

TECHNICAL DATA

# Fluke T6 Electrical Testers with FieldSense technology



## Measure voltage...without test leads

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

## Product Highlights

- FieldSense technology for ac voltage, current and frequency measurement without making electrical contact to live voltage\*
- Simultaneous voltage and current display (T6-1000)—shows all power supply measurements at a glance for efficient troubleshooting
- 1 to 1000 V ac or dc (T6-1000); 600 V ac or dc (T6-600)
- 0.1 to 200 A ac
- Resistance 1 Ω to 100 kΩ (T6-1000), 1 Ω to 2 kΩ (T6-600)
- Frequency measurement 45 Hz to 66 Hz (T6-1000)
- Works with wires up to AWG 4/0 (120 mm<sup>2</sup>) with a 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
- Standard two-year warranty; extendable to four years through product registration within 45 days of purchase\*

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

\* Register product online within 45 days of purchase to extend warranty to four years. See <http://a.fluke.com/registration> for details.



# Specifications

Measurement Specifications					
Function	Requires test leads	T6-600	T6-1000	Resolution	Accuracy <sup>(1)</sup>
		Range	Range		
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)
Safety (measurement category)		600 V CAT III	1000 V CAT III 600 V CAT IV		

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.

General Specifications	
Calibration	1-year calibration cycle
Dimensions	61.1 mm x 259.3 mm x 43.8 mm
Weight	0.35 kg (0.78 lb)
Fork opening	17.8 mm
Temperature	
Operating:	-10 °C to +50 °C (14 °F to 122 °F)
Storage:	-30 °C to +60 °C (-22 °F to +140 °F)
Altitude	
Operating:	2,000 m (6,562 feet)
Storage:	10,000 m (32,808 feet)
Relative Humidity	0 % to 90 %, 5 °C to 30 °C (41 °F to 86 °F) 0 % to 75 %, 30 °C to 40 °C (86 °F to 104 °F) 0 % to 45 %, 40 °C to 50 °C (104 °F to 122 °F)
Battery Type and Life	2 x AA (IEC LR6); 360 hours continuous, typical; 200 hours using FieldSense
Temperature coefficient	0.1 x (specified accuracy) / °C for <18°C or >28 °C ( < 64.4 °F or > 82.4 °F )
Safety	IEC/EN 61010-1, IEC/EN 61010-2-033: Pollution Degree 2
Electromagnetic Environment	IEC/EN 61326-1: Portable



## Ordering information

Fluke T6-600 Electrical Tester  
 Fluke T6-1000 Electrical Tester

**Included with product**  
 Attached test leads with removable 4 mm probe caps, user documentation

**Optional accessories**  
 H-T6 Belt Holster  
 TPAK Magnetic Hanger  
 PRV240FS Proving Unit  
 TP1 Probe Set, Flat-Blade (US/UK flat tip) TP38 Probe set, round (EU)  
 AC285 SureGrip Alligator Clips  
 AC220 SureGrip Alligator Clips  
 Service Information Sheet, PN 686953

\* Two-year additional warranty offer may be discontinued without notice

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## 1AC-II/1LAC-II VoltAlert

The pocket-sized voltage detector

The next generation VoltAlert™ ac voltage testers from Fluke are easy to use—just touch the tip to a terminal strip, outlet, or cord. When the tip glows red and the unit beeps, you know there's voltage in the line. Electricians, maintenance, service, safety personnel, and homeowners can quickly test for energized circuits and defective grounds on the factory floor, in the shop, or at home.

- The 1AC-II continually tests its battery and its circuit integrity with a periodic double flash visual indication using Fluke Voltbeat™ technology.
- The VoltAlert™ Tester (1AC-II and 1LAC-II) is a Category IV —1000 V overvoltage rated product for added user protection, the highest rated of its kind.
- Voltage detection of 90 V to 1000 V ac or 200 V to 1000 V ac depending on model, as well as a 24 V to 1000 V ac control circuit model.
- It is rugged, reliable, and has a two-year warranty.

### Specifications

#### Operating principle

Senses the steady state electrostatic field produced by ac voltage through insulation without requiring contact to the bare conductor. A red glow at the tip and a beeping noise (if not switched OFF) indicates the presence of voltage.

Note: Does not respond to random electrostatic discharge.

#### Voltage sensing ranges

Nominally, 90 V AC to 1000 V AC or 200 V AC to 1000 V AC depending on model, 45 Hz to 405 Hz; also a 20 V to 90 V control circuit model

#### Detectortip style

Blade or round, depending on model

#### Light source

One high intensity red LED

#### Agency approvals/listings

c CSA us, CE, C-Tick

#### Safety rating

1000 V, CAT IV

#### IP rating

IP 40

#### Operating temperature range

-10 °C to 50 °C

#### Operating humidity ranges

0 % to 95 % (0 °C to 30 °C)  
0 % to 75 % (30 °C to 40 °C)  
0 % to 45 % (40 °C to 55 °C)

#### Operating altitude

3000 meters

#### Batteries

2 AAA alkaline batteries included

### Technical Data



**Related standards and regulations for:**

**Safety**

Europe and ROW: Low voltage directive and related standards as: EN61010 respectively IEC61010 for international requirements

**EMC**

Europe and ROW: EMC directive and related standards as: EN61326 respectively IEC61326 and their subset for ESD. Not all EMC standards are necessary due to no contact to mains voltage.

**Environmental**

Especially in European markets with relations to WEEE and RoHs directive for the used materials and information in the user documentation (manual)

**Ordering Information**

Fluke-1AC-A1-II ACV Detector 90-1000V, ENGL/LASPN/CFR  
Part Number 2432932

Fluke-1AC-A2-II ACV Detector 90-1000V, BRPORT/JAP/CHIN-T  
Part # 2432944

Fluke-1AC-E1-II ACV Detector 200-1000V, ENGL/GER/FREN/DUTCH  
Part # 2432967

Fluke-1AC-E2-II ACV Detector 200-1000V, DANSH/NORW/SWED  
Part # 2432971

Fluke-1AC-P1-II ACV Detector 200-1000V, KOR/THAI/SPANISH  
Part #2433000

Fluke-1LAC-A-II Low Voltage Detector 20-90 VAC AMERICAS PACIFIC  
Part # 2433021

FLK-1AC-A1-II-5PK Volt Alert, 5 Pack For USA  
Part # 2433042

FLK-1AC-E1-II-5PK Volt Alert, 5 Pack For EUROPE  
Part # 2433056



# Fluke 62 MAX+ Infrared Thermometer

The Fluke 62 MAX infrared thermometers are small in size, extremely accurate and very easy to use. IP54 rated for dust and water resistance.



Model Name	Description
Fluke 62 MAX+	Fluke 62 MAX+ Infrared Thermometer

## OVERVIEW:

The Fluke 62 MAX and 62 MAX+ infrared thermometers are everything you'd expect from the experts in measuring temperature in transformers, motors, pumps, panels, breakers, compressors, duct, steam lines, valves, and vents in hard to reach areas for repair and maintenance. Small in size, extremely accurate and yet easy to use. IP54 rated for dust and water resistance. Precise yet rugged enough to take a 3-meter drop.

## FEATURES:

- Measure -30°C to 500°C (-22°F to 932°F) for Fluke 62 MAX and -30°C to 650°C (-22°F to 1202°F) for Fluke 62 MAX+
- **Extremely accurate:** up to +1.0°C or +1.0% of reading (Fluke 62 MAX+)
- IP54 rating for water resistance and dust proof allow you to work rain or shine and even in the most dirty or dusty industrial sites.
- Strong enough to withstand a 3 m drop. No worry even if you work from a ladder.
- Small and lightweight; clips to your tool belt or belt loop or easily fits into your tool box.
- **Up to 12:1 Distance to spot (Fluke 62 MAX+):** Precise laser technology makes for more accurate and repeatable measurements.
- **Dual lasers:** The 62 MAX+ has dual lasers to help you identify area to be measured.
- **Large, backlit display:** Large screen makes data easier to read, even in dark areas.
- **Min/Max/Avg/Dif:** Displays the minimum, maximum or average temperature, or the difference between two measurements.
- **Alarm:** Hi and Lo alarms for rapid display of measurements outside the limits.
- **Power:** Both the 62 MAX and 62 MAX+ are powered by a single, standard AA battery.
- 3 years warranty

Specifications		
Temperature range	-30°C to 650°C (-22°F to 1202°F)	
Accuracy	±1.0°C or ±1.0% of reading, whichever is greater -10°C to 0°C: ±2.0 -30°C to -10°C: ±3.0	
Response time (95%)	< 500 ms (95% of reading)	
Spectral response	8 to 14 microns	
Emissivity	0.10 to 1.00	
Optical resolution	12:1 (calculated at 90% energy)	
Display resolution	0.1°C (0.2°F)	
Repeatability of readings	±0.5% of reading or <±0.5°C (1°F), whichever is greater	
Power	AA battery	
Battery life	8 hours with laser and backlight on	
Physical Specifications		
Weight	255 g (8.99 oz)	
Size	175 x 85 x 75 mm (6.88 x 3.34 x 2.95 in)	
Operating temperature	0°C to 50°C (32°F to 122°F)	
Storage temperature	-20°C to 60°C (-4°F to 140°F), (without battery)	
Operating humidity	10% to 90% RH non-condensing at 30°C (86°F)	
Operating altitude	2000 meters above mean sea level	
Storage altitude	12,000 meters above mean sea level	
IP rating	IP 54 per IEC 60529	
Drop test	3 meters	
Vibration and shock	IEC 68-2-6 2.5 g, 10 to 200 Hz, IEC 68-2-27, 50 g, 11 ms	
EMC	EN 61326-1:2006 EN 61326-2:2006	
Standards and agency approval	<b>Compliance</b>	EN/IEC 61010-1: 2001
	<b>Laser safety</b>	FDA and EN 60825-1 Class II