



W2430 Series Multi-Option Function 3½-Digit Panel Meters

The Series 2435A/2436A is a family of 3½-digit LED display, single-range, line-powered panel meters offering a wide selection of standard ranges and functions. The basic instruments measure DC volts in four ranges from 200mV to 200VDC. The basic (DCV) meters are stocked at local distributors, as well as standard Option Kits that provide the following functions:

- **DC Voltage Measurement** (4 ranges)
199.9mV to 199.9V
- **DC Current Measurement** (6 ranges)
19.99μA to 1.999A
- **AC Voltage Measurement** either Average Sensing or True RMS (5 ranges) 199.9mV - 500VAC.
- **AC Current Measurement** either Average Sensing or True RMS (6 ranges) 19.99μA - 1.999A.
- **Process Monitor** 4 - 20mA, 1 - 5 volts (Parameters established to customer's requirements). Built-in offset and scaling are optional.
- **Resistance Measurement** (5 ranges) 20Ω - 200kΩ
- **Frequency Measurement** (3 ranges)
20Hz - 20kHz
- **Watts and Power Factor** can be accommodated with external transducers.
- **BCD OUTPUT** is available with all functions in either AC or DC powered configurations.

Option kits are installable at authorized distributor service centers.

INPUT CIRCUIT AND ACCURACY:

(Single-ended input)

Range	Accuracy (20°-26°C)	Resolution	Input Impedance	Max. Input Voltage (Peak)
200mV		100μV	>2000MΩ	±50V
2V	0.05% rdg.	1mV	>2000MΩ	±50V
20V	± 1 digit	10mV	>5MΩ	±500V
200V	(typical)	100mV	>5MΩ	±500V



- **LED Display**
- **0.05% Accuracy** — on all ranges.
- **Four Basic DCV Ranges** — 200mV - 200V
- **Standard Option Kits** offer hundreds of configurations
- **Ratiometric Option**, at a reference voltage of 1.00V ±20%
- **0° - 65°C Operation**
- **Auto-zero** — automatic zero and polarity eliminate zero calibration adjustment and allow direct reading of + and - input signals.
- **“True Bipolar” Integration** — eliminates dead zone around zero, no skewing.
- **Universally Powered** — 115/230VAC ±15% with 500 VRMS isolation.
- **BCD Output Option** — 8-4-2-1 parallel latched.
- **3 Output Voltages to Power Auxiliary Circuits:**
+5V @ 25mA; -5V @ 25mA; +5V @ 60mA
- **3 Different Reading-Rate Capabilities** — 3 rdg./sec. (standard); 7.5 or 15 rdg./sec. (Optional).

Display

Scale length: ± 1999
 Type of display: 0.55" high or LED.
 Polarity: Negative input: Minus sign at far left
 Positive input: Plus sign at far left
 2435A/2436A.
 Overrange indication: The most significant digit will remain permanently on while all other digits will be blanked. Polarity sign will be preserved.
 Decimal-points: Available at any of the following three positions by connecting the selected terminal to Pin N:
 1.XXX 1 X.XX 1 XX.X

Ranges: DC Volts 200mV, 2V, 20V, 200V

Conversion Technique: Dual Slope (U.S. Patent 3,051,939) A/D with autozeroing and single reference.

Conversion Rate: 3 rdg./sec.
 (7.5 rdg/sec., 15 rdg/sec. optional.)

Signal Integration: Time: 83mS@3 rdg/sec.

Response Time: Typically 1 second to within 0.5% of final value

Warm Up Requirements

F.S. Calibration: 5 minutes within 0.1% rdg \pm 1digit.

Long Term Stability: 180 days within rated accuracy

Power Requirements

115/230 V AC $\pm 15\%$, 47Hz to 440Hz
 Models 2435A/2436A: max. at 115 or 230 VAC, 60 Hz with display fully lit.

Available Power for Options: + 5V @ 25 mA
 + 5V @ 60 mA
 -5V @ 25mA

Operating Temperature: 0°C- 65°C@60Hz operation.

Storage Temperature: -40°C - 85 °C

Humidity: 85% R.H.

NMRR: 30dB at 60 Hz

CMRR: 100dB at 60 Hz typical.

Max. CMV: 500 VRMS

Linearity: $\pm 0.05\%$ F.S.

Hysteresis: <0.3 counts

Temperature Coefficient: $\pm 0.01\%$ F.S./°C

Temperature Coefficient of Zero: 3 μ V/°C

DIMENSIONS AND WEIGHT

Bezel: 4"w. x 1.75"h. x .56"d.
 (101.6mm x 44.45mm x 14.22mm)

Body: 3.875" w. x 1.67"h. x 4.0"d.
 (98.42mm x 42.42mm x 101.6mm)

Panel Cutout: 3.924"w. x 1.682"h.
 (99.67mm x 42.72mm).

Weight: approximate 13 ounces (368 grams).

ORDERING INFORMATION

LED DISPLAY

Model No.	Range	115VAC	230VAC	Price	Model No.	Range	115VAC	230VAC
2435A (WO/BCD)	200mV	0285238	0285242		2436A (W/BCD)	200mV	0285246	0285250
	2V	0285239	0285243			2V	0285247	0285251
	20V	0285240	0285244			20V	0285248	0285252
	200V	0285241	0285245			200V	0285249	0285253