

Calibrators

The Datron Instruments Autocal family of calibrators and automated calibration systems leads the world in innovative calibration technology, providing an unparalleled choice of functional capability and performance. Together with Datron's calibration software, controllers and accessories, the Autocal range offers a selection of high quality instruments and systems with a variety of different specifications and costs. From this range, the optimum solutions can be found to most Digital Multimeter (DMM) calibration, DC to Low Frequency Standards, and high-accuracy system-source applications.

Datron calibrator performances vary from the Standards Laboratory accuracy of a multifunction calibrator capable of calibrating today's highly accurate 7½ and 8½ digit DMMs, to one similar in appearance and functionality, but with a performance and price which is ideally suited for handheld and 3½ and 4½ digit DMM calibration requirements. Functionally, the number of options within the complete calibrator range is virtually limitless, varying from dedicated DCV-only or ACV-only units, suitable for standards laboratory or systems use, to calibrators which are fully multifunctional: single instruments with all the flexibility of functions and the breadth of range in both amplitude and frequency to fulfill the ever more stringent demands of the modern calibra-

tion facility. Practical and straightforward to use on the bench, all Datron Autocal calibrators are fully programmable via the IEEE-488 interface, making them perfect sources for automated calibration systems. In addition, the wide temperature tolerance of these instruments extends their usefulness to many A.T.E. or systems applications outside the calibration laboratory, on the production floor or in the factory test bay. Datron Calibration Software is available to enhance these features, offering a range of fully integrated, menu driven, automated multimeter calibration systems either for use in traditional calibration environments, or for more demanding mobile calibration roles.

BENCHTOP CALIBRATION SYSTEMS

Software	Calibrator	Controller	Printer ¹	Analog Leads	IEEE Leads
4101B	4707, 4700 or 4705	IBM-XT or HP Vectra (4103A) or Compaq (4103B)	4104	PLK-2	2
4101B	4707, 4700 or 4705 with 4600 amplifier	IBM-XT or HP Vectra (4103A) or Compaq (4103B)	4104	PLK-2 440151 440154	2
4101B	4000/A and 4200/A	IBM-XT or HP Vectra (4103A) or Compaq (4103B)	4104	PLK-1	3

Note: ¹Includes printer interface cable.

PROGRAMMABLE CALIBRATORS SELECTION GUIDE

Model No.	Basic Functions	Optional Functions	Display Resolution	Ranges	Basic Total Accuracy (90 day, ±1°C) (±ppmR±ppmFS)	Frequency Span	Comments
4707	DCV & ACV to 200V, IEEE-488	1000V ranges, DCI, ACI & Ω	7½/6½	DCV: 100µV-1000V ACV: 1 mV-1000V DCI: 100µA-1A ACI: 100µA-1A Ω: 10Ω-100MΩ	3.5 + 0.25 90 + 10 29 + 5 320 + 50 7	10 Hz-1 MHz 10 Hz-5 kHz	For calibration of up to 8½ digit DMMs 4101B compatible 4600 compatible
4700	DCV & ACV to 200V, IEEE-488	1000V ranges, DCI, ACI & Ω	7½/6½	DCV: 100µV-1000V ACV: 1 mV-1000V DCI: 100µA-1A ACI: 100µA-1A Ω: 10Ω-100MΩ	8.5 + 0.5 220 + 20 72 + 7 475 + 80 15	10 Hz-1 MHz 10 Hz-5 kHz	For calibration of up to 6½ digit DMMs 4101B compatible 4600 compatible
4705	DCV, ACV DCI, ACI Ω, IEEE-488	None	6½/5½	DCV: 100µV-1000V ACV: 1 mV-1000V DCI: 100µA-1A ACI: 100µA-1A Ω: 10Ω-100MΩ	20 + 1 350 + 50 82 + 15 475 + 80 15	10 Hz-1 MHz 10 Hz-5 kHz	For calibration of up to 5½ digit DMMs 4101B compatible 4600 compatible
4600	DCI, ACI	None	—	DCI: 0-11A ACI: 90 mA-11A	80 + 25 330 + 55	10 Hz-5 kHz	For high current
4000	DCV, IEEE-488	DCI, Ω	7½/6½	DCV: 100µV-1000V DCI: 100µA-1A Ω: 1Ω-10MΩ	4.5 + 0.5 29 + 5 7		For calibration of up to 8½ digit DMMs 4101B compatible
4000A	DCV, IEEE-488	DCI, Ω	7½/6½	DCV: 100µV-1000V DCI: 100µA-1A Ω: 1Ω-10MΩ	3.5 + 0.25 29 + 5 7		For calibration of up to 8½ digit DMMs 4101B compatible
4200A	DCV to 200V, IEEE-488	1000V range, ACI	6½	ACV: 1 mV-1000V ACI: 100µA-1A	85 + 10 300 + 50	10 Hz-1 MHz 10 Hz-5 kHz	For calibration of high accuracy AC DMMs 4101B compatible