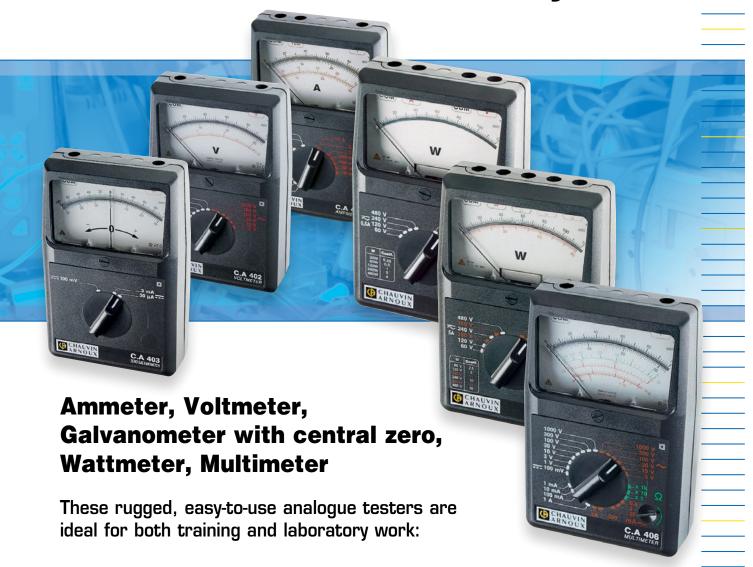


# C.A 400 Series

## **Testers for laboratory use**



Single switch

Safety sockets

HRC fuses and electronic protection systems

Double insulation





# Laboratory testers...

## AC/DC ammeter C.A 401

## Magneto-electric equipment with rectifier

11 DC ranges: 100 µA to 10 A
100 mV DC calibre for shunts
7 AC ranges: 10 mA to 10 A

#### Accuracy

- ▶ ± 2 % for DC
- ▶ ± 2.5 % for 10 A DC range
- ± 2.5 % for AC
- ▶ ± 3.5 % for 10 A AC range

#### Frequency response

- Reference range: 45 Hz to 65 Hz
- Operating range: 45 Hz to 400 Hz

#### Dial

- 2 black DC scales (0 to 100 and 0 to 30)
- 2 red AC scales (0 to 100 and 0 to 30)

#### Fuses

▶ 1 A HRC and 10 A HRC



## AC/DC voltmeter C.A 402

## Magneto-electric equipment with rectifier

8 DC ranges: 100 mV to 1,000 V
6 AC ranges: 3 V to 1,000 V

#### Internal resistance

20 kΩ / V DC and 6.32 kΩ / V AC

#### Accuracy

- 1.5 % for DC
- ▶ ± 2.5 % for AC

#### Frequency response

- ▶ Reference range: 45 to 65 Hz
- Operating range: 20 Hz to 400 Hz

#### Dial

- 2 black scales (0 to 30 and 0 to 100)
- 1 red scale for the 3 V AC range



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### Galvanometer with central zero C.A 403

#### **Magneto-electric equipment**

- 2 ranges: 30 µA DC and 3 mA AC
- 100 mV DC range for shunts

#### Accuracy

• ± 1.5 %

#### Dial

2 black scales (0 to 30 and 0 to 100)

#### **Fuse**

▶ 315 mA HRC

## Single-phase AC/DC wattmeter C.A 404

#### Ferrodynamic equipment

- 4 voltage ranges: 60 V to 480 V
- 2 current ranges: 1 A and 5 A

#### Accuracy

▶ ± 1 % for AC and ± 2.5 % for DC

#### Frequency response

- Reference range: 45 Hz to 65 Hz
- Operating range: 0 Hz to 500 Hz

# lac

▶ 1 black scale (0 to 120)

#### Fuse

1.25 A HRC



## for teaching experience!

## Single and three-phase AC/DC wattmeter

#### **Ferrodynamic equipment**

- 6 DC or single-phase AC voltage ranges: 60 V to 480 V
- 4 balanced three-phase AC voltage ranges: 60 V√3 to 240 V√3
- 1 current range: 5 A

#### Accuracy

- ▶ ± 1 % for single-phase AC
- ± ± 2 % for balanced three-phase AC
- ± 2.5 % for DC

#### Frequency response

- ▶ Reference range: 45 to 65 Hz
- Operating range: 15 Hz to 500 Hz

#### Dial

- 1 black scale (0 to 120)
- ▶ 1 red scale (0 to 90)

#### Fuse

▶ 6.3 A HRC



## Multimeter C.A 405

#### **Magneto-electric equipment**

- 8 DC voltage ranges:
   100 mV to 1,000 V, accuracy: ± 1.5 %
- 6 AC voltage ranges:
- 3 V to 1,000 V, accuracy: ± 2.5 %
- 4 DC current ranges: 1 mA to 1 A, 1 x 50 μA range (same switch position as the 100 mV DC range), accuracy: ± 2 %
- 5 AC current ranges:
   0.3 mA to 3 A, 1 x 150 µA AC range (same switch position as the 3 V AC range), accuracy: ± 2.5 % and ± 3 % for the 3 A AC range
- 3 resistance ranges:  $0.5~\Omega$  1 k $\Omega$  to 1 M $\Omega$ , accuracy: ± 5 %

#### Internal resistance

20 kΩ / V DC and 6.32 kΩ / V AC

#### Frequency response

- Reference range: 45 to 65 Hz
- Operating range: 20 Hz to 400 Hz

#### Dial

- 2 black scales (0 to 30 and 0 to 100)
- 1 green expanded Ω scale (0 to 1,000)
- 1 red A AC scale (0 to 30)
- 1 red 3 V AC scale (0 to 3)
- 1 red decibel scale (-10 dB to + 12 dB)

#### Fuses

▶ 3.15 A HRC and 160 mA HRC



## Multimeter C.A 405 kit

For active training: a multimeter delivered as a kit for the professionals of tomorrow.

This build-it-yourself version of the C.A 406 is specially designed for students in technical and vocational education, as well as for fans of electronics as a leisure activity.

- Same specifications as the C.A 406 multimeter
- Easy-to-assemble and attractive
- Minimal tooling required: soldering iron, pliers and screwdriver
- Delivered with particularly detailed illustrated assembly instructions



# Laboratory testers...

# for teaching experience!

#### Common specifications of the C.A 400 Series

#### Dial

- Equipped with an anti-parallax mirror
- Scale length: 80 mm

#### Casing

- Self-extinguishing polycarbonate
- Double insulation 🔲
- IP40 protection (as per IEC 60529 standard)
- Safety terminals. Lead must be disconnected to open the casing
- Fold-way stand for use in tilted position
- Dimensions and weight: 165 x 105 x 50 mm – 450 g

#### **Climatic conditions for operation**

- ▶ Temperature: -10° C to +55° C
- Relative humidity: 20 to 90 % RH

#### **Electrical safety**

▶ 600 V CAT III as per IEC/EN 61010-1 Edition 2

#### SAFETY ACCESSORIES

A wide range of accessories\* are available to extend the scope of your multimeter or give it new functions:

crocodile clips, wire grips, voltage probes, current clamps, temperature sensors, etc.



Documentation available on request.

\* compliant with the IEC 61010-031 standard

#### To order

Except for the C.A 406, the testers in the C.A 400 Series are delivered without leads. The C.A 406 and C.A 406 kit multimeters are delivered with a set of test-probe leads and a 1.5 V battery (R6). All these testers are delivered with an operating manual.

#### **Testers**

| C.A 401 | P01170301 | C.A 405     | P01170305 |
|---------|-----------|-------------|-----------|
| C.A 402 | P01170302 | C.A 406     | P01170501 |
| C.A 403 | P01170303 | C.A 406 kit | P01170701 |
| C.A 404 | P01170304 |             |           |

#### Shockproof sheath

A recommended accessory for the whole C.A 400 Series. The test probes can be stowed on the side of the sheath.

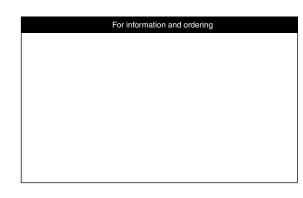


| Shockproof sheath | P01298016 |
|-------------------|-----------|
|                   |           |

#### Spare fuses (set of 10)

| 1 A HRC 380 V 50 kA fuse    | P03297507 |
|-----------------------------|-----------|
| 10 A HRC 380 V 50 kA fuse   | P03297510 |
| 315 mA HRC 380 V 50 kA fuse | P03297509 |
| 1.25 A HRC 380 V 50 kA fuse | P01297015 |
| 6.3 A HRC 380 V 100 kA fuse | P01297016 |
| 3.15 A HRC 380 V 50 kA fuse | P01100726 |
| 160 mA 380 V 50 kA fuse     | P03297508 |

Fuse dimensions: 6.3 x 32 mm



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