CodAlp Automatisme

HBK HOTTINGER BRÜEL & KJÆR

ClipX Eye

Operating Manual

Rev 1

ClipX Eye

Table des matières

Safety instructions

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by us for any consequences arising out of the use of this material. A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

This product has been designed, developed and manufactured for use in industrial or factory automation systems.

• The product is not appropriate for use with aircraft control devices, medical life-support equipment, central trunk data transmission (communication) devices, or nuclear power control devices, due to inherent requirements for extremely high levels of safety and reliability.

• When using the product with transportation vehicles (trains, cars, and ships), disaster and crime prevention devices, safety equipment, or medical devices unrelated to life-support systems, use redundant and/or failsafe system designs to ensure reliability and safety. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

• Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables. • Unplug the power cable from both this product and the power supply prior to installing or removing the product.

• Always use a properly rated voltage sensing device to confirm power is off where and when indicated.

• Replace and secure all covers or elements of the system before applying power to this product.

• Use only the specified voltage when operating this product. This product is designed to use 24 Vdc. Always check whether your device is DC powered before applying power. Failure to follow these instructions will result in death or serious injury

• Do not use this product in hazardous environments.

• Do not connect or disconnect this product unless power has been switched off or the area is known to be non-hazardous.

• Do not attempt to install, operate, modify, maintain, service, or otherwise alter this product except as permitted in this manual.

• Confirm that the USB cable has been attached with the USB cable clamp before using the USB interface.

• Use the USB (micro-B) interface for temporary connection only during maintenance and setup of the device.

Failure to follow these instructions will result in death or serious injury.

Critical alarm indicators and system functions require independent and redundant protection hardware and/or mechanical interlocks.

Please design a safety circuit external to this product so that the entire system operates safely even if the external power supply or this product fails or malfunctions.

• Interlocks and other circuits designed to interrupt or prevent equipment operation (such as emergency stops, protective circuits, and opposing action circuits) and circuits

that prevent machine damage, such as positioning mechanisms, should be constructed external to the product.

• The product stops operation when it detects an abnormality such as a watchdog timer error. If an error occurs in the input/output control area, which cannot be monitored, it may lead to unexpected input/output behavior. Therefore, it is important to configure an external fail-safe circuit or mechanism.

• Problems with the relay or transistor in the output unit may cause the output to remain either in the ON or OFF state. Install an external monitoring circuit for output signals that may cause a serious accident.

Design the circuit so that power is supplied to the external device or load control power supply connected to this product before it starts.

When you cycle power, wait at least 10 seconds after it has been turned off. If this product is restarted too quickly, it may not operate correctly.

Do not create any switches on the touch panel that may cause personal injury, property damage, or compromise the safety of the equipment. Design the system so that controls for important operations are managed by devices other than this product, or by independent hardware switches.

In the event the screen cannot be properly read, for example, if the backlight is not functioning, it may be difficult or impossible to identify a function. Functions that may present a hazard if not immediately executed, such as a fuel shut-off, must be provided independently of this product.

LOSS OF CONTROL

• The designer of any control scheme must consider the potential failure modes of control paths and, for certain critical control functions, provide a means to achieve a safe state during and after a path failure. Examples of critical control functions are emergency stop and overtravel stop, power outage and restart.

• Separate or redundant control paths must be provided for critical control functions.

• System control paths may include communication links. Consideration must be given to the implications of unanticipated transmission delays or failures of the link.

• Observe all accident prevention regulations and local safety guidelines.

• Each implementation of this product must be individually and thoroughly tested for proper operation before being placed into service.

• The machine control system design must take into account the possibility of the backlight no longer functioning and the operator being unable to control the machine, or making errors in the control of the machine.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For additional information, refer to NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and to NEMA ICS 7.1 (latest edition), "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems" or their equivalent governing your particular location.

Cybersecurity

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

• Change default passwords at first use to help prevent unauthorized access to device settings, controls and information.

• Disable unused ports/services and default accounts, where possible, to minimize pathways for malicious attacks.

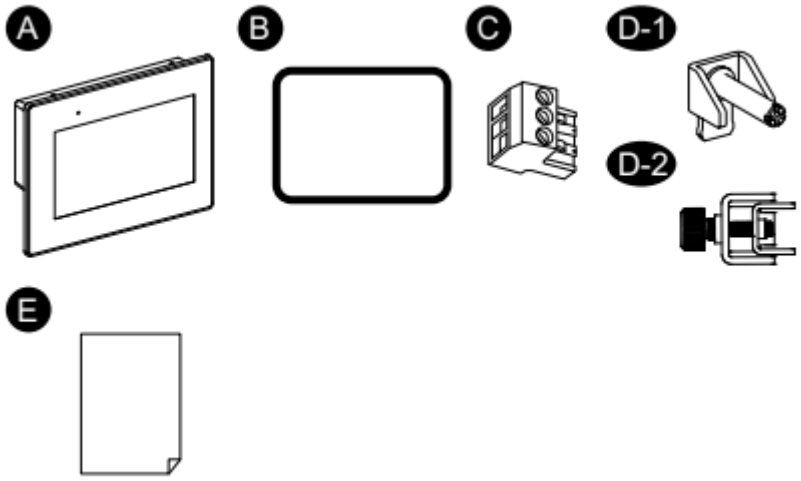
• Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).

• Apply the latest updates and hotfixes to your Operating System and software.

• Use cybersecurity best practices (for example: least privilege, separation of duties) to help prevent unauthorized exposure, loss, modification of data and logs, interruption of services, or unintended operation. Failure to follow these instructions can result in death, serious injury, or equipment damage.

Scope of supply

Package Contents



A. ClipX Eye x 1

B. Installation gasket (attached to this product) x 1

C. DC power connector x 1

D. (D-1)

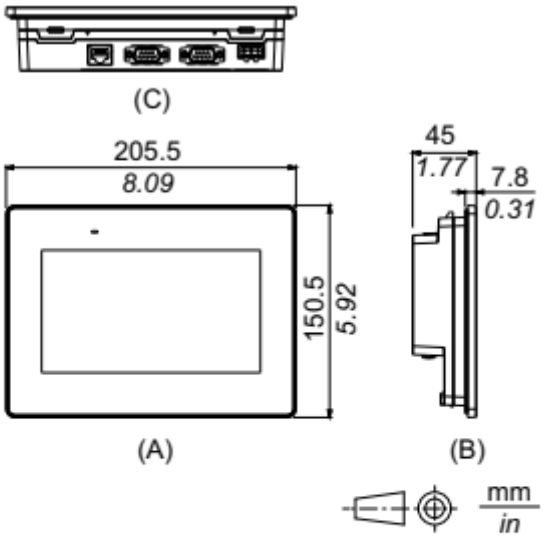
- Installation fasteners x 4 (for ET-6400WA)
- Installation fasteners x 6 (for ET-6500WA and ET-6600WA)

(D-2)

- Installation fasteners x 6 (for ET-6700WA)

E. Instruction sheet x 1

Dimensions



A. Front
B. Left
C. Bottom

Mounting

Precautions for Building into an End-use Product

This product is designed for use on flat surfaces of enclosures.
The front surface is rated for IP65 enclosure.

Be aware of the following when building this product into an end-use product:

• The rear face of this product is not approved as an enclosure. When building this product into an end-use product, be sure to use an enclosure that satisfies standards as the end-use product's overall enclosure.

• Install this product in an enclosure with mechanical rigidity.

• This product is not designed for outdoor use. UL certification obtained is for indoor use only.

• Install and operate this product with its front panel facing outward.

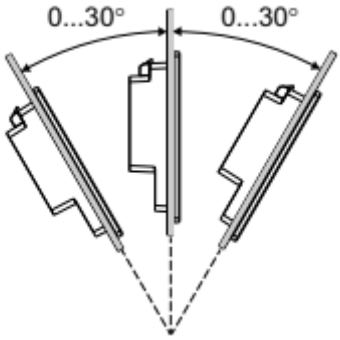
NOTE: IP65 is not part of the UL certification.

Installation Requirements

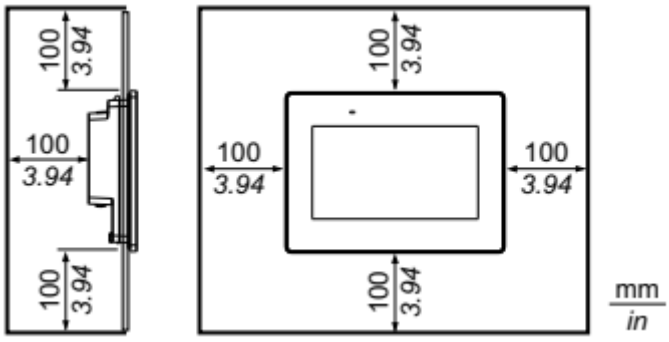
Check that the installation wall or cabinet surface is flat, in good condition and has no jagged edges. Metal reinforcing strips may be attached to the inside of the wall, near the panel-cut, to increase its rigidity.

Decide on the thickness of the enclosure wall, based on the level of strength required. Even if the installation wall thickness is within the recommended range for the Panel Cut Dimensions, depending on wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

When installing this product in a slanted position, the product face should not incline more than 30°.



For easier maintenance, operation and improved ventilation, install this product at least 100 mm (3.94 in) away from adjacent structures and other equipment as shown in the following illustration:



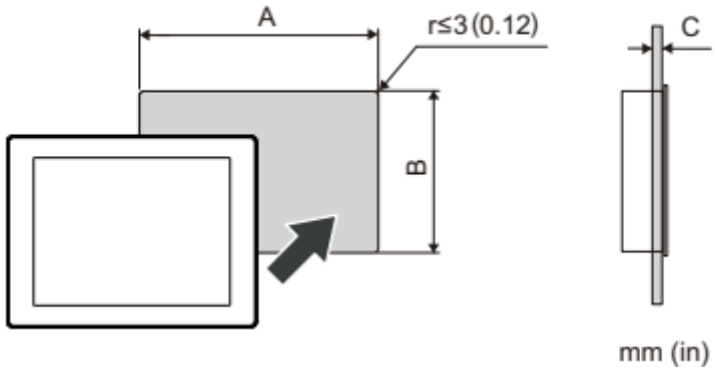
When applying and installing this product, it is important that steps are taken to eliminate any pressure difference between the inside and the outside of the enclosure in which this product is mounted. Higher pressure inside the enclosure can cause delamination of the front membrane of the display. Even a small pressure difference

inside the enclosure will act on the large area of the membrane and can result in sufficient force to delaminate the membrane and thus cause failure of the touch capability. Pressure differences can often occur in applications where there are multiple fans and ventilators moving air at different rates in different rooms. Please follow these techniques to ensure that this product's function is not impacted by this mis-application:

1. Seal all conduit connections inside of the enclosure, especially those that lead to other rooms that may be at a different pressure.

2. Where applicable, install a small weep hole at the bottom of the enclosure to allow equalization of the internal and external pressure.

Panel Cutout Dimensions



A : 190 mm (+1/-0 mm) (7.45 in [+0.04/-0 in])

B : 135 mm (+1/-0 mm) (5.31 in [+0.04/-0 in])

C : 1.6...5 mm (0.06...0.2 in)

Installation Procedure

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

• Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.

• Unplug the power cable from both this product and the power supply prior to installing or removing the product.

• Always use a properly rated voltage sensing device to confirm power is off where and when indicated.

• Replace and secure all covers or elements of the system before applying power to this product.

Failure to follow these instructions will result in death or serious injury

1. Place this product on a clean and level surface with the screen facing down.
2. Check that the gasket is seated securely into the bezel groove, which runs around the perimeter of the display panel frame.

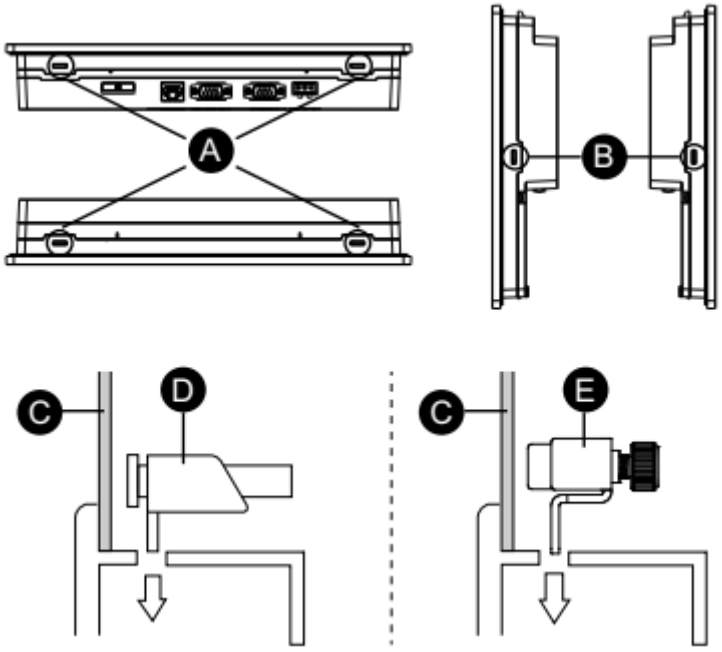
NOTE: Always use the installation gasket, since it absorbs vibration inaddition to repelling water.

3. Based on this product's Panel Cutout Dimensions, open a mounthole on the panel and attach this product to the panel from the front side.

NOTE: This product has a hook at the top to prevent it from falling. Insert the bottom part of the product into the panel opening, and then insert the top part while pushing the hook down.

A. Hook

4. Insert the installation fasteners into the panel‘s insertion slots of this product



A. Insertion slots
B. Insertion slots
C. Panel
D. Installation fastener
E. Installation fastener

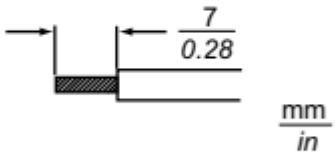
The number of installation fasteners for each model is as follows : 2

Wiring the Power Supply

WIRING REQUIREMENT

• Make sure the ground wire is either the same or heavier gauge than the power wires.
• Do not use aluminum wires in the power supply's power cord.
• If the ends of the individual wires are not twisted correctly, the wires may create a short circuit.
• The conductor type is solid or stranded wire.
• Use copper wire rated for 75 °C (167 °F) or higher.
• Use the SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy) circuit for DC input.

Failure to follow these instructions can result in injury or equipment damage.

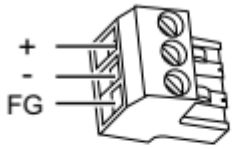
Power cord diameter	0.75...2.5 mm² (18...13 AWG)*1
Conductor type	Solid or stranded wire*2
Conductor length	
Recommended driver	Flat-head screwdriver (size 0.6 x 3.5 mm)

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

• Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
• Remove power before wiring this product's power terminals.
• Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
• Replace and secure all covers or elements of the system before applying power to this product.
• Use only the specified voltage when operating this product. This product is designed to use 24 Vdc. Always check whether your device is DC powered before applying power.
• Since this product is not equipped with a power switch, be sure to connect a power switch to the power supply.
• Be sure to ground this product's FG terminal.

Failure to follow these instructions will result in death or serious injury.

NOTE:
• The SG and FG terminals are separated internally in this product.
• When the FG terminal is connected, be sure the wire is grounded. Not grounding this product can result in excessive electromagnetic interference (EMI).



+	24 Vdc
-	0 Vdc
FG	Functional ground. Connect the FG terminal properly to ground.

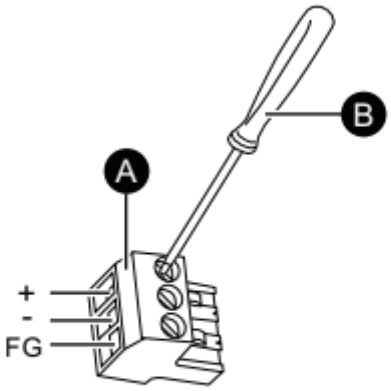
Connection Procedure

1. Confirm the power cord is not connected to the power supply.
2. Check the rated voltage.
3. Strip the membrane of the power cord, and twist the wire ends.
4. Insert each power cord wire into its corresponding hole. Fasten the screws of the DC power connector to clamp the wire in place.

NOTE:

• The necessary torque is 0.56 N

•m (5 lb-in). • Do not solder the stranded wires.



A. DC power connector
B. Flat-blade screwdriver (size 0.6 x 3.5)

5. After inserting all three power cord wires, insert the DC power connector into the power connector on this product.

Power Supply Precautions

This product's power cord should not be bundled with or kept close to main circuit lines (high voltage, high current), power lines, or input/output lines, and their various systems should be kept separate. When power lines cannot be wired via a separate system, use shielded cables for input/output lines.

• An independent DC power supply is recommended for this product. (The DC power supply should be located close to the product, with twisted pair cabling as short as

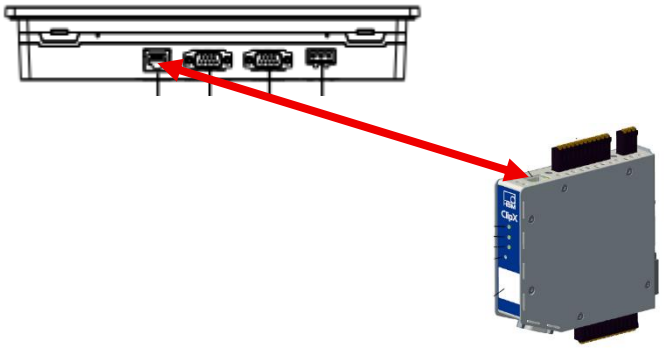
possible.)

• To increase noise resistance, attach a ferrite core to the power cable.

Grounding

Always ground the FG (functional ground) terminal. Be sure to separate this product from the FG of other devices as shown below.

Connection Clipx et Eye ClipX



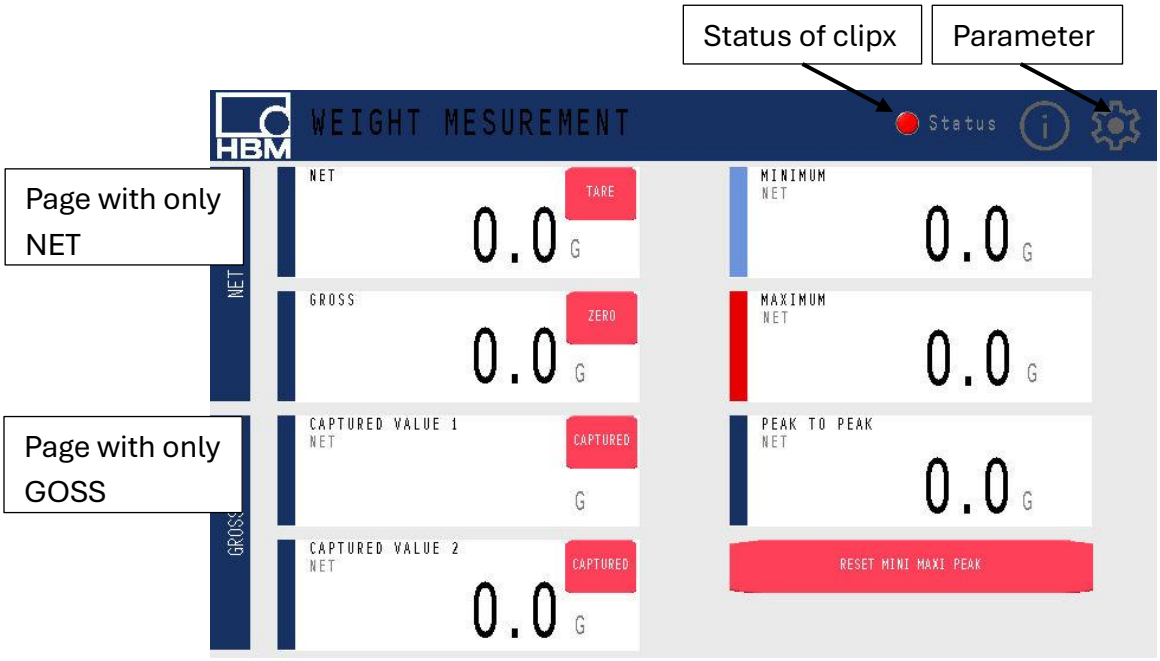
Connect with cable RJ45 between Ethernet interface on clipX Eye and Ehernet port (X1) on ClipX

Environmental Specifications

Physical environment	
Ambient air temperature	0...50 °C (32...122 °F)
Storage temperature	-20...60 °C (-4...140 °F)
Ambient air and storage humidity	10...90% RH (non-condensing, wet bulb temperature 39 °C [102.2 °F] or less)
Dust	0.1 mg/m³ (10^{-7} oz/ft³) or less (non-conductive levels)
Pollution degree	For use in Pollution Degree 2 environment
Corrosive gases	Free of corrosive gases
Atmospheric pressure (operating altitude)	800...1,114 hPa (2,000 m [6,561 ft] or lower)
Mechanical environment	
Vibration resistance	IEC/EN 61131-2 compliant 5...9 Hz Single amplitude 3.5 mm (0.14 in) 9...150 Hz Fixed acceleration: 9.8 m/s² X, Y, Z directions for 10 cycles (approximately 100 minutes)
Shock resistance	IEC/EN 61131-2 compliant 147 m/s², X, Y, Z directions for 3 times
Electrical environment	

STARTING UP THE CLIPX

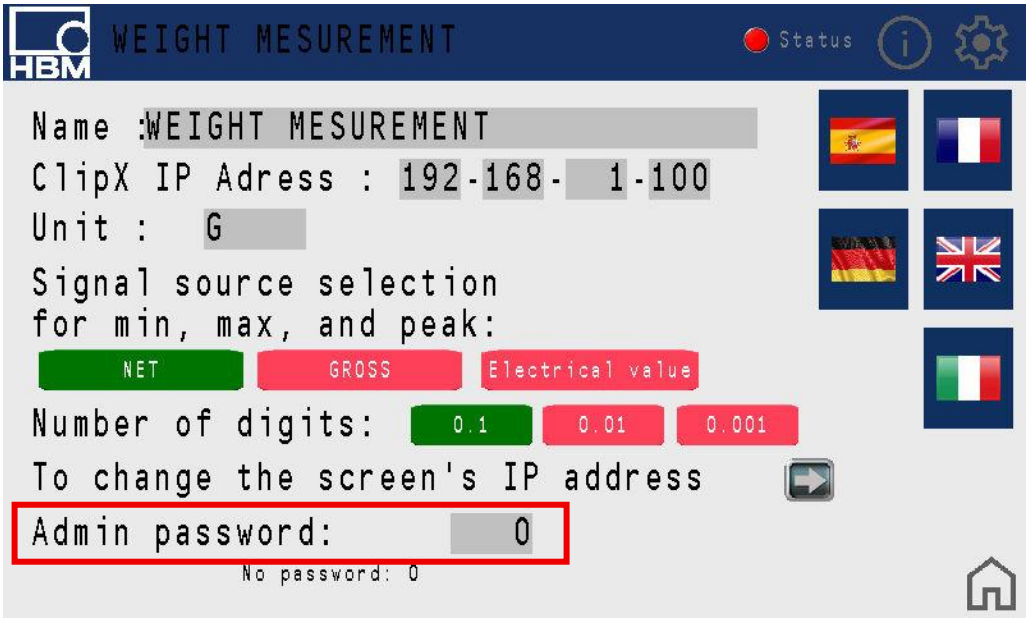
Main page



Password

The admin password for delivery is 1234.
The factory password is 1111.

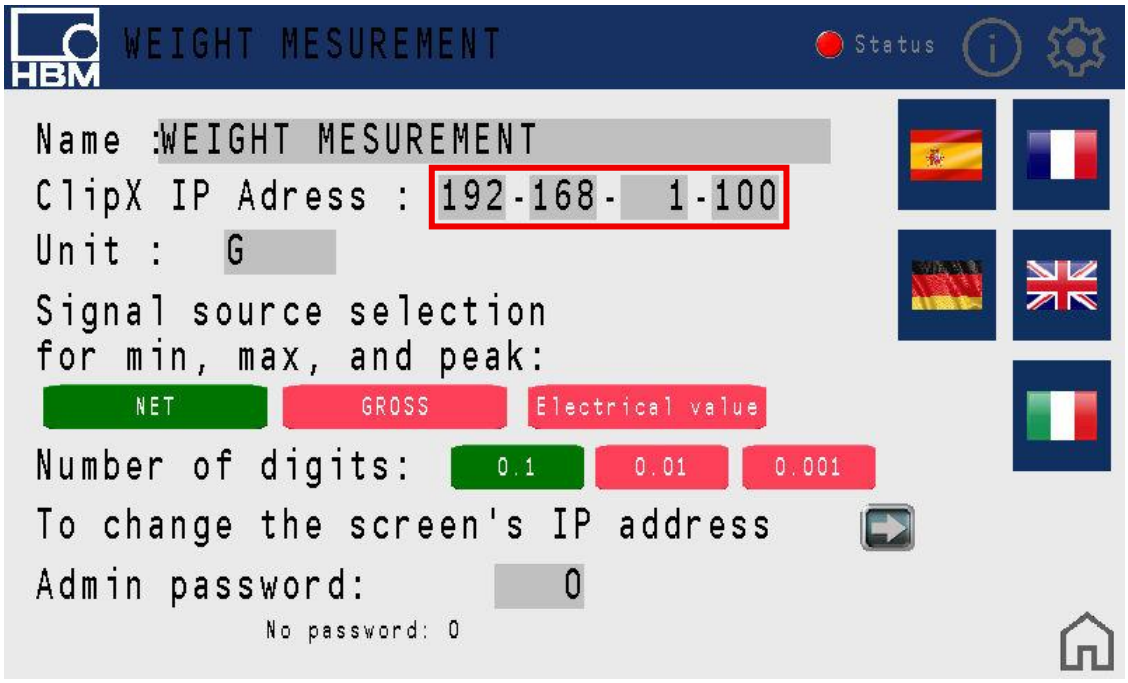
For change the password go to the parameter page.



Set up ClipX IP adress

The IP address at the time of delivery is 192.168.1.11.

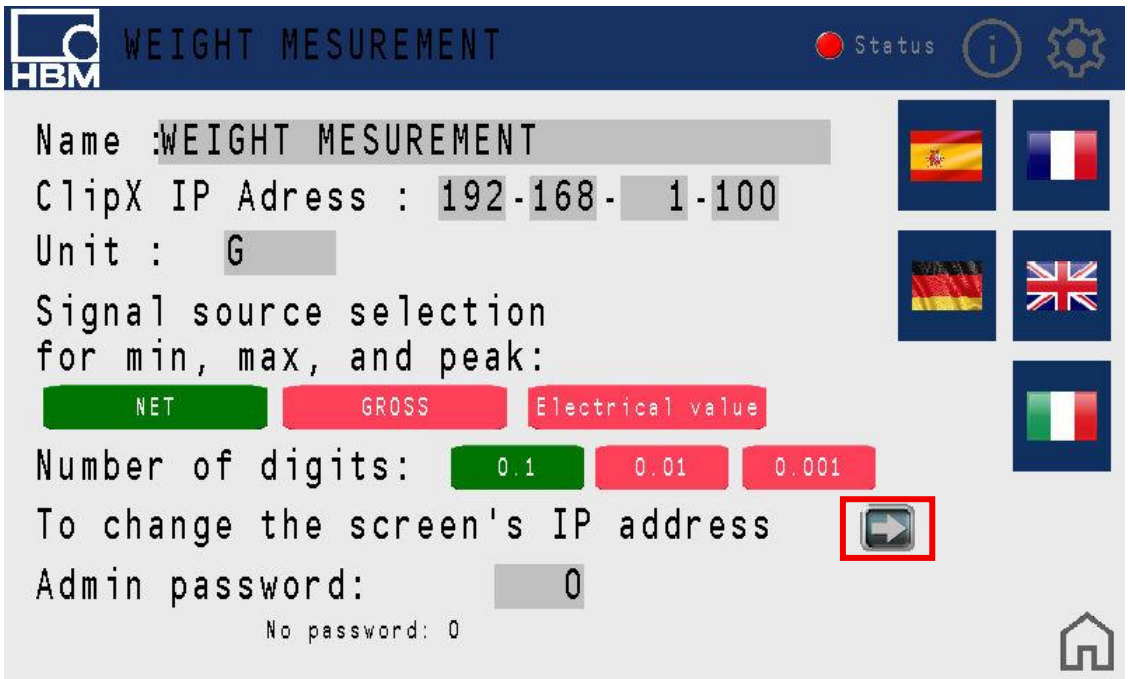
If you want change the IP address :



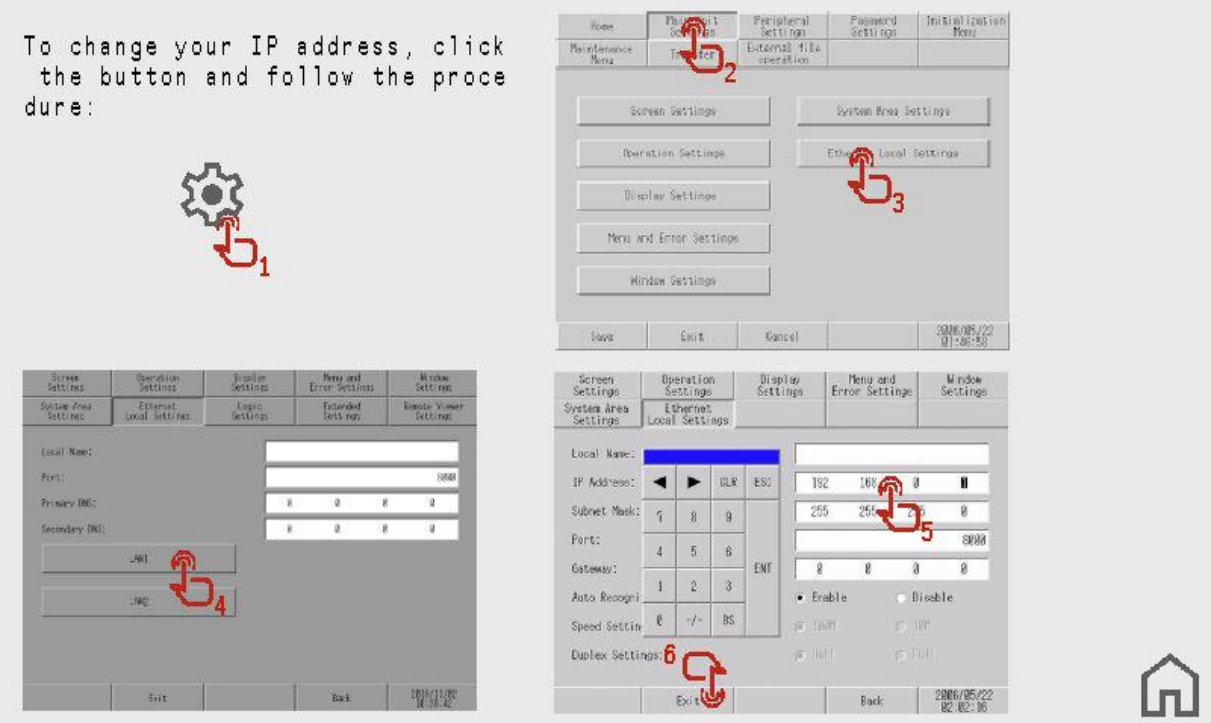
Set up ClipX Eye Ip adress

The IP address at the time of delivery is 192.168.1.100.

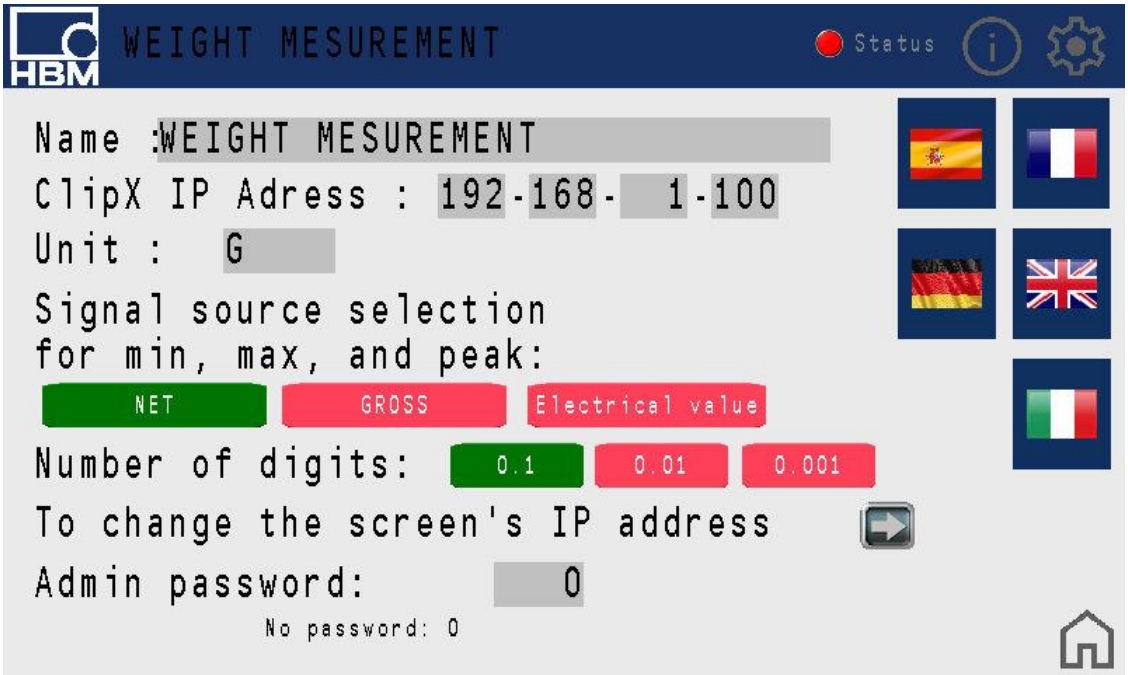
If you want change the IP address and clique on the arrow



Follow the steps below



Parameter page



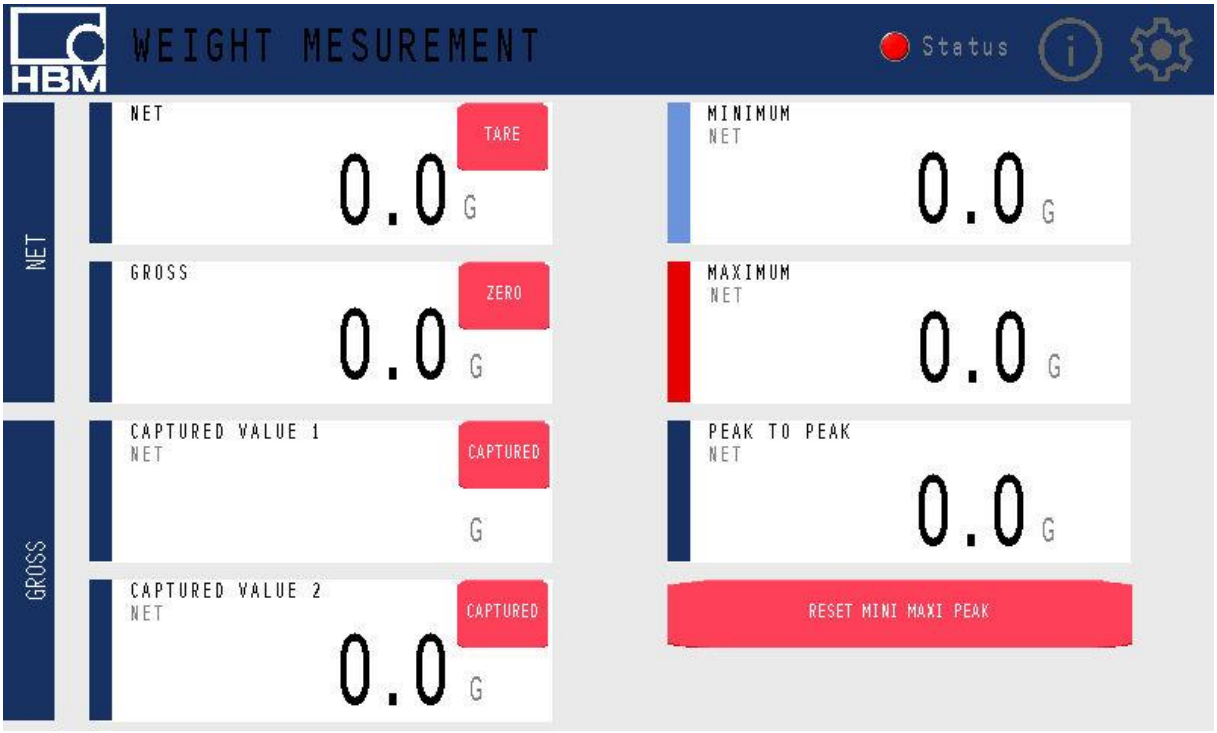
In this page you can :

- Chose the name of ClipX Eye : it is displayed at the top of all views
- Chose the ip address of ClipX

- Chose the unit : it is displayed between all value
- Chose the signal source value for minimum, maximum, peak to peak and capture value
- Number of digit for all value
- The administrator password

Using the ClipX Eye

Main page



On the main page you can :

- View all values
- Make a TARE
- Make a ZERO
- Capture two value
- Reset the minimum, maximum and peak to peak values

If you want display only one value you can chose the NET and GROSS button.

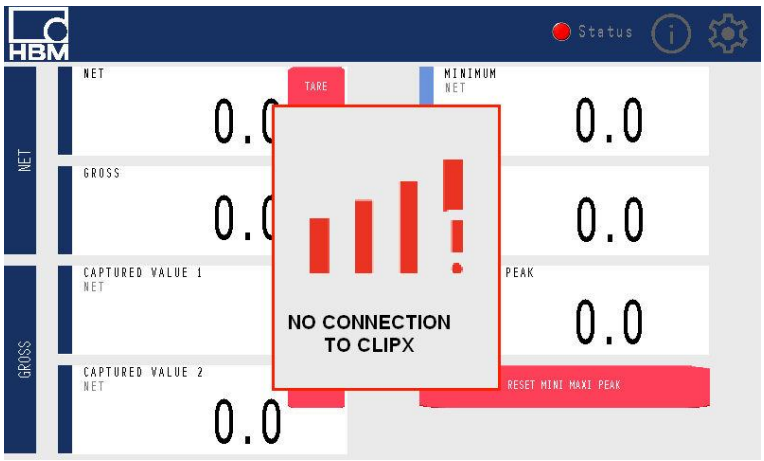
Net and Gross page

For this page you have only one value.

For the jauge you need to select the minimum and maximum value.

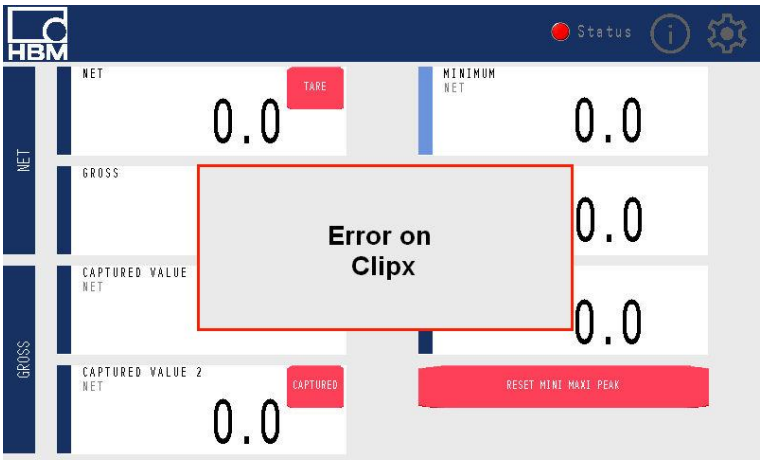
Error

No connection to clipX



1. Verify the cable
2. Check if the IP address on ClipX and ClipX Eye is the same
3. Check if the IP address ClipX Eye is in the same range

Error on ClipX



Check the fault on ClipX