

Specifications

PART NUMBER

SPEC-131

DC VOLTAGE

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18° to 28°C
200mV	100 μV	±(0.25% of reading + 1 digit)
2 V	1mV	
20 V	10mV	
200 V	100mV	
1000 V	1 V	

MAXIMUM ALLOWABLE INPUT: 1000V DC or peak AC non-switched, 750V peak switched
 INPUT RESISTANCE: 10MΩ
 NORMAL MODE REJECTION RATIO: Greater than 46dB at 50Hz, 60Hz
 COMMON MODE REJECTION RATIO: Greater than 100dB at DC, 50Hz and 60Hz (1kΩ unbalance)

AC VOLTAGE

RANGE	RESOLUTION	ACCURACY (1 YEAR)* 18° to 28°C	FREQUENCY RANGE
200mV	100 μV	±(1% of reading + 3d)	45Hz—500Hz
2 V	1mV		45Hz—500Hz
20 V	10mV		45Hz—500Hz
200 V	100mV		45Hz—500Hz
750 V	1 V		45Hz—500Hz

MAXIMUM ALLOWABLE INPUT: 1000V peak non-switched, 750V peak switched; continuous except 200mV range: 15 sec max above 300V
 INPUT IMPEDANCE: 10MΩ shunted by less than 100pF
 RESPONSE: Average responding, calibrated in rms of a sine wave
 *Above 10 counts

DC CURRENT

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18° to 28°C	MAXIMUM FULL SCALE VOLTAGE BURDEN
2mA	1 μA	±(0.75% rdg + 1d)	0.25V
20mA	10 μA	±(0.75% rdg + 1d)	0.25V
200mA	100 μA	±(0.75% rdg + 1d)	0.25V
2000mA	1mA	±(2% rdg + 1d)	0.7 V
10 A	10mA	±(2% rdg + 1d)	0.3 V

OVERLOAD PROTECTION: mA input: 2A fuse (250V), externally accessible; 10A input: 20A for 15 sec unfused

AC CURRENT

RANGE	RESOLUTION	ACCURACY (1 YEAR)* 18° to 28°C (45Hz—500Hz)	MAXIMUM FULL SCALE VOLTAGE BURDEN
2mA	1 μA	±(2% rdg + 2d)	0.25V
20mA	10 μA	±(2% rdg + 2d)	0.25V
200mA	100 μA	±(2% rdg + 2d)	0.25V
2000mA	1mA	±(3% rdg + 5d)	0.7 V
10 A	10mA	±(3% rdg + 5d)	0.3 V

OVERLOAD PROTECTION: mA input: 2A fuse (250V), externally accessible; 10A input: 20A for 15 sec unfused
 *Above 10 counts

RESISTANCE

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18° to 28°C	FULL SCALE VOLTAGE
200 Ω	100mΩ	±(0.5% rdg + 4d)	<0.5V
2 kΩ	1 Ω	±(0.2% rdg + 1d)	<0.5V
20 kΩ	10 Ω	±(0.2% rdg + 1d)	>0.7V
200 kΩ	100 Ω	±(0.2% rdg + 1d)	>0.7V
20MΩ	10 kΩ	±(2% rdg + 1d)	>0.7V

MAXIMUM OPEN CIRCUIT VOLTAGE: 1.5V
 MAXIMUM ALLOWABLE INPUT: 300V DC or rms

GENERAL

DISPLAY: 3½-digit LCD, 0.6" height, with polarity and range indication.
 OVERRANGE INDICATION: 3 least significant digits blanked.
 MAXIMUM COMMON MODE VOLTAGE: 500V peak
 OPERATING ENVIRONMENT: 0° to 50°C; less than 70% relative humidity up to 35°C; *


STORAGE ENVIRONMENT: -35°C to 60°C
 TEMPERATURE COEFFICIENT (0° to 18°C and 28° to 50°C): Less than 0.1 × applicable accuracy specification per °C
 POWER: 9V alkaline or carbon-zinc battery (NEDA 1604)
 BATTERY LIFE: 100 hours typical with carbon-zinc cells, 200 hours with alkaline cells.
 BATTERY INDICATOR: Display indicates BAT when less than 10% of life remains.
 DIMENSIONS, WEIGHT: 178mm long × 78mm wide × 38mm thick (7.0" × 3.1" × 1.5"). Net weight 283gm (10 oz.).
 ACCESSORIES SUPPLIED: Battery, test leads and operating instructions.

U.S.A. price only. Prices and specifications subject to change without notice.

ACCESSORIES AVAILABLE:

- Model 1304 Soft Carrying Case and Stand
- Model 1309 Spare Parts Kit
- Model 1600 High Voltage Probe
- Model 1651 50-Ampere Shunt
- Model 1681 Clip-On Test Lead Set
- Model 1682 RF Probe
- Model 1683 Universal Test Lead Kit
- Model 1685 Clamp-On Current Probe
- Model 1691 General Purpose Test Lead Set

* LINEARLY DERATE 3% R.H./°C FROM 35°C TO 50°C.

LTR	REVISIONS	APP.	DATE	DRN.	DATE	 KEITHLEY INSTRUMENTS CLEVELAND, OHIO
A	RELEASED 7265		9-25-80	CKD.	DATE	
B	REVISED 3068		11-12-81	APP. 787	DATE	
SPECIFICATIONS MODEL 131						PART NUMBER SPEC-131

Specifications

PART NUMBER

SPEC-131

DC VOLTAGE

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18° to 28°C
200mV	100 μV	±(0.25% of reading + 1 digit)
2 V	1mV	
20 V	10mV	
200 V	100mV	
1000 V	1 V	

MAXIMUM ALLOWABLE INPUT: 1000V DC or peak AC non-switched, 750V peak switched
 INPUT RESISTANCE: 10MΩ
 NORMAL MODE REJECTION RATIO: Greater than 46dB at 50Hz, 60Hz
 COMMON MODE REJECTION RATIO: Greater than 100dB at DC, 50Hz and 60Hz (1kΩ unbalance)

AC VOLTAGE

RANGE	RESOLUTION	ACCURACY (1 YEAR)*	FREQUENCY RANGE
200mV	100 μV	±(1% of reading + 3d)	45Hz-500Hz
2 V	1mV		45Hz-500Hz
20 V	10mV		45Hz-500Hz
200 V	100mV		45Hz-500Hz
750 V	1 V		45Hz-500Hz

MAXIMUM ALLOWABLE INPUT: 1000V peak non-switched, 750V peak switched; continuous except 200mV range: 15 sec max above 300V
 INPUT IMPEDANCE: 10MΩ shunted by less than 100pF
 RESPONSE: Average responding, calibrated in rms of a sine wave
 *Above 10 counts

DC CURRENT

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18° to 28°C	MAXIMUM FULL SCALE VOLTAGE BURDEN
2mA	1 μA	±(0.75% rdg + 1d)	0.25V
20mA	10 μA	±(0.75% rdg + 1d)	0.25V
200mA	100 μA	±(0.75% rdg + 1d)	0.25V
2000mA	1mA	±(2% rdg + 1d)	0.7 V
10 A	10mA	±(2% rdg + 1d)	0.3 V

OVERLOAD PROTECTION: mA input: 2A fuse (250V), externally accessible; 10A input: 20A for 15 sec unfused

AC CURRENT

RANGE	RESOLUTION	ACCURACY (1 YEAR)* 18° to 28°C (45Hz-500Hz)	MAXIMUM FULL SCALE VOLTAGE BURDEN
2mA	1 μA	±(2% rdg + 2d)	0.25V
20mA	10 μA	±(2% rdg + 2d)	0.25V
200mA	100 μA	±(2% rdg + 2d)	0.25V
2000mA	1mA	±(3% rdg + 5d)	0.7 V
10 A	10mA	±(3% rdg + 5d)	0.3 V

OVERLOAD PROTECTION: mA input: 2A fuse (250V), externally accessible; 10A input: 20A for 15 sec unfused
 *Above 10 counts

RESISTANCE

RANGE	RESOLUTION	ACCURACY (1 YEAR) 18° to 28°C	FULL SCALE VOLTAGE
200 Ω	100mΩ	±(0.5% rdg + 4d)	<0.5V
2 kΩ	1 Ω	±(0.2% rdg + 1d)	<0.5V
20 kΩ	10 Ω	±(0.2% rdg + 1d)	>0.7V
200 kΩ	100 Ω	±(0.2% rdg + 1d)	>0.7V
20MΩ	10 kΩ	±(2% rdg + 1d)	>0.7V

MAXIMUM OPEN CIRCUIT VOLTAGE: 1.5V
 MAXIMUM ALLOWABLE INPUT: 300V DC or rms

GENERAL

DISPLAY: 3 1/2-digit LCD, 0.6" height, with polarity and range indication.

OVERRANGE INDICATION: 3 least significant digits blanked.

MAXIMUM COMMON MODE VOLTAGE: 500V peak

OPERATING ENVIRONMENT: 0° to 50°C; less than 80% relative humidity up to 35°C, less than 70% relative humidity from 35°C to 50°C.

STORAGE ENVIRONMENT: -35°C to 60°C

TEMPERATURE COEFFICIENT (0° to 18°C and 28° to 50°C): Less than 0.1 × applicable accuracy specification per °C

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

BATTERY LIFE: 100 hours typical with carbon-zinc cells, 200 hours with alkaline cells.

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

DIMENSIONS, WEIGHT: 178mm long × 78mm wide × 38mm thick (7.0" × 3.1" × 1.5"). Net weight 283gm (10 oz.).

ACCESSORIES SUPPLIED: Battery, test leads and operating instructions.

U.S.A. price only. Prices and specifications subject to change without notice.

ACCESSORIES AVAILABLE:

- Model 1304 Soft Carrying Case and Stand
- Model 1309 Spare Parts Kit
- Model 1600 High Voltage Probe
- Model 1651 50-Ampere Shunt
- Model 1681 Clip-On Test Lead Set
- Model 1682 RF Probe
- Model 1683 Universal Test Lead Kit
- Model 1685 Clamp-On Current Probe
- Model 1691 General Purpose Test Lead Set

LTR	REVISIONS	APP.	DATE	DRN.	DATE
A	RELEASED 7265		7-25-83	CKD.	DATE
				APP.	DATE



KEITHLEY
INSTRUMENTS
CLEVELAND, OHIO

SPECIFICATIONS
MODEL 131

PART NUMBER
SPEC-131