

- ④ CAPTEURS DE COURANT
- ④ CURRENT SENSORS
- ④ STROMWANDLER
- ④ SENSORI DI CORRENTE
- ④ SENSORES DE CORRIENTE

MN93
MN93A
PAC93
C193

AmpFLEX™ A193



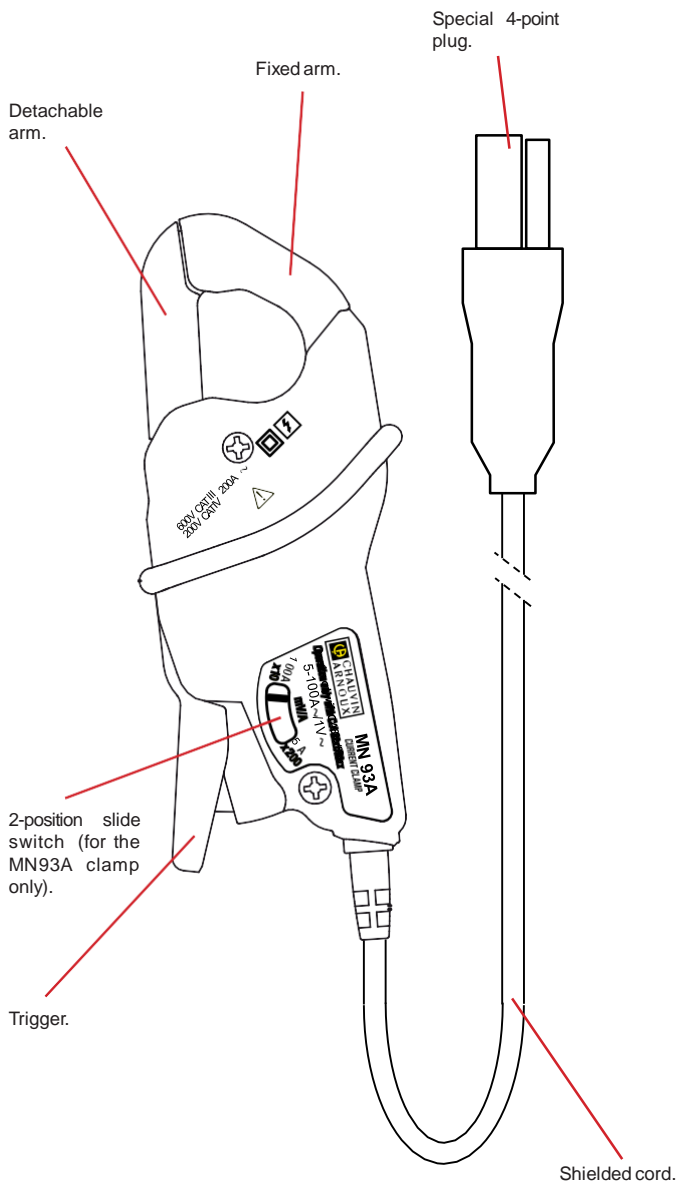
FRANÇAIS
ENGLISH
DEUTSCH
ITALIANO
ESPAÑOL

Notice de fonctionnement
User's manual
Bedienungsanleitung
Manuale d'uso
Manual de instrucciones

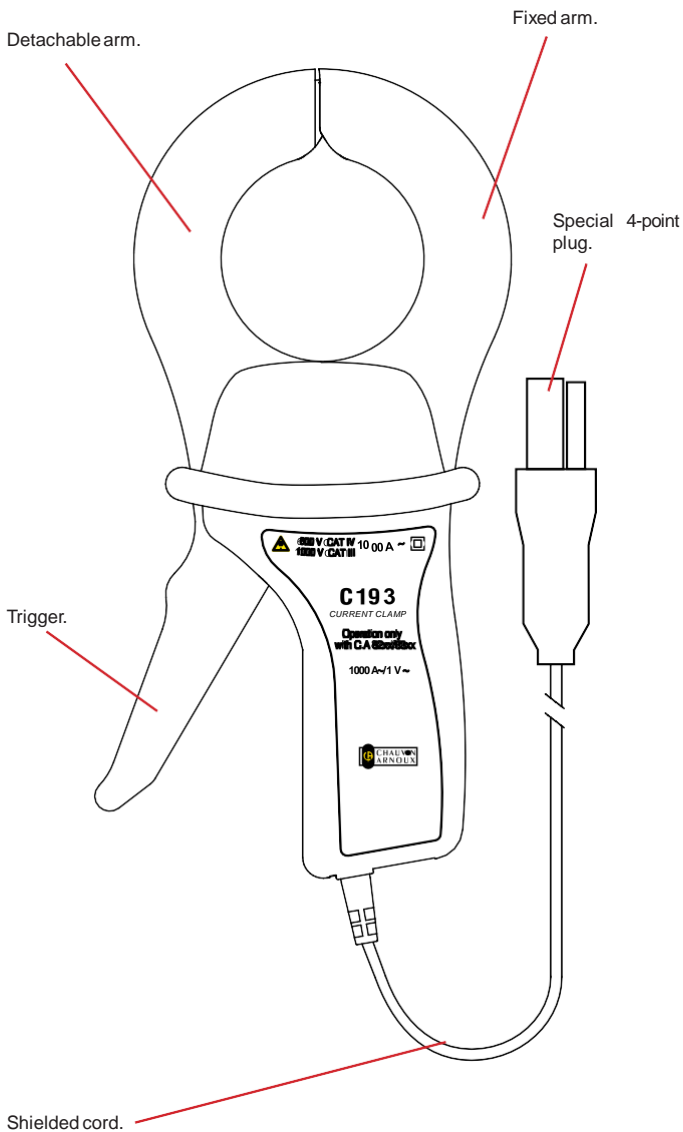
 **CHAUVIN
ARNOUX®**
CHAUVIN ARNOUX GROUP

1. PRESENTATION

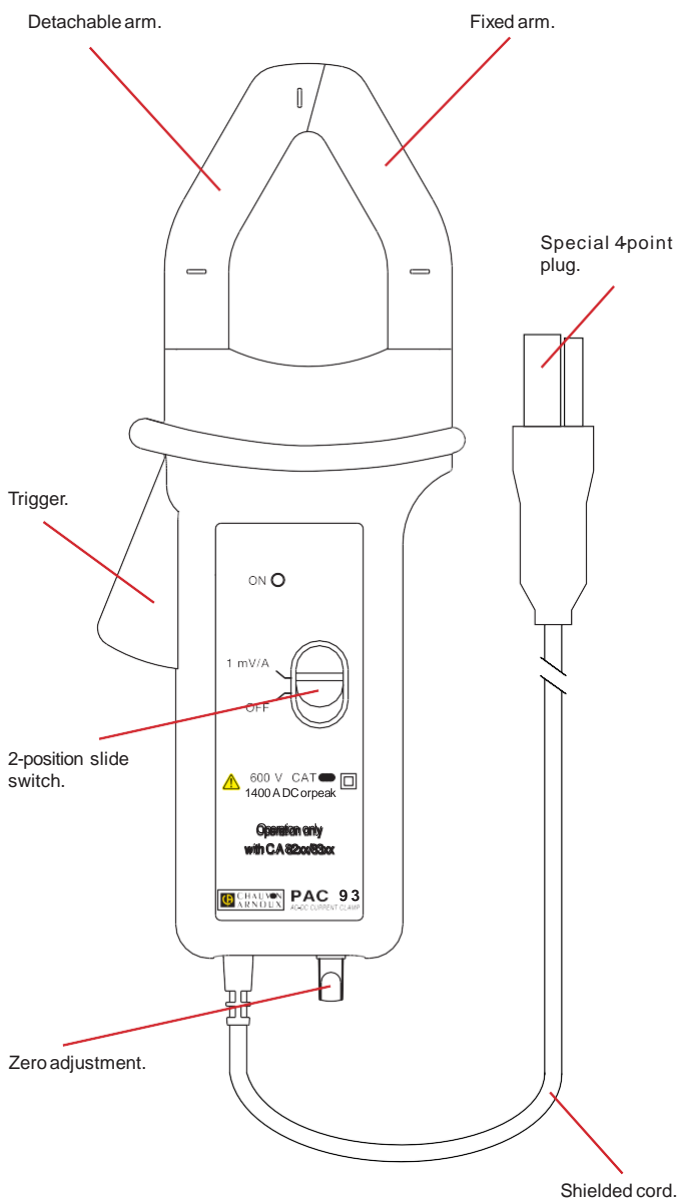
1.1. CLAMPS MN93 AND MN93A



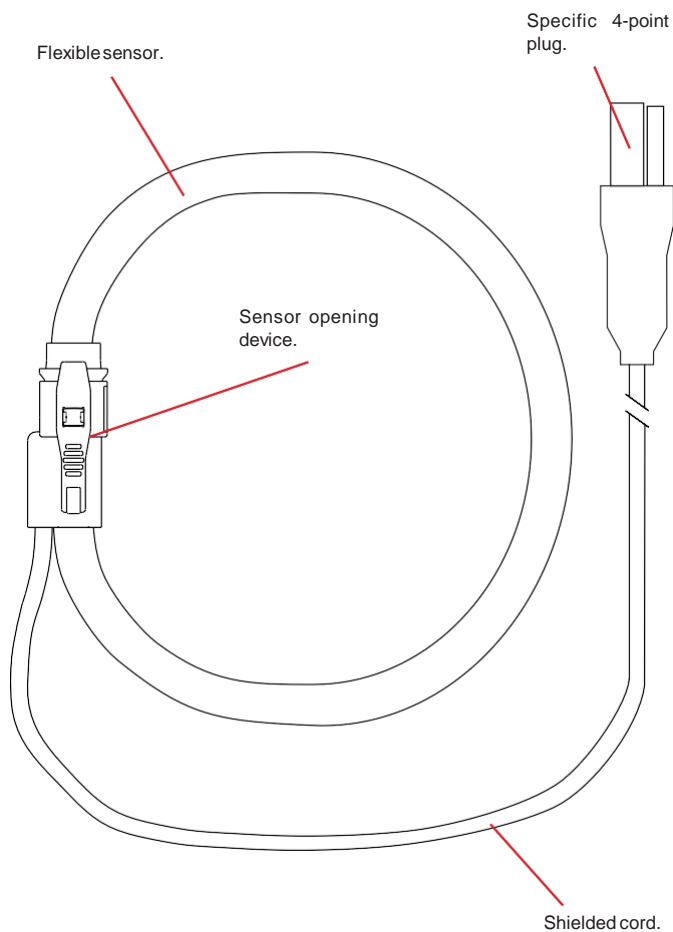
1.2. CLAMP C193



1.3. CLAMP PAC93



1.4. AMPFLEX™ A193



2. USE

Current clamps and AmpFLEX™ flexible current sensors are used to measure the current circulating in a cable without having to open the circuit. They are also used to insulate the user from dangerous voltages in the circuit.

The choice of accessory to be used depends on the current value that is to be measured and the diameter of the cables.

	MN93	MN93A 5 A	MN93A 100 A
Measurement range *	0,05 -240 A	0,005 -6 A	0,1 -120 A
Clamping diameter	20 mm	20 mm	20 mm

	C193	PAC93
Measurement range *	1 -1200 A	1 -1200 A
Clamping diameter	52 mm	39 mm

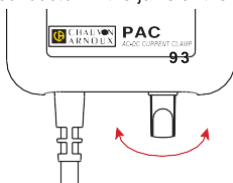
	AmpFLEX™ A193 450 mm	AmpFLEX™ A193 800 mm
Measurement range *	10 -6500 A	10 -6500 A
Clamping diameter	120 mm	235 mm

* : The measurement ranges are those of the sensors. In some cases, they may differ from the ranges that can be measured by the analyser with which they are associated.

- ④ For three-phase measurements, start by marking the accessories using the coloured rings supplied with the device: a different colour for each current terminal.
- ④ Connect the accessories to the current terminals of the device.

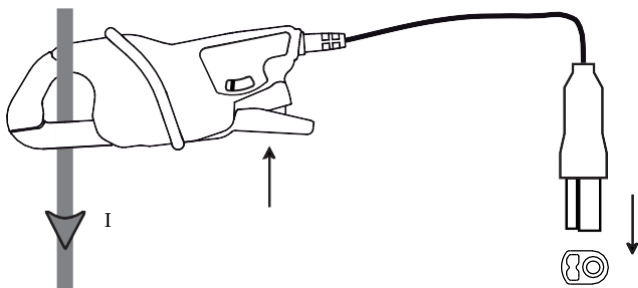
For the PAC93:

- ④ Set the switch to “1 mV/A”; the “ON” indicator lights.
- ④ Once the PAC93 is connected to the device, adjust the zero by turning the potentiometer with no conductor in the jaws of the clamp.



For the clamps:

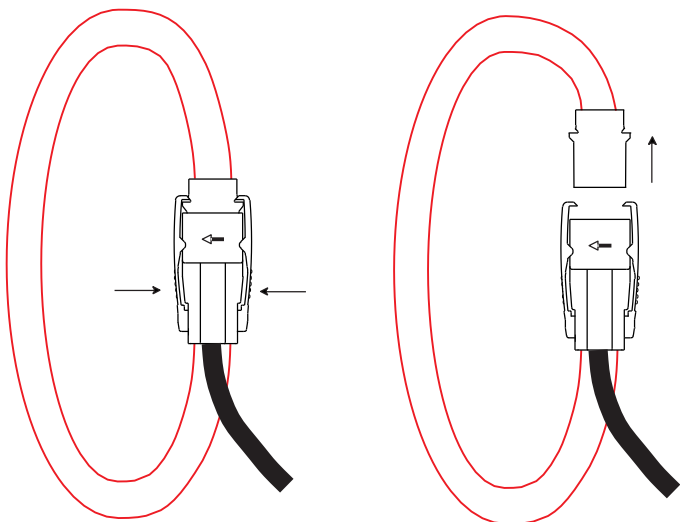
- ④ Press the trigger on the clamp to open the jaws.
- ④ Then clamp the cable that is to be measured. Where possible, the cable should be centred in the jaws of the clamp.
- ④ Release the trigger.



- ④ At the end of the measurement, remember to switch off the PAC93.

For the AmpFLEX™ models:

- ④ Press simultaneously on both sides of the opening device.



- ④ Then clamp the cable that is to be measured. Where possible, the cable should be centred in the sensor.
- ④ Close the sensor by forcing the moving part into the connector until you hear a click.

For details of the measurement configuration and technical characteristics, refer to the user manual of the C.A 8320, C.A 8330, C.A 8332, C.A 8334 or C.A 8335.

3. CHARACTERISTICS

3.1. ENVIRONMENTAL CONDITIONS

Indoor use.

Operating range	-10 °C to +55 °C and 10 % to 85% RH
Storage range	-40 °C to +70 °C and 10 % to 90% RH
Degree of pollution	2
Altitude	< 2000 m

3.2. CONSTRUCTION SPECIFICATIONS

MN93 and MN93A

④ Dimensions (L x W x H)	135 x 51 x 30 mm
④ Cord	3,50 metres long
④ Weight	approx. 290 g

C193

④ Dimensions (L x W x H)	216 x 111 x 45 mm
④ Cord	3,50 metres long
④ Weight	approx. 690 g

PAC93

④ Dimensions (L x W x H)	236.5 x 97 x 44 mm
④ Cord	3,50 metres long
④ Weight	approx. 540 g
④ Battery life	120 hours with an alkaline battery

AmpFLEX™ A193 450 mm

④ Dimensions (L x W x H)	approx. 170 x 158 x 25 mm
④ Cord	3,50 metres long
④ Weight	approx. 220 g

AmpFLEX™ A193 800 mm

④ Dimensions (L x W x H)	approx. 280 x 265 x 25 mm
④ Cord	3,50 metres long
④ Weight	approx. 270 g

Protection index IP 40 for the clamps and IP 30 jaws open, according to IEC 60 529 (Ed. 92)

IP 65 for the AmpFLEX™ according to IEC 60 529 (Ed. 92)


IK 04 according to IEC 50102 (Ed. 95)

Drop test According to IEC 61010-1 (Ed. 2 of 2001)

3.3. CONFORMITY TO INTERNATIONAL STANDARDS

Electrical safety according to IEC 61010-2-032 (Ed. 2 of 2003).

4. MAINTENANCE

 The manufacturer cannot be held liable for any accident that occurs following a repair not performed by its customer service department or by an approved repairer.

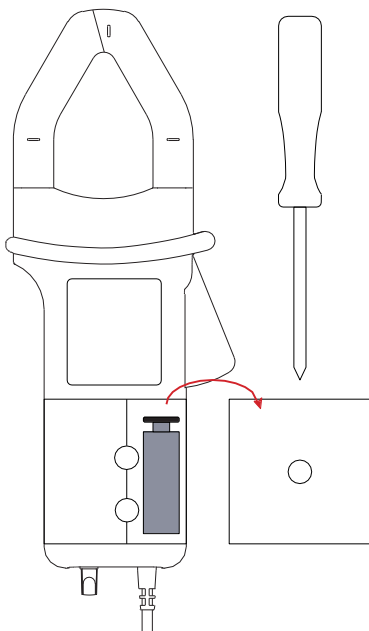
1. CLEANING

Disconnect the unit completely.

Use a soft cloth, dampened with soapy water. Rinse with a damp cloth and dry rapidly with a dry cloth or forced air. Do not use alcohol, solvents, or hydrocarbons.

2. REPLACING THE BATTERY OF THE PAC93

- ④ Disconnect the unit completely and turn the rotary switch to OFF.
- ④ Turn the PAC93 over.
- ④ Use a screwdriver to unscrew the screws and remove the battery compartment cover.



- ④ Withdraw the battery from its compartment without pulling on the wires.
- ④ Disconnect the old battery without pulling on the wires and connect the new one in its place, observing the polarity.
- ④ Put the battery into its compartment.
- ④ Put the cover back in place and screw the screws back in.

4.3. REPAIR

For all repairs before or after expiry of warranty, please return the device to your distributor.

5. WARRANTY

Except as otherwise stated, our warranty is valid for **twelve months** starting from the date on which the equipment was sold. Extract from our General Conditions of Sale provided on request.

The warranty does not apply in the following cases:

- ④ Inappropriate use of the equipment or use with incompatible equipment;
- ④ Modifications made to the equipment without the explicit permission of the manufacturer's technical staff;
- ④ Work done on the device by a person not approved by the manufacturer;
- ④ Adaptation to a particular application not anticipated in the definition of the equipment or not indicated in the user's manual;
- ④ Damage caused by shocks, falls, or floods.