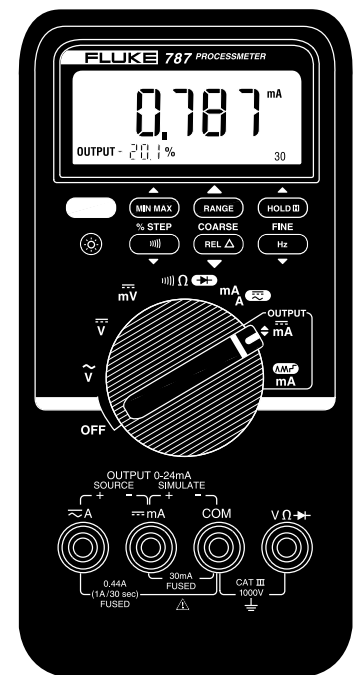


# Fluke 787 ProcessMeter™

## Double Your Power

The Fluke-787 ProcessMeter™ combines a DMM and a Loop Calibrator in one rugged, handheld tool - for about what you would expect to pay for a loop calibrator alone. The 787 starts with the Fluke-87 DMM you know and trust, then adds ability to measure, source, and simulate DC loop current with 0.05% accuracy and 1 micro-amp resolution. When you carry the ProcessMeter™, you're ready for any loop troubleshooting or calibration task. And since it's dust- and splash-resistant and EMI-shielded, the 787 can survive in your tool belt.

- DMM and Loop Calibrator in one tool
- Precision 1000V, 440 mA digital Multimeter
  - Measure AC and DC volts, AC and DC current, resistance, continuity, and frequency
  - 0.1% DC voltage accuracy
  - 0.05% DC current accuracy, 1 uA resolution to 30 mA
  - Simultaneous mA and % of scale readout
  - True RMS AC voltage measurement to 1 kHz
  - Frequency measurement to 20 kHz
  - Min/Max/Average/Hold/Relative modes
  - Diode Test and Continuity Beeper
- DC current source / loop calibrator
  - 20 mA current source / simulator
  - Simultaneous mA and % of scale readout
  - Manual Step (25%, Coarse, Fine) plus Auto Step and Auto Ramp
- Clear LCD with backlight; 4,000 counts (30,000 counts for DC current)
- Externally accessible battery for easy battery changes
- V overload protection on V, ohms, frequency
- V overload protection on mA, backed-up by 440 mA 1000V fuse
- Designed to meet 1000 volt IEC 1010 Cat III standards



Measurement Function	Range and Resolution	Best Accuracy (% of reading + LSD)
VDC	400.0 mV, 4.000V, 40.00 V, 400.0 V, 1000 V	0.1% + 1
VAC (true RMS)	400.0 mV, 4.000V, 40.00 V, 400.0 V, 1000 V	0.7% + 4
mADC	30.000 mA	.05% + 2
A DC	1.000 A (0.440A continuous)	0.2% + 2
A AC	1.000 A (0.440A continuous)	1% + 2
Resistance	400.0 Ohms, 4.000k, 40.00 k, 400.0 k, 4.0 M, 40M	0.2% + 1
Frequency (0.5 Hz to 20 kHz)	199.99 Hz, 1999.9 Hz, 19.999 kHz	.005% + 1
Diode Test	2.400 V (shows diode voltage drop)	2% + 1
Continuity	Beeps for resistance < approx 100 ohms	

Output Function	Range and Resolution	Drive Capability	Accuracy (% of span)
DC Current Output (Internal battery operation)	0.000 to 20.000 mA or 4.000 to 20.000 mA (selectable at power-up) Over-range to 24.000 mA	12 V compliance, or, 500 Ohms, @ 20 mA	.05%
DC Current Simulate (Ext. 24 Volt loop supply)	0.000 to 20.000 mA or 4.000 to 20.000 mA, (selectable at power-up) Over-range to 24.000 mA	1000 Ohms, @ 20 mA	.05%
Current adjustment modes	Manual: Coarse, Fine, 25% step Automatic: Slow Ramp, Fast Ramp, 25% step		

Temperature range of 18° C to 28° C, for one year after calibration

Observe battery condition

Activate Touch Hold mode

Record Min, Max, and Avg Readings

Choose Relative, Continuity, or Diode Test modes

The image shows a digital display with several icons on the left: a triangle, a battery symbol, a diode symbol, and a continuity symbol. The main display shows '0.0000' followed by 'mA'. Below this, it shows '188.8%' with a scale icon. At the bottom, it says 'OUTPUT -188.8%' and 'Auto 400100030'. On the right side of the display, there are labels for 'mV DC', 'mV AC', 'MkΩ', and 'kHz'. At the top of the display area, there are labels for 'HOLD H', 'MINMAXAVG', and 'REC'.

View input or output value, units, and range directly

Know when current OUTPUT is active

View both mA and % Scale values at the same time

Select automatic mA output in slow ramp fast ramp, or 25% staircase steps

### General Specifications:

**Maximum voltage applied between any jack and Earth Ground:** 1000 V RMS

**Storage Temperature:** -40 °C to 60 °C

**Operating Temperature:** -20 °C to 55 °C

**Temperature Coefficient:** 0.05 x (specified accuracy) per °C (for temperatures < 18 °C or > 28 °C)

**Relative Humidity:** 95% up to 30 °C; 75% up to 40 °C; 45% up to 50 °C; 35% up to 55 °C

**Vibration:** Random, 2g, 5-500 Hz.

**Shock:** 1 meter drop test

**Safety:** Designed in accordance with IEC 1010-1, ANSI/ISA S82.01-1994 and CAN/CSA C22.2 No. 1010..1-92 Over-voltage Category III

**Size:** 32 mm H x 87 mm W x 187 mm L (1.25 in H x 3.41 in W x 7.35 in L)

**Size, with holster and Flex-Stand:** 52 mm H x 98 mm W x 201 mm L (2.06 in H x 3.86 in W x 7.93 in L).

**Weight:** 369 g (13 oz); with holster and Flex-Stand 638 g (22.5 oz)

**Battery:** Single 9V Alkaline battery (ANSI/NEDA 1604A or IEC 6LR61)

**Battery Life:** 50 hours typical (measurement), 12 hours typical (sourcing 12 mA)

**Warranty:** 3 years

### **Optional accessories**

80T-IR Infrared Temperature Probe  
80TK Thermocouple Module  
80T-150U Universal Temperature Probe  
TL20 / TL22 / TL24 / TL 26 / TL28 TL70A Y8140A Test Lead Sets  
AC20 / AC80 Clips  
TP20 Industrial Test Probes  
80I-400 AC Current Clamp  
i-410 AC/DC Current Clamp  
i-1010 AC/DC Current Clamp  
C25 / C28 / C90 / C100 / C800 Cases  
C81G Holster Grey  
80K-6 and 80K-40 High Voltage Probes  
83RF and 85RF High Frequency Probes  
PV350 Pressure Vacuum Module  
Fiber Optic Meter FOM

### **Ordering Information**

Fluke-787 ProcessMeter, including:

- C81Y protective yellow holster with Flex-Stand™
- TL75 Safety-designed test lead set plus AC70A Alligator Clips
- One 9V alkaline battery (installed)
- Users Manual and Quick Reference Guide

### **Fluke Corporation**

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### **Certifications:**

- IEC 1010-1 1000V Cat III
- ISO 9000

