

FLUKE 787 DETAILED SPECIFICATIONS

For temperature range of 18° C to 28° C, relative humidity less than 90%, for one year after calibration

Function	Range	Performance	Notes
DC Current Output (internal battery operation)	4.0 to 20.0 mA	25 % Step: 4.0 mA (5 mA in 0-20 ma mode) Coarse Adjust: 0.1 mA Fine Adjust: 0.001 mA	Compliance Voltage: 12 Volts
DC Current Simulator Mode (24 Volt Loop supply)	(0 to 20 mA selectable by power-up function) Over-range: to 24 mA	Slow Ramp, Fast Ramp, Auto Step Resolution: 0.001 mA Accuracy: 0.05% of span	Loop Voltage input: 15 to 30 volts; 24 volt nominal Compliance Voltage: 21 Volts for 24 volt supply Burden Voltage: < 3 Volts Current Drive: 1 k resistor to 20 mA for 24 volt loop supply)
Diode test: (show voltage drop)	2.4V full scale; 0.22 mA nominal test current at 0.6 V	Accuracy: +(2% + 1)	Open Circuit Voltage: < 3.9 Volts Short Circuit Current: 0.22 mA typical
Continuity (audible tone)	for test resistance below 100 Ohms		Overload Protection: 1000 V rms

Function	Range	Resolution	Accuracy	+(% of reading+LSD)		
DC Voltage Measurement	4.000 V DC	0.001 V		0.1% + 1		
	40.00 V DC	0.01 V		0.1% + 1		
	400.0 V DC	0.1 V		0.1% + 1		
	1000 V DC	1 V		0.1% + 1		
DC milliVolts Measurement	400.0 mV DC	0.1 mV		0.1% + 1		
AC Voltage Measurement (true-rms responding, specified from 5% to 100% of range)	400 mV	0.1 mV	50 Hz- 60 Hz	45 Hz-500 Hz	500 Hz-1 kHz	
	4.000 V	0.001 V	+ (0.7%+2)	+ (1.2%+4)	+ (5.0%+4)	
	40.00 V	0.01 V	+ (0.7%+2)	+ (1.2%+4)	+ (5.0%+4)	
	400.0 V	0.1 V	+ (0.7%+2)	+ (1.2%+4)	+ (5.0%+4)	
	1000 V	1 V	+ (0.7%+2)	+ (1.2%+4)	+ (5.0%+4)	
AC Current (45 Hz to 2 kHz)	0.440 A	0.001 A		+ (1% + 2)		
DC Current	30.000 mA	0.001 mA		+ (0.05% + 2)		
	0.440 A	0.001 A		+ (0.2% + 2)		
Ohms Measure	400.0 Ω	0.1 Ω		0.2% + 2		
	4.000 kΩ	0.001 kΩ		0.2% + 1		
	40.00 kΩ	0.01 kΩ		0.2% + 1		
	400.0 kΩ	0.1 kΩ		0.2% + 1		
	4.0 MΩ	0.001 MΩ		0.35% + 3		
	40 MΩ	0.01 MΩ		2.5% + 3		
Frequency Measure (0.5 Hz to 20 kHz)	199.99 Hz	0.01 Hz		+(0.005% + 1)		
	1999.9 Hz	0.1 Hz		+(0.005% + 1)		
	19.999 kHz	0.001 kHz		+(0.005% + 1)		

General Specifications:

Maximum voltage applied between any jack and Earth Ground: 1000 V rms

Storage Temperature: -40 °C to 60 °C

Operating Temperature: -20 °C to 55 °C

Temperature Coefficient: 0.05 x (specified accuracy) per °C (for temperatures < 18 °C or > 28 °C)

Relative Humidity: 95% up to 30 °C; 75% up to 40 °C; 45% up to 50 °C; 35% up to 55 °C

Vibration: Random, 2g, 5-500 Hz.

Shock: 1 meter drop test

Safety: Designed in accordance with IEC 1010-1, ANSI/ISA S82.01-1994 and CAN/CSA C22.2 No. 1010..1-92 Overvoltage Category III

Size: 32 mm H x 87 mm W x 187 mm L (1.25 in H x 3.41 in W x 7.35 in L)

Size, with holster and Flex-Stand: 52 mm H x 98 mm W x 201 mm L (2.06 in H x 3.86 in W x 7.93 in L).

Weight: 369 g (13 oz); with holster and Flex-Stand 638 g (22.5 oz)

Battery: Single 9V Alkaline battery (ANSI/NEDA 1604A or IEC 6LR61)

Battery Life: 50 hours typical (measurement), 12 hours typical (sourcing 12 mA)

Warranty: 3 years