

Fluke 106/107 Palm-sized Digital Multimeters

Fluke 106 and 107
put measurements in
the palm of your hand

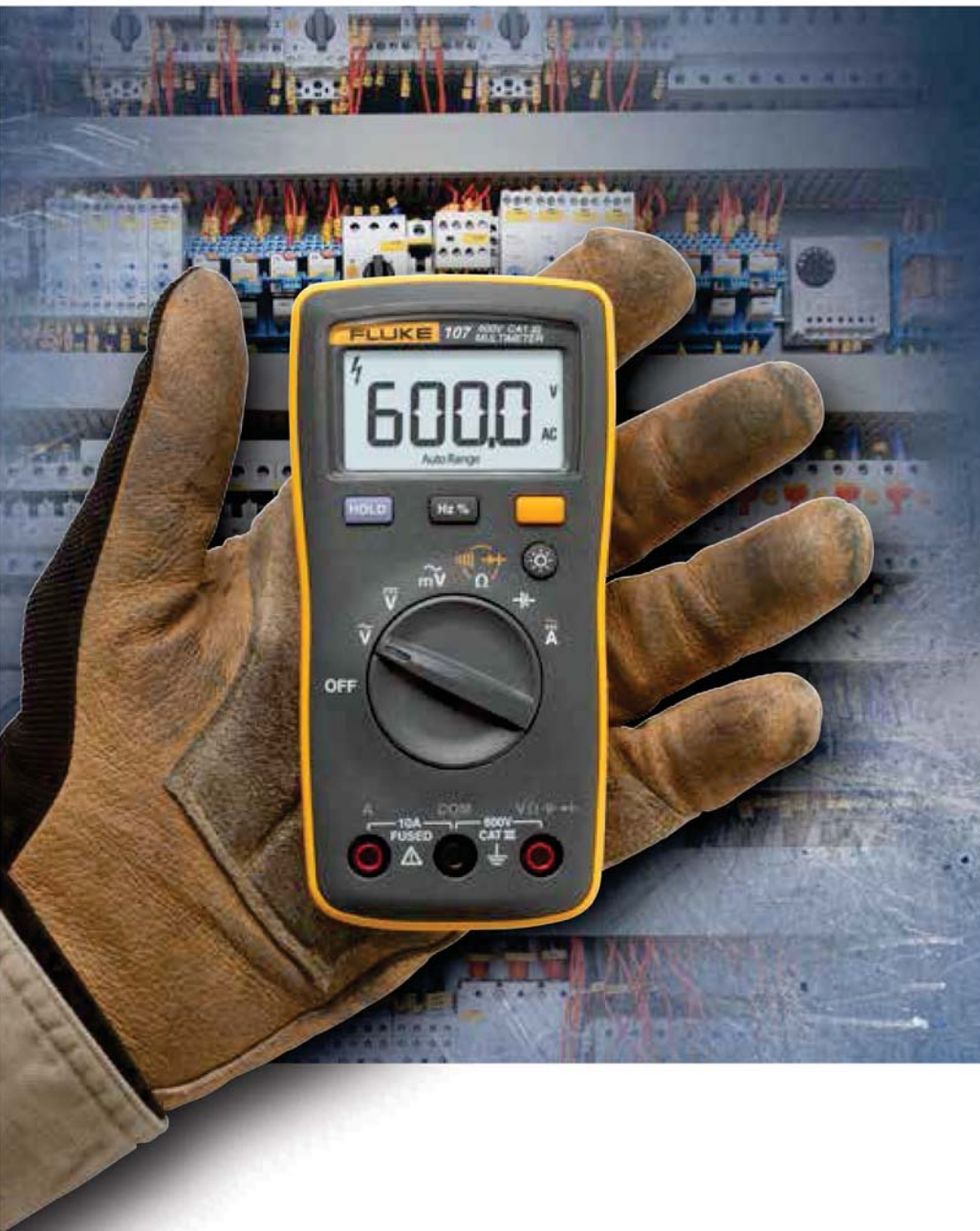
Technical Data

The Fluke 106 and 107 are compact, easy to use tools. These are palm-sized digital multimeters deliver safe, reliable measurements time after time.

The Fluke 106 and 107 are great products made to fit the way you work! These are the only Fluke digital multimeters designed to fit in the palm of your hand and go with you no matter where your job takes you.

Product highlights

- Voltage, resistance, continuity, capacitance
- Input terminal for ac and dc current measurements to 10 A and current
- Data hold
- Backlit display (107 only)
- Diode test, plus frequency and duty cycle measurements (107 only)



Specifications

Electrical specifications

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, relative humidity at 0% to 75%. Accuracy specifications take the form of: ±([% of Reading] + [Number of Least Significant Digits])

| Function | Range | Resolution | Accuracy | |
|--|---------------|------------|----------|-------------------------|
| | | | 106 | 107 |
| AC volts (40 Hz to 500 Hz) ¹ | 6.000 V | 0.001 V | 1.0% + 3 | 1.0% + 3 |
| | 60.00 V | 0.01 V | | |
| | 600.0 V | 0.1 V | | |
| DC volts | 6.000 V | 0.001 V | 0.5% + 3 | 0.5% + 3 |
| | 60.00 V | 0.01 V | | |
| | 600.0 V | 0.1 V | | |
| AC millivolts | 600.0 mV | 0.1 mV | 3.0% + 3 | 3.0% + 3 |
| Diode test ² | 2.000 V | 0.001 V | N/A | 10% |
| Resistance (ohms) | 400.0 Ω | 0.1 Ω | 0.5% + 3 | 0.5% + 3 |
| | 4.000 kΩ | 0.001 kΩ | 0.5% + 2 | 0.5% + 2 |
| | 40.00 kΩ | 0.01 kΩ | 0.5% + 2 | 0.5% + 2 |
| | 400.0 kΩ | 0.1 kΩ | 0.5% + 2 | 0.5% + 2 |
| | 4.000 MΩ | 0.001 MΩ | 0.5% + 2 | 0.5% + 2 |
| | 40.00 MΩ | 0.01 MΩ | 1.5% + 3 | 1.5% + 3 |
| Capacitance ³ | 50.00 nF | 0.01 nF | 2% + 5 | 2% + 5 |
| | 500.0 nF | 0.1 nF | 2% + 5 | 2% + 5 |
| | 5.000 μF | 0.001 μF | 5% + 5 | 5% + 5 |
| | 50.00 μF | 0.01 μF | 5% + 5 | 5% + 5 |
| | 500.0 μF | 0.1 μF | 5% + 5 | 5% + 5 |
| | 1000 μF | 1 μF | 5% + 5 | 5% + 5 |
| Frequency ⁴ (10 Hz to 100 kHz) | 50.00 Hz | 0.01 Hz | N/A | 0.1% + 3 |
| | 500.0 Hz | 0.1 Hz | | |
| | 5.000 kHz | 0.001 kHz | | |
| | 50.00 kHz | 0.01 kHz | | |
| | 100.0 kHz | 0.1 kHz | | |
| Duty cycle ⁵ | 0.1% to 99.9% | 0.1% | N/A | 1% typical ⁴ |
| AC current (40 Hz to 200 Hz) | 4.000 A | 0.001 A | 1.5% + 3 | 1.5% + 3 |
| | 10.00 A | 0.01 A | | |
| DC current | 4.000 A | 0.001 A | 1.5% + 3 | 1.5% + 3 |
| | 10.00 A | 0.01 A | | |
| Backlight | — | — | No | Yes |

¹ All AC, Hz, and duty cycle are specified from 1% to 100% of range. Inputs below 1% of range are not specified.

² Typically, open circuit test voltage is 2.0 V and short circuit current is < 0.6 mA.

³ Specifications do not include errors due to test lead capacitance and capacitance floor (may be up to 1.5 nF in the 50 nF range).

⁴ All AC, Hz, and duty cycle are specified from 1% to 100% of range. Inputs below 1% of range are not specified.

⁵ Typical means when the frequency is at 50 Hz or 60 Hz and the duty cycle is between 10% and 90%.

| Function | Overload protection | Input impedance (nominal) | Common mode rejection ratio | Normal mode rejection ratio |
|---------------|---------------------|----------------------------------|-----------------------------------|------------------------------|
| AC volts | 600 V ¹ | > 10 MΩ < 100 pF ² | > 60 dB at dc, 50 Hz or 60 Hz | — |
| AC millivolts | 600 mV | > 1M < 100 pF | > 80 dB at 50 Hz or 60 Hz | — |
| DC volts | 600 V ¹ | > 10 MΩ < 100 pF | > 100 dB at dc, 50 Hz or 60 Hz | > 45 dB at 50 Hz or 60 Hz |

¹ 6 x 105 V Hz Max.

² For mV (AC), input impedance is approximately 1 MΩ.

Ordering information

FLUKE-106 Digital Multimeter
FLUKE-107 Digital Multimeter

Included equipment

- TL75 Test leads
- 2 AAA Batteries (installed)
- User's manual

General specifications

| | |
|---|--|
| Maximum voltage between any terminal and earth ground | 600 V |
| Display (LCD) | 6000 counts, updates 3/sec |
| Battery type | 2 AAA, NEDA 24A, IEC LRO3 |
| Battery life | 200 hours minimum |
| Temperature | Operating: 0 °C to 40 °C Storage: -30 °C to 60 °C |
| Relative humidity | Operating Humidity: Non-condensing when < 10°C ≤ 90% at 10 °C to 30 °C; ≤ 75% at 30 °C to 40 °C Operating Humidity, 40 MΩ Range: ≤ 80% at 10 °C to 30 °C; ≤ 70% at 30 °C to 40 °C |
| Altitude | Operating: 2000 m Storage: 12,000 m |
| Temperature coefficient | 0.1 X (specified accuracy)/°C (< 18 °C or > 28 °C) |
| Fuse protection for current inputs | 11 A, 1000 V Fast Fuse, Fluke specified part only |
| Size (HxWxL) | 142 mm x 69 mm x 28mm |
| Weight | 200 g |
| IP rating | IEC 60529: IP 40 |
| Safety | IEC 61010-1: 600 V CAT III, Pollution Degree 2 |
| Electromagnetic environment | IEC 61326-1: portable |
| Electromagnetic compatibility | Applies to use the Korea only. Class A Equipment (Industrial broadcasting and communication equipment) ¹ |
| Warranty | One year |

¹ This product meets requirements for industrial (Class A) electromagnetic wave equipment and user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.

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