

135A/Digital Multimeter

PART NUMBER
SPEC-135A

DC VOLTS

RANGE	RESOLUTION	ACCURACY (1 YEAR) ±(%rdg + digits) 18°-28°C	TEMPERATURE COEFFICIENT ±(%rdg + digits)/°C 0°-18°C & 28°-50°C
2 V	100 μV	0.05% + 1d	0.012% + 0.3d
20 V	1mV	0.05% + 1d	0.012% + 0.3d
200 V	10mV	0.1% + 1d	0.012% + 0.3d
1000 V	100mV	0.1% + 1d	0.012% + 0.3d

INPUT RESISTANCE: 10MΩ.

NORMAL MODE REJECTION RATIO: Greater than 60dB @ 50Hz, 60Hz.

COMMON MODE REJECTION RATIO (1kΩ unbalance): Greater than 120dB @ DC, 50Hz & 60Hz.

MAXIMUM ALLOWABLE INPUT: 1000V DC or peak AC non-switched, 750V peak switched.

AC VOLTS

RANGE	RESOLUTION	ACCURACY (1 YEAR) ±(%rdg + digits) 18°-28°C
2 V	100 μV	1% + 15d, 45Hz-10kHz*
20 V	1mV	1% + 15d, 45Hz-500 Hz
200 V	10mV	1% + 15d, 45Hz-120 Hz
750 V	100mV	1% + 15d, 45Hz-120 Hz

* Above 2000 counts.

Extended range accuracy: 5% + 15d, 10kHz-20kHz

RESPONSE: Average responding, calibrated in rms of a sine wave.

INPUT IMPEDANCE: 10MΩ shunted by less than 100pF.

COMMON MODE REJECTION RATIO (1kΩ unbalance): Greater than 60dB @ DC, 50Hz & 60Hz.

MAXIMUM ALLOWABLE INPUT: 750V rms, 1000V peak continuous on 20V, 200V, 750V ranges, 10°V/Hz max; 300V rms continuous, 750V momentary (3 seconds) on 2V range

TEMPERATURE COEFFICIENT: Less than (0.1 × applicable accuracy)/°C (0°-28°C & 35°-50°C).

OHMS

RANGE	RESOLUTION	ACCURACY (1 YEAR) ±(%rdg + digits) 18°-28°C	TEMPERATURE COEFFICIENT ±(%rdg + digits)/°C 0°-18°C & 28°-50°C	MAXIMUM TEST CURRENT
2 kΩ	100mΩ	0.25% + 5d	0.05% + 0.3d	-750 μA
20 kΩ	1 Ω	0.2% + 2d	0.01% + 0.5d	-150 μA
200 kΩ	10 Ω	0.2% + 2d	0.01% + 0.5d	-15 μA
2000 kΩ	100 Ω	0.2% + 2d	0.01% + 0.5d	-1.5 μA
20MΩ	1 kΩ	1% + 2d	0.1% + 0.5d	-0.15μA

MAXIMUM FULL SCALE VOLTAGE: -1V.

MAXIMUM OPEN CIRCUIT VOLTAGE: -2V.

OVERLOAD PROTECTION: 300V DC or rms on all ranges.

DIODE TEST: On-scale reading for forward biased silicon diode.

DC AMPS

RANGE	RESOLUTION	ACCURACY (1 YEAR) ±(%rdg + digits) 18°-28°C	TEMPERATURE COEFFICIENT ±(%rdg + digits)/°C 0°-18°C & 28°-50°C	MAXIMUM VOLTAGE BURDEN
50mA	10 μA	0.25% + 2d	0.05% + 0.3d	0.6V
10 A	10mA	1% + 2d	0.05% + 0.3d	0.3V

OVERLOAD PROTECTION: 50mA input: 0.75A fuse (250V), externally accessible. 10A input: 20A for 15s unfused.

AC AMPS

RANGE	RESOLUTION	ACCURACY (1 YEAR) 45Hz-1kHz ±(%rdg + digits) 18°-28°C	TEMPERATURE COEFFICIENT ±(%rdg + digits)/°C 0°-18°C & 28°-50°C
50mA	10 μA	1.5% + 5d	0.15% + 0.5d
10 A	10mA	1.5% + 5d	0.15% + 0.5d

OVERLOAD PROTECTION: 50mA input: 0.75A fuse (250V), externally accessible. 10A input: 20A for 15s unfused.

GENERAL

DISPLAY: 4 1/4-digit LCD, 0.6" height, polarity and range indication, low battery warning.

CONVERSION PERIOD: 400ms (2.5 readings/second).

OVERRANGE INDICATION: 4 least significant digits blanked.

MAXIMUM COMMON MODE VOLTAGE: 500V DC or peak AC.

OPERATING ENVIRONMENT: 0° to 50°C; less than 80% relative humidity up to 35°C; linearly derate 3% RH/°C, 35° to 50°C.

STORAGE ENVIRONMENT: -35°C to 60°C, less than 90% relative humidity up to 35°C; linearly derate 3% RH/°C, 35°C to 60°C.

POWER: One 9V alkaline or carbon-zinc battery (NEDA 1604).

BATTERY LIFE: 100 hours typical with alkaline battery; 50 hours typical with carbon-zinc battery.

BATTERY INDICATOR: Display indicates "BAT" when less than 10% of life remains.

DIMENSIONS, WEIGHT: 178mm long × 78mm wide × 42mm thick (7.0" × 3.1" × 1.6"). Net weight 400gm (14.1 oz.).

ACCESSORIES SUPPLIED: Battery, instruction manual, Model 1691 Test Lead Set.

ACCESSORIES AVAILABLE:

- Model 1301: Temperature Probe
- Model 1304: Soft Carrying Case & Stand
- Model 1306: Heavy Duty Carrying Case
- Model 1600A: High Voltage Probe
- Model 1651: 50-Ampere Current Shunt
- Model 1681: Clip-On Test Lead Set
- Model 1682A: RF Probe
- Model 1683: Universal Test Lead Kit
- Model 1685: Clamp-On Current Probe
- Model 1691: General Purpose Test Lead Set

Prices and specifications subject to change without notice.