

5080A High Compliance Multi-Product Calibrator

Highlights

Calibration solutions for your analog and digital workload

- High compliance
- Protection circuitry
- Calibrates a wide workload, including analog meters and 3.5 and 4.5 digits DMMs
- Optional 5080/CAL software for easy-to-use, automated calibration

The 5080A Multi-Product Calibrator calibrates your analog and digital workload accurately and economically. Its high voltage and current compliance makes analog workload calibration easy and precise. And built-in protection circuitry protects it against damaging input voltages.

This easy-to-use multifunction calibrator can handle a wide meter calibration workload that includes:

- Analog meters
- Panel meters
- Digital multimeters
- Watt meters
- Clamp meters (with coil accessory)
- Megohm meters (optional)
- Oscilloscopes to 200 MHz (optional)
- ...and more

Versatile software applications enable you to record paperless results, and more. Best of all, the 5080A Multi-Product Calibrator offers this versatile functionality at a price that fits nicely into your budget.

Description

Accurate, reliable analog meter calibration

The 5080A Multi-Product Calibrator calibrates your analog workload accurately and reliably, thanks to its high voltage and current compliance. With maximum burden up to 800 mA for ac/dc voltage, and voltage up to 50 V for ac/dc current, 5080A calibrators can drive a wide range of analog meters.

Options and accessories expand workload coverage

Options and accessories enable you to use the 5080A Multi-Product Calibrator to calibrate an even broader workload, including:

- Clamp meters. The 9100-200 10/50 turn coil and 5500A/COIL 50-turn current coil enables the 5080A to calibrate most popular clamp meters at currents up to 1000 A rms amps.
- Oscilloscopes. Oscilloscope calibration to 200 MHz quickly, easily, and cost effectively. Verify dynamic response, bandwidth, timing, multiple triggering functions, and input resistance.
- Megohm meters. This option sources high ohms, high voltage resistors up to 18 G ohms. It also measures high voltage outputs.

Protective circuits prevent damage

Mains voltage inadvertently applied to a calibrator's output terminals can cause extensive damage, requiring costly repairs. Electrical protection for calibrator outputs is vital for daily operation. The 5080A calibrator's innovative protection circuitry prevents it from being damaged by reversed input voltage, so you can use it with confidence day after day.

Highest voltage and current compliance

The 5080A has the highest voltage and current compliance of any calibrator in the Fluke Calibration multi-product and multifunction calibrator families, making it an ideal solution for calibrating analog meters and other instruments requiring higher drive capability for proper operation.

Maximum burden or compliance voltage				
Functions				
Model	DC voltage	AC voltage	DC current	AC current*
5080A	600 mA	800 mA	50 V	44 V
9100	20 mA	20 mA	4 V	4 V
5500A	10 mA	10 mA	4.5 V	3 V
5520A	10 mA	10 mA	7 V	5 V
5700A	50 mA	50 mA	10 V	7 V
5720A	50 mA	50 mA	10 V	7 V

* With AC LCOMP on

Automate the 5080A Multi-Product Calibrator to increase efficiency and throughput

Versatile software applications enable automated calibration as well as paperless data collection and reporting

- **5080/CAL.** The 5080/CAL software is designed for calibrating analog and digital workload with the 5080A calibrator. It enables you to automate calibration, manage inventory, collect data and print reports, easily and economically.
- **MET/CAL® Lite for 5080A.** MET/CAL Lite provides the power of MET/CAL Plus software in a lower cost version designed for use with 5080A calibrators.
- **MET/CAL® Plus.** For the full spectrum of calibration automation and asset management, choose MET/CAL Plus software. Add Manual MET/CAL software for mechanical or dimensional workload where automation is not required. The solutions you need, from the leader in calibration

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Fluke Calibration is a premium brand, well known around the world for its accurate, dependable, high quality products. Long known as a leader in dc and low frequency ac calibration, Fluke Calibration is also recognized for its offerings in temperature, pressure, power, process, and rf calibration. Fluke Calibration provides the calibrators, standards, software, service, support and training you need for a complete solution in your cal lab.

Specifications

Technical Specifications	
Voltage DC	Range: 0 to $\pm 1020V$ Best 1 Year Specification: $\pm 0.01\%$ of setting
Current DC	Range: 0 to $\pm 20.5A$ Best 1 Year Specification: $\pm 0.05\%$ of setting
Resistance	Range: 0 to 190 MO, 19 values in x1 and x1.9 Best 1 Year Specification: $\pm 0.025\%$ of setting
Voltage AC	Range: 1 mV to 1020V 45Hz to 1 kHz, Sine Best 1 Year Specification: $\pm 0.1\%$ of setting
Current AC	Range: 29 mA to 20.5A 45 Hz to 1 kHz, Sine Best 1 Year Specification: $\pm 0.1\%$ of setting
DC Power	Range: 10.9 mW to 20.5 kW Best 1 Year Specification: $\pm 0.11\%$ of setting
AC Power	Range: 10.9 mW to 20.5 kW 45-65 Hz, PF=1 Best 1 Year Specification: $\pm 0.36\%$ of setting
Phase	Range: 0 to $\pm 179.99^\circ$ 45 Hz to 1 kHz Best 1 Year Specification: $\pm 0.25^\circ$ of setting
Frequency	Range: 45 Hz to 1 kHz Best 1 Year Specification: ± 50 ppm of setting

General Specifications	
Warm up Time	Twice the time since last warmed up, to a maximum of 30 minutes

Settling Time	Less than 5 seconds for all functions and ranges except as noted
Standard Interfaces	RS-232 and Ethernet
Temperature Performance	Operating: 0°C to 50°C Calibration (tcal): 15°C to 35°C Storage: -20°C to +70°C
Temperature Coefficient	Temperature coefficient for temperatures outside tcal ± 5 °C is 10 % of the stated specification per °C for temperatures in the range of 0 °C to 35 °C. Above 35 °C, the temperature coefficient is 20 % of the stated specification per °C.
Relative Humidity	Operating: <80% to 30°C, <70% to 40°C, <40% to 50°C Storage: <95%, non-condensing
Altitude	Operating: 2,000m (6,500 ft) maximum Non-operating: 12,200m (40,000 ft) maximum
Safety	Meets EN. 61010-1:2001, CAN/CSA-C22.2 No. 61010-1-04, UL 61010-1: 2004
Analog Low Isolation	20V
EMC	Meets EN613261:2006.
Line Power	Line Voltage (selectable): 100V, 120V, 220V, 240V Line Frequency: 47 to 63 Hz Line Voltage Variation: + 10% about line voltage setting
Power Consumption	600 VA
Calibration Documentation	Report of calibration with data included; 17025 accredited report optional
Dimensions	Height: 19.3 cm (7.6 in) Width: 43.2 cm (17 in), 44.3 cm (17.5 in) including handles Depth: 53.8 cm (21.2 in)
Weight (without options)	22 kg (48 lbs.)
Absolute Uncertainty Definition	The specifications include stability, temperature coefficient, linearity, line and load regulation, and the traceability of the external standards used for calibration. It is not necessary to add anything to determine the total specification for the temperature range indicated.
Specification Confidence Interval	99%

Models and Accessories

Model Name	Description
5080A	Multi-Product Calibrator
5080A/MEG	Multi-Product calibrator with Megohm Meter Calibration Option
5080A/SC	Multi-Product Calibrator with Oscilloscope Calibration Option
5080A/SC/MEG	Multi-Product Calibrator with Megohm Meter and Oscilloscope Calibration Option
5080/CAL	5080/CAL calibration software

Accessories common to all models:

Accessory	Description

9100-200	10/50 Turn Current Coil
5500A/COIL	50-Turn Current Coil
5080A Megohm Meter Calibration Option	5080A Megohm Meter Calibration Option
5080A/CASE	5080A/CASE



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