

Meters designed for the way you work

		ADVANCE	D METERS		GENERAL METERS							
	120.12	15.453 °C	9981	19998	460 \(\frac{3}{3} \)	TO SERVICE OF THE PARTY OF THE				1000 1		
	289	287	87 V MAX	87 V	3000 FC	233	179	177	175	77 IV		
Best for	Advanced industrial troubleshooting, including data logging and graphing intermittent problems	Advanced industrial troubleshooting, including data logging and graphing intermittent problems	Severe industrial environments that need high-performance dustproof and waterproof test equipment	Industrial troubleshooting	Commercial and industrial electrical/electronic troubleshooting and maintenance	Taking measurements in hard to reach places or in areas with restricted access	Everyday use for industrial and electrical	The right features for electrical maintenance experts	The baseline for industrial measurements and safety rated for industrial use	Versatile meter for field service or bench repair		
Applications	Working on VSDs/VFDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals. Graphing: View logged values graphically in the field right on the meter, without a PC. Logging: For unattended monitoring of signals over time, to detect intermittent problems. Testing motor windings or contact resistance: Allows testing of resistance up to 50 ohms with one milliohm (0.001 ohm) resolution.	Working on VSDs/VFDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals. Graphing: View logged values graphically in the field right on the meter, without a PC. Logging: For unattended monitoring of signals over time, to detect intermittent problems. Testing motor windings or contact resistance: Allows testing of resistance up to 50 ohms with one milliohm (0.001 ohm) resolution.	harsh environments: Dustproof, waterproof, shockproof multimeter designed to withstand the toughest environments. Working on VSDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals.	Working on VSDs/VFDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals. Industrial troubleshooting: All of the resolution and accuracy you need to solve more problems on motor drives, in-plant automation, power distribution, and electromechanical equipment. Checking power quality: Capture glitches and spikes as short as 250 µs. Identify irregular signals.	Work faster and safer with Fluke Connect (FC) wireless test tools: The 3000 FC wireless multimeter and associated wireless modules allows users to work safer, log time stamped readings, be in two places at once and see multiple readings simultaneously to solve complex electrical problems faster. Build the system as your needs grow: Start with the multimeter and expand your measurement and troubleshooting capabilities by adding additional meters to meet your specific applications including three-phase load studies with iFlex or voltage monitoring.	Reduce the risk of arc flash by separating the display from hazardous measurement situations. No more having to stretch into tight spots or hard to reach locations to take measurements. No more having to hold both the meter and the test leads to make a measurement.	Electrical maintenance and troubleshooting: Variety of commercial electrical troubleshooting, installation and maintenance. Temperature measurements: Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument.	Independently tested for safe use in CAT IV 600 V/CAT III 1000 V environments. The Fluke 177 digital multimeter includes all the features you need to troubleshoot and repair many problems in electrical and electronic systems.	The Fluke 175 True-RMS Digital Multimeter delivers accurate true-RMS AC current and voltage plus frequency, capacitance, resistance, continuity and diode measurements. It increases productivity with manual and automatic ranging, display hold, Auto Hold, and Min/Max-average recording.	Functions needed to repair most electrical and electronic problems: This meter is simple to use yet has a wode range of measurement functions. Conforms to the latest safety standards, and a large display that's easy to view.		
					1							
Basic features		1		ı			1					
Counts	50000	50000	20000	20000	6000	6000	6000	6000	6000	6000		
True RMS readings	ac+dc	ac+dc	ac	ac	ac	ac	ac	ac	ac	0.5.5		
Basic dc accuracy	0.025 %	0.025 %	0.05 %	0.05 %	0.09 %	0.25 %	0.09 %	0.09 %	0.15 %	0.3 %		
Wide bandwidth	100 kHz	100 kHz	20 kHz	20 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz		
Auto/manual ranging	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •		
Digits	4-1/2	4-1/2	3-1/2	4-1/2	3-1/2	3-1/2	3-1/2	3-1/2	3-1/2	3-1/2		
Measurements												
Voltage ac/dc	1000 V	1000 V	1000 V	1000V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V		
Current ac/dc	10 A	10 A	10 A	10 A	400 mA	10 A	10 A	10 A	10 A	10 A		
Resistance	500 ΜΩ	500 ΜΩ	50 ΜΩ	50 ΜΩ	50 ΜΩ	40 ΜΩ	50 ΜΩ	50 ΜΩ	50 ΜΩ	50 ΜΩ		
Frequency	1 MHz	1 MHz	200 kHz	200 kHz	100 kHz	50 kHz	100 kHz	100 kHz	100 kHz	100 kHz		
Capacitance	100 mF	100 mF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF		
Temperature	(+) 1350 °C	(+) 1350 °C	(+) 1090 °C	(+) 1090 °C		(+) 400 °C	(+) 400 °C					
Conductance / dB	50 nS / 60 dB	50 nS / 60 dB	60 nS /-	50 nS / -								
Duty cycle/pulse width	• / •	• / •	• / -	• / -								
Continuity/diode test	•	•	•	•	•	•	•	•	•	•		
Motor Drive (ASD) Measurements	•		•	•								
LoZ: low input impedance	•											
Lo Ohms	•											
Microamps	•	•	•	•		1			1	1		

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		ADVANCED	METERS		GENERAL METERS							
	289	289 287 87 V MAX 87 V		87 V	3000 FC 233		179 177		175	77 IV		
Measurements												
Volt Alert™												
Lo ohms	•											
Microamps	•	•	•									
Display												
FLUKE CONNECT	Fluke Connect-enabled remote wireless read- ings (ir3000 FC Adapter required)	Fluke Connect-enabled remote wireless read- ings (ir3000 FC Adapter required)			Fluke Connect-enabled remote wireless readings	Removable Wireless Display						
Dot Matrix Display	•	•			•							
Dual display	•	•			•							
Analog bargraph	•	•	•	•			•	•	•	•		
Backlight	Two level	Two level	Two level	Two level	•	•	•	•		•		
Graphical Trend Display	•	•										
Diagnostics and data												
Min-Max recording/with time stamp	• / •	• / •	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -		
Fast Min-Max	250 μs	250 μs	250 μs	250 μs								
Display Hold/Auto (Touch) Hold	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •		
Relative Reference	•	•	•	•								
Stand alone logging	•	•										
Trend Capture	•	•										
Readings memories	10,000	10,000			(With FC app)							
USB interface	•	•										
Other features												
Overmolded case, integrated holster	•	•			•	•	•	•	•	•		
Removable holster			•	•								
Iflex Compatability					(With separate modules)							
Completely Sealed/ Watertight			•									
Operating temperature range	-20 °C, +55 °C	-20 °C, +55 °C	-40 °C, +55 °C	-20 °C, +55 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C		
Warranty and electrical safety												
Warranty (years)	Limited lifetime	Limited lifetime	Limited lifetime	Limited lifetime	3	3	Limited lifetime	Limited lifetime	Limited lifetime	Limited lifetime		
Input alert	•	•	•	•								
Dangerous voltage indication	•	•	•	•	•	•	•	•	•	•		
IP Rating	IP 42	IP 42	IP 67	IP 30	IP 54							
EN61010-1 CAT III	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V		
EN61010-1 CAT IV	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V		



The largest system of software and wireless test tools in the world.





Learn more at flukeconnect.com



60 nS /-

60 nS /-

60 nS /-

• / -

Meters designed for the way you work

Conductance / dB

Duty cycle/pulse width

Continuity/diode test
Motor Drive (ASD) Mea-

COMPACT METERS SPECIALTY METERS 117 28 II 28 II Ex 115 114 113 110 107 17B+ 279 FC 1587 FC 27 II Wide variety of HVAC troubleshooting Wide variety of The ideal choice for go/ Quickly and easily do Basic troubleshooting All-round versatility in Everyday use for Certified for used where Compact true-rms meter Advanced Harsh environments Harsh environments electrical work electrical work no-go testing basic meter set and for accurate electrical in a compact, pocketa rugged case industrial and electrical troubleshooting and requiring dustproof requiring dustproof intrinsically safet tools preventive maintenance and waterproof test electronic and field electronic and field installation and troubleshooting and and waterproof test are required. Dustproof Best for reconnect testing sized case service applications service applications troubleshooting maintenance with high performance equipment equipment and waterproof. Electrical Commercial HVAC Electrical Versatile meter for Perfect first-pass Rugged, reliable and First-line electrical Insulation testing to Industrial Industrial Industrial Perfect Simple-to-use maintenance maintenance maintenance troubleshooting tool with features for basic measurements: troubleshooting tool: accurate plus troubleshooting with protect and prolong troubleshooting in troubleshooting in troubleshooting in troubleshooting: When troubleshooting: When installation for go/no go testing: most electrical Trusted by small enough to fit in versatile functions: thermal imager: the life of electrical indoor and outdoor indoor and outdoor indoor and outdoor you need to eliminate troubleshooting you need to eliminate AutoVolt capability problems: VCHEK™ residential and a shirt pocket or work Common electrical Reveal many electrical systems and motors: harsh environments harsh environments harsh environments false or "ghost" voltages HVAC residential false or "ghost" voltages automatically switches LoZ low impedance commercial electricians bag, tough enough to measurements plus ssues rapidly and from Determine the integrity Dustproof, waterproof, Dustproof, waterproof, Dustproof, waterproof, shockproof multimeter to measure AC or DC measurement function for troubleshooting withstand daily use, a safe distance. Check of windings or cables or perform continuity, maintenance. or perform continuity, temperature, frequency shockproof multimeter shockproof multimeter installation and connection or basic voltage, whichever to test for either ac or and maintenance. The and extremely simple and duty cycle. Easy in motors, transformers, connection or basic not spots in equipment designed to withstand designed to withstand designed to withstand troubleshooting. wiring checks is present, LoZ 110 is for professional and transformers. the toughest the toughest wiring checks. dc voltage, or show to use with one hand. generators switchgear. the toughest to use. Non-contact voltage Temperature Electronic function eliminates continuity if voltage is use, where true-rms even with gloves on, detect heating of fuses, and electrical detection: Integrated and microamp troubleshooting: identify ghost voltage, not detected. accuracy is needed. the Fluke 17B+ offers wires, insulators, installations. Working on VSDs: Working on VSDs: Working on VSDs: Troubleshoot a wide Industrial/Electrical non-contact voltage measurements: preventing false everything you need. connectors, splices and Take accurate voltage, Take accurate voltage, Take accurate voltage Troubleshooting variety of measurement troubleshooting: current and frequency current and frequency detection simplifies readings. switches. current and frequency problems with HVAC parameters, including **Expanded current** Predictive and many tasks. measurements on the measurements on the measurements on the Electronic equipment and flame frequency and measurement: Use output side of the drive output side of the drive output side of the drive preventive maintenance **Applications** troubleshooting: sensors with builtcapacitance. iFlex® flexible ac measurement tasks. at either the drive at either the drive at either the drive current probe to expand | PI/DAR tests: Troubleshoot a wide in thermometer & itself or at the motor itself or at the motor itself or at the motor variety of measurement microamps. your measurement Polarization Index terminals terminals parameters, including capabilities and get (PI) and Dielectric Intrinsically Safe: frequency and into tight, hard to reach | Absorption Ratio (DAR) For use in petroleum, tests identify problems chemical, or capacitance. Work faster and pharmaceutical safer with Fluke Fluke Connect: environments - IIC Connect: Transmit Document results (gas), in Zone 1 and 2 results wirelessly to perform temperature and IIIC (dust), Zone 21 and 22. NEC-500 Class a smartphone and compensation, trend save time on reporting results over time. I, Div 1, Groups A-D, to validate work is complete. **Basic features** 6000 6000 6000 6000 4000 6000 20000 6000 20000 Counts 6000 6000 6000 6000 True RMS readings ac Basic dc accuracy 0.5 % 0.5% 0.5 % 0.5 % 0.5 % 0.5 % 0.5 % 0.5 % 0.09 % 0.09 % 0.05 % 0.1 % 0.05 % 1 kHZ 500 Hz 500 Hz 1 kHZ 1 kH7 1 kH7. 1 kHz 500 Hz 5 kHz 20 kHz 30 kHz 20 kHz Wide bandwidth • / • • / • • / • ./. • / • • / • • / • • / • • / • Auto/manual ranging • / • • / • • / • . / . 3-1/2 3-1/2 3-1/2 3-1/2 3-1/2 3-1/2 3-1/2 3-1/2 3-1/2 4-1/2 3-1/2 3-1/2 4-1/2 Digits IECEx, ATEX certified • Measurements Voltage ac/dc 600 V 1000 V 1000 V 1000V 1000 V 1000 V 1000 V Current ac/dc 10 A 600 µA 10 A 10 A 10 A 2500 A AC (with iFlex) 400 mA 10 A 10 A 10 A Resistance 40 MΩ 40 MΩ 40 MΩ 40 MΩ $60 \text{ k}\Omega$ $40 \text{ M}\Omega$ 40 MΩ 40 MΩ 50 MΩ 50 MΩ 50 MΩ 50 MΩ 50 MΩ 100 kHz 100 kHz 100 kHz 100 kHz 100 kHz 200 kHz 200 kHz 200 kHz 100 kHz 100 kHz Frequency 10,000 uF 10,000 uF 10,000 uF 1,000 uF 10,000 uF 10,000 uF 10,000 uF Capacitance 10,000 uF 1,000 uF 10,000 uF 10,000 uF (+) 537 °C (+) 1090 °C Temperature Infrared camera (+) 1090 °C (+) 400 °C (+) 400 °C -10 °C to 200 °C

Meters designed for the way you work



	COMPACT METERS									SPECIALTY METERS					
	117	116	115	114	113	110	107	17B+	279 FC	1587 FC	28 II	27 II	28 II Ex		
Measurements															
VoltAlert™, Non-contact voltage detection	•														
VCHEK TM					•										
LoZ: low input impedance	•	•		•	•										
Lo Ohms		_													
Microamps		•								•	•	•			
Display		1	1	l								l	l		
FLUKE CONNECT									Fluke Connect- enabled remote wireless readings						
Dot Matrix Display									•						
Dual display									•						
Analog bargraph	•	•	•	•	•	•					•	•	•		
Backlight	•	•	•	•	•	•	•	•	•	•	Two level	Two level	Two level		
Graphical Trend Display															
Diagnostics and data		'	'	'		'		'							
Min-Max recording/ with time stamp	• / -	• / -	• / -	• / -	• / -	• / -		• / -	•/-	• / -	• / -	• / -	• / -		
Fast Min-Max	_	_	_	_	_	_	_	_	,	,	250 μs	,	250 μs		
Display Hold/Auto (Touch) Hold Relative Reference	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	•/•	• / •	• / •	• / •	•/•		
Readings memories									(Mith EC ann)	(Mith EC ann)			•		
-									(With FC app)	(With FC app)					
USB interface									•						
Other features		l	l	l						1		l			
Automatic selection, AC/DC volts Overmolded case, inte-	•	•		•	•		•								
grated holster							·								
Removable holster Infrared Camera Res-	•	•	•	•	•	•		•	• 80 x 60	•	•	•	•		
olution															
Infrared Camera Range									−10 °C, +200 °C						
Iflex Compatability									•						
Insulation Test voltages										50, 100, 250, 500, 1000 V					
Pi/DAR timed ratio test Completely Sealed/										•	•	•	•		
Watertight Operating temperature range	-10 °C, +50 °C	0 °C, +40 °C	0 °C, +40 °C	-10 °C, +50 °C	-20 °C, +55 °C	-40 °C, +55 °C	-40 °C, +55 °C	-15 °C, +50 °C							
Warranty and electrical	safety														
Warranty (years)	3	3	3	3	3	3	1	1	3	3	Limited lifetime	Limited lifetime	3		
Input alert										•	•	•	•		
Dangerous voltage indication	•	•	•	•	•	•			٠	•	•	•	•		
IP Rating	IP 42			IP 40	IP 40	IP 67	IP 67	IP 67							
EN61010-1 CAT III	600 V	600 V	600 V	600 V		600 V	600 V	600V	1000 V	1000 V	1000 V	1000 V	1000 V		
EN61010-1 CAT IV									600 V	600 V	600 V	600 V	600 V		