

**TECHNICAL DATA** 

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



# **Key features**

### Fluke 116 HVAC Multimeter

- Built-in thermometer for HVAC applications
- Microamps to test flame sensors
- Low input impedance helps prevent false readings due to ghost voltage
- Work in poorly lit areas with the Large white LED backlit display
- True-rms voltage and current for accurate measurements on non-linear loads
- Measures 10 A directly (20 A overload for 30-seconds) without a current clamp
- Resistance, continuity, frequency and capacitance
- Record signal fluctuations using Min/Max/Average and elapsed time stamps
- Easy to use with one hand
- Hands free operation with optional magnetic hanger (ToolPak™)
- CAT III 600 V safety rated

### Fluke 62 MAX+ Infrared Thermometer

- Measure -30 °C to 650 °C (-22 °F to 1202 °F)
- Extremely accurate: up to +1.0 °C or + 1.0% of reaching (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 3m 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
- Dual lasers: The 62 MAX+ has dual lasers to help you identify area to be measured



# Product overview: Fluke 116/62 MAX+ Technician's Combo Kit

Having the right tool for the job is essential. Having all the right tools when you need them is even better. The Fluke 116/323 HVAC Combo Kit gives you the best in a versatile, rugged multimeter and a fast-acting, general purpose clamp meter.

The Fluke 116 comes with the Fluke 80BK-A integrated DMM temperature probe. The microamp function allows flame sensor measurement down to 0.1 microamps. The AutoV/LoZ function prevents false readings caused by ghost voltage. The Fluke 116 also has a large white LED backlight for work in poorly lit areas. It measures resistance, continuity, frequency, and capacitance and provides Min/Max/Average readings with elapsed time to record signal fluctuations.

Fluke 116 multimeters are independently tested for safe use in CAT III 600V environments.

The Fluke 62 MAX+ infrared thermometer is everything you'd want in your toolbox. 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.

Together, the Fluke 116 HVAC Multimeter and 62 MAX+ Infrared Thermometer give HVAC technicians the right tools for the job.

# Specifications: Fluke 116/62 MAX+ Technician's Combo Kit

#### Fluke 116 Multimeter

Specifications		
Maximum voltage between any terminal and earth ground	600 V	
Surge protection	6 kV peak per IEC 61010-1 600 V CAT III, Pollution Degree 2	
Display	6,000 counts, updates 4 per second	
Bar graph	33 segments, updates 32 per second	
Operating Temperature	-10°C to +50°C	
Storage Temperature	-40°C to +60°C	
Battery type	9 volt Alkaline, NEDA 1604A/ IEC 6LR61	
Battery Life	400 hours typical, without backlight	
Accuracy Specifications		
DC millivolts	Range/Resolution	600.0 mV / 0.1 mV
	Accuracy	±([% of reading] + [counts]): 0.5% + 2
DC volts	Range/Resolution	6.000 V / 0.001 V 60.00 V / 0.01 V 600.00 V / 0.1 V
	Accuracy	±([% of reading] + [counts]): 0.5% + 2
Auto volts	Range	600.0 V / 0.1 V
	Accuracy	2.0% + 3 (DC, 45 Hz to 500 Hz) 4.0% + 3 (500 Hz to 1 kHz)



	Range	600.0 mV / 0.1 mV
AC millivolts <sup>1</sup> True RMS	Accuracy	1.0% + 3 (DC, 45 Hz to 500 Hz) 2.0% + 3 (500 Hz to 1 kHz)
AC volts <sup>1</sup> True RMS	Range/Resolution	6.000 V / 0.001 V 60.00 V / 0.01 V 600.0 V / 0.1 V
	Accuracy	1.0% + 3 (DC, 45 Hz to 500 Hz) 2.0% + 3 (500 Hz to 1 kHz)
	Range	600 Ω / 1 Ω
Continuity	Accuracy	Beeper on < 20 $\Omega$ , off > 250 $\Omega$ ; detects opens or shorts of 500 $\mu s$ or longer.
Ohms	Range/Resolution	$600.0 \Omega / 0.1 \Omega$ $6.000 kΩ / 0.001 kΩ$ $60.00 kΩ / 0.01 kΩ$ $600.0 kΩ / 0.1 kΩ$ $600.0 MΩ / 0.01 MΩ$
Offitio	Accuracy	0.9% + 1
	Range/Resolution	40.00 ΜΩ / 0.01 ΜΩ
	Accuracy	1.5% + 2
Diode Test	Range/Resolution	2.000 V / 0.001 V
Diode Test	Accuracy	0.9% + 2
	Range/Resolution	1000 nF / 1 nF 10.00 μF / 0.01 μF 100.0 μF / 0.1 μF 9999 μF / 1 μF 100 μF to 1000 μF
Capacitance	Accuracy	1.9% + 2
	Range/Resolution	> 1000 µF
	Accuracy	5% + 20%
La7 consoitance	Range	1 nF to 500 μF
LoZ capacitance	Accuracy	10% + 2 typical
	Range/Resolution	-40°C to 400°C / 0.1°C
Temperature <sup>2</sup> (Type-K	Accuracy <sup>2</sup>	1% + 10
thermocouple)	Range/Resolution	-40°F to 752°F / 0.2°F
	Accuracy <sup>2</sup>	1% + 18
AC µamps true-rms (45 Hz to 500 Hz)	Range/Resolution	600.0 μΑ / 0.1 μΑ
	Accuracy	1.0% + 2
DC µamps	Range/Resolution	600.0 μΑ / 0.1 μΑ
	Accuracy	1.0% + 2



Hz (V or A input) <sup>2</sup>	Range/Resolution	99.99 Hz / 0.01 Hz 999.99 Hz / 0.1 Hz 9.999 Hz / 0.001 Hz 50.00 Hz / 0.01 Hz
	Accuracy	0.1% + 2

- 1. All AC voltage ranges except Auto-V/LoZ are specified from 1% to 100% of range. Auto-V/LoZ is specified from 0.0 V.
- 2. Temperature uncertainty (accuracy) does not include the error of the thermocouple probe.
- Frequency is AC coupled, 5 Hz to 50 kHz for AC voltage. Frequency is DC coupled, 45 Hz to 5 kHz for AC current.
- Temperature Range/Resolution: -40°F to 752°F / 0.2°F.

Mechanical and General Specifications		
Size	167 x 84 x 46 mm (6.57 x 3.31 x 1.82 in)	
Weight	550 g	
Warranty	3 years	

### Fluke 62 MAX+ Infrared Thermometer

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		
	< 300 ms (95% of reading)		
Response time (95%)	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		

<sup>4</sup> Fluke Corporation Fluke 116/62 MAX+ Technician's Combo Kit



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	Compliance	EN/IEC 61010-1: 2001
	Laser safety	FDA and EN 60825-1 Class II



# **Ordering information**



## Fluke 116/62 MAX+ Kit

Fluke 116/62 MAX+ Technician's Combo Kit

### Includes:

- Fluke 116 HVAC Multimeter with Temperature and Microamps
- Fluke 62 MAX+ Infrared Thermometer



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Fluke Corporation

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