

# Industrial Troubleshooting Multimeters

## Make industrial troubleshooting even more productive

The Fluke 87V provides improved measurement functions over the 83V model. Enhanced troubleshooting features, resolution and accuracy help you solve more problems on motor drives, in plant automation, power distribution and electro-mechanical equipment.

### Measures

- Unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (87V, 87V/E2KIT)
- True RMS AC voltage and current for accurate measurements on nonlinear signals (87V, 87V/E2KIT)
- Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument (87V, 87V/E2KIT)
- Measure up to 1000 VAC and DC
- Measure up to 10 A (20 A for 30 seconds)
- 10,000  $\mu$ F capacitance range
- Frequency to 200 kHz and % duty cycle
- Peak capture to record transients as fast as 250  $\mu$ s (87V, 87V/E2KIT)

### Features

- Large display digits and 2-level bright white backlight for increased visibility
- Withstands hazardous 8000 volt spikes caused by load switching and faults on industrial circuits and complies with second edition ANSI and IEC electrical safety standards
- Improved sleep mode for long battery life
- Relative mode to remove test lead resistance from low ohms measurements
- Auto and manual ranging for maximum flexibility
- Optional magnetic hanger (TPAK) for easy setup and viewing while freeing your hands for other tasks



SPECIFICATIONS			
Function	Range and resolution	Basic accuracy	
		87-V	83-V
DC volts	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.05% +1	0.1% +1
AC volts	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.7% +2 (True RMS)	0.5% +2
DC current	600.0 $\mu$ A, 6000 $\mu$ A, 60.00 $\mu$ A, 600.0 mA, 6.000 A, 10.00 A	0.2% +2	0.4% +2
AC current	600.0 $\mu$ A, 6000 $\mu$ A, 60.00 $\mu$ A, 600.0 mA, 6.000 A, 10.00 A	1.0% +2 (True RMS)	1.2% +2
Resistance	600.0 $\Omega$ , 6.000 k $\Omega$ , 60.00 k $\Omega$ , 600.0 k $\Omega$ , 6.000 M $\Omega$ , 50 M $\Omega$	0.2% +1	0.4% +1
Capacitance	10.00 nF, 100.0 nF, 1.000 $\mu$ F, 10.00 $\mu$ F, 100.0 $\mu$ F, 9999 $\mu$ F	1.0% +2	1.0% +2
Frequency	199.99 Hz, 1.9999 kHz, 19.999 kHz, 199.99 kHz	0.005% +1	0.005% +1
Temperature (excl. probe)	-328 to 1994°F (-200 to 1090°C)	1.0%	—
Temperature probe 80BK-A	-40 to 500°F (-40 to 260°C)	2.2°C or 2%	—

What's included: TL75 test leads, AC72 alligator clips, temperature probe (87V only), CD-ROM (user's manual and technical notes), operator's guide, holster, and 9 V battery (installed). Kit includes: 87V DVM; 80BK-A temperature probe; TPAK magnetic hanger; TL224 test leads, TP238 test probes, AC220 clips, and C35 soft carrying case.

Catalog No.	Model No.	Description
TS-26097-02	87V	True RMS multimeter
TS-26097-12	87V/E2KIT	Industrial combo kit
TS-26093-02	83V	High-accuracy multimeter
TS-20054-50	28II EX	True RMS multimeter, intrinsically safe
Accessories		
TS-20013-45	i400	Clamp-on current probe, 400 amp AC
TS-26012-52	i410	Clamp-on current probe, 400 amp AC/DC
TS-99288-98	80AK-A	Adapter for thermocouple probes (model 87V and 87V-EX)
TS-20017-77	80PK-25	Piercing temperature probe for liquids and gels (requires 80AK-A adapter)
TS-20018-56	TPAK	Magnetic meter hanging kit
TS-20018-54	TLK-225	SureGrip™ master accessory kit includes leads, probes, and roll-up pouch
TS-09386-04	—	Replacement batteries, 9 V, 4/pk
TS-17100-00	—	NIST-traceable calibration with data