CURRENT CLAMPS FOR AC CURRENT

MINI series

Small, compact and particularly resistant, this range of miniature clamps is designed for measurements from a few milliamperes to 150 A AC. Their shape makes them very practical in confined spaces, such as circuit-breaker boards, control panels or control boxes. They are ideal for use with multimeters.

There are two types of MINI clamps.

The first type operates like a traditional current transformer and provides a current output (mA) which can be used with multimeters, loggers or instruments with current calibres.

The second provides a voltage output proportional to the current measured. This voltage output enables instruments with AC voltage calibres to display or store current values.

There is also a model with a DC voltage output.

The MINI clamps give True RMS results when used with a True RMS instrument.

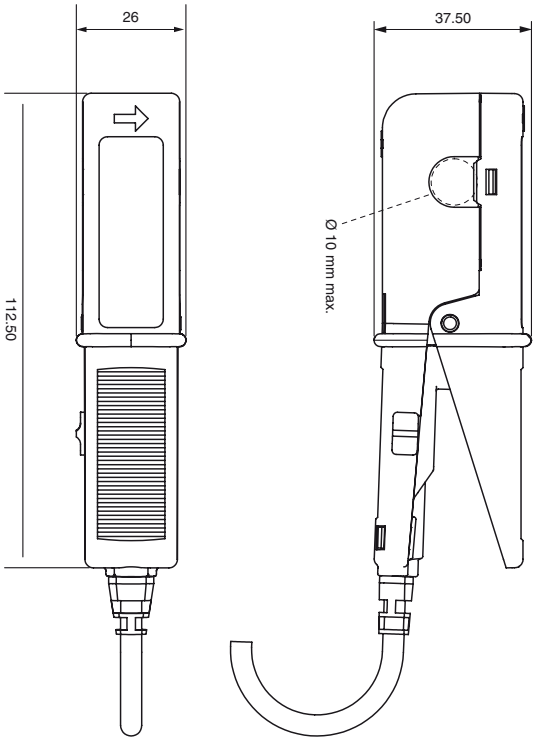
MINI 100 series

Incorporating all the essentials which made the Miniclamps and the MINI10 Series so successful, the MINI 100 Series completes the range with a clamping diameter of 16 mm.

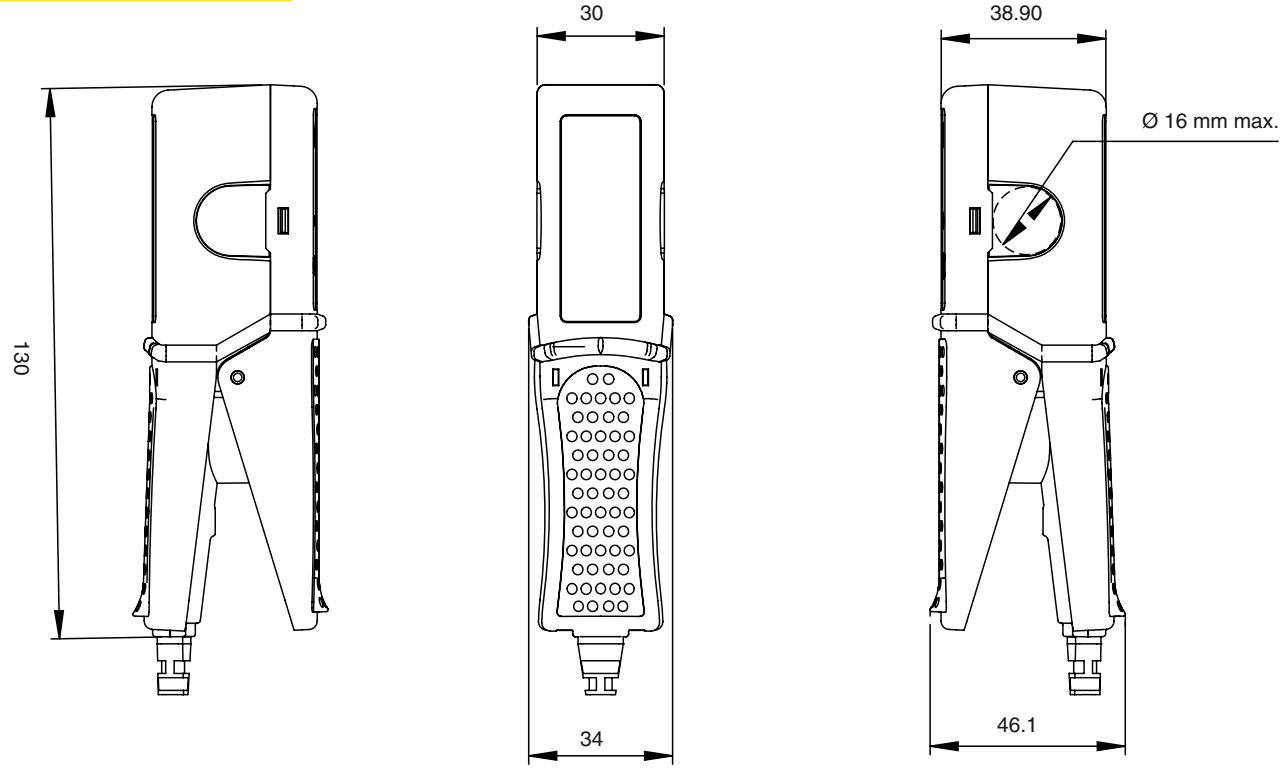
The models in the MINI 100 Series are equipped with a so-called "direct reading" input/output ratio and can measure currents up to 350 A.

CURRENT CLAMPS FOR AC CURRENT

MINI series



MINI 100 series



CURRENT CLAMPS FOR AC CURRENT

Model MINI 01

Calibre	150 A AC
Sensitivity	1 mA / A (1,000/1)

Description

Small and compact, the MINI 01 current clamp is the ideal complement for any multimeter to measure AC currents in low-power tertiary or industrial applications.

If there is a current in the conductor clamped, the MINI 01 clamp is protected against overvoltages during disconnection from the measurement instrument.

Main specifications (1)

Calibre	**150 A**
Measurement range	2 A .. 150 A
Accuracy of primary current in %	≤ 2.5 % + 0.15 A (1 Ω load) ≤ 3 % + 0.15 A (load 10 Ω)
Phase shift	not specified
Output signal	1 mA AC / A AC (1,000/1) (150 mA for 150 A)

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 500 Hz
- **Clamping capacity:**
  Cable Ø max 10 mm

Electrical specifications

- **Load impedance:**
  ≤ 10 Ω
- **Maximum currents:**
  I < 150 A permanent from 48 Hz .. 500 Hz
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.1 % at 50/60 Hz
- **Influence of frequency:**
  ≤ 2 % from 65 Hz at 500 Hz
- **Maximum output voltage (secondary open):**
  30 V

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  From 0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP40 (2) (EN 60529 Ed.1992)
- **Drop test:**
  1.5 m (IEC 68-2-32)
- **Shock resistance:**
  100 g / 6 ms / half-period (IEC 68-2-27)
- **Vibration resistance (3):**
  5-15 Hz (1.5 mm), 15-25 Hz (1 mm), 25-55 Hz (0.25 mm) (IEC 68-2-6)
- **Self-extinguishing capability:**
  Casing UL94 V2
- **Dimensions:**
  130 x 37 x 25 mm
- **Weight:**
  approx. 180 g
- **Colour:**
  Black casing

Safety specifications

- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001, EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003
  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1 (Ed. 97) + A1 (Ed. 98) + A2 (Ed. 01)
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 65 Hz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≤ 10 Ω.

(2) With clamp closed.

(3) Vibrations expressed in mm peak, scanning of 1 octave/minute for 10 minutes on 3 axes.

To order	Reference
AC current clamp model **MINI 01** with operating manual	P01105101Z

CURRENT CLAMPS FOR AC CURRENT

Model MINI 02

Calibre	100 A AC
Sensitivity	1 mA / A (1,000/1)

Description

The MINI 02 current clamp, whose jaws are equipped with a high-performance magnetic material and a double coil, offers excellent linearity and improved performance.

Small and compact, it is ideal for measuring AC currents in low-power tertiary or industrial applications. If a current is present in the conductor being clamped, the MINI 02 clamp is protected against voltage surges when it is disconnected from the measurement instrument.

Main specifications (1)

Calibre	100 A
Measurement range	50 mA .. 100 A (load 1 Ω) 50 mA .. 90 A (load 10 Ω)
Accuracy of primary current in %	≤ 1 % + 0.02 A (load 1 Ω) ≤ 1.5 % + 0.01 A (load 10 Ω)
Phase shift	≤ 3° (load 1 Ω) ≤ 6° (load 10 Ω)
Output signal	1 mA AC / A AC (1,000/1) (100 mA for 100 A)

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 10,000 Hz
- **Clamping capacity:**
  Cable Ø max 10 mm

Electrical specifications

- **Load impedance:**
  ≤ 100 Ω
- **Maximum currents:**
  I < 100 A permanent from 48 Hz .. 10,000 Hz
- **Influence of load impedance:**
  See curves
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.1 % at 50/60 Hz
- **Influence of frequency:**
  ≤ 2 % from 65 Hz at 10 kHz
- **Maximum output voltage (secondary open):**
  ≤ 30 V

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  From 0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP40 (2) (EN 60529 Ed. 1992)
- **Drop test:**
  1.5 m (IEC 68-2-32)
- **Shock resistance:**
  100 g / 6 ms / half-period (IEC 68-2-27)
- **Vibration resistance (3):**
  5-15 Hz (1.5 mm), 15-25 Hz (1 mm),
  25-55 Hz (0.25 mm) (IEC 68-2-6)
- **Self-extinguishing capability:**
  Casing UL94 V2
- **Dimensions:**
  130 x 37 x 25 mm
- **Weight:**
  approx. 180 g
- **Colour:**
  Black casing

Safety specifications

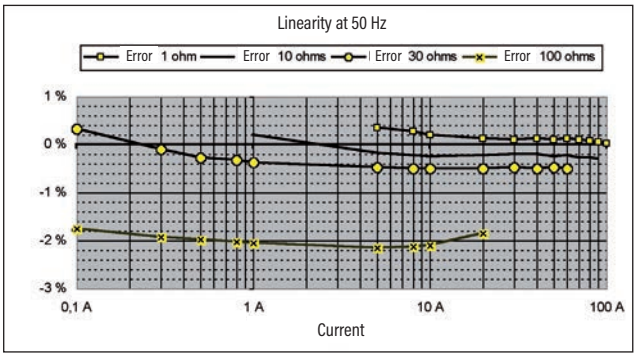
- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001, EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003
  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1 (Ed. 97)
  + A1 (Ed. 98) + A2 (Ed. 01)
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

CURRENT CLAMPS FOR AC CURRENT

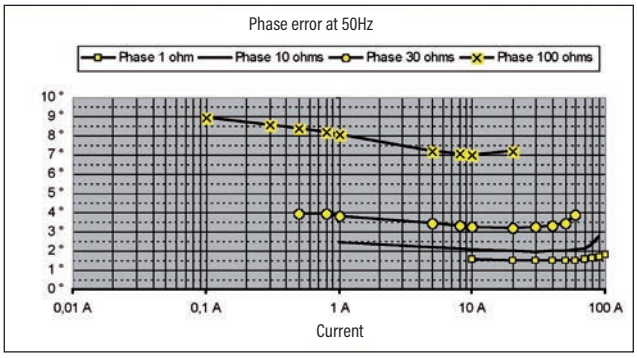
Model MINI 02

Curves at 50 Hz

Typical linearity error for loads of 1, 10, 30 and 100 Ω

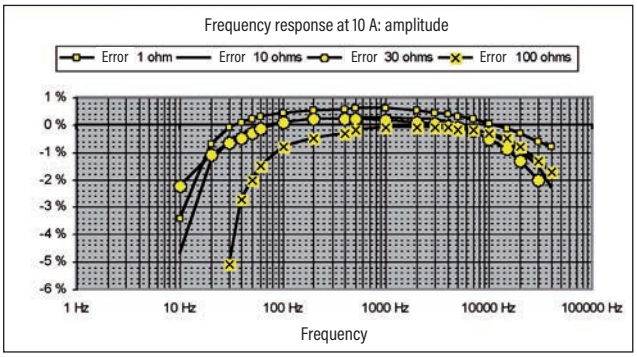


Typical phase shift for loads of 1, 10, 30 and 100 Ω

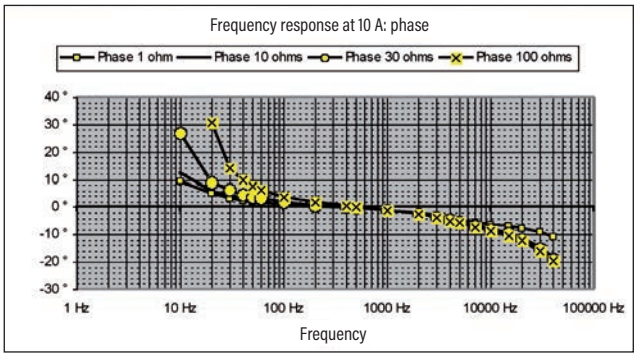


Frequency response at 10 A

Typical linearity error for loads of 1, 10, 30 and 100 Ω



Typical phase shift for loads of 1, 10, 30 and 100 Ω



(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 10 kHz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≤ 10 Ω.

(2) With clamp closed.

(3) Vibrations expressed in mm peak, scanning of 1 octave/minute for 10 minutes on 3 axes.

To order	Reference
AC current clamp model **MINI 02** with operating manual	P01105102Z

CURRENT CLAMPS FOR AC CURRENT

Model MINI 03

Calibre	100 A AC
Sensitivity	1 mV / A

Description

Small and compact, the MINI 03 current clamp is the ideal complement for any multimeter to measure AC currents in low-power tertiary or industrial applications.

When used with an AC voltmeter, it allows you to directly read the current measured on the voltmeter.

Main specifications (1)

Calibre	**100 A**
Measurement range	1 A .. 100 A
Accuracy of primary current in %	≤ 2 % + 50 mA
Phase shift	not specified
Output signal	1 mV AC / A AC (100 mV for 100 A)

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 500 Hz
- **Clamping capacity:**
  Cable Ø max 10 mm

Electrical specifications

- **Maximum currents:**
  I < 150 A permanent from 48 Hz .. 500 Hz
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.1 % at 50/60 Hz
- **Influence of frequency:**
  ≤ 1 % from 65 Hz at 500 Hz

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP40 (2) (EN 60529 Ed. 1992)
- **Drop test:**
  1.5 m (IEC 68-2-32)
- **Shock resistance:**
  100 g / 6 ms / half-period (IEC 68-2-27)
- **Vibration resistance (3):**
  5-15 Hz (1.5 mm), 15-25 Hz (1 mm), 25-55 Hz (0.25 mm) (IEC 68-2-6)
- **Self-extinguishing capability:**
  Casing UL94 V2
- **Dimensions:**
  130 x 37 x 25 mm
- **Weight:**
  approx. 180 g
- **Colour:**
  Black casing

Safety specifications

- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001,
  EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003
  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1 (Ed. 97)
  + A1 (Ed. 98) + A2 (Ed. 01)
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 65 Hz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≥ to 10 kΩ

(2) With clamp closed.

(3) Vibrations expressed in mm peak, scanning of 1 octave/minute for 10 minutes on 3 axes.

To order	Reference
AC current clamp model **MINI 03** with operating manual	P01105103Z

CURRENT CLAMPS FOR AC CURRENT

Model MINI 05

Calibre	10 A AC	100 A AC
Sensitivity	1 mV / mA	1 mV / A

Description

Small and compact, the MINI 05 current clamp is the ideal complement for any multimeter to measure AC currents in low-power tertiary or industrial applications.

With its 2 calibres, it offers excellent resolution for measuring AC currents from 5 mA to 100 A.

Main specifications (1)

Calibre	10 A	100 A
Measurement range	5 mA .. 10 A	1 A .. 100 A
Accuracy of primary current in %	≤ 3 % + 0.15 mA	≤ 2 % + 50 mA
Phase shift	not specified	
Output signal	1 mV AC / mA AC (10 V for 10 A)	1 mV AC / A AC (100 mV for 100 A)

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 500 Hz
- **Clamping capacity:**
  Cable Ø max 10 mm

Electrical specifications

- **Maximum currents:**
  - 100 A calibre: I < 150 A permanent from 48 Hz .. 500 Hz
  - 10 A calibre: I < 15 A permanent from 48 Hz .. 500 Hz
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.1 % at 50/60 Hz
- **Influence of frequency:**
  - 100 A calibre: ≤ 1 % from 65 Hz at 500 Hz
  - 10 A calibre: ≤ 3 % from 65 Hz at 500 Hz

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP40 (2) (EN 60529 Ed.1992)
- **Drop test:**
  1.5 m (IEC 68-2-32)
- **Shock resistance:**
  100 g / 6 ms / half-period (IEC 68-2-27)
- **Vibration resistance (3):**
  5-15 Hz (1.5 mm), 15-25 Hz (1 mm), 25-55 Hz (0.25 mm) (IEC 68-2-6)
- **Self-extinguishing capability:**
  Casing UL94 V2
- **Dimensions:**
  130 x 37 x 25 mm
- **Weight:**
  approx. 180 g
- **Colour:**
  Black casing

Safety specifications

- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001,
  EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003
  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1 (Ed. 97)
  + A1 (Ed. 98) + A2 (Ed. 01)
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 65 Hz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≥ 1 MΩ (10 A calibre) & ≥ 10 kΩ (100 A calibre).

(2) With clamp closed.

(3) Vibrations expressed in mm peak, scanning of 1 octave/minute for 10 minutes on 3 axes.

To order	Reference
AC current clamp model **MINI 05** with operating manual	P01105105Z

CURRENT CLAMPS FOR AC CURRENT

Model MINI 09

Calibre	150 AAC
Sensitivity	100 mV DC / A AC

Description

Small and compact, the MINI 09 current clamp is the ideal complement for any multimeter to measure AC currents in low-power tertiary or industrial applications.

Its DC voltage output helps to overcome the low sensitivity of certain AC measurement instruments.

Main specifications (1)

Calibre	**150 A**			
Measurement range	1 A .. 5 A	5 A .. 15 A	15 A .. 40 A	40 A .. 150 A
Accuracy of primary current in %	≤ 10 % + 0.6 A	≤ 6 % + 0.6 A	≤ 3 % + 0.6 A	≤ 4 %
Phase shift	not specified			
Output signal	100 mV DC / A AC (15 V DC for 150 A)			

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 500 Hz
- **Clamping capacity:**
  Cable Ø max 10 mm

Electrical specifications

- **Maximum currents:**
  I < 150 A permanent from 65 Hz .. 500 Hz
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.1 % at 50/60 Hz
- **Influence of frequency:**
  ≤ 3 % from 65 Hz at 500 Hz

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP40 (2) (EN 60529 Ed. 1992)
- **Drop test:**
  1.5 m (IEC 68-2-32)
- **Shock resistance:**
  100 g / 6 ms / half-period (IEC 68-2-27)
- **Vibration resistance (3):**
  5-15 Hz (1.5 mm), 15-25 Hz (1 mm), 25-55 Hz (0.25 mm) (IEC 68-2-6)
- **Self-extinguishing capability:**
  Casing UL94 V2
- **Dimensions:**
  130 x 37 x 25 mm
- **Weight:**
  approx. 180 g
- **Colour:**
  Black casing

Safety specifications

- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001,
  EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003
  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1 (Ed. 97)
  + A1 (Ed. 98) + A2 (Ed. 01)
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 65 Hz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≥ to 50 kΩ

(2) With clamp closed.

(3) Vibrations expressed in mm peak, scanning of 1 octave/minute for 10 minutes on 3 axes.

To order	Reference
AC current clamp model **MINI 09** with operating manual	P01105109Z

CURRENT CLAMPS FOR AC CURRENT

Model MINI 102

Calibre	200 A AC
Sensitivity	1 mA / A (1,000/1)

Description

The MINI 102 current clamp, whose jaws are equipped with a high-performance magnetic material and a double coil, offers excellent linearity and improved performance.

If a current is present in the conductor being clamped, the MINI 102 clamp is protected against voltage surges when it is disconnected from the measurement instrument.

Main specifications (1)

Calibre	200 A
Measurement range	50 mA .. 200 A (load 1 Ω) 50 mA .. 200 A (load 10 Ω) 50 mA .. 20 A (load 100 Ω)
Accuracy in %	≤ 1.5 % + 0.02 A (load 1 Ω) ≤ 1.5 % + 0.01 A (load 10 Ω) ≤ 4 % + 0.01 A (load 100 Ω)
Phase shift	≤ 3° (load 1 Ω) ≤ 6° (load 10 Ω) ≤ 12° (load 10 0Ω)
Output signal	1 mA AC / A AC (1,000/1) (200 mA for 200 A)

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 10,000 Hz
- **Clamping capacity:**
  Cable Ø max 16 mm

Electrical specifications

- **Load impedance:**
  ≤ 100 Ω
- **Influence of load impedance:**
  See curves
- **Maximum currents:**
  350 A permanent at a frequency ≤ 1 kHz.
  200 A permanent at a frequency ≤ 8 kHz

  (limitation proportional to the reciprocal of the frequency beyond that)
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.08 % at 50/60 Hz
- **Influence of frequency:**
  typically ≤ 1%
- **Maximum output voltage (secondary open):**
  ≤ 30 V

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP20 (2) (EN 60529 Ed. 2001)
- **Drop test:**
  1 m (IEC 68-2-32)
- **Dimensions:**
  130.4 x 46 x 34 mm
- **Weight:**
  approx. 250 g
- **Colour:**
  Black casing

Mechanical specifications

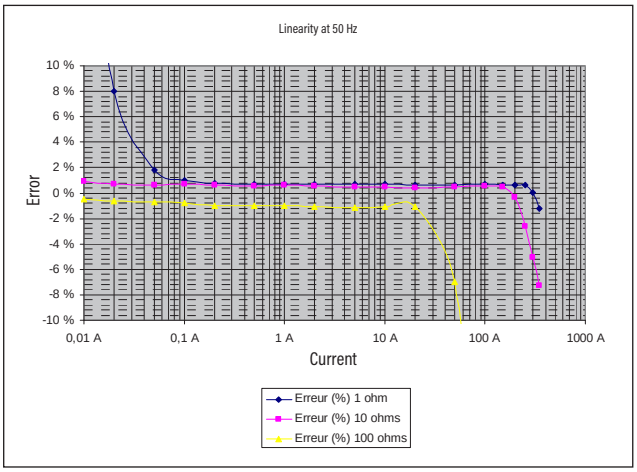
- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001,
  EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003
  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1: 2006
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

CURRENT CLAMPS FOR AC CURRENT

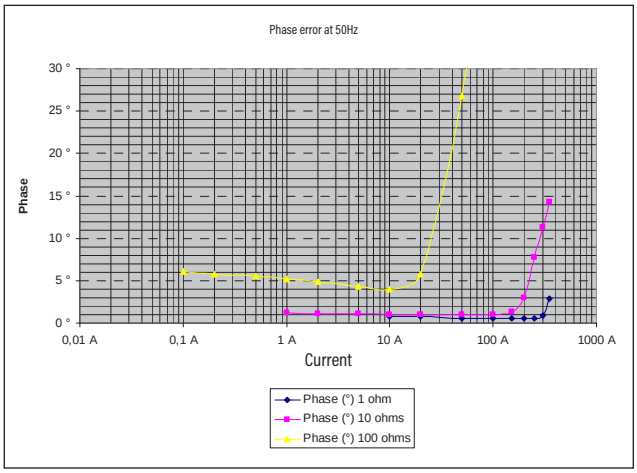
Model MINI 102

Curves at 50 Hz

Typical linearity error for loads of 1, 10 and 100 Ω

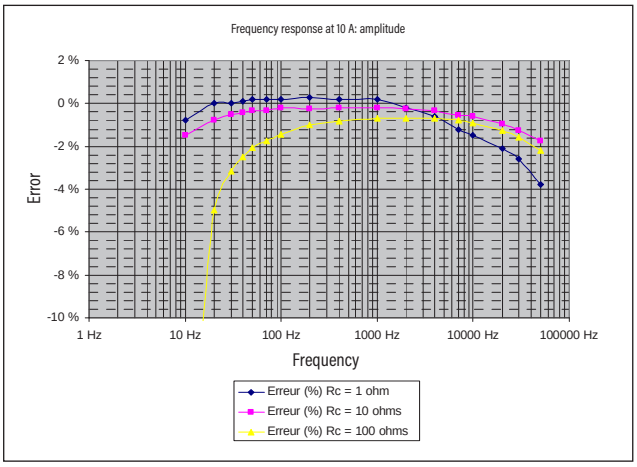


Typical phase shift for loads of 1, 10, 30 and 100 Ω

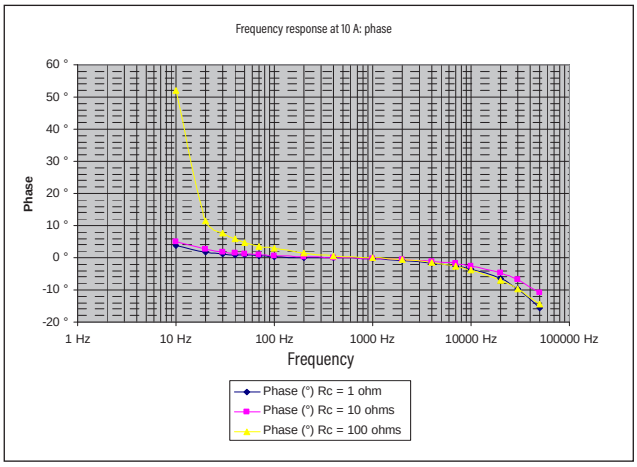


Frequency response at 10 A

Typical linearity error for loads of 1, 10 and 100 Ω



Typical phase shift for loads of 1, 10 and 100 Ω



(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 10 kHz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≤ 10 Ω.

(2) With clamp closed.

To order	Reference
AC current clamp model **MINI 102** with operating manual	P01106102

CURRENT CLAMPS FOR AC CURRENT

Model MINI 103

Calibre	200 A AC
Sensitivity	1 mV / A

Description

The MINI 103 current clamp is the ideal companion for any multimeter to measure AC currents in tertiary or industrial applications.

When used with an AC voltmeter, it allows you to directly read the current measured on the voltmeter.

Main specifications (1)

Calibre	**200 A**
Measurement range	0.1 A .. 200 A AC
Accuracy in %	≤ 1.5 % + 0.02 A
Phase shift	≤ 3 °
Output signal	1 mV AC / A AC (200 mV for 200 A)

- **Output:**
  Double-insulated cable 1.5 m long, terminated by 2 insulated elbowed male banana connectors Ø 4 mm
- **Bandwidth:**
  48 Hz .. 10,000 Hz
- **Clamping capacity:**
  Cable Ø max 16 mm

Electrical specifications

- **Load impedance:**
  ≥ 10 kΩ
- **Influence of load impedance:**
  See curves
- **Maximum currents:**
  350 A permanent at a frequency ≤ 1 kHz.
  200 A permanent at a frequency ≤ 8 kHz

  (limitation proportional to the reciprocal of the

  frequency beyond that)
- **Influence of temperature:**
  ≤ 0.2 % per 10 °K
- **Influence of adjacent conductor:**
  ≤ 2 mA / A at 50 Hz
- **Influence of conductor position in jaws:**
  ≤ 0.08 % at 50/60 Hz
- **Influence of frequency:**
  typically ≤ 1%

Mechanical specifications

- **Operating temperature:**
  -10°C to +50°C
- **Storage temperature:**
  -40°C to +80°C
- **Relative humidity for operation:**
  0 to 85 % RH with a linear decrease above 35 °C
- **Operating altitude:**
  0 to 2,000 m
- **Casing protection rating (leakproofing):**
  IP20 (2) (EN 60529 Ed. 2001)
- **Drop test:**
  1 m (IEC 68-2-32)
- **Dimensions:**
  130.4 x 46 x 34 mm
- **Weight:**
  approx. 250 g
- **Colour:**
  Black casing

Safety specifications

- **Electrical safety:**
  Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per EN 61010-1 Ed. 2:2001,
  EN 61010-2-031 Ed. 2002 & EN 61010-2-032 Ed. 2003

  - 600 V category III, pollution degree 2
  - 300 V category IV, pollution degree 2
- **Electromagnetic compatibility:**
  CE-certified equipment compliant with standard EN 61326-1: 2006

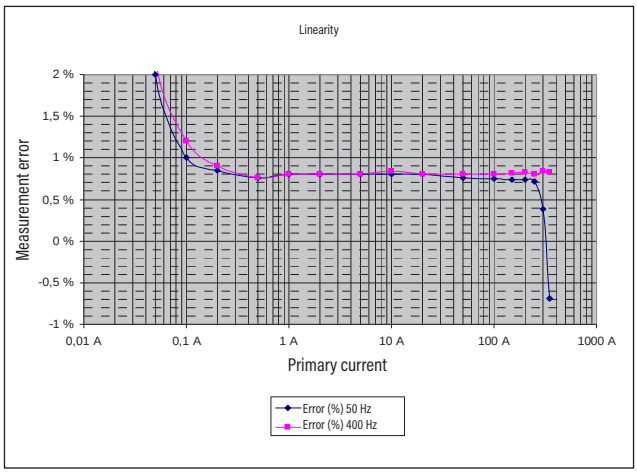
  - Emission: stipulations for class B equipment (domestic use).
  - Immunity: stipulations for equipment used intermittently on industrial sites.

CURRENT CLAMPS FOR AC CURRENT

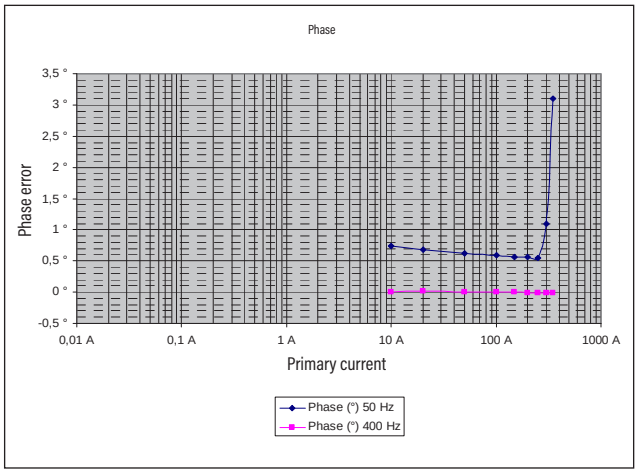
Model MINI 103

Curves at 50 Hz

Typical linearity error

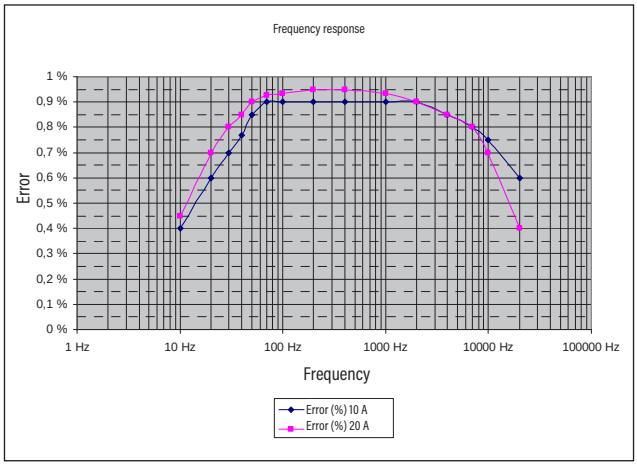


Typical phase shift

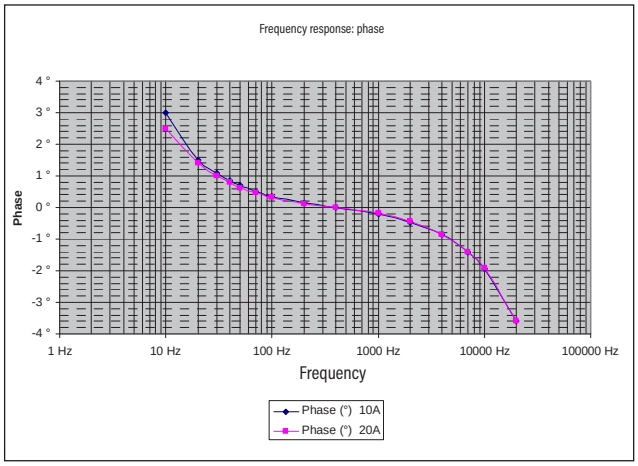


Frequency response

Typical linearity error



Typical phase shift



(1) Conditions of reference: 23 °C ± 3 °K, 20 °C to 75% RH, sinusoidal signal with frequency of 48 Hz to 65 Hz, distortion factor < 1 % with no DC component, external DC magnetic field < 40 A/m, no external AC magnetic field, no external conductor with circulating current, conductor centred for measurement, measurement instrument load impedance ≥ to 10 kΩ

(2) With clamp closed.

To order	Reference
AC current clamp model **MINI 103** with operating manual	P01106103