No Other DMM Compares

MX56

The MX56. Without question, one of the world's finest digital multimeters. The best of the ASYC II Series, it has the best accuracy, a built-in counter, displays AC voltage as resistive power or dB (impedance selectable), saving you the time of making the calculation.

ASYC® II
ADVANCED SAFETY CONCEPT

A careful examination of the performance features and user-conscious safety design will tell you that you hold a superior DMM in your hand, designed with measurement capability needed by most users who demand the best.

ASYC II's 50,000 counts capabilities, high basic accuracy, mains disturbance indication, and power measurements are complimented by a good transient protection and wide temperature range, among other unique performance and safety features.

They each provide many similar features, each designed to meet the exact applications requirements of the user at more than acceptable cost. The ASYC II Series. You can depend on it anywhere.

Large LCD display provides easy readability, all test parameters in clear view.

Metrix' patented "SECUR'X" concept keeps leads from accidental disconnection. A simple pressing of the surrounding flange allows easy removal.

50,000 COUNTS, ±0.025% ACCURACY.

6KV PULSE PROTECTION

metrix

The ASYC® II Series
Performance. Safety. All-In-One.

Metrix ASYC® II Multimeters deliver performance and safety second to none. They set a new standard in accuracy for a hand-held multimeter, displaying up to 50,000 counts, one more count than other meters in the same product class. All deliver True RMS performance for applications where accuracy is needed for non-sinusoidal wave shapes.

ASYC® II
ADVANCED SAFETY CONCEPT

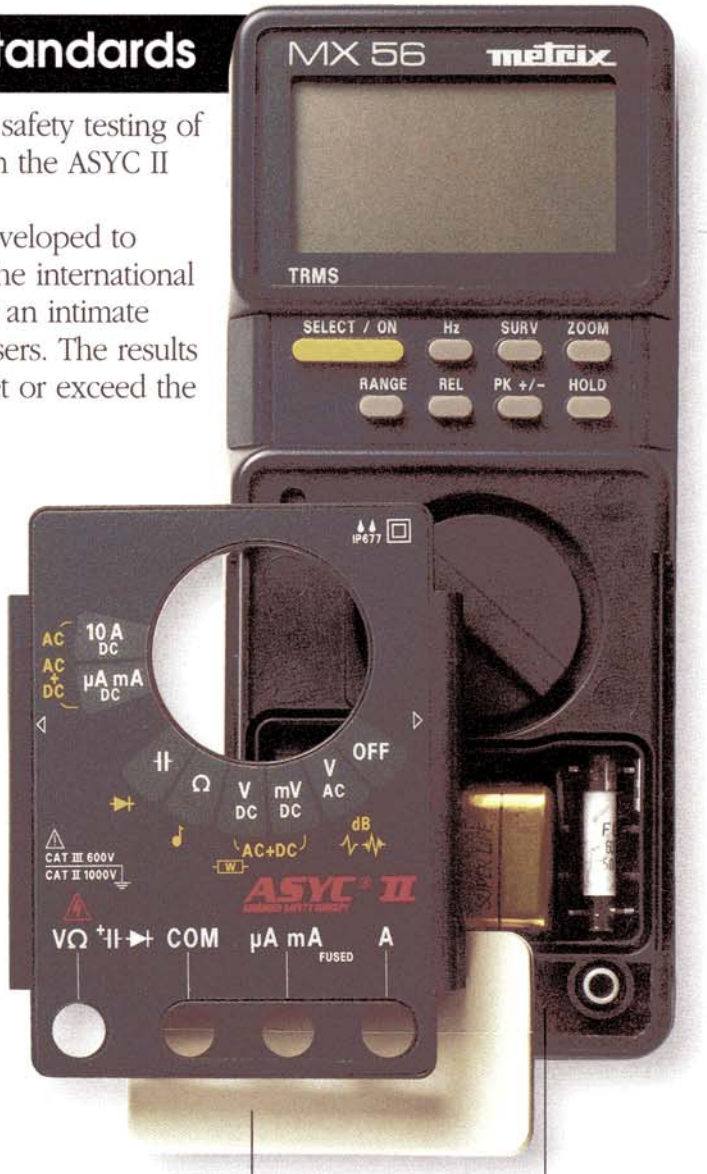
The ASYC II Series have been designed to provide an added measure of safety for the user. Separate battery compartments, leads that won't accidentally be disconnected, 600V fuses, metal oxide varistors, sealed and waterproof cases. For a small premium in cost, these safety features make a significant difference.

Built To Tough European Standards

Respected worldwide, Europe's leadership in safety testing of digtial multimeters is most visibly demonstrated in the ASYC II Series.

IEC1010 is the latest international standard developed to insure safety for the user. Metrix participates on the international committee that develops these standards and has an intimate understanding of the level of safety needed by users. The results are the ASYC II Series, specified and built to meet or exceed the requirements specified in IEC1010.

An MX54 ASYC® II DMM is supplied in the Metrix CX54 Environmental Kit, a complete modular system with interchangeable sensors for measuring air temperature, humidity, air speed, light level .



Non-pressure gasket seals battery and fuse compartment.

Separate, sealed battery and fuse compartment isolates DMMs electronics from contaminants. Battery or fuses can be changed without disturbing main case seal.

Performance Choices

	MX53	MX54	MX55	MX56
Basic Accuracy (%)	0.1	0.05	0.025	0.025
Bandwidth KHz	30	100	100	100
Min/Max/Avg		yes		yes
Event Counter				yes
Disturbance indicator		yes		yes
dB		yes	yes	yes
Resistive Power				yes
Temperature		yes		
50mA Accuracy	0.2%	0.05%	0.05%	0.05%
Resolution (counts)	50.000	50.000	50.000	50.000

More Reliable.

Unique Case Design

The ASYC II Series' rugged housing provides a separate battery and fuse compartment to isolate the DMM's electronics from contamination that may come from leaking batteries or from outside when changing battery or fuses. Battery and fuses can be changed without tools, without disturbing the main case seal. Seals all around perform their function without relying on pressure exerted by the two halves of the case. The "SECUR'X" concept (test lead retainers), keeps test leads plugged-in even when accidentally pulled or caught.

Indicators Make Testing Easier

Features both highly visible LCD display indicators and audible alerts. If a fuse blows, an LCD indicator informs you of the exact fuse that has failed. An LCD alert signals high voltage contact, an audible "beep" warns against over-ranging. In continuity mode, an audible signal confirms when two points are electrically connected.

Protection

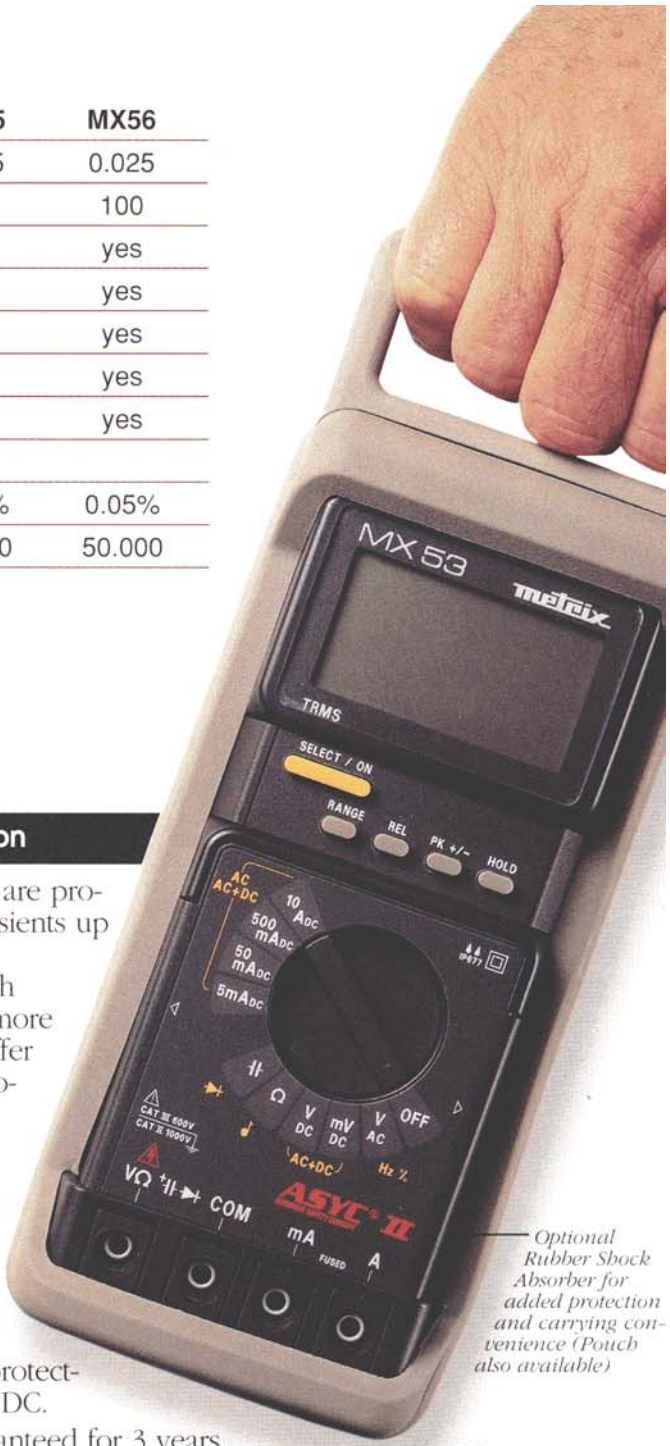
All voltage ranges are protected against transients up to 6000 volts (10 microseconds) with MOVs. Although more expensive, they offer better transient protection than spark gaps. All voltage ranges withstand up to 1100V peak, all current ranges are protected by 600V fuses, and all other ranges are protected to 600V AC or DC. The meter is warranteed for 3 years.

Auto-Off

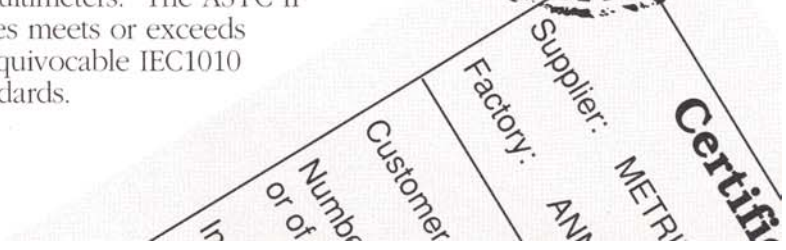
Don't worry about leaving your DMM on. An auto-off feature turns the meter off.

Built To Tough European Standards

Worldwide, Europe has clearly taken the leadership in safety testing of digital multimeters. The ASYC II Series meets or exceeds unequivocable IEC1010 standards.



Optional Rubber Shock Absorber for added protection and carrying convenience (Pouch also available)



ASYC® II ADVANCED SAFETY CONCEPT Series Digital Multimeters

General Specifications

Counts: 50,000
Bar graph segments: 34
Digit height: 14mm
Update rate: digits 2/sec, bargraph 20/sec.
AC conversion: True RMS, AC or AC+DC (selectable). Crest factor 6.
Safety: IEC1010-1, class 2, degree of pollution 2, 600V CAT III and 1000V CAT II.
Ruggedness: IP 677 and MIL-T- 28800.
Overload protection:

	Protective component	Specification	Audible waring	Visual warning
Voltage-steady state	Long creep and strike dimensions	1100V	Beep if range exceeded	LCD indicators for voltage over 24V
Voltage-transient	Metal oxide varistors (MOVs)	6 kV/10 µs x 5/s transient		Mains Disturbance Indicator
Current	0.63A and 10A 600V fuses	Hold off 600V HBC		LCD indication of blown fuse
Ohms, continuity, capacitance	PTC	600V		

EMC: emission EN 55011, class B; susceptibility IEC 801, level 3
Series mode rejection: 60 dB
Common mode rejection: 120 dB AC/DC - 60 dB AC/DC
Operating temp.: -10°C to 60°C, 0 to 80%RH (0°C to 40°C), 0 to 70%RH (40°C to 50°C).
Storage temp.: -40°C to +80°C (without battery).
Power supply: 9V 6LF22 battery
Auto switch-off: after 30 minutes
Battery life: 500 hrs
Dimensions: 40 x 82 x 189 mm
Weight: 400g

Specifications (18°C to 28°C)

***AC & DC VOLTAGE**

Range	Resolution	***	Input Impedance
500 mV	10 µV	100µV	10 MΩ/1 GΩ*,100pF
5 V	100 µV	1mv	11 MΩ,100pF
50 V	1 mV	10mV	10 MΩ,100pF
500 V	10 mV	100mV	10 MΩ,100pF
750 VAC	100 mV	1V	10 MΩ,100pF
1000 VDC	100 mV	-	10 MΩ,100pF

*Selectable ***MX53 Ranges only

DC VOLTAGE ACCURACY

Range	500mV	5V	50V	500V	1000V
MX56	0.025%+2*				
MX55	0.025%+2*				
MX54	0.05%+2				
MX53	0.1%+2			0.2%+2	0.3%+2

*21°C to 25°C

VOLTAGE ACCURACY TRUE RMS (AC OR AC + DC) (>10% of range)

	Frequency range	500mV range AC + DC	Other ranges AC or AC + DC
MX54, 55, 56	DC to 1KHz	0.3% + 30	
	5kHz	1%+50	0.5%+50
	10kHz	4%+50	0.5%+50
	30kHz		1%+50
	50kHz		2.5%+50
	100kHz		6% (full scale)
MX53	DC to1kHz	1%+3	
	10kHz	4%+3	1%+3
	20kHz	4%+3	2%+3
	30kHz		3%+3

AC & DC AMPS

Range	Resolution	***	Maximum Voltage Drop
500 µA*	10 nA	-	700 mV
5 mA	100 nA	1µA	700 mV
50 mA	1 µA	10µA	700 mV
500 mA	10 µA	100µA	1.5 V
10 A	1 mA	10mA	500 mV

***MX53 only

DC AMPS ACCURACY

	500uA	5MA	50mA	500mA	10A
MX54, 55, 56	0.2% +5	0.2%+2	0.05%+2	0.2%+2	0.5%+5
MX53		0.2%+2	0.2%+2	0.2%+2	0.2%+2

AMPS ACCURACY TRUE RMS (AC or AC+DC)

Range		500uA	5mA	50mA	500mA	10A
MX55,56	DC to 1kHz	0.75%+50	0.6%+50		0.7%+50	1.5 % FS
	5kHz	0.75%+50	0.6%+50		0.7%+50	
	10 kHz	0.75%+50	0.6%+50		0.7%+50	
	20 kHz	1%+50				
	30 kHz	3%+50	2%+50			
MX54	DC to 1kHz	0.75%+50				1.5 % FS
	5kHz	0.75%+50				
	10kHz	0.75%+50				
	20kHz	1%+50				
	30kHz	3%+50	2%+50			
MX53	DC to 10kHz		1%+3	1%+3	1%+3	1%+7
	20kHz		2%+3	2%+3		
	30kHz		3%+3	3%+3		

RESISTANCE

Accuracy:	
MX56, MX55, MX54	0.07% +2
MX53	0.1%+3

Maximum open circuit voltage: 7V

Range	Resolution	Test current
500Ω	10 mΩ	1 mA
5 kΩ	100 mΩ	100 µA
50 kΩ	1 Ω	10 µA
500 kΩ	10 Ω	1 µA
5 MΩ	100 Ω	100 nA
50 MΩ	1 kΩ	10 nA

CONTINUITY INDICATOR:
Beeps <15Ω
Response time: 1mS.

CAPACITANCE
5,000 counts
Ranges: 50nF, 500nF, 5uF, 50uF, 500uF, 5mF, 50mF
Resolution: 10pF
Accuracy: 1%+2

FREQUENCY COUNTER/TIMER
Frequency, duty cycle: %+ and %-
Accuracy: 0.03%+1
Counter + and - (MX56 only)
Pulse width + and - (MX56 only)
Bandwidth: 0.6Hz to 500kHz
Sensitivity: 2% to 5% of voltage range

DIODE TEST
Measures forward drop of diode in 0 to 1.999V
Current: 1mA ± 20%

MAINS DISTURBANCE INDICATOR (MX54 and MX56)
LCD indication of transient voltage disturbance >80V.
LCD indication of high frequency disturbances >25V. Bandwidth 1khz to 100kHz.

dB MEASUREMENT (MX54, MX55, MX56)
Converts VAC to dB, impedance selectable from 1Ω to 9999Ω
Resolution 0.01dB

RESISTIVE POWER (MX56)
True RMS AC+DC
Converts VAC+VDC (True RMS) to power, impedance selectable by user from 1Ω to 9999Ω.
1µVA to 100kVA

Accuracy specified as ±(%R +c) where R is reading and c is the variance of the least significant digit. For instance if the accuracy is specified as 2%+5, if the actual value is 100, a 50,000 count meter on the 500 range could display 97.95 (100-2-0.05) to 102.05 (100+2+0.05).

Specifications subject to change without notice.