

## TECHNICAL DATA

# Fluke BK120 SmartTrace™ Breaker Finder and 107 Pocket Digital Multimeter





## Key features

- Locates the correct breaker quickly and accurately
- Advanced NCV Mode to indicate proximity and detection of voltage on sockets/outlets, supply cords, or terminal strips
- GFCI outlets—with an integrated GFCI test, you can feel secure knowing that your GFCI equipped outlets are functioning properly
- Current and voltage measurements
- Measures resistance and continuity to check for broken wires

## Product overview: Fluke BK120 SmartTrace™ Breaker Finder and 107 Pocket Digital Multimeter

### Presenting the perfect pair of tools for both seasoned electrical professionals and DIY enthusiasts - The BK120 with 107 DMM

#### The Fluke BK120 with NCV mode

This versatile device simplifies electrical tasks, circuit tracing, and troubleshooting for electricians, homeowners, and maintenance professionals. The BK120 features a Breaker Finder and Transmitter, ensuring accurate circuit breaker identification, eliminating uncertainty, and ultimately saving valuable time. It's suitable for use in CAT III 150 V environments and boasts a comfortable and ergonomic design.

#### Key Features:

- Dual Sensitivity: Detects AC voltage in low and high voltage situations, enhancing safety
- Built-in GFCI Tester
- Bright flashlight
- Low battery indicator
- Auto sleep mode

#### Fluke 107 Pocket Digital Multimeter

The Fluke 107 is a compact, rugged digital multimeter that fits in your pocket. It's ideal for quick troubleshooting, offering reliable measurements for AC/DC voltage, current, resistance, capacitance, diode, frequency, and duty-cycle. With a CAT III 600V safety rating, it ensures your safety on the job.

#### Key Features:

- AC and DC voltage
- AC and DC current
- Resistance
- Capacitance
- Diode
- Frequency and duty-cycle

## Specifications: Fluke BK120 SmartTrace™ Breaker Finder and 107 Pocket Digital Multimeter

### Fluke BK120 SmartTrace™ Breaker Finder

	BK120 Transmier	BK120 Receiver
Safety rating	CAT III 150 V	CAT III 150 V
Rated operating voltage	110 V AC to 125 V AC at 6 mA	—
Rated frequency	50/60 Hz	—
GFCI test	□	—
Wiring check	□	—
Wiring indication	1 red, 2 green	—
Breaker finder indication	—	Visual and audio
NCV detection	—	90 V AC to 240 V AC, 50/60 Hz Dual sensitivity Visual and audio indications
Flashlight	—	□
Auto power off	—	□
Low baery indication	—	□
Power supply	Line powered	2 AAA

### Fluke 107 Pocket Digital Multimeter

Accuracy is available for one year after calibration, operating from 18 °C to 28 °C and relative humidity from 0% to 75%. The format of the accuracy specification is: ± ([% of reading] + [least significant digit])

Precision specifications			
	Range	Resolution	Accuracy
<b>AC voltage (40 Hz to 500 Hz)<sup>1</sup></b>	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	1.0 % + 3
<b>DC voltage</b>	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	0.5 % + 3
<b>Exchange millivolts</b>	600.0 mV	0.1 mV	3.0 % + 3
<b>Diode test<sup>2</sup></b>	2.000 V	0.001 V	10 %
<b>Resistance (ohm)</b>	400.0 Ω 4.000 kΩ 40.00 kΩ 400.0 kΩ 4.000 MΩ 40.00 MΩ	0.1 Ω 0.001 kΩ 0.01 kΩ 0.1 kΩ 0.001 MΩ 0.01 MΩ	0.5 % + 3 0.5 % + 2 0.5 % + 2 0.5 % + 2 0.5 % + 2 1.5 % + 3

<b>Capacitor<sup>3</sup></b>	50.00 nF 500.0 nF 5.000 µF 50.00 µF 500.0 µF 1000 µF	0.01 nF 0.1 nF 0.001 µF 0.01 µF 0.1 µF 1 µF	2 % + 5 2 % + 5 5 % + 5 5 % + 5 5 % + 5 5 % + 5
<b>Frequency<sup>4</sup> Hz (10 Hz – 100 kHz)</b>	50.00 Hz 500.0 Hz 5.000 kHz 50.00 kHz 100.0 kHz	0.01 Hz 0.1 Hz 0.001 kHz 0.01 kHz 0.1 kHz	0.1 % + 3
<b>Duty cycle<sup>4</sup></b>	1 % to 99 %	0.10 %	1 % typical case <sup>5</sup>
<b>AC current (40 Hz - 200 Hz)</b>	4.000 A 10.00 A	0.001 A 0.01 A	1.5 % + 3
<b>DC</b>	4.000 A 10.00 A	0.001 A 0.01 A	1.5 % + 3

1. All AC current, frequency, and duty cycle are specified from 1% to 100% of the range. Input values below 1% of range are not specified.
2. Typically, the open circuit test voltage is 2.0 V and the short circuit current is < 0.6 mA.
3. The parameters do not include errors due to test lead capacitance and capacitor substrate (up to 1.5 nF in the 50 nF range).
4. All AC current, frequency, and duty cycle are specified from 1% to 100% of the range. Input values below 1% of range are not specified.
5. Typically, the frequency is 50 Hz or 60 Hz and the duty cycle is 10% to 90%.

Features	Overload protection	Input impedance (nominal value)	Common mode rejection ratio	Normal mode rejection ratio
<b>AC voltage</b>	600 V <sup>1</sup>	>10 MΩ <100 pF <sup>2</sup>	>60 dB at 50 Hz or 60 Hz at DC current	–
<b>Exchange millivolts</b>	600 mV	>1M, <100 pF	>80 dB at 50 Hz or 60 Hz	–
<b>DC voltage</b>	600 V <sup>1</sup>	>10 MΩ <100 pF	>100 dB at 50 Hz or 60 Hz at DC current	>60 dB at 50 Hz or 60 Hz

1. Up to 6 x 10<sup>5</sup> V Hz
2. For medium voltage (alighting current), the input impedance is approximately 1 MΩ.

#### General technical indicators

<b>The highest voltage applied to any terminal and ground</b>	600 V
<b>Display (LCD)</b>	6000 counts, updated three times per second
<b>Type of battery</b>	Two AAA batteries (NEDA 24A, IEC LR03)
<b>Battery life</b>	At least 200 hours
<b>Temperature</b>	
<b>Operating temperature</b>	0 °C to 40 °C
<b>Storage temperature</b>	-30 °C to 60 °C
<b>Relative humidity</b>	
<b>Working humidity</b>	No condensation below 10 °C □ 90 % at 10 °C to 30 °C; □ 75 % at 30 °C to 40 °C

<b>Working humidity, 40 MΩ range</b>	□ 80 % at 10 °C to 30 °C; □ 70 % at 30 °C to 40 °C
<b>Altitude</b>	
<b>Working elevation</b>	2000 m
<b>Storage altitude</b>	12,000 m
<b>Temperature coefficient</b>	0.1 X (specified accuracy) / °C (<18 °C or >28 °C)
<b>Current input fuse protection</b>	11A, 1000V fast-melting type, must use Fluke designated parts
<b>Volume (height x width x length)</b>	142 mm x 69 mm x 28 mm
<b>Weight</b>	200 g
<b>Protection level</b>	IEC 60529: IP 40
<b>Safety</b>	IEC 61010-1: 600 V CAT III, pollution degree 2
<b>Electromagnetic environment</b>	IEC 61326-1: Portable
<b>Electromagnetic compatibility</b>	Applicable only in Korea. Class A equipment (industrial broadcasting and communication equipment) <sup>1</sup>
<sup>1</sup> This product meets the requirements of industrial (Class A) electromagnetic wave equipment, which should be noted by the seller or user. The device is suitable for use in a work environment, not a home environment.	

## Ordering information



### Fluke BK120/107 Kit

Fluke BK120 SmartTrace™ Breaker Finder and 107 Pocket Digital Multimeter

Includes:

- BK120
  - Breaker Finder Receiver
  - Transmitter
  - Batteries
  - Quick Reference guide
- 107 Pocket Digital Multimeter
  - Fluke 107 palm-sized digital multimeter
  - (1 pair) TL75 Hard Point™ Test Leads
  - (2) AAA batteries (installed)
  - SmartStrap™ intelligent magnetic, multi-purpose lanyard
  - 1-year warranty

Optional accessories	Description
<b>Fluke C115 Soft Carrying Case</b>	Includes two padded pockets for protection of two test tools, such as a digital multimeter and 60 Series IR thermometer and a pouch for test leads and other accessories.

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