

TECHNICAL DATA

# Fluke 87V IMSK Industrial Multimeter Service Kit



### 87V IMSK KIT HIGHLIGHTS

- Fluke-87V Multimeter has true-rms accuracy and advanced functionality to give you the results you need
- Fluke-i400 AC 400A Current Clamp turns the 87V into a clamp meter
- Select accessories like temperature probe, test leads and alligator clips included

### Product overview

This combo kit is built around the Fluke 87V, the most widely used industrial digital multimeter in the world, combined with the i400 AC current clamp. Together they provide the resolution and accuracy to efficiently troubleshoot any electrical system. The kit includes special accessories to make you even more productive on the job and will save over 15% compared with the individually priced items. Plus, you'll be working with the most trusted tools in the world.

### Fluke-87V Multimeter has true-rms accuracy and advanced functionality to give you the results you need

- True-rms accuracy with manual and automatic ranging, Display Hold, Auto Hold, and Min/Max-Average recording
- Efficiently troubleshoot motor drives, plant automation, power distribution, and electromechanical equipment even in loud, high-energy, and high-altitude locations
- A low pass filter supports accurate frequency measurements on VFDs and captures intermittents as fast 250  $\mu$ S
- Lifetime warranty, backed by a brand you trust

### Fluke-i400 AC 400A Current Clamp turns the 87V into a clamp meter

- The current clamp provides accurate current measurements up to 400 A ac without breaking electric circuits
- Allows taking measurements safely with industry standard safety ratings

### Select accessories like temperature probe, test leads and alligator clips

- The 80BK-A DMM Temperature Probe plugs into the 87V's voltage jacks and allows temperature measurements from -40 °C to 260 °C (-40 °F to 500 °F)
- TL75 Test Leads and AC175 Alligator Clips complete this versatile kit

### Key safety features

- Safety rated CAT III 1000 V, CAT IV 600 V meter to get you home safely from the job.
- Designed to withstand spikes of more than 8000 V. Audible Input Alert warning against wrong use of input jacks.

# 87V IMSK Specifications

## 87V Industrial Digital Multimeter

### Electrical specifications

DC voltage	Range	0.1 mV to 1000 V
	Accuracy	$\pm(0.05\% + 1)$
	Maximum resolution	10 $\mu$ V
AC voltage	Range	0.1 mV to 1000 V
	Accuracy	$\pm(0.7\% + 2)$ True-rms
	AC bandwidth	20 kHz with low pass filter; 3 dB @ 1 kHz
	Maximum resolution	0.1 mV
DC current	Range	0.1 $\mu$ A to 10 A (20 A for 30 seconds maximum)
	Amps Accuracy	$\pm(0.2\% + 2)$
	Maximum resolution	0.01 $\mu$ A
AC current	Range	0.1 $\mu$ A to 10 A (20 A for 30 seconds maximum)
	Amps Accuracy	$\pm(1.0\% + 2)$ True-rms
	Maximum resolution	0.1 $\mu$ A
Resistance	Range	0.1 $\Omega$ to 50 M $\Omega$
	Accuracy	$\pm(0.2\% + 1)$
	Maximum resolution	0.1 $\Omega$
Capacitance	Range	1 nF to 9999 $\mu$ F
	Accuracy	$\pm(1\% + 2)$
	Maximum resolution	0.01 nF
Frequency	Range	0.5 Hz to 199.99 kHz
	Accuracy	$\pm(0.005\% + 1)$
	Maximum resolution	0.01 Hz
Duty cycle	Maximum duty cycle	99.9 %
	Accuracy	$\pm(0.2\% \text{ per kHz} + 0.1\%)$
	Maximum resolution	0.1 %
Temperature measurement	-200.0 °C to 1090 °C -328.0 °F to 1994.0 °F excluding probe	
80 BK temperature probe	-40.0 °C to 260 °C, $\pm 2.2$ °C or 2 % whichever is greater -40.0 °F to 500 °F, $\pm 4.0$ °F or 2 % whichever is greater	
Conductance	Maximum conductance	60.00 nS
	Accuracy	$\pm(1.0\% + 10)$
	Maximum resolution	0.01 nS
Diode	Range	3 V
	Resolution	1 mV
	Accuracy	$\pm(2\% + 1)$
Duty cycle range	Accuracy	Within $\pm(0.2\% \text{ per kHz} + 0.1\%)$
Data storage	Peak transient capture	250 $\mu$ S
	Min/Max/Avg	Yes
	Reading hold	Yes

Display	Digital Analog bar graph Backlight Frequency	6000 counts updates 4/sec. 19,999 counts in high-resolution mode 32 segments, updates 40/sec Yes 19,999 counts, updates 3/sec at > 10 Hz
Low pass filter	Measurement of VFDs: Yes	
<b>Safety specifications</b>		
Compliance	CAT IV 600 V , CAT III 1000 V	
Overvoltage category	EN 61010-1 to 1000 V CAT III, 600V CAT IV	
Agency approvals	CE, CSA	
<b>Mechanical and general specifications</b>		
IP rating	30	
Shock	1 meter drop per	
Vibration	Per MIL-PRF-28800 for a Class 2 instrument	
Power	Three AA batteries	400 hours typical, without backlight
Size	201 x 98 x 52 mm (with holster)	
Weight	355 g 624 g (with holster)	
Warranty	Limited lifetime	
<b>Environmental specifications</b>		
Operating temperature	-20 °C to + 55 °C	
Storage temperature	-40 °C to + 60 °C	
Humidity (without condensation)	0% – 90% (0 °C – 35 °C) 0% – 70% (35 °C – 55 °C)	
Operating altitude	2000 m	



## Fluke i400 Specifications

### i400 AC Current Clamp

#### Specifications

Nominal current range	400 A
Continuous current range	1 A - 400 A
Maximum non-destructive current	1000 A
Lowest measurable current	1 A
Basic accuracy	2 % + 0.06 A
	(45-400 Hz)
	(% reading + floor spec)
Useable frequency	5 Hz - 20 kHz
Output level(s)	1 mA/A

#### Safety specifications

Safety	CAT IV 600 V, CAT III, 1000 V
Maximum voltage	1000 V AC rms from earth to ground, in compliance with EN61010

#### Mechanical and general specifications

Warranty	1 year
Maximum conductor diameter	32 mm (1.25 in)
Maximum conductor size (busbar)	750 MCM
Output cable length	1.5 m (59 in)
Shrouded banana plugs	Yes

## Ordering information

**Fluke 87V IMSK Industrial Multimeter Service Kit**

#### Included

Fluke 87V Industrial Multimeter, Fluke i400 400 A AC Current Clamp, 80BK-A DMM Temperature Probe, TL75 Hard Point Test Lead Set, AC175 Threaded Alligator Clip Set

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