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 µS
- 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	±(0.05 % + 1)
	Maximum resolution	10 µV
AC voltage	Range	0.1 mV to 1000 V
	Accuracy	±(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 µA to 10 A (20 A for 30 seconds maximum)
	Amps Accuracy	±(0.2 % + 2)
	Maximum resolution	0.01 µA
AC current	Range	0.1 µA to 10 A (20 A for 30 seconds maximum)
	Amps Accuracy	±(1.0 % + 2) True-rms
	Maximum resolution	0.1 µA
Resistance	Range	0.1 Ω to 50 MΩ
	Accuracy	±(0.2 % + 1)
	Maximum resolution	0.1 Ω
Capacitance	Range	1 nF to 9999 µF
	Accuracy	±(1 % + 2)
	Maximum resolution	0.01 nF
Frequency	Range	0.5 Hz to 199.99 kHz
	Accuracy	±(0.005 % + 1)
	Maximum resolution	0.01 Hz
Duty cycle	Maximum duty cycle	99.9 %
	Accuracy	±(0.2 % 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, ± 2.2 °C or 2 % whichever is greater –40.0 °F to 500 °F, ± 4.0 °F or 2 % whichever is greater	
Conductance	Maximum conductance	60.00 nS
	Accuracy	±(1.0 % + 10)
	Maximum resolution	0.01 nS
Diode	Range	3 V
	Resolution	1 mV
	Accuracy	±(2 % + 1)
Duty cycle range	Accuracy	Within ±(0.2 % per kHz + 0.1 %)
Data storage	Peak transient capture	250 µS
	Min/Max/Avg	Yes
	Reading hold	Yes

Display	Digital	6000 counts updates 4/sec. 19,999 counts in high–resolution mode
	Analog bar graph	32 segments, updates 40/sec
	Backlight	Yes
	Frequency	19,999 counts, updates 3/sec at > 10 Hz
Low pass filter	Measurement of VFDs: Yes	
Safety specifications		
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	
Mechanical and general specifications		
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	
Environmental specifications		
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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Printed in U.S.A. 10/2019 6012860a-en