

AC/DC Multimeter clamps



Non-contractual photo. Safety precautions to be applied before any handling.

When great design combines with measurement

- AC and/or DC current up to 400 A and 1000 A
- AC/DC voltage up to 1000 V (RMS technology for MX 655)
- Resistance measurement, continuity test and diode test
- Current and voltage frequency measurement
- 4,000-count display with bargraph
- Automatic or manual calibre selection
- Complementary functions: Hold, Max/min, Peak,...

4 clamps for all your clamping diameters

Dedicated to measurement of high voltages and currents, the MX 655 and MX 650 clamps can handle large cables up to 40 mm (MX 655) and 36 mm (MX 650) in diameter!

With the same wide jaw opening range, despite their small dimensions, the MX 355 and MX 350 models can be used to clamp both small conductors and large cables with diameters of up to 30 mm (MX 355) or 26 mm (MX 350).

Compliance with the professional standards

Our measuring instruments comply with the strictest safety standards (IEC 61010-1 and IEC 61010-2-032) and manufacturing standards to ensure protection of the users and reliable products.

Excellent value for money

Particular care has been taken with the ergonomics of these clamps, as witnessed by their excellent handling.

Each detail has been studied carefully: the rotary knob is flexible and accurate, enabling precise selection of functions; the keys give a tactile sensation when touched; the battery compartment is locked by a single screw.



Accessories and ordering information

Accessories included

Each clamp is delivered with a set of measuring leads, a carrying bag, a user's manual and one 9 V alkaline battery (MX 655/650) or two 1,5 V alkaline batteries (MX 355/350).

To order

| | |
|-----------------|-------------------------|
| MX0655-Z | MX 655 multimeter clamp |
| MX0650-Z | MX 650 multimeter clamp |
| MX0355-Z | MX 355 multimeter clamp |
| MX0350-Z | MX 350 multimeter clamp |

MX 655 · MX 650 · MX 355 · MX 350

AC/DC Multimeter clamps

General use or high-level measurements: something for everyone

The MX 655 and MX 650, are specially recommended for measurement of high voltages and currents (up to 1000 A and 750 V), completed by an RMS converter for AC signals (MX 655). For currents, the MX 655, which uses a Hall-effect measurement system, is capable of measuring AC or DC currents on cables up to 40mm in diameter.

The MX 650 uses the transformer measurement principle and measures AC currents in cables up to 36mm in diameter.

The small size of the MX 355 and MX 350 will make them particularly appreciated for their ease of operation and excellent handling. As well as their numerous measurement functions, they also have a little "extra": the automatic zero DC adjustment for DC current measurement can also be used for differential measurements.

The whole of clamp-on multimeters in one range!

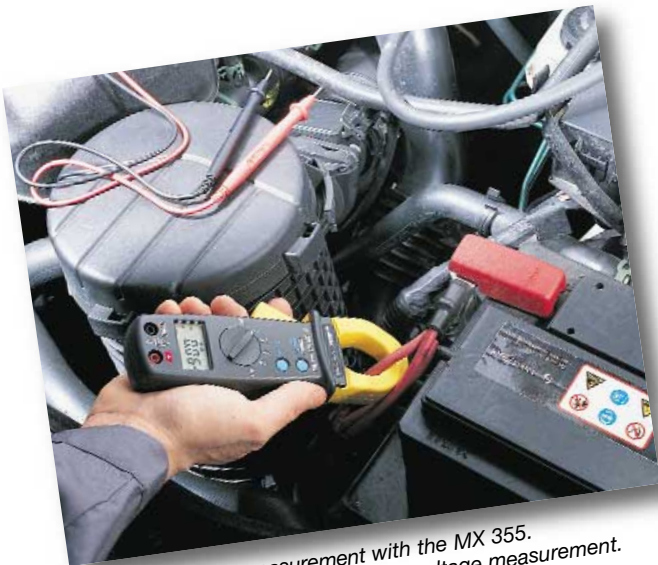


Delivered complete

As soon as you receive them, the MX 655, MX 650, MX 355 and MX 350 multimeter clamps are ready to use. Simply install the batteries and you can start measuring! No additional programming is necessary.

Indispensable test tools

Combining all the functionalities of an **ammeter clamp** and a complete **AC/DC multimeter**, the MX 355, MX 350, MX 655 and MX 650 clamps provide the measurement solutions that every electrician needs: AC/DC current, voltages, resistance measurement, continuity and frequency. They also have a wide range of functionalities which make them safe, handy and ergonomic tools.



Battery current measurement with the MX 355.
This can also be completed by DC voltage measurement.

Frequency measurements

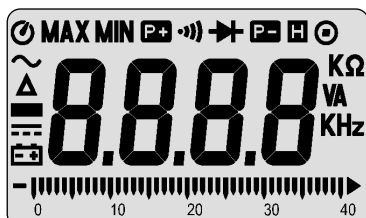
The MX 655, MX 650 and MX 350 clamps measure current frequencies up to 10 kHz and voltage frequencies up to 10 kHz (1MHz for MX 350), with an automatic range change function.



Measurement display

The bargraph instantly shows all the variations of the signal measured by refreshing ten times faster than the digital display.

Lastly, as well as the symbol showing the units, the 4,000-count display is completed by a battery charge LED indicating the status of the batteries.



Resistance / continuity measurement and diode test

By simply turning the knob, the four clamp models test continuity (indicated by a buzzer) and measure the resistance of the circuit. Furthermore, the MX 655 and MX 650 can also perform the diode test very simply.

A few keys for higher performance!

The 4 models are equipped with a **HOLD** function for freezing the display so that it is easier to read, whatever the conditions of access and lighting. Thanks to the **PEAK** function, the MX 655 and MX 650 clamps can capture 1 ms rising-edge or falling-edge signals.

On the MX 655 and MX 650 models, the **MAX/MIN** key displays the highest and lowest values of the measurement scale and the Δ **REL** keys (and the Δ **ZERO** key on the MX 355) allow relative measurements.

To facilitate operations, the MX 655 and MX 650 clamps are equipped with automatic range selection. Thanks to its **RANGE** function, the range change can be forced manually on the MX 650 and MX 350. On the MX 655, the \sim/\equiv key displays the AC or DC measurement, as required.



Additional measurements (min./max. values) simply by pressing a key on the MX 655 and MX 650 models.



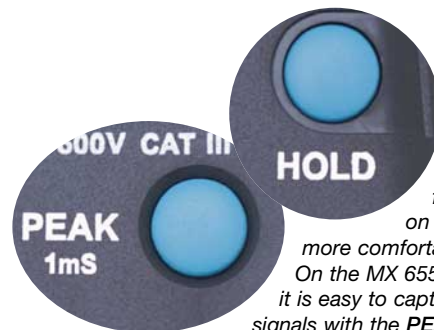
The \sim/\equiv key on the MX 655 displays the AC or DC measurements, as required.



On the MX 650, the **RANGE** key can be used to change range automatically or manually, and there is a **HOLD/RANGE** key for this on the MX355.



Cleverly, the " **Δ Zéro**" (on the MX 355) and " **Δ REL**" keys (on the MX 655 and MX 650) can be used to carry out differential measurements or to facilitate adjustment of the DC zero between each DC measurement and also to compensate for the resistance of the leads for Ω measurement.



Pressing the **HOLD** key during measurement freezes the measurement on the display to make it more comfortable to read subsequently. On the MX 655 and MX 650 clamps, it is easy to capture positive or negative signals with the **PEAK** key.

The particularly well-designed ergonomics of the clamps allows access inside electrical cabinets where the space between cables is usually minimal.



AC/DC CURRENT with automatic zero function

Due to a phenomenon involving magnetization of the sensor, well-know to specialists, DC current measurement requires adjustment of the DC zero before performing each measurement. On the MX 355 model, with the " **Δ Zero**" function, this adjustment is done automatically by simply pressing a key.

Furthermore, this function reduces the influence of external DC parasite fields.

On the MX 655 and MX 650 models, the Δ **REL** key provides this function.

| GENERAL SPECIFICATIONS | MX 655 | MX 650 | MX 355 | MX 350 |
|--|--------------------------------|------------------------------------|----------------------------------|-----------|
| Clamping Ø | 40 mm | 36 mm | 30 mm | 26 mm |
| Display | 4,000 counts | | | |
| Bargraph | 42 segments | | | |
| Range change | Automatic | Automatic or Manual | Automatic or Manual | Automatic |
| Function keys | Hold-Peak - Max/Min - ΔRel ≈/≠ | Hold-Peak - Max/Min - ΔRel - Range | HOLD - Δ Zero - Range | HOLD |
| IEC 61010-1 and IEC 61010-2-032 safety norms | ☐ Cat.III, 600 V | | ☐ Cat.III, 300 V - Cat.II, 600 V | |
| Operating temperature | 0 to 40°C (<70% HR) | | 0 to 40°C (<70% HR) | |
| Storage temperature | -10 to 60°C (<80% HR) | | -10 to 60°C (<80% HR) | |
| Power supply | 1 x 9 V 6 LF22 | | 2 x 1.5 V LR03 | |
| Battery charge life | 36 h | 180 h | 100 h | |
| Auto cut-off | 30 min., deactivatable | | 30 min., deactivatable | 30 min. |
| Dimensions | 246 x 93 x 43 mm | | 193 x 50 x 28 mm | |
| Weight | 400 g | | 230 g | |
| Warranty | 1 year | | 1 year | |

| TECHNICAL SPECIFICATIONS | MX 655 | MX 650 | MX 355 | MX 350 |
|---------------------------------|---|----------------|---------------------------------|---|
| • AC current | | | | |
| Measuring range | 0.05 to 1000 A (in 3 calibres) | | 0.05 to 400.0 A (in 2 calibres) | |
| Basic accuracy | 1.9%L + 5D | | 2%L + 10D | 1.9%L + 5D |
| Bandwidth | 50 Hz to 1 kHz | | 50 to 500 Hz | |
| Protection | 1200 ARMS | 1000/1500 ARMS | 600 ARMS | |
| • DC current | | | | |
| Measuring range | 0.10 to 1000 A (in 3 calibres) | - | 0.1 to 400.0 A (in 2 calibres) | - |
| Basic accuracy | 2.5%L + 10D | - | 2.5%L + 10D | - |
| Protection | 1200 ARMS | - | 600 ARMS | - |
| • AC voltage | | | | |
| Measuring range | 0.5 V to 750 V (in 2 calibres) | | 0.5 V to 600 V (in 2 calibres) | |
| Basic accuracy | 2.5%L + 10D | | 1.5%L + 5D | |
| Bandwidth | 50 Hz to 1 kHz | | 50 to 500 Hz | |
| Input impedance | 10 MΩ | - | 10 MΩ | 1 MΩ |
| Protection | 1000 VRMS | | 660 VRMS | |
| • DC voltage | | | | |
| Measuring range | 0.2 to 1000 V (in 2 calibres) | | 0.2 to 600 V (in 2 calibres) | |
| Basic accuracy | 1%L + 2D | 0.75%L + 2D | 1%L + 2D | |
| Protection | 1000 VRMS | | 660 VRMS | |
| • Resistance | | | | |
| Measuring range | 0.2 to 4000 Ω | | 0.2 to 399.9 Ω | |
| Basic accuracy | 1%L + 2D | | 1%L + 2D | |
| Max. open circuit voltage | 6 Vdc | 3.3 Vdc | 1.5 Vdc | |
| • Diode | | | | |
| Test current | 1.7 mA max. | 0.6 mA | - | - |
| Max. open circuit voltage | 6 Vdc | 3.3 Vdc | - | - |
| • Continuity with buzzer | | | | |
| Detection threshold | ≤ 100 Ω | | ≤ 40 Ω | |
| • Frequency | | | | |
| Measuring range | Current: 20 Hz to 10.00 kHz (in 2 calibres) Voltage: 10 Hz to 10 kHz (in 2 calibres) | | - | Current: 20 Hz to 10.00 kHz (in 2 calibres) Voltage: 2 Hz to 1 MHz (in 4 calibres) |
| Basic accuracy | 0.1%L + 1D | | - | 0.1%L + 1D |
| Sensitivity | 2-5 ARMS / 5-10 VRMS | | - | 2-5 ARMS / 5-10 VRMS |

Characteristics subject to modifications according to technological developments.

metrix
Instruments by Chauvin Arnoux

FRANCE
190, rue Championnet
75876 PARIS Cedex 18
Tel: (+33) 1 44 85 44 86
Fax: (+33) 1 46 2795 59
e-mail: info@chauvin-arnoux.fr
www.chauvin-arnoux.fr

UNITED KINGDOM/Chauvin Arnoux Ltd
Waldeck House - Waldeck Road
MAIDENHEAD SL6 8BR
Tel: 01628 788 888
Fax: 01628 628 099
e-mail: info@chauvin-arnoux.co.uk
www.chauvin-arnoux.co.uk

For assistance and ordering