

# Flexible probe for AC current

## Model A100 20-200 / 2

AmpFLEX™ series

Current	20 A AC	200 A AC
Output	100 mV/A	10 mV/A

### Electrical specifications

#### Current calibres:

0.5 A AC ... 20 A AC

0.5 A AC ... 200 A AC

#### Output signal:

100 mVAC/A AC (2 V for 20 A)

10 mVAC/A AC (2 V for 200 A)

#### Accuracy <sup>(1)</sup>:

Calibre	20 A		200 A	
	0.5 A...5 A	5...20 A	0.5 A...5 A	0.5 A...200 A
Primary current	0.5 A...5 A	5...20 A	0.5 A...5 A	0.5 A...200 A
% Accuracy of output signal	not specified	≤ 1 %	not specified	≤ 1 %
Phase shift	≤ 1.3°	≤ 1.3°	≤ 1.3°	≤ 1.3°

#### Bandwidth:

10 Hz ... 20 kHz

#### Crest factor:

2.25 at rated current

#### Max. current / Max. output voltage:

No current limit, but maximum output is 4.5 V peak

#### Load impedance:

≥ 1 MΩ

#### Influence of Z load impedance:

≤ 0.1 % / Z, (Z in MΩ)

#### Output impedance:

1 kΩ

#### DC voltage shift at output:

■ 20 A calibre: ≤ 50 mV DC

■ 200 A calibre: ≤ 5 mV DC

#### Operating voltage:

1000 V rms

#### Influence of adjacent conductor:

≤ 1 % interference current at 50 Hz

(≤ 2 % near click-lock system)

#### Influence of conductor position in loop:

≤ 1 % (≤ 4 % near click-lock system)

#### Influence of sensor shape:

≤ 1 % for an oblong shape

#### Battery:

9 V alkaline battery (NEDA 1604A, IEC 6LR61)

#### Battery life:

≥ 150 hrs continuous,

≥ 1000 x 1 minute measurements

#### Low battery signal:

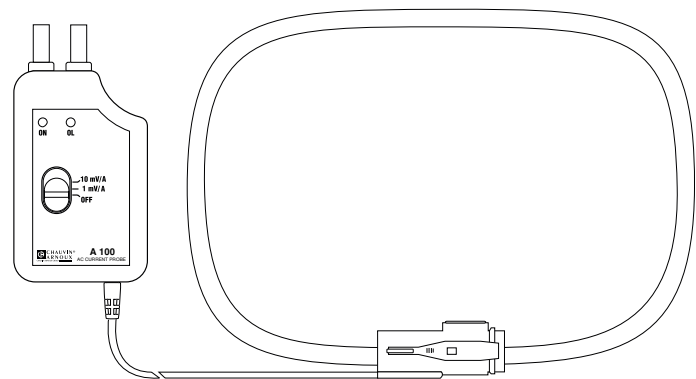
Green LED: battery OK

Flashing green LED: low battery

No green LED: battery discharged

#### Overload signal:

red LED



### Mechanical specifications

#### Operating temperature:

-10 °C to +55 °C, (maximum temperature for sensor is 90 °C)

#### Storage temperature:

-40 °C to +70 °C

#### Influence of temperature:

≤ 0.5 % of output signal per 10 °K

#### Relative humidity for operation:

0 to 95 % RH with a linear decrease above 35 °C

#### Influence of relative humidity:

< 0.2 % of output signal from 10 % to 85 % RH

#### Operating altitude:

0 to 2,000 m

#### Casing protection rating:

Casing: IP40 (IEC 529)

Flexible sensor: IP65 (IEC 529)

#### Drop test:

1 m (IEC 68-2-32)

#### Shock resistance:

100 g (IEC 68-2-27)

#### Vibration resistance (IEC 68-2-6):

5/15/5 1.5 mm

15/25/15 1 mm

25/55/25 0.25 mm

#### Self-extinguishing capability:

Casing, flexible sensor and click-lock

system: UL94 V0

#### Dimensions:

Casing: 140 x 64 x 28 mm (overall)

Connector lead: 2 m (connects sensor to casing)

Flexible sensor: Ø 12 mm ± 0.5 mm

#### Weight:

Casing: < 200 g

Flexible sensor: approx. 30 g per 10 cm length

#### Bending radius:

≥ 15 mm

#### Colours:

Casing and connection leads: dark grey, red flexible sensor with dark grey click-lock system

#### Output:

2 safety sockets (4 mm) spacing 19 mm

### Safety specifications

#### Electrical safety:

Double insulation or reinforced insulation between primary, secondary and outer parts of casing liable to be handled, IEC 1010-1 - 1000 V category III, pollution degree 2

#### Electromagnetic compatibility (EMC):

EN 50081-1: compliant

EN 50082-2:

- Electrostatic discharge: IEC 1000-4-2

- Radiated field: IEC 1000-4-3

- Fast transients: IEC 1000-4-4

- Electrical shocks: IEC 1000-4-5

- Magnetic field at 50/60 Hz: IEC 1000-4-8

(1) Conditions of reference: 23 °C ± 5 °K, 20 % to 75 % RH, battery voltage: 9 V ± 0.5 V, external DC magnetic field < 40 A/m, no external magnetic or electrical field, conductor centred for measurement, sinusoidal signal: 10 ... 100 Hz.

To order	Reference
AmpFLEX™ 20-200/2, length 45 cm with operating manual	P01120503