

Fluke 37 Specifications

FUNCTION	RANGE	RESOLUTION	ACCURACY *		
$\overline{\text{V}}$	3.200V	0.001V	$\pm(0.1\%+1)$		
	32.00V	0.01V	$\pm(0.1\%+1)$		
	320.0V	0.1V	$\pm(0.1\%+1)$		
	1000V	1V	$\pm(0.1\%+1)$		
$\overline{\text{mV}}$	320.0 mV	0.1 mV	$\pm(0.1\%+1)$		
Ω (nS)	320.0 Ω	0.1 Ω	$\pm(0.3\%+2)$		
	3.200 k Ω	0.001 k Ω	$\pm(0.2\%+1)$		
	32.00 k Ω	0.01 k Ω	$\pm(0.2\%+1)$		
	320.0 k Ω	0.1 k Ω	$\pm(0.2\%+1)$		
	3.200 M Ω	0.001 M Ω	$\pm(0.2\%+1)$		
	32.00 M Ω	0.01 M Ω	$\pm(1\%+1)$		
	32.00 nS	0.01 nS	$\pm(2\%+10)$		
$\{\{\{\{\} \rightarrow\}$	2.080V	0.001V	$\pm(1\%+1)$ typical		
$\sim \text{V}$	3.200V 32.00V 320.0V 1000V	0.001V 0.01V 0.1V 1V	40 Hz-2 kHz	2 kHz-10 kHz	10 kHz-30 kHz
			$\pm(0.5\%+3)$	$\pm(2\%+3)$	$\pm(4\%+10)$
			$\pm(0.5\%+3)$	$\pm(2\%+3)$	$\pm(4\%+10)$
			$\pm(0.5\%+3)$	$\pm(2\%+3)$	$\pm(4\%+10)$
			$\pm(1\%+3)$	$\pm(3\%+3)$	Not Specified
$\sim \text{mV}$	320.0 mV	0.1 mV	$\pm(0.5\%+3)$	$\pm(2\%+3)$	$\pm(4\%+10)$

FUNCTION	RANGE	RESOLUTION	ACCURACY *	TYPICAL BURDEN VOLTAGE
$\overline{\text{mA/A}}$	32.00 mA	0.01 mA	$\pm(0.75\%+2)$	5.6 mV/mA
	320.0 mA	0.1 mA	$\pm(0.75\%+2)$	5.6 mV/mA
	10.00A	0.01A	$\pm(0.75\%+2)$	50 mV/A
$\overline{\mu\text{A}}$	320.0 μA	0.1 μA	$\pm(0.75\%+2)$	0.5 mV/ μA
	3200 μA	1 μA	$\pm(0.75\%+2)$	0.5 mV/ μA
$\sim \text{mA/A}$ 40-1000 Hz	32.00 mA	0.01 mA	$\pm(1.5\%+2)$	5.6 mV/mA
	320.0 mA	0.1 mA	$\pm(1.5\%+2)$	5.6 mV/mA
	10.00A	0.01A	$\pm(1.5\%+2)$	50 mV/A
$\sim \mu\text{A}$ 40-1000 Hz	320.0 μA	0.1 μA	$\pm(1.5\%+2)$	0.5 mV/ μA
	3200 μA	1 μA	$\pm(1.5\%+2)$	0.5 mV/ μA

* Accuracy is specified as $\pm([\% \text{ of reading}] + [\text{number of least significant digits}])$.

Basic electrical accuracy is specified from 18°C to 28°C with relative humidity up to 90%, for a period of one year after calibration. All ac conversions are ac coupled, average responding, and calibrated to read the true rms value of a sine wave input.

Ranging is either automatic or manual in all functions with more than one range. Test resistance below approximately 150 Ω in the $\{\{\{\{\} \rightarrow\}$ function produces a continuous audible tone.

Fluke 37 Specifications (cont)

FUNCTION	OVERLOAD PROTECTION	INPUT IMPEDANCE (nominal)	COMMON MODE REJECTION RATIO (1 kΩ unbalance)	NORMAL MODE REJECTION
$\overline{\text{V}}$	1000V rms**	10 MΩ in // with <100 pF	>120 dB at dc, 50 Hz, or 60 Hz	>60 dB at 50 Hz or 60 Hz
$\overline{\text{mV}}$	500V rms**	10 MΩ in // with <100 pF	>120 dB at dc, 50 Hz, or 60 Hz	>60 dB at 50 Hz or 60 Hz
$\sim \text{V}$	1000V rms (10 ⁷ V-Hz max)	10 MΩ in // with <100 pF (ac coupled)	>60 dB, dc to 60 Hz	
$\sim \text{mV}$	500V rms (10 ⁷ V-Hz max)	10 MΩ in // with <100 pF (ac coupled)	>60 dB, dc to 60 Hz	
Ω	500V rms	OPEN CIRCUIT TEST VOLTAGE	FULL SCALE VOLTAGE	
			Up to 3.2 MΩ	32 MΩ or nS
		<2.8V dc	<420 mV dc	<1.3V dc

** 10⁷ V- Hz max

MAXIMUM VOLTAGE BETWEEN ANY TERMINAL AND EARTH GROUND
1000V

FUNCTION	FUSE PROTECTION
mA or μA A	630 mA 250V FAST, 2A 600V FAST 15A 600V FAST

- Digital Display 3200 counts, updates 2/sec
- Analog Display 31 segments, updates 25/sec
- Operating Temperature -15°C to 55°C, to -40°C for 20 minutes when taken from 20°C
- Storage Temperature -40°C to +60°C
- Temperature Coefficient 0.1 x (specified accuracy)/°C (<18°C or >28°C)
- Relative Humidity 0% to 90% (0°C to 35°C)
0% to 70% (35°C to 55°C)
- Battery Type 9V, NEDA 1604 or 6F22 or 006P
- Battery Life 1000 hrs typical
- Shock and Vibration Per MIL-T-28800
- Size (HxWxL) 3.5 in x 8.5 in x 8.9 in (8.9 cm x 21.6 cm x 22.6 cm)
- Weight 2.5 pounds (0.94 kg)
- Safety Protection Class II per IEC 348 and ANSI C39.5