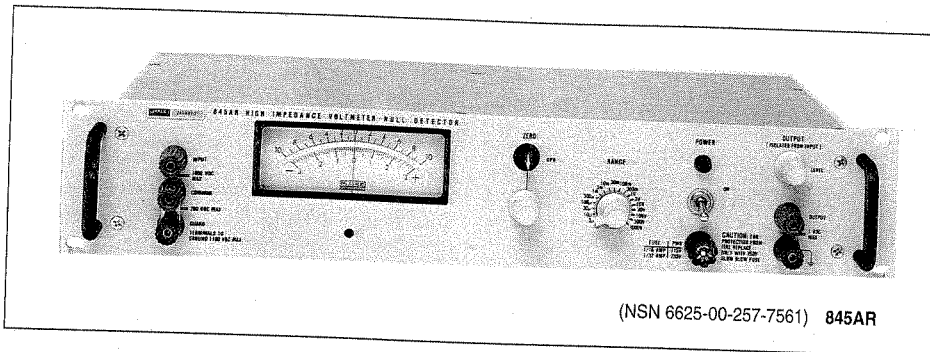


845AB & 845AR



845AB & 845AR Null Detector

10 ranges from 1 μ V through 1000V

Input isolation greater than 10^{12} ohms

Input may be floated to 1100V above ground

Overload protected to 1100V on all ranges

Recorder output isolated from input

The Fluke 845AB and 845AR are solid-state null detectors designed for extremely high input impedance, sensitivity, and isolation. Model 845AB operates either from the line or from built-in rechargeable batteries. Model 845AR is a line-powered rack-mounting version, with a height of 3 inches. Source loading through leakage is virtually eliminated by input isolation of 10^{12} ohms regardless of power line, chassis ground, or guard connections. Recorder output provides ± 1 V dc for end-scale deflection with $\pm 0.5\%$ linearity and does not affect input isolation. The 845AB and 845AR are capable of being floated up to 1100V dc from ground at either input terminal when used in a bridge circuit to compare voltage divider ratios. The unit withstands overloads up to 1100V dc on any range with a typical recovery time of four seconds.

Specifications

Range: 1 μ V through 1000V dV end-scale in nineteen ranges, using 1, 3, 10 progression

Input Resistance: 100 M Ω on 300 mV range and above. 10 M Ω on 3 mV through 100 mV range, 1 M Ω on 1 mV range and below

Accuracy: Model 845AB $\pm(2\%$ end-scale $+0.1 \mu$ V). Model 845AR $\pm(3\%$ end-scale $+0.1 \mu$ V)

Maximum P-P Meter Noise: 0.20 μ V on 1 μ V range, 0.25 μ V on 3 μ V range, 0.3 μ V on 10 μ V to 1000V range, with input shorted

Input Isolation: Better than 10^{12} ohms at $\leq 50\%$ relative humidity and 25°C regardless of line, chassis, or recorder grounding. Better than 10^{10} ohms up to 80% relative humidity and 35°C. With driven guard, isolation improves to at least 10^{13} ohms. Either input terminal can be floated 1100V off chassis ground.

DC Common Mode Rejection: Better than 160 dB, input short-circuited, $\leq 80\%$ relative humidity; better than 140 dB, open-circuited, $\leq 50\%$ relative humidity; better than 120 dB, open-circuited, $\leq 80\%$ relative humidity

AC Common Mode Rejection: (Below 100 kHz) 100V rms or 120 dB greater than end-scale, whichever is less, will affect reading $<2\%$ of end-scale (input open-circuited)

AC Normal Mode Rejection: (60 Hz and above) ac voltages 60 dB above end-scale will affect reading $<2\%$ of end-scale. Maximum voltage not to exceed 750V rms.

Recorder Output: ± 1 V dc at full scale deflection. Linearity, 0.5%. Output impedance, 5K to 7.5K. Recorder output is isolated from input and is referenced to ground.

Stability of Zero: Better than 0.15 μ V/hour; better than 0.3 μ V/day

Overload Capability: Up to 1100V dc may be applied on any range. Typical recovery time is 4s

Power, Model 845AR: 115 or 230V ac $\pm 10\%$, 50 to 440 Hz, approximately 3W

Power, Model 845AB: 115 or 230V ac $\pm 10\%$, 50 to 440 Hz or rechargeable battery. Approximately 6W during recharge. 40 hr operation on full charge. Batteries trickle-charge while instrument operates from power line.

Size, Model 845AB: 17.8 cm H x 21.6 cm W x 20.3 cm D (7 in H x 8.5 in W x 8 in D)

Size, Model 845AR: 8.9 cm H x 48.3 cm W x 21 cm D (3.5 in H x 19 in W x 8.25 in D)

Weight: Model 845AB: 4.65 kg (10.25 lb); Model 845AR: 4.08 kg (9 lb)

Ordering Information

Models

845AB Voltmeter/Null Detector w/batteries
845AR Voltmeter/Null Detector

Accessories (Also see Section 19)

881A-103 7" Rack Mount Kit, Dual, for 845AB

5440A-7002 Low Thermal Copper EMF Plug-in Cables

Manuals

845AB Instruction*

845AR Instruction*

*No charge with purchase of unit

Customer Support Services

Also see Section 20.

Factory Warranty

One-year product warranty.