

## Flexibility for measuring intensity



- **Standard & Mini Models**
- **Large measurement range from 0.5 A<sub>AC</sub> to 10 kA<sub>AC</sub>**
- **Excellent linearity, low phase shift**
- **600 V CAT IV or 1,000 V CAT III**
- **Flexible and lightweight**
- **Models for multimeters, loggers or oscilloscopes**

### Flexible current sensors and probes



**INDUSTRY AND  
TERTIARY SECTOR**

# AmpFLEX™ & MiniFLEX

*These compact, lightweight and ergonomic sensors of varying diameters are capable of clamping all types of conductors, whatever their number, dimensions or shape (bars, etc.). Due to their flexibility, they can be used in any location, however cramped. They are ideal for the requirements in both industry and the tertiary sector. Their quick and easy opening/closing system makes them simple to handle even when wearing safety gloves.*

## MiniFLEX MA100 Series

The **MA100** sensors are fitted with two types of outputs: insulated  $\varnothing$  4 mm banana plugs with 19 mm spacing or BNC output. These compact sensors are easy to set up in domestic or industrial electrical cabinets.



## AmpFLEX™ A100 Series

Specially designed for measuring AC currents from **0.5 A to 10 kA**, AmpFLEX™ sensors are equipped with outputs via insulated  $\varnothing$  4 mm banana plugs with 19 mm spacing. They can be connected directly to all multimeters, wattmeters, etc.

The length of the sensors in this series, **up to 120 cm** as standard, means they can clamp large-section cables or several conductors simultaneously. They are ideal for measurement in switch cabinets or subtransmission cabinets.



## MiniFLEX MA200 Series

The **MA200** insulated current probes are equipped with a BNC output and can be connected to all types of oscilloscopes. They offer **high bandwidth** and are particularly suitable for viewing transient signals.

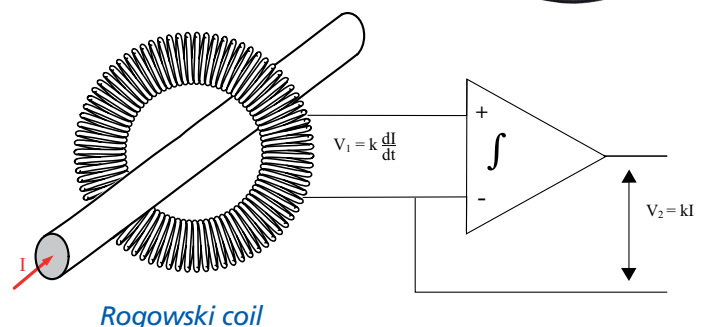
The **MA200** models can notably be used to display the control signals, the thyristor trigger current or the output signal of a power electronics power supply.



## Principle of Rogowski coils

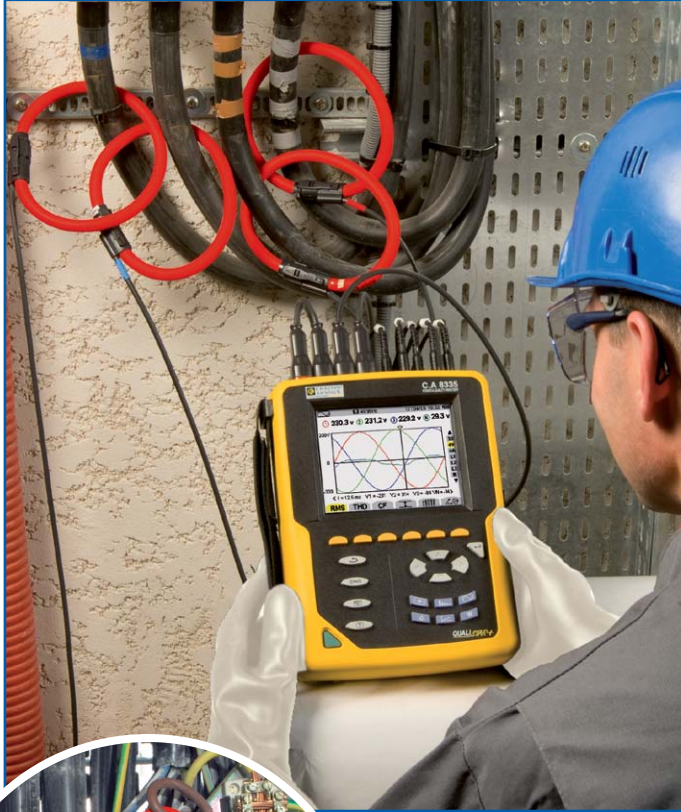
The AmpFLEX™ and MiniFlex sensors are based on the principle of the Rogowski coil, supported by electronics inside a casing.

Because they do not contain a magnetic circuit, they are particularly lightweight and flexible. This also means there is no saturation effect and thus no heating. This specific feature ensures excellent linearity and a low phase shift.

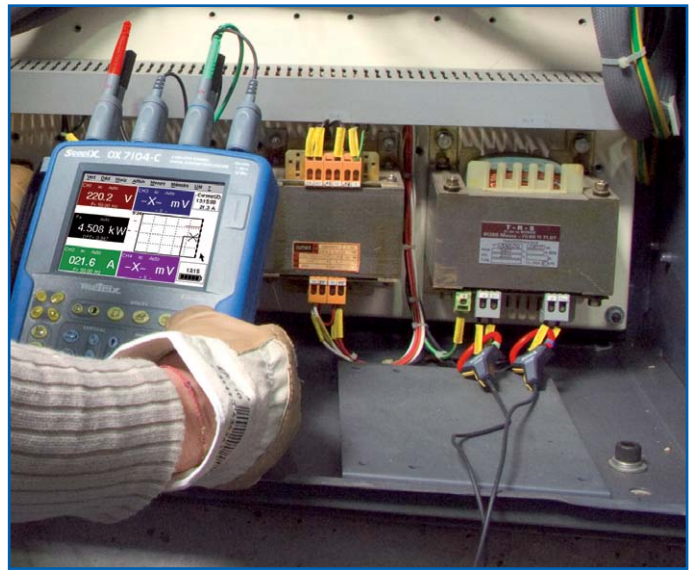


**AmpFLEX™ and MiniFLEX sensors can be used in a very wide range of applications:**

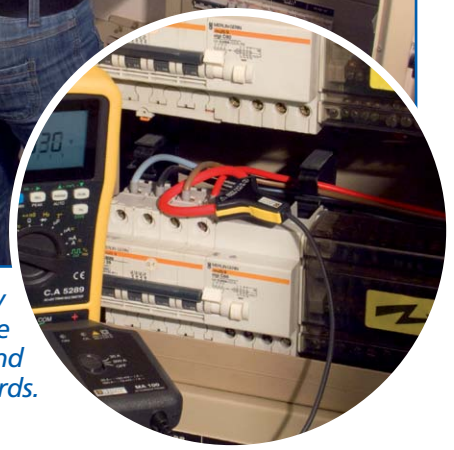
- power measurements
- measurements on switchboards
- measurements on thyristors
- switching measurements (disconnecting switch, etc.)
- display of control signals



**MA100 and A100**  
*These sensors are compatible with power analysers and allow users to choose the right sensor for their application, whether domestic or industrial, depending on the measurement range required, the cable diameter and the space available.*



*The MA200 Series is compatible with all types of oscilloscopes.*



*The sensors' flexibility is an advantage on industrial and domestic switchboards.*

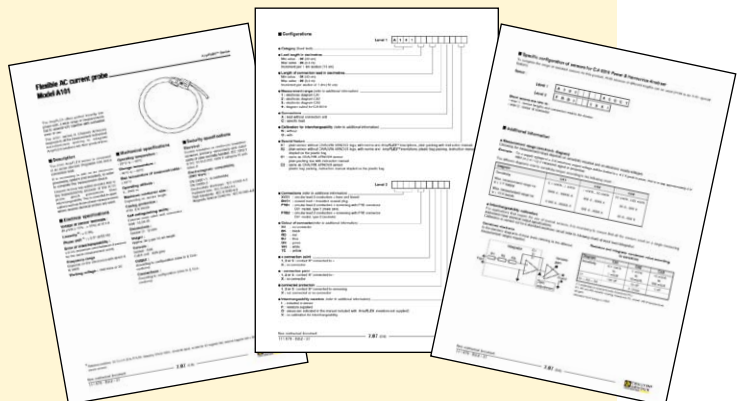
## OUR EXPERTISE: "MADE-TO-MEASURE" INSTRUMENTS

Our experience means we are capable of designing, developing and manufacturing specific models to suit your requirements:

- sensitivity (mV/A)
- connection technology
- sensor lengths, etc.

The AmpFLEX™ A101 Series and MiniFLEX MA101 Series are dedicated sensors for professionals and measurement instrument manufacturers wishing to integrate this technology into their assemblies or sub-assemblies.

**Ask your Chauvin Arnoux contact**



## For multimeters, wattmeters, loggers, etc.

A100	20 A / 200 A		2 kA		0.2 kA / 2 kA		0.3 kA / 3 kA		1 kA / 10 kA
Sensor length	45 cm	45 cm	80 cm	45 cm	80 cm	45 cm	80 cm	1,2 m	1,2 m
Clamping diameter	Ø 14 cm	Ø 14 cm	Ø 25 cm	Ø 14 cm	Ø 25 cm	Ø 14 cm	Ø 25 cm	Ø 38 cm	Ø 38 cm
I/O ratio (mV/A)	100 mV/A – 10 mV/A		1 mV/A	10 mV/A – 1 mV/A		10 mV/A – 1 mV/A		1 mV/A – 0,1 mV/A	
Measurement range	0.5 A ... 200 A		0.5 A ... 2 kA	0.5 A ... 2 kA		0.5 A ... 3 kA		0.5 A ... 10 kA	
Bandwidth (-3 dB)	10 Hz to 20 kHz								
References									
Ø 4 mm insulated banana plugs with 19 mm spacing	P01120503	P01120501	P01120502	P01120504	P01120505	P01120506	P01120507	P01120508	P01120509

MA100	30 A / 300 A		300 A / 3,000 A		300 A / 3,000 A	
Sensor length	170 mm		250 mm		350 mm	
Clamping diameter	Ø 45 mm		Ø 70 mm		Ø 100 mm	
I/O ratio (mV/A)	100 mV/A – 10 mV/A		10 mV/A – 1 mV/A		10 mV/A – 1 mV/A	
Measurement range	0.5 A – 30 A / 0.5 A – 300 A		0.5 A – 300 A / 0.5 A – 3000 A		0.5 A – 300 A / 0.5 A – 3000 A	
Bandwidth (-3 dB)	5 Hz to 20 kHz					
References						
Ø 4 mm insulated banana plugs with 19 mm spacing	P01120560		P01120561		P01120562	
BNC + Ø 4 mm banana plug adapter	P01120563		P01120564		P01120565	

## For oscilloscopes and high frequency applications

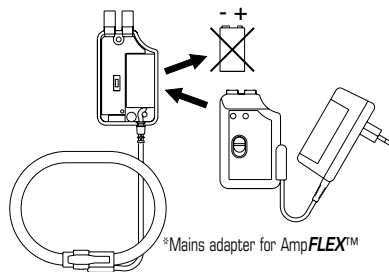
MiniFLEX MA200	30 A / 300 A – 45 A peak / 450 A peak		3000 A – 4500 A peak	
Sensor length	170 mm		250 mm	
Clamping diameter	Ø 45 mm		Ø 70 mm	
I/O ratio (mV/A)	100 mV/A – 10 mV/A		1 mV/A	
Measurement range	0.5 A – 30 A / 0.5 A – 300 A		5 A – 3000 A	
Bandwidth (-3 dB)	5 Hz to 1 MHz			
References				
BNC	P01120570		P01120571	

### COMMON GENERAL SPECIFICATIONS

Max. peak output voltage	4.5 V
Power supply	9 V battery (6LF22)
Electrical safety	Double insulation – IEC 61010 : casing 600 V CAT III, sensor B 600 V CAT IV / 1000 V CAT III
Sensor protection	IP 50 leakproofing (MA100 and MA200), IP 65 (A100) - Resistant to oils and aliphatic hydrocarbons
Environmental conditions	Use: -10 °C to +55 °C and 80 % HR to 50 °C)
Dimensions / weight	Casing: 140 x 64 x 28 mm – MA < 250 g / 250 g < A100 < 560 g • Built-in lead: 2 m (linking the sensor to the casing)

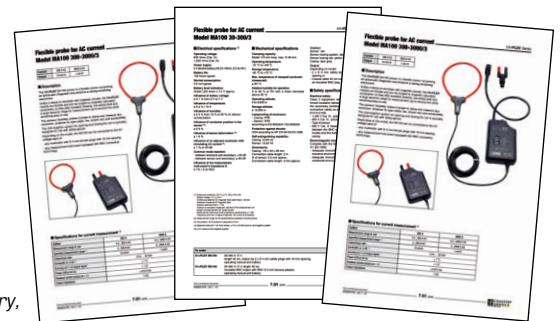
### Accessories:

- **Mains power pack**  
For AmpFLEX™ A100\*: P01101968  
For MiniFLEX MA100: P01102086  
For MiniFLEX MA200: P01102087



### State at delivery:

- **MiniFLEX MA100 with insulated Ø 4 mm male plug output:** delivered with 9 V alkaline battery, 1 operating manual in 5 languages
- **MiniFLEX MA100 with BNC output:** delivered with 1 adapter for insulated female BNC - Ø 4 mm insulated male with 19 mm spacing, 9 V alkaline battery, 1 operating manual in 5 languages
- **AmpFLEX™ A100:** delivered with 9 V alkaline battery and operating manual in 5 languages
- **MiniFLEX MA200:** delivered with 9 V alkaline battery and operating manual in 5 languages



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