World Class

Digital 50,000-count TRMS multimeters

With the ASYC II series, keep metrology within your grasp

- Types of measurement: VAC, AC+DC, IAC, AC+DC, Ω, continuity, diode test, capacitance, frequency, temperature, network monitoring, dB
- 0.025% basic accuracy and 100 kHz bandwidth
- Transfer of the measurements onto a PC for processing by capture software (SX-DMM) or directly onto a printer
- Calibration by software (SX-ASYC2C) without having to open up the unit
- Rapid reading with the wide backlit screen and the bargraph
- Elastomer protective sheath and carrying case available as options

metrix
Division of Chauvin Arnoux

Digital 50,000-count TRMS multimeters

High-performance backlighting

MX 54C, MX 55C and MX 56C multimeters are now fitted with backlighting, facilitating reading of measurements in dim light.
The sturdiness of the ASYC II instruments makes them ideal for measurement in any kind of environment.

Accurate process signal measurement

The high 50 mA DC rating accuracy enables standard 4/20 mA signals to be measured. Combined with temperature measurement on the MX 54C by means of a Pt100 or Pt1000 probe, these functions will be of particular interest to the process industry.

Efficient protection

Designed to resist overloads, all inputs are protected. Current input thus has high cut-out power fuses (HPC) and input voltage con withstand 6 kV/10 µs transient pulses without damage.

Measurement in dB or in VA (resistive power)

Measurement of alternating voltage con be displayed in Volts, in dB or in resistive power. Once the load impedance has been programmed using the keyboard (from 1 Ω to 9999 Ω), the multimeter automatically calculates the value in dB and the power consumed (VA).

An advanced safety concept

The ASYC II case has a separate battery/fuse compartment which protects the instrument when a battery or fuse is being replaced and insulating the electronics from any risk of infiltration. The battery compartment lid closes without a screw and can be opened simply by means of the instrument stand. The SECUR'X locking device obliges the user to unplug the leads before opening the case, thus preventing them from being accidentally pulled out.

Current Autoranging

For the first time, with the ASYC II series, Metrix is offering a 500 µA to 500 mA current Autoranging function, With resolution of up to 0.01 µA.

High accuracy

With a 50,000 count display and basic accuracy of up to 0.025%, the ASYC II series has the highest performance of its generation.

True RMS

With the four models, you con measure true RMS, in AC alone or in AC + DC.

SX-ASYC2 kit

The SX-ASYC2 kit is an RS 232 interface that enables multimeters to be programmed by remote control.
By means of the RS 232 interface and the "Print" button, measurements can be transmitted manually (Print mode) or automatically (Remote mode) to a PC or a serial printer. A transmission rate of 0 secs (single transmission) to 9 hrs 59 mins 59 secs can be directly defined on the multimeter by the user.

3-years warranty metrix

MX 54C in case

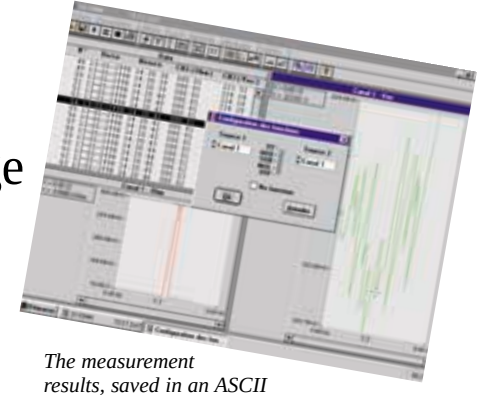
Kit SX-ASYC2

GENERAL CHARACTERISTICS	MX 56C, MX 55C, MX 54C, MX 53C
Display	50,000 counts (14 mm)
Bargraph (with zoom mode)	34 segments
Backlighting	MX 54C, MX 55C, MX 56C
Measurement rate	Digital displ. 2 meas per sec - bargraph: 20 meas per sec
AC conversion	True RMS, AC or AC+DC
Peak factor	6
IEC 61010-1 safety	Cat.III 600 V
Pollution degree	2
C.E.M.	NF EN 55011, class B
Operating temperature	-10 to 80 °C
Relative humidity	0 - 80% (0-40 °C): 0 - 70% (40-50 °C)
Storage temperature	-40 to 70 °C
Power supply	9 V 6LF22 battery
Autonomy	500 hrs (Auto. Cut-out: 30 mins)
Dimensions and weight	40 x 82 x 189 mm, 400 g
Warranty	3 years

CARACTÉRISTIQUES TECHNIQUES	MX 56C	MX 55C	MX 54C	MX 53C
• Direct voltage				
Ranges	0.5 - 5 - 50 - 500 - 1000 V	0.5 - 5 - 50 - 500 - 1000 V	0.5 - 5 - 50 - 500 - 1000 V	0.5 - 5 - 50 - 500 - 1000 V
Resolution	10 µV to 100 mV	10 µV to 100 mV	10 µV to 100 mV	10 µV to 100 mV
Basic accuracy	0.025% R + 2 D	0.025% R + 2 D	0.05% R + 2 D	0.1%R + 2 D (500mV to 50V)
Input impedance	10 MΩ (1 GΩ), 100 pF	10 MΩ (1 GΩ), 100 pF	10 MΩ (1 GΩ), 100 pF	10 MΩ, 100 pF
• Alternating voltage				
Ranges	0.5 - 5 - 50 - 500 - 750 V	0.5 - 5 - 50 - 500 - 750 V	0.5 - 5 - 50 - 500 - 750 V	0.5 - 5 - 50 - 500 - 750 V
Resolution	10 µV to 100 mV	10 µV to 100 mV	10 µV to 100 mV	100 µV to 1 V
Bandwidth	DC to 100 kHz	DC à 100 kHz	DC à 100 kHz	DC à 30 kHz
Basic accuracy	0.3%R + 30D (from DC to 1 kHz)	0.3%R + 30D (from DC to 1 kHz)	0.3%R + 30D (from DC to 1 kHz)	1%R + 3D (from DC to 1 kHz)
Input impedance	10 MΩ (1 GΩ), 100 pF	10 MΩ (1 GΩ), 100 pF	10 MΩ (1 GΩ), 100 pF	10 MΩ, 100 pF
• Direct current				
Ranges	500 µA, 5 - 50 - 500 mA, 10 A	500 µA, 5 - 50 - 500 mA, 10 A	500 µA, 5 - 50 - 500 mA, 10 A	5 - 50 - 500 mA, 10 A
Resolution	10 nA to 1 mA	10 nA to 1 mA	10 nA to 1 mA	100 nA to 1 mA
Basic accuracy	0.05%R + 2D (50 mA)	0.05%R + 2D (50 mA)	0.05%R + 2D (50 mA)	0.2%R + 2D (5 à 500 mA)
• Alternating current				
Ranges	500 µA, 5 - 50 - 500 mA, 10 A	500 µA, 5 - 50 - 500 mA, 10 A	500 µA, 5 - 50 - 500 mA, 10 A	5 - 50 - 500 mA, 10 A
Resolution	10 nA to 1 mA	10 nA to 1 mA	10 nA to 1 mA	1 µA to 10 mA
Bandwidth	DC to 5 kHz	DC to 5 kHz	DC à 5 kHz	DC à 5 kHz
Basic accuracy	0.6%R + 30D (500 Ω to 50 mA)	0.6%R + 30D (500 Ω to 50 mA)	0.6 %R + 30D (500 Ω to 50 mA)	1%R + 3D (5 Ω to 500 mA)
• Resistances				
Ranges	0.5 - 5 - 50 - 500 kΩ, 5 - 50 MΩ	0.5 - 5 - 50 - 500 kΩ, 5 - 50 MΩ	0.5 - 5 - 50 - 500 kΩ, 5 - 50 MΩ	0.5 - 5 - 50 - 500 kΩ, 5 - 50 MΩ
Resolution	10 mΩ to 1 kΩ	10 mΩ to 1 kΩ	10 mΩ to 1 kΩ	10 mΩ to 1 kΩ
Basic accuracy	0.07%R + 2D (500 Ω to 500 kΩ)	0.07%R + 2D (500 Ω to 500 kΩ)	0.07%R + 2D (500 Ω to 500 kΩ)	0.1%R + 3D (500 Ω to 500 kΩ)
Max. voltage live circuit	7 V	7 V	7 V	7 V
• Continuity				
Detection threshold	from 10 to 20 Ω	from 10 to 20 Ω	from 10 to 20 Ω	from 10 to 20 Ω
Response time	1 ms	1 ms	1 ms	1 ms
• Diode test				
Diode voltage measurements	from 0 to 1.999 V	from 0 to 1.999 V	from 0 to 1.999 V	from 0 à 1.999 V
Current	1 mA ± 20%	1 mA ± 20%	1 mA ± 20%	1 mA ± 20%
• Capacities (5000 cts)				
Ranges	50 - 500 nF, 5 - 50 - 500 µF, 5 - 50 mF	50 - 500 nF, 5 - 50 - 500 µF, 5 - 50 mF	50 - 500 nF, 5 - 50 - 500 µF, 5 - 50 mF	50 - 500 nF, 5 - 50 - 500 µF, 5 - 50 mF
Resolution	10 pF to 10 µF	10 pF to 10 µF	10 pF to 10 µF	10 pF to 10 µF
Basic accuracy	1%R + 2D	1%R + 2D	1%R + 2D	1%R + 2D
• Frequencies				
Bandwidth	0.62 Hz to 500 kHz	0.62 Hz à 500 kHz	0.62 Hz to 500 kHz	0.62 Hz to 500 kHz
Sensitivity	from 2% to 5% of the meas. (from 0.62Hz to 50kHz)	from 2% to 5% of the meas. (from 0.62Hz to 50kHz)	from 2% to 5% of the meas. (from 0.62Hz to 50kHz)	from 2% to 5% of the meas. (from 0.62Hz to 50kHz)
Basic accuracy	0.03%R + 1D	0.03%R + 1D	0.03%R + 1D	0.03%R + 1D
Duty cycle	% positive or négative	% positive or négative	% positive or négative	% positive or négative
Event metering	positive or négative	-	-	-
Pulse width	positive or négative	-	-	-
• Temperature				
Ranges	-	-	-200 to +800°C	-
Resolution	-	-	0.1 °C	-
accuracy	-	-	±0.5°C (from -125 to +75°C)	-
Probes to use	-	-	Pt100 ou Pt1000	-
Units	-	-	°C or °F	-
• Network monitoring				
Indication of presence of peaks	> 80 V	-	> 80 V	-
Indication of presence of noise	> 25 V	-	> 25 V	-
Bandwidth	1 kHz to 100 kHz	-	1 kHz to 100 kHz	-
• dB function				
Converts VAC into dB. Resistance reference adjustable from 1Ω to 9999 Ω	adjustable reference	fixed reference	adjustable reference	-
Resolution	0.01 dB	0.01 dB	0.01 dB	-
• Resistive power function*	yes	-	-	-
• Protection				
In VDC, VAC, F, dB, Power modes	± 1100 VPK	± 1100 VPK	± 1100 VPK	± 1100 VPK
In IDC, IAC, Ω, Diode Test, C, F modes	600 VRMS	600 VRMS	600 VRMS	600 VRMS

* Converts VAC+DC (True RMS) into power from 100 µVA to 100 kVA) with a reference resistance adjustable from 1 Ω to 9999 Ω.

SX-DMM: a control and analysis software package



The measurement results, saved in an ASCII file, can be called up on the screen and printed at any time.

A complete software package

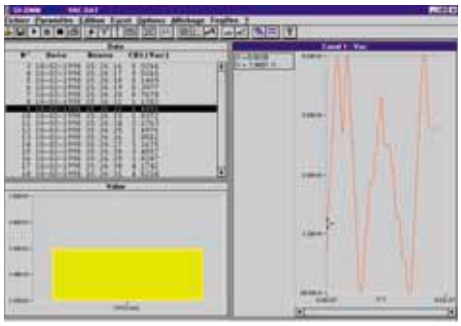
The SX-DMM software enables you to receive, record, represent and exploit measurements from one to four multimeters of the ASYC II.

In-depth analysis

Once the results of measurements have been recorded, various mathematical processes enable you to analyse them in more depth as required. You thus have XY, derived, integral and curve smoothing functions at your disposal.

Presentation of measurements

Three presentation modes can be selected. The Graph mode allows any data recorded to be represented in function to time. The instantaneous mode reproduces it in the form of bargraphs. Finally, a third mode enables values to be displayed in the form of a table.



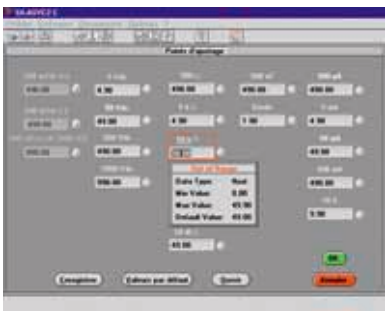
SX-DMM and SX-ASYC2C software Minimum configuration

- PC or compatible computer with 80386 or more and 25 MHz minimum clock speed (80486 33 MHz recommended)
- VGA resolution or higher
- Mathematical coprocessor
- Min. 4 MB RAM (8 MB recommended)
- 2.5 MB hard disk capacity free
- Microsoft Windows 3.1 or later.

SX-ASYC2C: calibrate your instrument without opening it up

Reliability and Accuracy

Since all adjusting values are recorded, optimum accuracy is achieved. Once the operation is finished, a measurement statement is issued to evidence resetting of the multimeter specifications.



You can determine the adjustment counts by clicking on the button located to the right of the measurement count in order to validate or inhibit it. Errors are indicated.

Gain time

When the verification is finished, a reading statement indicates, as a percentage, the difference between the reference measurement and the one actually read by the multimeter - for each count pre-defined by the user. This difference is then compared to the instrument's tolerances.
The operation is then optimised since only the counts beyond tolerance levels are readjusted.

Adjust settings with the case closed

With the new ASYC II series, you no longer have to open the multimeter to change settings. Once the SX-ASYC2 serial interface has been installed on the multimeter, you simply connect the PC and initiate the SX-ASYC2C programme, all the adjustments required are carried out by using the programme and are recorded in the instrument.

Accessories and information for ordering

Accessories included

Each model is sold with a set of 2 safety leads, a 9V battery (fitted), two spare fuses, a control test certificate and a user's manual.

Accessories on option

AE0193	Carrying case
AE0227	ASYC case
HA1263	Pt1000 probe for MX 54C
MC0160B	ASYC protection sheath
SX-ASYC2	RS 232 serial link kit
HA1327	Serial printer
SX-DMM	Acquisition software
SX-ASYC2C	Calibration software

To order

MX0053C	MX 53C Multimeter
MX0054C	MX 54C Multimeter
MX0055C	MX 55C Multimeter
MX0056C	MX 56C Multimeter
MX0053CL	MX 53C Multimeter with sheath and case
MX0054CL	MX 54C Multimeter with sheath and case
MX0055CL	MX 55C Multimeter with sheath and case
MX0056CL	MX 56C Multimeter with sheath and case

Characteristics subject to modifications according to technological developments.

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