## Fluke 789 ProcessMeter™



# **Double Your Power**

The Fluke 787 was the first tool to combine a DMM and a loop calibrator to give process technicians double the power in one tool. Now it's even better, the range is extended with the new Fluke 789 – the ultimate loop calibration multimeter.

The Fluke 789 has a 24-Volt loop supply reducing the need for taking a separate power supply when doing offline transmitter testing. And with its built-in, selectable 250-Ohm Hart\* resistor, it also eliminates the need to carry a separate resistor with you.

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



## **New Features of the Fluke 789:**

- 24 V Loop power supply
- Very large dual display
- Enhanced backlight with 2 brightness settings
- 1200 Ohm drive capability on mA source
- HART mode setting with loop power and a built-in 250 ohm resistor
- 0% and 100% buttons to toggle between 4 and 20 mA sourcing for a quick span check
- Externally accessible fuses for easy replacement

## These Fluke 789 features are also included in the Fluke 787:

- DMM designed to meet 1000 V EN61010-1 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











Measurement Function	Range and Resolution	Best Accuracy	
		(% of reading + LSD)	
VDC	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.1% + 1	
VAC (true RMS)	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.7% + 2	
mADC	30.000 mA	0.05% + 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	0.005% + 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	0.000 to 20.000 mA or 4.000 to 20.000 mA	24 V compliance,	
	(selectable at power-up)	or,	0.05%
(Internal battery operation)	Over-range to 24.000 mA	1,200 Ohms, @ 20 mA	
DC Current Simulate	0.000 to 20.000 mA or 4.000 to 20.000 mA,	1000 Ohms,	0.05%
(Ext. 24 Volt loop supply)	(selectable at power-up)	@ 20 mA	
	Over-range to 24.000 mA		
24 V Loop Supply	Minimum 24 V	250 Ohms @ 20 mA	> 24 V
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 RMSStorage Temperature: -40 °C to 60 °COperating 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 50 °C; 35%

up to 55  $^{\circ}\text{C}$ 

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 (HxWxD):** 203 x 100 x 50 mm

Weight: 600 g

**Battery:** Four AA Alkaline battery **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 / 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
C125 Soft Meter Case
80K-6 and 80K-40 High Voltage Probes
PV350 Pressure Vacuum Module
Fiber Optic Meter FOM

## **Ordering Information**

Fluke 789 ProcessMeter

LockPak ToolPak

## **Included Accessories**

TL71 Premium Test Lead Set plus AC72 Alligator Clips Four AA 9 V alkaline battery (installed) Users Manual and Quick Reference Guide **Fluke.** Keeping your world up and running.

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