

metrix

ASYC IV MTX 3297 ATEX/IECEX MULTIMETER



ATEX/IECEX multimeter for electrical maintenance of sites in critical environments: Mines, gas and dust and measurements in all zones.

- Complies with the applicable European Directive 2014/34/EU concerning ATEX explosive atmospheres.
- Ergonomic, rugged, practical, high-performance and simple to use.
- Current, voltage, resistance, diode, capacitance and frequency measurements
- Accurate temperature measurement with Pt100 or Pt1000 sensors



Measure up



ATEX PRODUCT

Easily recognizable in its environment thanks to the red moulding of its casing, the MTX 3297 fulfils the requirements for ATEX products:

- French design with use of resistant materials,
- Implementation of multiple product tests related to the ATEX standard;
- Equipped with maximum safety protection systems: software and hardware component (specific fuse, etc.), marking of the standard and the measurement limits for your safety on the rear of the product.

It is delivered with all the documents concerning the precautions for use in hazardous zones: measurements in explosive environments: gas 0,1,2 and dust 20, 21, 22. Ergonomic design: it is simple and complete with all the functions needed for maintenance.

MTX 3297

THE MTX3297 CAN BE USED FOR MEASUREMENTS IN THE FOLLOWING CONDITIONS:

Mines :
Ex I M 1 Ex ia I Ma
Explosion group I, methane and coal dust.

Surface industry in extreme gas environment:
the most dangerous group, group IIC in T4=135°C
maximum admissible surface temperature

Ex II 1 G Ex ia II C T4 Ga

ATEX PRODUCT CATEGORY ATEX PRODUCT EQUIPMENT GROUP TEMPERATURE CLASS EQUIPMENT PROTECTION LEVEL

EQUIPMENT GROUP ENVIRONMENT (HERE, GAS) PROTECTION MODE GAS GROUP

And also in (conductive) dust atmosphere IIIC at 135°C:
EX II 1 D Ex ia III C T135°C Da



The MTX 3297 is equipped with 4 qualified lithium batteries (plastic protective film for transport as per the regulations) for a battery life of 350 hours in the field.

ERGONOMICS OF THE MTX 3297

THE MTX 3297 BENEFITS FROM ALL THE ADVANTAGES OF THE ASY CIV FAMILY OF DIGITAL MULTIMETERS:

The MTX 3297 offers good visibility of the measurements for simple, comfortable use:

- Large 5.7-inch digital screen (main digit height 14 mm) up to 60,000 cts
- Multi-value display (2 measurements simultaneously), backlighting for easy reading in dark areas.

- Stable measurements in all environments by means of the filters or VLowz low impedance.
- Complete instrument integrating a metrology function: REL relative measurements and a "closed-casing" software calibration kit (option).
- Lightweight, practical multimeter with its 3 sockets accessible at the top.
- Audible alert when the measuring cables are connected incorrectly.

WIDE RANGE OF VARIED APPLICATIONS:

> Outside hazardous areas, it can be used for measurements at 1,000 V max in relation to the earth and 10 A

> In ATEX/Ex zones as per the ATEX directive, compliant with the European standard 2014/34/EU and the IEC Ex international standard, this intrinsic-safety multimeter can be used for measurements limited to 65 V and 5 A for sensitive industries: cement works, nuclear sector, chemical industry, pharmaceutical industry, etc.

A contextual reminder of the connections of the measuring cables on the protected terminal strip is displayed at the top of the screen.

Lightweight, practical multimeter with its 3 sockets at the top and audible alert when the measuring cables are connected incorrectly.

This multimeter accurately measures all types of signals:

- whatever the waveform, even the most disturbed
- TRMS AC and AC+DC.
- It is equipped with analytical tools to help you troubleshoot any faults quickly with a single button:
 - *MAX/MIN/AVG for time/date-stamped recording*
 - *Peak to automatically measure the transient values and variations (measurement control).*

It is equipped with a digital keypad fitted with illuminated function buttons to improve visibility in dark areas. Even when you are wearing personal protective equipment, it fits into one hand and is very easy to operate.



For your recording campaigns on PC.

The SX DMM software for data acquisition via USB is available for download from our website. We also provide technical support for your measurements.

THE MTX 3297, A MULTIMETER FOR MEASURING IN THE FIELD:

AUTO-ranging by default for all measurements for simpler use.
The manual mode can be activated with the Range button to improve the accuracy and resolution.

Measurement specifications worthy of a reference-standard multimeter: VDC accuracy 0.05%, 100 kHz bandwidth, direct measurement up to 10 A and even 20 A (30s max.) and, above 10 A, a current clamp function integrating the transformation ratios:

- 1/1, 1/10, 1/100, 1/1000 mV per Ampere: no need for calculations; for VDC, bargraph with automatic central zero to monitor your variations.
- Measurements of basic electrical quantities: current, voltage, but also additional voltage attenuation possibilities with dBm, resistance R with audible continuity, frequency measurement with duty cycle to identify amplitude faults, as well as electronic troubleshooting with diode test or capacitance measurement and precise temperature measurement using Pt100 or Pt1000 sensors.

TECHNICAL SPECIFICATIONS

DC, AC and AC+DC voltages	
DC voltage measurement range	0.1 mV to 1000 V
DC accuracy	0.05%
AC, AC+DC voltage measurement range	0.1 mV to 1000 V
AC, AC+DC basic accuracy	0.5% - Bandwidth 100 kHz
ATEX-qualified measurement range	
DC, AC, AC+DC current	0.1 mV to 65 V
DC current measurement range	0.25 µA to 10 A
DC accuracy	0.8%
AC, AC+DC current measurement range	0.25 µA to 10 A
AC, AC+DC accuracy	1% - Bandwidth 20 kHz
ATEX-qualified measurement range	
DC, AC, AC+DC current	0.25 µA to 5 A
Frequency	
Frequency measurement range	0.1 Hz to 200 kHz
Accuracy	0.1%
Resistance and continuity	
Resistance measurement range	0.02 Ω to 60 MΩ
Basic accuracy	0.2%
Diode test	
Voltage measurement threshold/Accuracy	3 V, resolution 0.1 mV / 1%
Capacitance	
Capacitance measurement range	1 nF to 60 mF
Accuracy	1%
Temperature with Pt100/Pt1000	
Temperature measurement range	-200 °C to +800 °C
Accuracy/resolution	0.1% / 0.1 °C
Other functions	
MAX/MIN /AVG or PEAK +/-	On all the main positions measured, PEAK 1 ms - SURV 100 ms
DELTA REL	REL relative value + measured reference value on secondary display
PWM filter	300 Hz - 4th order low-pass filter for measurements on variable speed drive of asynchronous motor
Clamp function with V output for direct reading	Integration of the ratio: 1/1, 1/10, 1/100, 1/1000 mV/A
Secondary functions	dBm and resistive power VA, duty cycle +/-, and pulse width PW
Central zero	Automatic bargraph for VDC and IDC
USB communication (except for Ex)	With SX-DMM PC software downloadable from our website - calibration kit (option)
General specifications	
Type of display	LCD with 3-level backlighting and digits 14 mm high, double 60,000-count display
Power supply	4 qualified LITHIUM AA batteries - battery life 350 hours, separate compartment
Safety / EMC	Safety as per IEC 61010-2-033, 1000 V CAT III / 600 V CAT IV / EMC as per EN61326-1 class B
Protection	10A/1000V fuse
Environment	Storage: -20 °C to +70 °C - Operation: -10 °C to +55 °C
Mechanical specifications	Dimensions (L x W x H): 196x90x471mm - Weight: 715g
Warranty	3 years

STATE AT DELIVERY

- MTX 3297 delivered fitted with 4 EX-qualified 1.5V lithium batteries
- 1 set of 2 x 1.5m straight cables and CAT IV 1kV test probes
- Quick Start Guide on paper in 18 languages with QR code to download the User's Manual
- ATEX safety manual on paper

NON-ATEX OPTIONS*

- Calibration kit.....P01196770
- Set of 4 ATEX-qualified batteries.....HX0097
- Fuse 10X38 10A 1000V EX.....AT0097
- Carrying bag.....HX0052B
- Optical connection cable.....HX0056-Z
- SX-DMM2 software available for download
- Pt100/Pt1000 sensors as per the CHAUVIN ARNOUX Catalogue

*Fuse and batteries specified for this ATEX multimeter



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