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

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

Preventive maintenance simplified. Rework eliminated.

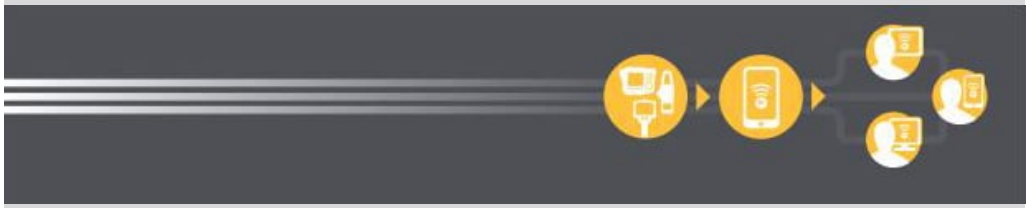
Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect™ system.

- 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**

Download on the App Store

ANDROID APP ON Google play



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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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