

TECHNICAL DATA

Fluke 789 ProcessMeter™



Key features

- Compact digital multimeter and mA loop calibrator solution
- Full-featured mA loop calibrator with built-in 24v Loop Power
- Quickly and easily troubleshoot every part of a control loop
- Large, bright dual-measurement display

Product overview: Fluke 789 ProcessMeter™

Fluke 789 ProcessMeter™ doubles your troubleshooting power

The Fluke 789 ProcessMeter is the ultimate troubleshooting tool for electricians and instrumentation professionals. It combines the functionality of a full-featured loop calibrator with the power of a CAT III 1000 V, CAT IV 600 V safety rated digital multimeter, and the wireless capabilities of Fluke Connect connectivity with optional IR3000FC module. The 789 has a large, dual display with two levels of backlighting and externally accessible fuse and batteries for easy replacement. And its built-in, selectable 250-ohm HART® resistor eliminates the need to carry a separate resistor.

The 789 also has a built-in 24-Volt loop supply, which reduces the need to carry a separate power supply when doing offline transmitter testing. You can also add the wireless data logging capabilities of the Fluke Connect™ mobile app to log data wirelessly to your smart phone and review it from a remote location.

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

Do a lot more while carrying a lot less

The 789 provides all standard DMM capabilities including frequency measurement to 20 kHz, Min/Max/Average/Hold/Relative modes, and diode test and continuity beeper. Combine that with the ability to troubleshoot every part of the loop.

Measure, source, simulate 4-20 mA signals, measure resistance, measure power, provide power to the loop and provide 250-ohm resistance to the loop. The 789 includes SpanCheck; 0% and 100% buttons to toggle between 4 and 20 mA sourcing, while the display can simultaneously show mA and % of scale readings for faster troubleshooting. It also delivers 1200-ohm drive capability on mA source.

Accuracy

This ProcessMeter offers manual step, 100%, 25%, Coarse, Fine, plus auto step and auto ramp. It also delivers 0.1% DC voltage accuracy and 0.05% DC current accuracy.

Specifications: Fluke 789 ProcessMeter™

Specifications		
Current measurement	Range	0-1 A AC or DC
	Resolution	1 mA
	Accuracy	0.2% + 2 LSD (DC)
	Range	0-30 mA
	Resolution	0.001 mA
	Accuracy	0.05% + 2 LSD
Current sourcing	Range	0-20 mA or 4-20 mA
	Resolution	0.05% of span
	Drive capability	24 V Compliance or 1200 Ω @ 20 mA
Frequency	to 19.999 kHz, 0.005% + 1 LSD	
Continuity	Beeps for resistance < 100 Ω	
Voltage measurement	Range	0-1000 V AC (true-rms) or DC
	Resolution	0.1 mV to 1.0 V
	Accuracy	0.1% Rdg + 1 LSD (VDC)
Resistance measurement	to 40 MΩ, 0.2% + 1 LSD	
Diode test	2.0 V shoes diode voltage drop	
Display current and % of span	Yes	
Auto Step, Auto Ramp	Yes	
Environmental Specifications		
Operating temperature	-20°C to 55°C	
Storage temperature	-40°C to 60°C	

Humidity (without condensation)	95% up to 30°C 75% up to 40°C 45% up to 50°C 35% up to 55°C
Temperature coefficient	0.05 x (specified accuracy) per °C (for temperatures < 18°C or > 28°C)
Safety Specifications	
Electrical safety	Designed in accordance with IEC 1010-1, ANSI/ISA S82.01-1994 and CAN/CSA C22.2 No 1010.1-92
Overvoltage category	IEC 1010-1 CAT III 1000 V IEC 1010-1 CAT IV 600 V
Maximum voltage	1000 V RMS
Mechanical and General Specifications	
Size (H x W x L)	50 x 100 x 203 mm (1.25 x 3.41 x 7.35 in)
Weight	610 g (1.6 lbs)
Batteries	4 AA alkaline batteries
Warranty	3 years
Battery life	140 hours typical (measurement), 10 hours typical (sourcing 20 mA)
Shock and vibration	Random, 2 g, 5-500 Hz 1 meter drop test

Ordering information



Fluke 789

Fluke 789 ProcessMeter™

Includes:

- AC175 Alligator Clips
 - Four (4) AA 1.5 V alkaline batteries (installed)
 - TL71 safety-designed test lead set
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Fluke 789 CAL

Fluke 789 ProcessMeter™, with a traceable certificate of calibration with data from Fluke

Includes:

- AC175 Alligator Clips
 - Four (4) AA 1.5 V alkaline batteries (installed)
 - TL71 safety-designed test lead set
 - A traceable certificate of calibration with data from Fluke
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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



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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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