 1400 W/m <sup>2</sup>
Resolution		1 W/m <sup>2</sup>
Measuring Accuracy		±(5% + 5 Digit)
<b>Temperature Measurement</b>		
Measuring Range (° C)		-30° C to 100° C (-22 °F to 212 °F)
Resolution		0.1 °C (0.2 °F / 1 °F @ >100 °F)
Measuring Accuracy		±1° C (±2 °F) @ -10° C to 75° C (14 °F to 167 °F) ±2° C (±4 °F) @ -30° C to -10° C (-22 °F to 14 °F) ±2° C (±4 °F) @ 75° C to 100° C (167 °F to 212 °F)
<i>Note: Temperature measurement response time: ~ 30 seconds</i>		
<b>Inclination Angle</b>		
Measuring Range		-90° to +90°
Resolution		0.1°
Measuring Accuracy		±1.5° @ -50° to +50°, ±2.5° @ -85° to -50° and +50° to +85°, ±3.5° @ -90° to -85° and +85° to +90°
<b>Compass</b>		
Measuring Range		0° to 360°
Resolution		1°
Measuring Accuracy		±7°
<i>Note:</i>		
a) Compass Measurements valid for device inclination between -20° and +20° to horizontal. Measurements taken outside that range appear as "----".		
b) Result is referred to magnetic North		
<b>Protection</b>		
Ingress Protection		IEC 60529: IP40
<b>General Specifications</b>		
Battery Life (typical)		50 hour (≤9000 readings)
Weight		231 g (8.14 oz)

## Work in the Solar Industry?

Visit the link to learn how Fluke tools can help with the future of power.



[fluke.com/solar-energy-tools](http://fluke.com/solar-energy-tools)

### Included Accessories

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

### Ordering Information

FLK-IRR1-SOL Solar Irradiance Meter

Contact your local distributor for price and availability.

# Fluke IRR2-BT Solar Site Survey Irradiance Meter Pro with Mounting Bracket



Fluke IRR2-BT



## Make the critical measurements needed for installing, testing, maintaining, and reporting on solar panels or systems with one, easy-to-use tool

The Fluke IRR2-BT Irradiance Meter Pro includes the same benefits of the IRR1-SOL with additional features:

- Measure solar irradiance, ambient and PV module temperature, array orientation and tilt angles
- Make instantaneous measurements to determine the watts per square meter solar irradiation (up to 1400 W/m<sup>2</sup>), required by IEC 62446-1 standard
- High contrast LCD with large numbers for easy readability in direct sunlight
- Includes mounting bracket for accurate irradiance and temperature readings at the panel
- Part of the Fluke solution for I-V curve measurements, the IRR2-BT wirelessly communicates with the SMFT-1000 for instant and accurate readings



Learn More



[fluke.com/solar-energy-tools](http://fluke.com/solar-energy-tools)

### Key Features IRR2-BT

#### Irradiance

Measuring Range	50 to 1400 W/m <sup>2</sup>
Resolution	1 W/m <sup>2</sup>
Measuring Accuracy	±(5% + 5 Digit)

#### Temperature Measurement

Measuring Range (° C)	-30° C to 100° C (-22 °F to 212 °F)
Resolution	0.1 °C (0.2 °F / 1 °F @ > 100 °F)
Measuring Accuracy	±1° C (±2 °F) @ -10° C to 75° C (14 °F to 167 °F) ±2° C (±4 °F) @ -30° C to -10° C (-22 °F to 14 °F) 75° C to 100° C (167 °F to 212 °F)

Note: Temperature measurement response time: ~ 30 seconds

#### Inclination Angle

Measuring Range	-90° to +90°
Resolution	0.1°
Measuring Accuracy	±1.5° @ -50° to +50°, ±2.5° @ -85° to -50° and +50° to +85°, ±3.5° @ -90° to -85° and +85° to +90°

#### Compass

Measuring Range	0° to 360°
Resolution	1°
Measuring Accuracy	±7°

Note: Compass Measurements valid for device inclination between -20° and +20° to horizontal. Measurements valid for device inclination between -20° and +20° to horizontal. Outside that range, --- shows on the LCD. Result is in reference to magnetic north.

#### Memory

Type	EEprom
Size (kB/records)	64 kB/6400
Recording time	17 hours
Communication	BT: BL653 module (only with SMFT)
RTC	Yes (super CAP supply)
Communication	BT: BL653 module (only with SMFT)

#### General Specifications

Battery Life (typical)	50 hours (>9000 readings)
Weight	231g (0.5 lb)
Size	150 mm x 80 mm x 35 mm (5.90 in x 3.14 in x 1.37 in)



#### Included Accessories

- FLK80PR-IRR External Temperature Probe with Suction Cup
- MB1-IRR Mounting Bracket
- Carrying Case with Shoulder Strap
- (4) AA Alkaline Batteries
- User Manual

#### Ordering Information

FLK-IRR2-BT Solar Irradiance Meter

Contact your local distributor for price and availability.

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



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

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

### Critical testing features for periodic inspection of PV systems

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

- Protective resistance earth (RLO)
- Voltage on open circuit, including polarity (VOC)
- Short circuit current (ISC)
- Insulation resistance (RINS)

ROI and system performance testing – IEC 62446-1 Category 2:

- I-V Curve tracing and software analysis with TruTest™
- Irradiance, temperature, tilt, cardinal direction

Specifications		SMFT-1000	
<b>Protective conductor resistance (RLO)</b>			
Display range	Measuring range	Resolution	Accuracy
0.00 Ω - 19.99 Ω	0.20 Ω - 19.99 Ω	0.01 Ω	± (2 % + 2 Digit)
20.0 Ω - 199.9 Ω	20.0 Ω - 199.9 Ω	0.1 Ω	± (2 % + 2 Digit)
200 Ω - 2000 Ω	200 Ω - 2000 Ω	1 Ω	± (5 % + 2 Digit)
<b>Test current</b>	≥ 200 mA (≤ 2Ω + Rcomp)		
<b>Test voltage</b>	4 V DC ... 10 V DC		
<b>Polarity reversing</b>	Yes		
<b>Test lead zero (Rcomp)</b>	Up to 3 Ω		
<b>PV module/PV string, open-circuit voltage (Voc)</b>			
0.0 V - 99.9 V	5.0 V - 99.9 V	0.1 V	± (0.5 % + 2 Digit)
100 V - 1000 V	100 V - 1000 V	1 V	
<b>Polarity test</b>	Yes		

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

### Included with SMFT-1000:

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



### Recommended tools for use with the SMFT-1000

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

### Ordering Information

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

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

# Fluke TruTest™ Solar Data Management and Reporting Software



## The easy-to-use data management solution

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

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

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

## System Requirements

Type	Requirement
Operating system	<ul style="list-style-type: none"> <li>• Microsoft Windows 10, 64-bit and 32-bit (recommended)</li> <li>• Microsoft Windows 8/8.1, 64-bit and 32-bit</li> <li>• Microsoft Windows 7 with Service Pack 1, 64-bit and 32-bit</li> </ul>
System memory	Minimum 4 GB RAM (64-bit) or 2 GB RAM (32-bit)
Hard disk space	Minimum 2 GB available hard disk space
Display resolution	Minimum screen resolution 1366 x 768
Communication interfaces	USB

## Streamlined data management

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

## Single solar platform

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

## Dashboard interface

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

## Comprehensive reporting

Fluke TruTest™ Software simplifies the reporting process so you can produce easy-to understand test certificates and reports as quickly as possible, saving you time and money. Easily visualize the status of assets with clear pass/fail results. Tests in accordance with standards such as IEC 62446-1 and EU directive 2009/104/EC (BetrSichV) are available at the touch of a button, and a pre-configured template ensures that no matter your testing standards TruTest™ Software has you covered.

## Demo software and software packages

Free demonstration software is available at [www.fluke.com/trutestsoftware](http://www.fluke.com/trutestsoftware). After downloading start the installation by double clicking on the software file. The setup program will guide you through the installation procedure. Please follow the installation instructions displayed on the screen.

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



[fluke.com/solar-energy-tools](http://fluke.com/solar-energy-tools)



## Ordering Information

**FLK-TRUTEST-LITE Software** TruTest Lite Software Package license code

**FLK-TRUTEST-ADV Software** TruTest Advanced Software Package with enhanced functionality license code

**FLK-TRUTEST-CD Software Disc** TruTest Software disc (if unable to download from website). License code sold separately

Contact your local distributor for price and availability.

# Three NEW Fluke Kits for Solar PV Testing



Solar Tools Kit with 87V MAX Digital Multimeter and Solar Test Leads

## Solar Tools Kit with 87V MAX Digital Multimeter and Solar Test Leads

The Fluke 87V MAX is the ideal electrical troubleshooting solution for solar inverters, combiner boxes, and battery storage systems. Safely connect the Pomona PVLEAD1 MC4 Test Leads to the meter to validate voltage from individual panels or a series of panels in a photovoltaic (PV) array.

- 4-metre drop tested with industrial casing and holster
- Measure the voltage of PV arrays safely and accurately
- IP67 case for extreme environments
- Meter rated to CAT III 1000 V / CAT IV 600 V
- MC4 test lead sets rated to CAT III 1000 V / CAT IV 600 V
- Three year warranty



Solar Tools Kit with Fluke 393 FC Clamp Meter and Solar Test Leads

## Solar Tools Kit with Fluke 393 FC Clamp Meter and Solar Test Leads

The Fluke 393 FC CAT III 1500 V True-RMS Clamp Meter with iFlex is designed for solar photovoltaic installation technicians and maintenance professionals working in high voltage DC environments.

- Measure safely with this CAT III rated clamp meter
- Thin jaw for access to cables in crowded combiner boxes
- Sturdy IP54 rating for outdoor use and on solar arrays
- Work efficiently with DC power measurement, audio polarity, and visual continuity
- Pomona PVLEAD1 and PVLEAD3 Test Lead Sets are rated to CAT III 1000 V / CAT IV 600 V
- Three year warranty



Solar Tools Kit with 393 FC Clamp Meter, Irradiance Meter and Solar Test Leads

## Solar Tools Kit with 393 FC Clamp Meter, Irradiance Meter and Solar Test Leads

The Fluke IRR1-SOL Solar Irradiance Meter provides four critical photovoltaic measurements including irradiance, temperature, tilt, and compass orientation required to install, verify, and report on the performance of a photovoltaic systems.

- Measure safely with CAT III 1500 V rated clamp meter
- Thin jaw for access to cables in crowded combiner boxes
- Work efficiently with DC power measurement, audio polarity and visual continuity
- Pomona PVLEAD1 and PVLEAD3 Test Lead Sets are rated to CAT III 1000 V / CAT IV 600 V
- Three year warranty



### Included Accessories

**Solar Tools Kit with 87V MAX Digital Multimeter and Solar Test Leads:** TL175 TwistGuard Test Leads, AC175 Alligator Clips, 80BK-A Temperature Probe, Removable Holster with Test Lead Storage, Three AA Batteries (installed), Pomona PVLEAD1 MC4 to 4mm Test Lead Set, User Manual

**Solar Tools Kit with 393 FC Clamp Meter and Solar Test Leads:** CAT III 1500V Rated Test Leads with Right Angle Plugs with Safety Caps, iFlex 18-inch Flexible Current Probe, TPAK Magnetic Meter Hanger, Premium Carrying Case, Pomona PVLEAD1 MC4 to 4mm Test Lead Set, Pomona PVLEAD3 Solar Clamp Test Lead Set, User Manual

**Solar Tools kit with 393 FC Clamp Meter, Irradiance Meter and Solar Test Leads:** CAT III 1500V Rated Test Leads with Right Angle Plugs with Safety Caps, iFlex 18 inch Flexible Current Probe, TPAK Magnetic Meter Hanger, Premium Carrying Case, FLK8OPR-IRR External Temperature Probe with Suction Cup, C250 Carrying Case with Shoulder Strap, (4) AA Alkaline Batteries (installed), Pomona PVLEAD1 MC4 to 4mm Test Lead Set, Pomona PVLEAD3 Solar Clamp Test Lead Set, User Manual

### Ordering Information

**FLK-393FC-PVLEAD** Fluke 393 FC Clamp Meter and MC4 Test Leads Bundle

**FLK-393-IRR-PVLEAD** Fluke 393 FC Clamp, IRR1 Irradiance Meter, MC4 Test Leads Bundle

**FLK-87V MAX-PVLEAD1** Fluke 87V MAX DMM and PVLEAD1 MC4 Test Leads Bundle

Contact your local distributor for price and availability.

### Specifications: Pomona PVLEAD1 and PVLEAD3 MC4 Solar Clamp Test Lead Set

	Pomona PVLEAD1	Pomona PVLEAD3
	MC4 to 4 mm Test Lead Set	MC4 Solar Clamp Meter Test Lead Set
Contact	Brass, nickel plated	Brass, nickel plated
Length	1524 mm	914.4 mm, 305 mm
Voltage	CAT III 1000 V CAT IV 600 V	
Current	20 amp	
Standards	IEC 61010-031	

### Specifications: Fluke FLK-IRR1-SOL Solar Irradiance Meter

	Irradiance	Inclination Angle	Temperature Measurement
Measuring Range	0 to 1400 W/m <sup>2</sup>	-90° to +90°	-30 °C to 100 °C
Resolution	1 W/m <sup>2</sup>	0.1°	0.1 °C
Measuring Accuracy	± (5 % + 5 Digit)	± 1.5°@ -50° to +50°, ±2.5° @ -85° to -50° and +50° to +85°, ±3.5° @ -90° to -85° and +85° to +90°	±1 °C @ -10 °C to 75 °C ±2 °C @ -30 °C to -10 °C and 75 °C to 100 °C
IP Protection	IP40		
L x W x H	150 mm x 80 mm x 35 mm		
Weight	231 g		

# Fluke FEV300 Electric Vehicle Charging Station Adapter



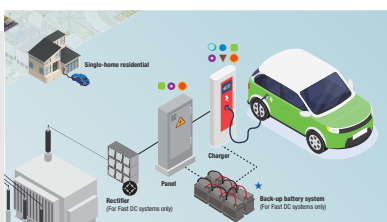
## Test and troubleshoot the functionality and safety of electric vehicle power supply equipment

The NEW Fluke FEV300 Electric Vehicle Charging Station Test Adapter simulates the presence of an electric vehicle, allowing you to conduct safety and functionality tests in combination with appropriate test instruments such as installation testers (for example the Fluke 1664 FC Installation Multifunction Tester), digital multimeters (such as the Fluke 87V MAX Industrial Multimeter) or oscilloscopes (such as the Fluke 120B Series Industrial ScopeMeter®). With the FEV300 Adapter Kit, charging stations can be tested in accordance with IEC/EN 61851-1 and IEC/HD 60364-7-722.

The Fluke FEV300 is designed for electricians and technicians that install electric vehicle charging stations to verify the station is working properly after installation, during periodic maintenance, or when troubleshooting.

- Suitable for AC charging stations with mode 3 and connector Type 1 and Type 2
- Enables you to test in a safer manner compliant to the required standard. Eg AS3000
- Use the PE Pre-Test safety feature to test the PE conductor for dangerous voltage against earth
- Use the CP control pilot for vehicle simulation and PP Proximity Pilot for cable simulation
- Includes measuring terminals L1, L2, L3, N and PE to connect a test device such as an installation tester to perform safety and functional tests
- IP54 rating for limited dust ingress and water splash protection
- Three year warranty

Specifications	FEV300
Input voltage	Up to 250 V (single phase system) / up to 480 V (three phase system), 50/60 Hz, max 10 A
EV connector (Type 2)	AC charging mode 3, suitable to IEC 62196-2 type 2 socket outlet or fixed cable with vehicle connector (type 2, 7P three-phase)
EV connector (Type 1)	AC charging mode 3, suitable to IEC 62196-2 type 1 or SAE J1772 with vehicle connector (type 1, 5P single-phase)
Operating temperature	-20°C to 40°C
Storage temperature	-20°C to 50°C
Operating humidity range	10% to 85% relative humidity non-condensing
Storage relative humidity	0% to 85% non-condensing
Dimensions (H x W x D)	Approx. 220 mm x 110 mm x 45 mm without cable assembly
Weight	Approx. 2 kg
Safety standards	IEC 61010-1, Pollution Degree 2 IEC 61010-2-030
Measurement category	CAT II 250 V
IP protection class	IP54



## Work in the eMobility and EVSE solutions Industry?

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



**Type 1 Connector**  
Type 1 plug vehicle connector



**Type 2 Connector**  
Type 2 plug vehicle connector

### Recommended Kits

Bundle & Save

#### Fluke FEV300 with Type 1 and 2 Connector



#### Fluke FEV300 with Type 1 and 2 Connector



#### Fluke FEV300 with Type 2 Connector



#### Fluke FEV300 with 1664 FC

### Included Accessories

FLK-FEV300-CON-TY1  
Type 1 Connector

FLK-FEV300-CON-TY2  
Type 2 Connector

FLK-FEV300/BASIC  
Basic Test Adapter

### Ordering Information

FLK-FEV300/TY1 & TY2 Test Adapter w/ Type 1 & 2 Connector

FLK-FEV300/TY2 Test Adapter w/ Type 2 Connector

FLK-FEV300/Kit Test Adapter w/ 1664 FC

Contact your local distributor for price and availability.



# Fluke Connect™

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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.



# 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.



Fluke Connect™

### 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 Callibrator	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 i1010 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		
Certifications	CAT IV 600 V, CAT III 1000 V		
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 a3003 FC and a3004 FC Wireless Current Clamp Modules



Fluke a3003 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



Fluke a3004 FC



## 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 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 <sup>1</sup>	Resolution	Accuracy <sup>2,3,4</sup>	
		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		

<sup>1</sup> All AC voltage ranges are specified from 1% of range to 100% of range.

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

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

<sup>4</sup> 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		
	V DC	60.00 V	0.01 V	0.09% + 3
		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

<b>FLK-V3000FC</b>	Wireless AC Voltage Module
<b>FLK-V3001FC</b>	Wireless DC Voltage Module
<b>FLK-V3000 FC KIT</b>	Wireless AC Voltage Kit
<b>FLK-V3001 FC KIT</b>	Wireless DC Voltage Kit
<b>FLK-V3003 FC KIT</b>	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



### 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 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-IRFBLE , IC: 6627A-IRFBLE
Size (H×W×L)	3.2 × 7.6 × 6.4 cm (1.25 × 3 × 2.5 in)
Compatibility*	Fluke 287, 289, 789, 1550C, 1555

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

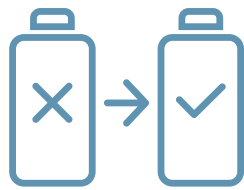
# Fluke Premium Care

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 and calibration

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




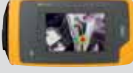








### Expedited calibration and repair

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
Repair manufacturing defects	•	•
Annual calibration or performance test		•
Accidental damage and repair of main unit		•
Expedited calibration and repair		•
Expedited freight		•
Replacement or repair of damaged accessories		•
Priority Tech support		•

## Potential cost savings

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

Product covered	Potential cost without Premium Care*	Cost with Premium Care 1-year Standard plan
 ii910 Precision Acoustic Imager	€3103	€2388
 ii900 Industrial Acoustic Imager	€2782	€2040
 1770 Series Power Quality Analyzers	€2305	€864
 1730 Series Power Quality Loggers	€2602	€372
 MDA Series Motor Drive Analyzers	€2158	€720
 190 Series ScopeMeter™ Portable Oscilloscope	€2209	€636
 SMFT-1000/PRO Multifunction PV Tester and Performance Analyzer, I-V Curve Tracer	€2230	€550
 Fluke-754 Documenting Process Calibrator	€3083	€888
 Fluke-726 Precision Multifunction Calibrator	€2050	€360
 Fluke-725 Multifunction Process Calibrator	€2109	€360

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

In case of Fluke Premium Care 3-year, the cost savings will be even higher; approx. 10%.

Fluke Premium Care

## Fluke Premium Care support plans

Tailored to your needs, Fluke Premium Care is flexible and available in one-year and three-year plan options.

Scan this QR Code for more information about Fluke Premium Care and to view the full range.





# 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.



# Digital Multimeter Selection Guide

Models	Advanced Meters				Wireless Meters				Industrial Maintenance and Field Service Meters				Automotive Meters				Insulation Testers				Specialty Meters			
	87 V	87 V MAX	287	289	233	3000 FC	175	177	179	113	114	115	116 HVAC	117	88V	1577	1587 FC	27 II	28 II	28IIEX	279 FC			
<b>Basic features</b>																								
Counts	20000	20000	50000	50000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	20000	6000	6000	6000	20000	20000	6000	6000		
True-RMS readings	AC	AC	AC+DC	AC+DC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC		
Basic DC accuracy	0.05 %	0.05 %	0.02 %	0.02 %	0.25 %	0.09 %	0.09 %	0.09 %	0.09 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.1 %	0.2 %	0.09 %	0.1 %	0.05 %	0.05 %	0.05 %	0.09 %		
AC bandwidth	20 kHz	20 kHz	100 kHz	100 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	5 kHz	60 Hz	5 kHz	30 kHz	20 kHz	20 kHz	20 kHz	500 Hz		
Auto/manual ranging	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•		
Class 1 Zone 1 AEx ia IIC T4 Class 1 Division 1, Groups ABCD																								
<b>Measurements</b>																								
Voltage AC/DC	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	600 V	600 V	600 V	600 V	600 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V		
Current AC/DC	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A		
Resistance	50 MΩ	50 MΩ	500 MΩ	500 MΩ	40 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ	60 kΩ	40 MΩ	40 MΩ	40 MΩ	40 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ		
Frequency	200 kHz	200 kHz	1 MHz	1 MHz	50 kHz	100 kHz	100 kHz	100 kHz	100 kHz	9999 μF	9999 μF	9999 μF	100 kHz	100 kHz	9999 μF	9999 μF	100 kHz	200 kHz	200 kHz	200 kHz	200 kHz	100 kHz		
Capacitance	9999 nF	9999 nF	1 pF to 100 nF	1 pF to 100 nF	9999 nF	9999 nF	9999 nF	9999 nF	9999 nF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF	9999 μF		
Temperature	1090° C (1994° F)	1090° C (1994° F)	+1350° C (+2462° F)	+1350° C (+2462° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	400° C (752° F)	500° C (932° F)	500° C (932° F)	500° C (932° F)	500° C (932° F)	500° C (932° F)	500° C (932° F)	500° C (932° F)	1090° C (1994° F)		
dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB	60 dB		
Conductance	50 nS	60 nS	50 nS	50 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS	60 nS		
Duty cycle/pulse width	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•		
Continuity/diode test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Motor Drive (MSD) Measurements	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
VoltAlert™, non-contact voltage detection	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
LoZ: low input impedance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Microamps	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Insulation Test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Number of insulation test ranges	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
<b>Display</b>																								
Removable wireless display	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Dot matrix display	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Dual display	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Analog bargraph	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Backlight	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level	Two level		
Graphical trend display	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
<b>Diagnostics and data</b>																								
Min/Max recording with time stamp	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•		
Fast Min/Max	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs	250 μs		
Display Hold/Auto (Touch) Hold	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Relative reference	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Stand alone logging	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Trend Capture	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Readings memories	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
USB interface	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
<b>Other features</b>																								
Real time clock	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Automatic selection, AC/DC volts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Closed case calibration	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Separate battery/fuse access	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•		
Operating temperature range	-120° C, 55° C (-4° F, 131° F)	-120° C, 55° C (-4° F, 131° F)	-20° C, 55° C (-4° F, 131° F)	-20° C, 55° C (-4° F, 131° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)	-10° C, 50° C (14° F, 122° F)			
<b>Warranty and electrical safety</b>																								
Input alert	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
IP Rating	IP30	IP67	IP67	IP67	IP54	IP54	IP54	IP54	IP54	IP42	IP42	IP42	IP42	IP42	IP42	IP42	IP42	IP42	IP42	IP42	IP42	IP40		
Safety rating (IEC 61010) CAT III	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	600 V	600 V	600 V	600 V	600 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V		
Safety rating (IEC 61010) CAT IV	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V		

# Fluke 279 FC True-RMS Thermal Multimeter



Fluke 279 FC



## Find. Repair. Validate. Report.

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

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

## Recommended Accessories



**i2500-10**  
10 inch iFlex™ Flexible Current Probe



**i2500-18**  
18 inch iFlex™ Flexible Current Probe



**BC500**  
AC Power Charger



**BP500**  
Lithium-Ion Battery 3000mAh battery



**C280**  
Carrying Case

## Recommended Kits

Bundle & Save



**Fluke 279FC I/B TRMS Combo Kit**

### DMM

Basic DC accuracy	0.09%
Bandwidth	1% 45 Hz to 65 Hz, full time low pass filter
Voltage	AC/DC 1000 V
Current AC	iFlex™ Flexible Current Probe (included with the 279 FC/iFlex™)
Resistance	50 MΩ
Frequency	100 kHz
Capacitance	9999 μF
Continuity with beeper	Yes
Diode test	Yes
Min/Max recording	Yes
Display Hold	Yes

### Infrared Camera

Infrared resolution	80 × 60
Image capture frequency	8 Hz
Field of View	36° (w) × 27° (h)
NETD	≤200 mK
Infrared spectral band	7.5 to 14 microns
Center point	Yes (with center point temp)
Focus mechanism	Fixed focus
Temperature Range	-10° C to 200° C (14° F to 392° F) Accuracy: ±5° C (±9° F) or (±5% as tested)
Emissivity	0.95 fixed
Background compensation	20° C fixed
Memory storage	Approximately 100 images (internal)
File format	Non-radiometric .is2

### Other

Battery type	Rechargeable lithium-ion battery (charge time: 4.5 hours)
Operating temperature	-10° C to 50° C (14° F to 122° F)
Storage temperature	-20° C to 60° C (-4° F to 140° F)
Relative humidity	0% to 90% (0° C to 35° C) (32° F to 95° F) 0% to 75% (35° C to 40° C) (95° F to 104° F) 0% to 45% (40° C to 50° C) (104° F to 122° F)
Altitude	2 000 meters (6,561 feet)
Temperature coefficient	Add 0.1 × specified accuracy for each° C above 28° C (82° F) or below 18° C (64° F)
Ingress Protection	IEC 60529: IP40
Certifications	CE, CSA, FCC ID: T68-FBLE
Safety compliance	IEC 61010-1: Pollution degree 2; IEC 61010-2-033: CAT III 1000 V/CAT IV 600 V
EMC	IEC 61326-1
Size	215.9 x 93.9 x 57.1 mm (8.5 x 3.7 x 2.25 in)
Weight	0.793 kg (1.75 lb)



## Included Accessories

TL75 Test Leads, Rechargeable Lithium-ion Battery, Charger, 18-inch (45.72 cm) iFlex™ Flexible Current Probe, Hanging Strap, Soft Carrying Case.

279 FC I/B also includes: Additional Lithium-ion Battery.

## Ordering Information

**279 FC/iFlex** TRMS Thermal Multimeter with iFlex™

**Fluke 279FC I/B** TRMS Thermal Multimeter with iFlex™ and Extra Battery Kit

Contact your local distributor for price and availability.

# Fluke 3000 FC Wireless Digital Multimeter



Fluke 3000 FC



## See it. Save it. Share it.

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

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

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

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

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

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

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

<sup>1</sup> In the 9999 μF range for measurements to 1000 μF, the measurement accuracy is 1.2% + 2.

<sup>2</sup> Input burden voltage (typical); 400 mA input 2 mV/mA.

<sup>3</sup> 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 ].

## Recommended Accessories



**TL238**  
SureGrip™  
Test Lead Set



**C37XT**  
EVA Foam Hard Case



**PC Adapter**  
Fluke Connect™  
Wireless PC Adapter

## Recommended Kits Bundle & Save

**Fluke 3000 FC General Maintenance System**

**Fluke 3000 FC Industrial System**

**Fluke 3000 FC HVAC System**

**Fluke 3000 FC/1AC-II Wireless Multimeter and Non-Contact Voltage Detector Kit**

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

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

## Included Accessories

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

## Ordering Information

**FLK-3000 FC** FC Wireless Digital Multimeter

**FLK-3000 FC GM** Wireless General Maintenance Kit

**FLK-3000 FC IND** Wireless Industrial System Kit

**FLK-3000 FC HVAC** Wireless HVAC System Kit

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

**FLK-3000 FC/EDA2** Wireless Multimeter Deluxe Accessories Combo Kit

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

Contact your local distributor for price and availability.

# Fluke 280 Series True-RMS Logging Multimeters



Fluke 289/FC



## Find little problems before they become big

The Fluke 287/FC and 289/FC are the next generation in high performance industrial logging multimeters.

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

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

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

## Recommended Accessories



**TLK287**  
Electronic Test Lead Set



**TLK289**  
Industrial Test Lead Set



**FVF-SC2**  
FlukeView™ Forms Software with Cable



**C280**  
Soft Case



**i410**  
AC/DC Current Clamp



**ir3000 FC**  
Fluke Connect™ ir3000 Connector

## Recommended Kits

Bundle & Save

**Fluke 287 FlukeView™ Forms Combo Kit**

**Fluke 287 FlukeView™ Forms Combo Kit with ir3000FC Connector**

**Fluke 289 FlukeView™ Forms Combo Kit**

**Fluke 289 FlukeView™ Forms Combo Kit with ir3000FC Connector**

## Included Accessories

TL175 Test Leads, AC175 Alligator Clips, Probe Holder, Six AA Batteries (installed), Calibration Certificate Sheet.

## Ordering Information

**FLUKE-287** True-RMS Industrial Logging Multimeter with TrendCapture

**FLUKE-289** True-RMS Electronics Logging Multimeter with TrendCapture

**FLUKE-287/ FVF Kit** FlukeView™ Forms Combo Kit

**FLUKE-289/ FVF Kit** FlukeView™ Forms Combo Kit

**FLUKE-287/ FVF/IR3000 Kit** Industrial Logging Multimeter and Software Combo Kit

**FLUKE-289/ FVF/IR3000 Kit** Industrial Logging Multimeter and Software Combo Kit

**FLUKE IR3000 FC** Fluke Connect™ ir3000 Connector

Contact your local distributor for price and availability.

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

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

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



Fluke 87V MAX

## Performance and accuracy for maximum industrial productivity

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

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

### Electrical safety

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



Fluke 87V



Fluke 83V



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

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

## Recommended Accessories

- TPAK** Magnetic Meter Hanger
- TL220** SureGrip™ Industrial Test Lead Set
- TL175** TwistGuard™ Test Leads
- TL224** SureGrip™ Silicone Insulated Test Leads
- AC285** SureGrip™ Alligator Clips
- i400** AC Current Clamp
- C31XT** EVA Foam Hard Case
- CKT80** Extreme Case

## Recommended Kits

Bundle & Save

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

## Included Accessories

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

## Ordering Information

- FLUKE-83V** Industrial Multimeter
- FLUKE-87V** True RMS Industrial Multimeter
- FLUKE-87V/E2** Industrial Electrician Combo Kit
- FLUKE-87V-MAX** MAX True RMS Industrial Multimeter
- FLUKE-87V/IMSK** Industrial Multimeter Service Kit

# Fluke 88V Automotive Multimeter



Fluke 88V



## The right meter for automotive diagnostics

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

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

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

Specifications	88V
DC volts	Maximum Voltage: 1000 V Accuracy: $\pm(0.1\% + 1)$ Best Resolution: 0.01 mV
AC volts	Maximum Voltage: 1000 V Accuracy: $\pm(0.5\% + 2)$ AC Bandwidth: 5 kHz Best Resolution: 0.01 mV
DC Current	Maximum Amps: 10 A Amps Accuracy: $\pm(0.4\% + 2)$ Best Resolution: 0.001 mA
AC Current	Maximum Amps: 10 A Amps Accuracy: $\pm(1.2\% + 2)$ Best Resolution: 0.001 mA
Resistance	Maximum Resistance: 50 M $\Omega$ Accuracy: $\pm(0.4\% + 1)$ Best Resolution: 0.1 $\Omega$
Capacitance	Maximum Capacitance: 9999 $\mu$ F Accuracy: $\pm(1\% + 2)$ Best Resolution: 0.01 nF
Frequency	Maximum Frequency: 200 KHz Accuracy: $\pm(0.005\% + 1)$ Best Resolution: 0.01 Hz
Duty Cycle	Maximum Duty Cycle: 99.9% Accuracy: within 2% per KHz + 0.1% Best Resolution: 0.1%
Temperature Measurement	-200.0° C to 1090° C (-328° F to 1994° F), 1.0% excluding probe
80BK Temperature Probe	-40° C to 260° C, 2.2° C (-40° F to 500° F) or 2% whichever is greater
Conductance	Maximum Conductance: 60.00 nS Accuracy: $\pm(1.0\% + 10)$ Maximum Resolution: 0.01 nS
Operating Range	Operating Temperature: -20° C to 55° C (-4° F to 131° F) Storage Temperature: -40° C to 60° C (-40° F to 140° F)
Size and Weight	5.2 cm $\times$ 9.8 cm $\times$ 20.1 cm, 624 g

## Recommended Accessories



- TLK281**  
Automotive Test Lead Kit
- TLK282**  
Deluxe Automotive Test Lead Kit
- C35**  
Soft Carrying Case
- 80PK-27**  
SureGrip™ Surface Temperature Probe (requires 80AK)
- i410**  
400 A AC/DC Current Clamp
- TL82**  
TL82 Automotive Pin & Socket Adapter Set

## Recommended Kits

Bundle & Save



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

## Included Accessories

High-impact Holster, Test Leads, User Manual and Quick Reference Guide.

## Ordering Information

- FLUKE-88-5** Automotive Multimeter
- FLUKE-88-5/A KIT** Automotive Multimeter Combo Kit

Contact your local distributor for price and availability.

# Fluke 170 Series Digital Multimeters

Troubleshooting tools for electrical and electronic systems



Fluke 179



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

- True RMS voltage and current measurements
- 0.09% basic accuracy (177, 179)
- 6000 count resolution
- Digital display with analog bargraph and backlight (177, 179)
- Manual and automatic ranging
- Display Hold and Auto Hold
- Frequency and capacitance measurements
- Resistance, continuity and diode measurements
- Temperature measurements (179)
- Min/max/average recording
- Smoothing mode allows filtering of rapidly changing inputs
- Easy battery exchange without opening the case
- Closed case calibration through front panel
- Ergonomic case with integrated protective holster
- IEC 61010-2-033 CAT III 1000V / CAT IV 600V
- Battery life: 200 hours typical for alkaline.
- Size: (H×W×L): 4.3 × 9.0 × 18.5 cm (1.69 × 3.54 × 7.28 in)
- Limited lifetime manufacturer's warranty



Fluke 177



Fluke 175

## Electrical safety

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

Features	179	177	175
Max voltage AC/DC	1000	1000	1000
True-RMS	•	•	•
Temperature	•	–	–
Basic DC accuracy	0.09%	0.09%	0.15%
Backlight	•	•	–
Min/Max/Avg	•	•	•
Compatible with ToolPak™ meter hanging kit with magnet	•	•	•
Limited lifetime warranty	•	•	•

Functions	Range	Best accuracy
DC voltage	600.0 mV, 6.00 V, 60.00 V, 600.0 V, 1000 V	±0.09% (177 and 179) ±0.15% (175)
AC voltage <sup>1</sup>	600.0 mV, 6.00 V, 60.00 V, 600.0 V, 1000 V	±1.0% of reading
DC current	60.00 mA, 400.0 mA, 6.00 A, 10.00 A <sup>2</sup>	±1.0% of reading
AC current <sup>2</sup>	60.00 mA, 400.0 mA, 6.00 A, 10.00 A <sup>2</sup>	±1.5% of reading
Resistance	600.0 Ω, 6.00 kΩ, 60.00 kΩ, 600.0 kΩ, 6.00 MΩ, 50.00 MΩ	±0.9% of reading
Capacitance	1000 nF, 10.00 μF, 100.0 μF, 9999 μF	±1.2% of reading
Frequency <sup>3</sup>	99.99 Hz, 999.9 Hz, 9.99 kHz, 99.99 kHz	±0.1% of reading
Temperature (Model 179)	–40°C to 400°C (–4° F to 752° F)	1.0% of reading

<sup>1</sup> All AC voltage and AC current ranges are specified from 5% of range to 100% of range.

<sup>2</sup> 10 A continuous, 20 A for up to 30 seconds.

<sup>3</sup> Voltage frequency is specified from 2 Hz to 100 kHz. Current frequency is specified from 2 Hz to 30 kHz.

## Recommended Accessories

**TPAK**  
Magnetic Meter Hanger

**TL81A**  
Deluxe Electronic Test Lead Set

**TL175**  
TwistGuard™ Test Leads

**i410**  
AC/DC Current Clamp

**AC220**  
SureGrip™ Alligator Clips

**TP220**  
SureGrip™ Industrial Test Probes

**C11XT**  
EVA Foam Hard Case

**C37XT**  
EVA Foam Hard Case

## Recommended Kits

Bundle & Save



**Fluke 179/EDA2 Industrial Digital Multimeter Combo Kit**

## Included Accessories

Test Leads with 4 mm Lantern Tips, 9V Battery (installed) and User Manual, 80BK Temperature Probe (179 only).

## Ordering Information

- FLUKE-175** True RMS Digital Multimeter
- FLUKE-177** True RMS Digital Multimeter
- FLUKE-179** True RMS Digital Multimeter
- FLUKE-179/EDA2** Electronics Combo Kit
- FLUKE-179/IMSK** Industrial Multimeter Service Kit



# Fluke 233 Remote Display Digital Multimeter



Fluke 233

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

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



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

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		3 AA batteries main body, 2 AA batteries display module
Battery life		400 hours
Compliance		IEC 61010-2-033: CAT IV 600 V, CAT III 1000 V
Size (H×W×L)		5.3 x 9.3 x 19.3 cm (2.08 x 3.6 x 7.6 in)
Weight		604 g

## Recommended Accessories



**TPAK**  
Magnetic Meter Hanger



**TL220**  
SureGrip™ Industrial Test Lead Set



**80PK-22**  
SureGrip™ Immersion Temperature Probe



**i400s**  
AC Current Clamp  
See page 156



**80AK-A**  
Thermocouple Adapter



**AC285**  
SureGrip™ Alligator Clips



**TL175**  
TwistGuard™ Test Leads



**TLK289**  
SureGrip™ Industrial Test Lead Set



**TP175**  
TwistGuard™ Test Probes



**FTP-1**  
SureGrip™ Fused Test Probe Set



**TL224**  
SureGrip™ Silicone Insulated Test Leads



**C101**  
Hard Case



**C35**  
Soft Carrying Case



**C37XT**  
EVA Foam Hard Case

## Included Accessories

TL75 Test leads, AC175 Alligator Clips, 80BK-A Temperature Probe, CD, two AA batteries and user manual.

## Ordering Information

**FLUKE-233** Remote Display Digital Multimeter

Contact your local distributor for price and availability.

# Fluke 110 Series True-RMS Digital Multimeters



Fluke 116

Fluke 117



113 only

## Dependable Digital Multimeters for Electrical and HVAC applications

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

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

Specifications	117	115	113
VoltAlert™ detector	•	–	–
AutoVolt/LoZ	•	–	Vchek
Analogue bargraph	•	•	•
True-RMS for accurate measurements on non-linear loads	•	•	•
Min/Max recording	•	•	•
Display hold	•	•	•
3-1/2 digits	•	•	•
6000 counts	•	•	•
CAT III 600 V safety rated	•	•	•

	116	114
Temperature	•	–
Microamps	•	–
Frequency	•	–
Capacitance	•	–
Diode test	•	–
AutoVolt/LoZ	•	•
Analogue bargraph	•	•
True-RMS for accurate measurements on non-linear loads	•	•
Min/Max recording	•	•
Display hold	•	•
3-1/2 digits	•	•
6000 counts	•	•

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	9999 µF	9999 µF	9999 µF	–	9999 µF
Diode test	•	•	•	–	•
Frequency	5 Hz to 99.99 kHz	5 Hz to 99.99 kHz	5 Hz to 99.99 kHz	–	–
Temperature	–	+400° C	–	–	–
Safety rating	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT IV 600 V

## Recommended Accessories



## Recommended Kits Bundle & Save



## Included Accessories

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

## Ordering Information

- FLUKE-113** Utility True RMS Digital Multimeter
- FLUKE-114** Electrical True RMS Digital Multimeter
- FLUKE-115** True RMS Digital Multimeter
- FLUKE-116** HVAC Electrical True RMS Multimeter
- FLUKE-117** Adv. Electrical True RMS Multimeter
- FLUKE-116/323** HVAC and Clamp Meter Combo Kit
- FLUKE-116/62 MAX+** HVAC Multimeter and Infrared Thermometer Kit
- FLUKE-117/323** Electrical and Clamp Meter Combo Kit
- IB117K** 117 Multimeter + Insulated Hand Tools Starter Kit

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



Fluke 27 II

Fluke 28 II



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

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

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

Specifications	27 II	28 II	28 II Ex
DC voltage	Range	0.1 mV to 1000 V	
	Accuracy	0.05% + 1	0.05% + 1
AC voltage	Range	0.1 mV to 1000 V	
	Accuracy	0.5% + 3	0.7% + 4
DC current	Range	0.1 µA to 10 A	
	Accuracy	0.2% + 4	0.2% + 4
AC current	Range	0.1 µA to 10 A	
	Accuracy	1.5% + 2	1.0% + 2
Resistance	0.1 Ω to 50 MΩ		
Display counts	6000	6000/19,999	
Capacitance	1 nF to 9999 µF		10 nF to 9999 µF
Frequency	0.5 Hz to 199.99 kHz		
Temperature	-	-200° C to 1090° C (-328° F to 1994° F)	
Low pass filter (measurement on VSD's)	-	Yes	Yes
Compliance	IEC 61010-2-033: CAT IV 600 V, CAT III 1000 V		
Measurement method	Avg. responding	True-RMS	True-RMS
Power	Three AA batteries		
Battery life	800 hours		400 hours
Dimensions (DxWxH)	6.35 x 10.0 x 19.81 cm (2.5 x 3.93 x 7.8 in)		
Weight with holster	700 g (24.69 oz)		

## Specialty Models

### Fluke 28 II Ex Intrinsically Safe True-RMS Multimeter

CAT III 1000V/CAT IV 600V electrical safety rating

II 2G Ex ia IIC T4



## Recommended Accessories



**TPAK**  
Magnetic Meter Hanger



**TLK-225**  
SureGrip™ Master Accessory Set



**i2000 FLEX**  
AC Current Clamp Test Lead Kit



**i410**  
AC/DC Current Clamp



**CXT80**  
Extreme Hard Case



**C37XT**  
EVA Foam Hard Case



**TL175**  
TwistGuard™ Test Leads

## Included Accessories

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

## Ordering Information

**FLUKE-27II** Industrial Multimeter

**FLUKE-28II** Industrial Multimeter

**FLUKE-28IIEx** Intrinsically Safe Industrial Multimeter

Contact your local distributor for price and availability.

# Fluke 77IV Digital Multimeter



Fluke 77IV



## Versatile multimeter for field service or bench repair

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

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

## Recommended Accessories



**i400**  
AC Current Clamp



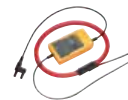
**C35**  
Soft Carrying Case



**TPAK**  
Magnetic Meter Hanger



**TL225**  
SureGrip™ Stray Voltage Adapter Test Lead Kit



**i2000 FLEX**  
AC Current Clamp



**TLK-225**  
SureGrip™ Master Accessory Kit

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

Accuracies are best accuracies for each function.

## General Specifications

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

Specifications	77IV
V Maximum voltage between any terminal and earth ground	1000 V
Surge protection	8 kV peak per IEC 61010-2-033
Fuse for mA input	440 mA, 1000 V FAST Fuse
Fuse for A input	11 A, 1000 V FAST Fuse
Display	Digital: 6000 counts, updates 4/sec
Bar Graph	33 segments, updates 32/sec
Frequency	10000 counts
Capacitance	1 000 counts
Operating altitude	2000 m
Storage altitude	12000 m
Operating temperature	-10° C to 50° C (14° F to 122° F)
Storage temperature	-40° C to 60° C (-40° F to 140° F)
Temperature coefficient	0.1 × (specified accuracy/° C (< 18° C or > 28° C) (< 64.4° F or > 82.4° F))
Electromagnetic compatibility (EN 61326-1:1997)	In an RF field up to 3 V/m, accuracy = specified accuracy except in temperature: specified accuracy ±5° C
Relative humidity (maximum non-condensing)	90% to 35° C; 75% to 40° C; 45% to 50° C (90% to 95° F; 75% to 104° F; 45% to 122° C)
Battery life	400 hours
Size (H×W×L) and Weight	185 × 90 × 43 mm (7.28 × 3.54 × 1.70 in); 420 g (14.81 oz)
Safety compliance	IEC 61010-2-033; CAT III 1000 V, CAT IV 600 V
Certifications	CSA



## Included Accessories

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

## Ordering Information

**FLUKE-77-4** Digital Multimeter

Contact your local distributor for price and availability.

# Fluke PRV240 and PRV240FS Proving Units



Fluke PRV240



Fluke PRV240 FS



## Fluke PRV240 Proving Unit

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

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

## Fluke PRV240FS Proving Unit

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

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

## Recommended Accessories



**TPAK**  
Magnetic Meter Hanger

## Recommended Kits

Bundle & Save



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



Specifications	PRV240	PRV240FS
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 present	
Battery	4 AA Alkaline batteries NEDA 24 A IEC LR03	4 × AA Alkaline batteries NEDA 15A IEC LR6
Battery life	5000 (5-second duration) test cycles with >1 MΩ load, 300 tests minimum with >3 kΩ load	2000 (10-second duration) test cycles with >1 MΩ load
Operating temperature	–10° C to 50° C (50° F to 122° F)	
Operating altitude	2000 m (6,561 ft)	
Dimensions	11.7 × 7.4 × 2.8 cm (4.6 × 2.9 × 1.1 in)	11.7 × 7.4 × 4.5 cm (4.6 × 2.9 × 1.75 in)
Weight	0.23 kg (8.11 oz) includes batteries	0.32 kg (11.28 oz) includes batteries
Safety	IEC 61010-1, IEC 61010-2-030	

## Included Accessories

TPAK Hanging Strap, four AA batteries, instruction sheet.

## Ordering Information

**PRV240** Proving Unit

**PRV240FS** Proving Unit

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

Contact your local distributor for price and availability.

# Fluke 8808A Precision Bench Multimeters



Fluke 8808A

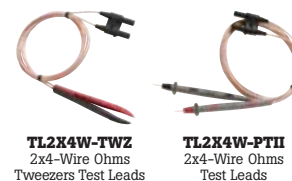


## Fluke 8808A 5.5 Digit Multimeter

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
- Dual measurement display
- Sensitive DC leakage current ranges
- Front panel setup keys
- TL2X4 wire measurement technique
- Three year warranty

## Recommended Accessories



**TL2X4W-TWZ**  
2x4-Wire Ohms  
Tweezers Test Leads

**TL2X4W-PTH**  
2x4-Wire Ohms  
Test Leads



**Y8846D**  
Rack Mount Kit, Dual



**884X-CASE**  
Moulded Plastic Case

Specifications	8808A
Display	Dual
Resolution (digits)	5.5
Measurements	V AC, V DC, I DC, I AC, Ω, Cont, Diode
Basic V DC accuracy (% Reading + % Range)	0.015 + 0.003
Advanced measurements/ functions	2x4 wire ohms, freq, i-Leakage dedicated setup keys
Math	Null, dBm, dB, Min, Max
Analysis	Limit Compare
USB memory device port	No
Interfaces	RS-232, USB via optional adapter
Safety rating	CAT I 1000 V, CAT II 600 V



## Included Accessories

LCI Line Power Cord, Test Lead Set, Spare Line Power Fuse, Programmers Manual/ User Manual on CD-ROM, 884X-USB USB to RS232 Cable Adapter, FVF-BASIC FlukeView® Forms Software Basic Version.

## Ordering Information

**FLUKE 8808A** 5.5 Digit Multimeter

**FLUKE 8808A/SU** 5.5 Digit Multimeter (Software + Cable)

*Calibration & Service Agreement units also available.*

Contact your local distributor for price and availability.

# 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			High-End Industrial, Utility		Leakage		Wireless	
	323	324	325	365	373	374 FC	375 FC	376 FC	377 FC	378 FC	381	392 FC	902 FC	353	355	368 FC/369 FC	a3000 FC	a3001 FC						
<b>Measurements</b>																								
AC current	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
AC voltage	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Resistance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Continuity	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
DC voltage	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
DC current	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
True-RMS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Frequency	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
AC + DC voltage	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
AC + DC current	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Min/Max/Avg	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Temperature	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Capacitance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Measurement logging	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
<b>Special Features</b>																								
Irush current mode																								
Low Pass filter for VFDs																								
18-inch iFlex™						Optional	Included	Included	Included	Included	Included	Included	Included	Included										
Wireless																								
FieldSense™																								
PQ indicator																								
DC power																								
<b>Display</b>																								
Display hold	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Backlight	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
<b>Specifications</b>																								
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)	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)				
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)	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)				
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	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A	0 to 600.0 A				
Accuracy AC current (50/60 Hz)	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	2% ±5 counts	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				
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	True-RMS				
Current range DC				0 to 200 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	0 to 600.0 V				
Voltage range AC	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% ±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				
Accuracy AC voltage	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	0 to 600.0 V				
Voltage range DC	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	1% ±5 counts				
Accuracy DC voltage	0 to 4000 Ω	0 to 4000 Ω	0 to 4000 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 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				
Resistance range	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz	5 to 500 Hz				
Frequency range																								
<b>Warranty and Safety</b>																								
Warranty (years)	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	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 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	CAT III 1000 V, CAT IV 600 V	CAT III 1000 V, CAT IV 600 V				
Fluke Connect™																								
Fluke Connect™ App compatible																								



# Fluke 393 FC Solar Clamp Meter CAT III 1500 V



Fluke 393 FC



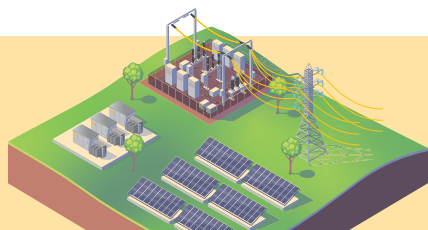
## The World's First CAT III 1500 V Solar Clamp Meter

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

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

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

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



## Work in the Solar Industry?

Visit the link to learn how Fluke tools can help with the future of power.  
[fluke.com/solar-energy-tools](http://fluke.com/solar-energy-tools)

## Recommended Accessories



**TL1500DC**  
Test Lead Set 1500 V



**PVLEAD1**  
MC4 to 4 mm  
Test Lead Set



**PVLEAD3**  
MC4 Solar Power  
Clamp Set



**C37XT**  
EVA Foam  
Hard Case



**Pack30**  
Professional Tool  
Backpack



## Get the FREE Fluke Connect™ App!

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



## Included Accessories

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

## Ordering Information

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

Contact your local distributor for price and availability.

# Fluke 377 FC and 378 FC Clamp Meters with FieldSense™



Fluke 377 FC

Fluke 378 FC

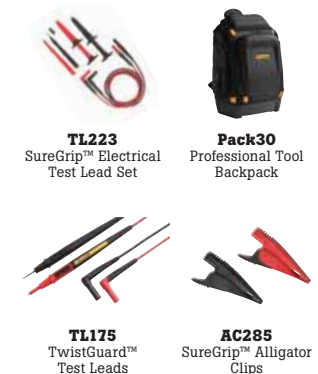


## Voltage and Current Measurements with FieldSense™ Technology

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

- Safe and accurate voltage measurement without metallic contact
- View both voltage and current measurements simultaneously on dual display
- Complete three-phase measurements 50% faster than other industrial clamp meters
- Phase rotation information is auto calculated (in Fluke Connect™ App)
- Screen equipment for power quality problems with PQ Indicator (Fluke 378 FC only)
- Easy logging, seamless data transfer and reporting with Fluke Connect™
- Three-year warranty

## Recommended Accessories



## FieldSense™ Enabled



Non-contact voltage measurement made possible with Fluke's FieldSense™ technology. Get voltage measurements faster, easier and safer than ever. No direct electrical contact means less potential for electric shocks and arc flash.



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

## Included Accessories

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

## Ordering Information

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

Contact your local distributor for price and availability.

# Fluke 370 Series Clamp Meters



Fluke 376 FC with iFlex™



## Be ready for anything

The Fluke 370 Series of True-RMS Clamp Meters provides a range of state-of-the-art features to meet even the most demanding job requirements.

All four of the clamp meters have improved base features such as a large, backlit display, true-RMS standard, CAT IV safety rating and a durably constructed body. In addition, the 376 FC, 375 FC and 374 FC are part of the Fluke Connect™ family of wireless test tools and are compatible with the iFlex™ Flexible Current Probe (included with the 376 FC, sold separately for the 375 FC and 374 FC), and provide increased measurement readings to 1000 A.

Includes a three-year warranty.



Fluke 375 FC

Fluke 374 FC

Fluke 373

Functions	Range	373	374 FC	375 FC	376 FC
Current AC	0 to 600.0 A	±(2% + 5 digits)	±(2% + 5 digits)	±(2% + 5 digits)	-
Accuracy	0 to 999.9 A	-	-	-	±(2% + 5 digits)
Current AC Accuracy (iFlex™)	0 to 2500 A	-	±(3% + 5 digits)	±(3% + 5 digits)	±(3% + 5 digits)
Current DC	0 to 600.0 A	-	±(2% + 5 digits)	±(2% + 5 digits)	-
Accuracy	0 to 999.9 A	-	-	-	±(2% + 5 digits)
Voltage AC	0 to 600.0 V	±(1% + 5 digits)	-	-	-
Accuracy	0 to 1000 V	-	±(1% + 5 digits)	±(1% + 5 digits)	1±(1% + 5 digits)
Voltage DC	0 to 600.0 V	±(1% + 5 digits)	-	-	-
Accuracy	0 to 1000 V	-	±(1% + 5 digits)	±(1% + 5 digits)	±(1% + 5 digits)
Resistance range	-	0 to 6000 Ω	0 to 6000 Ω	0 to 6000 Ω	0 to 60 kΩ
Jaw opening	-	32 mm (1.25 in)	34 mm (1.33 in)	34 mm (1.33 in)	34 mm (1.33 in)
Max. wire size	-	750 MCM	750 MCM	750 MCM	750 MCM
Frequency measurement range	-	-	-	500 Hz	500 Hz
Safety Compliance (61010-2-032)	-	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

## Fluke iFlex™ Flexible Current Probe



### Unprecedented measurement flexibility

The iFlex™ Flexible Current Probe expands the measurement range of select Fluke Clamp Meters to 2500 A AC while providing increased display flexibility, improved wire access and the ability to measure awkward-sized conductors. Available in 18-inch and 10-inch coil sizes.

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

## Recommended Accessories



**TL223**  
SureGrip™ Electrical Test Lead Set



**TL224**  
SureGrip™ Silicone Insulated Test Leads



**TL175**  
TwistGuard™ Test Leads



**AC285**  
SureGrip™ Alligator Clips



**I2500-18**  
18 inch iFlex™ Flexible Current Probe



**C37XT**  
EVA Foam Hard Case

## Fluke Connect™ Enabled



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

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

## Included Accessories

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

## Ordering Information

- FLUKE 373** True-RMS Clamp meter  
**FLUKE 374 FC** True-RMS Clamp meter  
**FLUKE 375 FC** True-RMS Clamp meter  
**FLUKE 376 FC** True-RMS Clamp meter  
**I2500-10** Flexible Current Probe iFlex™ 25 cm (9.84 in)  
**I2500-18** Flexible Current Probe iFlex™ 46 cm (18.11 in)

Calibration & Service Agreement units also available.

Contact your local distributor for price and availability.

# Fluke 320 Series True-RMS Clamp Meters



Fluke 324

Fluke 323

Fluke 325



## Go to work with the best

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

- 400 A AC current measurement (AC and DC current; 325 only)
- 600 V AC and DC voltage measurement
- True-RMS AC voltage and current for accurate measurements on non-sinusoidal signals
- Resistance measurement to up to 40 kΩ with continuity detection (325 only)
- Temperature and capacitance measurement (324 and 325 only)
- Frequency measurement (325 only)
- Slim, ergonomic design
- Large, easy to read backlit display (324 and 325 only)
- CAT IV 300 V/CAT III 600 V safety rating
- Hold button
- Two-year warranty

## Recommended Accessories



**C11XT**  
EVA Foam Hard Case

**L210**  
Probe Light and Extender

**TL175**  
TwistGuard™ Test Leads

**TL223-1**  
SureGrip™ Electrical Test Lead Set



	Residential/Commercial Electrical		Light Industrial
	323	324	325
<b>Measurements</b>			
AC current	•	•	•
AC voltage	•	•	•
Resistance	•	•	•
Continuity	•	•	•
DC voltage	•	•	•
DC current	-	-	•
True-RMS	•	•	•
Frequency	-	-	•
Min/Max/Avg	-	-	•
Temperature	-	•	•
Capacitance	-	•	•
<b>Display</b>			
Display hold	•	•	•
Backlight	-	•	•
<b>Specifications</b>			
Jaw opening	30 mm (1.18 in)		
Max wire size	600 MCM		
Current range AC RMS	0 to 400.0 A		
Accuracy AC current (50/60 Hz)	±(2.0% + 5 digits)	±(1.5% + 5 digits)	±(2.0% + 5 digits)
AC response	True-RMS		
Current range DC	-	-	0 to 400 A
Accuracy DC current	-	-	±(2.0% + 5 digits)
Voltage range AC	0 to 600.0 V		
Accuracy AC voltage	±(1.5% + 5 digits)		
Voltage range DC	±600 V		
Accuracy DC voltage	±(1% + 5 digits)		
Resistance range	0 to 4000 Ω		0 to 40 kΩ
Frequency measurement range	-	-	500 Hz

## Included Accessories

Test Leads, Soft Case, User Manual.

## Ordering Information

**FLUKE-323** True-RMS Clamp Meter

**FLUKE-324** True-RMS Clamp Meter

**FLUKE-325** True-RMS Clamp Meter

Contact your local distributor for price and availability.

# Fluke 350 Series AC/DC True-RMS Clamp Meters



Fluke 353

Fluke 355

## Versatile, professional and accurate

Confidently take reliable readings with the True-RMS Fluke 353 and 355 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
- Large 58 mm (2.28 in) jaw
- Inrush current measurement
- 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
- Large display with backlight
- Three-year warranty



Features	353	355
True-RMS measurements	•	•
Display backlight	•	•
Motor start-up current	•	•
Min/Max/Average	•	•
Voltage AC/DC	-	•
Resistance measurement	-	•
Continuity measurement with beeper	-	•

Functions	Range	353	355
Current AC/DC	40.00 A	±(1.5% + 15 digits)	±(1.5% + 15 digits)
	0-400.0 A	±(1.5% ±5 digits)	±(1.5% + 5 digits)
	2000 A; 1400 AC RMS	±(1.5% ±5 digits)	±(1.5% + 5 digits)
Crest Factor		2.4	2.4
Voltage AC/DC	4.00 V	-	±(1% + 10 digits)
	40.00 V	-	±(1% + 5 digits)
	400.0 V	-	±(1% + 5 digits)
	0-600 V AC RMS	-	±(1% + 5 digits)
	1000 V DC	-	±(1% + 5 digits)
Resistance	0-400.0 Ω	-	±(1.5% + 5 digits)
	0-4.00 kΩ	-	±(1.5% + 5 digits)
	0-40.00 kΩ	-	±(1.5% + 5 digits)
	0-400.0 kΩ	-	±(1.5% + 5 digits)
Continuity beeper	Appr. ≤ 30 Ω	-	±(1.5% + 5 digits)
Frequency	5.0 Hz to 100.0 Hz	±(0.2% ±2 digits)	±(0.2% + 2 digits)
Power Supply	6 × 1.5 V AA NEDA 15A or IEC LR6		
Battery life	100 hours (with typical usage, backlight off)		
Size (HxWxD)	300 × 98 × 52 mm (11.81 × 3.85 × 2.04 in)		
Jaw opening	58 mm (2.28 in)		
Weight	0.81 kg (1.78 lb)		
Safety Compliance (IEC 61010-2-032)	600 V CAT IV, 1000 V CAT III		

## Recommended Accessories

### Fluke 355



**80TK**  
Thermocouple Module



**TP38**  
Insulated Test Probe



**FTP-1**  
Fuse Test Probe Set



**80PK-8**  
Type K Pipe Thermocouple Probe



**TL175**  
TwistGuard™ Test Leads



**TLK-225**  
SureGrip™ Master Accessory Set



**L215**  
SureGrip™ Electrical Test Lead Set



**TL223-1**  
Test Lead Set



**C345**  
Large Soft Case



**C1600**  
Gear Tool Box

## Included Accessories

**Fluke 353:** C43 Soft Meter Case, Six AA Batteries, User Manual.

**Fluke 355:** C43 Soft Meter Case, Six AA Batteries, TL224 SureGrip™ Silicone Test Lead Set, TP2 Slim Reach Test Probe Set (2 mm), AC285 SureGrip™ Alligator Clip Set, User Manual.

## Ordering Information

**FLUKE-353** True RMS AC/DC Clamp Meter

**FLUKE-355** True RMS AC/DC Clamp Meter

Contact your local distributor for price and availability.

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



Fluke 381



### The World's most advanced clamp meter

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

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

- Remote display reads measurements up to 9.1 m (29.85 ft) away
- iFlex™ Flexible Current Probe included, 18 inch circumference
- 2500 A AC current measurement with iFlex™
- 999.9 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
- IEC 61010-2-032: CAT IV 600 V, CAT III 1000 V
- Three-year warranty

## Fluke 365 Detachable Jaw True-RMS AC/DC Clamp Meter



Fluke 365



### Where rugged meets reliable

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

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

### Recommended Accessories

#### Fluke 381



**TL175**  
TwistGuard™  
Test Leads

**TLK289**  
Industrial Master  
Test Lead Set



**AC87**  
Heavy Duty Bus Bar  
Clip Set

**FTP-1**  
SureGrip™ Fused Test  
Probe Set



**i2500-10**  
10 inch iFlex™ Flexible  
Current Probe

**C37XT**  
EVA Foam  
Hard Case

#### Fluke 365



**FTPL-1**  
SureGrip™ Fused Test  
Probe and Lead Set

**TL71**



**TL220**  
SureGrip™ Industrial  
Test Lead Set

**TL224**  
SureGrip™ Silicone  
Insulated Test Leads



**AC285**  
SureGrip™ Alligator  
Clips

**C43**  
Small Soft Case

### Included Accessories

18-inch iFlex™ Flexible Current Probe (Fluke 381 only), Test Leads, Soft Carrying Case, Instruction Card, Safety Information Sheet, Two AA Alkaline Batteries.

### Ordering Information

**FLUKE 381** Remote Display True-RMS AC/DC Clamp Meter with iFlex™

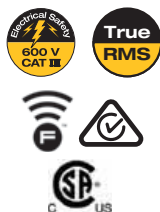
**FLUKE 365** Detachable Jaw True-RMS AC/DC Clamp Meter

Contact your local distributor for price and availability.

# Fluke 902 FC True-RMS HVAC Clamp Meter



Fluke 902 FC



## Improve productivity in the field

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

## Applications for HVAC

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

Functions	Range	Resolution	Accuracy
A AC (via Jaw)	60/600 A	0.01/0.1 A	±(2.0% + 5 digit) (45-65 Hz) ±(2.5% + 5 digit) (65-400 Hz)
V AC	600 V	0.1 V	±(1.5% + 5 digit) (45-400 Hz)
V DC	600 V	0.1 V	±(1% + 5 digits)
Ohms	600/6000 /60000 Ω	0.1/1/10	±(1% + 5 digits)
µA	200 µA	0.1 µA	±(1% + 4 digits)
Contact Temperature	10° C to 400° C (50° F to 752° F)	0.1 C/F	±(1% + 8 digits)
Capacitance	100.0/1000 µF	0.1/1 µF	±(1% + 4 digits)
Continuity Beeper			
Beep Volume	75 dBA nom. 15 cm from case front		
On Threshold	<=30 Ω		

## Recommended Accessories

### Fluke 902 FC



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



Fluke 368 FC

Fluke 369 FC

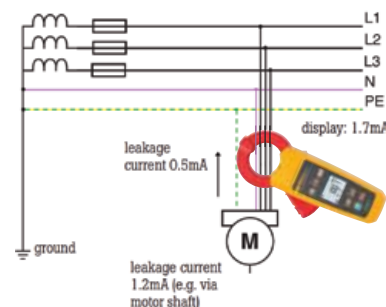


## Measure leakage current to track small problems, avoid large problems

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

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

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



## Included Accessories

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

**Fluke 368 FC/369 FC:** Soft Case, Two AA Batteries, Safety Manual.

## Ordering Information

**FLUKE 902 FC** HVAC Clamp Meter

**FLUKE 368 FC** AC Leakage Current Clamp Meter

**FLUKE 369 FC** AC Leakage Current Clamp Meter

Contact your local distributor for price and availability.



# 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 <sup>1</sup>	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) <sup>2</sup>	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

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

<sup>2</sup> Trigger level VAC: 10 mV, AAC: 10 A

## Recommended Accessories



**BP500**  
Lithium-Ion Battery  
3000mAh



**i410**  
AC/DC Current Clamp



**FLUKE-BTL520ANG**  
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

<b>FLK-BT510</b>	Basic Battery Analyzer
<b>FLK-BT520</b>	Battery Analyzer
<b>FLK-BT521</b>	Advanced Battery Analyzer
<b>FLK-BT520 ANG</b>	Battery Analyzer with Angled Probes
<b>FLK-BT521 ANG</b>	Battery Analyzer with Angled Probes

Contact your local distributor for price and availability.

# 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.



# Fluke T5 Series Electrical Testers



## Fluke T5 Series Voltage, Continuity and Current Testers

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

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

### Recommended Accessories Fluke T5 Series



**C37XT**  
Protective EVA Hard Tool Case  
*See page 170*



**TP1**  
Slim Reach Test Probes  
*See page 158*



**T5-KIT**  
Starter Kit



**T5-RLS**  
T5 Replacement Test Leads



Functions	T5-1000	T5-600
Measure AC/DC voltage	1000 V	600 V
Measure AC current (average)	100 A	100 A
Measure continuity	< 25 Ω	< 25 Ω
Measure resistance	1000 Ω	1000 Ω
DC polarity indicator	Yes	Yes
Detachable probe tips with optional probe tips styles	Yes	Yes
Safety rating	1000 V Overvoltage CAT III	600 V Overvoltage CAT III

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

## Fluke VoltAlert™ Family

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

Fluke now offers three models of non-contact voltage detectors, making sure you have the right tool for the job.

Two year warranty.



Functions	1AC-A1-II	2AC	LVD2	LVD1A
Voltage	90 V AC to 1000 V AC	90 V AC to 900 V AC	90 V AC to 900 V AC	40 V AC to 300 V AC
CAT Rating	CAT IV 1000 V	CAT IV 1000 V	CAT IV 600 V	-
Voltage Detection	•	•	•	•
Batteries Included	•	•	•	•
On/Off Button	•	always on	•	•
Voltbeat™	•	-	-	-
Audible/Silent	•	-	-	-
LED Flashlight	-	-	•	•

### Included Accessories

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

### Ordering Information

**FLUKE T5-600** Electrical Tester

**FLUKE T5-1000** Electrical Tester

**FLUKE 1AC-A1-II** VoltAlert™ Voltage Detector

**FLUKE LVD2** Volt Light

Contact your local distributor for price and availability.

# Fluke T6 Series Electrical Testers with FieldSense™



Fluke T6-600

Fluke T6-1000

Fluke T6-1000 PRO



## 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 4/0 (120 mm<sup>2</sup>), carrying as much as 200 A. It will change your job.

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

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

## The Full Package

The Fluke T6-1000 PRO Electrical Tester comes with a belt holster and black alligator clip as standard. Measure wires up to AWG 4/0 (120 mm<sup>2</sup>), carrying as much as 200 A and 1000 V AC, even with gloves on.



## Recommended Accessories



**C37XT**  
EVA Foam Hard Case



**T5-RLS**  
T5 Replacement Test Leads



**PRV240FS**  
Proving Unit



**AC285**  
SureGrip Alligator Clips

## Recommended Kit

Bundle & Save



**Fluke T6-1000/PRV240FS**  
Proving Unit Combo Kit

## FieldSense™ Enabled



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

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



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

Accuracy<sup>1</sup>: ±( [% of reading] + [number of least significant digits] ). Accuracy is specified for 1 year after calibration, at 18° C to 28° C (64°F to 82°F) with relative humidity to 90%. AC conversions are ac-coupled, RMS responding.

Accuracy<sup>2</sup>: Add 3% without an external ground connection. External ground connection required for user wearing insulated gloves, standing on an insulated ladder and otherwise insulated from earth ground.

Accuracy<sup>3</sup>: FieldSense™ specified from 16V to 100% of range.

## Included Accessories

Attached Test Leads with removable 4 mm Probe Cap and User Documentation.

## Ordering Information

- T6-600** Electrical Tester
- T6-1000** Electrical Tester
- T6-1000 PRO** PRO Electrical Tester
- T6-600/62MAX+/1AC** T6-600 Tester, 62MAX+ & 1AC-II Kit
- T6-HT6-1AC KIT** T6-1000 Tester, H-T6 Holster & 1AC Kit
- T6-1000/PRV240FS** T6-1000 & PRV240FS Proving Unit Kit

# Fluke ST240+ RCD Socket Tester with Beeper



Fluke ST240+



## Quickly check for common wiring faults and RCD operation

- Simple operation – Plug into a socket to quickly verify correct wiring or identify common wiring problems in both standard and RCD outlets with the bright, easy-to-see LED lights
- Know more faster with the handy chart – quickly identify one of six wiring conditions for the outlet
- Verify RCD outlets - with an integrated RCD test, you can feel secure knowing that your RCD equipped outlets are functioning properly
- Two year warranty

## Fluke ST240+ Socket Tester with RCD

The Fluke ST240+ RCD Socket Tester checks that each wire in the outlet is properly connected to the building's electrical system. Via the bright LEDs and included chart, you can quickly and easily verify the wiring of an outlet. Being able to identify several common wiring errors, including reversed live and neutral wires and an Earth fault, the Fluke ST240+ will give you confidence on your next job.

## Audible alert helps you work faster and safer

The Fluke ST240+ also gives you a unique audible alert anytime voltage is detected. Save time when trying to identify which circuit breaker is connected to which outlet. Just plug the socket tester in, walk to the circuit breaker panel, and listen for the beeper to turn off – or on – as you flip the breakers. Once it does, you've found the correct breaker. Time – and trips – saved.

When switched on, the integrated beeper can also alert you to hazardous voltage at the outlet, even if the wiring is incorrect. Working in an office, hospital or other location where you don't want to interrupt others? No problem – the beeper can be switched off.

## One-button RCD tests

The included RCD test button on the Fluke ST240+ Socket Tester allows you to also test the operation of RCD outlets. With a single push, the ST240+ can verify the operation of your RCD equipped outlet. If the RCD trips as expected, perfect, you can move on. If not, it's time to take a closer look.

## Fast visual identification of all 6 wiring conditions

The Fluke ST240+ has three bright, easy-to-see LED indicators. This lets you see one of six wiring scenarios at a glance:

- Correct installation
- Earth fault
- Neutral fault
- Live fault
- Live/Neutral reversed
- Live/Earth reversed

Functions	ST240+
Rated Operating Voltage	230 V ac +/-10% at 4mA
Wattage	0.92 W typical
Frequency	50 Hz
Integrated, switchable beeper	Yes, 60 db
RCD Test	Yes
Indicator Lights	1 red, 2 green LEDs
Safety Rating	300 V CAT II

## Recommended Accessories



**1AC-II**  
VoltAlert™ AC Non-Contact  
Voltage Testers  
See page 39



**PRV240**  
Proving Unit  
See page 24



## Included Accessories

Instruction Sheet

## Ordering Information

**ST240+** Socket Tester with LEDs, RCD Test Beeper

Contact your local distributor for price and availability. Not available in all countries.

# Fluke T Series Voltage and Continuity Testers



Fluke T150

Fluke T130



Fluke T90



Fluke T110, T130, T150



## Rugged, high-quality testers for fast test results the way you need them

Fluke's family of Two-Pole Voltage Testers are built with state-of-the-art measurement and safety technology. These testers offer everything you expect from Fluke and a little bit more.

- Rugged, high-quality construction is built to last. This includes a heavy duty molded case, a thicker cord with wear indicator, sturdy battery case, and well fitting and durable probe protector.
- Fast test results the way you need them, with large, easy-to-use buttons, bright backlights, and clear audible and physical indicators designed for any work situation.
- Enhanced ergonomic design feels good in your hand, is easy to use (even with gloves on) and quick, secure probe docking.
- Compliant with regulation HSE GS 38 (tip caps) and IEC EN 61243-3: 2010
- Three year warranty



Fluke T110

Fluke T90

### Recommended Accessories



**C150**  
Soft Case  
See page 169



**H15 Holster**  
Continuity Tester Holster  
See page 171



Features	T90	T110	T130	T150
Backlit LED indicator	•	•	•	•
Backlit LCD Digital Display	-	-	LCD	LCD
Continuity test - visual results	•	•	•	•
Continuity test - audible results	•	with on/off	with on/off	with on/off
Vibratory indicator under load	-	with on/off	with on/off	with on/off
Display Hold	-	-	•	•
Voltage Test	•	•	•	•
Indication of polarity	•	•	•	•
Resistance measurement	-	-	-	•
Switchable Load	-	•	•	•
Single pole test for phase detection	•	•	•	•
Rotary field indicator	-	•	•	•
Probe tip protection	•	•	•	•
Voltage display with discharged batteries	•	•	•	•
Electrical torch function	-	•	•	•
Wear indicator test lead wire	•	•	•	•

Specifications	T90	T110	T130	T150
Voltage AC/DC	12 V - 690 V		6 V - 690 V	
Continuity	0 - 400 kΩ			
Frequency	0 - 60 Hz	0 - 400 Hz		
Phase rotation	-	100 V - 690 V		
Resistance measurement	-		Up to 1999 Ω	
Response time (LED ladders)	< 0.1 s			
200 kΩ input impedance	Current draw 3,5 mA @ 690 V, Current draw 1,15 mA @ 230 V			
7 kΩ input impedance (with load buttons pressed)	-	current draw 30 mA @ 230 V		
Safety rating	CAT II 690 V CAT III 600 V		CAT III 690 V CAT IV 600 V	
IP rating	IP54		IP64	
Battery type	Alkaline supplied. usable with 1.2 V NiCD or NiMH rechargeable batteries			
Size (HxWxD)	100 mm × 250 mm × 125 mm			
Weight	1.3 kg			

### Included Accessories

Two AA Batteries and Instruction Sheet.

### Ordering Information

- FLUKE-T90** Voltage/Continuity Tester
- FLUKE-T110** Voltage/Continuity Tester with Switchable Load
- FLUKE-T130** Voltage/Continuity Tester with LCD Switchable Load
- FLUKE-T150** Voltage/Continuity Tester with LCD, OHMS, Switchable Load

Contact your local distributor for price and availability.

# Fluke 9040 and 9062 Phase Rotation Indicators

Take the guesswork out of phase/motor rotation measurements



## Fluke 9040 Phase Rotation Indicator

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

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

## Fluke 9062 Motor and Phase Rotation Indicator

The unique Fluke 9062 provides rotary field and motor rotation indication with the benefits of contactless detection.

- 3 phase indication
- Indication of phase rotation
- Indication of motor rotation direction
- Contact free determination of the rotation direction of running motors
- Two year warranty

Made for commercial and industrial environments, the Fluke 9062 provides rapid indication of 3 phase rotation using test leads supplied or can be used to determine motor rotation on synchronous and asynchronous 3 phase motors. The contactless detection is ideal for use on motors where the shaft is not visible. Test probes supplied with the instrument have a variable clamping range for safe contact, especially in industrial sockets.

Specifications	9040	9062
Voltage range	40 - 700 V	Up to 400 V
Phase display	-	120 - 400 V AC
Frequency range	15 - 400 Hz	2-400 Hz
Operating time	Continuous	Continuous
Size (HxWxD)	124 mm × 61 mm × 27 mm	124 mm × 61 mm × 27 mm
Power supply	from unit under test	1 × 9 V
Weight	0.20 kg	0.15 kg

## Recommended Accessories



**TLK290**  
Flexible Socket  
Probe Set  
See page 159



**TLK291**  
Fused Test Probe Set  
See page 159



**C25**  
Meter Case  
See page 169



Determine the presence of phase sequence of multiphase electrical supplies.



Determine the rotation of running motors by placing the instrument on the motor casing.



Check the correct rotation of motors prior to connection.

## Included Accessories

**Fluke 9040:**  
Alligator Clips - Black (3),  
Standard Test Probes - Black (3),  
Flexible Test Probes - Black (3),  
User Manual.

**Fluke 9062:**  
Alligator Clips - Black (3),  
Flexible Test Probes - Black (3),  
Test Leads - Black (3),  
9V Battery, User Manual.

## Ordering Information

**FLUKE-9040** Phase Rotation Indicator

**FLUKE-9062** Motor and Phase Rotation Indicator

Contact your local distributor for price and availability.

# Fluke 2042 Cable Locator



Receiver

Transmitter



## The multipurpose solutions to cable location

The Fluke 2042 is a professional general purpose cable locator. It is ideal for tracing cables in walls and underground, locating fuses/breakers on final circuits and locating interruptions and short-circuits in cables and electrical floor heating systems.

It can also be used for tracing metallic water and heating pipes. The unit is supplied as a complete kit comprising of a transmitter and receiver in a purpose-made carry case. The receiver also incorporates a torch function for working in dimly lit locations.

- For all applications (live or dead cables) without additional instruments
- Set includes a transmitter and a receiver
- Proven digitally coded sender signal guarantees clear signal identification
- Transmitter with LCD-display for transmitting level, transmitting code and external voltage
- Receiver with a backlight LCD-display for level of receiving signal, code of receiving signal and live voltage indication
- Automatic or manual adjustment of receiving signal sensitivity
- Switchable acoustic receiving signal
- Auto-Power-Off
- Additional torch lamp function for working in dark environments
- Additional transmitters are available for extension or to distinguish between several signals
- Two year warranty

Specifications	Transmitter	Receiver
Voltage Measurement Range	12 V, 50 V, 120 V, 230 V, 400 V	
Frequency Range	0..60 Hz	
Output signal	125 kHz	
Voltage	Up to 400 V AC/DC	
Main voltage detection		0...0.4m
Operating Temperature	0 to 40°C	0 to 40°C
Storage Temperature	-20°C to +60°C	-20°C to +60°C
Humidity (Without Condensation)	Max. 80% relative	Max. 80% relative
Operating Altitude	Up to 2000 m	Up to 2000 m
Electrical Safety	EN 61010-1	
Overvoltage Category	Cat. III 300 V	
Voltage Test	•	•
Indication of polarity	•	•
Resistance measurement		
Batteries	6 pc Batteries 1.5 V	1 pc Battery 9 V
Size (HxWxD)	190 mm × 85 mm × 50 mm	250 mm × 65 mm × 45 mm
Weight	0.45 kg	0.36 kg

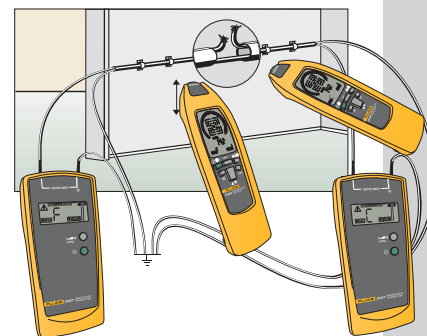
## Recommended Accessories



2042T Transmitter



Location of fuses/breakers and assignment to circuits



Precise location of cable interruptions with additional transmitter

## Included Accessories

TL27 Heavy Duty Test Lead Set (2), TP74 Lantern Tip Test Probe Set, AC285 Alligator Clip Set, Soft Carrying Case, Hard Case.

## Ordering Information

**FLUKE-2042** Cable Locator (Transmitter & Receiver)

**FLUKE-2042T** Cable Locator Transmitter

Contact your local distributor for price and availability.



# Fluke 417D and 424D Laser Distance Meters



Fluke 417D

Fluke 424D



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

Measure farther, with greater accuracy, in more situations.

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

### The Fluke 424D Laser Distance Meter offers:

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

Key Features	417D	424D
Maximum measurement distance	40 m (131.23 ft)	100 m (328.08 ft)
Accuracy	$\pm 2$ mm (0.078 in)	$\pm 1$ mm (0.039 in)
Battery life (no. of measurements)	3000	5000
Area measurement	•	•
Volume measurement		•
Pythagoras calculations		•
Plus and minus calculations		•
Measurement storage		20 sets
Backlight		•
Minimum/Maximum		•
Audible keypad feedback		•
Tripod mount		•
Corner angle measurement		•
Ingress Protection (IEC 60529)	IP54	IP54
Compass		•
Inclination sensor		•
Automated end-piece correction		•
Laser Class	2	2

### Recommended Accessories



**C1600**  
Meter Gear Box



**C550**  
Premium Tool Box



**L206**  
Deluxe LED Hat Light

### Recommended Kits

Bundle & Save



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



### Included Accessories

417D & 424D: Two AAA Batteries, User Manual CD, Quick Reference Guide, Vinyl Carrying Pouch, Lanyard.

### Ordering Information

**FLUKE-417D** Laser Distance Meter, 40 m

**FLUKE-424D** Laser Distance Meter, 100 m

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

Contact your local distributor for price and availability.



# 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

							
	<b>Fluke 62 MAX</b>	<b>Fluke 62 MAX+</b>	<b>Fluke 64 MAX</b>	<b>Fluke 561</b>	<b>Fluke 566</b>	<b>Fluke 568/568Ex</b>	<b>Fluke 572-2</b>
Temperature range	-30 to 500° C (-22° F to 932° F)	-30 to 650° C (-22° F to 1,202° F)	-30 to 600° C (-22° F to 1,112° F)	-40 to 550° C (-40° F to 1,022° F)	-40 to 650° C (-40° F to 1,202° F)	-40 to 800° C (-40° F to 1,472° F)	-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

# Fluke 60 Series Infrared Thermometers



Fluke 64 MAX

Fluke 62 MAX



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

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

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

Specifications	62 MAX	62 MAX+	64 MAX
Temperature range	-30° C to 500° C (-22° F to 932° F)	-30° C to 650° C (-22° F to 1,202° F)	- 30° C to 600° C (-22° F to 1,112° F)
Accuracy	$\pm 1.5^\circ\text{C}$ or $\pm 1.5\%$ of reading, whichever is greater  -10° C to 0° C: $\pm 2.0$ -30° C to -10° C: $\pm 3.0$ (14° F to 32° F: $\pm 2.0$ -22° F to 14° C: $\pm 3.0$ )	$\pm 1.0^\circ\text{C}$ or $\pm 1.0\%$ of reading, whichever is greater  -10° C to 0° C: $\pm 2.0$ -30° C to -10° C: $\pm 3.0$ (14° F to 32° F: $\pm 2.0$ -22° F to 14° C: $\pm 3.0$ )	$\pm 1.0^\circ\text{C}$ or $\pm 1.0\%$ of reading, whichever is greater  -10° C to 0° C: $\pm 2.0$ -30° C to -10° C: $\pm 3.0$ (14° F to 32° F: $\pm 2.0$ -22° F to 14° C: $\pm 3.0$ )
Emissivity	0.10 to 1.00		
Optical resolution	10:1 (calculated at 90% energy)	12:1 (calculated at 90% energy)	20:1 (calculated at 90% energy)
Compliance	IEC 61010-1: 2001		
Laser safety	FDA and IEC 60825-1 Class 2		



### Recommended Accessory



**TI-TRIPOD**  
Tripod Mounting  
Accessory for 64 MAX

### Recommended Kits Bundle & Save

**Fluke 116/62 MAX+ Technician's Combo Kit**

**Fluke T6-600/62 MAX+/1AC-II Infrared Thermometer and Electrical Tester Kit**

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

**Fluke 62MAX+/323/1AC Combo Kit**

### Included Accessories

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

### Ordering Information

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

**FLUKE-62 MAX+** Dual Laser IR Thermometer, 12:1 Spot

**FLUKE 62 MAX+/323/1AC** IR Thermometer Clamp Meter and Voltage Detector Kit

**FLUKE-64 MAX** IR Thermometer

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

**1587KIT/62 MAX+** 2-in-1 ADV Elec Kit with 62MAX+ i400 AC Current Clamp

Contact your local distributor for price and availability.

# Fluke 560 and 570 Series Infrared Thermometers



Fluke 568

Fluke 561



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

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

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

Specifications	561	566	568/568 Ex
Infrared temperature range	-40° C to 535° C (-40 to 995° F)	-40° C to 650° C (-40 to 1,202° F)	-40° C to 800° C (-40 to 1,472° F)
Accuracy	Greater of ±1% or ±1° C		
Distance to Spot (D:S)	12:1	30:1	50:1
Sighting	Laser point		
Typical distance to target	Up to 2.5 m (8.2 ft)	Up to 4.5 m (14.76 ft)	Up to 7.5 m (24.6 ft)
Contact temperature range	-40° C to 550° C (-40° F to 1,022° F)	-270° C to 1372° C (-454° F to 2,501.6° F)	
Number of on-board memory locations	—	20	99
PC download and software	—	—	FlukeView™ Forms
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	

## Fluke 572-2 High Temperature Infrared Thermometer

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

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



Fluke 572-2



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

## Specialty Model

### Fluke 568Ex Intrinsically Safe Infrared Thermometer



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

## Recommended Accessories



**80PK-22**  
SureGrip™ Immersion Probe



**80PK-27**  
SureGrip™ Surface Temperature Probe



**80PK-8**  
Pipe Clamp Probe



**80PK-11**  
Pipe Clamp Probe



**80PK-18**  
Pipe Clamp Probe Kit



**C1600**  
Gear Tool Box

## Included Accessories

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

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

## Ordering Information

<b>FLK-572-2</b>	IR Thermometer
<b>FLUKE-561</b>	HVACPro Infrared Thermometer
<b>FLUKE-566</b>	IR Thermometer
<b>FLUKE-568</b>	IR Thermometer
<b>FLUKE-568 Ex</b>	Intrinsically Safe IR Thermometer

# Fluke 50 Series II Thermometers

Lab accuracy in a field thermometer



Fluke 54 II B

Fluke 53 II B



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

- Laboratory accuracy:  $\pm(0.05\% + 0.3^\circ\text{C})$
- Large backlit dual display
- Min/Max/Avg
- Electronic offset function maximizes overall accuracy
- Supports a wide range of thermocouple types
- Temperatures displayed in  $^\circ\text{C}$ ,  $^\circ\text{F}$ , or Kelvin (K)
- Three-year warranty

### Powerful data logging capabilities

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

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



Fluke 51 II

Fluke 52 II

### Recommended Accessories



**Fluke 80PK-25**  
SureGrip™ Piercing Temperature Probe



**Fluke 80PK-27**  
SureGrip™ Industrial Surface Temperature Probe



**Fluke 80PK-10**  
Pipe Clamp Temperature Probe

Specifications	51 II	52 II	53 II B	54 II B
Thermocouple types	J,K,T,E	J,K,T,E	J,K,T,E,N,R,S	J,K,T,E,N,R,S
Number of inputs	Single	Dual	Single	Dual
Time stamp	Relative Time	Relative Time	Time of Day	Time of Day
Dual display with backlight	•	•	•	•
Min/Max/Avg recording	•	•	•	•
(T <sub>1</sub> -T <sub>2</sub> ) True differential	-	•	-	•
Data logging up to 500 points	-	-	•	•
IR data port for interface to PC	-	-	•	•
Compatible with FlukeView™ Software	-	-	•	•
Battery life	1000 hours typical, AA			
Size (HxWxD)	173 mm × 86 mm × 38 mm			
Weight	0.4 kg			

### Temperature range and accuracy

J-type Thermocouples	-210° C to 1200° C (-346° F to 2,192° F)
K-type Thermocouples	-200° C to 1372° C (-328° F to 2,501.6° F)
T-type Thermocouples	-250° C to 400° C (-418° F to 752° F)
E-type Thermocouples	-150° C to 1000° C (-238° F to 1,832° F)
N-type** Thermocouples	-200° C to 1300° C (-328° F to 2,372° F)
R** and S-type** Thermocouples	0° C to 1767° C (32° F to 3,212.6° F)

### Temperature accuracy above -100° C:

J, K, T, E, and N-type**	$\pm[0.05\% + 0.3^\circ\text{C}]$
R** and S-type**	$\pm[0.05\% + 0.4^\circ\text{C}]$

### Temperature accuracy below -100° C:

J, K, E, and N-types	$\pm[0.20\% + 0.3^\circ\text{C}]$
T-type	$\pm[0.50\% + 0.3^\circ\text{C}]$

### Included Accessories

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

### Ordering Information

<b>FLUKE 51 II</b>	Single Input Digital Thermometer
<b>FLUKE 52 II</b>	Dual Input Digital Thermometer
<b>FLUKE 53 II B</b>	Single Input Digital Thermometer with Data Logging
<b>FLUKE 54 II B</b>	Dual Input Digital Thermometer with Data Logging

Contact your local distributor for price and availability.



# 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



	PT1120	TIS20+/ T120+ MAX	TIS55+	TIS60+	TIS75+	TIS300+	T1401 PRO	T1480 PRO	TIX501	TIX580
<b>Key Features</b>										
Infrared Resolution	120 x 90 (10,800 pixels)	256 x 192 (49,152 pixels)	320 x 240 (76,800 pixels)	384 x 288 (110,592 pixels)	320 x 240 (110,592 pixels)	640 x 480 (307,200 pixels)				
SuperResolution			-				Yes, in software.	Yes, in software.	-	Yes, in software.
Temperature Range	-20° C to 400° C (150° C for TIS20+)	-20° C to 550° C	-20° C to 400° C	-20° C to 550° C	-20° C to 650° C	-20° C to 650° C	-20° C to 1,000° C	-20° C to 1,000° C	-20° C to 650° C	-20° C to 1,000° C
IFOV with Standard Lens (spatial resolution)	7.6 mrad, D:S 130:1	1.91 mrad	1.86 mrad, D:S 532:1	1.91 mrad	1.86 mrad, D:S 532:1	1.86 mrad, D:S 532:1	0.93 mrad, D:S 1066:1	0.93 mrad, D:S 1066:1		
Thermal Sensitivity	60mK	40mK	45mK	40mK	40mK	75mK	50mK	50mK		
Field of View	50° H x 38° V	28° H x 20° V	34.1° H x 25.6° V	42° H x 30° V	42° H x 30° V	34° H x 24° V				
Minimum Focus Distance	50 cm	50 cm	46 cm	50 cm	50 cm	15 cm				
MultiSharp Focus			-				Yes, focused throughout the field of view			
LaserSharp Auto Focus	Fixed Focus	Manual Focus	Fixed Focus	Manual 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	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			AutoBlend continuous 0% to 100%. Adds the context of the visible details to your infrared image							
Battery Life	≥ 2 hours continuous (without WiFi)	≥ 5 hours continuous (without WiFi)	4 hours continuous use per battery pack	3.5 hours continuous (without WiFi)	3.5 hours continuous (without WiFi)	2-3 hours continuous use per battery pack				
Warranty				Two years (standard)						





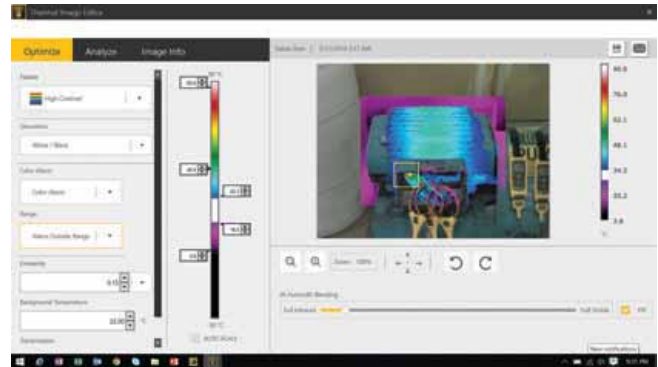
## Fluke Connect™ Desktop for Thermal Imaging

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

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

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

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



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

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

### Fluke Connect™ Compatibility Guide

Fluke Connect™ Tools	Fluke Connect™ App	3000 FC	902 FC	376/375 /374 FC	a3000 FC a3001 FC	a3002 FC	a3003 FC a3004 FC	v3000 FC	v3001 FC	t3000 FC
Fluke Connect™ App – iOS and Android™	•	•	•	•	•	•	•	•	•	•
TiX580 Infrared Camera	•	•	•	•	•	•	•	•	•	•
Ti480PRO Infrared Camera	•	•	•	•	•	•	•	•	•	•
PT1120/TiSxx Series Infrared Cameras	•	•	•	•	•	•	•	•	•	•



### Get the FREE Fluke Connect™ App!

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



# Fluke PTi120 Pocket Infrared Camera



Fluke PTi120



## Infrared troubleshooting power you need, right in your pocket

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

- 120 × 90 infrared resolution (10,800 pixels)
- -20° C to 400° C (-4° F to 752° F) temperature measurement range
- 8.89 cm (3.5 in) LCD touchscreen display with intuitive interface for easy troubleshooting
- 1 m (3.28 ft) drop tested
- IP54 enclosure rating
- Touchscreen IR-Fusion blends a visible light image with an infrared image, simply slide your finger across the screen to adjust
- Two-year warranty



Industrial Imaging

Key features	PTi120
IFOV (Spatial Resolution)	7.6 mrad
Infrared Resolution	120 × 90
Field of View	50° H × 38° V
Frame Rate	9 Hz
Distance to Spot	130:1
Temperature Measurement Range (not calibrated below -10° C)	-20° C to 400° C (-4° F to 752° F)
Thermal Sensitivity	60 mK
Focus system	Fixed focus, minimum focus distance 22.8 cm (8.97 in)
Center-point temperature	Yes
Spot temperature	Hot and cold spot markers
Battery	≥2 hours (without WiFi), can be charged via USB cable
Fluke Connect™ Instant Upload	Yes, connect your camera to your building's WiFi network, and images taken automatically upload to the Fluke Connect™ mobile App for storage and viewing on your PC.



## Get the FREE Fluke Connect™ App!

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



### Included Accessories

Soft Case, Lanyard and USB cable.

### Ordering Information

FLK-PTI120 Fluke Pocket  
9HZ 400C Infrared Camera

Contact your local distributor for price and availability.

# Fluke Performance Series Infrared Cameras

TiS20+, TiS20+ MAX, TiS55+, TiS60+ and TiS75+



Fluke TiS55+

Fluke TiS75+



## Easy-to-use frontline troubleshooting

Easily see potential problems with blended IR and visual images, on a large 8.89 cm (3.5 in) LCD display. Fluke Performance Series Infrared Cameras are one-handed pistol grip models that make on-site thermal inspections quicker and easier.

## Manual Focus

Focus is one of the most critical aspects of a thermal image because it cannot be altered with software. Both manual and fixed focus options are available on the latest TiS55+ and TiS75+ infrared cameras, leveraging the advantages of both optical systems and making this ideal for both seasoned thermographers and users new to thermography.

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

## Recommended Accessories



**FLK-TI-TRIPOD3**  
Tripod Mounting  
Accessory

**FLK-TI-SBP3**  
Additional Smart  
Battery

**FLK-TI-SBC3B**  
Smart Battery Charger

**TI-CAR CHARGER**  
Car Charger

**FLK-TI-BLUETOOTH**  
Bluetooth Headset

**CV400**  
ClirVu™ Infrared Window



Combine with a Fluke ClirVu™ Infrared Window to conduct thermal inspections without having to open the electrical panel.

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

<sup>1</sup> Refer to product datasheet for more details.

## Included Accessories

**Infrared camera:** AC Power Supply, Lithium-ion Smart Battery, USB Cable and Soft Transport Bag.

**Fluke TiS55+** also includes 4GB Micro-SD-Card, Hand Carrying Case and adjustable Hand Strap.

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

## Ordering Information

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

Contact your local distributor for price and availability.

# Fluke Professional Series Infrared Cameras

## Ti300+, Ti401 PRO and Ti480 PRO



Fluke Ti480 PRO

Fluke Ti401 PRO

Get clear, accurate focus on objects near and far with MultiSharp™ focus<sup>1</sup>, or focus with laser speed and accuracy on your designated target with LaserSharp® Auto Focus. Easily navigate the menu and view images on a 3.5 inch, 640 x 480 touchscreen. Get more from your camera with an optional 2x or 4x telephoto or wide angle smart lens – no calibration required.

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

### Recommended Accessories



**FLK-LENS/TELE2**  
Telephoto Infrared Lens  
(2x magnification)  
See page 70

**FLK-LENS/WIDE2**  
Wide-angle Infrared Lens  
See page 70

**TI-TRIPOD3**  
Tripod Mounting  
Base Accessory  
See page 148

**TI SBP3**  
Additional  
Smart Battery  
See page 148

**FLK-TI-SBC3B**  
Additional  
Smart Battery Charger  
See page 148

**FLK-TI-BLUETOOTH**  
Bluetooth  
Handset

Key Features	Ti300+	Ti401 PRO	Ti480 PRO
Infrared Resolution	320 x 240 (76,800 pixels)	640 x 480 (307,200 pixels)	
SuperResolution	No	No	Yes, in software. Captures and combines 4x the data to create a 1280 x 960 image
IFOV with Standard Lens (Spatial Resolution)	1.85 mRad, D:S 532:1	0.93 mRad, D:S 1065:1	
Field of View	34 °H x 24 °V		
Thermal Sensitivity (NETD)**	≤ 0.075 °C at 30 °C target temp (75 mK)		≤ 0.05 °C at 30 °C target temp (50 mK)
Temperature Measurement Range	-20 °C to +650 °C	-20 °C to +650 °C	-20 °C to +1,000 °C
LaserSharp™ Auto Focus and Manual Focus	Yes	Yes with MultiSharp™ Focus option	
Laser Distance Meter	Yes, calculates distance to the target for precisely focused images and displays distance on screen		
Optional Lenses	Wide angle, 2x and 4x telephoto, 25 micron macro		
IR-Fusion Technology	Yes, adds the context of the visible details to your infrared image		
Display	3.5 inch (landscape), 640 x 480 LCD Touch Screen		
Frame Rate	60 Hz or 9 Hz versions		
Voice Annotation	60 seconds maximum recording time per image; reviewable playback on camera, optional Bluetooth headset available but not required		
Text Annotation	Yes. Including standard shortcuts as well as user programmable options		
Video Recording	No	No	Standard and radiometric
Remote Control Operation	No	Remote display through Fluke Connect	Remote display and control operation through Fluke Connect
Alarms	High temperature, low temperature, and isotherms (within range)		
Wireless Connectivity	Fluke Connect® App compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN		
Software	Full analysis and reporting software with access to the Fluke Connect® system		



### Included Accessories

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

### Ordering Information

<b>FLK-TI300+</b>	Infrared Camera
<b>9Hz</b>	
<b>FLK-TI300+</b>	Infrared Camera
<b>60Hz</b>	
<b>FLK-TI401 PRO</b>	Infrared Camera
<b>9Hz</b>	
<b>FLK-TI401 PRO</b>	Infrared Camera
<b>60Hz</b>	
<b>FLK-TI480 PRO</b>	Infrared Camera
<b>9Hz</b>	
<b>FLK-TI480 PRO</b>	Infrared Camera
<b>60Hz</b>	

Contact your local distributor for price and availability.

# Fluke Expert Series Infrared Cameras

## TiX501 and TiX580



Fluke TiX580



Fluke TiX501



### Tablet sized screen, more details, faster decisions.

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

- **Resolution:** 640 × 480 (307,200 pixels)
- **Temperature range:**  
TiX501 -20 °C to +650 °C  
TiX580 -20 °C to +1000 °C
- Premium in-field viewing experience with a 5.7 inch responsive touchscreen LCD
- See the details you need with smart lenses—2x and 4x telephoto, wide angle, and 25 micron macro—no calibration required, interchangeable between compatible cameras
- See, save and share from the field and connect to the largest selection of wireless test and measurement tools with the Fluke Connect® App
- Two year warranty

### LaserSharp® Auto Focus

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

### Brilliant Image Quality

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

Key Features	TiX580	TiX501
Infrared Resolution	640 × 480 (307,200 pixel) SuperResolution mode: 1280 × 960 (1,228,800 pixels) (TiX580)	
I FOV (Spatial Resolution)	0.93 mRad	
Field of View	34° H × 24° V	
Distance to Spot	753:1	
Thermal Sensitivity	≤ 0.05°C at 30°C target temp (50 mK)	
Temperature Range	-20°C to +1,000°C	-20°C to +650°C
Optional lenses	Pre-calibrated smart optional lenses: wide angle, 2x telephoto	
Wireless Connectivity	Fluke Connect® app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN	
IR-Fusion®	AutoBlend™ mode, continuous blending	
Picture-In-Picture (PIP)	Yes	
Software	Fluke Connect® (web, mobile and desktop)	
Video recording	Standard and radiometric	
Alarms	High temperature, low temperature, and isotherms (within range)	

### Recommended Accessories



**FLK-LENS/TELE2**  
Telephoto infrared lens (2x magnification)  
See page 70



**FLK-LENS/WIDE2**  
Wide-angle infrared lens  
See page 70



**FLK-LENS/4XTELE2**  
Telephoto infrared lens (4x magnification)  
See page 70



**FLK-LENS/25MAC2**  
Infrared 25 Micron Macro Lens  
See page 70



**TI-CAR-CHARGER**  
Car Charger  
See page 148



**FLK-TI-BLUETOOTH**  
Bluetooth Headset



**FLK-TiX5XX-NECK**  
Neck Strap



### Included Accessories

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

### Ordering Information

- FLK-TiX501 60Hz** Infrared Camera
- FLK-TiX501 9Hz** Infrared Camera
- FLK-TiX580 60Hz** Infrared Camera
- FLK-TiX580 9Hz** Infrared Camera

Contact your local distributor for price and availability.

# Fluke CV Series ClirVu™ Infrared Windows



## Compliance without compromise. Safety without sacrifice.

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

- Save time with a quick and easy five-minute or less installation
  - One technician
  - One hole with standard Greenlee™ punch
  - Panel door does not need to be removed
  - Grounds instantly to metal enclosure with patent-pending AutoGround™ process
  - Maintains panel arc test ratings up to 63 kA when properly installed
- Torture Tested™ to the highest arc blast test ratings
  - IEEE C37.20.7: 63 kA Arc tested at KEMA, UL 50/50E/50V, UL 1558, IEC 60529-1: IP67, IEC 60068, NEMA 4/12, CSA C22.2 NO.14-13:2012, and CE
- Convenience of both quick turn (CV400, CV300, CV200) or security keyed access (CV401, CV301, CV201)
- Available in three sizes 50 mm (1.96 in), 75 mm (2.95 in) and 95 mm (3.74 in)
- Work permit requirements and NFPA 70E processes are significantly reduced
- Full PPE is often not required so inspections are done faster and more conveniently
- Lifetime replacement warranty against manufacturing defects

## Quick & Easy Installation in 5 minutes or less



Specifications	CV400	CV401	CV300	CV301	CV200
Size	95 mm (3.74 in)		75 mm (2.95 in)		50 mm (1.96 in)
Voltage Range	Any				
NEMA Environment Type	Type 4/12 (indoor/outdoor)				
AutoGround™	Yes				
ClirVu™ Optic	Yes				
Operating temperature	-40° C to 232° C and 260° C (-40° F to 449.6° F and 500° F) Intermittent				
Body material	EZAC & ZA-27 High Strength Zinc/ Aluminum Alloy				
Ratings and testing					
Arc-Tested (IEEE C37.20.7)	63 kA for 30 cycles @ 60 Hz				
UL 50V component recognition	Yes				
UL 50, UL 50E/NEMA Environmental Rating	NEMA Type 4/12				
UL 1558	Yes				
CSA C22.2 No. 14, No. 94	Yes				
CSA Type Rating	Type 4, 12				
Ingress Protection (IEC 60529)	IP67				
Lloyds Register	IEC 62271-100, 200: Up to 11 kV marine switchgear, indoor or outdoor (offshore only), IP65				
Vibration rating	IEC 60068-2-6: 10-2000 Hz, 5 g peak, 2.5 hr/axis				
Humidity rating	IEC 60068-2-3: 40 C, 93% RH, 504 hr.				
Install					
Actual mounting hole diameter required	115.42 mm (4.54 in)		89.89 mm (3.53 in)		61.37 mm (2.41 in)
Greenlee Punch Kit = Punch/Die	742BB = 2984AV/2983AV		739BB = 1431AV/1432AV		76BB = 441AV/442AV
Door Latch	Hand Turn	Security Key	Hand Turn	Security Key	Hand Turn Security Key
Optics					
Optic insert diameter	95 mm (3.74 in)		75 mm (2.95 in)		50 mm (1.96 in)

## Included Accessories

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

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

## Ordering Information

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

Contact your local distributor for price and availability.

# Fluke Lenses

## Telephoto, Wide Angle and Macro



### Telephoto Lenses

The difference between finding and potentially diagnosing the problem, and not seeing any discrepancy at all. Get the detail you need, even from a distance, when you view your target magnified two-times or four-times more than a standard lens.

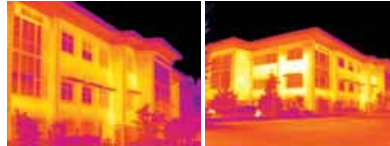


Standard      2x Telephoto      4x Telephoto



### Wide Angle Lenses

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



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



### Macro Lenses

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



Standard      25 Micron Macro Lens — see detail in very small objects

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

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

### Ordering Information

**FLK-LENS/TELE2**      2x Telephoto Infrared Smart Lens

**FLK-LENS/4XTELE2**      4x Telephoto Infrared Smart Lens

**FLK-LENS/WIDE2**      Wide Angle Infrared Smart Lens

**FLK-LENS/25MAC2**      25 Micron Macro Infrared Smart Lens

Contact your local distributor for price and availability.



# Fluke DS703 FC Diagnostic Video Borescope



Fluke DS703 FC



## Gritty, industrial, expensive equipment? Diagnose before tear-down with the durability of Fluke

Industrial inspections require a powerful diagnostic borescope designed to stand up to the dirtiest, most harsh environments. Fluke Diagnostic Scopes put high-resolution images in the palm of your hand.

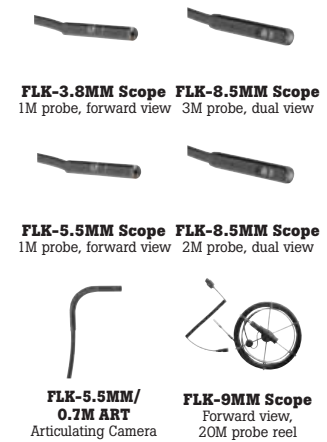
- High definition probe with dual-view camera
- High Resolution DS703 FC- 1280 × 720 (921,600 pixels)
- Processing speeds that render a smooth, clear, consistent image
- 17.78 cm (7 in)' LCD screen for easy viewing
- Improved battery charging and management
- Macro to micro zoom function
- Adjustable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

### Fluke DS703 FC High Resolution Diagnostic Scope with Fluke Connect™

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

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

### Recommended Accessories



**FLK-3.8MM Scope** 1M probe, forward view **FLK-8.5MM Scope** 3M probe, dual view

**FLK-5.5MM Scope** 1M probe, forward view **FLK-8.5MM Scope** 2M probe, dual view

**FLK-5.5MM/0.2M ART** Articulating Camera **FLK-9MM Scope** Forward view, 20M probe reel



### Included Accessories

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

### Ordering Information

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

Contact your local distributor for price and availability.



# Fluke ii900 Sonic Leak Detection Industrial Imager



Fluke ii900



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

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

- 17.78 cm (7 in) 1280 × 800 LCD with capacitive touchscreen
- Frequency band of 2 kHz to 52 kHz (detected 150 ml/min leak at 7 bar for 10 mins)
- SoundMap™ overlay for visual leak detection
- Capture images in JPEG or PNG format with user input notes function
- Capture videos in MP4 format
- Manual frequency filtering
- Two-year warranty

## SoundSight™ Technology

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

### With minimal training, the ii900 enables you to:

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

Key Features		ii900
<b>Sensor</b>		
# of Microphones		64 digital MEMS microphones
Frequency Band		2 kHz to 52 kHz
Sound Pressure Sensitivity		150 ml/min leak at 7 bar from 10 meters
Operational Distance Range		0.5 to 50 meters (1.64 to 164 ft)
<b>Built-in Digital Camera (visible light)</b>		
Field of view		63° ± 5°
Focus		Fixed lens
<b>Acoustic Measurements</b>		
Measurement Range		15.4 dB SPL to 115.2 dB SPL ±1 dB SPL 2 kHz 5.6 dB SPL to 102.5 dB SPL ±2 dB SPL 19 kHz 28.4 dB SPL to 131.1 dB SPL ±1 dB SPL 35 kHz 41.8 dB SPL to 133.1 dB SPL ±3 dB SPL 52 kHz
<b>General Specifications</b>		
Battery Life		6 hours/battery (product includes spare battery)
Ingress Protection (main unit)		IP40 protection against particles 1mm or greater
Sensor Head Rating		IP51 protection against dust and dripping water

## Try the Virtual Demo

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

[acoustic-imagin.fluke.com](http://acoustic-imagin.fluke.com)



Fluke Premium Care plans are available for this product. Premium Care plans provide coverage above and beyond your tool's original product warranty. See pages 12 - 13.

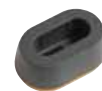
### Ordering Information

<b>FPC1S-II900-1</b>	Fluke II900 Standard 1 Year
<b>FPC3S-II900-1</b>	Fluke II900 Standard 3 Year
<b>FLUKE-II900/FPC</b>	Fluke ii900 with Standard 1 Year Bundle

### Recommended Accessories



**BP291**  
4500 mAh capacity  
Li-ion Battery



**EBC290**  
External  
Battery Charger



**FLK-TIKSXX-NECK**  
Neck Strap



**CXT1000**  
Hard Carry Case



### Included Accessories

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

### Ordering Information

<b>Fluke-II900</b>	Sonic Industrial Imager
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Contact your local distributor for price and availability.

# Fluke ii910 Precision Acoustic Imager



Fluke ii910

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

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

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

## SoundSight™ Technology for partial discharge detection

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

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

Key Features		ii910
<b>Sensor</b>		
Frequency Band		2 kHz to 100 kHz
Nominal Frame Rate		25 fps
Detection Range		0.5 to 120 m (1.64 to 393.7 ft)
<b>Built-in Digital Camera (visible light)</b>		
Field of View		63° ±5°
Focus		Fixed lens
<b>Display</b>		
Size		22.86 cm (7 in) LCD with backlight, under-sunlight readable
Resolution		1280 × 800 (1,024,000 pixels)
Touchscreen		Capacitive
Acoustic Image		Yes, SoundMap™ image
<b>Acoustic Measurements</b>		
Measurement Range		12.1 dB SPL to 114.6 dB SPL ±1 dB SPL 2 kHz 4.4 dB SPL to 101.2 dB SPL ±2 dB SPL 19 kHz 12.8 dB SPL to 119.2 dB SPL ±1 dB SPL 35 kHz 19.8 dB SPL to 116.1 dB SPL ±3 dB SPL 52 kHz 41.4 dB SPL to 129.0 dB SPL ±1 dB SPL 80 kHz 54.4 dB SPL to 135.5 dB SPL ±1 dB SPL 100 kHz
Auto Max/Min dB Gain		Auto or manual, user selectable
Frequency Band Selection		User selectable through user-made pre-sets or manual entry
<b>General Specifications</b>		
Battery Life		6 hours/battery (product includes spare battery)
Main Unit Rating		IP40 protection against particles 1 mm or greater
Weight		2.15 kg (4.74 lbs)
General Safety		IEC 61010-1

Fluke Premium Care plans are available for this product. Premium Care plans provide coverage above and beyond your tool's original product warranty. See pages 12 - 13.

### Ordering Information

<b>FPC1S-II900-1</b>	Fluke II900 Standard 1 Year
<b>FPC3S-II900-1</b>	Fluke II900 Standard 3 Year
<b>FLUKE-II900/FPC</b>	Fluke ii900 with Standard 1 Year Bundle

### Recommended Accessories



**BP291**  
4500 mAh capacity  
Li-ion Battery



**EBC290**  
External  
Battery Charger



**FLK-TIK5XK-NECK**  
Neck Strap



**CXT1000**  
Hard Carry Case



### Included Accessories

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

### Ordering Information

<b>Fluke-II910</b>	Precision Acoustic Imager
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Contact your local distributor for price and availability.

# Fluke RSE300 and RSE600 Mounted Infrared Cameras



Fluke RSE30 and RSE60

## Mounted infrared cameras for research, science and engineering

- MATLAB® and LabVIEW® software compatibility allows users to integrate infrared data, images and videos to support R&D analysis
- 320 x 240 and 640 x 480 resolution options
- See the details you need with optional smart lenses: 2x and 4x telephoto, wide angle and macro lenses
- Optimize images, generate customizable reports and export images to the format of your choice with **SmartView R&D™ desktop software**
- Eliminate potential for mis-diagnosis with automatically focused images throughout your field of view with **MultiSharp™ Focus**.

### Recommended Accessories



**RSE30-2X TELE LENS**  
RSE30 12C Tele Len, Non-Calibrated



**RSE30-2X WIDE LENS**  
RSE30 50C Wide Len, Non-Calibrated



**RSE60-2X TELE LENS**  
RSE60 12C Tele Len, Non-Calibrated



**RSE60-2X WIDE LENS**  
RSE60 50C Wide Len, Non-Calibrated

## Specifications

Key features	RSE300	RSE600
Infrared resolution <sup>1</sup>	320 x 240 (76,800 pixels)	640 x 480 (307,200 pixels)**
IFOV with standard lens (spatial resolution)	1.85 mRad	0.93 mRad
Field of view	34 °H x 24 °V	34 °H x 24 °V
Minimum focus distance	15 cm (approx. 6 in)	
Camera focus options	Focus is adjusted in SmartView R&D™ desktop software	
IR-Fusion® technology	Yes, in SmartView R&D™ desktop software. Five modes of image blending (AutoBlend™ mode, Picture-in-Picture (PIP), IR/Visible alarm, Full IR, Full visible light) add the context of the visible details to your infrared image	
Interfaces for image/data transfer	Supported in camera data ports: GigE Vision	
Thermal sensitivity (NETD)	≤ 0.030 °C at 30 °C target temp (30 mK)*	≤ 0.040 °C at 30 °C target temp (40 mK)*
Level and span	Smooth auto and manual scaling, in SmartView® desktop software	
Fast auto toggle between manual and auto modes	Yes, in SmartView R&D™ desktop software	
Fast auto-rescale in manual mode	Yes, in SmartView R&D™ desktop software	
Minimum span (in manual mode)	0.1 °C (0.18 °F), in SmartView R&D™ desktop software	
Minimum span (in auto mode)	<1.0 °C (<1.8 °F), in SmartView R&D™ desktop software	
Built-in digital camera (visible light)	5 megapixel industrial performance	
Frame rate	60 Hz or 9 Hz versions	
Digital zoom	Variable up to 16x in SmartView R&D™ desktop software	

## Ordering Information

**FLK-RSE300**  
60Hz Thermal Imager; 320 x 240

**FLK-RSE300**  
9Hz Thermal Imager; 320 x 240

**FLK-RSE600**  
60Hz Thermal Imager; 640 x 480

**FLK-RSE600**  
9Hz Thermal Imager; 640 x 480

### What's included

Infrared camera with standard infrared lens; AC power supply; Ethernet cable; antenna;  
SmartView R&D™ software download key; lens cover; case  
Follow directions in the box to download copy of SmartView R&D™. 1 copy of SmartView R&D™ for every camera

### Optional accessories

**FLK 0.75X WIDE LENS**  
Infrared Wide Angle Lens

**FLK 2X LENS**  
Infrared Telephoto Lens (2X magnification)

**FLK 4X LENS**  
Infrared Telephoto Lens (4X magnification)

**FLK MACRO LENS**  
Infrared Macro Lens

**FLK-RSE-MB**  
ounting bracket

Contact your local distributor for price and availability.



# 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.

# 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
<b>Indoor air diagnostic applications</b>				
Air velocity		•		
Air pressure		•		
Air flow (volume)		•		
Carbon dioxide				
Carbon monoxide				•
Temperature	•	•		
Humidity	•	•		
Dew point/wet bulb	•			
Particle concentration counting			•	
<b>Air pressure/air velocity/air flow</b>				
Air pressure range		±4000 Pascals/±16 in H <sub>2</sub> O/±400 mm H <sub>2</sub> O/±40 m bar/±0.6 psi		
Air pressure accuracy		±1% + 1 Pascal/±1% + 0.01 in H <sub>2</sub> O/±1% + 0.1 mm H <sub>2</sub> 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		
<b>Temperature relative humidity</b>				
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)		
<b>Carbon dioxide/carbon monoxide</b>				
Carbon dioxide range				
Carbon dioxide accuracy				
Carbon monoxide range				0 to 1000 ppm
Carbon monoxide accuracy				5% or ±2 PPM
<b>Particle counting</b>				
Flow rate			2.83 L/min (0.1 cfm)	
Particle size range			0.3 µm - 10.0 µm (6 channel)	
Count modes			Raw counts, #/m <sup>3</sup> , #/ft <sup>3</sup> , #/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 ft <sup>3</sup> (per ISO 21501)	

# Fluke 922 Airflow Meter/Micromanometer



Fluke 922



## The Fluke 922 helps you analyze airflow easily

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

- Powerful meter provides differential and static pressure, air velocity and flow readings
- Convenient color-coded hoses help proper interpretation of pressure readings
- Easy to use without sacrificing performance
- Bright, backlit display for clear viewing
- User-defined duct shape and size for maximum airflow accuracy
- Resolution down to 0.001 in H2O
- 99 point data storage capacity
- Min/Max/Average/Hold functions for easy data analysis
- Auto power off saves battery life
- Two-year warranty

### Use the Fluke 922 Micromanometer to:

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

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

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

### Recommended Accessories



### Recommended Kits

Bundle & Save



### Fluke 922 Airflow Meter/Micromanometer Kit



### Included Accessories

**Fluke 922:** Two Rubber Hoses, Wrist Strap, Four AA Batteries 1.5 V Alkaline, User Manual and Soft Carrying Case.

**Fluke 922 Kit:** Fluke 922 Airflow Meter, 30 cm (12 in) Pitot Tube, ToolPak, Two Rubber Hoses, Wrist Strap, Four AA Batteries, User Manual and Hard Carrying Case.

### Ordering Information

**FLUKE-922** Airflow Meter

**FLUKE-922/KIT** Airflow Meter Kit

Contact your local distributor for price and availability.

# Fluke 985 Airborne Particle Counter



Fluke 985



## Troubleshooting indoor air quality made easy

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

- **Six channels and particle size range of 0.3 µm to 10.0 µm:** Assures accurate measurements even for critical locations requiring ISO Class 5 – 9 certification
- **Ultra-lightweight and ergonomic design:** Promises easy single-hand operation in tight or awkward spaces with less operator fatigue
- **Long battery life:** Ten hours of standard-use battery life to last a full work day
- **Large 8.9 cm (3.5 inch) QVGC color display:** Easy navigation and viewing with the intuitive icons and large font options
- **10 000 record storage:** Quick access to historical data
- **On-screen data presentation:** Data can be viewed in a traditional tabular or trend graph view at the user's preference
- **Personalized setting and configurations:** Customizable settings for the display, sample methods, and alarm settings for sample count
- **Data export options:** Download data to a PC using a USB memory stick, USB cable or Ethernet connection. No special software is required to download or view data
- **Optional password control:** Confirms security when required
- **USB/Ethernet charge cradle:** Assures device is always ready to go when needed
- One-year warranty

Specifications	985
Channels	0.3 µm, 0.5 µm, 1.0 µm, 2.0 µm, 5.0 µm, 10.0 µm
Flow rate	2.83 L/min (0.1 cfm)
Light source	775 nm to 795 nm, 90mW class 3B laser
Count modes	Raw counts, #/m <sup>3</sup> , #/ft <sup>3</sup> , #/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 ft <sup>3</sup> (per ISO 21501)
Data storage	10 000 records (rotating buffer)
Alarms	Counts, low battery, sensor fail
Delay time	0 to 24 hours
Sample inlet	Isokinetic probe
Security	Administrator password control (optional)
Communication mode	USB or Ethernet
Calibration	PSL particles in air (NIST traceable)
Size (HxWxD)	27.2 × 9.9 × 5.3 cm (10.7 x 3.9 x 2.1 in)
Weight	0.68 kg (1.5 lb)
Power adapter	100 V AC to 240 V AC, 12 V DC, 2.5 A
Rechargeable battery	Li-ion 7.4 V 2600 mAh; 10 hours typical use (5 hours continuous sampling) / 3.5 hours
Operating environment	10° C to 40° C (50°F to 104°F) / < 95% RH, non-condensing
Storage environment	-10° C to 50° C (14°F to 122°F) /Up to 98% RH, non-condensing

## Specialty Model

### CO-220 Carbon Monoxide Meter

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



- Stand-alone CO meter that does not require a digital multimeter
- Large backlit LCD displays CO levels from 0 ppm to 999ppm
- Beeper triggers with increasing frequency as CO levels rise
- MAX hold function stores and displays the maximum CO level
- Automatic sensor zeroing and self-test upon startup

### CO-205 Aspirator Kit

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

The CO-205 Accessory Kit includes:

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



## Included Accessories

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

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

## Ordering Information

FLUKE-985	Particle Counter
FLUKE-CO-220	Carbon Monoxide Meter
FLUKE-CO-205	Aspirator Kit

Contact your local distributor for price and availability.

# Fluke 971 Temperature Humidity Meter



Fluke 971



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

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

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

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

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

## Fluke RLD2 UV Refrigerant Leak Detector Flashlight

Leak detection made easy. The compact, easy-to-use, RLD2 UV flashlight uncovers refrigerant leaks instantly. Use the UV light to find the leakage area, then use the laser pointer to pinpoint the exact leak location. With 100000 hours of life, and four operating modes, this versatile leak detector is a must have for HVAC technicians.



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

## Recommended Accessories



## Included Accessories

**Fluke 971:** Four AAA Alkaline Batteries, Operation Manual.

**Fluke RLD2:** Chain Carabiner and Batteries.

## Ordering Information

**FLUKE-971** Temperature Humidity Meter

**FLUKE-RLD2** Refrigerant Leak Detector

Contact your local distributor for price and availability.





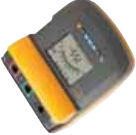



# Insulation Testers

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

						
<b>Insulation Test Functions</b>	<b>1503</b>	<b>1507</b>	<b>1577</b>	<b>1587 FC</b>	<b>1550C</b>	<b>1555</b>
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	•	•	•	•	•	•
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	•	•	•	•	•	•
<b>Multimeter Functionality</b>						
AC/DC Volts	•	•	•	•	•	•
Current	•	•	•	•	•	•
Resistance	•	•	•	•	•	•
Temperature (contact)				•		
Temperature Compensation				•		
Lo-Pass Filter				•		
Capacitance				•	•	•
Diode Test				•		
Frequency				•		
MIN/MAX				•		
Fluke Connect™ enabled				•	•	•
<b>Other</b>						
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.

# Fluke 1587 FC and 1577 Insulation Multimeters



Fluke 1587 FC

Fluke 1577



## Two powerful tools in one.

The Fluke 1587 FC and 1577 Insulation Multimeters combine a digital 1 kV 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.

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

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

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

Specifications	1587 FC	1577
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	•	
Low-pass filter (for work on VSDs)	•	
AC/DC voltage	•	•
DC millivolts	•	•
AC/DC milliamps	•	•
Resistance	0.1 Ω to 50 MΩ	0.1 Ω to 50 MΩ
Continuity	•	•
Remote probe, test leads, alligator clips	•	•
Type K thermocouple	•	
Rugged, utility hard case	•	•
Auto power off	•	•

## Recommended Accessories



## Recommended Kits

Bundle & Save



## Included Accessories

Remote Probe, Test Leads, Alligator Clips, K-type Thermocouple (1587 FC only), Hard Case, User Documentation.

## Ordering Information

FLUKE-1577 Insulation Multimeter

FLUKE-1587FC Insulation Multimeter with Fluke Connect™

FLUKE-1587/MDT & Drive Kit w/ 9040, FC Kit i400

FLUKE-1587/I400 FC KIT Multimeter with i400

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

Contact your local distributor for price and availability.



# Fluke 1555 and 1550C Insulation Resistance Testers



Fluke 1555

Fluke 1550C



## Powerful troubleshooting and predictive maintenance tools.

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

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

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

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

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

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



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

## Recommended Accessories

### Fluke 1550C



**TLK1550-RTLC**  
Integral Test Lead and 10 kV Clamp



**FVF-BASIC**  
FlukeView™ Forms Software



**CXT1555**  
Pelican Carrying Case



**IR189USB**  
USB-IR Cable



**IR3000FC 1550**  
Fluke Connect™  
ir3000 Connector

## Recommended Kits

Bundle & Save

**Fluke 1550C 5 kV Insulation Tester Kit**

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

**Fluke 1555 10 kV Insulation Tester Kit**

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

## Included Accessories

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

## Ordering Information

**FLUKE-1550C** 5 kV Insulation Tester

**FLUKE-1550C FC** 5 kV Insulation Tester with IR 3000FC

**FLUKE-1555** 10 kV Insulation Tester

**FLUKE-1555 FC** 10 kV Insulation Tester with IR 3000FC

**FLUKE-1550C KIT** 5 kV Insulation Tester Kit

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

**FLUKE-1555 KIT** 10 kV Insulation Tester Kit

**FLUKE-1555 FC KIT** 10 kV Insulation Tester Kit with IR 3000FC

# Fluke 1507 and 1503 Insulation Resistance Testers



Fluke 1507

Fluke 1503

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 2000 MΩ (1503)
- Compare (Pass/Fail) function for repetitive tests (1507 only)
- Live circuit detection prevents insulation test if voltage > 30 V is detected
- Auto-discharge of capacitive voltage
- AC/DC voltage: 0.1 V to 600 V
- Lo ohms/Earth-bond continuity (200 mA) for checking connections and motor windings
- Resistance: 0.01 Ω to 20.00 Ω
- One-year warranty

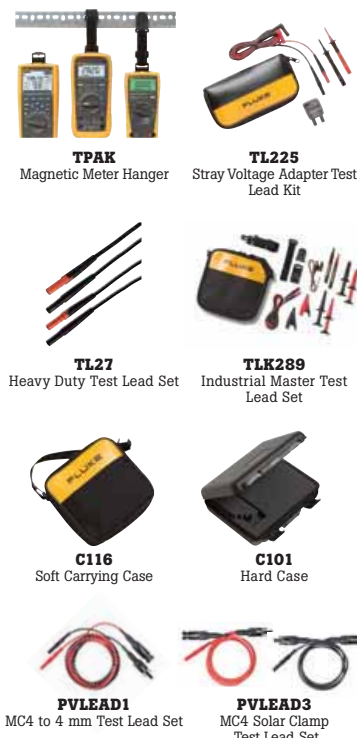


Features	1503	1507
User-selectable test voltages for many applications	•	•
Additional test voltages 50 V, 100 V, 250 V		•
Special remote control probe for easy and safe measurements	•	•
Auto-discharge of capacitive voltage for added user protection	•	•
Live circuit detection prevents insulation test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

Insulation	1503	1507
Insulation test range	0.1 MΩ to 2000 MΩ	0.01 MΩ to 10 GΩ
Test voltages	500 V, 1000 V	50 V, 100 V, 250 V, 500 V, 1000 V
Test voltage accuracy	+ 20%, - 0%	+ 20%, - 0%
Insulation test current	1 mA nominal	1 mA nominal
AC/DC Voltage measurement	600 V (0.1 V resolution)	600 V (0.1 V resolution)
Resistance measurement range	0.01 Ω to 20 kΩ	0.01 Ω to 20 kΩ
Auto discharge	Discharge time < 0.5 second for C = 1 μF or less	Discharge time < 0.5 second for C = 1 μF or less
Maximum capacitive load	Up to 1 μF	Up to 1 μF
Open circuit test voltage	> 4 V, < 8 V	> 4 V, < 8 V
Short circuit current	> 200 mA	> 200 mA

General	
Battery life	Meter: 1000 hours Insulation Test: > 1000 tests
Size (H x W x L)	5.0 x 10.0 x 20.3 cm (1.97 x 3.94 x 8.00 in)
Weight	550 g (1.2 lb)

## Recommended Accessories



## Fluke 1507/1503 Applications



Insulation test at a distribution panel



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

## Included Accessories

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

## Ordering Information

**FLUKE-1507** Insulation Tester  
**FLUKE-1503** Insulation Tester

Contact your local distributor for price and availability.



# Earth Ground Testers

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

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

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

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

# Fluke 1630-2 FC Earth Ground Clamp Meter



Fluke 1630-2 FC



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

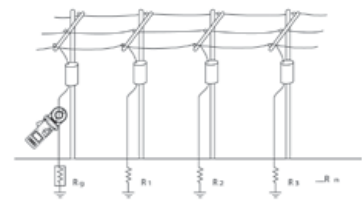
Heavy-duty clamp jaw stays in alignment and in calibration even in every day, on-the-job industrial environments. Test the grounding components of equipment in hard-to-reach spaces, including areas that are indoors or fully paved and do not permit driving auxiliary test stakes. Stay on line—identify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

### Stakeless measurement

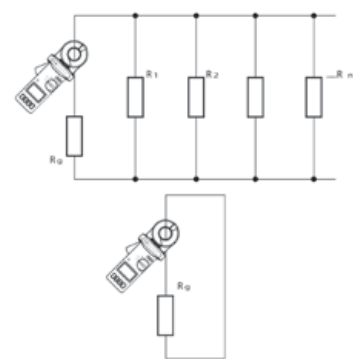
The 1630-2 FC clamp measures earth ground loop resistances for multi-grounded systems using the dual-clamp jaw. This test technique eliminates the dangerous and time-consuming activity of disconnecting parallel grounds, as well as the process of finding suitable locations for auxiliary test stakes. You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

One-year warranty.

## Ground Resistance Measurement Principle



Equivalent Circuit Diagram



### Included Accessories

Hard Case, Loop Resistance Standard, Four AA Batteries, Safety Information Guide and Quick Reference Guide.

### Ordering Information

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

Contact your local distributor for price and availability.

### Electrical specifications

Maximum voltage to earth ground	1000 V		
Battery type	AA alkaline IEC/EN LR6 (x4)		
Battery life	More than 15 hours		
Frequency range	40 Hz to 1 kHz		
Ingress protection	IEC 60529: IP30 with jaw closed		
LCD	Digital reading	9999 counts	
	Refresh rate	4 Hz	
Reference temperature	23 °C ±5 °C (73 °F ±9 °F)		
Display Reading Specification with Loop Resistance Standard	Input (Ω)	Minimum	Maximum
	0.47	0.41	0.53
	0.5	0.44	0.55
	10	9.55	10.45
	100	96	104.0
Data logging capacity	Minimum of 32 760 measurements		
Safety	General	IEC 61010-1: Pollution Degree 2, IEC 61557-1	
	Measurement	IEC 61010-2-032: CAT IV 600 V / CAT III 1000 V	
Current clamp for leakage current measurements	IEC 61557-13: Class 2, ≤30 A/m		
Resistance to Earth	IEC 61557-5		
Effectiveness of the protective measures	IEC 61557-16: cutoff frequency 20 kHz (-3 dB)		

### General specifications

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

# Fluke 1620-2 Series Geo Earth Ground Testers



Fluke 1625-2



Fluke 1623-2



The Fluke 1623-2 and 1625-2 Earth Ground Testers offer data storage and download capabilities via USB port, a large display, and world class accessories that simplify and speed up testing time.

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

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

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

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

**Earth ground resistance and soil resistivity should be measured when:**

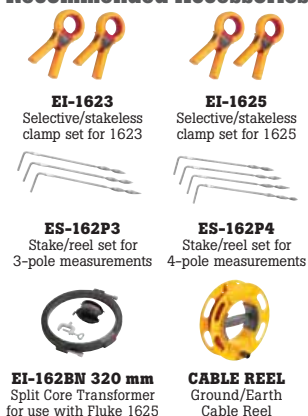
- Designing earth ground systems
- Installing new ground system and electrical equipment
- Periodically testing ground and lightning protection systems
- Installing large electrical equipment such as transformers, switchgears, machines, etc.

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

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

These products are for unpowered installations measuring grounding connections.

**Recommended Accessories**



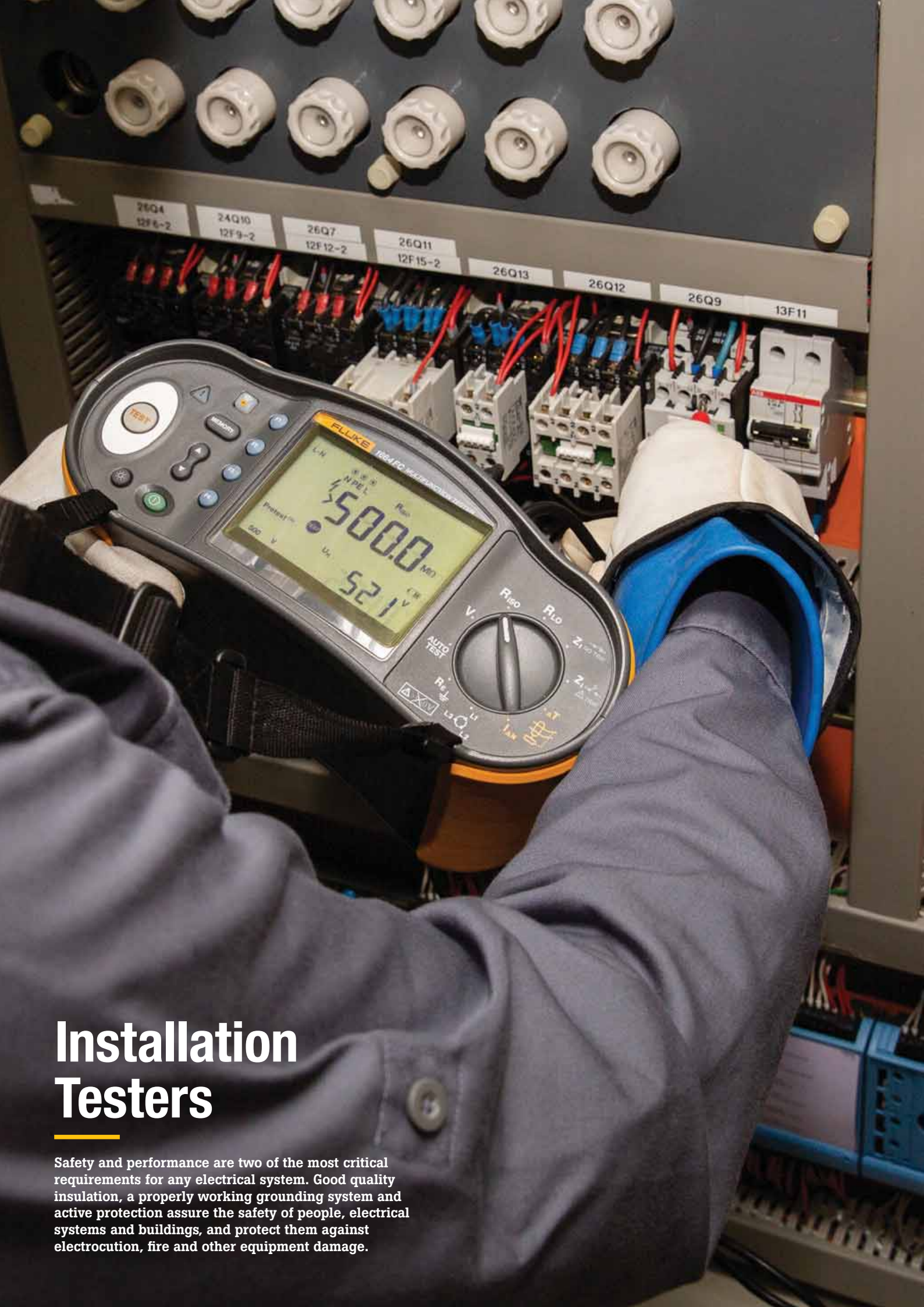
**Recommended Kits Bundle & Save**



**Included Accessories**

- Fluke 1623-2:** Protective Holster, 2 Test Leads, 2 Alligator Clips, User Manual.
  - Fluke 1623-2 Kit:** Same as above plus Stake/Reel, Set 4 Pole and Selective/Stakeless Clamp Set.
  - Fluke 1625-2:** Protective Holster, 2 Test Leads, 2 Alligator Clips, User Manual.
  - Fluke 1625-2 Kit:** Same as above plus Stake/Reel, Set 4 Pole and Selective/Stakeless Clamp Set.
- Ordering Information**
- FLUKE-1623-2 Basic GEO Earth Ground Tester
  - FLUKE-1623-2 KIT Basic GEO Earth Ground Tester Kit
  - FLUKE-1625-2 Advanced GEO Earth Ground Tester
  - FLUKE-1625-2 KIT Advanced GEO Earth Ground Tester





# 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.



# Fluke 1660 Series Multifunction Installation Testers



Fluke 1664 FC+



Fluke 1663



Fluke 1662



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

Three-year warranty.

### Fluke 1664 FC – The complete tester for advanced users

The Fluke 1664 FC+ is the only installation tester that protects connected appliances from damage during insulation tests, and allows you to share your test results wirelessly by smartphone with coworkers or customers. Fluke’s patented Insulation PreTest stops you from performing tests with appliances that are connected to the system during test. This helps eliminate accidental damage and keeps your customers happy.

In addition, the Fluke 1664 FC+ offers you the power of Fluke Connect™. Now you can send test results straight from your Fluke 1664 FC to your smartphone, and transmit those results to other members of your team.

### Fluke 1663 - The ideal tester for professional troubleshooters

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

### Fluke 1662 - A solid, basic installation tester

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

Measurement function	1664 FC	1663	1662
EV Test 6 mA (RCD A/EV, RDC-DD) <b>NEW</b>	•	•	-
Insulation PreTest safety function	•	-	-
Insulation at L-N, N-PE inputs	•	-	-
Auto Test sequence	•	-	-
Loop and line resistance—mΩ resolution	•	-	-
Continuity at L-N, N-PE inputs	•	•	-
Test smooth dc sensitive RCDs (Type B/B+)	•	•	-
Earth resistance	•	•	-
Wiring polarity checker, detects broken PE and N wires	•	•	•
Insulation resistance	•	•	•
Continuity and resistance	•	•	•
Measure motor windings with continuity test (@ 10 mA)	•	•	•
Loop and line resistance	•	•	•
Prospective earth fault current (PEFC/IK)	•	•	•
Prospective short-circuit current (PSC/IK)	•	•	•
RCD trip time / RCD trip current (ramp test)	•	•	•
Measures trip time and current for RCD type A and AC in one test	•	•	•
Automatic RCD test sequence	•	•	•
Phase sequence test	•	•	•
<b>Other features</b>			
Fluke Connect™ compatibility	•	-	-
EV Compatible		•	•
ShareLive™ calling	•	-	-
On/Off switchable auto-start for RCD and Looptest	•	•	•
Self-test	•	•	•
<b>Memory, interface</b>			
Z Max memory	•	•	-
Memory	•	•	•
IR-USB and BLE interface (when used with optional FVF software)	IR-USB/BLE	IR-USB	IR-USB

### Recommended Accessories



**TLK290**  
Flexible Socket  
Probe Set



**FLK-166X-MTC-AU**  
Test Cable Assembly  
Mains Test Lead



**TP165X**  
Remote Control Probe



**ES165X**  
Earth Spike Test Kit  
(Fluke 1663 and  
1664 FC)



Fluke TruTest Software



**Zero Adapter**  
Null Adapter

### Fluke TruTest Data Management and Reporting Software



Easily manage measurement data, test certificates and reports including from solar site installation and commissioning testing through an intuitive and modern interface  
See page 11 for more information

### Included Accessories

Six AA (IEC LR6) 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, User Manual on CD.

### Ordering Information

**Fluke 1664 FC** Multifunction Installation Tester with Auto Test, Insulation PreTest, Fluke Connect™ compatibility

**Fluke 1663** Multifunction Installation Tester

**Fluke 1662** Multifunction Installation Tester

Contact your local distributor for price and availability.

# Portable Appliance Testers

Perform measurements according to the local standards. Portable appliance testing (PAT testing) is crucial for maintaining electrical safety in any workplace. This could be driven by legislations involving aspects of health and safety, or by the insurance market. All employers have a duty of care.



# Fluke 6200-2 and 6500-2 Portable Appliance Testers



Fluke 6200-2



Fluke 6500-2



## Perform more tests each day

The Fluke 6200-2 and 6500-2 Portable Appliance Testers (PAT) have redesigned auto-test capabilities to help you increase the number of portable appliance tests completed each day. It is designed to enable you to work faster without compromising safety – yours or your customer’s.

Two year warranty.

### The Fluke 6200-2 Portable Appliance Tester offers:

- Dedicated key for each test for ‘one- touch’ testing
- Pre-set pass/fail levels to save time
- Large display for easy reading
- Single mains socket for appliance connection
- Separate IEC socket for easy mains/extension lead testing
- Detachable test leads for quick field replacement
- Integral carrying handle

### The Fluke 6500-2 Portable Appliance Tester delivers all of this capability, plus:

- Integral QWERTY keyboard for rapid data entry
- Additional Compact Flash memory card capability for back-up data storage and USB port for transfer to PC
- Large backlit graphics display
- Pre-set, auto-test sequences for user convenience
- Integral site, location and description codes for faster data processing
- Memory review facility for more on-site control

## Recommended Accessories



**SP-SCAN-6000**  
Barcode Scanner  
(6500-2 only)



**C1600**  
Rugged, molded  
plastic case

Measurement functions	6200-2	6500-2
LN Mains Volts	•	•
Outside Limits Indicators	•	•
Null out facility for earth bond lead	•	•
Protective Earth Resistance PE (200 mA)	•	•
Protective Earth Resistance PE (25 A)	•	•
Insulation 500 V DC	•	•
Insulation 250 V DC	-	•
Protective Earth Conductor Current	•	•
Touch Current	•	•
RCD Test	-	•
Substitute leakage current	•	•
Appliance Power kVA	•	•
Appliance Load Current	•	•
Seven Segment Custom LCD	•	-
Colour dot matrix display	-	•
Back Light	•	•
USB Flash drive port	•	•
USB Port-Printing/downloading	-	•
External printer output	•	•
Front Panel QWERTY Key pad	-	•
IEC Lead Test	•	•
Auto-testing	-	•
Pass / Fail Level Programmable Indicators	-	•
Data Storage	-	•
Limited Data Storage	-	•
Polarity Checks	•	•
Graphical Help Menu Online	-	•
Programme Mode	-	•
Real time clock	-	•

Not available in all countries.

## Included Accessories

Test Lead, Test Probe, Alligator Clip, Mains Cord, USB Stick and Cable (6500-2 only), Hard Carrying Case, Quick Reference Guide and User Manual on CD.

## Ordering Information

**FLUKE-6200-2** Portable Appliance Tester

**FLUKE-6500-2** Portable Appliance Tester

Contact your local distributor for price and availability.



# Power Quality

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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.

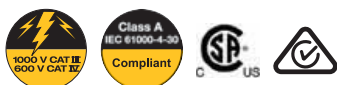
# Power Quality Tools Selection Guide

		Single-Phase					Three-Phase				
		VR1710	1732/34	1736/38	1742	1746	1773	1775	1777		
Basic measurements	Application use										
<b>Energy Studies</b>											
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		•	•	•	•	•	•	•	•	•	•
Waste energy monetization											
<b>Basic Harmonics Study</b>											
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)	•	•	•	•	•	•	•	•	•
<b>Advanced Harmonics Study</b>											
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							•	•	•	•	•
<b>Basic Industrial PQ Troubleshooting</b>											
Oscilloscope function	When troubleshooting in the field, graphical data enables you to trace the source of the problem at hand			•			•	•	•	•	•
Voltage dips and swells		•		•			•	•	•	•	•
<b>Advanced Industrial PQ Troubleshooting</b>											
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										1 MHz	20 MHz
8kV transients											
<b>Features</b>											
Inrush				•			•	•	•	•	•
Flicker					•		•	•	•	•	•
Transients							•	•	•	•	•
Mains signaling							•	•	•	•	•
Event waveform capture				•			•	•	•	•	•

# Fluke 1770 Series Power Quality Analyzers



Fluke 1777  
NEW



## The faster, easier way to perform power quality studies.

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

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

Fluke Premium Care plans are available for this product. Premium Care plans provide coverage above and beyond your tool's original product warranty. See pages 22 - 23.

### Ordering Information

- FPC1S-FPQ170-1** Fluke 1770 Series Standard 1 Year
- FPC3S-II900-1** Fluke 1770 Series Standard 3 Year
- FPC1G-FPQ170-1** Fluke 1770 Series Gold 1 Year
- FPC3G-FPQ170-1** Fluke 1770 Series Gold 3 Year
- FLUKE-1775/FPC** Fluke 1770 Series with Standard 1 Year Bundle



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



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

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



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

Fluke 1770 Series Power Quality Analyzers	
<b>Voltage inputs</b>	
Number of inputs	4 inputs, 3 phases and neutral referenced to PE (5 connectors)
Measurement category	CAT III 1000 V / CAT IV 600 V
Maximum input voltage	1000 V rms / 1000 V DC (1700 Vpk)
Nominal voltage range	Wye and single phase: variable (50 V – 1000 V) Delta: Variable (100 V – 1000 V) IEC 61000-4-30 Class A compliance for the nominal voltages ( $V_{dim}$ ) 100 V – 690 V
Input impedance	10 MΩ between P-P and P-N, 5 MΩ between P-PE and N-PE
Bandwidth	DC to 30 kHz for PQ measurements, excluding transients
Resolution	24-bit synchronous sampling
Sampling frequency	80 kS/s at 50/60 Hz
Scaling	1:1, variable for use of potential transformers
<b>Voltage transients</b>	
Measurement range	±8 kVpk
Sampling rate	1775: 1 MS/s 1777: 1 MS/s, 20 MS/s
Bandwidth	DC to 1 MHz
Trigger	Adjustable trigger level. Triggers on high-frequency components >1.5 kHz
Resolution	14-bit synchronous sampling
<b>Current inputs</b>	
Number of inputs	4 inputs 3 phases and Neutral, range selected automatically to attached sensor
Range	AC 1 A to 1500 A with i17XX-FLEX1500 12 1 A to 1500 A with i17XX-FLEX1500 24 3 A to 3000 A with i17XX-FLEX3000 24 6 A to 6000 A with i17XX-FLEX6000 36 40 mA to 40 A with clamp i40s-EL 4 A to 400 A with clamp i400s-EL DC 20 A to 2000 A with 80i-2010-EL clamp
Bandwidth	DC to 30 kHz
Resolution	24-bit synchronous sampling
Sampling frequency	80 kS/s at 50/60 Hz
Scaling	1:1, variable
Input voltage	Clamp: 50 mV / 500 mV rms; CF 2.8 Rogowski Coil: 15 mV / 150 mV rms at 50 Hz, 18 mV / 180 mV rms at 60 Hz; CF 4 all at nominal probe range
Input impedance	11 kΩ
<b>Aux inputs</b>	
Wired connection with 17xx-AUX adapter	
Number of inputs	2
Input range	Direct: 0 V DC to ±10 V DC or 0 V to ±1000 V DC
Input impedance	Direct: 2.92 MΩ

## Fluke PQ400 Electrical Measurement Window



Fluke PQ400



### Compliance without compromise. Safety without sacrifice.

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

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

### Recommended Accessories



**i17XX-FLEX6KIP**  
IP65 iFlex™ 6000 A  
90 cm Current Probes  
(individual, 3pk or 4pk)



**i400s**  
AC Current Clamp



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



**80i-2010s/3PK**  
2000 A AC/DC  
Current Clamp  
(individual or 3pk)



**Antenna Cable**  
Antenna cable 5 m



**177X WiFi/BLE**  
Wi-Fi/BLE Module

### Included Accessories

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

**PQ400:** Enclosure, 4x Male-Male Cable 2 m for iFlex™ Current Probes, Cable Marker Set 3P+N+PE, Cable Ties, Instruction Sheet.

### Ordering Information

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

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

**FLUKE-1775** Three-Phase Power Quality Analyzer w/ Accessories

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

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

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

**FLUKE-PQ400** Power Quality Window

Contact your local distributor for price and availability.



# Fluke 1732 and 1734 Three-Phase Electrical Energy Loggers



Fluke 1734



**Energy logging is now within your reach — discover where you're wasting energy, optimize your facility's energy use and reduce your bill**

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

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

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

## Recommended Accessories



**i17XX-FLEX 1500**  
1500 A 12 inch iFlex™  
Current Clamps  
(Purchase as individual,  
3pk or 4pk)



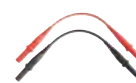
**i17XX-FLEX 3000**  
3000 A 24 inch iFlex™  
Current Clamps  
(Purchase as individual,  
3pk or 4pk)



**i17XX-FLEX 6000**  
6000 A 36 inch iFlex™  
Current Clamps  
(Purchase as individual,  
3pk or 4pk)



**i40s-EL/3pk**  
40 A Clamp-on Current  
Transformer 3 pack  
(Purchase as individual or 3pk)



**FLUKE-17XX-TL 0.1M**  
Test Lead Set, 1000V  
CAT III, Non-stackable  
Connectors; 0.1 m; Red/Blk



**FLUKE-17XX-TL 1.5M**  
Test Lead Set, 1000V  
CAT III, Non-stackable  
Connectors; 1.5 m; Red/Blk



**1730-Hanger**  
Hanging Strap Kit



**MP1-Magnet Probe 1**  
Magnet Probes for  
4mm banana, Set of 4



**1732/UPGRADE**  
Upgrade Kit for  
1732 to 1734



**C17XX**  
Soft case

## Specifications

Parameter	Range	Max resolution	Intrinsic accuracy at reference conditions (% of reading + % of full scale)
Voltage	1000 V	0.1 V	±(0.2% + 0.01%)
Current	i17xx-flex 1500 12"	150 A	0.1 A
		1500 A	1 A
	i17xx-flex 3000 24"	300 A	1 A
		3000 A	10 A
	i17xx-flex 6000 36"	600 A	1 A
i40s-EL clamp		6000 A	10 A
	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%)
Voltage min/max	1000 V	0.1 V	±(1% + 0.1%)
Current min/max	defined by accessory	defined by accessory	±(5% + 0.2%)
THD on voltage	1000%	0.1%	±0.5
THD on current	1000%	0.1%	±0.5
Voltage harmonics 2nd ... 50th	1000 V	0.1 V	≥ 10 V: ±5% of reading < 10 V: ±0.5 V
Current harmonics 2nd ... 50th	defined by accessory	defined by accessory	≥ 3% of current range: ±5% of reading < 3% of current range: ±0.15% of range
Unbalance	100%	0.1%	±0.2

## Included Accessories

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

## Ordering Information

**FLUKE 1732/B** Energy Logger, Basic Version (excl. current probes)

**FLUKE 1732/EUS** Energy Logger (incl. current probes)

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

**FLUKE 1734/EUS** Energy Logger (incl. current probes)

Contact your local distributor for price and availability.



# Fluke 1736 and 1738 Three-Phase Power Loggers



Fluke 1736



Fluke 1738



## More visibility, reduced uncertainty

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

- **Measure all three-phases and neutral** with included 4 flexible current probes.
- **Comprehensive logging:** More than 20 separate logging sessions can be stored on the instruments. In fact, all measured values are automatically logged so you never lose measurement trends.
- **Capture dips, swells, and inrush currents:** Includes event waveform snapshot and high resolution RMS profile, along with date, timestamp and severity to help pinpoint potential root causes of power quality issues
- **Optimized user interface:** Capture the right data every time with quick, guided, graphical setup and reduce uncertainty about your connections with the intelligent verification function.
- **Complete “in-the-field” setup through the front panel or Fluke Connect™ App:** No need to return to the workshop for download and setup or to take a computer to the electrical panel.
- **Energy Analyze Plus application software:** Download and analyze every detail of energy consumption and power quality state of health with our automated reporting.
- One-year warranty

## Recommended Accessories

<b>117XX-FLEX 1500</b> 1500 A 12 inch iFlex™ Current Clamps (Purchase as individual, 3pk or 4pk)	<b>FLUKE-17XX-TL 2M</b> Blue, Non-stackable Plug and 2x Alligator Clips
<b>117XX-FLEX 3000</b> 3000 A 24 inch iFlex™ Current Clamps (Purchase as individual, 3pk or 4pk)	<b>FLUKE-17XX-TL 1.5M</b> Test Lead Set, 1000 V CAT III, Non-stackable Connectors; 1.5 m; Red/Blk
<b>117XX-FLEX 6000</b> 6000 A 36 inch iFlex™ Current Clamps (Purchase as individual, 3pk or 4pk)	<b>MP1-MAGNET PROBE 1</b> Magnet Probes for 4 mm banana, Set of 4
<b>FLUKE-17XX AUX</b> Input adapter	<b>117XX 140S-EL/3PK</b> 40 A Clamp-on Current Transformer (Purchase as individual or 3pk)
<b>1736/UPGRADE</b> Upgrade Kit for 1736 to 1738	<b>1738X</b> Soft Case

## Included Accessories

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

## Ordering Information

- |                       |   |
|-----------------------|---|
| <b>FLUKE 1736/B</b>   | Power Logger, Basic Version (excl. current probes)    |
| <b>FLUKE-1736/EUS</b> | Power Logger, (excl. current probes)                  |
| <b>FLUKE 1738/B</b>   | Power Logger, Advanced Version (excl. current probes) |
| <b>FLUKE-1738/EUS</b> | Power Logger, Advanced Version (excl. current probes) |

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

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

Contact your local distributor for price and availability.

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



Fluke 1742



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

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

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

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

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

## Recommended Accessories



**i17XX-FLEX1.5KIP**  
IP65 iFlex™ 1.5KA 60 cm (24") Current Probes  
(Purchase as individual, 3pk or 4pk)



**i17XX-FLEX3KIP**  
IP65 iFlex™ 3KA 60 cm (24") Current Probes  
(Purchase as individual, 3pk or 4pk)



**i17XX-FLEX6KIP**  
IP65 iFlex™ 6KA 90 cm (36") Current Probes  
(Purchase as individual, 3pk or 4pk)



**i40S-EL/3PK**  
40 A Clamp-On Current Transformer  
(Purchase as individual or 3pk)



**IP65 VOLT CONN**  
IP65 Rated Voltage Connector



**MP1-3R/1B**  
Magnet Probe 1 (3× Red, 1× Black)



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



**17XX AUX**  
Auxiliary Input Adapter



**174X-HANGER**  
174X Hanger Kit



**1742-6/8 UPGRADE**  
Upgrade Kit 1742 to 1746/1748 & 1746 to 1748

## Included Accessories

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

## Ordering Information

<b>FLUKE-1742/15/EUS</b>	Three-Phase Power Quality Logger
<b>FLUKE-1742/30/EUS</b>	Three-Phase Power Quality Logger
<b>FLUKE-1746/15/EUS</b>	Three-Phase Power Quality Logger
<b>FLUKE-1746/30/EUS</b>	Three-Phase Power Quality Logger
<b>FLUKE-1748/15/EUS</b>	Three-Phase Power Quality Logger
<b>FLUKE-1748/30/EUS</b>	Three-Phase Power Quality Logger

Contact your local distributor for price and availability.

## Fluke Norma 6000 Series Portable Power Analyzers



Fluke Norma 6003



Fluke Norma 6004



- Measure three-phase power and DC output power at the same time (available in 3 or 4 channel), with voltage and current inputs on each channel
- Make mechanical torque and speed measurements using the included inputs and outputs of the Fluke 6003+ and 6004+
- 0.1% accuracy, 500 kHz bandwidth, 200 kS/s sample rate so you can rely on the power conversion system measurements you take no matter what distortion may be present
- Take precision power measurements almost anywhere – highly portable, battery powered analyzer weighing only 3.5 kg and 9.3 cm depth with up to 10 hours of battery life
- View critical data in the field on the main display meter, including waveform, harmonics up to the 100th, vector and trend
- Ensure high common-mode rejection and allow flexible configurations according to measurement requirements using the electrically isolated channels
- User-adjustable measurement rate from 100 ms to 1 s with continuous logging via 32 GB of onboard storage
- Easy in-field set up using the large 5.7" front LCD screen or a remote PC connection (USB or RS485),
- Online measuring, data download and analysis with included PC software (Fluke NormaView Software)
- Three-year warranty

### Recommended Accessories



**801-2010S**  
2000 A AC/DC  
Current Clamp



**801-2010S/3PK**  
2000 A AC/DC  
Current Clamp 3 pack



**BP291**  
Additional Battery



## 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.

- Measure three-phase power and DC output power at the same time (available in 3 or 4 channel), with voltage and current inputs on each channel
- Make mechanical torque and speed measurements using the included inputs and outputs of the Fluke 6003+ and 6004+
- 0.1% accuracy, 500 kHz bandwidth, 200 kS/s sample rate so you can rely on the power conversion system measurements you take no matter what distortion may be present
- Take precision power measurements almost anywhere – highly portable, battery powered analyzer weighing only 3.5 kg and 9.3 cm depth with up to 10 hours of battery life
- View critical data in the field on the main display meter, including waveform, harmonics up to the 100th, vector and trend
- Ensure high common-mode rejection and allow flexible configurations according to measurement requirements using the electrically isolated channels
- User-adjustable measurement rate from 100 ms to 1 s with continuous logging via 32 GB of onboard storage
- Easy in-field set up using the large 5.7" front LCD screen or a remote PC connection (USB or RS485),
- Online measuring, data download and analysis with included PC software (Fluke NormaView Software)
- Three-year warranty

### Ordering Information Fluke Norma 4000/5000:

<b>NORMA 4000</b>	High Precision Power Analyzer
<b>NORMA 5000</b>	High Precision Power Analyzer

### Fluke Norma 6000 Series:

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

Contact your local distributor for price and availability.

# Fluke VR1710 Single Phase Voltage Quality Recorder



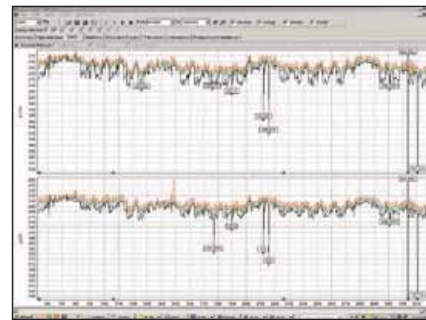
Fluke VR1710



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

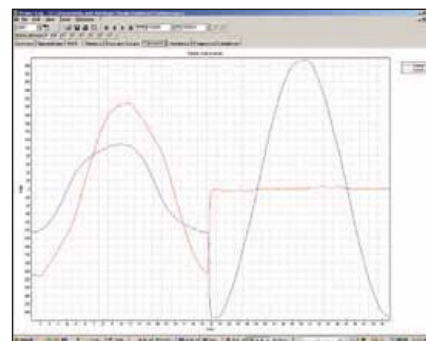
The Fluke VR1710 is a single-phase, plug-in voltage quality recorder that provides fast and easy recording of voltage trends, dropouts, harmonics and general power quality—including dips and surges—to help maintenance and facilities management personnel easily pinpoint the root cause of voltage problems.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

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

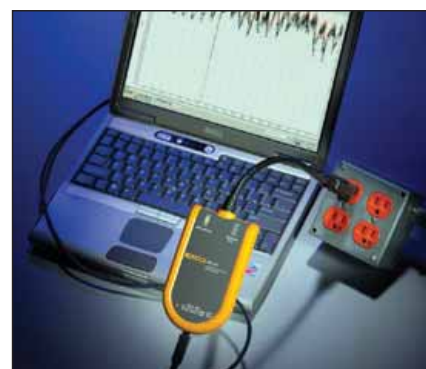


**PowerLog Setup** – Simple set up of internal clock, logging periods, and intervals with default values for quick results.

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



**Actual transient display (> 100  $\mu$ s) with time stamp** – Quickly identify issues with included graphical software.



Includes PowerLog software

### Applications

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

### Specifications

Operating voltage	70 V to 300 V 0.5% of range
Min/Max/Avg RMS value	Resolution 0.12 V
Number of events	175 000
Dips/Interruptions	Yes
Time resolution	5 ms
Voltage resolution	0.12 V
Over-voltages	Yes
Frequency	Yes
Harmonics measurement	IEC 61000-4-7 (up to 32nd)
Flicker measurement	IEC 61000-4-15
Number of recording channels	1 Phase to Neutral, 2 Phase/Neutral to Ground
Recording time	1 day to 339 days depending on average time from 1 second to 20 minutes
Transients	Yes
Frequency range	50 Hz $\pm$ 1 Hz and 60 Hz $\pm$ 1 Hz
Safety Compliance (IEC 61010-2-030)	CAT II 300 V

### Included Accessories

USB Cable, PowerLog Software CD, Power Cord Adapter.

### Ordering Information

**FLK-VR1710** Voltage Quality Recorder

Contact your local distributor for price and availability.

# 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.



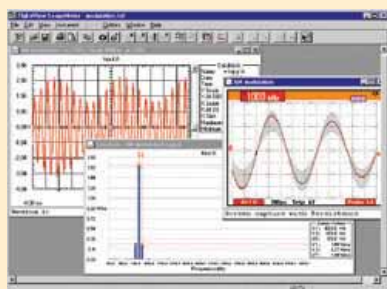
# Portable Oscilloscope Selection Guide



	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
<b>Input Channels</b>											
2 scope/DMM Channels	•	•	•								
2 scope Channels + 1 DMM				•	•		•		•		
4 Channels						•		•		•	•
Isolated Inputs				•	•	•	•	•	•	•	•
<b>Triggering</b>											
Connect-and-View™	•	•	•	•	•	•	•	•	•	•	•
IntellaSet™ Technology	•	•	•								
Advanced Triggering					•	•	•	•	•	•	•
<b>Advanced Measurement Function</b>											
Cursors		•	•	•	•	•	•	•	•	•	•
TrendPlot™	•	•	•	•	•	•	•	•	•	•	•
ScopeRecord™	•	•	•	•	•	•	•	•	•	•	•
100 screen Replay				•	•	•	•	•	•	•	•
Industrial Bus Health			•								
Harmonics			•								•
FFT			•	•	•	•	•	•	•	•	•
Power Measurements			•	•	•	•	•	•	•	•	•
Waveform Mathematics			•	•	•	•	•	•	•	•	•
<b>Guided Motor-Drive Analysis</b>											
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											•
<b>IEC 61010-2-030 Safety</b>											
CAT III 1000 V				•	•	•	•	•	•	•	•
CAT IV 600 V	•	•	•	•	•	•	•	•	•	•	•
<b>Power</b>											
Li-ion	•	•	•	•	•	•	•	•	•	•	•
Battery (hours)	7	7	7	3.5 (opt 8)	3.5 (opt 8)	7	3.5 (opt 8)	7	7	7	7
<b>General Specifications</b>											
Size (H x W x D)	259 x 132 x 55 mm (10.2 x 5.2 x 2.15 in)			270 x 190 x 70 mm (10.5 x 7.5 x 2.8 in)							
Weight	1.4 kg (3.2 lb)			2.2 kg (4.8 lb)							
<b>Compatible Software</b>											
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

# Fluke MDA-550 Series III Motor Drive Analyzer



Fluke MDA-550-III



## Simplify complex motor-drive troubleshooting

The Fluke MDA-550 Motor Drive Analyzer simplifies the troubleshooting process for variable frequency drives. Onscreen step-by-step guided measurements to show you where to make voltage and current connections. Preset measurement profiles ensure you capture all the data you need for each critical motor-drive section, from the input to the output, the DC bus, and the motor itself.

- Measure key motor-drive parameters including voltage, current, DC Bus voltage level and AC ripple, voltage and current unbalance and harmonics, voltage modulation, and motor shaft voltage discharges
- Perform extended harmonics measurements to identify the effects of low and high order harmonics on your electrical power system
- Conduct guided measurements for motor-drive input, DC bus, drive output, motor input and shaft measurements with graphical step-by-step voltage and current connection diagrams
- Preset measurement profiles collect data based on the chosen test procedure and reduce the need for complex configuration
- Capture additional parameters with full 500 MHz oscilloscope, meter and recording capability
- USB & WIFI connectivity for quick and easy data transfer
- Three-year warranty

### Key Features

Motor Drive Input	Test Points
Phase - Phase	V-A-Hz
Phase - Ground	V pk, Vmax, Vmin, V pk-to-pk, Crest factor
Voltage Unbalance	V AC+DC unbalance, V pk-to-pk
Current Unbalance	A AC+DC unbalance, A pk-to-pk
Motor Drive DC Bus	
DC	V DC, V pk-to-pk, V pk max
Ripple	V AC, V pk-to-pk, Hz
Motor Drive Output	
Voltage and Current (filtered)	V-A-Hz, V PWM, V/Hz
Voltage Unbalance	V PWM unbalance, V pk-to-pk
Current Unbalance	A AC+DC unbalance, A pk-to-pk
Voltage Modulation	Phase-phase, Phase-ground, Phase-DC+, Phase-DC- : V pwm, V pk-to-pk, Hz, V/Hz, Delta V, Delta V/s, Risetime peak, Overshoot
Motor Input	
Voltage and Current (filtered)	V-A-Hz, V PWM, V pk, A ac+dc, A pk, V/Hz, Crest factor
Voltage Unbalance	V PWM unbalance, V pk-to-pk
Current Unbalance	A AC+DC unbalance, A pk-to-pk
Voltage Modulation	Phase-phase, Phase-ground: V PWM, V pk-to-pk, Hz, V/Hz, Delta V, Delta V/s, Risetime peak, Overshoot
Motor Shaft	Shaft voltage events: V pk-to-pk, Delta V, Rise/fall time, Delta V/s, Events/s
Motor Drive Input Output and Motor Input	Voltage and Current Harmonics: V and A fundamental, Hz fundamental, %THD, %THD/TDD

Fluke Premium Care plans are available for this product. Premium Care plans provide coverage above and beyond your tool's original product warranty.

### Ordering Information

- FPC1S-MDA-500-1** Fluke MDA-550 Series III Standard 1 Year
- FPC3S-MDA-500-1** Fluke MDA-550 Series III Standard 3 Year
- FPC1G-MDA-500-1** Fluke MDA-550 Series III Gold 1 Year
- FPC1G-MDA-500-1** Fluke MDA-550 Series III Gold 3 Year
- FPC1G-MDA-500-1** Fluke MDA-550 Series III with Standard 1 Year Bundle

### Recommended Accessories



### Included Accessories

BP291 Li-Ion Battery Pack, BC190 Charger/Power Adapter, 3x VPS421 100:1 High Voltage Probes with Alligator Clips, VPS410-II-R 10:1 500 MHz Voltage Probe, 3x i400s AC Current Clamp, 1x SVS-500 Shaft Voltage Set (3x brush, Probe Holder, Two-Piece Extension Rod and Magnetic Base), Large Size, Protective Carrying Case with Rollers (C437-II), FlukeView-2 PC Software (Full Version) and WiFi Dongle.

### Ordering Information

- FLUKE-MDA-550-III** Motor Drive Analyzer 4CH CLR PRO

Contact your local distributor for price and availability.



# Fluke ScopeMeter® 190 Series III Portable Oscilloscopes



Fluke 190-504  
Series III

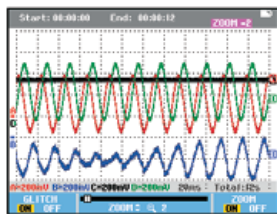
Fluke ScopeMeter 190 Series III Portable Oscilloscopes are high-performance scopes built for harsh industrial environments. These high-performance portable oscilloscopes come with 2 or 4 independently insulated input channels, an IP51 dust and drip proof rating and a CAT III 1000 V/CAT IV 600 V safety rating. Choose from 500 MHz, 200 MHz, 100 MHz or 60 MHz bandwidth models. Now plant maintenance engineers can take a 2- or 4-channel scope into the harsh world of industrial electronics.

- Up to four independent floating isolated inputs, up to 1000V
- Up to 5 GS/s real time sampling (depending on model and channels used)
- Deep memory: 10000 points per trace waveform capture
- CAT III 1000 V/CAT IV 600 V safety rated instrument for industrial environments
- Up to seven hours of battery operation using BP291
- Security slot: lock down oscilloscope with Kensington™ lock while unattended
- IP51 rating, dust and drip-proof
- Connect-and-View™ triggering for intelligent, automatic triggering on fast, slow and even complex signals
- Automatic capture and REPLAY of 100 screens
- ScopeRecord™ Roll mode gives 30000 points per input channel for low frequency signal analysis
- USB & WIFI connectivity for quick & easy data transfer
- Three-year warranty

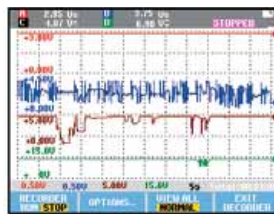


Fluke 190-102  
Series III

Fluke 190-204  
Series III



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



Cursors and zoom features of the Fluke 190 Series III help you to analyse the captured TrendPlot.

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

Fluke Premium Care plans are available for this product. Premium Care plans provide coverage above and beyond your tool's original product warranty.

## Ordering Information

- FPC1S-** Fluke ScopeMeter® 190  
**SCM190-1** Series III Standard 1 Year
- FPC3S-** Fluke ScopeMeter® 190  
**SCM190-1** Series III Standard 3 Year
- FPC1G-** Fluke ScopeMeter® 190  
**SCM190-1** Series III Gold 1 Year
- FPC3G-** Fluke ScopeMeter® 190  
**SCM190-1** Series III Gold 3 Year
- FLUKE-190-504/ FPC** Fluke ScopeMeter® 190 Series III with Standard 1 Year Bundle

## Included Accessories

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

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

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

## Ordering Information

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

Contact your local distributor for price and availability.



# Fluke ScopeMeter® 120B Series Industrial Hand-Held Oscilloscopes



Fluke 125B



## Simplified testing, more insight and faster electro-mechanical troubleshooting

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.

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

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

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

## Recommended Accessories



**STL120-IV**  
Shielded Test Lead Set  
CAT IV 600 V



**HC120-II**  
Set of 2 Hook Clips



**BB120-II**  
Set of 2 Banana to  
BNC Adapter



**VPS41**  
Voltage Probe Set  
40 MHz CAT IV 600 V



**i400s**  
AC Current Clamp



**i410**  
AC/DC Current Clamp



**Fluke i5s**  
AC Current Clamp



**C120B**  
Soft Carrying Case

Image  
Not Available

**SP120B**  
Screen Protector



**SCC120B**  
Accessory Kit

## Included Accessories

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

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

## Ordering Information

**FLUKE-123B** Industrial 20MHz ScopeMeter Kit

**FLUKE-123B/S** Industrial 20MHz ScopeMeter Kit

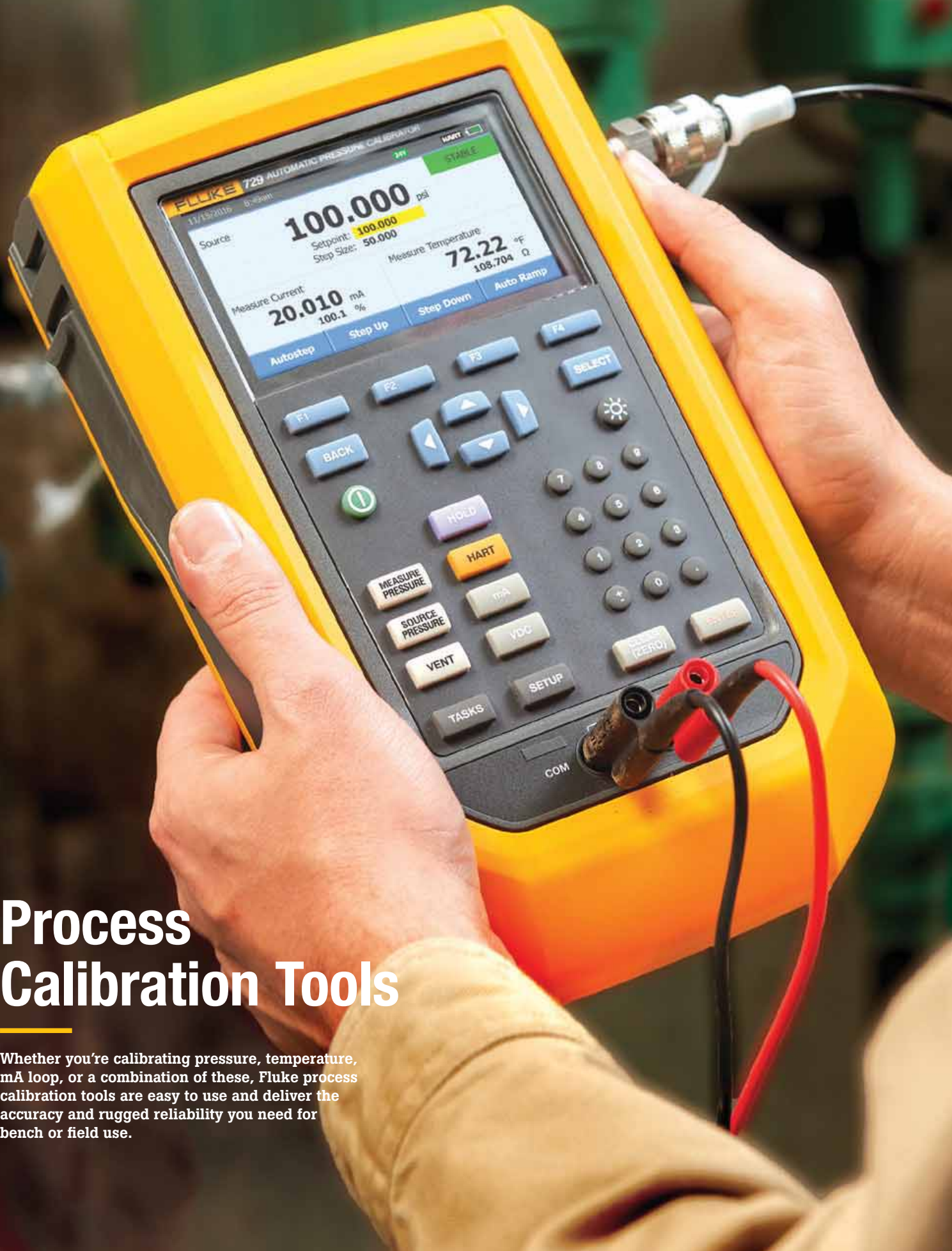
**FLUKE-124B** Industrial 40MHz ScopeMeter Kit

**FLUKE-124B/S** Industrial 40MHz ScopeMeter Kit

**FLUKE-125B** Industrial 40MHz ScopeMeter Kit

**FLUKE-125B/S** Industrial 40MHz ScopeMeter Kit

Contact your local distributor for price and availability.



# 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  
<https://www.fluke.com/en-gb/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
 <p>773</p>	 <p>700PTP 719 PRO 729/729 PRO</p>	 <p>P5510 P5514B</p>	 <p>700G/730G</p>	 <p>1524</p>	 <p>DPC/TRACK 2</p>

# Process Calibration Tools Selection Guide

	Documenting Process Calibrators			Multifunction Process Calibrators			Temperature Calibrators			Pressure Calibrators			Automatic Pressure Calibrator			Loop Calibrators			Process Meters™	
	754 / 753	725	726	724	714B	712B	718 / 718Ex	717	719	719Pro	721	729	705	707	709 / 709H / 710	711	712 / 713	789 <sup>5</sup> / 787B		
<b>Voltage DC</b>	300 V	30 V	30 V	30 V	75 mV				30 V	30 V	30 V	30 V	28 V	28 V	30 V		- / 30 V	1000 V		
<b>Voltage AC (True RMS)</b>	300 V																	1000 V		
<b>Resistance</b>	10 kΩ	3200 Ω	4000 Ω	3200 Ω	4000 Ω													40 MΩ		
<b>Current DC</b>	1.10 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	24 mA	100 mA	100 mA	30 mA, 1 A		
<b>Current AC</b>																				
<b>Frequency</b>	50 kHz	10 kHz	15 kHz															20 kHz		
<b>Pressure</b>	• <sup>1</sup>	• <sup>1</sup>	• <sup>1</sup>				-12 to 300 psi <sup>2</sup> (4 ranges)	-12 to 10,000 psi <sup>2</sup> (10 ranges)	-12 to 100 psi <sup>2</sup> (2 ranges)	-12 to 300 psi <sup>2</sup> (3 ranges)	input 1: -0.97 bar to 2.48 bar input 2: -0.83 bar to 3.46 bar <sup>3</sup>	-12 to 300 psi <sup>2</sup> (3 ranges)								
<b>Temperature</b>																				
<b>Temperature: RTD types</b>	8	7	8	7	13															
<b>TC types</b>	13	12	12	12	17															
<b>Source/Simulate</b>																				
<b>Voltage DC</b>	15 V	10 V	20 V	10 V	75 mV						30 V	10 V					- / 10 V			
<b>Resistance</b>	10 kΩ	3200 Ω	4000 Ω	3200 Ω	4000 Ω															
<b>mA DC/% scale</b>	22 mA	24 mA	24 mA	24 mA							24 mA	24 mA	24 mA	24 mA			24 mA	24 mA		
<b>mA source; auto step; auto ramp</b>	•	•	•								•	•	•	•			•	•		
<b>Frequency</b>	50 kHz	10 kHz	15 kHz																	
<b>Temperature: RTD types</b>	8	7	8	7	13															
<b>Temperature: TC types</b>	13	10	10	10	17															
<b>Record</b>																				
<b>Min/Max</b>	•						•	•	•	•	•	•						•		
<b>Hold</b>							•	•	•	•	•						•	•		
<b>As Found/ As Left results</b>	•										•						•	•		
<b>Log data</b>	•										•							•		
<b>Upload data to PC</b>	•										•							•		
<b>Remote operation</b>		•/-	•								•							•		
<b>Features</b>																				
<b>Loop supply</b>	26 V	24 V / 12 V	24 V	24 V			24 V / -	24 V	24 V	24 V	24 V	24 V	24 V	24 V	24 V	24 V	24 V	24 V / -		
<b>HART™ communication</b>	754 only																			
<b>Integrated hand pressure pump</b>							•				•									
<b>Electric Pump</b>											•									
<b>Intrinsically safe (ATEX)</b>							718 Ex				721 Ex									
<b>Traceable certification</b>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
<b>Warranty in years</b>	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		

<sup>5</sup> Fluke 789 & 787B are Fluke Connect™ compatible with Fluke i3000 FC Connector (sold separately)

<sup>3</sup> Ranges depending on version  
<sup>4</sup> By using optional 720 RTD Probe accessory

<sup>1</sup> Fluke 750 Pressure Modules Required  
<sup>2</sup> Ranges for the internal sensor

# Fluke 787B and 789 ProcessMeter™



Fluke 789

Fluke 787B



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

The Fluke 787B and 789 ProcessMeter™ double troubleshooting capabilities by combining the power of a safety-rated digital multimeter and mA loop calibrator into a single, compact test tool. Whether you only need to source and simulate mA, or need a 24 V loop power supply, Fluke has a ProcessMeter™ test tool designed specifically to meet your needs.

### Fluke 787B and 789 key features

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

### Fluke 789 additional features

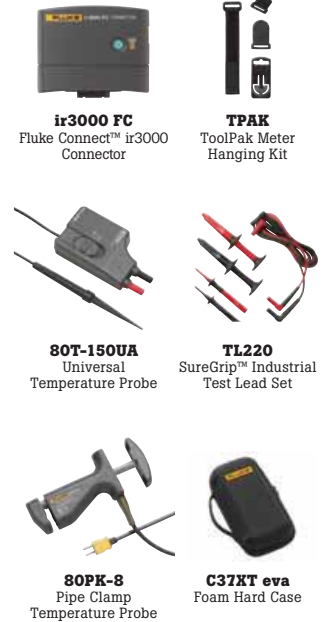
- 24 V loop power supply
- HART mode setting with loop power (adds 250 ohm resistor)

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

Output Function	Range and Resolution	Drive Capability	Accuracy
DC Current Output (Internal Battery Operation)	0.00 to 20.00 mA or 4.00 to 20.00 mA, (selectable at power-up) Over-range to 24.00 mA	24 V compliance or, 1200 ohms, @ 20 mA	0.05%
DC Current Simulate (Ext. 15 V to 48 V loop supply)	0.00 to 20.00 mA or 4.00 to 20.00 mA, (selectable at power-up) Over-range to 24.00 mA	1000 ohms, @ 20 mA	0.05%
24 V Loop Supply*	Minimum 24 V	250 ohms @ 20 mA	> 24 V
Current Adjustment Modes	Manual: Coarse, Fine, 25% and 100% step Automatic: Slow Ramp, Fast Ramp, 25% step		

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

### Recommended Accessories



**ir3000 FC**  
Fluke Connect™ ir3000 Connector

**TPAK**  
ToolPak Meter Hanging Kit

**80T-150UA**  
Universal Temperature Probe

**TL220**  
SureGrip™ Industrial Test Lead Set

**80PK-8**  
Pipe Clamp Temperature Probe

**C37XT eva**  
Foam Hard Case

### Recommended Kits

Bundle & Save



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

### Included Accessories

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

### Ordering Information

**FLUKE-787B** ProcessMeter™

**FLUKE-789** ProcessMeter™

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

**FLUKE-IR3000 FC** Fluke Connect™ Infrared Connector

**VVF-SC2** FlukeView™ Forms Software (incl. Interface Cable)

Contact your local distributor for price and availability.



# Fluke 771, 772 and 773 mA Process Clamp Meters



Fluke 772

Fluke 773

Fluke 771



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

### Use the Fluke 772 and 773 to:

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

### Use the Fluke 773 to:

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

## Recommended Accessories



**TL220**  
SureGrip™ Industrial Test  
Lead Set



**C550**  
Tool Bag

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

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

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

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

	771	772	773
Battery	Two 1.5 V, Alkaline, IEC LR6	Four 1.5 V, Alkaline, IEC LR6	
Working hours	40 hours typical	12 hours @ 12 mA source into 500 Ω	
Size (H×W×L)	59 mm × 38 mm × 212 mm (2.32 in × 1.5 in × 8.35 in)	43.7 mm × 70 mm × 246.2 mm (2.87 in × 5.75 in × 11.62 in)	
Weight	260 g (9.17 oz)	410 g (14.46 oz)	
Operating temperature	-10° C to 50°C (14° F to 122° F)		
Ingress Protection (IEC 60529)	IP40		



## Included Accessories

**Fluke 771:** Soft Carrying Case, User Manual.

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

## Ordering Information

**FLUKE-771** Milliamp Process Clamp Meter

**FLUKE-772** Milliamp Process Clamp Meter

**FLUKE-773** Milliamp Process Clamp Meter

Contact your local distributor for price and availability.

# Fluke 709, 709H and 710 Precision Loop Calibrators



Fluke 710



Fluke 709H



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

The Fluke 709 and 709H mA Loop Calibrators and 710 Valve Tester are designed to save time and produce high-quality results. These calibrators are built around a user-friendly interface with a Quick-Set rotary encoder knob. This tool reduces the time it takes to measure or source current, and power up a loop. The protective holster easily fits into a technician's hand and the large backlit display is easy to read, even in dark, cramped worked areas.

- Best-in-class accuracy at 0.01% reading
- HART™ Communications (709H, 710) to communicate with and test HART smart instruments
- Compact rugged design
- Intuitive user interface with quick-set knob for fast setup, easy to use
- 24 V DC loop power with mA measure mode
- Resolution of 1 µA on mA ranges
- Built in selectable 250 Ω resistor for HART communications
- Simple two wire connection for all measurements
- Valve test (source and simulate defined mA values with % keys for valve testing)
- Upload logged mA measurements and HART device data using the 709H with optional 709H/TRACK software
- Three-year warranty

### HART™ Communication

The Fluke 709H offers a built-in HART modem to provide the communication capability to perform the following commands:

- Read message, tag, descriptor and calibration date
- Read sensor PV information and PV output information
- Read long tag
- Write PV ranges (upper and lower)
- Enter/exit fixed current mode and set zero offset
- Trim DAC zero (mA output 4 mA) and trim DAC gain (mA output 20 mA)

### Valve Testing

The Fluke 710 has powerful valve-testing functions including preconfigured valve signature test, speed test, step test, manual test and bump/partial stroke test. The instrument comes with ValveTrack™ desktop software where you can upload valve test results, logged measurements and HART device configurations captured in the field.

Key Features	709	709H	710
mA measure (range and accuracy)	0-24 mA @ 0.01%	0-24 mA @ 0.01%	0-24 mA @ 0.01%
mA source/simulate	0-24 mA @ 0.01%	0-24 mA @ 0.01%	0-24 mA @ 0.01%
DC volts measure	0-30 V @ 0.01%	0-30 V @ 0.01%	0-30 V @ 0.01%
DC volts source			
24 V loop power	•	•	•
Auto step/ramp	•	•	•
Documenting and log data		Option	•
HART communication		•	•
Valve testing	Analog	Analog	Analog/HART

### Recommended Accessories



### Included Accessories

**709:** AC175 Alligator Clip Set, TL75 Test Leads, Soft Case, Six AAA Batteries (installed), Product Manual (CD), Quick Reference Guide, Safety Information.

**709H:** 754-8016 Alligator Clip Set, 75X-8014 Stackable Lead Set, TP220-4201 Test Probes, AC280-5001 SureGrip Hook Clips, Soft Case, Six AAA Batteries (installed), Product Manual (CD), Quick Reference Guide, Safety Information.

**710:** Stackable Test Lead Set, Extended Tooth Alligator Clip Set, TP220 Test Probes, AC280 SureGrip™ Hook Clips, Lemo to USB Cable ValveTrack™ Software (free download), Softcase, Six AAA batteries (installed).

**Note:** All models include Traceable Calibration Certificate.

### Ordering Information

- FLUKE-709** Precision Loop Calibrator
- FLUKE-709H** Precision Loop Calibrator with HART™
- FLUKE-709H/TRACK** HART™ Data-Logging Communications Software
- FLUKE-710** Valve Tester

Contact your local distributor for price and availability.

# Fluke 715, 707, and 705 Loop Calibrators

Complete family of Volt/mA calibrators



Fluke 715

Fluke 705



Fluke 707

## Fluke 715 Volt/mA Calibrator

- Source voltage to 200 mV or 20 V
- Measure loop current (0 to 20 mA, 4-20 mA) signals with 0.01% accuracy and 1  $\mu$ A 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
- Three-year warranty

## Fluke 707 and 705

- Innovative output adjustment dial on 707 provides 1  $\mu$ A and 100  $\mu$ A resolution and one-hand operation
- Large display and simple interface for ease of use
- Simultaneous mA and % readout for quick, easy interpretation of readings
- mA accuracy of 0.01% on the Fluke 707 and 0.02% on the 705
- HART mode on 707 connects 250 ohm resistor in series with 24 V loop for compatibility with HART™ communicators
- Push button 25% steps for fast, easy linearity checks
- “Span Check” for fast confirmation of zero and span
- Selectable slow and fast linear step ramp provide ramping outputs for valve slewing, remote testing and loop functional tests
- 24 V internal loop supply, so you can power and read a transmitter at the same time without carrying a DMM
- 0 to 20 mA or 4-20 mA default start up modes
- Three-year warranty

## Recommended Accessories



**TL28A**  
Heavy Duty Test Lead Set



**TL220**  
SureGrip™ Industrial Test Lead Set



**C550**  
Tool Bag



	705/707	715
<b>Voltage measurement</b>		
Range	0 V to 28 V	0 mV to 200 mV / 0 V to 25 V
Resolution	1 mV	10 $\mu$ V / 1 mV
Accuracy	705: 0.02% Rdg + 1 LSD 707: 0.01% Rdg + 2 LSD	0.01% Rdg + 2 LSD
<b>Current measurement</b>		
Range	0 mA to 24 mA	0 mA to 24 mA
Resolution	0.001 mA	0.001 mA
Accuracy	705: 0.02% Rdg + 2 LSD 707: 0.01% Rdg + 2 LSD	0.01% + 2 LSD
<b>Current sourcing</b>		
Range	0 mA to 20 mA or 4 mA to 20 mA	0 mA to 20 mA or 4 mA to 20 mA
Accuracy	705: 0.02% Rdg + 2 LSD 707: 0.01% Rdg + 2 LSD	0.01% Rdg + 2 LSD
Drive capability	705: 1000 $\Omega$ @ 24 mA 707: 1200 $\Omega$ @ 24 mA	1000 $\Omega$ @ 24 mA
Loop power while measuring mA	24 V	
Display current and % of span	Yes	mA or %
Auto step, auto ramp	Yes	
Span Check	Yes	
Battery life	18 hours typical, at 12 mA current source	
<b>Voltage sourcing</b>	-	0 mV to 200 mV or 0 V to 20 V

## Included Accessories

**Fluke 705/707:** Test Leads, AC175 Alligator Clips, Single 9V Alkaline Battery, Instruction Sheet, Traceable Calibration Certificate.

**Fluke 715:** Yellow Holster (H80M excl. TPAK), Test Leads and AC175 Alligator Clips, Single 9V Alkaline Battery, Instruction Sheet, Traceable Calibration Certificate.

## Ordering Information

<b>FLUKE-705</b>	Loop Calibrator
<b>FLUKE-707</b>	Loop Calibrator
<b>FLUKE-715</b>	Volt/mA Calibrator

Contact your local distributor for price and availability.

# Fluke 725 and 726 Multifunction Process Calibrators



Fluke 726

Fluke 725



### More calibration power!

- Two separate channels; measure, source and view process signals simultaneously
- Measure volts, mA, RTDs, thermocouples, frequency, and resistance to test sensors and transmitters
- Source/simulate volts, mA, thermocouples, RTDs, frequency, and pressure to calibrate transmitters
- Measure pressure using any of 50 Fluke 750Pxx Pressure Modules
- Source mA with simultaneous pressure measurement to conduct valve and I/P tests
- Perform fast linearity tests with auto step and auto ramp
- Power transmitters during test using 24 V loop supply and simultaneous mA measurement
- Store frequently-used test setups for later use
- Three-year warranty

### 726 additional features:

- More precise measurement and calibration source performance, accuracies of 0.01%
- Transmitter error % calculation
- Memory storage for up to 8 calibration results
- Frequency totalizer and frequency pulse train source mode
- HART mode inserts 250 ohm resistor in mA measure and source for compatibility with HART instrumentation
- Integrated pressure switch test
- Custom RTD curves, add calibration constants for certified RTD probes for enhanced temperature measurement

Function or Source	Range or Type	Resolution	Accuracy	Notes
Voltage	0 to 100 mV 725: 0 to 10V (source) <b>0 to 20V (source)</b> 725/726: 0 to 30V (measure)	0.01 mV 0.001 V 0.001 V 0.001 V	<b>0.01%</b> 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, 725/726: 1000 Ω
mV (TC terminals)	-10.00 mV to +75.00 mV	0.01 mV	<b>0.01%</b> 0.02% of range + 1 LSD	
Ohms	15 Ω to 3200 Ω <b>5 Ω to 4000 Ω</b>	0.01 Ω to 0.1 Ω	<b>0.01%</b>	
Hz - CPM	2.0 to 1000 CPM 1 to 1000 Hz 1.0 to 10.0 kHz <b>10.0 to 15.0 kHz</b>	0.1 CPM 1 Hz 0.1 kHz <b>0.1 kHz</b>	±0.05% ±0.05% ±0.25% <b>±0.05%</b>	Source; 5 V p-p <b>1 V - 20 V p-p</b> squarewave, -0.1 V offset
Loop Supply	725/726: 24 V DC	N/A	10%	
T/C	J, K, T, E, L, N, U, XK	0.1°C	to 0.7°C to 0.2°C	
T/C	B, R, S, BP	1°C	to 1.7°C to 1.2°C	
RTDs	<b>Cu (10)</b> , Ni 120 (672) Pt 100, 200, 500, 1000 (385) Pt 100 (3916), Pt 100 (3926)	<b>0.01°C</b>	<b>to 0.15°C</b>	
		0.1°C	to 0.2°C	

Simultaneous function capability	Channel A	Channel B
24.00 mA DC	M	M or S
24.00 mA DC with 24 V loop supply	M	—
100.00 mV DC	—	M or S
30.00 V DC measure	M	—
20.00 V DC measure; 10.00 V DC source; <b>20.00 V DC source</b>	—	M or S
15 to 3200 Ohms (725); <b>5 to 4000 Ohms (726)</b>	—	M or S
Thermocouple J, K, T, E, R, S, B, M, L, U, N, XK, BP	—	M or S
RTD <b>Cu 10</b> , Ni120; Pt100 (392); Pt100 (JIS); Pt100, 200, 500, 1000 (385), XK and BP	—	M or S
Pressure (requires Fluke 750PXX Modules)	M	M used as S
Frequency; 10 kHz; ( <b>15 kHz</b> )	—	M or S

M = Measure, S = Source/Simulate

Unique 726 features are in bold

### Recommended Accessories



**TL220**  
SureGrip™ Industrial Test Lead Set

**C125**  
Soft Case

**80PK-27**  
Industrial Surface Temperature Probe

**700PRV**  
Pressure Relief Valve Kit

**750PXX**  
Pressure Module



### Included Accessories

TL75 Test Lead Set (TL75), AC70A Test Clip Set (725), AC72 Test Clip Set (726), Stackable Test Lead Set, Four AA Batteries, Traceable Calibration Certificate.

### Ordering Information

**FLUKE-725** Multifunction Process Calibrator

**FLUKE-726** Precision Multifunction Process Calibrator

Contact your local distributor for price and availability.

# Fluke 750 Series Documenting Process Calibrators



Fluke 753

Fluke 754



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

Whether you're calibrating instruments, troubleshooting a problem or running routine maintenance, Fluke's 753 and 754 Series Process Calibrators can help you get the job done faster. They do so many different tasks, so quickly and so well and they are the only process calibrators you need to carry.

- Measure volts, mA, RTDs, thermocouples, frequency, and ohms to test sensors, transmitters etc.
- Source/simulate volts, mA, thermocouples, RTDs, frequency, ohms, and pressure to calibrate transmitters
- Power transmitters during test using loop supply with simultaneous mA measurement
- Measure pressure using any of Fluke's 50 pressure modules
- Measure and source simultaneously with one compact, rugged, reliable tool
- Create and run automated as-found/as-left procedures to satisfy quality programs or regulations and record and document results.
- Advanced features like autostep, custom units, user entered values during test, one-point and two-point switch testing, square root DP flow testing, programmable measurement delay and more
- Control the temperature of selected HART™ Scientific Dry Blocks
- Handle fast pulsed RTD transmitters and PLCs in RTD source mode with 1 ms response time
- Three-year warranty

## Fluke 753: A complete Documenting Calibrator

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

## Fluke 754: Get HART-ability™

The Fluke 754 offers all of the capabilities of the 753, plus the ability to calibrate, maintain and troubleshoot HART instrumentation. Integrated HART communication functions permit you to monitor, control and calibrate HART instrumentation. It handles fast pulsed instruments such as RTD transmitters and PLCs responding to pulses within 1 ms.

## Instrumentation Management Software

The Fluke 753 and 754 are compatible with Fluke 750SW DPC/TRACK2 software and with software from Cornerstone, Emerson, Honeywell, On Time Support, Prime Technologies, Yokogawa, Intools, Meridium.

For more information, visit [www.fluke.com](http://www.fluke.com)

Functions	Measure	Sourcing
DC voltage	0.02% reading + 0.005% full scale	0.01% output + 0.005% full scale
DC current	0.01% reading + 5 µA	0.01% output + 0.003 mA
Resistance	0.05% reading + 50 mΩ	0.01% output + 240 mΩ
Frequency	0 to 50kHz, ±0.5 Hz to 1100 Hz	0 to 50 kHz, ±0.1 Hz to 1099.9 Hz
Thermocouples	0.3° C (0.54° F)	0.2° C (0.36° F)
RTDs	0.3° C (0.54° F)	0.1° C (0.18° F)
Pressure	To 0.02% of full scale, per pressure module specifications	

### General Specifications

Battery life	Typically over eight hours
Internal battery pack	Li ion 4400 mAh
Battery replacement	Via twist lock fastener without opening calibrator
Weight	1.2 kg (2.7 lb)
Size (HxWxD)	136 x 245 x 63 mm (5.4 x 9.6 x 2.5 in)
RTDs	0.3° C
Pressure	To 0.02% of full scale, per pressure module specifications - see page 124

## Recommended Accessories



**750PXX**  
Pressure Modules



**750SW**  
DPC/TRACK2 Software



**700PTP-1**  
Pneumatic Test Pump



**C799**  
Field Soft Case



**700HTP-2**  
Hydraulic Test Pump



**754HCC**  
Smart Instrument  
Communication Cable

## Bundle Package



### Fluke 754/750SW 754DPC and 750SW DPCTRACK2 Bundle Package

Purchase the Fluke 754 with the Fluke DPC/TRACK2™ software at a special bundle package price.

## Included Accessories

Stackable Test Leads (3 sets), TP220 Test Probes (3 sets) with extended Tooth Alligator Clips (3 sets), AC280 Hook Clips (2 sets), BP7240 Li-ion Battery Pack, BC7240 Battery Charger, C799 Field Soft Case, USB Communication Cable, Getting Started Guide, Instruction Manual on CDROM, Traceable Certificate of Calibration, DPCTrack™2 Sample Software that enables upload and printing of calibration records, HART™ Communication Cable (754 only).

## Ordering Information

<b>FLUKE-753</b>	Documenting Process Calibrator
<b>FLUKE-754</b>	Documenting Process Calibrator HART™
<b>FLUKE-754/750SW</b>	754DPC and 750SW DPCTRACK2 Bundle Package
<b>FLUKE-750SW</b>	DPC/TRACK2 Software



# Fluke 154 HART™ Calibration Assistant



Fluke 154



## HART™ Calibration assistance at your fingertips. Combine with a Fluke Calibrator for a total HART Calibration Solution.

The Fluke 154 puts HART device configuration at your fingertips. An Android™ based tablet user interface makes HART configuration easy. The external wireless modem allows you to connect the modem to the transmitter being tested so you can communicate to the device remotely. HART transmitters can often be found in confined spaces that are difficult to access, or are out of reach. The Fluke 154 helps reduce the need to stand right next to the device being tested or configured so you can work from a safer, more convenient location.

When you combine the Fluke 154 Communicator with a Fluke 750 Series Documenting Process Calibrator, or a Fluke 720 Series Multifunction Process Calibrator you have a complete HART calibration and configuration solution.

- Full HART Device Description (DD) support of all HART devices
- Configure HART devices
- Perform HART trim on HART devices when used 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)
- Three-year warranty



Process Calibration Tools — Multifunction Calibration

Tablet	
Operating System	Android 5.0 or newer
Processor	ARM or Atom
Memory RAM	1 GB
Memory ROM	2 GB
Screen	960 × 540 qHD
Communication Port	Bluetooth
HART™ Modem	
<b>Enclosure</b>	
Dimensions (LxWxH)	10.16 x 2.5 x 6.9 cm (4 x 1 x 2.75 in)
Total Unit Weight	0.16 kg (0.36 lbs)
HART Cable Length	1.2 m (4 ft)
HART Cable Connectors	Mini-Grabber
HART™ Interface	
Interface	Capacitive coupling
Output	600 mVpp
Leakage	< 10 uA
Connections	Across loop resistor or HART field device
Specifications	HART 4, HART 5, HART 6, HART 7
HART Physical Layer Spec	HCF_SPEC-54
Specification	Bluetooth v2.0
Frequency	2.4 GHz
Class 1 Master Distance	83.8 m (275 ft)
Battery Type	Rechargeable Li-ion
Battery Life	19 hours continuous use
Humidity	0% to 90% (non-condensing)

### Included Accessories

Tablet Charger and USB, Micro-cable, Fluke HART™ App (installed), HART Modem, USB Mini-Cable, Hook Test Clips, Alligator Clips, Magnetic Hanging Strap, Case, Manual installed on Tablet.

### Ordering Information

**Fluke 154** HART Calibration Assistant

Contact your local distributor for price and availability.

# Fluke 712B, 714B and 724 Temperature Calibrators



Fluke 714B



Fluke 712B



## Accuracy and simplicity

The Fluke 712B and 714B are designed for both simplicity, ease of use and high accuracy. They are a powerful combination of temperature and loop calibration.

### Fluke 714B Thermocouple Calibrator

- Measure and simulate 17 different thermocouple types and millivolts
- Measure 4–20 mA signals while simultaneously sourcing a temperature signal
- Hanging tool designed in and included with every unit
- 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
- 1 and 2 year specifications and traceable certificate of calibration
- Three-year warranty

### Fluke 712B RTD Calibrator

- Measure and simulate 13 different RTD types and resistance
- Measure 4–20 mA signals while simultaneously sourcing a temperature signal
- 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
- 1-year and 2-year specifications and traceable certificate of calibration
- Three-year warranty

## Specialty Model

### Fluke 724 Temperature Calibrator

- Easy to read dual display allows for input and output simultaneous view
- Source/measure TCs, RTDs, volts and ohms
- Measure mA while supplying loop power
- 25% and 100% stepping, auto-step and auto ramp



## Recommended Accessories



**TPAK**  
Magnetic Meter Hanger



**AC220**  
SureGrip™ Alligator Clips

## Fluke 712/724



**TL175**  
TwistGuard™ Test Leads



**TL220**  
SureGrip™ Industrial Test Lead Set



**80PK-24**  
SureGrip™ Air Temperature Probe



**80PK-3A**  
Surface Probe



**C101**  
Meter Hard Case



**C25**  
Large Soft Case

General Specifications	712B	714B
Operating Temperature	-10° C to 50° C (14° F to 122° F)	
Operating Altitude	2 000 m (6561 ft)	
Relative Humidity (% RH operating without condensation)	Non condensing 90% (10° C to 30° C (14° F to 86° F)), 75% (30° C to 40° C (86° F to 104° F)), 45% (40° C to 50° C (104° F to 122° F)) (Without condensation)	
Vibration Requirements	MIL-T-28800E, Class 2	
Drop Test Requirements	1 m (3.28 ft)	
Ingress Protection	IEC 60529: IP52	
Safety	IEC 61010-1, Max 30 V to earth, Pollution Degree 2	
Power Supply	Four AA NEDA 15A IEC LR6 batteries	
<b>DC mA Measurement</b>		
Resolution	0–24 mA	
Range	0.001 mA	
Accuracy (% of reading + counts)	0.01% + 2 $\mu$ A	
<b>Ohms Measurement</b>		
Ohms range	0.00 $\Omega$ to 400.00 $\Omega$ , 400.0 $\Omega$ to 4000.0 $\Omega$	
Accuracy (% of reading + counts)	0.01% + 0.05 $\Omega$ , 0.01% + 0.5 $\Omega$	
<b>Ohms Source</b>		
Ohms Range	1.0 $\Omega$ to 400.0 $\Omega$ , 1.00 $\Omega$ to 400.00 $\Omega$ , 400.0 $\Omega$ to 1500.0 $\Omega$ , 1500.0 $\Omega$ to 4000.0 $\Omega$	
Accuracy (% of reading + counts)	0.01% + 0.1 $\Omega$ , 0.01% + 0.05 $\Omega$ , 0.01% + 0.5 $\Omega$ , 0.01% + 0.5 $\Omega$	
<b>Resolution</b>		
0.00 $\Omega$ to 400.00 $\Omega$	0.01 $\Omega$	
400.0 $\Omega$ to 4000.0 $\Omega$	0.1 $\Omega$	
<b>Millivolt Measurement &amp; Source</b>		
Resolution	-10 mV to 75 mV	
Range	0.01 mV	
Accuracy (% of reading + counts)	0.01% + 10 mV	

## Included Accessories

**Fluke 714B/712B:** Magnetic Hanging Tool, Batteries, Manual, Traceable Calibration Certificate and Test Leads.

**Fluke 724:** TL75 Test Leads, AC175 Test Clips, Stackable Test Leads (1 pair), Spare Fuse, User Manual and Traceable Certificate of Calibration.

## Ordering Information

<b>FLUKE-714B</b>	Thermocouple Temperature Calibrator
<b>FLUKE-712B</b>	RTD Calibrator
<b>FLUKE-724</b>	Temperature Calibrator

# Fluke Calibration 1523 and 1524 Reference Thermometers



Fluke 1524

Fluke 1523



The Fluke Calibration 1523/1524 Reference Thermometers measure, graph and record PRTs, thermocouples and thermistors. You can measure up to 0.3 seconds per sample and plot and scale trends in real time. Both thermometers have memory for up to 25 readings with statistics. The 1524 has two inputs with data logging memory for 15 000 measurements with date and time stamps.

- High accuracy PRTs:  $\pm 0.01^\circ\text{C}$ ; Thermocouples:  $\pm 0.24^\circ\text{C}$ ; Thermistors:  $\pm 0.002^\circ\text{C}$
- A simple user interface to see trends quickly
- Smart connectors to load probe information automatically
- Optional on a PC LogWare II software to monitor and log more data over time
- One-year warranty

Models	Included accessories
	<i>Fluke 1523 Bundled with:</i>
1523-P2	5628 PRT (-200° C to 660° C (-328° F to 1,220° F), 25 ohm, 6.35 mm x 305 mm (0.25 in x 12 in)), Universal TC INFO-CON Connector, TPAK and Case
1523-P3	5627A PRT (-200° C to 420° C (-328° F to 788° F), 100 ohm, 6.35 mm x 305 mm (0.25 in x 12 in)), Universal TC INFO-CON Connector, TPAK and Case
1523-P4	5615 PRT (-200° C to 420° C (-328° F to 788° F), 100 ohm, 6.35 mm x 305 mm (0.25 in x 12 in)), Universal TC INFO-CON Connector, TPAK and Case
	<i>Fluke 1524 Bundled with:</i>
1524-P2	5628 PRT, Universal TC INFO-CON Connector, TPAK and Case
1524-P3	5627A PRT, Universal TC INFO-CON Connector, TPAK and Case
1524-P4	5615 PRT, Universal TC INFO-CON Connector, TPAK and Case

# Fluke Calibration 1551A Ex and 1552A Ex Stik Thermometer Readouts



Fluke 1552A Ex



## Best substitute for precision mercury-filled glass thermometers

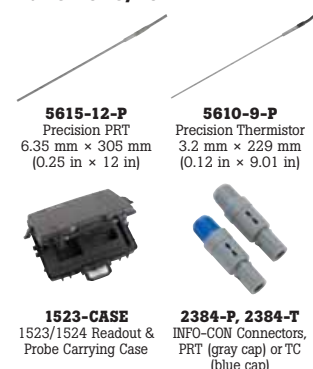
The Fluke 1551A Ex and 1552A Ex Stik Thermometers are an accurate and repeatable substitute for mercury-in-glass thermometers. Whether working outdoors in environments where potentially explosive gases may be present or on the floor of a processing plant, these intrinsically-safe, battery operated, portable reference thermometers are designed to go where you work.

- User-configurable temperature Trend/Stability indicator
- Optional data logging to internal memory
- 300-hour battery life
- NVLAP-accredited, NIST-traceable calibration included
- Accuracy of  $\pm 0.05^\circ\text{C}$  ( $\pm 0.09^\circ\text{F}$ ) over full range
- Intrinsically safe (ATEX and IECEx compliant) Ex ib IIB T4 Gb
- Two models to choose from (-50° C to 160° C (-58° F to 320° F)) or (-80° C to 300° C (-112° F to 572° F))
- One-year warranty

Models	
1551A-9*	1551A Ex Thermometer, Fixed RTD, -50° C to 160° C (-58° F to 320° F), 4.8 mm x 229 mm (0.18 in x 9.01 in)
1551A-12*	1551A Ex Thermometer, Fixed RTD, -50° C to 160° C (-58° F to 320° F), 6.35 mm x 305 mm (0.25 in x 12 in)
1551A-20*	1551A Ex Thermometer, Fixed RTD, -50° C to 160° C (-58° F to 320° F), 6.35 mm x 508 mm (0.25 in x 20 in)
1552A-12*	1552A Ex Thermometer, Fixed PRT, -80° C to 300° C (-112° F to 572° F), 6.35 mm x 305 mm (0.25 in x 12 in)

\*Datalogging option models also available as -DL

## Recommended Accessories Fluke 1523/1524



## Fluke 1551AEx/2AEx



## Fluke Calibration 7526A Precision Process Calibrator



The Fluke Calibration 7526A Precision Process Calibrator offers the best balance of economy and accuracy for benchtop 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.

- Sources and measures DC voltage, current, resistance, RTDs and thermocouples
- Precision pressure measurement using Fluke 750P Series Pressure Modules
- Measures 4-20 mA loop current
- Includes certificate of calibration traceable to national standards
- Thermocouple output/input: -10 mV to 75 mV  $\pm$  (30 ppm of reading +2  $\mu\text{V}$ )
- Transmitter output: 0 mA to 24 mA (input with loop power)  $\pm$  (100 ppm +1  $\mu\text{A}$ )
- Resistance output: 5  $\Omega$  to 400  $\Omega$   $\pm$  0.01  $\Omega$

Contact your local distributor for price and availability.



## Fluke Calibration 9100S and 9102S Handheld Dry-Well Temperature Calibrators



Fluke 9102S



Fluke 9100S

The Fluke Calibration 9100S and 9102S are the world's smallest, lightest and most portable dry-wells. With an easy-to-use interface and temperature range to 375° C (707° F) the 9100S is ideal for checking RTDs, thermocouples, and small bimetal thermometers in the field. For work in the temperature range of -10° C to 122° C (14° F to 251° F) the 9102S is ideal for dial gauges, digital thermometers, bulb switches, and other sensors that need calibration below ambient.

### 9102S Handheld Dry-Well

- Smallest dry-wells in the world
- Interchangeable and customizable inserts available
- Ranges from -10° C to 122° C (14° F to 251° F)
- Accuracy to  $\pm 0.25^{\circ}\text{C}$  ( $\pm 0.45^{\circ}\text{F}$ )
- Stability of  $\pm 0.05^{\circ}\text{C}$  ( $\pm 0.09^{\circ}\text{F}$ ) at 0° C (32° F)
- One-year warranty

### 9100S Handheld Dry-Well

- High performance, convenience and easy-to-use
- Ranges from 35° C to 375° C (95° F to 707° F)
- Accuracy:  $\pm 0.25^{\circ}\text{C}$  at 50° C;  $\pm 0.25^{\circ}\text{C}$  at 100° C;  $\pm 0.5^{\circ}\text{C}$  at 375° C ( $\pm 0.45^{\circ}\text{F}$  at 122° F;  $\pm 0.45^{\circ}\text{F}$  at 212° F;  $\pm 0.9^{\circ}\text{F}$  at 707° F)
- NIST traceable calibration
- One-year warranty



### Recommended Accessories

#### Fluke 9100S/9102S



**9300**  
Rugged Carrying Case  
(9100S)



**1586-CASE**  
Carrying Case  
(1586A Super DAQ)

## Fluke Calibration 1586A Data Acquisition System



Fluke 1586A



### 1586A Super DAQ Precision Temperature Scanner

The 1586A Super DAQ automates calibration when connected to a Fluke Calibration temperature source. It is a powerful thermometer readout and the most accurate and flexible temperature data acquisition system on the market.

- Measure thermocouples, PRTs, thermistors, DC voltage, DC current, and resistance
- Best-in-class temperature measurement accuracy
- Fluke DAQ 6.0 software. to visualize and handle data
- PRTs:  $\pm 0.005^{\circ}\text{C}$  ( $\pm 0.009^{\circ}\text{F}$ )
- Thermocouples:  $\pm 0.3^{\circ}\text{C}$  ( $\pm 0.54^{\circ}\text{F}$ ) (Type K,T,J w/ internal CJC)
- Thermistors:  $\pm 0.002^{\circ}\text{C}$  ( $\pm 0.004^{\circ}\text{F}$ )
- One-year warranty

### Ordering Information

<b>9100S-A-256</b>	HDCR Handheld Dry-Well, Block A, High-Temp
<b>9100S-B-256</b>	HDCR Handheld Dry-Well, Block B, High-Temp
<b>9100S-C-256</b>	HDCR Handheld Dry-Well, Block C, High-Temp
<b>9100S-D-256</b>	HDCR Handheld Dry-Well, Block D, High-Temp
<b>9102S-256</b>	HDCR Handheld Dry-Well, Low-Temp
<b>1586A</b>	Super-DAQ Precision Temperature Scanner
<b>1586A/1DS</b>	Super-DAQ Precision Temperature Scanner, 1 DAQ-STAQ Multiplexer
<b>1586A/2DS</b>	Super-DAQ Precision Temperature Scanner, 2 DAQ-STAQ Multiplexers
<b>1586A/DS-HC</b>	Super-DAQ Precision Temperature Scanner, 1 High-Capacity Module, 1 DAQ-STAQ Multiplexer
<b>1586A/1HC</b>	Super-DAQ Precision Temperature Scanner, 1 High-Capacity Module
<b>1586A/2HC</b>	Super-DAQ Precision Temperature Scanner, 2 High-Capacity Modules

Optional: ISO 17025 Accredited Calibration available for 1586A models (add "/C" to the model number).

Contact your local distributor for price and availability.

# Fluke Calibration 9142, 9143 and 9144 Field Metrology Wells



Fluke 9144



## Field temperature calibration with precision and speed

Whether you need to calibrate 4-20 mA transmitters or a simple thermostatic switch, a Fluke Calibration Field Metrology Well is the right tool for the job. With three models covering the range of -25° C to 660° C, this family of Metrology Wells calibrates a wide range of sensor types. The optional process version (models 914X-X-P) provides a built-in two-channel thermometer readout that measures PRTs, RTDs, thermocouples, and 4-20 mA transmitters which includes the 24 V loop supply to power the transmitter.

- Lightweight, portable, and fast
- **9142** -25° C to 150° C ±0.2° C (-13° F to 302° F ±0.4° F)
- **9143** 33° C to 350° C ±0.2° C (91° F to 662° F ±0.4° F)
- **9144** 50° C to 660° C ±0.35° C to 420° C, ±0.5° C to 660° C (122° F to 1,220° F ±0.63° F to 788° F, ±0.9° F to 1,220° F)
- Cool to -25° C (-13° F) in 15 minutes and heat to 660° C (1,220° F) in 15 minutes
- Built-in two-channel readout for PRT, RTD, thermocouple, 4-20 mA current
- True reference thermometry with accuracy to ±0.01° C
- Automate calibration with the Fluke 754 or Fluke 1586A or use on-board automation with process version
- One-year warranty

Models	Well inserts
	X in the model number to be replaced with A, B, C, D, E, or F as appropriate for the desired insert.
9142-X	Field Metrology Well, -25° C to 150° C (-13° F to 302° F)
9142-X-P	Field Metrology Well, -25° C to 150° C (-13° F to 302° F), process version
9143-X	Field Metrology Well, 33° C to 350° C (91° F to 662° F)
9143-X-P	Field Metrology Well, 33° C to 350° C (91° F to 662° F), process version
9144-X	Field Metrology Well, 50° C to 660° C (122° F to 1,220° F)
9144-X-P	Field Metrology Well, 50° C to 660° C (122° F to 1,220° F), process version
	9142-INSA Insert A, 9142, misc holes
	9142-INSB Insert B, 9142, comp holes
	9142-INSC Insert C, 9142, 6 × 0.25 in holes
	9143-INSA Insert A, 9143, misc holes
	9143-INSB Insert B, 9143, comp holes
	9143-INSC Insert C, 9143, 6 × 0.25 in holes
	9144-INSA Insert A, 9144, misc holes
	9144-INSB Insert B, 9144, comp holes
	9144-INSC Insert C, 9144, 6 × 0.25 in holes

# Fluke Calibration 9103 and 9140 Field Dry-Well Calibrators



Fluke 9140



Fluke Calibration 9103 and 9140 Field Dry-Well Calibrators beat every other comparable dry-well in the industry in performance, size, weight, convenience, ease of calibration, software, and price. The heating and cooling rate of each of these dry-wells is adjustable from the front panel, and thermal switches can be checked for actuation testing. Multiple-hole inserts are available for a variety of probe sizes.

- Lightweight and very portable
- Two models ranging from -25° C to 350° C (-13° F to 662° F)
- Accuracy to ±0.25° C
- Stability to ±0.02° C
- RS-232 and Interface-it software included
- Easy to recalibrate
- One-year warranty

Models	Specify X, X = A, B, C, or D included insert
9103-X Field Dry-Well Calibrator, -25° C to 140° C (-13° F to 284° F)	Insert A: 1.6 mm (1/16 in), 3.2 mm (1/8 in), 4.8 mm (3/16 in), 6.35 mm (1/4 in), 9.5 mm (3/8 in) and 12.7 mm (1/2 in)
9140-X Field Dry-Well Calibrator, 35° C to 350° C (95° F to 662° F)	Insert B: 2 at 4.8 mm (3/16 in), 2 at 6.35 mm (1/4 in) and 2 at 9.5 mm (3/8 in)
	Insert C: Six at 6.35 mm (1/4 in)
	Insert D: 2 at 3 mm (0.118 in), 2 at 4 mm (0.157 in) and 2 at 6 mm (0.236 in)

## Recommended Accessories



**HART DRYWELL CABLE**  
754/Dry-Well/  
Microbath Interface  
Cable



**9142-CASE**  
Carrying Case (914X)

## Fluke 9308/9316



**9308**  
Carrying Case



**9316**  
Rugged Carrying Case

## Complete Solution

### Fluke 754 with 914X Series Field Metrology Well

By combining the automating and documenting capabilities of the Fluke 754 Documenting Process Calibrator (see page 116) with Fluke Calibration's intelligent and stable family of field drywells and micro-baths, you have the capability to test the process sensor and the entire loop.

This combination of equipment allows you to easily verify the characteristics of the temperature sensor and measurement electronics. Using this information, the entire loop can be adjusted to optimize system measurement performance.



Contact your local distributor for price and availability.

# Fluke Calibration 6109A/7109A Portable Calibration Baths



Fluke 6109A



## Four times more calibration throughput with twice the accuracy of Micro-Baths and dry-block calibrators

The Fluke Calibration 6109A and 7109A Portable Calibration Baths let process industry professionals calibrate four times more sanitary sensors per batch in less time and with twice the accuracy of other baths in this class. Up to four tri-clamp sanitary sensors fit easily into these baths for calibration at  $\pm 0.1^\circ\text{C}$  temperature display accuracy. Throughput is even higher for sanitary RTDs with small or no flanges.

- Calibrate up to four tri-clamp sanitary sensors at the same time
- Wide temperature ranges cover most process applications
  - 6109A:  $35^\circ\text{C}$  to  $250^\circ\text{C}$  ( $95^\circ\text{F}$  to  $482^\circ\text{F}$ )
  - 7109A:  $-25^\circ\text{C}$  to  $140^\circ\text{C}$  ( $-13^\circ\text{F}$  to  $284^\circ\text{F}$ )
- Excellent display accuracy of  $\pm 0.1^\circ\text{C}$  ( $\pm 0.18^\circ\text{F}$ ) provides 4:1 test uncertainty ratio (TUR) for critical applications
- One-year warranty

	6109A	7109A
Range (at $25^\circ\text{C}$ ambient temperature)	$35^\circ\text{C}$ to $250^\circ\text{C}$ ( $95^\circ\text{F}$ to $482^\circ\text{F}$ )	$-25^\circ\text{C}$ to $140^\circ\text{C}$ ( $-15^\circ\text{C}$ cover off) ( $-13^\circ\text{F}$ to $284^\circ\text{F}$ ( $5^\circ\text{F}$ cover off))
Accuracy (MAX possible error)	$0.1^\circ\text{C}$ ( $0.18^\circ\text{F}$ )	$0.1^\circ\text{C}$ ( $0.18^\circ\text{F}$ )
Display resolution	0.01, 0.001 $^\circ$	0.1, 0.001 $^\circ$
Stability	0.015 $^\circ\text{C}$ (0.027 $^\circ\text{F}$ )	0.01 $^\circ\text{C}$ (0.018 $^\circ\text{F}$ )
Typical uniformity	0.03 $^\circ\text{C}$ up to $200^\circ\text{C}$ (0.054 $^\circ\text{F}$ up to $392^\circ\text{F}$ ) 0.04 $^\circ\text{C}$ above $200^\circ\text{C}$ (0.072 $^\circ\text{F}$ up to $392^\circ\text{F}$ )	0.02 $^\circ\text{C}$ (0.036 $^\circ\text{F}$ )

# Fluke Calibration 1502A/1504 Tweener Thermometer Readouts



Fluke 1502A



## Best performance thermometers in their price range

The 1502A and 1504 Tweener Thermometer Readouts are low-cost high-accuracy digital thermometers featuring accuracy of up to  $\pm 0.006^\circ\text{C}$  ( $\pm 0.011^\circ\text{F}$ ) (Fluke 1502A) and up to  $\pm 0.002^\circ\text{C}$  ( $\pm 0.004^\circ\text{F}$ ) (Fluke 1504).

The 1502A is designed to be used with  $25\ \Omega$  and  $100\ \Omega$  RTDs and SPRTs.

The 1504 Thermometer Readout is designed to be used with thermistors or RTDs with a nominal resistance of  $1000\ \Omega$  or greater.

One-year warranty.

# Fluke Calibration 1620A Precision Thermo-Hygrometer



Fluke 1620A



## The most accurate temperature and humidity graphical data loggers on the market

Now you can easily monitor and record conditions throughout your entire facility with the DewK's new Ethernet and wireless capabilities, and set your upgraded LogWare III software to notify you immediately of changing conditions.

The 1620A accepts inputs from up to two sensors, which may be mounted directly on the unit or remotely. Each sensor comes with a NVLAP-accredited certificate of calibration for both temperature and humidity, complete with data and NIST traceability. The 1620A-S reads temperature to  $\pm 0.25^\circ\text{C}$  ( $\pm 0.45^\circ\text{F}$ ) over its calibrated range of  $15^\circ\text{C}$  to  $35^\circ\text{C}$  ( $59^\circ\text{F}$  to  $95^\circ\text{F}$ ). Relative humidity readings are to  $\pm 2\%$  RH from 20% RH to 70% RH.

One-year warranty.

## Recommended Accessories

### Fluke 6109A/7109A



7109-CASE  
Carrying Case



7109-2027  
Adjustable Probe  
Holding Fixture



7109-2051  
Single Probe  
Clamp Kit



7109-2080  
Fluid Overflow Kit

### Fluke 1502A/1504



9301  
Carrying Case, fits  
Tweener and 12 in probe



2505  
Spare Connector



2508  
Serial Cable Kit



2361  
Spare Power Supply 100  
to 240 V AC  
(1620A)

## Ordering Information

- 6109A Portable Calibration Bath,  $35^\circ\text{C}$  to  $250^\circ\text{C}$
- 6109A-P Portable Calibration Bath with Process Electronics,  $35^\circ\text{C}$  to  $250^\circ\text{C}$
- 7109A Portable Calibration Bath,  $-25^\circ\text{C}$  to  $140^\circ\text{C}$
- 7109A-P Portable Calibration Bath with Process Electronics,  $-25^\circ\text{C}$  to  $140^\circ\text{C}$
- 1502A Tweener PRT Readout
- 1502A-2506 Tweener PRT Readout, with IEEE-488
- 1504 Tweener Thermistor Readout
- 1504-2506 Tweener Thermistor Readout, with IEEE-488
- 1620A-H The "DewK" Thermo-Hygrometer, High-Accuracy Value Kit
- 1621A-H The "DewK" Thermo-Hygrometer, High-Accuracy Value Kit
- 1620A-S The "DewK" Thermo-Hygrometer, Standard-Accuracy Value Kit
- 1621A-S The "DewK" Thermo-Hygrometer, Standard-Accuracy Value Kit
- 9936A LogWare III Software

Contact your local distributor for price and availability.

## Fluke Calibration 9132/9133 Portable Infrared Calibrator



Fluke 9132



Fluke 9133



### Precision when you need it for infrared temperature calibration

Whether you're using in-line or handheld infrared pyrometers, you need good calibration standards to verify their accuracy. Our portable IR calibrators provide stable blackbody targets for calibrating non-contact IR thermometers from  $-30^{\circ}\text{C}$  to  $500^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $932^{\circ}\text{F}$ ).

These units feature a temperature-controlled measurement surface with a diameter of 57 mm (2.25 in). The target temperature can be controlled in set-point increments of  $0.1^{\circ}$  from  $-30^{\circ}\text{C}$  to  $500^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $932^{\circ}\text{F}$ ) and a well is located directly behind the blackbody surface for contact calibration.

- Certify IR pyrometers from  $-30^{\circ}\text{C}$  to  $500^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $932^{\circ}\text{F}$ )
- Large 57 mm (2.25 in) blackbody target
- RTD reference well for contact temperature measurement
- Small, compact design
- One-year warranty

### Recommended Accessories



9308  
Carrying Case



9302  
Carrying Case



4180-CASE  
Carrying Case  
(4180 or 4181)



4180-APRT 2"  
Aperture  
(4180 or 4181)



General Specifications	9132	9133
Temperature Range	$50^{\circ}\text{C}$ to $500^{\circ}\text{C}$ ( $122^{\circ}\text{F}$ to $932^{\circ}\text{F}$ )	$-30^{\circ}\text{C}$ to $150^{\circ}\text{C}$ at $23^{\circ}\text{C}$ ambient ( $-22^{\circ}\text{F}$ to $302^{\circ}\text{F}$ at $73^{\circ}\text{F}$ ambient)
Accuracy	$\pm 0.5^{\circ}\text{C}$ at $100^{\circ}\text{C}$ ( $\pm 0.9^{\circ}\text{F}$ at $212^{\circ}\text{F}$ ) $\pm 0.8^{\circ}\text{C}$ at $500^{\circ}\text{C}$ ( $\pm 1.4^{\circ}\text{F}$ at $932^{\circ}\text{F}$ )	$\pm 0.4^{\circ}\text{C}$ ( $\pm 0.72^{\circ}\text{F}$ )
Target Size	57 mm (2.25 in)	57 mm (2.25 in)
Target Emissivity	0.95 ( $\pm 0.02$ from 8 to 14 $\mu\text{m}$ )	0.95 ( $\pm 0.02$ from 8 to 14 $\mu\text{m}$ )
Heating Time	30 minutes ( $50^{\circ}\text{C}$ to $500^{\circ}\text{C}$ ( $122^{\circ}\text{F}$ to $932^{\circ}\text{F}$ ))	15 minutes ( $25^{\circ}\text{C}$ to $150^{\circ}\text{C}$ ( $77^{\circ}\text{F}$ to $302^{\circ}\text{F}$ ))
Cooling Time	30 minutes ( $500^{\circ}\text{C}$ to $100^{\circ}\text{C}$ ( $932^{\circ}\text{F}$ to $212^{\circ}\text{F}$ ))	15 minutes ( $25^{\circ}\text{C}$ to $-20^{\circ}\text{C}$ ( $77^{\circ}\text{F}$ to $-4^{\circ}\text{F}$ ))

## Fluke Calibration 4180/4181 Precision Infrared Calibrators



Fluke 4180



### Accredited performance for point and shoot calibrations

Now it's easy to increase your IR temperature measurement accuracy with the Fluke Calibration 4180 and 4181 Precision Infrared Calibrators. These infrared temperature calibrators give more consistent, accurate and reliable calibrations because emissivity is radiometrically calibrated, and the target size minimizes size of source effect errors. In addition, these infrared calibrators simplify calibration because they uniquely compensate for errors caused by thermometer emissivity settings.

- Calibrated radiometrically for meaningful, consistent results
- Accurate, reliable performance from  $-15^{\circ}\text{C}$  to  $500^{\circ}\text{C}$  ( $5^{\circ}\text{F}$  to  $932^{\circ}\text{F}$ )
- Large target size of 152 mm (5.98 in) is required for calibrating most thermometers
- Accredited radiometric calibration report
- One-year warranty

### Ordering Information

- 9312-256 Portable IR Calibrator  $50^{\circ}\text{C}$  to  $500^{\circ}\text{C}$
- 9133-256 Portable IR Calibrator  $-30^{\circ}\text{C}$  to  $150^{\circ}\text{C}$
- 4180 Precision Infrared Calibrator,  $-15^{\circ}\text{C}$  to  $120^{\circ}\text{C}$
- 4181 Precision Infrared Calibrator,  $35^{\circ}\text{C}$  to  $500^{\circ}\text{C}$

Contact your local distributor for price and availability.

# Fluke 750P and 750PEX Series Pressure Modules



Fluke 750P



## Precision pressure measurement for Fluke 750 and 720 Series Calibrators

The Fluke 750P Series Pressure Modules are the ideal pressure modules to enable gage, differential and absolute pressure measurement with Fluke 750 and 740 Series DPCs and 725, 726 MPCs to measure pressure.

Covers pressure calibrations from 0 to 1 inH<sub>2</sub>O to 10000 psi (2.5 mbar to 690 bar).

- 0.02% reference uncertainty
- 6-month and 1-year specifications
- Intrinsically safe models are Class I Div 1 Groups A-D T4, Ta = -10° C to +50° C (14° F to 122° F), ATEX II 1G Ex ia IIC T4 Ga compliant
- Ships with Traceable Certificate of Calibration
- Three-year warranty

## Specialty Model Fluke 750PEX Pressure Modules



The Fluke 750PEX Series comprises a family of 8 pressure modules covering pressure calibration ranges from 0 to 10 inH<sub>2</sub>O to 3000 psi, including gage, differential, dual range and absolute intrinsically safe models.

II 1G Ex ia IIC T4 Ga

Model	Parameter/Range	Burst Rating <sup>6</sup>	Hi Side Media <sup>2</sup>	Lo Side Media <sup>2</sup>	Reference Uncertainty <sup>4</sup>
<b>Differential</b>					
750P00	0 to 1 in H <sub>2</sub> O (0 to 2.5 mbar)	30X	Dry Air	Dry Air	±0.15%
750P01 <sup>4</sup>	0 to 10 in H <sub>2</sub> O (0 to 25 mbar)	3X	Dry Air	Dry Air	±0.1%
750P02	0 to 1 psi (0 to 70 mbar)	3X	Dry Air	Dry Air	±0.05%
750P22	0 to 1 psi (0 to 70 mbar)	3X	316 SS	Dry Air	±0.05%
750P03	0 to 5 psi (0 to 350 mbar)	3X	Dry Air	Dry Air	±0.02%
750P23	0 to 5 psi (0 to 350 mbar)	4X	316 SS	Dry Air	±0.02%
750P04	0 to 15 psi (0 to 1 bar)	3X	Dry Air	Dry Air	±0.01%
750P24 <sup>4</sup>	0 to 15 psi (0 to 1 bar)	4X	316 SS	Dry Air	±0.01%
<b>Gage</b>					
750P05 <sup>4</sup>	0 to 30 psi (0 to 2 bar)	4X	316 SS	N/A	±0.01%
750P06 <sup>4</sup>	0 to 100 psi (0 to 7 bar)	4X	316 SS	N/A	±0.01%
750P27 <sup>4</sup>	0 to 300 psi (0 to 20 bar)	4X	316 SS	N/A	±0.01%
750P07	0 to 500 psi (0 to 35 bar)	4X	316 SS	N/A	±0.01%
750P08	0 to 1000 psi (0 to 70 bar)	3X	316 SS	N/A	±0.01%
750P09 <sup>4</sup>	0 to 1500 psi (0 to 100 bar)	3X	316 SS	N/A	±0.01%
750P2000	0 to 2000 psi (0 to 140 bar)	3X	316 SS	N/A	±0.01%
<b>High</b>					
750P29 <sup>4</sup>	0 to 3000 psi (0 to 200 bar)	3X	316 SS	N/A	±0.01%
750P30	0 to 5000 psi (0 to 340 bar)	3X	316 SS	N/A	±0.01%
750P31	0 to 10000 psi (0 to 700 bar)	2X	316 SS	N/A	±0.01%
<b>Absolute</b>					
750PA3	0 to 5 psia (0 to 350 mbar)	4X	316 SS	N/A	±0.03%
750PA4 <sup>4</sup>	0 to 15 psia (0 to 1 bar)	4X	316 SS	N/A	±0.03%
750PA5	0 to 30 psia (0 to 2 bar)	4X	316 SS	N/A	±0.03%
750PA6	0 to 100 psia (0 to 7 bar)	4X	316 SS	N/A	±0.03%
750PA27	0 to 300 psia (0 to 20 bar)	4X	316 SS	N/A	±0.03%
750PA7	0 to 500 psia (0 to 35 bar)	4X	316 SS	N/A	±0.03%
750PA8	0 to 1000 psia (0 to 70 bar)	3X	316 SS	N/A	±0.03%
750PA9	0 to 1500 psia (0 to 100 bar)	3X	316 SS	N/A	±0.03%
<b>Vacuum</b>					
750PV3	-5 psi (-350 mbar)	4X	316 SS	Dry Air	±0.03%
750PV4	-15 psi (-1 bar)	4X	316 SS	Dry Air	±0.03%
<b>Dual</b>					
750PD2	-1 to 1 psi (-70 to 70 mbar)	4X	316 SS	Dry Air	±0.05%
750PD3	-5 to 5 psi (-350 to 350 mbar)	4X	316 SS	Dry Air	±0.03%
750PD10	-10 to 10 psi (-700 to 700 mbar)	4X	316 SS	Dry Air	±0.02%
750PD4	-15 to 15 psi (-1 to 1 bar)	4X	316 SS	Dry Air	±0.01%
750PD5	-15 to 30 psi (-1 to 2 bar)	4X	316 SS	N/A	±0.01%
750PD50	-15 to 50 psi (-1 to 3.5 bar)	4X	316 SS	N/A	±0.01%
750PD6	-15 to 100 psi (-1 to 7 bar)	4X	316 SS	N/A	±0.01%
750PD7	-15 to 200 psi (-1 to 14 bar)	4X	316 SS	N/A	±0.01%
750PD27	-15 to 300 psi (-1 to 20 bar)	4X	316 SS	N/A	±0.01%

For a complete list of Fluke Pressure Modules, go to [fluke.com](http://fluke.com)

1. Total uncertainty, % of full span for temperature range 0° C to +50° C, one year interval. Total uncertainty, 1.0% of full span for temperature range -10° C to 0° C, one year interval. No 6 month specification available for range -10° C to 0° C.
2. "NON-CORROSIVE GASES" indicates dry air or non-corrosive gas as compatible media. "Stainless Steel 316-SS" indicates media compatible with Type 316 Stainless Steel.
3. Specifications % of Full Span unless otherwise noted.
4. Intrinsically Safe pressure module available in this pressure range

## Recommended Accessories



**700PTP-1**  
Pneumatic Test Pump



**700HTP-2**  
Hydraulic Test Pump



**700LTP-1**  
Low-Pressure Test Pump



**700HTH-1**  
Hydraulic Test Hose



**700PMP**  
Pressure Pump



**700PRV-1**  
Pressure Relief Valve Kit



**71X**  
Hose Kit



Contact your local distributor for price and availability.

# Fluke 717, 718 and 719 Pressure Calibrators

Accurate and rugged, temperature calibration tools



Fluke 719



## Fluke 717 Pressure Calibrators

- Measure up to 10000 psi/690 bar sensor (10000G model)
- Compatible with non-corrosive gases and liquids
- 10 pressure ranges available

## Fluke 718 Pressure Calibrators

- 1, 30, 100 and 300 psi ranges available
- Pump to 300 psi, 20 bar with internal pump
- 718-1G includes special low volume pump and high measurement resolution for low pressure calibration

## Fluke 719 Electric Pressure Calibrators

- Electric pump enables one-handed pressure pumping and makes pressure calibration quicker and easier
- Best in class 0.02% pressure measurement accuracy
- Programmable pump limit settings can eliminate over-pressurization—set ‘pump to’ pressure values
- Two ranges, 30 psi and 100 psi



Fluke 718



Fluke 717

## Fluke 717, 718 and 719 common features

- Pressure switch test makes a difficult task easy, captures set, reset and deadband values of a pressure switch
- 717 and 718 measure pressure to 0.02% of full scale with internal sensor
- Measure mA with 0.01% accuracy and 0.001 mA resolution, while providing 24 V loop power
- Three-year warranty

Models	Range	Resolution	Comment
717-1G 718-1G	+/- 1 psi, 27.5 inH <sub>2</sub> O, (-7 - +7 kPa)	+0.001 psi, 0.001 kPa, 0.001 inH <sub>2</sub> O	Fluke 718 dry air only and includes on-board pump
717-15G	-12 to 15 psi, -83 to 103 kPa	0.001 psi, 0.01 kPa, 0.01 inH <sub>2</sub> O	—
717-30G 718-30G* and 719-30G	-12 to + 30 psi, (-83 to 207 kPa)	0.001 psi, 0.001 kPa, 0.001 inH <sub>2</sub> O	Fluke 718 and Fluke 719 dry air only and includes on-board pump
717-100G 718-100G*	-12 to + 100 psi, (-83 to 690 kPa)	0.01 psi, 0.01 kPa, 0.01 inH <sub>2</sub> O	Fluke 718 and Fluke 719 dry air only and includes on-board pump
717-300G 718-300G* and 719-100G	-12 to +300 psi, (-83 to +2070 kPa)	0.01 psi, 0.01 kPa, 0.01 inH <sub>2</sub> O	Fluke 718 dry air only and includes on-board pump
717-500G	0-500 psi, 0-3450 kPa	0.01 psi, 0.1 kPa	Compatible with non-corrosive gases and fluids
717-1000G	0-1000 psi, 0-6900 kPa	0.01 psi, 0.1 kPa	Compatible with non-corrosive gases and fluids
717-1500G	0-1500 psi, 0-10342 kPa	0.1 psi, 1 kPa	Compatible with non-corrosive gases and fluids
717-3000G	0-3000 psi, 0-20700 kPa	0.1 psi, 1 kPa	Compatible with non-corrosive gases and fluids
717-5000G	0-5000 psi, 0-34500 kPa	0.1 psi, 1 kPa	Compatible with non-corrosive gases and fluids
717-10000G	0-10000 psi, 0-69000 kPa	1 psi, 1 kPa	Compatible with non-corrosive gases and fluids
Pressure accuracy	0.03% of range, 1 year. 0.02% for 6 months, 717 and 718-1G: 0.05% 6 months, 1 year, 718 and 717-300G 0.03% 6 months, 0.05% 1 year		
mA measurement	0-24 mA range	0.001 mA resolution	Accuracy: ±0.01% + 1 count
Loop power	24 V DC		Accuracy: ±10%

\*Intrinsically safe models available, see page 141.

## Specialty Model

### Fluke 718Ex Intrinsically Safe Pressure Calibrator

The Fluke 718Ex offers a convenient, self contained solution for pressure measurements and calibration.

- II 1G Ex ia IIC T4
- 30, 100, and 300 psi ranges (2, 7, and 20 bar)
- Pressure measurement to 0.05% of full span, using an internal pressure sensor.
- Pressure measurement to 200 bar using any of eight intrinsically safe Fluke 750PEX Pressure Modules



## Recommended Accessories



700ILF In-Line Filter



700LTP-1 Low Pressure Test Pump



700HTP-2 Hydraulic Test Pump



C116 Large Soft Case

## Included Accessories

**Fluke 717/718/719:** Protective Yellow Holster with Test Lead Storage, Instruction Sheet, 9 V Alkaline Battery (1x 717, 2x 718 & 719), Test Leads and Alligator Clips, Hose Kit (719), Traceable Calibration Report and Data.

**Fluke 718Ex:** Protective Red Holster, TL75 Test Leads, AC72 Test Clips, User Manual (CD), Fluke 718Ex CCD, Traceable Calibration Report and Data.

## Ordering Information

**FLUKE-717** Pressure Calibrator, **10000G, 1G** 10000 PSI - 1 PSI (10 models)

**FLUKE-718** Pressure Calibrator **300G, 100G, 30G**

**FLUKE-718Ex** Intrinsically Safe **300G, 100G,** Pressure Calibrator **30G**

**FLUKE-719** Electric Pressure **100G, 30G** Calibrator 100PSI, 30 PSI

# Fluke 721 and 721Ex Precision Pressure Calibrators




Fluke 721



## Pressure calibration and temperature measurement for custody transfer applications

The Fluke 721 and 721Ex Precision Pressure Calibrators with dual isolated pressure sensors are the ideal tool for gas custody transfer applications allowing you to take simultaneous static and differential pressure measurements with a single tool.

The 721 and 721Ex can be configured by selecting either a 16 PSI (1.1 bar) or 36 psi (2.48 bar) low pressure sensor then adding any of 7 high pressure ranges including 100, 300, 500, 1000, 1500, 3000 or 5000 psi (6.9, 20, 24.5, 69, 103.4, 200, 345 bar).

- Intrinsically Safe (721Ex version only) – IECEx and  II 2G ia IIB T3 Gb (Zone 1)
- Ideal for gas flow calibration (custody transfer) applications
- Two isolated, stainless steel, pressure sensors with 0.02% accuracy
- Switch test on both pressure inputs
- Pt100 RTD input for temperature measurement, (probe optional)
- Measures 4–20 mA signals
- Internal 24 V loop power supply can power a transmitter under test (721 models only)
- Three-year warranty

## Specialty Model

### Fluke 721Ex Precision Pressure Calibrator

The ideal tool for gas custody transfer applications in potentially explosive atmospheres.



## Recommended Accessories



**720RTD**  
RTD Probe for  
721 & 719Pro



**720URTD**  
Universal RTD Adapter  
for 721 and 719Pro

## Included Accessories

**Fluke 721/Ex:** Soft Case, Four AA Batteries, Manual, Traceable Calibration Certificate, Test Leads.

## Ordering Information

<b>FLUKE-721-3650</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-3630</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-3615</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-3610</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-3605</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-3603</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-3601</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1650</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1630</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1615</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1610</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1605</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1603</b>	Dual Sensor Pressure Calibrator
<b>FLUKE-721-1601</b>	Dual Sensor Pressure Calibrator

*Intrinsically Safe models available in select ranges (add Ex to the above model numbers).*

**FLUKE-720RTD** RTD Probe for Fluke 721 and 719Pro

**FLUKE-720URTD** Universal RTD Adapter for Fluke 721 and 719Pro

Model	Low Pressure Sensor			High Pressure Sensor						
	Range 1	Resolution	Accuracy	Range 2	Resolution	Accuracy				
Fluke-721-1601 Fluke-721Ex-1601 16PSIG, 100PSIG	-14 to +16 psi -0.97 to 1.1 bar	0.001 psi, 0.001 bar	0.02% of full scale	-12 to +100 psi -0.83 to 6.9 bar	0.01 psi 0.001 bar	0.02% of full scale				
Fluke-721-1603 Fluke-721Ex-1603 16PSIG, 300PSIG				-12 to +300 psi -0.83 to 20 bar	0.01 psi 0.001 bar					
Fluke-721-1605 16PSIG, 500PSIG				-12 to +500 psi -0.83 to 34.5 bar	0.01 psi 0.001 bar					
Fluke-721-1610 16PSIG, 1000PSIG				0 psi to +1000 psi 0.00 to 69 bar	0.1 psi 0.001 bar					
Fluke-721-1615 Fluke-721Ex-1615 16PSIG, 1500PSIG				0 to +1500 psi 0.00 to 103.4 bar	0.1 psi 0.001 bar					
Fluke-721-1630 Fluke-721Ex-1630 16PSIG, 3000PSIG				0 to +3000 psi 0.00 to 200 bar	0.1 psi 0.01 bar					
Fluke-721-1650 16PSIG, 5000PSIG				0 to +5000 psi 0.00 to 345 bar	0.1 psi 0.01 bar		0.03% of full scale			
Fluke-721-3601 36PSIG, 100PSIG				-14 to +36 psi -0.97 to 2.48 bar	0.001 psi, 0.001 bar		0.02% of full scale	-12 to +100 psi -0.83 to 6.9 bar	0.01 psi 0.001 bar	0.02% of full scale
Fluke-721-3603 36PSIG, 300PSIG								-12 to +300 psi -0.83 to 20 bar	0.01 psi 0.001 bar	
Fluke-721-3605 36PSIG, 500PSIG								-12 to +500 psi -0.83 to 34.5 bar	0.01 psi 0.001 bar	
Fluke-721-3610 36PSIG, 1000PSIG	0 to +1000 psi 0.00 to 69 bar	0.1 psi 0.001 bar								
Fluke-721-3615 Fluke-721Ex-3615 36PSIG, 1500PSIG	0 to +1500 psi 0.00 to 103.4 bar	0.1 psi 0.01 bar								
Fluke-721-3630 Fluke-721Ex-3630 36PSIG, 3000PSIG	0 to +3000 psi 0.00 to 200 bar	0.1 psi 0.01 bar								
Fluke-721-3650 Fluke-721Ex-3650 36PSIG, 5000PSIG	0 to +5000 psi 0.00 to 345 bar	0.1 psi 0.01 bar	0.03% of full scale							

# Fluke 719Pro Pressure Calibrators



Fluke 719Pro



## Integrated electric pump - now to 300 psi/20 bar

The Fluke 719Pro is an exciting enhancement of the popular original 719 pressure calibrators. Notable improvements include expanding the pressure measurement range of the 100 psi model up to 150 psi and the addition of a 300 psi range. The 719Pro adds a backlit display and precision temperature measurement with the addition of an accessory RTD probe available as a new accessory.

- Electric pump for one-handed pressure calibration
- Best in class pressure measurement uncertainty of 0.02%
- Variable release rate bleed valve for easy pressure adjustment
- 30 psi, 150 psi and the long requested 300 psi (2,10 and 20 bar) pressure ranges
- Programmable pressure calibrator pump limit eliminates over-pressurization and allows the user to program target pressures for pumping
- Extended pressure measurement range with any of 50 750PXX Pressure Modules
- Source mA with simultaneous pressure measurement to test valves and I/Ps
- Simulate mA signals to troubleshoot 4–20 mA loops
- Test pressure switches with built in switch test function
- Power transmitters during test using 24 V loop supply with simultaneous mA measurement
- Three-year warranty

Pressure measurement	Range	Resolution	Accuracy
Fluke-719Pro-30G	-12 to 30 psi / -0.8 to 2 bar	0.001 psi, 0.001 bar	±0.02% of full scale, 6 months
Fluke-719Pro-150G	-12 to 150 psi / -0.8 to 10 bar	0.01 psi, 0.001 bar	
Fluke-719Pro-300G	-12 to 300 psi / -0.8 to 20 bar	0.01 psi, 0.001 bar	

Function	Range	Resolution	Accuracy (1 year)
mA DC (simulation & measurement)	0–24 mA DC	0.001 mA	±(0.01% of reading + 2 counts)
Volts DC (measurement only)	30 V DC	0.001 V	±(0.01% of reading + 2 counts)
Temperature (measurement only, Pt100 RTD)	-50 to 150° C (-58° F to 302° F)	0.01° C (0.02° F)	Temperature ±0.1° C (0.18° F)
Loop power supply	24 V DC	N/A	24 mA at 24 V
Temperature effect (all functions)			Add ±0.002% F.S./° C for temps outside of 15° C to 35° C (Add ±0.004% F.S./° F for temps outside of 59° F to 95° F)

Environmental	
Operating temperature	-10° C to 50° C (14° F to 122° F)
Storage temperature (without batteries)	-20° C to 60° C (-4° F to 140° F)

Power requirements	
Battery	8 standard alkaline AA batteries
Battery life	300 pump cycles to 150 psi minimum; 1000 pump cycles to 30 psi; 100 pump cycles to 300 psi minimum

Physical	
Size (HxWxD)	24.1 x 11.2 x 7.0 cm (9.5 x 4.4 x 2.8 in)
Weight	With holster 1.2 kg (2.5 lb)

Connections	
Pressure	1/8 inch female NPT
Electrical	Standard banana jacks
RTD	4 pin miniature circular
External module	6 pin miniature circular

## Pressure Modules Fluke 750 Series Pressure Modules



- 50 Pressure Modules
- 0.02% reference uncertainty
- Ranges from 1.00 in H<sub>2</sub>O (0.24 kPa) to 10000 psi (68.94 MPa)
- Gage, differential, dual range, absolute and vacuum measurement models
- Rugged cases protect the modules from harsh environments
- Temperature compensated 0° C to 50° C



Fluke Process Calibrators in this catalog displaying the Pressure Enabled symbol display readings from the 750 Series Pressure Modules.

## Recommended Accessories



**720RTD**  
RTD Probe for 721 and 719PRO



**720URTD**  
Universal RTD adapter for 721 and 719PRO



**71XTRAP**  
Liquid and Dirt Trap for 718, 719 & 719PRO

## Included Accessories

Test Leads with Alligator Clips, Printed User Manual/CD-ROM, Fluid Trap, Carrying Case, 1/4 inch NPT to 1/4 inch ISO Adapter, Accessory Hose Kit with (2) 1/8 inch Quick Fit Adapters and 1 meter of hose, Traceable Certificate of Calibration.

## Ordering Information

**FLUKE-719PRO-30G** Electric Pressure Calibrator, 30PSIG

**FLUKE-719PRO-150G** Electric Pressure Calibrator, 150PSIG

**FLUKE-719PRO-300G** Electric Pressure Calibrator, 300PSIG

**FLUKE-71X-TRAP** Liquid & Dirt Trap for Fluke 718, 719 and 719Pro



# Fluke 700G Precision Pressure Test Gauges



Fluke 700G



Fluke 700G with 700PTP-1



## Pressure Gauges designed to handle all your Pressure Calibration needs

With best-in-class accuracy and measurements, the Fluke 700G Series Precision Pressure Test Gauges were designed to handle all of your pressure calibration needs. The 700G Series Gauges are rugged and easy to use, with 23 models ranging from  $\pm 10$  inH<sub>2</sub>O/20 mbar to 10000 psi/690 bar including absolute pressure ranges.

When combined with the Fluke 700PTPK or 700HTPK you've got a complete pressure testing solution for up to 600 psi (40 bar) with the PTP-1 pneumatic pump and up to 10000 psi (690 bar) with the HTP-2 hydraulic pump.

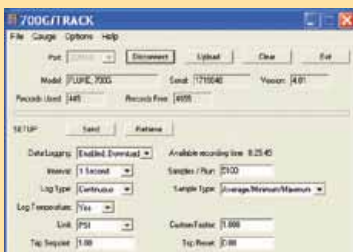
- Precision pressure measurement from  $\pm 10$  inH<sub>2</sub>O/20 mbar to 10000 psi/690 bar
- Absolute pressure measurement ranges 15, 30, 100, 300 psi
- Accuracy to 0.05% of full scale
- Reference class gauge accuracies to 0.04% of reading
- Easy to use, rugged construction for reliable performance
- CSA; Class 1, Div 2, Groups A-D rating
- II 3G Ex ic IIB T6 Gc
- Combine the Pneumatic Test Pump Kits and Hydraulic Test Pump Kits with any Fluke-700G Series Gauge, 1000 psi (69 bar) or less, to make a complete pressure testing
- Log up to 8493 pressure measurements to memory (requires 700G/TRACK software)
- Three-year warranty

### Specifications

Size (HxWxD)	12.7 × 11.4 × 3.7 cm (5 × 4.5 × 1.5 in)
Pressure connection	1/4 in NPT Male
Housing/Weight	Cast ZNAl 0.56 kg (1.22 lb) with holster
Display	5.5 digits, 16.53 mm (0.65 in) high 20-segment bar graph, 0 to 100%
Power	Three AA alkaline batteries
Battery life	1,500 hours without backlight (continuous on), 2000 hours at slow sample rate

## 700G/TRACK Logging Software

The Fluke 700G/Track Data Logging Software (700G only) makes managing your instruments and calibration data easy to do. With the Fluke 700G-Track Software, you can gauge and record (log) multiple data sets, each of which is identified by a sequential run number.



- Use with Fluke 700G Series Gauges to perform real time data logging to a PC
- Download logging configurations to the 700G Series Gauges for a remote logging event
- Configure logging event reading rate, duration and measurement units
- Upload measurements logged remotely and display or export measurements
- Includes communication cable for connection to a PC

### Recommended Kits

Bundle & Save



#### Fluke-700PTPK Pneumatic Test Kit

- Combine with any Fluke-700G Series Gauge, 1000 psi (69 bar) or less, to make a complete pressure testing kit
- Connect the 700G Series gauge directly to the included PTP-1 hand pump



#### Fluke 700HTPK Hydraulic Test Kit

- Combine with any Fluke-700G Series Gauge, 1000 psi (69 bar) range or greater, to make a complete pressure testing kit
- Generate pressure up to 10000 psi, 690 bar with the included 700HTP-2 test pump
- Hard case protects pump and gauge and allows gauge to remain connected to the pump



#### Fluke-700PTPK2 Premium Pneumatic Test Pump Kit

- Pneumatic Hand Pump
- Premium, no tools required gauge connector
- One premium transmitter test hose kit and adapters



#### Fluke-700HTPK2 Premium Hydraulic Test Pump Kit

- Hydraulic Hand Pump
- Premium, no tools required gauge connector
- One premium transmitter test hose kit and adapters

Fluke 700G Precision Pressure Test Gauges				
Model	Range	Resolution	Accuracy	Burst Pressure
Fluke-700G01	-10 to +10 inH <sub>2</sub> O -20 mbar to 20 mbar	0.001 inH <sub>2</sub> O 0.001 mbar	Positive Pressure ±0.1% of range, Vacuum ±0.1% of range	3 psi 210 mbar
Fluke-700G02	-1 to +1 psi -70 mbar to 70 mbar	0.001 psi 0.001 mbar		5 psi 350 mbar
Fluke-700G04	-14 psi to 15 psi -0.97 bar to 1 bar	0.001 psi 0.001 bar	Positive Pressure ±0.05% of range, Vacuum ±0.1% of range	60 psi 4 bar
Fluke-700G05	-14 psi to 30 psi -0.97 bar to 2 bar	0.001 psi 0.001 bar		120 psi 8 bar
Fluke-700G06	-12 psi to 100 psi -0.83 bar to 6.9 bar	0.01 psi 0.001 bar		400 psi 26 bar
Fluke-700G27	-12 psi to 300 psi -0.83 bar to 20 bar	0.01 psi 0.001 bar		1200 psi 80 bar
Fluke-700G07	-12 psi to 500 psi -0.83 bar to 34 bar	0.01 psi 0.001 bar		2000 psi 138 bar
Fluke-700G08	-14 psi to 1000 psi -0.97 bar to 69 bar	0.1 psi 0.001 bar		4000 psi 266 bar
Fluke-700G10	-14 to 2000 psi -0.97 bar to 140 bar	0.1 psi 0.01 bar		8000 psi 550 bar
Fluke-700G29	-14 psi to 3000 psi -0.97 bar to 200 bar	0.1 psi 0.01 bar		10000 psi 690 bar
Fluke-700G30	-14 psi to 5000 psi -0.97 bar to 340 bar	0.1 psi 0.01 bar		10000 psi 690 bar
Fluke-700G31	-14 psi to 10000 psi -0.97 bar to 690 bar	1 psi 0.01 bar		20000 psi 1035 bar
Fluke-700GA4	0 to 15 psia 0 to 1 bar absolute	0.001 psi 0.001 bar	0.05% of range	60 psi 4 bar
Fluke-700GA5	0 to 30 psia 0 to 2 bar absolute	0.001 psi 0.001 bar		120 psi 8 bar
Fluke-700GA6	0 to 100 psia 0 to 6.9 bar absolute	0.01 psi 0.001 bar		400 psi 27 bar
Fluke-700GA27	0 to 300 psia 0 to 20 bar absolute	0.01 psi 0.001 bar		1200 psi 80 bar
Fluke-700RG05	-14 to +30 psi -0.97 to +2 bar	0.001 psi 0.001 bar	Positive Pressure ±0.04% of reading ±0.01% of range, Vacuum ±0.1% of range	90 psi 6 bar
Fluke-700RG06	-12 to 100 psi -0.83 to 6.9 bar	0.01 psi 0.001 bar	Positive Pressure ±0.04% of reading ±0.01% of range, Vacuum ±0.1% of range	400 psi 27 bar
Fluke-700RG07	-12 to 500 psi -0.83 to 34	0.01 psi 0.001 bar		2000 psi 138 bar
Fluke-700RG08	-14 to 1000 psi -0.97 to 69 bar	0.1 psi 0.001 bar		4000 psi 275 bar
Fluke-700RG29	-14 to 3000 psi -0.97 to 200 bar	0.1 psi 0.01 bar		10000 psi 690 bar
Fluke-700RG30	-14 to 5000 psi -0.97 to 340 bar	0.1 psi 0.01 bar		15000 psi 1035 bar
Fluke-700RG31	-14 to 10000 psi -0.97 to 690 bar	1 psi 0.01 bar		20000 psi 1380 bar

**700R Ranges:** Temperature Compensation 0°C to 50°C (32 °F to 122 °F) to rated accuracy  
For temperatures from -10° C to 0° C and 50° C to 55° C, add 0.005% FS/°C

**Media compatibility:**

- 10 inH<sub>2</sub>O, 1, 15, 30 psi: any clean dry non-corrosive gas
- 100, 300, 500, 1000 psi: any liquids or gases compatible with 316 stainless steel
- Above 1000 psi: any non-flammable, non-toxic, non-explosive, non-oxidizing liquid or gas compatible with 316 stainless steel

**Recommended Kits**  
Bundle & Save



**Fluke 700MTH Premium Transmitter Test Hose Kit**

- Easy to use premium pressure transmitter test hose kit for connection to 1/4" female metric/BSP
- 5000 psi rating
- Includes 1/8" NPT connection for permanent mount to a calibrator or test pump



**Fluke 700TTH5K Premium Transmitter Test Hose Kit**

- Easy to use premium pressure transmitter test hose kit for use with female 1/4" NPT connections
- 5000 psi rating
- Includes 1/8" NPT connection for permanent mount to a calibrator or test pump

**Included Accessories**

**700G:** Manual on CD-ROM, Traceable Certificate of Calibration, 1/4" NPT to 1/4" ISO Adapter.

**Ordering Information**

Please refer to the table on the left for Fluke 700G Models

**700G-TRACK** Datalogging Software and Cable for 700G

**FLUKE-700HTPK** Hydraulic Test Pump Kit, 0 to 10000 psi/690 bar

**FLUKE-700PTPK** Pneumatic Test Pump Kit, 0 to 600 psi/40 bar

**FLUKE-700HTPK2** Premium Hydraulic Test Pump Kit

**FLUKE-700PTPK2** Premium Pneumatic Test Pump Kit

**FLUKE-700TTH5K** Premium Hose Kit, 5000 psi

**FLUKE-700TTH10K** Premium Hose Kit 10000psi

Contact your local distributor for price and availability.

# Fluke 730G Smart Digital Pressure Calibrator



Fluke 730G



Fluke 730G with 700PTP-1



The Fluke 730G Smart Digital Pressure Calibrator with internal HART® communication is designed in a pressure gauge form. In conjunction with a pressure test pump, the 730G enables high-efficiency and high-accuracy measurement and calibration of pressure gauges, pressure switches, pressure transmitters, which makes it ideal for mobile metrology labs, metrology institutes and enterprises to establish pressure laboratories.

- Pressure measurement from  $\pm 10$  in H<sub>2</sub>O/2.5 kPa to 10000 psi/69 MPa
- Four absolute pressure measurement range: 15 PSIA (103 kPa), 30 PSIA (207 kPa), 100 PSIA (690 kPa), 300 PSIA (2 MPa)
- Pressure measurement accuracy 0.05% of full scale, 0.02% optional and 0.01% current and voltage accuracy
- Current measurement range: 0-24 mA; voltage measurement range: 0-30 VDC
- Powerful HART communication, supports HART 7
- 24 V loop powered, no external power supply needed
- Storage up to 128 sets of calibration data
- Ingress protection: IP54
- 1-metre drop test
- Three Year Warranty

## Specifications

Current	0 to 24 mA
Voltage	0 to 30 V DC
Current range	1 $\mu$ A
Voltage range	1 mV
Accuracy	0.01% $\pm 2$ LSD all ranges @ 23°C $\pm 5$ °C
Temperature compensation	From 20% FS/°C @ -10°C to +18°C and 28°C to 50°C
Loop Compliance Voltage	24 V DC @ 20 mA
Temperature measurement accuracy inside the product	$\pm 0.5$ °C
Drive Capability	1200 $\Omega$ (without HART resistor), 950 $\Omega$ (with internal HART resistor)
Size (HxWxD)	155 mm $\times$ 130 mm $\times$ 44 mm
Weight	850 g

## Fluke 730G/PCSW Software

The Fluke 730G/PCSW verification management software completes the calibration workflow by allowing for paperless management of pressure calibrations. Record calibration data, automate calibration tests and generate calibration reports with ease.



- Paperless testing and reporting: Enable paperless testing giving you the ability to automatically generate test reports and document results.
- Manage tested equipment and pressure standards with ease.
- Supported pressure devices: analog pressure gauges, digital pressure gauges, pressure transmitters, pressure sensors and pressure switches.

## Recommended Test Pumps



### Fluke 730LTP/40K

- Pressure range -40 kPa to 40 kPa
- Ultra-precision fine adjustment. The minimum controllable adjustment granularity is high
- Special insulation which minimises the influence of external temperature



### Fluke 730LTP/600K

- Pressure range -95 kPa to 600 kPa
- Pressure is generated by the combination of the pressure rod and screw for faster and smoother pressure increase and decrease
- Safely switch between pressure and vacuum



### Fluke 730PTP/10M

- Pressure range -0.095 MPa to 10 MPa
- Multi-stage boosting is used, which is 5 times the conventional efficiency
- Safety lock ensures safe switching between positive and negative pressure



### Fluke 730HTP/70M

- Pressure range 0 MPa to 70 MPa
- The pressure generation by the pressure rod can calibrate pressure meters with a large cavity
- Fine adjustment via the screw has a high minimum controllable adjustment granularity

Fluke 730G Precision Pressure Test Gauges				
Model	Range	Resolution	Accuracy <sup>1</sup>	Pressure
730G01	-10 to +10 inH <sub>2</sub> O -20 to 20 mbar -2.49 to 2.49 kPa	0.001 inH <sub>2</sub> O 0.001 mbar 0.0001 kPa	Positive pressure, ±0.2% of range <sup>2</sup> Vacuum, ±0.2% of range <sup>2</sup>	3 psi, 210 mbar 20.6 kPa
730G02	-1 to +1 psi -70 to 70 mbar -6.89 to 6.89 kPa	0.0001 psi 0.001 mbar 0.0001 kPa		5 psi 350 mbar 34.4 kPa
730G04	-14 to 15 psi -0.97 to 1 bar -97 to 103 kPa	0.001 psi 0.0001 bar 0.01 kPa		60 psi 4 bar 413.6 kPa
730G05	-14 to 30 psi -0.97 to 2 bar -97 to 206 kPa	0.001 psi 0.0001 bar 0.01 kPa		120 psi 8 bar 827.3 kPa
730G06	-12 to 100 psi -0.83 to 6.9 bar -83 to 690 kPa	0.01 psi 0.0001 bar 0.01 kPa		400 psi 26 bar 2.757 MPa
730G27	-12 to 300 psi -0.83 to 20 bar -83 to 2 MPa	0.01 psi 0.001 bar 0.1 kPa		1200 psi 80 bar 8.273 MPa
730G07	-12 to 500 psi -0.83 to 34 bar -83 to 3.4 MPa	0.01 psi 0.001 bar 0.1 kPa	Positive pressure, ±0.05% of range Vacuum, ±0.1% of range	2000 psi 138 bar 13.789 MPa
730G08	-14 to 1000 psi -0.97 to 69 bar -97 to 6.9 MPa	0.1 psi 0.001 bar 0.1 kPa		4000 psi 266 bar 27.579 MPa
730G10	-14 to 2000 psi -0.97 to 140 bar -97 to 14 MPa	0.1 psi 0.01 bar 1 kPa		8000 psi 550 bar 55.158 MPa
730G29	-14 to 3000 psi -0.97 to 200 bar -97 to 20 MPa	0.1 psi 0.01 bar 1 kPa		10000 psi 690 bar 68.947 MPa
730G30	-14 to 5000 psi -0.97 to 340 bar -97 to 34 MPa	0.1 psi 0.01 bar 1 kPa		10000 psi 690 bar 68.947 MPa
730G31	-14 to 10000 psi -0.97 to 690 bar -97 to 69 MPa	1 psi 0.01 bar 1 kPa		15000 psi 1035 bar 103.421 MPa
730GA4	0 to 15 psia 0 to 1 bar 0 to 100 kPa absolute	0.001 psi 0.0001 bar 0.01 kPa	±0.05% of range <sup>4</sup>	60 psi 4 bar 413.6 kPa
730GA5	0 to 30 psia 0 to 2 bar 0 to 200 kPa absolute	0.001 psi 0.0001 bar 0.01 kPa		120 psi 8 bar 827.3 kPa
730GA6	0 to 100 psia 0 to 6.9 bar 0 to 690 kPa absolute	0.01 psi 0.0001 bar 0.01 kPa		400 psi 27 bar 2.757 MPa
730GA27	0 to 300 psia 0 to 20 bar 0 to 2 MPa absolute	0.01 psi 0.001 bar 0.01 kPa		1200 psi 80 bar 8.273 MPa
730RG04	-14 to 15 psi -0.97 to 1 bar -97 to 100 kPa	0.001 psi 0.0001 bar 0.0001 kPa		45 psi 3 bar 310.2 kPa
730RG05	-14 to 30 psi -0.97 to 2 bar -97 to 200 kPa	0.001 psi 0.0001 bar 0.01 kPa		90 psi 6 bar 620.5 kPa
730RG06	-12 to 100 psi -0.83 to 6.9 bar -83 to 690 kPa	0.01 psi 0.0001 bar 0.01 kPa		1000 psi 69 bar 6.894 MPa
730RG27	-12 psi to 300 psi -0.83 to 20 bar -80 kPa to 2 MPa	0.01 psi 0.001 bar 0.1 kPa	Positive pressure, ±0.02% of range <sup>3</sup> Vacuum, ±0.05% of range <sup>3</sup>	2000 psi 138 bar 14 MPa
730RG07	-12 psi to 500 psi -0.83 to 34 bar -80 kPa to 3.5 MPa	0.01 psi 0.001 bar 0.1 kPa		2000 psi 138 bar 13.789 MPa
730RG08	-14 to 1000 psi -0.97 to 69 bar -97 to 6.9 MPa	0.1 psi 0.001 bar 0.1 kPa		10000 psi 690 bar 68.947 MPa
730RG29	-14 to 3000 psi -0.97 to 200 bar -97 to 20 MPa	0.1 psi 0.01 bar 1 kPa		10000 psi 690 bar 68.947 MPa
730RG30	-14 to 5000 psi -0.97 to 340 bar -97 to 34 MPa	0.1 psi 0.01 bar 1 kPa		10000 psi 690 bar 68.947 MPa
730RG31	-14 to 10000 psi -0.97 to 690 bar -97 to 69 MPa	0.1 psi 0.01 bar 1 kPa		15000 psi 1035 bar 103.421 MPa

**Pressure Specifications:** 0.02% of full scale (730RG), 0.05% of full scale (730G)

**Current Specifications:** 0.01% of reading

<sup>1</sup> Accuracy specifications above have considered the effects of linearity, repeatability, resolution, reference accuracy, 1-year stability, and temperature effect.

<sup>2</sup> For 730G01/730G02, accuracy is ±0.3% of full scale @ 0°C to 15°C and 35°C to 50°C.

<sup>3</sup> For all 730RG model, add 0.003% FS/°C @ 0°C to 18°C and 28°C to 50°C.

<sup>4</sup> For 730GA4, add 0.006% FS/°C @ -10°C to 15°C and 35°C to 55°C; for all other 730GA model, add 0.003% FS/°C @ -10°C to 15°C and 35°C to 55°C.

**Media compatibility:**

- 10 inH<sub>2</sub>O, 1, 15, 30 psi: any clean dry non-corrosive gas
- 100, 300, 500, 1000 psi: any liquids or gases compatible with 316 stainless steel and above 1000 psi: any non-flammable, non-toxic, non-explosive, non-oxidising liquid or gas compatible with 316 stainless steel
- 730G01, 730G02, 730G04, 730G05, 730RG04, 730RG05: any clean dry non-corrosive gas
- Above 100 psi: any liquids or gases compatible with 316 stainless steel

**Recommended Kits**  
Bundle & Save



**Fluke-700PTPK**  
Pneumatic Test Kit



**Fluke-700HTPK Hydraulic**  
Test Kit

For more details see page 182

**Included Accessories**

**730G:** Rechargeable Li-ion Battery Pack, AC Power Battery Charger, 1/4" FNPT to 1/4" MBSP Fitting, 1/4" FNPT to M20 Male Fitting, Test Lead Set, Alligator Clips (black and red), 1 metre USB Cable.

**Ordering Information**

Please refer to the table on the left for Fluke 730G Models

<b>FLUKE-730PCSWCN</b>	Pressure Calibration Software
<b>FLUKE-700HTPK</b>	Hydraulic Test Pump Kit, 0 to 10000 psi/690 bar
<b>FLUKE-700PTPK</b>	Pneumatic Test Pump Kit, 0 to 600 psi/40 bar
<b>FLK-730LTP/40K</b>	Low Pressure Test Pump, -40 to 40 kPa
<b>FLK-730LTP/600K</b>	Low Pressure Test Pump, -95 to 600 kPa
<b>FLK-730PTP/10M</b>	Pneumatic Test Pump, -0.095 to 10 MPa
<b>FLK-730HTP/70M</b>	Hydraulic Test Pump, 0 to 70 MPa
<b>FLK-730PPK</b>	Pressure Fitting Kit
<b>FLK-730GLSF</b>	Gas and Liquid Separation Filter
<b>FLK-730ILF</b>	In-line Liquid Filter

Contact your local distributor for price and availability.

## Fluke Calibration 2700G Series Reference Pressure Gauges



Fluke 2700G



The Fluke Calibration 2700G Reference Pressure Gauges provide best-in-class measurement performance in a rugged, easy-to-use, economical package. Improved measurement accuracy allows them to be used for a wide variety of applications. It is ideal for calibrating pressure measurement devices such as pressure gauges, transmitters, transducers, and switches. In addition, they can be used as a check standard or to provide process measurements with data logging.

- Precision pressure measurement from 100 kPa (15 psi) to 70 MPa (10000 psi)
- Accuracy to 0.02% of full scale
- Easy-to-use, rugged construction for reliable performance
- Combine with a Fluke PTP or HTP pump kit or P551X comparison test pump for a complete pressure testing solution
- One-year warranty

## Fluke Calibration P5510 Pneumatic Comparison Test Pump



Fluke P5510



The P5510 Pneumatic Comparison Test Pump is designed for testing pressure measuring instruments against master test instruments. This cost effective instrument provides precise control for important calibration requirements and includes many features found in our line of pneumatic deadweight testers.

One-year warranty.

Higher pressure ranges available:

### Fluke P5513 Gas Comparison Test Pump

Pressure range 0 to 20 MPa (3000 psi);  
Vacuum -80 kPa (-12 psi)

### Fluke P5514B Gas Comparison Test Pump

Pressure range 0 to 70 MPa (10k psi)

### Fluke P5515 Gas Comparison Test Pump

Pressure range 0 to 140 MPa (20k psi)

### P5531 Dirt/Moisture Trap

Designed to mount directly on the deadweight tester and featuring an acrylic chamber for visibility of contaminants, this unit utilizes the standard test port adapters for easy instrument connections.

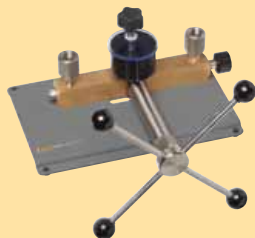


### P5532 Dirt/Moisture Trap

This high pressure version is provided with an aluminum central chamber for safety and uses the standard test port adapters.



## Complete Bench Top Pressure Calibration Solution



Fluke 5514B

### Combine P5500 Comparison Test Pumps with one or more 2700G Reference Pressure Gauges for a complete 0.02% accuracy calibration system

The 2700G has an easy-to-use interface that allows you to configure the sampling rate, tare value, damping and auto off time interval as well as reset the min/max pressure.

The unique test port design of the P5500 Series allows for hand tight connection of the 2700G without using PTFE tape.

- **P5510:** integrated pneumatic hand pump with pressure generation to 300 psi (2 MPa), vacuum to -12 psi (-80 kPa)
- **P5513:** pneumatic pressure adjustment to 3000 psi (21 MPa) with fine adjust inlet and outlet valves and precise screw press
- **P5514B:** hydraulic pressure generation and adjustment to 10000 psi (70 MPa) with fine screw press and reservoir
- **P5515:** integrated hydraulic pressure generation and adjustment to 20000 psi (140 MPa) with high volume priming pump and fine screw press

### Included Accessories

**Fluke 2700G Gauges:** 1/4 NPT Female to 1/4 BSP Male Adapter, 1/4 NPT Female to M20X1.5 Adapter, Universal AC Power Supply, USB Communication Cable, Manual on CD, Calibration Certificate showing traceability.

*Optional: ISO 17025 Accredited Calibration available for 2700G and P551X/2700G models (add "/C" to the below model number).*

### Ordering Information

<b>2700G-BG100K</b>	Reference Pressure Gauge, -15 to 15 psi
<b>2700G-BG200K</b>	Reference Pressure Gauge, -15 to 30 psi
<b>2700G-BG700K</b>	Reference Pressure Gauge, -12 to 100 psi
<b>2700G-BG2M</b>	Reference Pressure Gauge, -12 to 300 psi
<b>2700G-BG3.5M</b>	Reference Pressure Gauge, -12 to 500 psi
<b>2700G-BG7M</b>	Reference Pressure Gauge, -12 to 1000 psi
<b>2700G-G20M</b>	Reference Pressure Gauge, 0 to 3000 psi
<b>2700G-G35M</b>	Reference Pressure Gauge, 0 to 5000 psi
<b>2700G-G70M</b>	Reference Pressure Gauge, 0 to 10000 psi
<b>P5510-2M</b>	Pneumatic Comparison Test Pump
<b>P5513-20M</b>	Pneumatic Comparison Test Pump

<b>P5514B-70M*</b>	Hydraulic Comparison Test Pump, Viton Seals 0 to 10000 psi (70 MPa)
<b>P5515-140M*</b>	Hydraulic Comparison Test Pump, Viton Seals 0 to 20000 psi (140 MPa)

*Ethylene Propylene Seals option also available, add -EP to the above model numbers.*

<b>P5510-2700G-1</b>	P5510 Pneumatic Calibrator, 2 MPa (300 psi), 1 Gauge
<b>P5513-2700G-1</b>	P5513 Pneumatic Calibrator, 20 MPa (3000 psi), 1 Gauge
<b>P5514B-2700G-1</b>	P5514B Pneumatic Calibrator, 70 MPa (10000 psi), 1 Gauge
<b>P5515-2700G-1</b>	P5515 Pneumatic Calibrator, 70 MPa (10000 psi), 1 Gauge

*P551X-2700G Kits available with 3 gauge option, replace -1 with -3 to the above model numbers.*

<b>P5531</b>	Dirt/Moisture Trap 0 to 500 psi (35 bar)
<b>P5532</b>	Dirt/Moisture Trap 0 to 3.00 psi (210 bar)

# Fluke Calibration 700HPPK Pneumatic Test Pump Kit



Fluke 700HPPK



**Generates 21 MPa (3000 psi) easily in the field, without liquid contamination or the hazard of a pressurized gas cylinder.**

The Fluke Calibration 700HPPK Pneumatic Test Pump Kit generates and adjusts pneumatic pressures up to 21 MPa (3000 psi), without requiring a nitrogen bottle or other external pressure supply. It supplies pressure to devices under test (DUTs) that include transmitters, controllers, pilots, digital and analog gauges, and more. It's the perfect solution for generating high pressure in the field, where conditions and operating surfaces can vary.

The 700HPPK is the ideal choice for calibration technicians, test engineers, and instrument technicians working in industries like natural gas transmission and distribution, process, aerospace and defense, who need a simple-to-use, safe and portable pressure source that they can depend on in a wide variety of conditions.

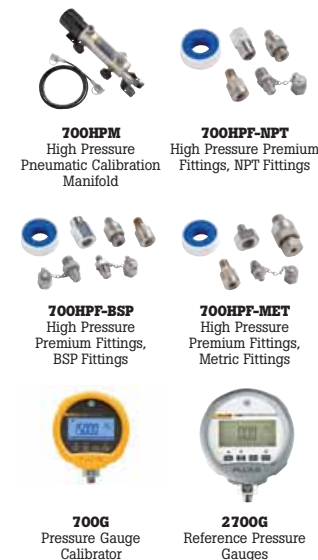
The 700HPPK contains both a calibration manifold and high pressure pump to generate and finely adjust pressures. A second model, the 700HPP, is available for people who only prefer a high pressure source.

Use the 700HPPK Test Pump Kits with 2700G Reference Pressure Gauges or 700G Precision Pressure Gauges for a complete pressure calibration solution.

- Generate and adjust pneumatic pressures up to 21 MPa (3000 psi)
- Rugged, portable and stable enough to go anywhere on any surface
- Reaches pressure in 20 seconds to full scale into a 30 cm<sup>3</sup> volume
- Detachable pressure adjustment system for adjusting pressure, connecting reference and test devices on bench and in the field, and isolating and venting pressure
- Easily switch out reference gauges without requiring PTFE tape or tools
- 2 m (6.5 ft) pressure line and assorted pressure fittings enable a wide variety of possible connections
- In-line filter and desiccant systems protect device from contamination from the DUT
- One-year warranty

General specifications	700HPP	700HPPK
Maximum working pressure	21 MPa, 3000 psi	
Time to generate full scale pressure with 10 cc volume (g)	20	
Weight	5.5 kg (12.2 lbs.)	7.2 kg (15.8 lbs.)
Dimensions	66 × 25 × 13 cm (26 in x 10 in x 5 in)	66 × 30.5 × 13 cm (26 in x 12 in x 5 in)
Reference gauge connection	1/4 NPT, quick connect	
Inlet supply contaminations protection filter	Desiccant filter	
DUT contamination protection filter	-	100 micron
Fine adjustment resolution	-	0.05% reading
Maximum leak rate	-	0.01% reading

### Recommended Accessories



**700HPM**  
High Pressure  
Pneumatic Calibration  
Manifold

**700HPF-NPT**  
High Pressure Premium  
Fittings, NPT Fittings

**700HPF-BSP**  
High Pressure  
Premium Fittings,  
BSP Fittings

**700HPF-MET**  
High Pressure  
Premium Fittings,  
Metric Fittings

**700G**  
Pressure Gauge  
Calibrator

**2700G**  
Reference Pressure  
Gauges

### Included Accessories

**Fluke Calibration 700HPPK:** Canvas Carrying Bag, High Pressure Pneumatic Quick Service Kit (seals for pump), Dry Pac Refill, Silicone Grease, High Pressure Hose, Test Port Adapters

### Ordering Information

**700HPPK-NPT** High Pressure Pneumatic Pump/Comparator, 21 MPa (3000 psi), NPT

**700HPP-NPT** High Pressure Pneumatic Test Pump, 21 MPa (3000 psi), NPT

**700HPPK-BSP** High Pressure Pneumatic Test Pump/Comparator, 21 MPa (3000 psi), BCP

**700HPP-BSP** High Pressure Pneumatic Test Pump, 21 MPa (3000 psi), BSP

**700HPPK-MET** High Pressure Pneumatic Pump/Comparator, 21MPa (3000 psi), Metric

**700HPP-MET** High Pressure Pneumatic Test Pump, 21MPa (300 psi), Metric

Contact your local distributor for price and availability.

# Fluke Calibration P3000 Deadweight Testers



Fluke P3000



The P3000 Series is the culmination of over 50 years of experience in the production and design of high performance pressure standards.

With features designed to improve accuracy and performance, increase reliability and simplify operation, these deadweight testers can be used to calibrate virtually any pressure sensing device, including transducers, transmitters, gauges or pressure switches. All units provided with accredited calibration.

## P3000 Pneumatic Deadweight Tester

High performance gas deadweight testers with unique suspended piston design for vacuum calibration.

- 0.01% of reading accuracy standard (0.008% optional)
- 3 to 500 psi (0.2 to 35 bar) pressure
- Optional low range 0.03 to 1 bar vacuum (1 to 30 inHg)
- Integrated vacuum and pressure pump available to 2 MPa (300 psi)

## P3100 Hydraulic Deadweight Tester

Highly accurate oil deadweight tester with quick and easy-to use single and dual piston deadweight models

- Pressure ranges to 140MPa (20000 psi, 1400 bar)
- 0.01% of reading accuracy standard (0.008% optional)
- Built in pressure generation and adjustment
- Single or dual piston formats

## P3200 Hydraulic Deadweight Tester

Hydraulic deadweight tester specially designed to use water as a test medium.

- Pressure ranges to 70MPa (10000 psi, 700 bar)
- 0.01% of reading accuracy standard (0.008% optional)
- Built in pressure generation and adjustment is standard
- Single or dual piston formats
- Water media

### Accuracy\*

±0.01% of reading (±0.008% optional)

\*Accuracy based on% of reading from 10% to 100% of the piston range when used in accordance with the corrections found on the calibration certificate. Below 10% ±(accuracy class) × 10% of the piston range.

### Mass and PCU Materials of Construction

Standard weight material	Series 3 non-magnetic austenitic stainless steel	
Weight density	7.8 g/cm <sup>3</sup>	
Optional fractional weights	Solution heat treated aluminum	
Weight density	2.7 g/cm <sup>3</sup>	
Models P3011, P3012, P3013, P3022, P3023, P3025 (V)	Piston Material:	Ceramic
	Cylinder Material:	Martensitic steel
	Coefficient of Expansion:	11 ppm/° C
Models P3014, P3015, P3025 (P) P3031, P3032 (P & V)	Piston Material:	Tungsten carbide
	Cylinder Material:	Martensitic steel
	Coefficient of Expansion:	16.5 ppm/° C

## PressCal Software

PressCal software provides a quick and effective solution to enhance the pressure measurement uncertainty of Deadweight Testers.

PressCal features an easy-to-use user Interface that allows you to enter all the necessary corrections and parameters to accurately determine the pressure generated by the DWT.

PressCal also provides:

- Automatic certificate generation
- Real-time auditing
- Customer details management
- Choice of 12 pressure units



## Recommended Accessories



5540 Metric & 5541  
BSP Adapter Sets



P5543  
Angle Adapter

## Included Accessories

ISO 17025 Accredited Calibration Certificate, Operating Fluid (where applicable), Spare Seals, Adaptors for 1/8, 1/4, 3/8, 1/2 NPT and BSP, and Metric Adaptors (M20 and M14).

## Ordering Information

\* -P indicates built-in pump optional.

P3011-KPA-P*	Vacuum Deadweight Tester (-100 kPa)
P3011-INHG-P*	Vacuum Deadweight Tester (-30 inHg)
P3011-MBAR-P*	Vacuum Deadweight Tester (-1000 mbar)
P3011-MMHG-P*	Vacuum Deadweight Tester (-760 mmHg)
P3012-KPA-P	Gas Deadweight Tester, 100 kPa, with Pump
P3012-MBAR-P	Gas Deadweight Tester, 1000 mbar, with Pump
P3012-INH20-P	Gas Deadweight Tester, 400 inH <sub>2</sub> O, with Pump
P3013-KPA-P	Gas Deadweight Tester, 200 kPa, with Pump
P3013-MBAR-P	Gas Deadweight Tester, 2000 mbar, with Pump
P3013-INH20-P	Gas Deadweight Tester, 800 inH <sub>2</sub> O, with Pump
P3014-KGCM2-P	Gas Deadweight Tester, 10 kgf/cm <sup>2</sup> , with Pump
P3014-PSI-P	Gas Deadweight Tester, 150 psi, with Pump
P3014-KPA-P	Gas Deadweight Tester, 1000 kPa, with Pump
P3014-MPA-P	Gas Deadweight Tester, MPa, with Pump
P3015-BAR-P*	Gas Deadweight Tester, 35 bar
P3015-KGCM2-P*	Gas Deadweight Tester, 35 kgf/cm <sup>2</sup>
P3015-PSI-P*	Gas Deadweight Tester, 500 psi
P3015-KPA-P*	Gas Deadweight Tester, 3500 kPa
P3015-MPA-P	Gas Deadweight Tester, 3.5 MPa

Contact your local distributor for price and availability.

# Fluke Calibration 3130 Portable Pressure Calibrator



Fluke P3130



The Fluke 3130 Portable Pneumatic Pressure Calibrator is ideal for calibrating pressure transmitters, transducers, gauges and similar devices. The Fluke 3130 contains everything you need to generate, control and measure pressure, as well as read the output of the device under test.

- Measure and generate pressures from vacuum to 2 MPa (300 psi, 20 bar)
- Internal pump can generate vacuum to -80 kPa (-12 psi, -0.8 bar) or pressure to 2 MPa (300 psi, 20 bar)
- Supply pressure connection allowing the use of external gas supply up to 2 MPa (300 psi, 20 bar)
- Measure or generate 4-20 mA
- Measure 0 to 30 V DC
- Compatible with Fluke 750P Pressure Modules
- Variable volume for fine adjustment of pressures
- Pressure measurement accuracy of  $\pm(0.025\%$  reading + 0.01% FS)
- Electrical measurement and 24 volt supply for close looped calibrations
- One year warranty

### Environmental

Temperature Operating: -10°C to +50°C; Storage: -20°C to +60°C

### Physical

Size in cm (LxWxD) and Weight 38.7 × 30.5 × 17.8, 7.7 kg

EMI/RFI Conformance EN61326:2006 Annex A

Connectors/Ports 1/8 in NPT (External supply port and test port)

### Ranges

Pressure (internal pump) -80 kPa to 2 MPa (-12 to 300 psi, -0.8 to 20 bar)

Pressure (external air) 0 to 2 MPa (0 to 300 psi, 0 to 20 bar)

mA 0 to 24.000 mA

Volts 0 to 30.000 V DC

### Instrumental Measurement Uncertainty

Pressure  $\pm(0.025\%$  of reading + 0.01% FS)

mA  $\pm(0.015\%$  of reading + 0.02% mA)

Volts  $\pm(0.015\%$  of reading + 0.02% V)

### Recommended Accessories Fluke 3130



**750PXX**  
Pressure Module  
See page 131



**CPS-2270-20M-P3K**  
Contamination  
Prevention System,  
P3000 Test Port  
Connection



### Included Accessories

**Fluke Calibration 3130:**  
Ruggedised Case, Rechargeable,  
NiMH Battery, Test Leads,  
Operating Manual.

### Ordering Information

**3130-G2M** Portable Gas  
Pressure Calibrator

**3130-G2M/C** Portable Gas  
Pressure Calibrator  
with Accredited  
Calibration

Contact your local distributor for price and availability.



# Fluke 729 Automatic Pressure Calibrator



Fluke 729



## Portable automatic pressure calibrator simplifies pressure calibration

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

The Fluke 729 can also automatically test multiple pressure test points and automatically document the results. Calibration is as easy as typing in the starting and ending pressure and the number of test points and tolerance level; the 729 does the rest.

With three ranges to choose from 30 psi (2 bar, 200 kPa), 150 psi (10 bar, 1 MPa) and 300 psi (20 bar, 2 MPa), the Fluke 729 Automatic Pressure Calibrator is designed to perform when and where you need.

- Automatic pressure generation and regulation to 300 psi
- Easily document the process using on-board test templates
- Automatic internal fine-pressure adjustment
- Measure, source and simulate 4 to 20 mA signals
- 24 V loop power for powering transmitters for tests
- HART® communication for testing HART smart transmitters
- Built-in leak testing for verifying test setups for leakage
- Fluke Connect® App compatibility
- Measure temperature with optional 720RTD probe
- Measure VDC for testing 1 V DC to 5 V DC output transmitters
- Compatible with Fluke 700G Series and 750 Series Pressure Modules
- Upload documented test results to DPCTrack2™
- Calibration Management Software to manage your instrumentation, create scheduled tests and reports and manage calibration data
- Three year warranty



### Pressure specification\*

One-year specification	0.02% of full scale
Control specification	0.005% full scale minimum

\*See manual for detailed specifications

Model	Psi range, resolution	Bar range, resolution	kPa range, resolution	Comment
729 30G	-12.0000 to 30.0000 psi	-0.82737 to 2.06842 bar	-82.737 to 206.843 kPa	No wireless communication
729 150G	-12.000 to 150.000 psi	-0.8273 to 10.3421 bar	-82.73 to 1034.21 kPa	No wireless communication
729 300G	-12.000 to 300.000 psi	-0.8273 to 20.6843 bar	-82.73 to 2068.43 kPa	No wireless communication
729 30G FC	-12.0000 to 30.0000 psi	-0.82737 to 2.06842 bar	-82.737 to 206.843 kPa	Wireless communication for Fluke Connect®
729 150G FC	-12.000 to 150.000 psi	-0.8273 to 10.3421 bar	-82.73 to 1034.21 kPa	Wireless communication for Fluke Connect®
729 300G FC	-12.000 to 300.000 psi	-0.8273 to 20.6843 bar	-82.73 to 2068.43 kPa	Wireless communication for Fluke Connect®

### Recommended Accessories



**750 SW DPC/TRACK2**  
Software  
See page 175



**FLUKE 750P**  
Series Pressure Modules  
See page 127



**720URTD**  
Universal RTD Adapter for  
721 and 719Pro  
See page 173

### Included Accessories

Soft Case, Stackable Test Leads, AC280 Hook Clips, Alligator Clips, Test Probes, Magnetic Hanger Kit, Carrying Strap, Power Supply, Rechargeable Battery (installed), Hose Kit with Push Fit Adapters, Hanging Clip, USB Cable, 1/8 in FNPT to 1/4 in FNPT Adapter, 1/8 in FNPT to F-M20 Adapter, 1/8 in FNPT to 1/4 in FBSP Adapter, PTFE Tape, (2) Sintered Filters, Liquid Dirt Trap, Water Trap Drain and Valve Tuning Hoses, Wireless Adapter (FC Models only), Quick Start Guide, Safety Sheet.

### Ordering Information

**FLK-729 30G** 30 psi, 2 Bar Automatic Pressure Calibrator

**FLK-729 150G** 150 psi, 10 Bar Automatic Pressure Calibrator

**FLK-729 300G** 300 psi, 20 Bar Automatic Pressure Calibrator

**FLK-729 30G FC** 30 psi, 2 Bar Automatic Pressure Calibrator with Fluke Connect®

**FLK-729 150G FC** 150 psi, 10 Bar Automatic Pressure Calibrator with Fluke Connect®

**FLK-729 300G FC** 300 psi, 20 Bar Automatic Pressure Calibrator with Fluke Connect®

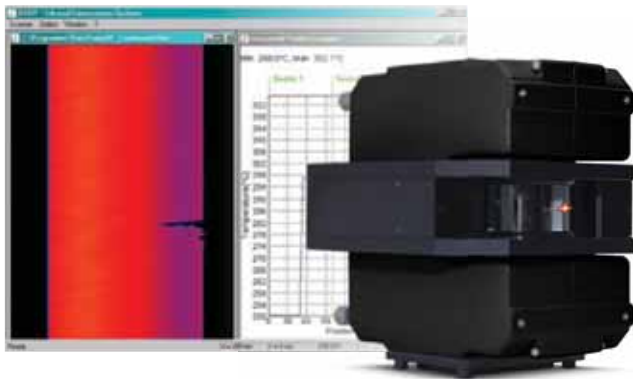
**FLUKE-729/750SW BU** 300 psi, 20 Bar Automatic Pressure Calibrator and DPCTrack2 Software Bundle

Contact your local distributor for price and availability.

The ability to quickly and accurately measure and verify temperatures throughout the manufacturing process has enabled innovators and producers to bring their projects to life, successfully deliver scalable results, and overall help the world function better.

Thermal profiling and non-contact monitoring solutions optimize the production process for just about every sector. From the manufacturing of consumer goods to large scale construction initiatives and mining, our tools help to ensure precision, safety and consistency.

For more information, visit [flukeprocessinstruments.com](http://flukeprocessinstruments.com)



### **Edge-to-edge Thermal Imaging to see it all.**

Designed for the harshest environments, the MP Linescanner Series provides accurate, edge-to-edge, real-time thermal imaging and temperature measurements for continuous processes. See it all with up to 300Hz scan speed and 1024 data points per scan, allowing you to find faulty temperatures, such as hot spots, before an error occurs.



### **See what you've been missing.**

Visualize the unheard and unseen with the power of acoustic imaging. The SV600 Fixed Acoustic Imager enables users to continuously detect, locate and visualize air and gas leaks or changes in sound signatures before they become costly problems. As a fixed, automated solution, the SV600 integrates with your process and eliminates the need for lengthy fault-finding processes such as soapy water tests, when used as part of your product leak testing process.



### **Expand your view, expand your understanding**

The ThermoView TV40 is a high-performance industrial fixed thermal imaging system that allows you to expand your understanding by providing continuous infrared and visual feeds to visualize temperature data. The TV40 offers a fully integrated temperature control, monitoring, and data archiving solution.



# Mechanical Maintenance

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



# Fluke 805 FC Vibration Meter

Forget the pens, think meter



Fluke 805 FC



The Fluke 805 FC is not a vibration pen; it's a meter. A Fluke meter that eliminates the confusion of vibration screening and provides reliable measurements you can trust to make critical go or no-go maintenance decisions. With the Fluke 805 FC, you can identify the strength and severity of vibration and easily track data over time to monitor an asset's condition.

- Innovative sensor design minimizes measurement variations caused by device angle or contact pressure
- Consistent data quality at both low and high frequency ranges
- Four-level severity scale assesses urgency of problems for overall vibration and bearing condition
- Exportable data via USB
- Trending in Microsoft™ Excel using pre-built templates
- Overall vibration measurement (10 Hz to 1000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines
- Crest Factor+ technology provides reliable bearing assessment using direct sensor tip measurements between 4000 Hz and 20000 Hz
- Compare vibration levels with ISO-10816 severity scales and store results to the Fluke Connect™ Cloud
- Fluke Connect™ Share-Live™ video call
- Colored lighting system (green, red) and on-screen comments indicate how much pressure needs to be applied to take measurements
- Temperature measurement with Spot Infrared Sensor increases diagnostic capabilities
- On-board memory holds and saves up to 3500 measurements
- One-year warranty

Specifications			
Vibration meter	Low frequency range (overall measurement)	10 Hz to 1000 Hz	
	High frequency range (CF+ measurement)	4000 Hz to 20000 Hz	
	Severity levels	Good, Satisfactory, Unsatisfactory, Unacceptable	
	Vibration limit	50 g peak (100 g peak-peak)	
	A/D converter	16-bit	
	Signal to noise ratio	80 dB	
	Sampling rate	Low frequency: 20000 Hz; High frequency: 80000 Hz	
	Real-time clock backup	Coin battery	
	Sensor	Sensitivity	100 mV/g ±10%
		Measurement range	0.01 g to 50 g
Low frequency range (overall measurement)		10 Hz to 1000 Hz	
High frequency range (CF+ measurement)		4000 Hz to 20000 Hz	
Resolution		0.01 g	
Infrared thermometer (temperature measurement)	Accuracy	At 100 Hz ±5% of measured value	
	Range	-20° C to 200° C (-4 °F to 392 °F)	
	Accuracy	±2° C (4 °F)	
External sensor (Supported, but not provided)	Frequency range	10 Hz to 1000 Hz	
	Bias voltage (to supply power)	20 V DC to 22 V DC	
	Bias Current (to supply power)	Maximum 5 mA	
Firmware	External interfaces	USB 2.0 (full speed) communication	
	Data capacity	Database on internal flash memory	
	Memory	Up to 3500 measurements	
Environmental	IP rating	IP54	
	Drop test	1 meter (3.38 ft)	
General specifications	Battery type	AA (2) Alkaline or Lithium-ion 2 V DC	
	Battery life	250 measurements	
	Size (LxWxH) and Weight	25.72 × 16.19 × 9.84 cm (10.13 × 6.38 × 3.875 in), 1.16 kg g (2.55 lb)	
	Connectors	USB mini-B 7-pin, stereo audio output jack (3.5 mm Audio Plug), external sensor jack (SMB connector)	

## Recommended Accessories



Fluke 805ES  
External Assembly Vibration Sensor

## Fluke 820-2 LED Stroboscope



The Fluke 820-2 LED Stroboscope is a simple, easy-to-use tool to stop motion for measurement and diagnostic purposes.

Investigate and observe potential mechanism failure with confidence on a variety of machinery, in a wide range of industries, without making physical contact with the machine. The Fluke 820-2 LED Stroboscope is a rugged, compact, portable strobe with high intensity LED head, ideal for stop motion diagnostics, mechanical troubleshooting, and process or product research and development.

- High intensity 7-LED array—4800 lux @ 6000 FPM/30 cm (flashes per minute)
- High efficiency LED solid-state light source with uniform flash characteristics allow for higher flash rates—30-300000 FPM
- Digital pulse width modulation for exceptionally sharp images at high speeds
- Rugged, durable design utilizes solid-state LEDs with no filaments, gases, hollow cavities, or glass
- Quartz-accuracy control system provides high accuracy – ±(0.02% + 1 digit)
- Multi-line LCD display
- Check the rotating speed of machinery without physical contact or need for reflective tape

## Included Accessories

USB Cable, Storage Case, Belt Holster, Quick Reference Guide, CD-ROM (includes MS Excel Template and Documentation) and Two AA Batteries.

## Ordering Information

**FLUKE-805FC** Fluke Connect™ Vibration Meter

**FLUKE 805ES** External Vibration Sensor for 805 Vibration Meter

**FLK-820-2** LED Stroboscope

Contact your local distributor for price and availability.

Mechanical Maintenance

# Fluke 810 Vibration Tester

Take a vibration expert along



Fluke 810



## Get answers now!

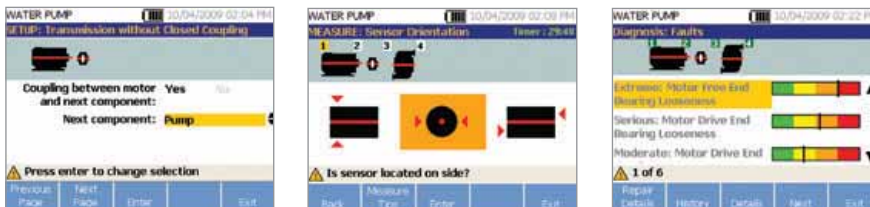
The Fluke 810 Vibration Tester is the most advanced troubleshooting tool for mechanical maintenance teams who need an answer now. It is a unique new kind of troubleshooting tool, engineered to detect and evaluate the most common mechanical problems.

The Fluke 810 Vibration Tester uses a simple step-by-step process to report on machine faults the first time measurements are taken, without prior machine history.

- Easily determine the root cause, location and severity of common mechanical faults
- Efficiently prioritize and plan equipment repair or replacement
- Effectively deploy maintenance resources at the point of greatest impact
- Three-year warranty

## Simple 3 Step Process

The Fluke 810 helps you locate and diagnose common mechanical problems and prioritize repair actions in three simple steps:



**1. Setup:** Vibration testing has never been easier. The Fluke 810 asks for basic machine information you already know, like RPM and horsepower. Its onboard info feature gives you field tips for setting up and taking measurements like a professional.

**2. Measure:** The Fluke 810 easily fits into your maintenance routine. Use it to quickly troubleshoot problems or monitor machine condition.

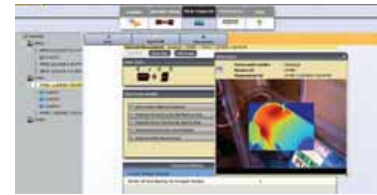
**3. Diagnose:** Fix it right the first time with the press of a button, the Fluke 810 identifies the root cause, its location, and the problem's severity.

## Recommended Accessories



## 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



## Interactive, self-paced training on DVD

Learn more about the basics of vibration and how to fully utilise the features and functionality of the Fluke 810. Fluke has partnered with Mobius Institute, an industry leader in vibration training, to develop an interactive training DVD included with each Fluke 810.

## 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

Ingress Protection (IEC 60529)	IP54
A/D converter	4 channel, 24 bit
Dynamic range	128 dB
FFT resolution	800 lines
Battery	Lithium-ion, rechargeable, 8 hours operating life
Onboard storage capacity	2 GB internal + user accessible slot for additional storage

## Sensor specifications

Sensor type	Tri-axial accelerometer, 100 mV/g (±5%, 25° C (77° F))
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## Tachometer specifications

Tachometer type	Laser Diode Class 2
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## Included Accessories

Tri-axial TEDS Accelerometer, Accelerometer Magnet Mount, Accelerometer Mounting Pad Kit with Adhesive, Accelerometer Quick Disconnect Cable, Laser Tachometer and Storage Pouch, Smart Battery Pack with Cable and Adapters, Shoulder Strap, Adjustable Hand Strap, Viewer PC Application Software, Mini-USB to USB Cable, Getting Started Guide, Illustrated Quick Reference Guide, User Manual CD, Instructional Training DVD, Hard Carrying Case.

## Ordering Information

FLUKE-810 Vibration Tester

# Fluke 831 Laser Shaft Alignment Tool

Precise alignment that adapts to your needs



Fluke 831



## Precision shaft alignment made easy

The Fluke 831 Laser Shaft Alignment Tool is the ideal test tool to precision-align rotating shafts in your facility. If you're still using rulers and dial indicators to ensure your rotating machinery is properly aligned, you could be losing thousands of dollars per year in replacement bearing costs, hours of unnecessary repair time and crippling unplanned downtime, not to mention taking years off your machine's useful life.

- The single-laser measurement technology results in better data accuracy
- The intuitive guided user interface and touch tablet helps you quickly complete machine alignments
- Easy for the novice yet powerful for the skilled technician which means you can cover more of your machines – all the functionality needed on the plant floor like thermal growth, user defined tolerances, etc.

## Recommended Accessories



**FLUKE-830/MAGNET**  
Compact magnetic sensor/  
prism mounting bracket

## Recommended Kits



**Fluke 830/SHIMS Precision Alignment Kit**

## Evaluate Alignment in 3 Simple Steps



1. Dimensions



2. Measure



3. Results

## General specifications

CPU	Processor: Exynos 9810, 2.7GHz, 1.7GHz Octa-Core Memory: 4 GB RAM, 64 GB Flash memory
Display	Technology: TFT Integrated light sensor for automated adjustment of the brightness to the display according to the lighting conditions hence extending battery life. Resolution: 1920 x 1200 Pixel Size: 203.1 mm (8")
Connectivity	Wi-Fi: 802.11 a/b/g/n/ac/ax 2.4G+5GHz, HE80, MIMO, 1024-QAM. Wireless: 5.0 RFID: NFC
Camera	Main camera resolution: 13.0 MP, Auto Focus Front camera resolution: 5.0 MP
Environmental protection	IP 68: dustproof, submersible 1.5 m
Ingress Protection (IEC 60529)	IP65 (dustproof and water spray resistant), shockproof Relative humidity 10% to 90%
Temperature range	Operation: -20°C to 50°C (-4°F to 122°F)
Battery	Battery Type: Li-Ion rechargeable battery 3.8 V / 5 3.8 V / 5050 mAh / 19.2 Wh Operating time: Up to 11 hours
Dimensions/weight (without hand straps)	Approx. 256 x 149 x 35 mm (10 5/64" x 5 55/64" x 1 3/8") Approx. 710 g (1.6 lbs)

## Reflector

Type	90° roof prism
Accuracy (average)	> 99%
Environmental protection	IP 67 (submersible, dustproof)

## Sensor

Measurement principle	Coaxial, reflected laser beam
LED indicators	1 LED for laser beam status and battery status

## Power supply

Battery	Lithium-Ion rechargeable battery 3.7 V / 5 Wh
Operating time	10 hours (continuous use)
Charging time	Using charger - 2.5 h for up to 90% 3.5 h for up to 100% Using USB port - 3 h for up to 90% 4 h for up to 100%

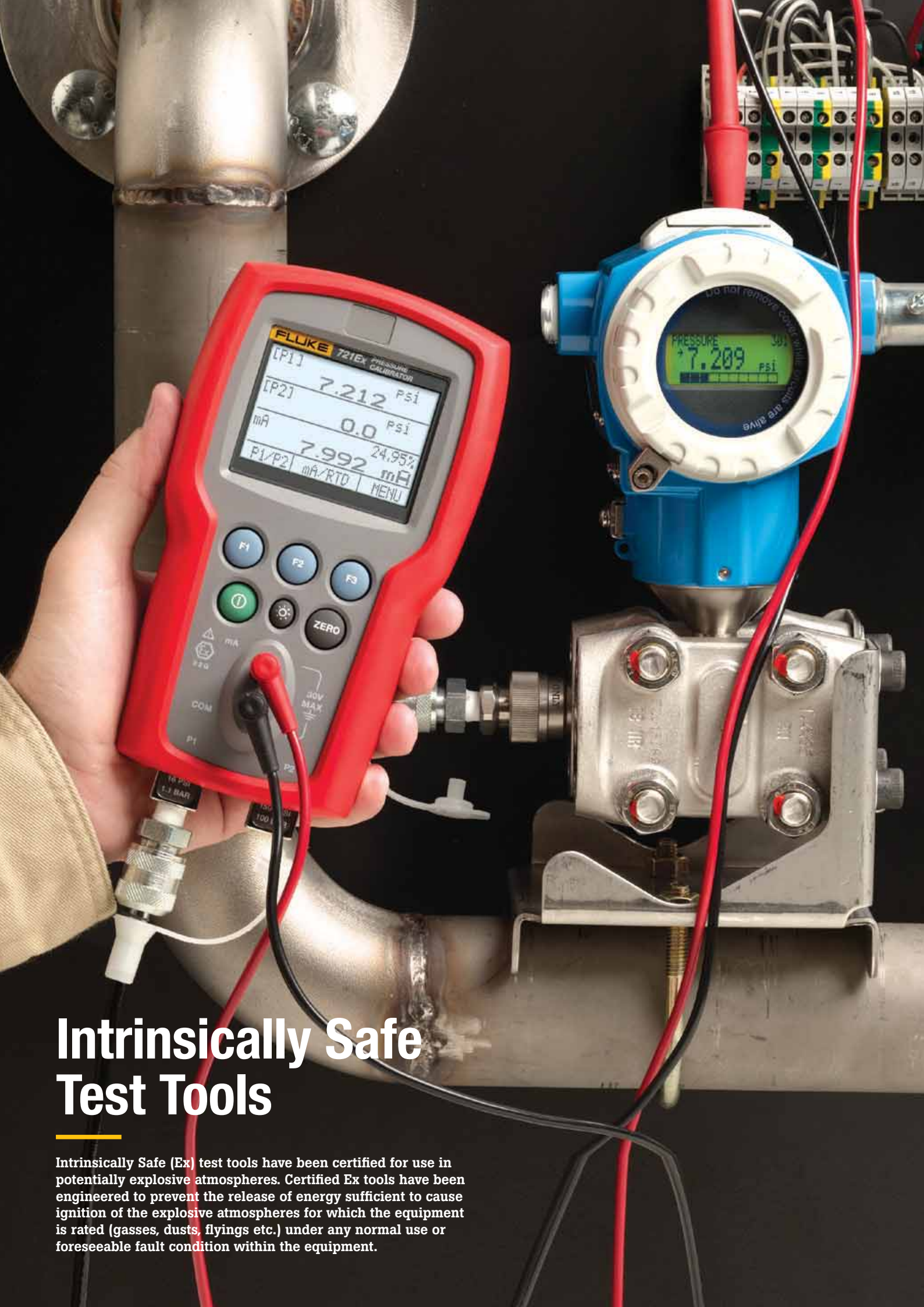
## Included Accessories

Sensor laser, reflector prism, chain-type mounting bracket with 150 mm support posts (2x), 300 mm support post (4x), lens cleaning cloth, USB sensor cable, USB PC cable, USB drive, USB drive cable, tape measure, power adapter (2x), quick reference guide and safety information sheet, carrying case

## Ordering Information

**FLK-831** Laser Shaft Alignment Tool

Contact your local distributor for price and availability.




# 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.

# Intrinsically Safe Test Tools

## for Hazardous Areas

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

 **ATEX** – The primary intrinsically safe standard, which has been set in the European Union with the Directive 94/9/EC, commonly called ATEX (ATmosphères EXplosibles).

Fluke Products	ATEX certified	Certification
 <b>28 II Ex Intrinsically Safe True-RMS Multimeter</b>	 II 2G Ex ia IIC T4 Gb I M1 Ex ia I Ma	Class I, Div 1, Groups A,B,C,D T4 Class I, Zone 1, AEx ia IIC T4 Ex ia IIC T4 IP67
 <b>718Ex Intrinsically Safe Pressure Calibrator</b>	 II 1G Ex ia IIC T4 Ga	I.S. Class I, Div 1, Groups A,B,C,D T4
 <b>721Ex Intrinsically Safe Precision Pressure Calibrator</b>	 II 2G Ex ia IIB T3 Gb	IECEX: Ex ia IIB T3 Gb
 <b>750PEX Intrinsically Safe Pressure Modules</b>	 II 1G Ex ia IIC T4 Ga	IECEX: Ex ia IIC T4 Ga
 <b>568Ex Intrinsically Safe Infrared Thermometer</b>	 II 2G Ex ia IIC T4 Gb	Class I, Div 1, Groups A,B,C,D, T4 Class I, Div 2, Groups A,B,C,D, T4 Class I, Zone 1, AEx ia IIC T4 Gb
 <b>700G Series Intrinsically Safe Pressure Gauges</b>	 II 3G Ex ic IIB T6 Gc	CSA Class I, Div. 2 Groups A,B,C,D
 <b>1551A Ex/1552A Ex Intrinsically Safe "Stik" Thermometers</b>	 II 2G Ex ib IIB T4 Gb	IECEX: Ex ib IIB T4 Gb
 <b>Fluke FL-45 Ex Intrinsically Safe Flashlight</b>	 II 1G Ex ia IIC T5 Ga I M1 Ex ia I Ma	Class I Div 1 and 2 Group A,B,C,D Class II Div 1 and 2 Group E,F,G Class III T5 IP67
 <b>Fluke FL-120 Ex Intrinsically Safe Flashlight</b>	 II 1G Ex ia IIC T4 Ga I M1 Ex ia I Ma	Class I Div 1 and 2 Group A,B,C,D Class II Div 1 and 2 Group E,F,G Class III T4 IP6X
 <b>Fluke FL-150 Ex Intrinsically Safe Flashlight</b>	 II 1G Ex ia IIC T4 Ga I M1 Ex ia I Ma	Class I Div 1 and 2 Group A,B,C,D Class II Div 1 and 2 Group E,F,G Class III T4 IP67
 <b>Fluke HL-200 Ex Intrinsically Safe Headlamp</b>	 II 1G Ex ia IIC T4 Ga	Class I Div 1 and 2 Group A,B,C,D Class II Div 1 and 2 Group E,F,G Class III T4 IP67



Intrinsically Safe Test Tools

### Ordering Information

**FLUKE-28IIEX/ETL** Intrinsically Safe True-RMS Digital Multimeter

**FLUKE-718EX** (30, 100, 300G ranges) Intrinsically Safe Pressure Calibrator

**FLUKE-721EX** Intrinsically Safe Pressure Calibrator

**FLUKE-750PEX** (750P: 01, 05, 06, 09, 24, 27, 29, A4Ex) Intrinsically Safe Pressure Modules

**FLUKE-568EX** Intrinsically Safe Infrared Thermometer

**FLUKE-700G** Pressure Test Gauges (23 ranges) 0 to 10 in H2O up to 10000 psi

**FLUKE-1551AEX**  
**FLUKE-1552AEX** "Stik" Thermometer  
1551A: -50 to 160C  
1552A: -80 to 300C

**FLUKE-568EX** Intrinsically Safe Infrared Thermometer

**FL-45 EX** 45 Lumen Intrinsically Safe Flashlight

**FL-120 EX** 120 Lumen Intrinsically Safe Flashlight

**FL-150 EX** 150 Lumen Intrinsically Safe Flashlight

**HL-200 EX** 200 Lumen Intrinsically Safe Headlamp

Contact your local distributor for price and availability.



# Insulated Hand Tools

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



## Fluke Insulated Hand Tools



### Fluke Insulated Screwdrivers

Precision insulated tools fit and rip the fastener properly to apply maximum torque without damage to the head. Hardened chromium-molybdenum-vanadium steel blades minimize wear. Fluke offers three styles and multiple sizes—seven drivers in all. All certified to 1000 Volts AC and 1500 V DC. Every screwdriver individually tested to 10000 volts.

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

### Fluke Insulated Pliers and Cutters

Fluke insulated pliers and cutters give you a range of options when the job requires jaws with bite. All Fluke pliers and cutters are built with German CMV steel.

#### Long Nose Pliers

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



#### Heavy-Duty, High-Leverage Diagonal Cutter

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



#### Fast Adjust Pump Pliers

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



#### Heavy Duty Combination Pliers

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

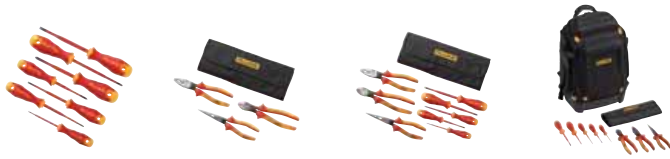


### Ordering Information

<b>ISLS3</b>	Insulated Slotted Screwdriver 3/32x3 in, 2.5 mm x 75 mm, 1000V
<b>ISLS5</b>	Insulated Slotted Screwdriver 5/32x4 in, 4 mm x 100 mm, 1000V
<b>ISLS8</b>	Insulated Slotted Screwdriver 1/4x5 in, 6 mm x 125 mm, 1000V
<b>IPHS1</b>	Insulated Phillips Screwdriver #1, 3 in, 75 mm, 1000V
<b>IPHS2</b>	Insulated Phillips Screwdriver #2, 4 in, 100 mm, 1000V
<b>ISQS1</b>	Insulated Squared Screwdriver #1, 4 in, 100 mm, 1000V
<b>ISQS2</b>	Insulated Squared Screwdriver #2, 5 in, 125 mm, 1000V
<b>INLP8</b>	Insulated Long Nose /w Side Cutter, 8 in, 200mm, 1000V
<b>INDC8</b>	Insulated High Leverage Diagonal Cutter, 8 in, 200mm, 1000V
<b>INPP10</b>	Insulated Pump Plier Fast adjustable, 10 in, 250 mm, 1000V
<b>INCP8</b>	Insulated Linesman Combination Plier, 8 in, 200 mm, 1000

Contact your local distributor for price and availability.

# Fluke Insulated Hand Tools Kits



Hand Tool Kits	IKSC7	IKPL3	IKST7	IKPK7
Description	Insulated 7 Unit Screwdriver Kit, 1000 V	Insulated 3 Unit Pliers Kit, 1000 V	Insulated Hand Tools Starter Kit, 1000 V	Fluke Pack30 Professional Tool Backpack + Insulated Hand Tools Starter Kit
Included	3 Slotted Tips, 2 Phillips Tips, 2 Square Drive Tips	Long Nose Pliers, Heavy Duty Diagonal Cutter, Heavy Duty Combo Pliers, Roll-up Tool Pouch	3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Linesman Combination Plier, Roll-up Tool Pouch	Fluke Pack30 Professional Tool Backpack, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch
Warranty	Lifetime	Lifetime	Lifetime	1-year*

\*Hand tools in kits all carry the limited lifetime warranty.



Tools + Hand Tool Kits	IBT6K	IB875K	IB117K	IB179K	IB376K
Description	Fluke T6 Electrical Tester + Insulated Hand Tools Starter Kit	Fluke 87V Industrial Multimeter + Insulated Hand Tools Starter Kit	Fluke 117 Electrician's Multimeter + Insulated Hand Tools Starter Kit	Fluke 179 True-RMS Digital Multimeter + Insulated Hand Tools Starter Kit	Fluke 376FC True-RMS Clamp Meter + Insulated Hand Tools Starter Kit
Included	Fluke T6 Electrical Tester, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch	Fluke 87V Industrial Multimeter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch	Fluke 117 Electrician's Multimeter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch	Fluke 179 True-RMS Digital Multimeter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch	Fluke 376FC True-RMS Clamp Meter, 3 Slotted Tips, 2 Phillips Tips, Long Nose Pliers, Diagonal Cutter, Combination Pliers, Roll-up Tool Pouch
Warranty	2-year*	Lifetime	3-year*	Lifetime	Lifetime

\*Hand tools in kits all carry the limited lifetime warranty.



Accessories	RUP8	Pack30	TB25
Description	Roll-up Tool Pouch. Holds up to 3 pliers and 5 screwdrivers, rolls shut, closes with hook and loop fasteners	Over 30 pockets in six main storage compartments. Rugged, waterproof base protects your tools.	Tool bucket with a 5.2-gallon capacity, hard exterior shell, and plastic waterproof base to protect tools.
Included	Tools not included	Tools not included	Tools not included
Warranty	1-year	1-year (extendable)	1-year

## \*Insulated Hand Tool Lifetime Limited Warranty

Each Fluke Insulated Hand Tool will be free from defects in material and workmanship for its lifetime. As used herein, "lifetime" is defined as seven years after Fluke discontinues manufacturing the product, but the warranty period shall be at least fifteen years from the date of purchase. This warranty does not cover damage from neglect, misuse, contamination, alteration, accident or abnormal conditions of operation or handling, damage or normal wear and tear of mechanical components. This warranty covers the original purchaser only and is not transferable.

To establish original ownership and prove date of purchase, please complete and return the registration card accompanying the product, or register your product on [fluke.com/registration](http://fluke.com/registration). Fluke will, at its option, repair at no charge, replace or refund the purchase price of a defective product purchased through a Fluke authorized sales outlet and at the applicable international price. Fluke reserves the right to charge for importation costs of repair/replacement parts if the product purchased in one country is sent for repair elsewhere.

If the product is defective, contact the authorized seller you purchased the tool from for immediate replacement or your nearest Fluke authorized service center to obtain return authorization information, then send the product to that service center, with a description of the difficulty, postage and insurance prepaid (FOB Destination). Fluke assumes no risk for damage in transit. Fluke will pay return transportation for product repaired or replaced in-warranty. Before making any non-warranty repair, Fluke will estimate cost and obtain authorization, then invoice you for repair and return transportation.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY. AUTHORIZED RESELLERS ARE NOT AUTHORIZED TO EXTEND ANY DIFFERENT WARRANTY ON FLUKE'S BEHALF.

## Ordering Information

**IKSC7** Insulated 7 Unit Screwdriver Kit, 1000 V

**IKPL3** Insulated 3 Unit Pliers Kit, 1000 V

**IKST7** Insulated Hand Tools Starter Kit, 1000 V

**IKPK7** Pack30 Professional Tool Backpack + Insulated Hand Tools Starter Kit

**IBT6K** Fluke T6 Electrical Tester + Insulated Hand Tools Starter Kit

**IB875K** Fluke 87V Industrial Multimeter + Insulated Hand Tools Starter Kit

**IB117K** Fluke 117 Electrician's Multimeter + Insulated Hand Tools Starter Kit

**IB179K** Fluke 179 True-RMS Digital Multimeter + Insulated Hand Tools Starter Kit

**IB376K** Fluke 376FC True-RMS Clamp Meter + Insulated Hand Tools Starter Kit

**RUP8** Roll-up Tool Pouch

**PACK30** Professional Tool Backpack

**TB25** Fluke TB25 Tool Bucket Organizer Bag, 5.2 gal

Contact your local distributor for price and availability.



# 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.

# IR CAMERA ACCESSORIES

## Battery and Charger Compatibility

Prevent the unexpected loss of power with our rugged and rechargeable battery packs and keep your Fluke Infrared Camera charged while you're on the road with our car chargers.

Model Number	TiS20+/TiS20+MAX, 55+, 60+, 75+	TiS55+, TiS60+, TiS75+	Ti401 Pro, Ti480 Pro	TiX580
TI-SBC3B Battery Charging Base	•	•	•	•
TI-SBP3 Rechargeable Lithium-ion Smart Battery Pack	•	•	•	
TI-SBP4 Rechargeable Lithium-ion Smart Battery Pack				•
TI-CAR CHARGER	•	•	•	•
FLK-XBattery				

## Sun Visor Compatibility

Instantly reduce LCD screen glare and reflections in bright sunlight or other areas where ambient lighting conditions are bright with our durable, heavy-duty plastic visor. It can be used inside or outside, and easily clips onto to your Fluke Infrared Camera without the need for any additional hardware.

Model Number	Ti401 Pro, Ti480 Pro
TI-VISOR3	•

## Tripod Base Compatibility

Lightweight, one-piece mounting accessory quickly and easily attaches to your Fluke Infrared Camera and allows you to mount to a standard tripod or monopod for those applications or situations that require a more stable or semi-fixed platform.

Model Number	Ti200/ Ti300/Ti300+/Ti400/Ti401/Ti450/Ti480
TI-TRIPOD3	•

# TEST LEADS, PROBES AND CLIPS

## Test Leads, Probes and Clips Compatibility

Model Number	TL175	TL26A	TL40	TL71	TL75	TL76	TL221	TL222	TL224	TL910
<b>Test Leads</b>										
110/114/115/116/117	•	•	•	•	•	•	•	•	•	•
175/177/179	•	•	•	•	•	•	•	•	•	•
87V	•	•	•	•	•	•	•	•	•	•
287/289	•	•	•	•	•	•	•	•	•	•
8845A/8846A	•	•	•	•	•	•	•	•	•	•
120 Series	•	•	•	•	•	•	•	•	•	•
190 Series	•	•	•	•	•	•	•	•	•	•
323/324/325	•	•	•	•	•	•	•	•	•	•
370 Series, 381	•	•	•	•	•	•	•	•	•	•
705/707	•	•	•	•	•	•	•	•	•	•
712	•	•	•	•	•	•	•	•	•	•
715	•	•	•	•	•	•	•	•	•	•
716/717	•	•	•	•	•	•	•	•	•	•
718	•	•	•	•	•	•	•	•	•	•
725/726	•	•	•	•	•	•	•	•	•	•
787B/789	•	•	•	•	•	•	•	•	•	•
1577/1587 FC	•	•	•	•	•	•	•	•	•	•
<b>Clips and Probes</b>										
AC175				•	•	•				
AC87							•	•	•	
AC89							•	•	•	
AC220							•	•	•	
AC280							•	•	•	
AC238A							•	•	•	
AC285							•	•	•	
AC288							•	•	•	
FTP-1							•	•	•	
TLK290							•	•	•	
TLK291							•	•	•	
TP1							•	•	•	
TP2							•	•	•	
TP4							•	•	•	
TP38							•	•	•	
TP74							•	•	•	
TP80							•	•	•	
TP175							•	•	•	
TP220							•	•	•	
TP912										•
TP920				•	•					
T5 Starter Kit										(compatible with T5/T+/T+Pro/330 Series Clamp Meters)
TP165X										(compatible with 1503/1507/1577/1587 FC/1650/1660 Series)

# Test Leads, Probes and Clips

## Test Lead/Probe-in-One



### TL175 TwistGuard™ Test Leads

- Probes meet IEC 61010-031 requirements for safety
- Patented extendable tip guard meets CAT III 1000 V, CAT IV 600 V requirements while providing the flexibility you need for CAT II measurements
- Probes always show correct category rating for tip length being used



### TL75 Hard Point™ Test Lead Set

One pair (red, black) comfort grip probes with PVC-insulated, right-angle shrouded 4 mm banana plugs.

- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



### TL71 Premium Test Lead Set

One pair (red, black) comfort grip probes with flexible silicone insulated, right-angle test leads.

- Heat and cold resistant
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



### TL76 2mm/4mm Test Lead Set

One pair (red, black) silicone test leads with right angle shrouded 4 mm banana plugs.

- Removable lantern tip for easy access to terminal blocks, 2 mm diameter
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



### TL40 Retractable Tip Test Lead Set

One pair (red, black) flexible silicone insulated test leads with sharp needle point tips adjustable to desired length from 0 to 76 mm.

- Extra hard probe tips to provide long service life
- Safety rating: CAT II 600 V, 3 A rating



### TL26A 60 in 5-Way Test Lead Set

One pair (red, black) silicone-insulated leads with five different ways to connect.

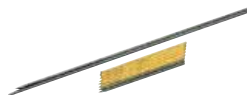
- U-shaped nose for blade-shaped terminals
- Notched jaw for gripping screw heads, bare wire or terminals
- Serrated teeth for gripping threaded or wire-wrapped terminals
- Sharp needle cluster for piercing small gauge (#22-#28 AWG) wires
- Large piercing needle
- Safety rating: 30 V, 10 A



### TL910 Electronic Test Probes

One pair (red, black) leads with very small tips to access hard-to-reach electronic test points.

- Includes three sets of spring-loaded gold tips and two sets of stainless steel tips
- Tip length up to 100 mm
- Tip diameter: 1 mm
- Safety rating: CAT II 1000 V, 3 A



### TP912 Replacement Tips for TL910

Five sets of spring-loaded, tips to refurbish TL910 Electronic Test Probes.

- Very small 1mm tips to access hard-to-reach electronic test points Probe tip length up to 100 mm
- Three sets of gold-plated and two sets of stainless steel tips



### TP165X Remote Control Probe

Probe with integrated test button simplifies measurement when accessing hard-to-reach points.

- Probe designed for 1500 Series Insulation and 1650/1660 Series Installation Testers
- Tip length up to 18.66 mm
- Tip diameter: 1 mm
- Safety rating: CAT II 1000 V, (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



### TL1500DC 1500 V DC Test Lead Set

Test leads specially developed for solar, wind and battery applications. Rugged design for rough outdoor environments.

- Safe and accurate voltage measurements up to 1500 V DC
- Safety rating: CAT III 1500 V, CAT IV 600 V

## Probe-in-one clips



### AC288 SureGrip™ Terminal Block Probe

One pair (red, black) of probes features a retractable probe tip for connections to clamp and screw type terminal blocks.

- Designed for increased safety, while providing the flexibility to reach deep connection points
- 1mm diameter probe tip extends out to 8.4 mm length
- Recommended for use with the TL224, TL222, TL221 test leads
- Safety rating: CAT III 1000 V, CAT IV 600 V, 1 A



### AC175 Alligator Clip Set

One pair (red, black) slide-on alligator clips.

- 8mm clip opening
- Slide-on alligator clips are compatible with TL71, TL75, TL175 and TP175 test probes
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A



### TP920 Test Probe Adapter Set

Three pairs (red, black) push-on adapters.

- Includes IC test adapters, extended probe tips, and medium alligator clips
- Maximum opening 7.6 mm
- Safety rating: IC test adapter CAT II 300 V, extended probe tips CAT II 300 V, medium alligator clips CAT II 1000 V

# Test Leads, Probes and Clips

## Modular Test Leads



### TL221 SureGrip™ Test Lead Extensions Set

One pair (red, black) silicone-insulated leads with safety-shrouded, 4 mm banana plugs.

- Couplers have female connectors on both ends
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A



### TL222 SureGrip™ Silicone Insulated Test Leads

One pair (red, black) silicone-insulated test leads (red, black) with safety-shrouded, 4 mm banana plugs.

- Right angle connectors on both ends



### TL224 SureGrip™ Insulated Test Leads

One pair (red, black) silicone-insulated test leads with safety-shrouded 4 mm banana plugs.

- Right angle connector on one end and straight connector on the other
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A



### TL27 Heavy-duty Test Lead Set

One pair (red, black) rugged, EPDM-insulated test leads with safety-shrouded 4 mm banana plugs.

- Straight connectors on both ends
- Safety rating: CAT III 1000 V, 10 A

## Test Lead Holder



### H900 Test Lead Holder

Heavy-duty holder for conveniently storing test lead wires.

- Mounting holes for securing to wall or other surfaces
- For test lead wires up to 8mm in diameter
- Overall dimensions (LxWxH): 279 mm × 89 mm × 32 mm

## Modular Clips



### AC285/-FTP SureGrip™ Alligator Clips

One pair (red, black) large alligator clips with insulated, nickel-plated steel jaws.

- Multi-purpose tooth pattern grips from fine gauge wire to a 20 mm bolt
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A
- AC285-FTP includes AC285 and adapters for FTP-1 or FTPL-1 Fused Test Probes



### AC220 SureGrip™ Alligator Clips

One pair (red, black) of small, insulated, nickel-plated jaws.

- Blunt tip grabs round screw heads up to 9.5 mm
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A



### AC280 SureGrip™ Hook Clips

One pair (red, black) nickel-plated hook-style clips.

- Hook opening 6.4 mm at front
- Base opening of 0.2 mm
- Safety rating: CAT IV 600 V, CAT III 1000 V, 3 A



### AC283A SureGrip™ Pincer Clips

One pair (red, black) nickel-plated pincers open to 5 mm.

- 11.4 cm flexible insulated shaft
- Safety rating: CAT II 1000 V, 1 A



### AC89 Heavy Duty Insulation Piercing Test Clip

Ideal probe for establishing accurate contact through insulation.

- Pierces 0.25 mm to 1.5 mm insulated wire
- Safety rating: 1000 V, 10 A



### AC87 Heavy Duty Bus Bar Clip Set

One pair (red, black) flat, right angle clips designed for connecting to bus bars.

- Adjustable collar provides two ranges of jaw openings up to 30 mm
- Safety rating: CAT III 600 V, 5 A

## Modular Test Probes



### TP175 TwistGuard™ Test Probes

- Modular test probes of the popular TL175 Test Leads
- Patented extendable tip guard meets CAT III 1000 V, CAT IV 600 V requirements while providing the flexibility you need for CAT II measurements
- 2 mm diameter stainless steel probe tips



### TP220 SureGrip™ Industrial Test Probes

One pair (red, black) industrial test probes with stainless steel tip.

- Sharp, 12 mm tips
- Safety rating: CAT II 1000 V (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



### TP1 Slim Reach™ Test Probes

One pair (red, black) slender probes with flat stainless steel blade to hold securely in blade-type electrical wall sockets.

- Tip length up to 14.7 mm
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



### TP2 Slim Reach™ Test Probes

One pair (red, black) slender stainless steel probes for accessing closely-spaced or recessed terminals such as in electronic environments.

- 2 mm diameter tip
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



### TP4 Slim Reach™ Test Probes

One pair (red, black) slender stainless steel probes for accessing closely-spaced or recessed electrical terminals.

- 4 mm diameter probe tip designed to fit securely into IEC (C13 and C14) electrical wall outlets
- Safety rating: CAT II 1000 V, 10 A



# Test Leads, Probes and Clips



## TP80 Electronic Test Probes

One pair (red, black) electronics test probes.

- IC-insulated cap prevents shortening of IC legs for probing high density components or boards
- Tip length up to 3.9 mm
- Tip diameter: 1 mm
- Safety rating: CAT III 1000 V, 1 A



## TP74 Lantern Tip Test Probes

One pair (red, black) featuring nickel-plated brass ends.

- Banana-style 4 mm spring contacts
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



## TP38 Slim Reach™ Test Probes

One pair (red, black) slender stainless steel probes for accessing closely-spaced or recessed terminals.

- Tip length: 24 mm which includes the insulated part of the tip
- Probe tip insulated to 4 mm from the end
- Safety rating: CAT IV 600 V, CAT III 1000 V, 10 A

## Patch Cords



## TL932 Patch Cords (90 cm)

One pair (red, black) multi-stacking banana plug patch cords, 90 cm long.

- Nickel-plated, 4 mm banana plugs
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 15 A



## TL930 Patch Cords (60 cm)

One pair (red, black) multi-stacking banana plug patch cords, 61 cm long.

- Nickel-plated, 4 mm banana plugs
- 61 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 15 A



## TL935 Patch Cords (60 cm, 90 cm, 120 cm)

Three sets (red and black pairs) of multi-stacking banana plug patch cords in different lengths.

- Nickel-plated, 4 mm banana plugs
- 60 cm, 90 cm, and 120 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 15 A



## TL940 Mini-Hook Test Leads

One pair (red, black) of test leads with multi-stacking 4 mm banana plugs and mini-hooks.

- Mini-hooks attach to component leads up to 1.5 mm diameter
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 3 A



## TL950 Mini-Pincer Test Leads

One pair (red, black) of test leads with multi-stacking 4 mm banana plugs and mini-pincers.

- Mini-pincers open to 2.3 mm
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 3 A



## TL960 Micro-Hook Test Leads

One pair (red, black) of test leads with multi-stacking 4 mm banana plugs and micro-hooks.

- Micro-hooks attach to component leads up to 1 mm diameter
- 90 cm long PVC insulated leads
- 30 V RMS or 60 V DC, 3 A



## TL970 Hook and Pincer Set

- TL940 Mini-Hook Test Lead Set
- TL950 Mini-Pincer Test Lead Set
- TL960 Micro-Hook Test Lead Set



## FTP-1 / FTPL-1 SureGrip™ Fused Test Probes

- Built-in fuses for added protection
- 2 mm threaded probe tips include removable 4 mm lantern-style spring contacts
- FTPL-1 comes with a set of TL224 SureGrip™ Insulated Test Leads
- Safety rating: CAT II 1000 V (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



## TL238 SureGrip™ Test Lead Set for High Energy Environments

This kit is specially designed for high energy environments. Three-piece kit:

- TP238 SureGrip™ Insulated Test Probe Set
- TP280 SureGrip™ Test Probe Extender
- TL224 SureGrip™ Insulated Test Leads
- Safety rating:
  - TP238 and TL224: CAT IV 600 V, CAT III 1000 V, 10 A
  - TP280: CAT III 1000 V, 10 A



## TLK290 Flexible Socket Probe Set

Set includes three flexible socket probes and a large alligator clip for use with 4mm shrouded test leads.

- Test probes are for use on motor and three-phase sockets
- Probes have flexible test points that fit securely between 4 mm and 8 mm sockets
- Safety rating: CAT II 1000 V, 8 A



## TLK291 Fused Test Probe Set

One pair (red, black) fused test probes. Probes fit on modular leads or on fixed-lead test tools.

- Each probe contains a 500 mA/1000 V/IR:50 kA fuse
- Safety rating: CAT IV 600 V, CAT III 1000 V

# TEST LEAD SETS AND KITS

Model number	TL27	TL80A	TL81A	TL220	TL223	TL225	TL238	TLK-220	TLK-225	TLK287	TLK289	TLS430
<b>Test Lead Sets and Kits</b>												
110/114/115/116/117	•	•	•	•	•	•	•	•	•	•	•	[Compatible with 430 Series II Power Quality Analyzers]
27 II	•	•	•	•	•	•	•	•	•	•	•	
175/177	•	•	•	•	•	•	•	•	•	•	•	
179	•	•	•	•	•	•	•	•	•	•	•	
87V	•	•	•	•	•	•	•	•	•	•	•	
287/289	•	•	•	•	•	•	•	•	•	•	•	
8845A/8846A	•	•	•	•	•	•	•	•	•	•	•	
120/B Series	•	•	•	•	•	•	•	•	•	•	•	
190/-II Series	•	•	•	•	•	•	•	•	•	•	•	
323/324/325	•	•	•	•	•	•	•	•	•	•	•	
370 Series, 381	•	•	•	•	•	•	•	•	•	•	•	
705/707	•	•	•	•	•	•	•	•	•	•	•	
712	•	•	•	•	•	•	•	•	•	•	•	
715	•	•	•	•	•	•	•	•	•	•	•	
717	•	•	•	•	•	•	•	•	•	•	•	
718	•	•	•	•	•	•	•	•	•	•	•	
725/726	•	•	•	•	•	•	•	•	•	•	•	
787B/789	•	•	•	•	•	•	•	•	•	•	•	
1577/1587 FC	•	•	•	•	•	•	•	•	•	•	•	
<b>Clips and Probes</b>												
AC175		•	•									
AC87	•		•	•	•	•	•	•	•	•	•	
AC89	•		•	•	•	•	•	•	•	•	•	
AC220	•		•	•	•	•	•	•	•	•	•	
AC280	•		•	•	•	•	•	•	•	•	•	
AC238A	•		•	•	•	•	•	•	•	•	•	
AC285	•		•	•	•	•	•	•	•	•	•	
FTP-1	•		•	•	•	•	•	•	•	•	•	
TLK290			•	•	•	•	•	•	•	•	•	
TLK291			•	•	•	•	•	•	•	•	•	
TP1	•		•	•		•	•	•	•	•	•	
TP2	•		•	•		•	•	•	•	•	•	
TP4	•		•	•		•	•	•	•	•	•	
TP38	•		•	•		•	•	•	•	•	•	
TP74	•		•	•		•	•	•	•	•	•	
TP80	•		•	•		•	•	•	•	•	•	
TP175	•		•	•		•	•	•	•	•	•	
TP220	•		•	•		•	•	•	•	•	•	
TP912										•		
TP920		•	•									
T5 Starter Kit	(compatible with T5/T+/T+Pro/330 Series Clamp Meters)											
TP165X	(compatible with 1503/1507/1577/1587 FC/1650/1660 Series)											

## Test Lead Sets and Kits



### TLK289 Industrial Master Test Lead Set

Designed for electrical and electronics testing including clips and probes for dependable contact with a variety of test points. Includes:

- One pair each (red, black):  
AC285 Large Jaw Alligator Clips  
AC220 Plunger Style Alligator Clips  
AC280 SureGrip™ Hook Clips  
TP220 SureGrip™ Industrial Test Probes
- TPAK ToolPak™
- 80BK-A Integrated DMM Temperature Probe
- C116 Soft Carrying Case



### TLK287 Electronics Master Test Lead Set

The perfect test lead set for electronics test and design. Includes 11 items:

- Precision electronic probes with multiple spring-loaded sharp tips to maximize contact with SMD test points
- Micro-grabbers and leads to enable fine SMD testing
- Mini-alligator clips, grabbers, and probes
- Modular test leads and lead-probe combinations
- Couplers for long lead applications



### TL81A Deluxe Electronic Test Lead Kit

This 11-item kit includes pouch and two each (red, black) of:

- Test leads with a safety-shrouded, right angle banana connector on one end and a stainless steel test probe on the other. Rated up to 10 A.
- Insulated alligator clips. Rated up to 10 A
- Insulated probe tip extenders. Rated up to 3 A
- Modular test probes with banana jack connector. Rated up to 10 A
- Modular hook-style clip test leads. Rated up to 5 A
- Modular pinch-style clip test leads. Rated up to 5 A
- Modular alligator clips. Rated up to 10 A
- Slide-on IC probe tip adapters (rated up to 3 A) and test lead couplers
- Bare spade lug. Rated up to 10 A



### TL220 SureGrip™ Industrial Test Lead Set

Handy all-in-one set that includes essential test items for industrial environments. Three-item set includes:

- AC220 Plunger Style Alligator Clips
- TP220 SureGrip™ Industrial Test Probes CAT II 1000 V, 10 A without protective cap
- TL224 SureGrip™ Silicone Insulated Test Leads
- Safety rating: All CAT IV 600 V, CAT III 1000 V



### TL80A Basic Electronic Test Lead Kit

The fundamental accessories for testing are included in this four-item kit:

- Medium alligator clip CAT II 1000 V, 10 A
- Extended probe tips CAT II 300 V, 3 A
- TL71 Premium Test Lead Set
- C75 Accessory Case



### TLK-225 SureGrip™ Master Accessory Set

Set includes all the SureGrip™ leads, clips, and probes in a handy roll-up pouch. This 13-item set includes:

- AC220 Plunger Style Alligator Clips
- AC280 SureGrip™ Hook Clips
- AC238A SureGrip™ Pincer Clips
- AC285 Large Jaw Alligator Clips
- TP175 TwistGuard™ Test Probes
- TL224 SureGrip™ Insulated Test Leads
- Six-pocket Storage Pouch
- Safety rating: all CAT IV 600 V, CAT III 1000 V



### TL223 SureGrip™ Electrical Test Lead Set

All-in-one set includes three test lead accessories:

- AC220 Plunger Style Alligator Clips
- TP1 Slim Reach Test Probes
- TL224 SureGrip™ Insulated Test Leads
- Safety rating: CAT II 1000 V, 10 A (CAT III 1000 V, CAT IV 600 V with protective cap)



### TLK-220 SureGrip™ Industrial Test Lead Kit

Special-value SureGrip™ five-piece kit for industrial applications, in a roomy carrying case. Kit includes:

- AC220 Plunger Style Alligator Clips
- AC285 Large Jaw Alligator Clips
- TP220 SureGrip™ Industrial Test Probes
- TL224 SureGrip™ Insulated Test Leads
- C116 Zippered Vinyl Case with Moveable Divider
- Safety rating: CAT II 1000 V (CAT III 1000 V, CAT IV 600 V with protective cap), 10 A



### T5 Starter Kit

Special-value three-piece kit for the electrical professional with a Fluke T5 Voltage, Continuity and Current Tester. Kit includes:

- TP238 Insulated Test Probes
- AC285 Large Jaw Alligator Clips
- C33 Soft Carrying Case
- Safety rating: all CAT IV 600 V, CAT III 1000 V



### TLS430 Test Leads and Alligator Clips

Test lead replacement set for the Fluke 430 Series II Three-Phase Power Quality Analyzers.

- Set includes five of each (4 black, 1 green) test leads and alligator clips
- Safety rating: CAT IV 600 V, CAT III 1000 V



### TL225 SureGrip™ Stray Voltage Adapter Test Lead Kit

The Fluke TL225 adds low input impedance to a multimeter, desensitizing it to low energy and eliminating ghost or stray voltages. Four-piece kit includes:

- SV225 Stray Voltage Adapter
- TL224 SureGrip™ Insulated Test Leads
- TP238 Insulated Test Probes
- C75 Accessory Case
- Safety rating: All CAT IV 600 V, CAT III 1000 V, 10 A

# TEMPERATURE ACCESSORIES

	Bead		HVAC	Immersion	Surface	Air	Piercing	General Purpose	Industrial Surface	Pipe Clamp
	80BK-A	80PK-1 80PJ-1	80PK-11	80PK-22	80PK-3A	80PK-24	80PK-25 80PT-25	80PK-26	80PK-27	80PK-8
<b>Lowest Temperature</b>	-40° C (-40° F)		-30° C (-22° F)	-40° C (-40° F)	0° C (32° F)	-40° C (-40° F)	Type K: -40° C (-40° F) Type T: -196° C (-321° F)	-40° C (-40° F)	-127° C (-196° F)	-29° C (-20° F)
<b>Highest Temperature</b>	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)	149° C (300° F)
<b>Probe Material</b>	Type K wire with teflon insulation		Velcro	Inconel 600	Type K sensor with teflon body	Inconel	316 Stainless Steel	304 Stainless Steel	304 Stainless Steel	Type K sensor with PVC body
<b>Probe Length</b>	1 m (3.3 ft) lead wire		48.26 cm (19 in) Velcro cuff	21.27 cm (8.375 in)	9.52 cm (3.75 in)	21.59 cm (8.5 in)	10.16 cm (4 in)	21.57 cm (8.5 in)	20.32 cm (8 in)	for pipes from 6.4 mm (0.25 in) to 34.9 mm (1.375 in)
<b>Cable Length</b>	1 m (3.3 ft)				1.3 m (4 ft)	1 m (3.3 ft)				
<b>Connection</b>	Standard banana jack	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug	Molded thermocouple plug
<b>SureGrip Handle</b>	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No
<b>Key Feature</b>	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.	Clamps securely to pipe. Measurements are repeatable to 0.56° C (1° F)
<b>Thermocouple Types</b>	K	K, J	K	K	K	K	K, T	K	K	K

Temperature Compatibility													
Model Number	80AK-A	80BK-A	All 80PK Probes	80PJ-1/ 80PJ-9	80PT- 25	80TK	80T- 150UA	80PJ- EXT	80PK- EXT	80PT- EXT	80CK-M	80CJ-M	80PR- 60
110/114/115/ 116/117	116	116	◆						▲		▲		
27 II						•	•		*		*		
175/177			*			•	•		*		*		
179	•	•	▲						▲		▲		
87V	•	•	▲						▲		▲		
287/289	•	•	▲				•		▲		▲		
8845/8846			*			•	•		*		*		
43B			*			•	•		*		*		
120/B Series			*			•	•		*		*		
190/-II Series			*			•	•		*		*		
51/52/53/54 II			•	•	•			•	•	•	•	•	
63													66/68
714			•	•	•			•	•	•	•	•	
715			*			•	•		*		*		
725/726			•	•	•			•	•	•	•	•	
787B/789			*			•	•		*		*		
902	•	•	•						•				
1587 FC	•	•	▲						▲		▲		
1577	•		▲										
561			•										

• Compatible; \* Requires 80TK; ▲ Requires 80AK-A; ◆116 only: requires 80AK-A

# Temperature Accessories



## 80PJ-1 or 80PK-1 Bead Probe

Type J or K thermocouple probe for general purpose applications. Ideal for troubleshooting.

- 1 mm probe with Teflon™ insulation
- Measurement range: -40° C to 260° C (-40° F to 500° F)



## 80PJ-9 or 80PK-9 General Purpose Probe

Type J or K thermocouple probe for air and non-caustic gases. The sharp tip pierces pipe insulation and the flat surface makes good contact.

- 15.25 cm stainless steel probe
- Measurement range: -40° C to 260° C (-40° F to 500° F)



## 80PK-26 SureGrip™ Tapered Probe

Type K thermocouple probe with tapered tip for speedy air, surface, non-caustic gas, and liquid measurements.

- 1 m lead
- 203 mm stainless steel probe
- Measurement range: -40° C to 816° C (-40° F to 1500° F)



## 80PK-3A Surface Probe

Type K thermocouple with exposed junction for flat or slightly convex surfaces such as plates and rollers.

- 9.52 cm probe with Teflon™ insulation
- Measurement range: 0° C to 260° C (-40° F to 500° F)



## 80PK-27 SureGrip™ Industrial Surface Temperature Probe

Type K thermocouple probe for surfaces in rugged environments.

- 1 m lead
- 20.32 cm stainless steel probe
- Measurement range: -127° C to 600° C (-196° F to 1112° F)



## 80PK-25 or 80PT-25 SureGrip™ Piercing Probe

Type K or T thermocouple suitable for food industry, liquids, and gels. Sharp tip pierces solid surfaces.

- 1 m lead
- 10.16 cm stainless steel probe
- Measurement range:
  - Type K: -40° C to 350° C (-40° F to 662° F)
  - Type T: -196° C to 350° C (-321° F to 932° F)



## 80PK-24 SureGrip™ Air Probe

Type K thermocouple probe for air and non-caustic gas measurements.

- 1 m lead
- 21.59 cm (8.5 in) Inconel™ probe
- Bead protected by perforated baffle
- Measurement range: -40° C to 816° C (-40° F to 1500° F)



## 80PK-22 SureGrip™ Immersion Probe

Type K thermocouple probe for use in liquids and gels.

- 1 m lead
- 21.27 cm (8.375 in) Inconel™ probe
- Measurement range: -40° C to 1090° C (-40° F to 1994° F)



## 80PK-8 and 80PK-10 Pipe Clamp Probe

Type K thermocouple clamps securely to pipes for fast temperature and superheat measurements.

- Durable ribbon sensor
- 80PK-8 for pipe diameters 6.4 mm to 34.9 mm
- 80PK-10 for pipe diameters 32 mm to 64 mm
- Measurements are repeatable to 0.56° C
- Measurement range: -29° C to 149° C (-20° F to 300° F)



## 80PK-11 Type-K Velcro™ Thermocouple Probe

Type K Velcro cuff for use with any temperature-measuring instrument that accepts type K thermocouples.

- Use multiples and leave in place for route-based routine maintenance
- 48 cm Velcro™ cuff
- Measurement range: -30° C to 105° C (-22° F to 221° F)



## 80PK-18 Pipe Clamp Temperature Probe Kit

- Includes both 80PK-8 and 80PK-10 Type K clamps
- Provides full range of pipe measurement sizes
- Includes soft carrying case



## 80PR-60 RTD Temperature Probe

This probe expands the utility of an RTD non-contact infrared thermometer by simultaneously taking contact and non-contact temperature readings.

- For use with the Fluke 66 and 68 Infrared Thermometers
- 90 mm platinum 1 kΩ probe
- 3.5 mm phono type jack
- Measurement range: -40° C to 260° C (-40° F to 500° F)



## 80AK-A Thermocouple Adapter

Adapts type K thermocouple mini-connector to dual shrouded 4 mm banana plug inputs.

- Measurement range and accuracy: probe dependent
- Suitable for low voltage applications (below 30 V AC, 60 V DC)



## 80BK-A Integrated DMM Temperature Probe

Convenient, integrated type K thermocouple probe with standard shrouded 4 mm banana jack.

- Compatible with Fluke DMM with temperature measurement functions
- Measurement range: -40° C to 260° C (-40° F to 500° F)



## 80TK Thermocouple Module

This module converts a DMM to a thermometer and is designed for use with type K thermocouples in low voltage applications.

- Voltage range: below 24 V AC, 60 V DC
- Measurement range: -50° C to 1000° C (-58° F to 1,832° F) (probe dependent)



## 80T-150UA Universal Temperature Probe

Adapts any DMM using shrouded 4 mm banana plugs. This fast, accurate integrated probe is designed for low-voltage applications.

- For air, surface, and non-corrosive applications
- Voltage range: below 24 V AC, 60 V DC
- 15.7 cm probe tip
- Measurement range: -50° C to 150° C (-58° F to 302° F)
- Output: switchable, from 1 mV/° C to 1 mV/° F

# AC CURRENT CLAMPS

## 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	0.5 A to 40 A, 2% + 0.01 A, 5 A to 400 A, 2% + 0.04 A, 45 Hz to 400 Hz	0.1 A to 10 A ±3% + 0.01 A, 10 A to 200 A ±2%, 200 A to 800 A ±1%	0.2 to 10 A: 3% + 0.1 A 10 A to 100 A: 2% + 0.5 A 100 A to 1000 A: 1% + 1 A 48 Hz to 65 Hz	1 to 30 A: 2% + 0.1 A 1 to 300 A: 2% + 0.5 A 1 to 3000 A: 2% + 2 A 48 Hz to 65 Hz	±1% of range 45 Hz to 65 Hz Ranges: 20 A, 200 A, 2000 A	±1% of range, 45 Hz to 65 Hz Ranges: 30 A, 300 A, 3000 A	±1% of range 45 Hz to 65 Hz
Bandwidth (-3 dB)	40 Hz to 40 kHz	40 Hz to 40 kHz	5 kHz to 20 kHz	5 Hz to 10 kHz	30 Hz to 10 kHz (typical)	5 Hz to 100 kHz	10 Hz to 100 kHz	10 Hz to 20 kHz	10 Hz to 50 kHz	10 Hz to 50 kHz
Maximum conductor diameter	20 mm	20 mm	32 mm	32 mm	54 mm	54 mm	64 × 100 mm	177 mm	177 mm or 265 mm	193 mm or 289 mm
Maximum conductor size	150 mm <sup>2</sup>	150 mm <sup>2</sup>	400 mm <sup>2</sup>	400 mm <sup>2</sup>	2 × 240 mm <sup>2</sup> or 1 × 500 mm <sup>2</sup>	2 × 240 mm <sup>2</sup> or 1 × 500 mm <sup>2</sup>	64 mm	610 mm circumference	610 mm or 915 mm circumference	610 mm or 915 mm
Output levels	1 mA/A	10 mV/A 100 mV/A	1 mA/A	10 mV/A 1 mV/A	1 mA/A	1 mV/A 10 mV/A 100 mV/A	10 mV/A 1 mV/A 0.1 mV/A	100 mV/A 10 mV/A 1 mV/A	100 mV/A 10 mV/A 1 mV/A	50 mV/A 5 mV/A 0.5 mV/A
Output cable	1.5 m shrouded banana plugs	2 m to BNC termination	1.5 m shrouded banana plugs	2.5 m to BNC termination	1.6 m shrouded banana plugs	1.6 m to BNC termination	2.1 m to BNC termination	2 m with double shrouded banana plugs	2.1 m to BNC termination	2 m to 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 <sup>1</sup>	i3000s Flex
110/114/116		1 A to 200 A		0.6 A to 400 A*		0.6 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
115/117	60 A to 200 A	1 A to 200 A	60 A to 400 A	0.6 A to 400 A*	60 A to 800 A	0.6 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
233	60 A to 200 A	1 A to 200 A	60 A to 400 A	0.6 A to 400 A*	60 A to 800 A	0.6 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
27 II	2 A to 200 A	1 A to 200 A	2 A to 400 A	1 A to 400 A*	2 A to 800 A	0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
28 II	1.8 A to 200 A	1 A to 200 A	1.8 A to 400 A	1.8 A to 400 A*	1.8 A to 800 A	0.2 A to 1000 A*	2 A to 3000 A	2 A to 2000 A	3 A to 3000 A
77 IV		1 A to 200 A		1 A to 400 A*		0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
175/177/179	3 A to 200 A	1 A to 200 A	3 A to 400 A	1 A to 400 A*	3 A to 800 A	0.3 A to 1000 A*	3 A to 3000 A	2 A to 2000 A	3 A to 3000 A
1577/1587 FC	3 A to 200 A	1 A to 200 A	3 A to 400 A	3 A to 400 A*	3 A to 400 A	0.3 A to 1000 A*	3 A to 3000 A	2 A to 2000 A	3 A to 3000 A
83V/88V	2 A to 200 A	1 A to 200 A	2 A to 400 A	1 A to 400 A*	2 A to 800 A	0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
87V	2 A to 200 A	1 A to 200 A	2 A to 400 A	2 A to 400 A*	2 A to 800 A	0.2 A to 1000 A*	2 A to 3000 A	2 A to 2000 A	3 A to 3000 A
287/289	1 A to 200 A	1 A to 200 A	1 A to 400 A	0.5 A to 400 A*	1 A to 800 A	0.2 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
43B		1 A to 200 A		0.35 A to 400 A		0.1 A to 1000 A	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
434/435-II		1 A to 200 A		1.2 A to 400 A		0.3 A to 1000 A	1.2 A to 3000 A	i430Flex-TF-II	i430Flex-TF-II
120/B		1 A to 200 A		2.5 A to 400 A		0.25 A to 1000 A	2.5 A to 3000 A	2 A to 2000 A	3 A to 3000 A
190/-II		1 A to 200 A		1 A to 400 A		0.1 A to 1000 A	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A
8808A	1 A to 200 A	1 A to 200 A	1 A to 400 A	0.5 A to 400 A*	1 A to 800 A	0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A*	3 A to 3000 A*
8845A/8846A	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A*	1 A to 800 A	0.2 A to 1000 A*	1 A to 3000 A	2 A to 2000 A*	3 A to 3000 A*
787B/789	50 A to 200 A	1 A to 200 A	50 A to 400 A	2 A to 400 A*	50 A to 440 A	0.2 A to 1000 A*	2 A to 3000 A	2 A to 2000 A	3 A to 3000 A

# AC Current Clamps



## i800 AC Current Clamp

This AC current clamp is designed to extend the current measuring capability of a digital multimeter to 800 A AC. It is compatible with a digital multimeter that accepts shrouded 4 mm banana plugs and has an AC milliamp range.

- Current range: 100 mA to 800 A RMS AC
- Frequency range: 30 Hz to 10 kHz (-3 dB)
- Safety rating: CAT III 600 V



## i400 AC Current Clamp

This high-safety current clamp for digital multimeters is a single range 400 A AC clamp that is designed to offer maximum utility in a very compact shape. The division ratio is 1000:1.

- Current range: 1 A to 400 A AC
- Frequency range: 5 kHz to 20 kHz (-3 dB)
- Safety rating: CAT IV 600 V, CAT III 1000 V



## i400s AC Current Clamp

This high-safety compact current clamp with BNC output is a companion to a ScopeMeter® or Power Quality Meter to measure up to 400 A AC.

- Current range: 0.5 A to 400 A AC
- Frequency range: 5 Hz to 10 kHz (-3 dB)
- Optional PM9081/001 Dual Banana Plug Male to Female BNC Adapter is available for digital multimeters
- Safety rating: CAT IV 600 V, CAT III 1000 V



## i200 AC Current Clamp

This small-sized, single-range current clamp features safety-shrouded 4mm banana plugs. It is compatible with most Digital Multimeters and other current measurement devices that accept shrouded 4 mm banana plugs and have an AC milliamp range.

- Current range: 1 A to 200 A AC
- Frequency range: 40 Hz to 40 kHz
- Safety rating: CAT III 600 V



## i200s AC Current Clamp

This small-sized dual-range current clamp offers voltage output using a safety-insulated BNC connector. A dual banana-to-BNC adapter allows the clamp to be connected to meters with banana inputs.

- Current ranges: 0.1 A and 200 A AC switchable
- Frequency range: 40 Hz to 10 kHz
- Safety rating: CAT III 600 V



## i2000 Flex AC Current Clamp

This current probe can be used to measure currents up to 2000 A when used in conjunction with multimeters, recorders, or data loggers. The flexible and lightweight measuring head allows quick and easy installation on thick and hard-to-reach areas.

- Current range: 20 A, 200 A, and 2000 A AC switchable
- Frequency range: 10 Hz to 20 kHz
- Safety rating: CAT III 600 V



## i1000s AC Current Clamp

This large AC current clamp expands applications in industrial and power environments by connecting directly to an oscilloscope using a reinforced coaxial cable and an insulated BNC connector. It is ideal for measuring distorted current waveform RMS and harmonics.

- Current range: 0.1 A to 1000 A AC
- Frequency range: 10 Hz to 100 kHz
- Accurate displays due to a passive filter that eliminates noise and ring on rapidly-rising di/dt waveforms
- Safety rating: CAT III 600 V



## i3000s AC Current Clamp

This AC current clamp is designed as a clamp-on unit for use with Oscilloscopes. It also includes a dual banana to BNC adapter for use with multimeters with 4mm banana input plugs.

- Current range: 1 A to 3000 A
- Frequency range: 10 Hz to 100 kHz
- Safety rating: CAT III 600 V



## i3000s Flex-24 or -36 AC Current Clamp

*i3000s Flex-24 is available in a convenient four-pack (i3000s Flex 4 Pack)*

The flex clamp uses the Rogowski (air-cored coil) principle and can be used to measure three ranges of currents up to 3000 A when used in conjunction with oscilloscopes, recorders or data loggers. The flexible and lightweight measuring head allows quick and easy installation in hard-to-reach areas without batteries or an external power source. This clamp fits around large conductors and is available in 610 mm and 914 mm lengths.

- Current range: 30 A, 300 A, and 3000 A switchable
- Frequency range: 10 Hz to 50 kHz
- Safety rating: CAT III 600 V



## i5s AC Current Clamp

*Also available in a convenient three-pack (i5sPQ3)*

This compact 5 A AC clamp, specially configured to provide low-current accuracy while taking measurements on secondary current transformers, expands the use of Fluke 430 Series Three-Phase Power Quality Analyzers.

- Current range: 10 mA to 5 A
- Frequency range: 40 Hz to 5 kHz
- Safety rating: CAT III 600 V (for insulated conductors only)



## i6000s Flex-24 or -36 AC Current Clamp

This AC current clamp with its flexible and lightweight measuring head allows quick and easy installation in hard-to-reach areas without batteries or an external power source. This clamp fits around large conductors and is available in both 610 mm and 914 mm lengths.

- Current range: 60 A, 600 A, and 6000 A switchable
- Frequency range: 10 Hz to 50 kHz (-3 dB)
- Safety rating: CAT III 600 V

# AC/DC CURRENT CLAMPS

## AC/DC Current Clamp Specifications

	80i-110s	i410	i1010	i30	i30s	i310s
DC range	0.1 A to 100 A	1 A to 400 A	1 A to 1000 A	30 mA to 30 A	30 mA to 30 A	0.1 A to 450 A
AC range	0.1 A to 70 A	1 A to 400 A	1 A to 600 A	30 mA to 20 A RMS	30 mA to 20 A RSM	0.1 A to 300 A
Accuracy	0.1 A to 10 A; AC to 1 kHz: $\pm 3\% + 50 \text{ mA}$ ; 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)	$\pm 1\%$ of reading, $\pm 2 \text{ mA}$	$\pm 1\%$ of reading, $\pm 2 \text{ mA}$	30 A range: 1% + 50 mA 300 A range: 1% + 300 mA
Bandwidth (-3 dB)	100 kHz	3 kHz	10 kHz	dc to 20 kHz (-0.5 dB)	dc to 100 kHz (-0.5 dB)	dc to 20 kHz
Zero error adjustment	•	•	•	•	•	•
Maximum conductor diameter	11.8 mm	30 mm	30 mm	19 mm	19 mm	19 mm
Maximum conductor size	35 mm <sup>2</sup>	1 × 400 mm <sup>2</sup> or 2 × 240 mm <sup>2</sup>	1 × 400 mm <sup>2</sup> or 2 × 240 mm <sup>2</sup>	120 mm <sup>2</sup>	120 mm <sup>2</sup>	120 mm <sup>2</sup>
Output levels	10 mV/A, 100 mV/A	1 mV/A	1 mV/A	100 mV/A	100 mV/A	1 mV/A, 10 mV/A
Output cable	1.6 meter with BNC termination	1.2 meter with shrouded banana plugs	1.2 meter with shrouded banana plugs	1.5 meter with shrouded dual banana plugs	2 meter with BNC termination	2 meter with BNC termination and a BNC to safety shrouded banana adapter
Battery life	40 hours	60 hours	60 hours	30 hours	30 hours	30 hours
Warranty	One-year	One-year	One-year	One-year	One-year	One-year
Safety	CAT II 600 V; CAT III 300 V	CAT III 600 V	CAT III 600 V	CAT III 300 V	CAT III 300 V	CAT III 300 V

## AC/DC Current Clamp Selection Guide

	80i-110s	i410	i1010	i30	i30s	i310s
114/115/116/117	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
27 II	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
28 II	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	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	0.1 A to 100 A DC/ 0.25 A to 70 A AC	1 A to 400 A DC/ 25 A to 400 A AC**	1 A to 1000 A DC/ 25 A to 600 A AC**		30 mA to 30 A DC/ 250 mA to 20 A AC	0.1 A to 450 A DC/ 2.5 A to 300 A AC
190 Series II	0.1 A to 100 A DC/ 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
787B/789	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



# AC/DC Current Clamps



## i410 AC/DC Current Clamp

This battery-powered Hall-effect probe measures 1 A to 400 A with large-claw clamp that gives access to difficult-to-reach areas. It is compatible with most multimeters and other devices that measure AC and DC current and accepts shrouded 4 mm banana plugs.

- On/Off LED indicator
- AC and DC current range: 1 A to 400 A
- Frequency range: DC to 3 kHz
- Safety rating: CAT III 600 V



## i410-KIT AC/DC Current Clamp and Carry Case Kit

This special-value kit for electrical professionals adds AC and DC current measurement capabilities to a digital multimeter. A roomy carrying case holds a meter and the current clamp plus test leads, probes and manuals. Kit includes:

- i410 AC/DC Current Clamp
- C116 Soft Carrying Case



## i1010 AC/DC Current Clamp

This clamp measures both AC and DC currents with a large-jaw, battery-powered Hall-effect probe that gives access to difficult-to-reach areas. It is compatible with most Fluke multimeters and any other devices that measure AC and DC current and accept shrouded 4 mm banana plugs.

- On/Off LED indicator
- AC current range: 1 A to 600 A AC
- DC current range: 0.5 A to 1000 A DC
- Frequency range: DC to 10 kHz
- Safety rating: CAT III 600 V RMS



## i1010-Kit AC/DC Current Clamp and Carry Case Kit

This special-value kit for electrical professional adds AC and DC current measurement capabilities to a digital multimeter. A roomy carrying case holds a meter and the current clamp plus test leads, probes and manuals. Kit includes:

- i1010 AC/DC Current Clamp
- C116 Soft Carrying Case



## i30 AC/DC Current Clamp

Based on Hall-effect technology, this battery-powered clamp measures both AC and DC current. It may be used in conjunction with multimeters, recorders and other suitable recording instruments for accurate non-intrusive current measurement.

- AC current range: 30 mA to 20 A RMS
- DC current range: 30 mA to 30 A
- Frequency range: DC to 20 kHz (-0.5 dB)
- Safety rating: CAT III 300 V



## i30s AC/DC Current Clamp

Based on Hall effect technology, this battery-powered clamp measures both AC and DC current. It may be used with ScopeMeter® and other suitable recording instruments for accurate non-intrusive current measurement.

- AC current range: 30 mA to 20 A RMS
- DC current range: 30 mA to 30 A
- Frequency range: DC to 100 kHz
- Safety rating: CAT III 300 V



## i310s AC/DC Current Clamp

Based on Hall-effect technology, this battery-powered clamp measures both AC and DC current. This clamp is especially useful for current measurements on inverters, switching power supplies, industrial controllers, automotive diagnostics, and other applications requiring current measurements and/or waveform analysis.

- AC current range: 0.1 A to 300 A
- DC current range: 0.1 A to 300 A
- Frequency range: DC to 20 kHz
- Safety rating: CAT III 300 V



## 80i-110s AC/DC Current Clamp

This clamp is compatible with ScopeMeters®, power harmonics analyzers, multimeters, and other voltage measurement devices that have BNC input connectors.

- AC current range: 0.1 A to 70 A
- DC current range: 0.1 A to 100 A
- Frequency range: DC to 100 kHz
- Optional PM9081/001 Dual Banana Plug Male to Female BNC Adapter is available for digital multimeters
- Safety rating: CAT II 600 V

## Did you know?

### Does your current probe read zero current when you clamp it around a power cord?

That's because the power cord has both the hot and neutral current carrying wire in it. If both wires are in the jaws of the clamp meter, the fields cancel each other out, and the current clamp will read nothing. You need to put just one current-carrying conductor in the jaw of the current clamp. If you don't have access to the separate wires within the cord, use a line splitter tool to avoid breaking the circuit.

# CASES, HOLSTERS & HANGERS

Fluke Tool	110/114/115/116/117	175/177/179	287/289	27 II/28 II	61	77 IV	83V/87V/88V	233	287/289	323/324/325	373/374/375/376/902	353/355	365	393 FC	1503/1507/1577/1587	9040/9062	430/173X/174X Series	120B Series	190 Series	51/52/53/54 II	561	570 Series	705/707	712/714/715/717	718	724/725/726	753/754	787B	789	922	971	T5/T6/T+/T+Pro	T90/T110/T130/T150		
<b>Soft Cases</b>																																			
C23	•				•	•		•		•																									
C25	•	•		•		•	•	•		•					•	•				•				•				•	•	•	•				
C33						•				•	•																	•					•		
C35	•	•		•		•	•	•							•								•	•	•			•	•	•					
C43								•				•						•						•	•										
C50	•																			•															
C75	For multiple test leads and accessories																																		
C90		•				•																											•		
C115	•	•		•		•	•	•							•			•		•			•	•	•	•		•	•						
C116	•	•	•			•	•	•							•			•		•			•	•	•	•		•	•						
C150						•				•	•																	•					•	•	
C280	•	•				•	•	•							•			•		•			•	•	•	•		•	•						
C345	For multiple meters, test leads and accessories																																		
C550	For multiple meters, test leads and accessories																																		
C781		•													•			•						•	•	•		•							
C789																		•						•	•	•		•							
<b>Hard Cases</b>																																			
C20				•					•																										
C100	•		•			•																						•							
C101	•	•	•	•		•	•	•	•	•	•				•	•				•			•	•	•	•	•	•	•			•		•	
C11XT	•	•	•							•																									
C37XT	•	•	•			•	•	•		•	•				•	•									•		•	•					•		
CXT80			•			•	•																				•	•							
CXT170	•	•				•									•					•				•			•	•							
CXT280		•																									•	•							
CXT1000	For multiple meters, accessories and other tools																																		
C800	•					•	•	•																•				•							
C1600	For multiple meters, accessories and other tools																																		
<b>Leather Cases</b>																																			
C510	•					•	•								•					•				•	•	•	•								
C520A						•																											•		
H80M																											•		•						
<b>Holster</b>																																			
H3										•	•																								
H5																																		•	
H6																					•														•
H15																																		T+/T+Pro	
<b>Hangers</b>																																			
ToolPak	•	•				•	•	•	•							•				•			715		•		•								

# Cases, Holsters and Hangers

## Soft Cases



### C25 Large Soft Case for DMMs

Zippered carrying case with padding and inside pocket for holding accessories.

- Made of polyester
- Dimensions (HxWxD):  
218 × 128 × 64 mm  
(8.6 × 5 × 2.5 in)



### C50 Meter Case

Zippered and padded case featuring an inside strap as well as a belt loop for convenient carrying. Also includes an inside pocket for holding accessories.

- Made of polyester
- Dimensions (HxWxD):  
192 × 90 × 38 mm  
(7.56 × 3.5 × 1.5 in)



### C116 Soft Carrying Case

Provides adjustable padded space with a moveable Velcro™ divider.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
240 × 230 × 65 mm  
(9.4 × 9 × 2.5 in)



### C33 Soft Carrying Case

Zippered carrying case with durable vinyl exterior and belt loop. Inner pocket stores test leads and small accessories.

- Made of polyester
- Dimensions (HxWxD):  
280 × 115 × 55 mm  
(11 × 3.6 × 2 in)



### C60 Accessory Case

The Fluke C60 is a soft case compatible with many Fluke test tools including: T6 and T5 Series, T+/T+PRO, 110 Series, 170 Series.

- Made of polyester
- Dimensions (HxWxD):  
379 × 206 × 79 mm  
(14.9 × 8.1 × 3.1 in)



### C150 Soft Carrying Case

Zippered carrying case with inner pocket for storing test leads and small accessories.

- High quality 1000D fabric
- Dimensions (HxWxD):  
298 × 114 × 56 mm  
(11.7 × 4.5 × 2.2 in)



### C35 Soft Carrying Case

Case top opens laterally to allow use of test tool without removing it from the case and includes a Velcro™ strap to secure the tool.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
220 × 140 × 65 mm  
(8.6 × 5.5 × 2.5 in)



### C75 Accessory Case

Zippered carrying case designed for carrying small accessories. Includes two inside pockets.

- Made of polyester
- Dimensions (HxWxD):  
179 × 103 × 26 mm  
(7 × 4 × 1 in)



### C280 Soft Case

Designed especially for larger format test tools. Includes detachable, extendable shoulder strap and an inner front pocket with closure and dual pouch pockets for test tools and accessories.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
230 × 185 × 65 mm  
(9 × 7.3 × 2.5 in)



### C43 Soft Carrying Case

Zippered carrying case includes inner front pocket with closure and two pockets to store test leads or small accessories.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
318 × 230 × 90 mm  
(12.5 × 7.5 × 3.5 in)



### C115 Soft Carrying Case

Includes two padded pockets for protection of two test tools, and a pouch for test leads and other accessories.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
240 × 205 × 75 mm  
(9.4 × 8 × 3 in)



### C345 Soft Case

The perfect case for carrying a wide range of Fluke handheld test tools and accessories. Includes an elastic accessory strap and mesh accessory retainer as well as an outer pouch, outer zipper pocket and two slash pockets for convenient accessory storage.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
360 × 200 × 240 mm  
(14.2 × 7.8 × 9.4 in)

# Cases, Holsters and Hangers



### Pack30 Professional Tool Backpack

- Lightweight - take the load off your back
- Rugged, waterproof bottom base protects your tools and keeps them upright
- Over 30 pockets in six main storage compartments



### C550 Tool Bag

Rugged, weather-resistant tool bag, features a large 25 pocket storage compartment and steel-reinforced frame.

- Dimensions (HxWxD):  
333 × 513 × 231 mm  
(13.1 × 20.2 × 9.1 in)



### TB25 Tool Bucket Organizer Bag

Tool bucket with a 5.2-gallon capacity, hard exterior shell, and plastic waterproof base

- 19 interior and 9 exterior pockets
- Dimensions (HxWxD):  
425 × 305 × 330 mm  
(16.7 × 12 × 13 in)



### C570 Soft Case

Designed specifically for the Fluke 560 and 570 Series Infrared Thermometers

- Dimensions (HxWxD):  
240 × 89 to 170 × 56 mm  
(9.4 × 3.5 to 6.7 × 2.2 in)



### C195 Soft Carry Case

- Zippered with multiple storage compartments & shoulder strap
- Dimensions (HxWxD):  
513 × 331 × 231 mm (16.7 × 12 × 13 in)



### C125/C781 Meter Case

Zippered case, designed for carrying a meter as well as a detachable external pouch for holding test leads.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
269 × 141 × 90 mm (10.6 × 5.5 × 3.5 in)



### C789 Meter and Accessory Case

Large carrying case with three compartments, removable handle, and shoulder strap. Holds a meter and multiple accessories.

- Made of durable polyester 600D
- Dimensions (HxWxD):  
308 × 256 × 77 mm  
(12.1 × 10 × 3 in)



### C799 Soft Field Case

For use with Fluke 750 Series Documenting Process Calibrators

- Allows instrument to be operated inside case with clear front protecting keyboard
- Dimensions (HxWxD):  
305 × 229 × 165 mm (12 × 9 × 6.5 in)



### C101 Hard Case

Tough polypropylene case with configurable diced foam interior to store and protect tools and accessories.

- Exterior dimensions (HxWxD):  
305 × 360 × 105 mm  
(12 × 14.2 × 4.1 in)

## Hard Cases



### C290 Hard Shell Protective Carry Case

For use with Fluke 190 Series II ScopeMeters®

- Dimensions (HxWxD):  
378 × 487 × 147 mm  
(14.88 × 19.17 × 5.78 in)



### C1600 Gear Box

A rugged, molded plastic case with a deep interior and lift-out tray.

- Includes five hook and loop straps to wrap cords and test leads
- Dimensions (HxWxD):  
260 × 390 × 200 mm  
(10.2 × 15.3 × 7.8 in)



### C11XT EVA Foam Hard Case

Includes a large pocket on one side for multiple accessories and a mesh pocket on the other side for one test tool.

- For use with 11x and 17x multimeters, and 32x clamp meters
- Dimensions (HxWxD):  
240 × 155 × 105 mm  
(9.4 × 6.1 × 4.1 in)



### C37XT EVA Foam Hard Case

Features a divider with elastic straps to hold one test tool, with two pockets and straps for accessories. Also includes space to secure an iFlex™ probe.

- Dimensions (HxWxD):  
397 × 346 × 122 mm  
(15.6 × 13.6 × 4.8 in)



### CXT Extreme Case Series

- CXT1000: for multiple meters, accessories and other test tools (Dimensions (HxWxD):  
343 mm × 465 mm × 178 mm
- CXT1000 features a diced foam interior for custom storage configuration
- Unbreakable, watertight, airtight, dust proof, chemical resistant and corrosion proof
- CXT80: for use with 87V, 80 Series, 187/189, 27 II/28 II series
- CXT170: for use with 170 Series, 114/115/116/117, 77 III, and 77 IV
- CXT280: for use with 287 or 289
- Dimensions (HxWxD):  
279 × 318 × 127 mm  
(11 × 12.5 × 5 in)

## Leather Cases



### C510 Leather Meter Case

Rugged leather case features a large belt loop and a top flap to secure the tool. Made of top-grain cowhide with heavy-duty stitching and reinforced rivets.

- Dimensions (HxWxD):  
287 × 179 × 106 mm  
(11.3 × 7 × 4.2 in)

# Holsters, Hangers and Light Kits

## Holsters



### H5 Electrical Tester Holster

Rugged fabric holster designed to hold Fluke T3 and T5 Electrical Testers. It features a built-in belt loop and flap for test lead storage.

- Dimensions (HxWxD):  
192 × 90 × 38 mm (7.5 × 3.5 × 1.5 in)



### H6 Infrared Thermometer Holster

Durable nylon construction with Velcro™ closures provides quick access and protection for infrared thermometers.

- Dimensions (HxWxD):  
302 × 178 × 57 mm (11.8 × 7 × 2.2 in)



### HT6 Holster

For use with models T6-600 and T6-1000

- Flap for test lead storage and built-in belt loop



### H15 Electrical Tester Holster

Rugged fabric holster designed to hold Fluke T90, T110, T130 and T150 Two-Pole Testers.

- High quality 1000D fabric
- Dimensions (HxWxD):  
279 × 92 × 51 mm (11 × 3.6 × 2 in)



### H80M Protective Holster with Magnetic Hanging Strap

Convenient snap-on holster with a magnetic hanging system enables hands-free work while protecting digital multimeters or calibration tools.

- Includes a hanging magnet, general purpose hanger, and hook/loop straps
- Dimensions (HxWxD):  
190 × 95 × 43 mm (7.5 × 3.7 × 1.7 in)

## Hangers



### TPAK ToolPak™ Magnetic Meter Hanger

Hang your meter in a variety of ways for convenient hands-free operation.

Attaches to the back of many Fluke meters, including 110, 170, 180, 280 Series, 83V and 87V DMMs, 724, 725 and 789 Process Calibrators, 70 Series III DMMs, 1503, 1507, 1577 and 1587 FC Insulation Multimeters and 50 Series II Digital Thermometers.

## Lights



### L200 Probe Light

Small, rugged light that easily attaches to any Fluke test probe, illuminates the contact area and frees hands for work.

- Bright white LED with 120 hours of battery life
- Two 3 V watch batteries included



### L205 Mini Hat Light

Rugged, high-intensity Xenon work light with pre-focused optical-quality reflector attaches to a baseball cap to allow hands-free work.

- Includes waterproof ABS case that won't crack or chip
- Two AAA batteries included



### L206 Deluxe LED Hat Light

Attach this water-resistant light to a hard hat, a baseball hat, or even a panel door for hands-free bright light where needed. Includes a 360° rotating clip, special hard-hat attachment, and neck lanyard.

(Hat not included).

- Three LEDs with 40-hour battery life
- Three AAA battery included



### L210 Probe Light Kit

Two probe extenders 20 cm fit modular test probes and keep hands away from live circuits. Ultra-bright white LED provides 120 hours of battery life. Kit includes:

- L200 Probe Light
- SureGrip™ test probe extenders
- Two 3 V watch batteries included
- Probe extenders safety rating: CAT III 1000 V, 10 A



### L211 Probe Light Kit

This special-value combo pairs the new L200 Probe Light with one of the most popular test leads by Fluke and a handy carrying case. Probe light attaches to any Fluke test probe to free both hands for work. Kit includes:

- L200 Probe Light
- TL71 Premium Test Lead Set
- C75 Accessory Case



### L215 SureGrip™ Kit with Probe Light and Probe Extender

Kit includes:

- L200 Probe Light
- SureGrip™ Test Probe Extenders, 20 cm
- TP220 SureGrip™ Industrial Test Probes
- TL224 SureGrip™ Insulated Test Leads
- Foldable pouch with six pockets and hook & loop closure
- Safety rating:
  - TP220: CAT II 1000 V, 10 A. (CAT III 1000 V, CAT IV 600 V with protective cap)
  - TL224: CAT III 1000 V, CAT IV 600 V, 10 A
  - Probe extenders: CAT III 1000 V, 10 A

# OTHER ACCESSORIES

## High Frequency



### 85RF High Frequency Probe

Converts a DC voltmeter with an input impedance of 10 megohms into a high frequency (100 kHz to 500 MHz) RF voltmeter.

- Voltage range: 0.25 V to 3 V AC RMS
- Maximum input: 30 V RMS, 200 V DC
- AC to DC ratio: 1:1
- Ratio accuracy at 25 MHz and loaded with 10 MΩ

## Fiber Optics



### FOM Fiber Optic Meter

Allows testing and maintenance of fiber optic cables without buying a new meter. It plugs directly into any digital multimeter with mV DC function and a 10 MΩ input impedance to quickly and accurately verify fiber optic cable system loss.

- Wavelengths: 1550, 1300, 850 & nm
- Light sources sold separately



### FOS-850 and FOS-850/1300 Fiber Optic Light Source

Both of these fiber optics accessories are designed to offer a variety of light sources for testing different cable lengths.

- Wavelengths:  
FOS-850: 850 nm;  
FOS-850/1300: 850 and 1300 nm

## Miscellaneous



### IR189USB USB Cable Adapter

Included with FVFSC2 and FVF-Basic software.

- Small adapter to connect the cable to the 189, 287, 289, 1653B or the 1550C is included



### SV225 Stray Voltage Adapter

Stray voltage can appear in electrical installations, due to the capacity between wires. This may result in erroneous readings on high impedance meters. The SV225 solves this without compromising safety.

- On energized wires, the meter will indicate the real voltage
- On non-energized circuits the meter will read close to zero (even if there are stray voltages)
- Can be used on all meters with standard 19mm (0.75 in) input spacing
- Safety rating: CAT III 1000 V, CAT IV 600 V

**Note:** This adapter should not be used on low-voltage control circuits or where the circuit under test could be adversely-affected by this low impedance load. The adapter is designed to handle continuously-applied power system voltages without damage. However, this adapter is intended to be used intermittently to determine whether a circuit is energized.

## Fluke Connect™



### ir3000 FC Connector for Fluke Connect™

- Get all the benefits of the Fluke Connect™ app, and be on the same page, even while in different places
- Wirelessly share measurements with your team—anywhere, anytime
- Connect the Fluke 289/287 Multimeters, Fluke 1550C/1555 Insulation Testers and Fluke 789 ProcessMeter™ with the ir3000 FC



### PC3000 Wireless PC Adapter

- Fluke PC3000 FC Adapter and software
- Must be connected to the USB port in order to enable communication between FC modules and software.
- SW3000 supports up to two PC3000 FC Adapters

# AUTOMOTIVE ACCESSORIES



## BP880 BNC to Female Double Stacking Banana Plug

Converts a BNC scope lead to a dual banana plug for connection to a digital multimeter to provide hands-free testing in controlled voltage environments.

- Voltage range: up to 500 V AC RMS
- 4 mm banana plug is nickel-plated, beryllium copper for low contact resistance



## BP881 BNC to Male Double Stacking Banana

Easily connects a digital multimeter to a BNC patch cord to provide hands-free testing in controlled voltage environments. This adapter connects accessories that have a male BNC output.

- Voltage range: up to 500 V AC RMS
- 4 mm banana plug is nickel-plated, beryllium copper for low contact resistance



## TL28A Automotive Test Lead Set

Silicone-insulated test leads (red, black) with large, solid copper alligator clips with 12.7 mm opening and serrated teeth.

- 1.5 m test leads
- Safety rating: 30 V, 10 A



## TL82 Automotive Pin and Socket Adapter Set

This collection of male and female adapters provides firm connection to pin-and-socket connectors. Rated to 60 V DC. Set includes:

- Two retractable shrouded test leads (red, black) 1.2 m
- Eight pin-and-socket adapters with flexible tips (red, black):
  - Size 22 contact 0.76 mm, rated 5 A
  - Size 20 contact 1.02 mm, rated 7.5 A
  - Size 16 contact 1.60 mm, rated 13 A
  - Size 12 contact 2.36 mm, rated 23 A



## TLK281 SureGrip™ Automotive Test Lead Kit

Sharp stainless steel probes can be used to contact the wire conductor or pinpoint tests on a circuit or relay while the large-jaw alligator clips ensure a good ground on the engine or connection to battery terminals. Rated to 60 V DC. Kit includes:

- TP81 Insulation Piercing Clip Set
- TL224 SureGrip™ Insulated Test Leads
- TP220 SureGrip™ Industrial Test Probes
- AC220 SureGrip™ Alligator Clips
- AC285 SureGrip™ Alligator Clips
- Soft case



## TLK282 SureGrip™ Deluxe Automotive Test Lead Kit

This kit includes everything in the TLK281 Kit plus a few extras. The back probe pins slide past weather-pack connectors on fuel injectors, TPS, and MAP sensors. A hook probe with plunger actuation allows quick connection to pins or exposed conductors. Rated to 60 V DC. Kit includes:

- TP81 Insulation Piercing Clip Set
- TP40 Automotive Back Probe Pins (five)
- TL224 SureGrip™ Insulated Test Leads
- TP220 SureGrip™ Industrial Test Probes
- AC220 SureGrip™ Alligator Clips
- AC285 SureGrip™ Alligator Clips
- AC280 SureGrip™ Hook Clips
- Soft Case



## TP40 Automotive Back Probe Pins

Flexible and formable 31-75 mm pins provide an easy connection past weather-pack seals to connector conductors. These five pins are a must-have for fuel injectors, TPS, and MAP sensors, as well as for any under-hood or under-vehicle connector with weather-pack seals.

- 4 mm banana jack accepts digital multimeter and banana jack leads
- Easily connects to modular leads
- Rated to 60 V DC



## TP81/TP82 Insulation Piercing Clip Set

Two stainless steel probes (red, black) pierce insulation on 14, 16 and 18 gauge wire. Needle depth can be controlled to minimise insulation damage. Essential for use under hood or under dash. Can be used on fuel injectors or sensors while providing complete insulation to grounding. Probe connects to a banana jack that accepts all digital multimeter and banana jack leads (such as the TL224 SureGrip™ Insulated Test Leads).

- TP81 has non-rotating 4 mm banana jack to prevent leads from tangling
- Rated to 60 V DC
- TP82 is for use with test leads with 2 mm probes



## TP88 Rigid Back Probe Pins

Better than a test probe alone, these rigid back probe pins easily pass between a weather-pack seal and wire. A sharp point ensures good contact to the electrical connector, and insulation protects the pin from shorting to other wires. Rated to 60 V DC

- Slides onto 2 mm test probes
- Probe length: 51 mm



## RPM80 Inductive Pick-Up/External Trigger

- Provides RPM measurement capability when clipped on spark plug wire
- For use with Fluke 88 Series and 78 Series Digital Multimeters.

# PORTABLE OSCILLOSCOPE ACCESSORIES

Compatibility Chart	120B Series	190 Series II	190 Series III
<b>Voltage Probes</b>			
VPS41 Voltage Probe Set 10:1, 40 MHz, Bl (Black)	•		
VPS410-II-X Ind. Voltage Probe 10:1, 500 MHz, × = B (Blue), G (Grey), R (Red) or V (Green)		•	•
VPS421-X High working voltage ruggedized probe set, 100:1, 150 MHz, x= B (Blue), G (Grey), R (Red) or V (Green)		•	•
VPS210-X Voltage Probes, 200 MHz, R (Red), G (Grey)			
STL120-IV Shielded Test Lead Set 1:1, B (Blue) & R (Red)	•		
<b>Probe Accessories</b>			
AS400 Probe Accessory Extension Set 1		•	•
RS400 Probe Accessory Replacement Set for VPS400 Series Voltage Probes		•	•
RS500 Probe Accessory Replacement Set for VPS510 Series Voltage Probes		•	•
<b>AC Current Clamps</b>			
i3000s AC Current Clamp	•*	•	•
i3000s Flex-24/36 AC Current Clamp, 610 mm (24 in. and 36 in.)	•*	•	•
i1000s AC Current Probe	•*	•	•
i400s AC Current Clamp	•*	•	•
i200s AC Current Clamp	•*	•	•
i5s AC Current Clamp	•*	•	•
<b>AC/DC Current Clamps</b>			
80i-110s AC/DC Current Clamp	•*	•	•
i1010 AC/DC Current Clamp	•	•	•
i410 AC/DC Current Clamp	•	•	•
i30s AC/DC Current Clamp	•*	•	•
<b>Automotive</b>			
SCC128 Automotive Troubleshooting Kit for 120 Series	•		
SCC198 Automotive Troubleshooting Kit for 190 Series			
SCC298 Automotive Troubleshooting Kit for Fluke 190 Series II		•	•
<b>Test Lead Accessories</b>			
TL175 TwistGuard™ Test Leads	•	•	•
<b>Cables and Adapters</b>			
PM9091 50 Ω Coaxial BNC Cable Set (3 × 1.5 m)		•	•
PM9092 50 Ω Coaxial BNC Cable Set (3 × 0.5 m),		•	•
PM9093 Male BNC to Dual Female BNC Adapter, CAT III 600 V		•	•
PM9081 Dual Banana Plug (Male) to Female BNC Adapter, CAT III 600 V		•	•
PM9082 Dual Banana Jack (Female) to Male BNC Adapter, CAT III 600 V		•	•
BB120-II Shielded Banana to Female BNC Adapter*	•		
TRM50 Coaxial Feed-through BNC Male to BNC Female Cable Terminator		•	•
<b>Miscellaneous</b>			
700-IV Current Shunt			
EBC290 External Battery Charger for BP290 and BP291	•	•	•
BC190/830 Mains Adapter/Battery Charger		•	•
BC430/820 Mains Adapter/Battery Charger	•		
BP190 Rechargeable NiMH Battery Pack		•	•
BP290 Li-ion Battery Pack, 2400 mAh	•	•	•
BP291 Li-ion Battery Pack, 4800 mAh		•	•
OC4USB USB Interface Cable	•	•	•
BHT190 Break-Out Adapters for Industrial Bus Connections	125B only		
HH290 Hanging Hook for ScopeMeter® 190-Series II		•	•

\* "s" version clamps require BB120-II Adapter when used with the Fluke 120B Series



# Portable Oscilloscope Accessories



## VPS421-X High Working Voltage Ruggedized Probe

- Set includes: VPS421-X 100:1, 150MHz
- X = Red, Blue, Grey or Green
- 100:1 Voltage Probe, with safety shrouded 4 mm tip 1 red / black
- Hook Clip for 4 mm shrouded Probe Tip (black)
- Reference Lead with 4 mm Banana Plug (black)
- Alligator Clip for 4 mm Banana Plug (2 black)
- Test Probe for 4 mm Banana Plug (black)



## AS400 Probe Accessory Extension Set

For VPS400 Series Probes

- CAT III 1000 V/CAT IV 600 V
- Reference lead w/ 4 mm plug (Blk) 60 cm
- Reference lead with hook clip (Blk) 22 cm
- Large jaw probe clip (black)
- CAT II 1000 V
- 2 mm test probe for probe tip (1×, black)
- 4 mm test probe for probe tip (1×, black)



## RS400 Probe Replacement Set

For VPS400 Series Probes and VPS210 Series Probes

- CAT III 1000 V/CAT IV 600 V
- 1× Probe hook clip (black)
- Ground lead w/ mini alligator clip
- 2× Insulation sleeve (black)
- 30 V
- 2× Ground spring (black)



## RS500 Probe Replacement Set

For VPS510 Series Probes

- CAT II 300 V
- 1× hook clip (black)
- 1× ground lead with mini alligator clip
- 2× insulation sleeves for probe's ground contact (black)
- 1× BNC to probe tip adapter (black)
- 30 V
- 2× ground browsers (black)
- 1× insulated mini screwdriver, for probe adjustment purposes



## TP920 Test Probe Adapter Set

Suited for STL120 Test Leads (STL120-III, not compatible), TL71, TL75 & TL76 Test Leads

- Rated for 3 A max



## PM9091 Set of 3× Coaxial Cables with BNC Connectors

- Length: 1.5 m each
- Impedance: 50 Ω
- Color: 2× Red, 2× Black, 2× Grey
- Max signal voltage: 300 Vrms
- Max voltage to ground: CAT III 600 V per IEC 61010-031



## PM9092 Set of Coaxial Cables with BNC Connectors

- Length: 0.5 m each
- Impedance: 50 Ω
- Color: 1× Red, 1× Black, 1× Grey
- Max signal voltage: 300 V
- Max voltage to ground: CAT III 600 V per IEC 61010-031



## PM9093 Adapter BNC (Male) to Dual BNC (Female) in T model (6)

- Color: 2× Black
- Max signal voltage: CAT III 300 V per IEC 61010-031
- Max voltage to ground: CAT III 600 V per IEC 61010-031



## PM9081 Adapter BNC (Female) to Dual Banana Jack

- Color: 2× Red, 2× Black
- Max signal voltage: CAT III 600 Vrms per IEC 61010-031
- Max voltage to ground: CAT III 600 V / CAT II 1000 V per IEC/EN61010



## PM9082 Adapter BNC (Male) to Dual Banana Jack

- Color: 2× red, 2× black
- Max signal voltage: CAT III 600 V per IEC 61010-031
- Max voltage to ground: CAT III 600 V / CAT II 1000 V per IEC/EN61010



## HC120 Hook Clips

- Color: 1× red, 1× grey
- Max voltage: CAT III 600 V per IEC 61010-031
- Nickel plated steel



## BB120-II Adapter BNC (Female) to Shielded Banana Jack

- Set of 2
- Max signal voltage: CAT III 300 V per IEC 61010-031
- Max voltage to ground: CAT III 600 V per IEC 61010-031



## TRM50 Coaxial Feed-through BNC (Male) to BNC (female) Cable Terminator

- Set of 2
- Impedance: 50 Ω
- Max voltage over ground: CAT III 1000 V
- Max power 1 W



## BHT190 Bus Health Test Break-out Adapter Set

- Board with M12 connectors (male to female, 5 pins)
- DB-9 connectors (male to female, 9 pins + shield)
- RJ-45 connector, with short patch cable providing male to female interconnection (8 pins)



## EBC290 External Charger

For Fluke 120B and 190 Series II and Series III ScopeMeter® Oscilloscope

- Charging time (BP291): five hours, giving an operating time of up to seven hours
- DC input voltage: 15 V to 23 V, 714 mA nom. (DC input from BC190: 17.8 V / 0.84 A max)
- Power supply not included

# POWER QUALITY ACCESSORIES

Fluke Model Number	i3000 Flex 4PK	i400s	i430-FLEXI-TF-II	i5sPQ3	3210-PR -TF-II
<b>Description</b>	4 phase 3000 A Flexible current clamp set	Single phase 400 A current clamp (4 required)	4 phase 3000 A Flexible current clamp set	3 phase 5 A Current clamp set	1000 A Single phase flexible current clamp
<b>Fluke 1750</b>					•
<b>Fluke 43X -II</b>	•	•	•	•	
<b>Nominal Current Range(s)</b>	30 A 300 A 3000 A	40 A 400 A	3000 A	5 A	
<b>Cont. AC Current Range</b>	1 A ... 30 A 1 A ... 300 A 1 A ... 2400 A	0.5 A ... 40 A 5 A ... 400 A	30 A ... 3000 A	0.01 A ... 6 A	0.5 A ... 1000 A
<b>Highest Current</b>	4000 A	1000 A	100 kA	70 A	1000 A
<b>Lowest Measurable Current</b>	1 A	0.5 A	30 A	10 mA	0.5 A
<b>Basic Accuracy (48 ... 65 Hz)<sup>1)</sup></b>	2% + 2 A	2% + 0.15 A	1%	1%	± 1% of reading
<b>Usable Frequency</b>	10 Hz ... 100 kHz	45 Hz ... 3 kHz	10 Hz ... 7 kHz	40 Hz ... 5 kHz	40 Hz ... 5 kHz
<b>Flex Head Length</b>		Clamp opening: 32 mm	61 cm	Clamp opening: 15 mm	61 cm
<b>Output Level(s)</b>	10 mV/A 1 mV/A 0.1 mV/A	10 mV/A 1 mV/A	0.08 mV/A @50 Hz	400 mV/A	2 mV/A
<b>Output Cable (m)</b>	2.1	2.5	2.5	2.5	3
<b>Safety Rating</b>	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 1000 V CAT IV 600 V

<sup>1)</sup> Basic accuracy: % reading plus floorspec.  
n/a = not applicable

Fluke Model Number	Fluke i17XX-Flex 1500A 12 IN	Fluke i17XX-Flex 3000A 24 IN	Fluke i17XX-Flex 6000A 36 IN	Fluke i17XX i40s-EL Clamp-On Current Transformer	Fluke i17XX-Flex 1500A 12 IN	Fluke i17XX-Flex 3000A 24 IN	Fluke i17XX-Flex 6000A 36 IN
<b>Description</b>	1500 A Single phase flexible current clamp IP50	3000 A Single phase flexible current clamp IP50	6000 A Single phase flexible current clamp IP50	4/40 A Current clamp (3 required)	1500 A Single phase flexible current clamp IP65	3000 A Single phase flexible current clamp IP65	6000 A Single phase flexible current clamp IP65
<b>Fluke 1742/46/48</b>				•	•	•	•
<b>Fluke 1732/34/36/38</b>	•	•	•	•			
<b>Nominal Current Range(s)</b>	1 A to 150 A, 10 A to 1500 A	3 A to 300 A, 30 A to 3000 A	6 A to 600 A, 60 A to 6000 A	40 mA to 4 A, 0.4 A to 40 A	1 A to 150 A, 10 A to 1500 A	3 A to 300 A, 30 A to 3000 A	6 A to 600 A, 60 A to 6000 A
<b>Cont. AC Current Range</b>	1 A ... 150 A 10 A to 1500 A	1 A ... 300 A 10 A ... 3000 A	1 A ... 600 A 10 A ... 6000 A	1 A ... 150 A 10 A ... 1500 A	1 A ... 150 A 10 A to 1500 A	1 A ... 300 A 10 A ... 3000 A	1 A ... 600 A 10 A ... 6000 A
<b>Highest Current</b>	1500 A	3000 A	6000 A	200 A	1500 A	3000 A	6000 A
<b>Lowest Measurable Current</b>	1 A	3 A	6 A	0.04 A	1 A	3 A	6 A
<b>Basic Accuracy (48 to 65 Hz)<sup>1)</sup></b>	0.70%	0.70%	0.70%	0.50%	0.70%	0.70%	0.70%
<b>Usable Frequency</b>	40 Hz to 5 kHz	40 Hz to 5 kHz	40 Hz to 5 kHz	40 Hz to 5 kHz	40 Hz to 5 kHz	40 Hz to 5 kHz	40 Hz to 5 kHz
<b>Flex Head Length</b>	30.5 cm (12 in)	61 cm (24 in)	122 cm (48 in)	n/a	30.5 cm (12 in)	61 cm (24 in)	122 cm (48 in)
<b>Output Level(s)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Output Cable (m)</b>	2	2	2	2	2	2	2
<b>Safety Rating</b>	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

# Power Quality Accessories

## Fluke 430 Series-II



### i430-FLEXI-TF-II/4PK 6000 A Thin Flexible Current Probe

- 6000 A current range
- 61 cm (24 in) length
- Available in single and 4 pack



### i400s AC Current Clamp

- 400 A AC current range
- 32 mm (1.25 in) jaw size
- Optional PM9081/001 Dual Banana Plug Male to Female BNC Adapter is available for digital multimeters



### I5SPQ3 5 A Current Clamp, 3 pack

- 5 A AC Current Clamp for 430 Series-II
- 15 mm (0.6 in) jaw size



### TLS430 Test Lead and Alligator Clip Set

- Test lead replacement set for the 430 Series-II
- Set includes five test leads and five alligator clips (4 black, 1 green)



### WC100 Color Coding Clips and Regional Decals

Cable markers for 3-phase +N leads



### C1740 SOFT CASE

Soft Case with compartments and shoulder strap for 430 Series II



### C437-II Hard Case

Black waterproof case with wheels



### BP290 Battery

430 Series-II Replacement Battery Pack



### BP291 Battery

430 Series-II Double Capacity Replacement Battery Pack



### BC430/820 Battery Charger

Battery Charger for 430 Series II

## Fluke 1730 & 1740 Series



### I17XX-FLEX iFlex™ Current Clamps

- iFlex™ probes connect directly to the 173X Energy or Power Logger, displaying current measurements without error, prone scaling factors
- Fluke 17XX iFlex™ cables are available in 30.5, 61, and 91.5 cm (12, 24, and 36 in) models
- Available to order in single, three, or four pack



### I17XX-FLEX IP65 Current Probes

IP65 rating is obtained when connected to the 1740 Series only.

- 1.5 kA 61 cm (24 in) length
- 3 kA 61 cm (24 in) length
- 6 kA 122 cm (48 in) length
- Available in single, 3 and 4 packs



### 3PHVL Voltage Cable Assembly

- Voltage Measurement Lead Set for 1730 & 1740
- Flat, four wire cable



### 17XX i40s-EL Clamp-on Current Transformers

- Suitable for making measurements up to 40 A, and also measures accurately on 1 A and 5 A secondary current transformers
- The i40s-EL jaw is capable of being clamped on current conductors up to 15mm in diameter



### IP65 VOLT CONN

IP65 rated Voltage Connector for wet measurement environments.

- Six pole connector with six leads for connection of voltage and instrument power.



### MP1-Magnet Probe 1

Magnetic probe tips for voltage test leads with 4 mm banana connectors.



### MP1-3R/1B Magnetic Voltage Probes

3 Red/1 Black Magnet Probes for 4 mm Banana



### I17XX-FLEX5M-EXT

Fluke 17XX IFLEXI Extension Cable 5 m



### FLUKE-17XX-TL 0.2M Test Lead Set

- CAT III 1000 V, Non-Stack Conn;
- Available in: 0.2 m; Red/Blk



### Fluke 1730-HANGER STRAP

Two piece hanging kit for the Fluke 173X Energy or Power Logger.



### FLUKE-174X-HANGER

Hanger Kit includes strap and magnetic hanger used with 174X Series.

# Power Quality Accessories



**C17XX Soft Case**  
Soft Case for 173X/174X Series

*Image Not Available*

**FLUKE-174X GPS-REC**  
GPS Receiver Antenna



**F17XX CABLE MARKERS**  
Cable Marker Kit for 173X, 174X and 177x Series



**BP1730-BATTERY**  
173X & 174X Series Replacement Battery Pack



**1730-CABLE Auxiliary Input Cable**

- Input -10 V to +10 V DC
- Binder to BNC connecting cable



**17XX AUX**  
Auxiliary input adapter for 1740 Series



**Unit Upgrade Kits**  
Upgrades your select 17XX Fluke unit to the specified higher end unit and includes accessories that would normally come with the upgraded model.

- 1732 to 1734 Upgrade Kit
- 1736 to 1738 Upgrade Kit
- 1742 to 1746 Upgrade Kit
- 1742 to 1748 Upgrade Kit
- 1746 to 1748 Upgrade Kit

## Fluke 1750/ET



**3210-PR-TF-II 1000 A Thin FLEXI 61 cm (24 in)**  
1000 A AC Current Range

- 61 cm (24 in) length, 20 cm (7.8 in) diameter



**3310-PR-TF-II 1000 A Thin FLEXI 61 cm (24 in)**  
5000 A AC Current Range

- 61 cm (24 in) length, 20 cm (7.8 in) diameter



**3312-PR-TF-II 1000 A Thin FLEXI 122 cm (48in)**  
5000 A AC Current Range

- 122 cm (48 in) length, 38 cm (15 in) diameter



**I5S-PR 1750, 5 A Current Clamp**  
5 A AC current range

- 15 mm (0.6 in) jaw size



**I40S-PR 1750, 40 A CURRENT CLAMP**  
40 A AC Current Range

- 15 mm (0.6 in) jaw size



**3140R AC CURRENT CLAMP**  
4000 A AC Current Range



**1750/CASE Transit Case**  
Rugged-hard water tight transit case with rollers



**TPS FLEX 18-TF-II Thin Flexible Current Probe**  
100 A/500 A AC current range

- 45 cm (17.7 in) length, 15 cm (5.9 in) diameter

**TPS FLEX 24-TF-II Thin Flexible Current Probe**  
200 A/1000 A AC current range

- 61 cm (24 in) length, 20 cm (7.8 in) diameter

**TPS FLEX 36-TF-II Thin Flexible Current Probe**  
3000 A/6000 A AC current range

- 91 cm (36 in) length, 29 cm (11.4 in) diameter



**TPS Clamp 10 A/1 A Clip-on Current Transformer**  
Three 15 mm (0.6 in) options available

- TPS Clamp 10 A/1 A Clip-on Current Transformer – 1 A/10 A AC
- TPS Clamp 200 A/20 A Clip-on Current Transformer – 20 A/200 A AC
- TPS Clamp 50 A/5 A Clip-on Current Transformer – 5 A/50 A AC

## Fluke NORMA 6000



**80I-2010S Current Clamp**  
Measure up to 2000 A AC and/or DC on large conductors with 0.8% accuracy

- 81.5 mm (3.2 in) jaw opening

**80I-2010S/3PK Current Clamp**  
3 pack. Measure up to 2000 A AC and/or DC on large conductors with 0.8% accuracy.

# VIBRATION AND ALIGNMENT

## Fluke 805 FC Vibration Meter



### 805ES External Sensor Assembly

- External vibration sensor that is ideal in situations where it is either difficult or impractical to use the onboard vibration sensor tip of the 805 Vibration Meter
- Low-profile 90-degree sensor body allows the sensor to get into tight spots
- Rugged, coiled cable minimizes dangling, while stretching to more than 2.1 m (7 ft) when needed
- Powerful "U" shaped magnet mount creates a firm connection to flat, or curved measurement surfaces

## Fluke 810 Vibration Tester



### 810QDC Quick Disconnect Cable

2.4 m (8 ft) quick-disconnect cable connects the triaxial vibration sensor



### 810SC-20 Sensor Cable

6.1 m (20 ft) cable connects the triaxial vibration sensor to the Fluke 810 Vibration Tester



### 810S Triaxial Vibration Sensor

Triaxial vibration sensor captures vibration data in all three primary axes simultaneously for faster, more accurate data collection



### 810SMM Sensor Magnetic Mounts

- High-power magnet attaches firmly to motors and machinery
- Parallel magnet tips engage both flat and cylindrical surfaces



### 810SMP Sensor Mounting Pads for Vibration Sensors (pack of 10)

10-pack of Sensor Mounting Pads provide standardized sensor attachment points on critical equipment.



### 810T Tachometer

- Noncontact tachometer for use with the Fluke 810 Vibration Tester; to measure the speed of motors; conveyor belts; and other moving and rotational systems
- Measures from 6 to 99999 rpm with accuracy to +/-0.05%
- Takes noncontact measurements using a laser beam that works at a distance of 1 to 100 cm for user safety
- Integral 50 cm cable connects the tachometer to the vibration tester for power and measurement data recording



### 810PAAC Power Adapter

AC power adapter with international plug set



### SBP810 Smart Battery Pack

Lithium-ion battery pack provides eight hours of runtime under normal operating conditions

## Fluke 830 Laser Alignment



### 830/MAGNET Compact Sensor/Prism Magnetic Mounting Bracket Set

- High-power magnets attach firmly to shaft couplings
- Narrow profile can mount on equipment with little clearance between the coupling and the machine housing
- Ideal for large-diameter couplings or for the simplest, most rapid set-ups



### 830/SHIMS Precision Alignment Shim Kit

- Stainless steel precut shims are more accurate and designed to speed up the alignment job, when even minutes of downtime count.
- Burr-free for higher accuracy in alignment
- Time-saving permanent thickness/dimension marking
- Reusable, corrosion-resistant high-quality stainless steel
- Two machine foot sizes and eight thicknesses that fit almost all machine feet

# PROCESS CALIBRATION ACCESSORIES



### 700PTPK2 Pneumatic Test Kit

- Combine with any Fluke 700G Series Gauge, 1000 psi (69 bar) or less, to make a complete pressure testing kit
- Generate pressure up to 600 psi, 40 bar with the 700PTP-1 Test Pump
- Connect the 700G Series Gauge directly to the included PTP-1 Hand Pump



### 700HTPK/2 Hydraulic Test Kit

- Combine with any Fluke-700G Series Gauge, 1000 psi (69 bar) range or greater, to make a complete pressure testing kit
- Generate pressure up to 10000 psi, 690 bar with the included 700HTP-2 Test Pump
- Connect the 700G Series Gauge directly to the HTP-2 Hand Pump



### 700LTP-1 Low Pressure Test Pump

- Hand-operated pressure pump designed to generate either vacuum to -13 psi / -0.90 bar or pressure to 100 psi / 6.9 bar
- Has two pressure ports with quick fit connectors
- For use with Fluke 750 Series Pressure Modules and Fluke 717 Pressure Calibrators



### 700PTP-1 Pneumatic Test Pump

A handheld pressure pump designed to generate either vacuum to -11.6 psi/-0.8 bar or pressure to 600 psi/40 bar



### 700HTP-2 Hydraulic Test Pump

- Generate pressure up to 10000 psi/700bar
- Use the Fluke 700PRV adjustable relief valves to limit pressure from 1360 psi to 5450 psi



### 71XTrap Liquid and Dirt Trap

- Works with pressure up to 500 psi
- Designed to work with the Fluke 718 and 719PRO



### 71X, Hose and Adapter

- Compatible with Fluke 717 and 718 Calibrators 100 psi and below
- Kit contains three translucent hoses (1 m long) and one 1/8 to 1/4 NPT female-female adapter



### 700ILF In-line Filter

- Can be used to isolate the calibrator from incidental contact with fluids
- Useful with the 718 Fluke Calibrator to help keep moisture or oils from contaminating the on-board pump



### 700HTH-1 Hydraulic Test Hose

- 10000 psi, 690 bar working pressure test hose



### 700PMP Pressure Pump

- Provides pressure up to 150 psi/1000 kPa
- Output fitting is 1/8 FNPT



### 720RTD RTD Probe

Fluke-720RTD Temperature Probe is for use with Fluke 721 Precision Pressure Calibrators and Fluke 719Pro Electric Pressure Calibrators

- 10 inch (254 mm) insertion depth with 1/4 inch (6.3 mm) diameter stainless steel sheath



### 720URTD Universal RTD Adapter

Fluke Universal RTD Adapter 720URTD for Fluke 721 Precision Pressure Calibrators and Fluke 719Pro Electric Pressure Calibrators



### Fluke-700TTH5K Premium Test Hose Kit

Easy to use premium pressure transmitter test hose kit for connection to 1/4" female metric/BSP

- 5000 psi rating
- Includes 6 mm (1/4 in) NPT connection for permanent mount to a calibrator or test pump



### Fluke-700TTH10K Premium Test Hose Kit

Easy to use premium pressure transmitter test hose kit for use with female M20 connections

- 6 mm (1/4 in) NPT
- Includes:
- One (1) 10000 psi rated, premium test hose
  - Premium, no tools required M20 adapter



### 700-IV Current Shunt

- Conversion factor: 10 mV = 1 mA
- Accuracy (% of input, one-year): 0.02%
- Input current: 0 mA to 55 mA
- Input resistance: 250 Ω nominal
- Output resistance: 10 Ω nominal



### 700PRV Pressure Relief Valve Kit

- Consists of a relief valve settable from 725 to 5800 PSI (50 to 200 bar) to be used with the 700HTP-1 Hydraulic Test Pump
- The 3 mm (1/8 in) NPT male thread to fit directly into the Fluke 700HTP-1 Pressure Pump



### BP7235 NiMH Battery Pack

- 7.2V 3500 mAh rechargeable NiMH battery pack
- Provides typical 16-hour battery life when used in 700 or 740 Calibrator
- Dimensions: 150 × 56 × 22 mm (5.9 × 2.2 × 0.8 in)
- Weight: 310 g (11 oz)



### BP7240 Li-Ion Battery Pack

- Battery pack for Fluke 75X Documenting Process Calibrators



# FUSE COMPATIBILITY



Models	P/N 803293 11A 1000V	P/N 943121 440 mA, 1000 V	P/N 2279339 315 mA 1000V	P/N 4016494 440 mA fuse assembly
107, 115, 117, 233	•			
175, 177, 179, 83V, 87V, 287, 289. 27 II, 28 II, 88V, 77 IV, 87V MAX	•	•		
3000 FC, 1577, 1587 FC BT508, BT510, BT521		•		
787, 787B, 789		• qty 2		
1503, 1507			•	
28 II Ex	•			•

# SOFTWARE

Take your Fluke tools even further with the ability to analyze, interrogate remotely, export and create in depth reports on your PC and smart phone via Fluke's extensive software and application library.

Fluke Product Group	Fluke Software	Compatible Fluke Tools	Availability
Industrial imagers and infrared cameras	Fluke Connect™ Desktop	PTi120 Pocket Infrared Camera TiS20+/20+MAX/TiS60+/TiS55+/TiS75+/TiS200/300+/400/401PRO/450/450PRO/480/480PRO/450 SF6, TiX501/580/620/640/660/1000 Infrared Cameras Fluke ii900/ii910 Acoustic Imager	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
	Fluke SmartView™	Fluke VT04/VT04A/VT02 Visual Infrared Thermometers TiS10/20/40/45/50/55/60/65/75 Ti200/300/400/450/450PRO/480/480PRO Ti450/SF6, TiX500/520/560/580/620/640/660/1000 Infrared Cameras	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
Fluke Connect™	Fluke Baseline	Ti300/300+/400/400+/450/401PRO/480/480PRO, TiX500/501/580/520/560 vInfrared Cameras	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
	Fluke SW3000FC	Fluke Connect™ Modules, 3000FC DMM, 902FC, 376FC/375FC/374FC <i>Must be used with PC3000FC USB dongle</i>	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
ScopeMeters™	FlukeView™ for ScopeMeter™	Fluke 190 Series II ScopeMeters™, Fluke 120 Series ScopeMeter™, Fluke 19xB/C Series, Fluke 2x5C Series,	Sold separately
	FlukeView™2 for ScopeMeters™ (Sold as SW90W)	Fluke 190 Series III ScopeMeters™ 120B Series ScopeMeters™ MDA-510/550/550-III Motor Drive Analyzer ScopeMeter™	Sold separately
Power quality tools	Energy Analyze Plus	Fluke 1748/1746/1742, Fluke 1738/1736/1734/1732, 1730 Power & Energy Loggers	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
	PowerLog 430-II	Fluke 438-II/437-II/435-II/434-II Power Quality Analyzers	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
	PowerLog Classic	Fluke 345, VR1710, 1735 and 435/434/433 Power Quality Analyzers	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
Battery testers	Power Analyzer Software	Norma 6000 Series	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
	Battery Management Software	Fluke BT521/BT5210/BT510 Battery Testers	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
Process calibration tools	DPC/TRACK2	Fluke 754/753 Documenting Process Calibrators	Sold separately
	709H/Track HART™ Communications Software	Fluke 709/H Precision Loop Calibrator with HART	Sold separately
	700G/Track	Fluke 700G Pressure Gauges (with Interface Cable)	Sold separately
Vibration and alignment	Viewer Software	Fluke 810 Vibration Tester	Free download via <a href="http://www.fluke.com">www.fluke.com</a>
General meters and testers	FlukeView™ Forms Basic FVF-SC5 (no cables included)	Software only, no cable (for all instruments listed below)	
	FlukeView™ Forms Basic FVF-BASIC (with USB/IR cable)	Fluke 289/287 Multimeters, 789/787B ProcessMeters™, 1555/1550B Insulation Resistance Testers, 180 Series Meters	
	FlukeView™ Forms plus Designer FVF-SC2 (with USB/IR cable)	Fluke 1664FC/1663/1662, 1654B/1653B/1653/1652C Multifunction Installation Testers, Fluke 55-II B/53-II B Thermometers	Sold separately
	FlukeView™ Forms plus Designer FVF-SC4 (with USB/Serial cable)	Fluke 8846A, 8845A, 8808A, 45 Bench Digital Multimeters	
	FlukeView™ Forms plus Designer FVF-UG	Software only upgrade, from FlukeView™ Forms Basic to FlukeView™ Forms plus Designer	
Solar data management	Fluke TruTest™ Solar Data Management and Reporting Software	Fluke SMFT-1000 Multifunction PV Tester and Performance Analyzer	Sold separately <a href="http://www.fluke.com">www.fluke.com</a>



# Combo Kits



# Multimeter Kits



### Fluke 279 FC/iFlex™ TRMS Thermal Multimeter Combo Kit

- 279 FC TRMS Thermal Multimeter
- 45.72 cm (18 in) iFlex™ Flexible Current Probe
- TL175 Test Leads
- Rechargeable Lithium-ion Battery and Charger
- Hanging Strap
- Soft Carrying Case



### Fluke 287/289 FlukeView™ Forms Combo Kit

- Fluke 287/289 True-RMS Electronics Logging Multimeter
- FlukeView™ Forms Software and Cable
- 80BK-A Thermocouple Probe
- TL224 Test Leads with 175 Modular Probe Tips
- AC175 Alligator Clips
- TL71 Probe Caps
- C280 Soft Case



### Fluke 287/289 FlukeView™ Forms Combo/ with IR Connector

- Fluke 287/289 True-RMS Industrial Logging Multimeter
- FlukeView™ Forms Software with Cable
- 80BK-A Thermocouple Probe
- TL71 Silicone Test Lead Set
- AC175 Alligator Clips
- TPAK Magnetic Hanging Kit
- C280 Soft Case
- Fluke IR 3000FC Connector
- AMP Jack Plugset



### Fluke 87V/E2 Industrial Electrician Combo Kit

- Fluke 87V True-RMS Industrial Multimeter
- TL224 Silicone Test Leads
- AC220 Alligator Clips
- TP238 Test Probes
- TPAK Magnetic Hanging Kit
- 80BK-A Thermocouple Probe
- C35 Soft Meter Case



### Fluke 87V Industrial Multimeter Service Kit

- Fluke 87V Industrial Multimeter
- Fluke i400 400 A AC Current Clamp
- 80BK-A Temperature Probe
- TL75 Test Lead Set
- AC175 Alligator Clip Set



### Fluke 87V MAX Electrician Combo Kit

- Fluke 87V MAX True-RMS Digital Multimeter
- TL224 SureGrip™ Insulated Test Leads
- AC220 SureGrip™ Alligator Clips
- TL238 SureGrip™ Test Probes
- ToolPak™ Magnetic Meter Hanging Kit
- 80BK-A Temperature Probe
- C35 Soft Carrying Case



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

- Fluke 88V Automotive Multimeter
- TL224 Silicone Test Leads
- AC285 Alligator Clips
- TP220 Test Probes
- RPM 80 Inductive RPM
- TPAK ToolPak™ Magnetic Meter Hanging Kit
- 80BK-A Thermocouple Probe
- Ti10 Soft Carrying Case
- Holster
- 9V Battery (installed)
- Two Automotive Back Probe Pins
- Insulation Piercing Probe



### Fluke 116/323 HVAC Combo Kit

- Fluke 116 HVAC Multimeter
- Fluke 323 Clamp Meter
- TL175 Test Lead Set
- TPAK Magnetic Hanging Kit
- 80PK-1 Bead Probe
- 80AK-A Thermocouple Adapter
- 80PK-1 Flexible Cuff Pipe Clamp Thermocouple
- C115 Deluxe Soft Carrying Case with Shoulder Strap



### Fluke 116/62 MAX+ HVAC Technician's Combo Kit

- Fluke 116 HVAC Multimeter
- Fluke 62 MAX+ Infrared Thermometer
- TL175 Test Lead Set
- TPAK Magnetic Hanging Kit
- 80BK-A Thermocouple Probe
- 80AK-A Thermocouple Adapter
- 80PK-11 Flexible Cuff Pipe Clamp Thermocouple
- C115 Deluxe Soft Carrying Case with Shoulder Strap



### Fluke 117/323 Electricians' Multimeter Combo Kit

- Fluke 117 True-RMS Multimeter
- Fluke 323 Clamp Meter
- TL175 Test Lead Set
- TPAK Magnetic Hanging Kit
- C115 Deluxe Soft Carrying Case with Shoulder Strap



### Fluke 179/EDA2 Industrial Electronics Combo Kit

- Fluke 179 Multimeter
- 80BK-A Integrated DMM Temperature Probe
- Installed 9V Battery
- AC280 SureGrip™ Hook Clips
- TL910 Electronic Test Probes
- TL224 SureGrip™ Insulated Test Leads
- TPAK ToolPak™ Magnetic Meter Hanger
- Soft Carry Case



### Fluke 179 Industrial Multimeter Service Kit

- Fluke 179 True-RMS Multimeter
- Fluke 323 True-RMS Camp Meter
- 80BK-A Temperature Probe
- TL75 Test Lead Set
- AC175 Alligator Clip Set



### Fluke 289 Industrial Multimeter Service Kit

- Fluke 289 True-RMS Multimeter
- Fluke i400 400 A AC Current Clamp
- TL71 Flexible Silicone Test Lead Kit
- AC175 Alligator Clip Set

# Multimeter Kits



## Fluke 3000 FC General Maintenance System

- Fluke 3000 FC Series Wireless Multimeter
- Fluke v3000 Voltage Module
- Fluke v3001 Voltage Module
- Fluke a3001 FC Wireless iFlex™ AC
- TL224, TL222, TL175 Test Leads
- AC285, AC220, AC175 Alligator Clips
- iFlex™ i2500-10 Flexible Current Probe
- Magnetic Hanging Strap (3)
- Fluke Connect™ Wireless PC Adapter
- Modular 3-Compartment Soft Carry Case



## Fluke 3000 FC Industrial System

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3001 FC Wireless iFlex™ AC (3)
- Fluke v3000 Voltage Module
- TL224 Test Leads
- TL175 Test Leads
- AC285 Alligator Clips
- AC175 Alligator Clips
- iFlex™ i2500-10 Flexible Current Probe (3)
- Magnetic Hanging Strap (4)
- Fluke Connect™ Wireless PC Adapter
- Modular 3-Compartment Soft Carry Case



## Fluke 3000 FC HVAC System

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3000 FC Wireless AC
- Fluke t3000 Thermocouple Thermometer
- TL175 Test Leads
- AC175 Alligator Clips
- 80PK-1 K-Type Bead Thermocouple
- Magnetic Hanging Strap
- Fluke Connect™ Wireless PC Adapter
- Modular 3-Compartment Soft Carry Case



## Fluke 3000 FC/1AC-II Wireless Multimeter and Non-Contact Voltage Detector Kit

- Fluke 3000 FC Series Multimeter
- Fluke 1AC-II VoltAlert™ Tester
- TL224 Test Leads
- TP175 Industrial Test Probes
- AC220 Alligator Clips
- C35 Soft Meter Case
- TPAK Magnetic Hanging Kit



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

- Fluke 3000 FC Series Wireless Multimeter
- TL75 Test Leads
- C35 Soft Meter Case
- TPAK Magnetic Hanging Kit



## Fluke 3000FC/EDA2 Combo Kit

- 3000 FC Series Wireless Multimeter
- TL910 Electronic Test Probes
- TL224 Silicone Test Leads
- AC280 Heavy Duty Hook Clips
- C35 Soft Meter Case
- ToolPak™ Magnetic Hanging Kit



## Fluke a3000 FC Wireless AC Current Clamp Kit

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3000 FC Wireless AC Current Clamp Module
- TL175 Test Leads
- AC175 Alligator Clips
- Modular 3-Compartment Soft Carry Case



## Fluke a3001 FC Wireless iFlex™ AC Current Clamp Kit

- Fluke 3000 FC Series Wireless Multimeter
- Fluke a3001 FC Wireless iFlex™ AC Current Module
- TL175 Test Leads
- AC175 Alligator Clips
- iFlex™ i2500-10 Flexible Current Probe
- Magnetic Hanging Strap
- Modular 3-Compartment Soft Carry Case



## Fluke Wireless t3000 FC Temperature Kit

- Fluke 3000 FC Series Wireless Multimeter
- Fluke t3000 K-Type Thermocouple Thermometer
- TL175 Test Leads
- AC175 Alligator Clips
- 80PK-1 K-Type Bead Thermocouple
- Other K-Type Temperature Probes also available
- Magnetic Hanging Strap
- Modular 3-Compartment Soft Carry Case



## Fluke Wireless v3000 FC AC Voltage Kit

- Fluke 3000 FC Series Wireless Multimeter
- Fluke v3000 AC Voltage Module
- TL175 Test Leads
- TL224 Test Leads
- AC175 Alligator Clips
- AC285 Alligator Clips
- Magnetic Hanging Strap
- Modular 3-Compartment Carry Case



## Fluke Wireless v3001 FC DC Voltage Kit

- Fluke 3000 FC Series Wireless Multimeter
- Fluke v3001 DC Voltage Module
- TL175 Test Leads
- TL222 Test Leads
- AC175 Alligator Clips
- AC220 Alligator Clips
- Magnetic Hanging Strap
- Modular 3-Compartment Soft Carry Case



## Fluke v3003 FC Wireless AC-DC Voltage Measurement Kit

- Fluke 3000 FC Series Wireless Multimeter
- Fluke v3000 AC Voltage Module
- Fluke v3001 DC Voltage Module
- TL175 Test Leads
- TL222 Test Leads
- TL224 Test Leads
- AC175 Alligator Clips
- AC285 Alligator Clips
- AC220 Alligator Clips
- Magnetic Hanging Straps (2)
- Modular 3-Compartment Soft Carry Case

# Tester Kits

## Renewable Energy Tester Kits

### SOLAR:

#### Fluke 393 FC Clamp Meter and MC4 Test Leads Bundle

#### Fluke 393 FC Clamp, IRR1 Irradiance Meter, MC4 Test Leads Bundle

#### Fluke 87V MAX DMM and PVLEAD1 MC4 Test Leads Bundle



#### Fluke 1550C 5 kV Insulation Tester Kit

- Fluke 1550C Insulation Resistance Tester
- TL1550B Alligator Clips and Test Lead Set
- TLK1550 Heavy Duty Alligator and Test Lead Set
- FlukeView™ Forms Basic CD
- Infrared Adapter to USB Cable
- IP67 Hard Case
- AC Power Cord

## Electric Vehicle Charging Test Kits

### FLK-FEV100/TY1 KIT

- Fluke FEV100 EV Charging Station Test Adapter
- Type 1 Connector Plug (SAE J1772)
- Fluke 87V Digital Multimeter
- Fluke TL224 Test Leads

### FLK-FEV100/TY1 KIT2

- Fluke FEV100 EV Charging Station Test Adapter
- Type 1 Connector Plug (SAE J1772)
- Fluke 125B ScopeMeter®
- Fluke 87V Digital Multimeter
- Fluke TL224 Test Leads

## Insulation Tester Kits



#### Fluke 1587/i400 Current Clamp FC Kit

- Fluke 1587 FC 2-in-1 Insulation Multimeter
- Fluke i400 Current Clamp
- TP165X Remote Test Probe
- TL224 Test Leads
- AC285 Alligator Clips
- 80BK-A Thermocouple Probe
- Hard Case



#### Fluke 1550C Insulation Tester Kit w/ ir3000 FC

- Fluke 1550C 5 kV Insulation Tester
- Fluke ir3000 FC Connector
- Test cables with alligator clips
- IP67 Hard Case

## Electrical Tester Kits



#### Fluke T6-1000/PRV240FS Kit

- Fluke T6-1000 Electrical Tester
- Fluke PRV240FS Proving Unit with FieldSense™
- C60 Soft Case



#### Fluke 1587 FC Advanced Electrical Troubleshooting Kit

- Fluke 1587 FC 2-in-1 Insulation Multimeter
- Fluke i400 Current Clamp
- Fluke 62 MAX+ Infrared Thermometer
- TP165X Remote Test Probe
- TL224 Test Leads
- AC285 Alligator Clips
- 80BK-A Thermocouple Probe
- Hard Case



#### Fluke 1623-2 GEO Earth Ground Tester Kit

- Fluke 1623-2 GEO Earth Ground Tester
- GEOX Probe Cable
- EI-1623 Clamp Set
- 3 Cable Reels
- 4 Earth Ground Stakes
- C1620 Carrying Case



#### Fluke T6-HT6-1AC Kit

- Fluke T6-1000 Electrical Tester
- Fluke 1AC-II VoltAlert™ Tester
- H-T6 Holster



#### Fluke 1587/MDT FC Advanced Motor and Drive Troubleshooting Kit

- Fluke 1587 FC 2-in-1 Insulation Digital Multimeter
- Fluke i400 Current Clamp
- Fluke 9040 Phase Rotation Indicator
- TP165X Remote Test Probe
- TL224 Test Leads
- AC285 Alligator Clips
- 80BK-A Thermocouple Probe
- Hard Case



#### Fluke 1625-2 GEO Earth Ground Tester Kit

- Fluke 1623-2 GEO Earth Ground Tester
- GEOX Probe Cable
- EI-1623 Clamp Set
- 3 Cable Reels
- 4 Earth Ground Stakes
- C1620 Carrying Case



# Insulated Hand Tool Kits



### Fluke Insulated 7 Unit Screwdriver Kit (IKSC7)

- ISLS3 Insulated Slotted Screwdriver 2.5 mm, 75 mm
- ISLS5 Insulated Slotted Screwdriver 4 mm, 100 mm
- ISLS8 Insulated Slotted Screwdriver 6 mm, 125 mm
- IPHS1 Insulated Phillips Screwdriver #1, 75 mm
- IPHS2 Insulated Phillips Screwdriver #2, 100 mm
- ISQS1 Insulated Squared Screwdriver #1, 100 mm
- ISQS2 Insulated Squared Screwdriver #2, 125 mm



### Fluke Pack30 Professional Tool Backpack + Insulated Hand Tools Kit (IKPK7)

- Fluke Pack30 Professional Backpack
- ISLS3 Insulated Slotted Screwdriver
- ISLS5 Insulated Slotted Screwdriver
- ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



### Fluke 87V Industrial Multimeter + Insulated Hand Tools Kit (IB875K)

- Fluke 87V Industrial Multimeter
- ISLS3 Insulated Slotted Screwdriver
- ISLS5 Insulated Slotted Screwdriver
- ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



### Fluke Insulated 3 Unit Pliers Kit (IKPL3)

- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



### Fluke T6-1000 Electrical Tester + Insulated Hand Tools Kit (IBT6K)

- Fluke T6-1000 Electrical Tester
- ISLS3 Insulated Slotted Screwdriver
- ISLS5 Insulated Slotted Screwdriver
- ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



### Fluke 376 FC True-RMS Clamp Meter + Insulated Hand Tools Kit (IB376K)

- Fluke 376 FC AC/DC Clamp Meter
- iFlex™ Flexible Current Probe
- TPAK Magnetic Hanging Strap
- TL75 Test Leads
- ISLS3 Insulated Slotted Screwdriver
- ISLS5 Insulated Slotted Screwdriver
- ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



### Fluke Insulated Hand Tools Starter Kit (IKST7)

- ISLS3 Insulated Slotted Screwdriver 2.5 mm, 75 mm
- ISLS5 Insulated Slotted Screwdriver 4 mm, 100 mm
- ISLS8 Insulated Slotted Screwdriver 6 mm, 125 mm
- IPHS1 Insulated Phillips Screwdriver #1, 75 mm
- IPHS2 Insulated Phillips Screwdriver #2, 100 mm
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch



### Fluke 117 Electrician's Multimeter + Insulated Hand Tools Kit (IB117K)

- Fluke 117 Electrician's Multimeter
- ISLS3 Insulated Slotted Screwdriver
- ISLS5 Insulated Slotted Screwdriver
- ISLS8 Insulated Slotted Screwdriver
- IPHS1 Insulated Phillips Screwdriver
- IPHS2 Insulated Phillips Screwdriver
- INLP8 Insulated Long Nose / w Side Cutter
- INDC8 Insulated Heavy Duty Diagonal Cutter
- INCP8 Insulated Linesman Combination Plier
- RUP8 Roll Up Pouch

# Other Kits

## Infrared Thermometer Kits



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

- Fluke 417D Laser Distance Meter
- Fluke 62 MAX+ Infrared Thermometer

## Indoor Air Quality Kits



### Fluke 922 Airflow Meter/Micromanometer Kit

- Fluke 922 Airflow Meter
- 12 inch Pitot Tube
- Two Rubber Hoses
- TPAK Magnetic Strip
- TPAK Strap, 9 inches
- TPAK Latch Tab
- User Manual
- Hard Carrying Case

## Process Calibration Kits



### Fluke 700PTPK Pneumatic Test Pump Kit

- 700PTP-1 Pneumatic Hand Pump
- Hose Kit (1) and Adapters
- Hard Case



### Fluke 700HTPK Hydraulic Test Pump Kit

- 700HTP-2 Hydraulic Hand Pump
- Hose Kit (1) and Adapters
- Hard Case



### Fluke 700PTPK2 Premium Pneumatic Test Pump Kit

- 700PTP-1 Pneumatic Hand Pump
- Premium, "no tools required" Gauge Connector
- Premium Transmitter Test Hose Kit (1) and Adapters
- Hard Case



### Fluke 700HTPK2 Premium Hydraulic Test Pump Kit

- 700HTP-2 Hydraulic Hand Pump
- Premium, "no tools required" Gauge Connector
- Premium Transmitter Test Hose Kit (1) and Adapters
- Hard Case



### Fluke Connect™ 789 ProcessMeter™ and Temperature Kit

- Fluke 789 ProcessMeter™
- Fluke t3000 FC Wireless K-Type Temperature Module
- Fluke ir3000 FC Connector
- TL71 Premium Test Lead Set
- AC72 Alligator Clips
- 4 AA Alkaline Batteries (installed)
- User Manual
- Quick Reference Guide



## 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
<b>Switch Port Testing</b>							
Switch presence		✓			✓	✓	✓
Identify switch name, port ID and VLAN							✓
Identify Ethernet Speed to 10 Gb/s						✓	✓
Identify PoE Capability						✓	✓
<b>Cable Verification</b>							
Digital toning		✓			✓	✓	✓
Analog toning	✓	✓	✓	✓	✓	✓	✓
Cable wire map		✓	✓		Graphical	Graphical	Graphical
Cable length				✓	✓	✓	✓
Qualify cabling speed (10/100/1000/10G)							✓
<b>Cable Troubleshooting</b>							
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

## Calibration, Repairs and Warranty

### CalNet®: The European Specialist in Calibration

Fluke has its own calibrations laboratories in the United Kingdom, The Netherlands and Germany, and authorized service partners in most of the other countries in Europe. All These calibration laboratories work together as a single calibration network: CalNet.

CalNet can issue the calibration certificates you need to meet ISO 9000 standards. CalNet guarantees traceability and access to the best calibration facilities the network can offer. Because of constant information exchange and comparing standards within the network, traceability increases while inaccuracy and uncertainty decreases.

CalNet is able to help you meet the calibration needs of not only equipment made by Fluke but also other manufacturers products. It is a network that provides you with some real key advantages:

CalNet laboratories are approved by and traceable to the National Standards Institutes.

Each Laboratory is a link in the chain of an active network. Sharing information, expertise and the same quality standards.

The need for calibration is directly related to the specific tasks performed by your equipment.

CalNet is able to provide you with the services tailored to your need which include:

Perform verification check for simple test equipment. The CalNet sticker placed on your instrument after testing guarantee that it operates as specified.

CalNet Certificate including a calibration report. When you need to know the exact results of the calibration.

National calibration certificate if you need direct traceability to the National Standards Institutes.

CalNet offers complete inventory and maintenance management of your installed test and measuring equipment including equipment of other manufacturers. One address for all your equipment maintenance and service needs.

## Repair services

Fluke's Customer Support Services group is dedicated to a single goal: Provide the best possible service for both our products and our customers. Learn about repair services and replacement parts, which are available through our network of global certified service centers.

## 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.com/warranty](http://fluke.com/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



**Warranties**

[fluke.com/en-gb/support/warranties](http://fluke.com/en-gb/support/warranties)

## Protect your Fluke investment.

Fluke sells its products only through its network of Authorized Distributors and Wholesalers at

**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:

\*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.



**Authorized Distributors**

# Fluke Support

**FLUKE**

## Customer Care

Please contact our customer care team for the following enquiries:

- Price enquiries
- Lead times
- Orders
- Feedback

**Check the local Fluke website**

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## Technical Support

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

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

**Check the local Fluke website**



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