Double your power.

The Fluke 787 ProcessMeter was the first tool to combine a loop calibrator with a DMM to give process technicians double the power in one tool. Now it’s even better—the ultimate loop calibration multimeter—the Fluke 789 ProcessMeter.

The 789 has a display that’s not only twice as large, but also twice as bright with two levels of backlighting. And with its built-in, selectable 250 ohm HART® resistor, it eliminates the need to carry a separate resistor with you.

Now process technicians can do a lot more while carrying a lot less.

Key new features of the Fluke 789

- 24 V Loop power supply
- HART mode setting with loop power (adds 250 ohm resistor)
- 100% larger dual display
- 1200 ohm drive capability on mA source
- Enhanced backlight with two brightness settings
- 0% to 100% mA Span Check buttons to toggle between 4 and 20 mA
- Infrared I/O serial port compatible with FlukeView® Forms Software Version 2.1
- Externally accessible fuses for easy replacement

These 787 features are also included in the 789

- DMM designed to meet 1000 volt IEC 1010 CAT III standards
- Precision 1000 V, 440 mA true-rms digital multimeter
- Frequency measurement to 20 kHz
- Min/Max/Average/Hold/Relative modes
- Diode test and continuity beeper
- Simultaneous mA and % of scale readout
- 20 mA dc current source / loop calibrator / simulator
- Manual step (100%, 25%, Coarse, Fine) plus Auto Step and Auto Ramp
- Externally accessible battery for easy battery changes
<table>
<thead>
<tr>
<th>Measurement function</th>
<th>Range and resolution</th>
<th>Best accuracy (% of reading + LSD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V dc</td>
<td>400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V</td>
<td>0.1 % + 1</td>
</tr>
<tr>
<td>V ac (true-rms)</td>
<td>400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V</td>
<td>0.7 % + 2</td>
</tr>
<tr>
<td>mA dc</td>
<td>30.000 mA</td>
<td>0.05 % + 2</td>
</tr>
<tr>
<td>A dc</td>
<td>1.000 A (0.440 A continuous)</td>
<td>0.2 % + 2</td>
</tr>
<tr>
<td>A ac</td>
<td>1.000 A (0.440 A continuous)</td>
<td>1 % + 2</td>
</tr>
<tr>
<td>Resistance</td>
<td>400.0 Ohms, 4.000 k, 40.00 k, 400.0 k, 4.0 M, 40 M</td>
<td>0.2 % + 1</td>
</tr>
<tr>
<td>Frequency (0.5 Hz to 20 kHz)</td>
<td>199.99 Hz, 1999.9 Hz, 19.999 kHz</td>
<td>.005 % + 1</td>
</tr>
<tr>
<td>Diode Test</td>
<td>2.000 V (shows diode voltage drop)</td>
<td>2 % + 1</td>
</tr>
<tr>
<td>Continuity</td>
<td>Beeps for resistance &lt; approx. 100 ohms</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output function</th>
<th>Range and resolution</th>
<th>Drive capability</th>
<th>Accuracy (% of span)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Current Output</td>
<td>0.000 to 20.000 mA or 4.000 to 20.000 mA (selectable at power-up) Over-range to 24.000 mA</td>
<td>24 V compliance, or, 1.200 Ohms, @ 20 mA</td>
<td>.05 %</td>
</tr>
<tr>
<td>DC Current Simulate</td>
<td>0.000 to 20.000 mA or 4.000 to 20.000 mA, (selectable at power-up) Over-range to 24.000 mA</td>
<td>1000 Ohms, @ 20 mA</td>
<td>.05 %</td>
</tr>
<tr>
<td>24 V Loop Supply</td>
<td>Minimum 24 V</td>
<td>250 Ohms, @ 20 mA</td>
<td>&gt; 24 V</td>
</tr>
</tbody>
</table>

| Current Adjustment Modes | | |
|--------------------------|--------------------------|

**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:** Designed in accordance with EN61010, ANSI/ISA S82.01-1994 and CAN/CSA C22.2 No. 1010.1-92 Over-voltage Category III

**Size:** 50 mm H x 100 mm W x 203 mm L

**Weight:** 600 g (1.3 lbs)

**Battery:** Four AA alkaline batteries

**Battery life:** 140 hours typical [measurement], 10 hours typical [sourcing 12 mA]

**Warranty:** 3 years

**Optional accessories**

- 80T-IR Infrared Temperature Probe
- 80TK Thermocouple Module
- 80T-15OU Universal Temperature Probe
- TL20 / TL22 / TL24 / TL26 / TL28 / TL40A 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 / C100 Cases
- 80K-6 and 80K-40 High Voltage Probes
- 85RF High Frequency Probes
- PV350 Pressure Vacuum Module
- Fiber Optic Meter FOM
- LPAK80-4 LockPak
- TPAK ToolPak Meter Hanging Kit

*Above 50 A ac
**Above 1 A dc or 20 A ac

**Ordering information**

**Model**

Fluke-789 ProcessMeter
Including: TL71 Premium Test Lead Set plus AC72 Alligator Clips, Four AA alkaline batteries [installed], Users Manual and Quick Reference Guide

**Model**

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.
Fluke Europe B.V.
PO Box 1186, 5602 BD
Eindhoven, The Netherlands

For more information call:
In the U.S.A. (800) 443-5853 or Fax (425) 446-5116
In Europe/M-East/Africa +31 (0) 40 2675 200 or Fax +31 (0) 40 2675 222
In Canada (800)-36-FLUKE or Fax (905) 890-6866
From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116
Web access: http://www.fluke.com

Specifications subject to change without notice.
Printed in U.S.A. 9/2009 1999242D D-EN-N

Modification of this document is not permitted without written permission from Fluke Corporation.