

# SPECIFICATIONS

PART NUMBER  
485 SPECS

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18°-28°C ± (%rdg + counts)†	ANALOG RISE TIME (10-90%)	NORMAL MODE REJECTION RATIO (90 or 80Hz)	MAXIMUM CONTINUOUS INPUT‡
2 nA	0.1pA	0.4 + 4	80ms	70dB	350Vdc
20 nA	1 pA	0.4 + 1	80ms	70dB	350Vdc
200 nA	10 pA	0.2 + 1	8ms	65dB	350Vdc
2 μA	100 pA	0.15 + 1	3ms	65dB	350Vdc
20 μA	1 nA	0.1 + 1	3ms	65dB	50Vdc
200 μA	10 nA	0.1 + 1	1ms	65dB	50Vdc
2mA	100 nA	0.1 + 1	1ms	55dB	50Vdc

† When properly zeroed.

‡ With no limiting resistance: 1000Vdc with external 100kΩ series resistance.

**INPUT VOLTAGE BURDEN:** Less than 200μV.

**RANGING:** Manual or autoranging.

**AUTORANGING TIME:** Average 250ms per range.

**SETTLING TIME AT DISPLAY:** Less than 1 second to within 2 counts on fixed range.

**CONVERSION PERIOD:** 300ms.

**TEMPERATURE COEFFICIENT (0°-18°C & 28°-50°C):** ±(0.1 × applicable accuracy specification) per °C.

**MAXIMUM COMMON MODE VOLTAGE:** 30V rms, DC to 80Hz sine wave.

**ANALOG OUTPUT:**

Output Voltage: +1V = -10000 counts, except +100mV = -10000 counts on 2nA range.

Output Resistance: 1000Ω.

**REL:** Pushbutton allows zeroing of on range readings. Allows relative readings to be made with respect to baseline value. Front panel annunciator indicates REL mode.

**DATA STORE and MIN/MAX:** 100 reading storage capacity; records data at one of six selectable rates from 3 readings/second to 1 reading/hour, or by manual triggering. Also detects and stores maximum and minimum readings continuously while in the data store mode.

**LOG:** Displays logarithm (base 10) of the absolute value of the measured current (examples: -3.000 = ±1mA; -8.301 = ±0.5μA).

## IEEE-488 BUS IMPLEMENTATION (Option 4853)

**MULTILINE COMMANDS:** DCL, SDC, GET, GTL, UNT, UNL, SPE, SPD.  
**UNILINE COMMANDS:** IFC, REN EOI, SRQ, ATN.

**INTERFACE FUNCTIONS:** SH1, AH1, T5, TEO, L4, LEO, SR1, RL2, PPO, DC1, DT1, CO, E1.

**PROGRAMMABLE PARAMETERS:** Zero Check, Range, REL, LOG, Trigger, Calibration, EOI, SRQ, Status, Output Format, Terminator.

## GENERAL

**DISPLAY:** 4½ digit LCD, 0.5" height; polarity, range and status indication.

**OVERRANGE INDICATION:** "OL" displayed.

**CONNECTORS:**

Input: BNC.

Analog Output: Banana Jacks.

**OPERATING ENVIRONMENT:** 0-50°C, less than 70% R.H. up to 35°C; linearly derate 3% R.H./°C up to 50°C.

**STORAGE ENVIRONMENT:** -25° to +60°C

**POWER:** 105-125V or 210-250V (switch selected), 90-110V available, 50-60Hz, 12 VA.

**DIMENSIONS, WEIGHT:** 85mm high × 235mm wide × 275mm deep. (3 1/4" × 9 1/4" × 10 7/8").

Net Weight: 1.8kg (4 lbs.)

## ACCESSORIES AVAILABLE:

- Model 1010: Single Rack Mounting Kit
- Model 1017: Dual Rack Mounting Kit
- Model 1684: Hard Shell Carrying Case
- Model 1758: Rechargeable Battery Pack
- Model 4801: Low Noise Input Cable (4ft.), BNC to BNC
- Model 4803: Low Noise Cable Kit
- Model 4853: IEEE-488 Interface
- Model 7008-3: IEEE-488 Digital Cable (3ft.)
- Model 7008-6: IEEE-488 Digital Cable (6 ft.)
- Model 8573: IEEE-488 Interface for IBM PC