

TECHNICAL DATA

# Fluke 787B ProcessMeter™



## Key features

- Compact digital multimeter and mA loop calibrator solution
- Measure/Source/Simulate loop currents while powering the loop
- Manual and automatic ramp up - ramp down functions
- Easy-to-read backlit display

## Product overview: Fluke 787B ProcessMeter™

The Fluke 787B ProcessMeter™ doubles your troubleshooting capabilities by combining the power of a safety rated digital multimeter and mA loop calibrator into a single, compact test tool. Based on the trusted measurement capabilities of the [Fluke 87V meter](#), the 787B adds the ability to measure, source and simulate mA with the accuracy and resolution you would expect from a Fluke mA loop calibrator, giving you the ideal tool for troubleshooting and calibrating current loop applications.

With [Fluke Connect® mobile app](#) and desktop software compatibility, technicians can wirelessly monitor, log, and share data from the field with their team anytime, from anywhere.\* If you're looking for even more troubleshooting power, the [Fluke 789 ProcessMeter™](#) offers technicians even more flexibility, and even includes a built-in 24 V loop power supply.

\*Requires [Fluke IR3000FC module](#) (not included). Not all models are available in all countries. Check with your local Fluke representative.

Expand your troubleshooting capabilities

The Fluke 787B not only allows you to source, measure and simulate 20 mA DC current but also allows you simultaneously

look at mA and percent of scale readouts so you can easily compare readings to what you see on your controller. Manually step mA signals (100%, 25%, Coarse adjustment, Fine adjustment) or use the Auto step and Auto ramp feature to work even more efficiently.

Designed to meet 1000 V IEC 61010 CAT III and 600 V CAT IV standards, the Fluke 787B is also a full-featured, precision, true-rms digital multimeter with standard features for diode testing and a continuity beeper. Troubleshoot more, while carrying less. The 787B also allows you to make frequency measurements to 20 kHz and includes Min/Max/Average/Hold/Relative modes for easy operation. Even the batteries and fuses are easily accessible allowing you to make fast, easy changes.

## Specifications: Fluke 787B ProcessMeter™

| Measurement function  | Range and resolution   | Best accuracy (% of reading + LSD)      |                      |
|---|--|---|----------------------|
| V dc  | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V  | 0.1% + 1                                |                      |
| V ac (true-rms)   | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V  | 0.7% + 2                                |                      |
| mA dc   | 30.000 mA  | .05% + 2                                |                      |
| A dc  | 1.000 A (0.440 A continuous)   | 0.2% + 2                                |                      |
| A ac  | 1.000 A (0.440 A continuous)   | 1% + 2                                  |                      |
| Resistance  | 400.0 Ohms, 4.000 k, 40.00 k, 400.0 k, 4.0 M, 40 M   | 0.2% + 1                                |                      |
| Frequency (0.5 Hz to 20 kHz)  | 199.99 Hz, 1999.9 Hz, 19.999 kHz   | .005% + 1                               |                      |
| Diode test  | 2.000 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 | 24 V compliance or, 1,200 ohms, @ 20 mA | 0.05%                |
| DC current simulate (Ext. 15 V to 48 V 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                      | 0.05%                |
| Current adjustment modes  | Manual: Coarse, Fine, 25% and 100% step  |   |                      |
|   | Automatic: Slow Ramp, Fast Ramp, 25% step  |   |                      |
| Temperature range of 18 °C to 28 °C, for one year after calibration |  |   |                      |
| 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, 2 g, 5-500 Hz  |
| Shock                   | 1 meter drop test  |
| Safety                  | IEC61010-1, Pollution Degree 2/IEC61010-2-033, CAT IV 600 V/CAT III 1000 V |
| Size (HxWxL)            | 50 x 100 x 203 mm (1.97 x 3.94 x 8.00 in)                                  |
| Weight                  | 600 g (1.3 lbs)  |
| Battery                 | Four AA alkaline batteries   |
| Battery life            | 140 hours typical (measurement), 10 hours typical (sourcing 12 mA)         |
| Warranty                | Three years  |

## Ordering information



### **Fluke 787B ProcessMeter™**

Fluke 787B ProcessMeter™

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Includes:

- TL71 Premium test lead set
- AC72 Alligator clips
- Four AA alkaline batteries (installed)
- Quick reference guide

### **Fluke-787B CAL**

Fluke 787B ProcessMeter™, with a traceable certificate of calibration with data from Fluke

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Includes:

- TL71 Premium test lead set
- AC72 Alligator clips
- Four AA alkaline batteries (installed)
- Quick reference guide
- A traceable certificate of calibration with data from Fluke



### Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect™ system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.

Find out more at [flukeconnect.com](http://flukeconnect.com)



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Smart phone wireless service and data plan not included with purchase. Fluke Connect is not available in all countries.

Fluke. *Keeping your world up and running.*®

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