



**Current clamp**

**MyClamp**



**INSTRUCTION MANUAL**


**(M181B01-03-17A)**







## SAFETY PRECAUTIONS


Follow the warnings described in this manual with the symbols shown below.

|   |   |
|---|---|
|  | <p><b>DANGER</b><br/>Warns of a risk, which could result in personal injury or material damage.</p> |
|---|---|

|   |  |
|---|--|
|  | <p><b>ATTENTION</b><br/>Indicates that special attention should be paid to a specific point.</p> |
|---|--|

**If you must handle the unit for its installation, start-up or maintenance, the following should be taken into consideration:**

|   |   |
|---|---|
|  | <p>Incorrect handling or installation of the unit may result in injury to personnel as well as damage to the unit. In particular, handling with voltages applied may result in electric shock, which may cause death or serious injury to personnel. Defective installation or maintenance may also lead to the risk of fire.<br/>Read the manual carefully prior to connecting the unit. Follow all installation and maintenance instructions throughout the unit's working life. Pay special attention to the installation standards of the National Electrical Code.</p> |
|---|---|

|   |  |
|---|--|
|  | <p><b>Refer to the instruction manual before using the unit</b><br/>In this manual, if the instructions marked with this symbol are not respected or carried out correctly, it can result in injury or damage to the unit and /or installations.</p> |
|---|--|

CIRCUTOR, SA reserves the right to modify features or the product manual without prior notification.


## DISCLAIMER

**CIRCUTOR, SA** reserves the right to make modifications to the device or the unit specifications set out in this instruction manual without prior notice.

**CIRCUTOR, SA** on its web site, supplies its customers with the latest versions of the device specifications and the most updated manuals.

[www.circutor.com](http://www.circutor.com)



|   |   |
|---|---|
|  | <p><b>CIRCUTOR</b>, recommends using the original cables and accessories that are supplied with the device.</p> |
|---|---|

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## REVISION LOG

Table 1: Revision log.

| Date  | Revision       | Description     |
|-------|----------------|-----------------|
| 04/18 | M181B01-03-17A | Initial Version |

## SYMBOLS

Table 2: Symbols.

| Symbol  | Description   |
|---|---|
|  | In compliance with the relevant European directive.   |
|  | Device covered by European directive 2012/19/EC. At the end of its useful life, do not leave the unit in a household waste container. Follow local regulations on electronic equipment recycling. |
|  | AC current  |

**Note:** The images of the devices are for illustrative purposes only and may differ from the original device.

## 1.- VERIFICATION UPON RECEPTION

Check the following points when you receive the device:

- a) The device meets the specifications described in your order.
- b) The device has not suffered any damage during transport.
- c) Perform an external visual inspection of the device prior to switching it on.
- d) Check that it has been delivered with the following:
  - An installation guide.
  - A transport bag.



If any problem is noticed upon reception, immediately contact the transport company and/or **CIRCUTOR's** after-sales service.

## 2.- PRODUCT DESCRIPTION

**MyClamp** is a portable current clamp that measures the current that passes through the conductor to which it is connected.

The device allows you to view the current on a smart phone or tablet thanks to a **MyClamp** mobile application that connects to your network and is compatible with Bluetooth.



The device features:

- **3** indicator **LEDs**
- **1** **key** to switch the device on/off.
- Communications that are compatible with **Bluetooth**.

The **MyClamp** mobile application can display the current, the creation of reports and the sending of those reports by email.

The **MyClamp** current clamp must only be used with the **P-64** Insulating Stick from **CIRCUTOR**.

### 3.- DEVICE INSTALLATION

#### 3.1.- PRELIMINARY RECOMMENDATIONS



In order to use the device safely, it is essential that the individuals who handle it follow the safety measures set out in the standards of the country where it is being used, use the necessary personal protective equipment (rubber gloves, facial protection, and approved fireproof clothing) to avoid injury from shocks or electric arc from exposure to current-carrying conductors, and pay attention to the various warnings included in this instruction manual.

The **MyClamp** device must be installed by authorised and qualified staff.

The device's functionality is limited to the category of measuring voltage or specific current values.

The manufacturer of the device is not responsible for any damage resulting from failure by the user or installer to heed the warnings and/or recommendations set out in this manual, nor for damage resulting from the use of products or accessories that did not come with the device or that were made by other manufacturers.

Inspect the device prior to each use. Check that it has no cracks and no pieces are missing from the housing.

If an anomaly or malfunction is detected in the device, do not use the device to take any measurements.

Inspect the work area before taking any measurements. Do not take measurements in dangerous, humid or wet areas or blasting areas.



Please contact the after-sales service if you suspect that there is an operational fault in the device.

#### 3.2.- BATTERY INSTALLATION

**MyClamp** is powered with 2 AA batteries of 1.5 V, not included with the device.



When disposing of the battery, comply with local laws and ordinances. Do not dispose of it with household waste. At the end of its useful life, dispose of the product at a specific collection point for electrical or electronic equipment.

The battery cover is at the back of the device.

Unscrew the fastening screw in the cover using a flat-head screwdriver and open the cover.

Insert the batteries in the correct position and close the cover again.



Do not use the device without the cover on.



If the device is going to be switched off for more than 3 months, it is advisable to remove the batteries.

### 3.3.- CONNECTION DIAGRAM

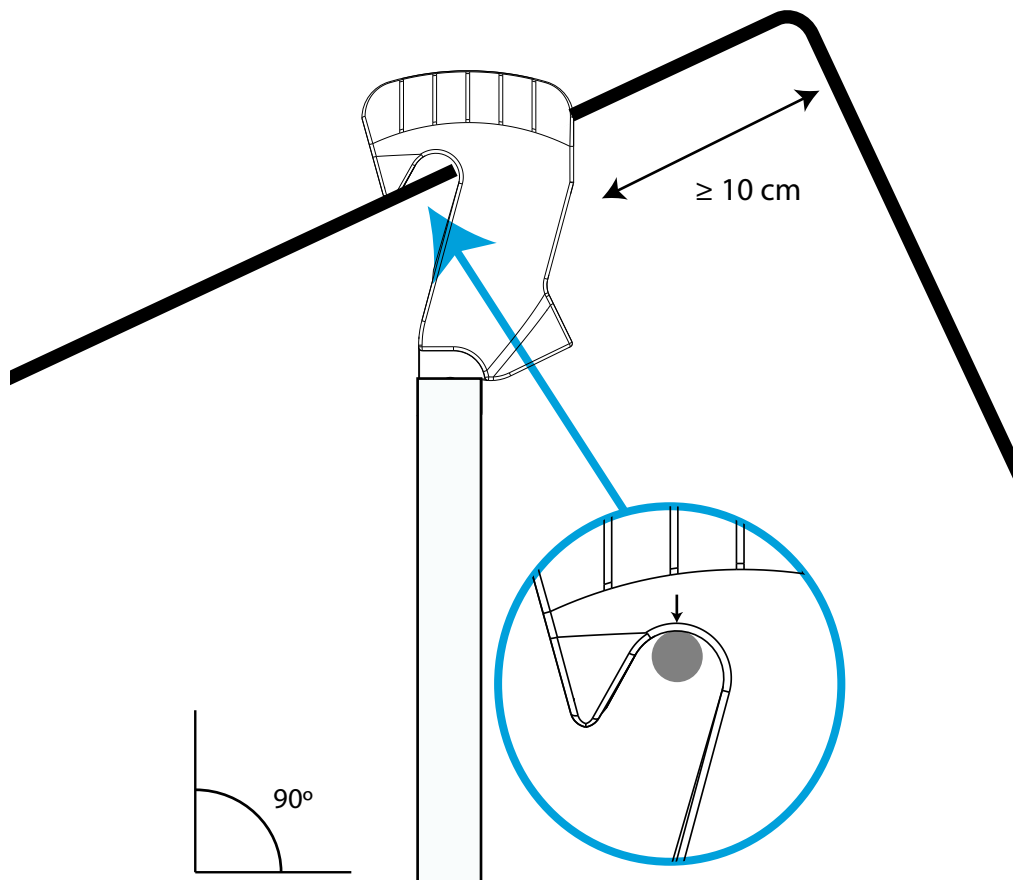


Figure 1: Connection diagram



To record a correct measurement with the **MyClamp** it is necessary to:

- ✓ Install the conductor cable by fixing it to the inner wall of the device, as shown in **Figure 1**.
- ✓ Position the clamp perpendicular to the conductor cable.



Place the **MyClamp** at a distance  $\geq 10$  cm from a conductor cable elbow.



## 4.- OPERATION

### 4.1.- OPERATING PRINCIPLE

Measuring currents on a live overhead service line poses certain problems if you do not want to interrupt the circuit and you want to protect the person performing the measurement.

**Myclamp**'s open clamp system allows measurements to be taken by hanging the device on the conductor cable, without interrupting the circuit and thus preventing any direct contact between the line and the operator.

The device features a connection that is compatible with Bluetooth, which allows the operator to view the measurement easily from a mobile application.

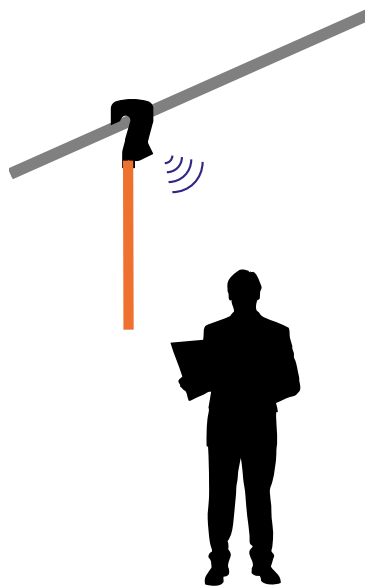


Figure 2: Operating principle of the MyClamp system.

## 4.2.- LED INDICATORS AND KEYBOARD

**MyClamp** has 1 key, **Figure 3**, to switch the device on/off. And 3 indicator LEDs.

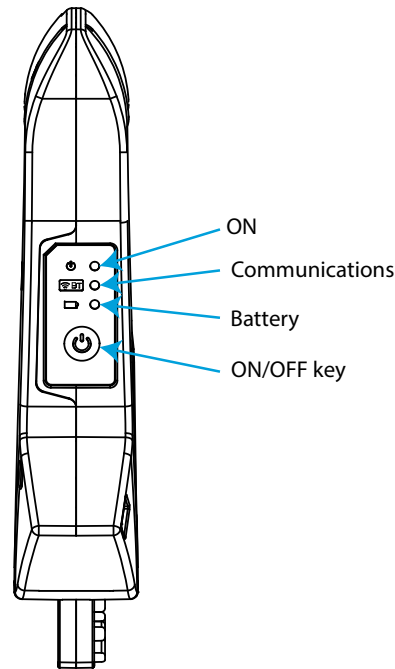


Figure 3: Key and LED indicators.

- ✓ LED **ON** on, Indicates that the device has on.
- ✓ LED **Communications** on, Indicates that the device has connected via wireless communication.
- ✓ LED **Battery** on, Indicates that the device's charge level is below 80%.

**Note:** *Measurements taken with a low battery level may not be correct.*

## 4.3.- WIRELESS COMMUNICATIONS

The device features communication that is compatible with **Bluetooth Low Energy** for connecting to a smartphone or tablet via the **MyClamp** application and viewing the current measurement.

### 4.3.1.- USAGE ENVIRONMENT AND HEALTH

Wireless communications emit radio frequency electromagnetic energy, like other radio devices.

Because wireless communications operate under the guidelines found in radio frequency standards and recommendations, they are safe for users to use.

In some settings and situations the use of wireless communications may be restricted by the building's owner or representatives of the organisation.

These may include:

- ✓ Use of wireless connections on board aircraft, in hospitals or near service stations, blasting areas, medical implants or electronic medical devices implanted in the human body

(pacemakers, etc.).

✓ In any other setting where the risk of interference with other devices or services is a hazard.

If you are not sure of the applicable usage policy for wireless devices in a specific organisation (airport, hospital, etc.) we recommend requesting permission to use wireless communications.

#### 4.3.2.- MyClamp MOBILE APPLICATION

The device features the **MyClamp** mobile application that allows the user to connect to the devices wirelessly, via communications that are compatible with Bluetooth, and:

- ✓View the current in real time.
- ✓Generate reports from the measurements from the worksheets, including photographs, and send them by email.
- ✓Generate comparative photographs of the meter measurement.

The **MyClamp** mobile application is compatible with Android and has a version for smartphones and tablets.

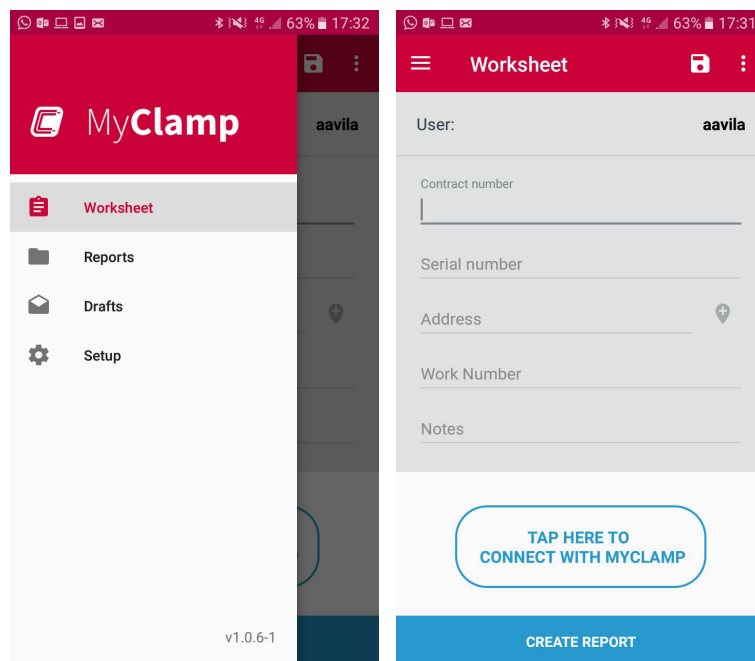


Figure 4: MyClamp application screens.

Download the application in [http://circutor.com/down/app\\_myclamp.apk](http://circutor.com/down/app_myclamp.apk)



## 5.- TECHNICAL FEATURES

| Power supply  |                                    |
|---|------------------------------------|
| Type  | 2 AA Battery                       |
| Rated voltage   | 3 V                                |
| Installation category   | CAT IV 1000 V                      |
| Current measurement circuit   |                                    |
| Current measurement margin  | 2 ... 125 A                        |
| Minimum measurement current(Istart)   | 2 A                                |
| Maximum voltage   | 1000 V                             |
| Installation category   | CAT IV 1000 V                      |
| Measurement accuracy  |                                    |
| Current measurement   | ± 5% <sup>(1)</sup> <sup>(2)</sup> |
| <sup>(1)</sup> + variations in range of use.<br><sup>(2)</sup> The position of the clamp relative to the conductor cable can vary the accuracy of the measurement. The ideal position is shown in <b>Figure 1</b> . |                                    |
| Variations in range of use  |                                    |
| Magnitude of influence  |                                    |
| Temperature   | 3 %                                |
| Communications  |                                    |
| Band  | 2.4 GHz                            |
| Standards   | compliant with Bluetooth v4.1      |
| Range   | 8 m                                |
| Automatic disconnection   | 10 minutes without activity        |
| User interface  |                                    |
| Keyboard  | 1 key                              |
| LED   | 3 LEDs                             |
| Mobile app  | MyClamp                            |
| Environmental features  |                                    |
| Operating temperature   | 0°C... +50°C                       |
| Storage temperature   | -10°C... +60°C                     |
| Relative humidity (with no condensation)  | 5 ... 80%                          |
| Maximum altitude  | 2,000 m                            |
| Protection degree   | IP41                               |
| Mechanical features   |                                    |
| Dimensions  | <b>Figure 5</b> (mm)               |
| Weight  | <b>194 g.</b>                      |
| Enclosure   | Polycarbonate V0 + 20% Glass fiber |

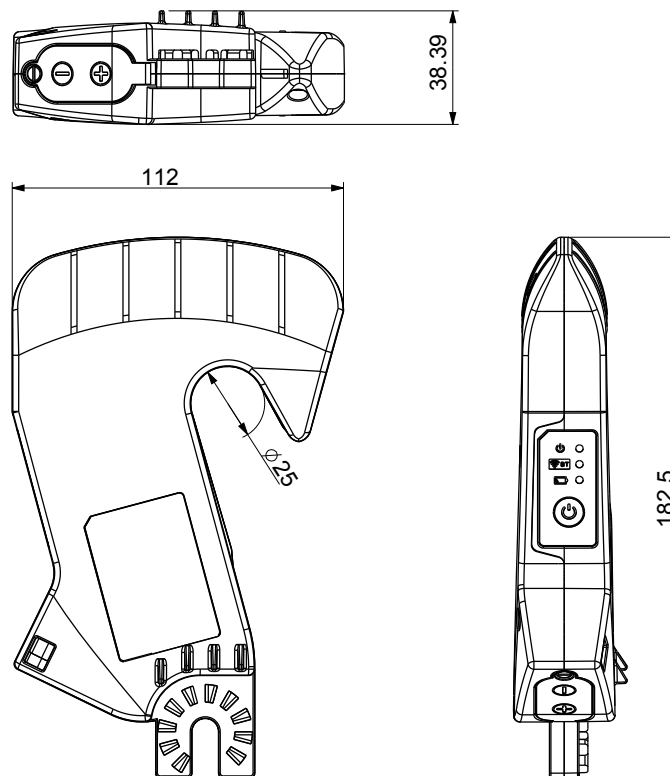


Figure 5: MyClamp dimensions.

| Standards   |                           |
|---|---------------------------|
| Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 1: General requirements                            | EN 61010-1:2010           |
| Electromagnetic compatibility (EMC) -- Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments         | EN 61000-6-1:2007         |
| Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments | EN 61000-6-3:2007/A1:2011 |

## 6.- MAINTENANCE AND TECHNICAL SERVICE

If the device is going to be switched off for more than 3 months, it is advisable to remove the batteries.

In the case of any query in relation to device operation or malfunction, please contact the **CIRCUTOR, SA** Technical Support Service.

### Technical Assistance Service

Vial Sant Jordi, s/n, 08232 - Viladecavalls (Barcelona)

Tel: 902 449 459 ( España ) / +34 937 452 919 (outside of Spain)

email: sat@circutor.com

## 7- GUARANTEE

**CIRCUTOR** guarantees its products against any manufacturing defect for two years after the delivery of the units.

**CIRCUTOR** will repair or replace any defective factory product returned during the guarantee period.



- No returns will be accepted and no unit will be repaired or replaced if it is not accompanied by a report indicating the defect detected or the reason for the return.
- The guarantee will be void if the units has been improperly used or the storage, installation and maintenance instructions listed in this manual have not been followed. "Improper usage" is defined as any operating or storage condition contrary to the national electrical code or that surpasses the limits indicated in the technical and environmental features of this manual.
- **CIRCUTOR** accepts no liability due to the possible damage to the unit or other parts of the installation, nor will it cover any possible sanctions derived from a possible failure, improper installation or "improper usage" of the unit. Consequently, this guarantee does not apply to failures occurring in the following cases:
  - Overvoltages and/or electrical disturbances in the supply;
  - Water, if the product does not have the appropriate IP classification;
  - Poor ventilation and/or excessive temperatures;
  - Improper installation and/or lack of maintenance;
  - Buyer repairs or modifications without the manufacturer's authorisation.

## 8.- CE CERTIFICATE







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