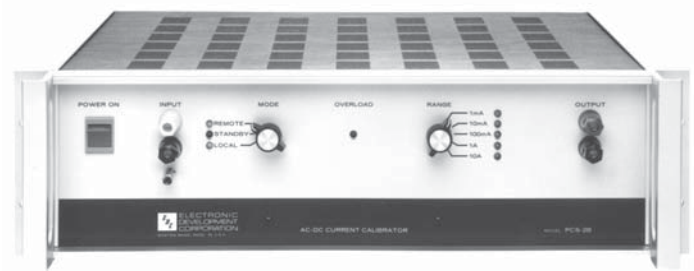


Model PCS-2B

Current Calibrator

- 10 Amp AC/DC
- 5 Ranges
- Input Voltage: 0V to ± 11 Vdc or 0V to 11Vac (rms)
- AC Bandwidth: 40Hz to 1kHz
- Accuracy: DC, $\pm(0.01\%$ of setting + 0.01% of range + $10\mu\text{A}$)
- Stability: DC, 0.001% of range; AC, 0.005% of range
- GPIB Remote Controlled



GENERAL DESCRIPTION

The Model PCS-2/B is a current-to-voltage calibrator or transconductance amplifier. The current output is directly proportional to the input voltages from a high accuracy AC or DC voltage standard. The input voltage to the unit can be AC or DC up to 1kHz. The ratios of 10 volts to output is: 1:1, 1:0.1, 1:0.01, 1:0.001 and 1:0.0001. The PCS-2/B is laboratory calibrated with instruments and load resistors traceable to N.I.S.T. (National Institute of Standards & Technology). The unit is also equipped for rack mounting in a standard 19" rack.

Recommended for DC – Models 511 and 521

Recommended for AC – Models 4601, 4503 or 4032

For watt hour systems see System 4700

The PCS-2B may also be used with AC and DC voltage sources (calibrators) of other manufacturers.

APPLICATIONS

Applications for the Model PCS-2B include: Direct Calibration of Watt Meters, Meter Shunts, AC and DC Current Meters, I to E Transducers, DVMS, DMMs, Relay Coil Current Testing.

SPECIFICATIONS

INPUT

Input Voltage: 0V to ± 11 Vdc or 0V to 11Vac (rms).

Input Impedance: 10k ohms (all ranges).

AC Bandwidth: 40Hz to 1kHz.

OUTPUT

Ranges	Resolution	Compliance Voltage	Load Reg. (%)	Distortion *(50Hz to 1kHz)
10A	10 μA	1.5Vdc or peak ac	± 0.015	<0.5%
1A	1 μA	5Vdc or peak ac	± 0.015	<0.1%
100mA	100nA	5Vdc or peak ac	± 0.01	<0.1%
10mA	10nA	5Vdc or peak ac	± 0.01	<0.1%
1mA	1nA	5Vdc or peak ac	± 0.01	<0.1%

* Distortion: Added to the distortion of the AC voltage calibrator.

Accuracy: DC, $\pm(0.01\%$ of setting + 0.01% of range + $10\mu\text{A}$); AC, $\pm(0.05\%$ of setting + 0.01% of range + $20\mu\text{A}$).

Line Regulation: $\pm 0.0005\%$ for $\pm 10\%$ line change.

Stability: DC, 0.001% of range; AC, 0.005% of range.

Isolation: Floating output; limited only by the isolation of the driving voltage source. Ripple and Noise, rms, non-additive, in a band-pass 0.1Hz to 100kHz: 1mA range, 1.5 μA ; 10mA range, 3.0 μA ; 100mA range, 40 μA ; 1A range, 80 μA ; 10A range, 375 μA .

PROGRAMMING (IEEE-488.1)

The 5 ranges are GPIB programmable as well as controlled locally with front panel controls. A dip-switch, located on the rear panel, is used to set the instruments bus address.

GENERAL

Power Requirements: 117Vac, 60Hz, 150 watts or 220Vac, 50Hz.

Temperature Coefficient: 10A and 1A ranges, 50ppm/°C; 100mA, 10mA and 1mA ranges, 10ppm/°C.

Operating Temperature: -10°C to 40°C.

Dimensions: 5.22" (12.25cm) high, 17" (43.18cm) wide, 15" (38.1cm) deep.

Weight: 30 lbs. (13.6kg) net; 34 lbs. (15.4kg) shipping.

Protection: A front panel lamp indicates when the compliance voltage has exceeded or when a malfunction has occurred.

Certification: Certificate of Compliance traceable to U.S. N.I.S.T.

Warranty: One full year, includes accuracy and stability.

Extended 1 Year Warranty: Part No. EWPCS2B.

OPTIONAL ACCESSORIES

CAB-005: Cable, Two Conductor Shielded Balance Line

CAB-018: Cable, Multi-stacking Double Banana plug

CAB-023: Cable Set, Low Thermal EMF Retractable Banana

CAB-024: Cable Set, Low Thermal EMF Spade Lug

For a watt-hour meter calibration system see the Model 4700.

Specifications are subject to change without notice.