# GI 410
# USER'S GUIDE

**EN**

**WEIGHT-TARE / PIECE COUNTING**
**ANALOGICAL / DOSAGE / LIMITS**

V.3.1_20170908




**LCD**

**LED**

GIROPES

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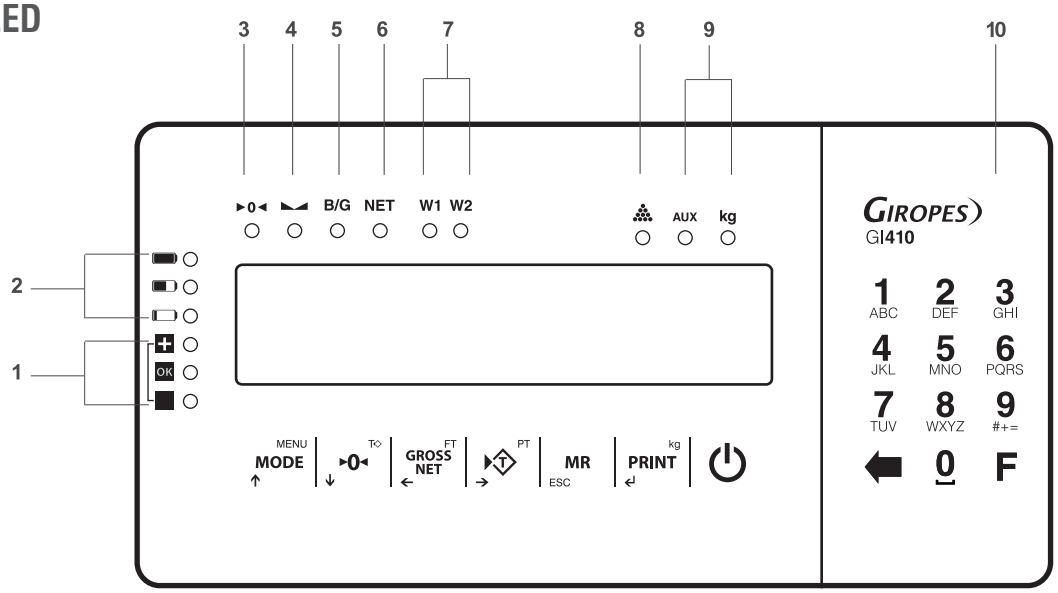
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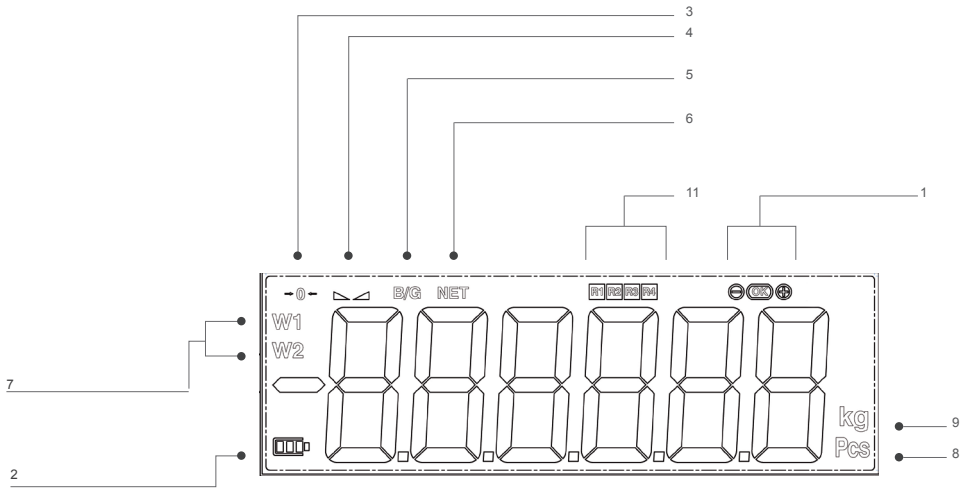
# 1. MECHANICAL DESCRIPTION

## 1.1 FRONT PANEL

### LED




### LCD




**SIGNS**

| | |
|---|---|
| 1 | Signal of limits (checkweigher) |
| 2 | Signal of level of battery (work with battery optional) |
| 3 | Signal of zero |
| 4 | Signal of steady weight |
| 5 | Gross weight |
| 6 | Net weight |
| 7 | Weighing range |
| 8 | Piece counting |
| 9 | Units of measure |
| 10 | Numerical keyboard |
| 11 | Signal of relays (only for LCD) |

## KEYBOARD

| | |
|---|---|
| MENU MODE ↑ | Access to the user's and technician's menu |
| T◇ ▸0◂ ↓ | Do Zero / Remove tare |
| FT GROSS NET ← | Show Gross/Net/ Set tare |
| PT ▸T◂ → | Do the tare / Introduce tare manually |
| MR ESC | Total of weights prints total accumulation / Exit |
| kg PRINT ↵ | Printing / Sending of manual weight / Selector of unit (for lb version only) |
| ⏻ | Switch on / Switch off |

## CURSOR KEYS

| | |
|---|---|
| PT ▸T◂ → | Move editable digit to right side |
| FT GROSS NET ← | Move editable digit to left side |
| MENU MODE ↑ | Increases selected digit |
| T◇ ▸0◂ ↓ | Decreases selected digit |

## KEYS ENTER AND ESCAPE

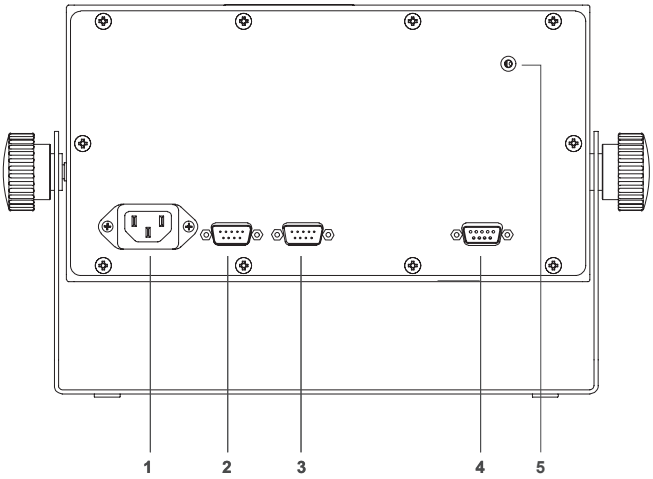
| | |
|---|---|
| MR ESC | Erase the current value<br>Keep press to exit |
| kg PRINT ↵ | Validate the selected value |

## NUMERICAL KEYBOARD

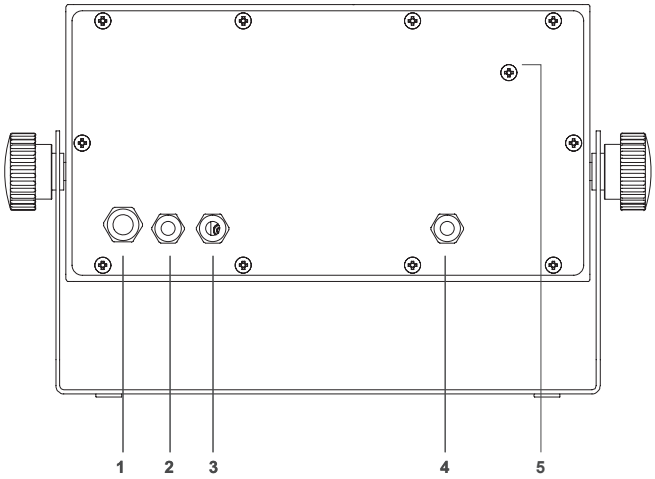
| | |
|---|---|
| MR ESC | Function key |
| ⬅ | Erase key |

## 1.2 BACK PANEL

**INOX IP54**

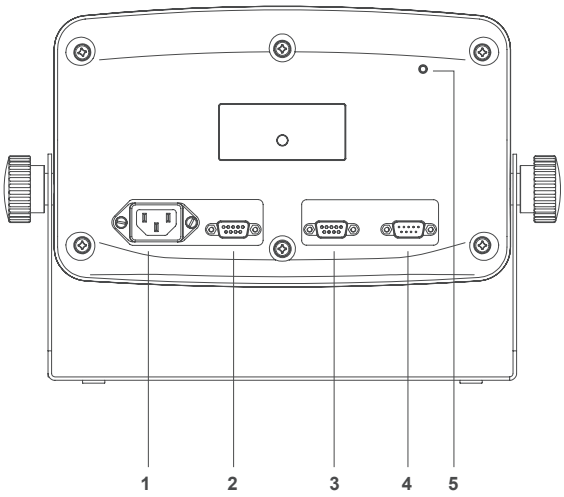



**INOX IP65**

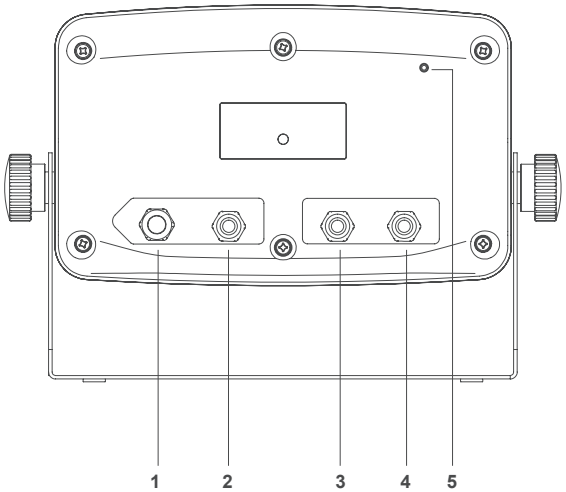



| | | |
|---|---|---|
| 1 | **Power connector IEC** | **PG9 for power cable** |
| 2 | **Connector RS232-Com1** (SubD 9 male tracks) | **PG7 for RS232-COM1** |
| 3 | **Connector RS232-Com2** (SubD 9 male tracks) | **PG7 for RS232-COM2** |
| 4 | **Connector Load cell** (SubD 9 female tracks). | **PG7 for load cell cable** |
| 5 | **Calibration switch** | **Calibration switch** |

**ABS IP54**




**ABS IP65**




| | | |
|---|---|---|
| 1 | **Power connector IEC** | **PG9 for power cable** |
| 2 | **Connector RS232-Com1** (SubD 9 male tracks) | **PG7 for RS232-COM1** |
| 3 | **Connector RS232-Com2** (SubD 9 male tracks) | **PG7 for RS232-COM2** |
| 4 | **Connector Load cell** (SubD 9 female tracks). | **PG7 for load cell cable** |
| 5 | **Calibration switch** | **Calibration switch** |

# 2. CONNECTION

Connect the terminal to the platform through a DB9 connector. To switch on the terminal you must press for some seconds the key ⏻. To switch off the terminal it is necessary to press for some seconds the key ⏻ ; but to switch off the terminal completely it can only be done by disconnected the terminal from the electrical connection.

## 2.1 PHASE OF TEST

| DISPLAY | DESCRIPCIÓN |
|---|---|
| 9 1 4 10 or 9 1 4 1 1 | In first place it appears the model of the equipment. (9 1 4 10 =GI410) or (9 1 4 1 1 =GI411) |
| L0.003 | Next it will show the version of the programmer |
| 8.8.8.8.8.8 | Then it will appear all LEDs and display segments turned ON. (only LED version) |
| u 1.0 10 | After that appears the version of the user's software |
| 9rAu.t | This is followed by the message |
| 9.804 | Then displays the value of gravity set |
| n calib | Then the message number of calibrations, followed by the corresponding value appears. |
| 9 1.0 16 | It appears on the screen the message of internal version |
| P x.xxx | Finnally it appears on the screen software version weighing. |

## 2.2 DISPLAY OF THE NUMBER OF SERIES

If during the phase of test display the user presses the key MENU MODE ↑ the device is going to show the serial number.

ABC 123

## 2.3 SETTING THE INITIAL ZERO

When connecting the indicator it will start the setting of zero of the scale, to do so the following conditions are necessary:

1. Steady weight (luminous sign of steady weight ▁◢ on;
2. Value of weight not inferior to the -10% of the Max. in relation to the zero of calibration of the scale;
3. Value of weight not superior to the 10% of the Max. in relation to the zero of calibration of the scale.

During the development of the operation of zero setting the display is going to show the following message:

CEro

If the weight is steady but out of the range of zero the display is going to blink for about 1 second more or less.

N.B. The user can't do any operation until the setting of zero has been done

The precision of the setting of zero is inside and not out of the division: 0,25**e**

# 3. EXECUTABLE FUNCTIONS

## 3.1 SETTING THE SCALE TO ZERO

When the user presses the key ↓ →0← (T◇) | assumes the metrological function of weight zeroing, in the modality described below, in reference to the current regulations.

1. Steady weight (the bright sign of steady weight ▬◢ is on);
2. Value of weight not inferior to the -2% of the Max. in relation to the zero of calibration of the scale;
3. Value of the weight not superior to the 2% of the Max. in relation to the zero of calibration of the scale.

The brilliant sign ►0◄ indicates that the function has been done.

## 3.2 WEIGHT

The device switches on a led of stabilibty when a weight is placed on the platform and when the weight is steady. When the scale is unloaded the device switches one the zero and stability leds.

## 3.3 TARE, CONSECUTIVE TARES, GROSS-NET

To do a tare the user must press the key → (T) (PT) |. When this key is pressed the indicator is going to show immediately the net weight, and the Net led switches on.
If the user wants to do another tare, s/he needs to press the key → (T) (PT) | again.
To know the gross weight (container plus contents) the user must press the key ← GROSS NET (FT) |. On the display the led Net switches off and the sign of gross weight B/G switches on.
If the user presses this key again ← GROSS NET (FT) | the device is going to go back to the net weight and the led of Net is going to switch on again.

## 3.4 BLOCKING/UNBLOCKING TARE

If the user wants to block the used tare in the previous section, so that it does not disappear the possibility to use the same are in a consecutive way, the user must press for some seconds, at least 2, the key tare ← GROSS NET (FT) |. The value of tare remains blocked. The display informs the operation showing " Tar.Blo".
To unblock the tare the user must keep pressed 2s the key ↓ →0← (T◇) |. The display is going to indicate this action by showing the message" Tar. Sbl" on the screen

**NOTE:** ALSO IS POSSIBLE TO SET THE INDICATOR FOR LOCK THE TARE AUTOMATICALLY. SEE POINT 5.3

## 3.5 MANUAL TARE

The terminal allows the incorporation of a manual tare by pressing during two seconds the key → (T) (PT) |. The user must use cursor, escape and enter keys for input new tare value. If procedure before is used, tare value will keep loocked till you unlock it.

## 3.6 ACCUMULATION (ONLY WORKS WITH PRINT PROTOCOL ACTIVATED)

The user can not use this fonction without activating it first. To do it the user must go to the menu "ModE". To go to the menu the user must follow the steps described in **the section number 4** and watch the procedure in the **section 4.5**.
Each time that accumulation is done, the message Acc appears on screen.
This message disappears after some seconds and it shows and it shows again the value of the last weight placed on the platform. If the user has a printer connected to the terminal, the printer prints a line with net weight.

### 3.6.1 SUCCESSIVE MANUAL ACCUMULATIONS

Place the weigh on the scale, press PRINT (kg) key when stable indication turns on.
If we want to accumulate again, press the key PRINT (kg) again.
The indicator will continue memorizing if: the scale has been unloocked previously or tare is done or addicional weigh has been added.

### 3.6.2 SUCCESSIVE AUTO ACCUMULATIONS

Place the weigh on the scale, when it takes stability it will accumulate.
The indicator will continue memorizing if: the scale has been unloocked previously or tare is done or addicional weigh has been added.

## 3.7 TOTAL OF THE WEIGHTS

If one of accumulation modes is active, once all desired weights had been accumulated and the scale is in zero the user wants to know the total of the weights s/he must press the key MR (ESC). The terminal is going to show the total number of weights and the total net weight.

- If there is a printer defined in the parameters of rs232 and connected, a ticket is going to be printed.
- If the user presse the key MR (ESC) the device is going to release another print of the ticket., except if format 4 is selected in which a repeat of the total is printed.

# 4. FUNCTION MENU

| DISPLAY | DESCRIPTION |
|---|---|
| ModE | • The user can access to this menu by pressing the key MENU MODE<br>• The display is going to show the message "ModE" on the screen and next it will appear the first available function. |

• The user must use the keys described bellow to select the desired function.

| | |
|---|---|
| MENU MODE ↑ | - Inside a menu increases the value of the selected number.<br>- It goes to the previous function. |
| T◇ →0← ↓ | - It goes to the next function.<br>- Inside a menu, decreases the selected value. |
| kg PRINT ↵ | - Inside a menu, goes back memorizing the value set.<br>- It selects the current function. |
| MR ESC | - If the user keeps this key pressed s/he can exit from the function without memorizing the value set (function ESC).<br>- With short press, returns to zero the current value. |
| PT → | - Move to the right side the edition digit. |
| FT GROSS NET ← | - Move to the left side the edition digit. |

**THE AVAILABLE FUNCTIONS ARE:**

| | |
|---|---|
| CALAUU | CALCULATION OF THE AVERAGE UNIT WEIGHT |
| AUU | PIECE COUNTING |
| CHECL | CHECKWEIGHER |
| by 10 | IT SHOWS THE WEIGHT WITH A DECIMAL MORE FOR ACCURACY |
| ACUMUL | ACCUMULATION |
| SubtoL | SUBTOTAL |
| t Code | SET PRODUCT CODE |
| n. t:C | SET TICKET NUMBER |
| dALE | DATE |
| t:me | TIME |
| UEIgHL | WEIGHT MODE |
| doS:F: | DOSAGE (only with additional board 4I/40 (relay) ) |
| AnALOG | ANALOG OUTPUT (only with additional board analog) |
| L:M:tE | LIMITS (only with additional board 4I/40 (relay) ) |
| dSd | FISCAL MEMORY (only with additional board ALIBI) |

## 4.1 CALCULATION OF THE AVERAGE UNIT WEIGHT CAL AUU

This function calculates the unit weight of the pieces through the piece counting program. To calculate the average unit weight the user must place a number of known pieces on the platform and the press the key PRINT. The screen of the display is going to show the message SP.xxxx. . The user must then introduce, using the keys, the number of pieces that make the sample.

To calculate and register the value of the average unit weight the user must press the key PRINT.
The terminal shows- during two seconds- the message "WE:Un:" on the screen, followed by the unit weight of the piece. After that, the indicator goes back to the weight mode and shows the number of pieces in the scale.
If the user presses the key PRINT and there is no weight on the platform or the weight is inferior to the necessary to calculate it on the screen, the display is going to show the message "add". This message indicates that more pieces are needed so that the calculation can be done.

## 4.2 PIECE COUNTING AUU

This function is used to do the calculation of the pieces loaded on the platform. It does so by taking the programmed average weight (**PMU**). The indicator asks for the **PMU** by showing the message Px.xxxx. The user must introduce the value of the unit weight using the cursor keys. Press PRINT key to confirm.

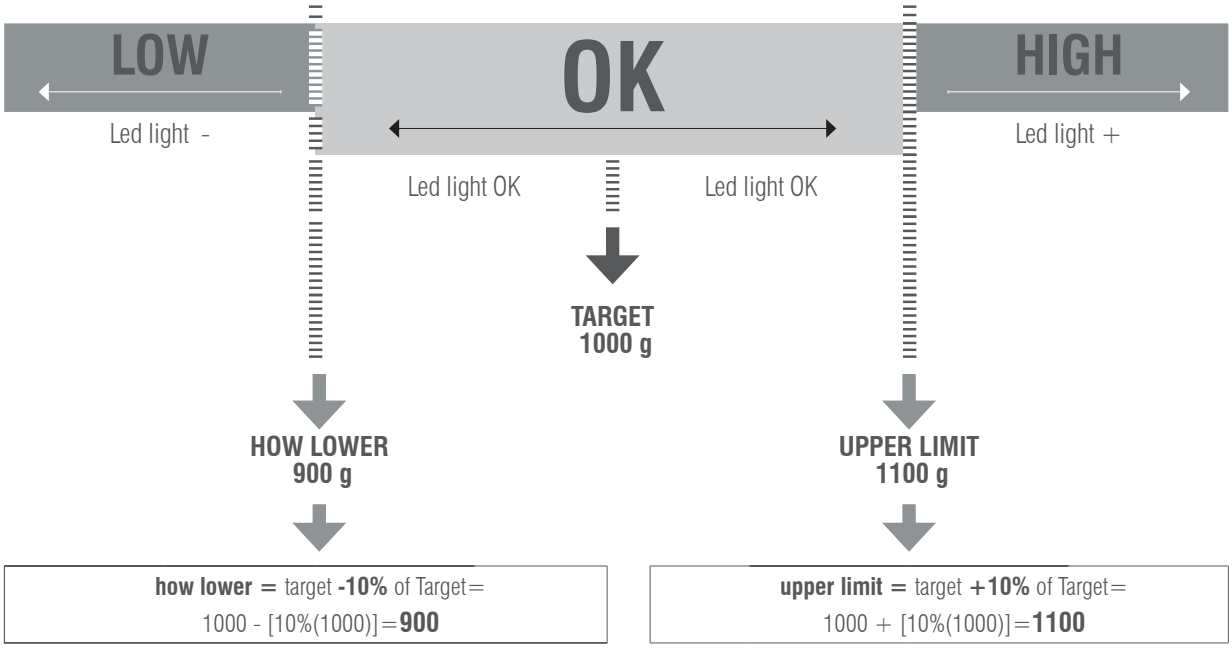
## 4.3 CHECKWEIGHER CHECL

This function activates the mode "**CHECK WEIGHER**" or the mode goes-not-goes .
The equipment is ready to manage automatically up to **4 zones** through limits of weight for each one of them.
When the user accesses the menu CHECL the first parameter s/he must configures is the menu tArgEt: this menu programs the value of the target of weight that the user wants to achieve. Is the central value of OK zone.
After that the user must choose the type of **TARGET** between tLype 1 and tLype2. To access must enter the parameter CHU TY. Once selected you can choose between ttype1 and ttype2.

### 4.3.1 TTYPE1 ttype

If the user chooses the ttype 1 it allows to choose the inferior limits and the superior ones with a **porcentage** of the TARGET value.
Exemple:

-PC. 010 (We chose how lower limit 10% below the Target)
PC. 010 (We chose how upper limit 10% above the Target)

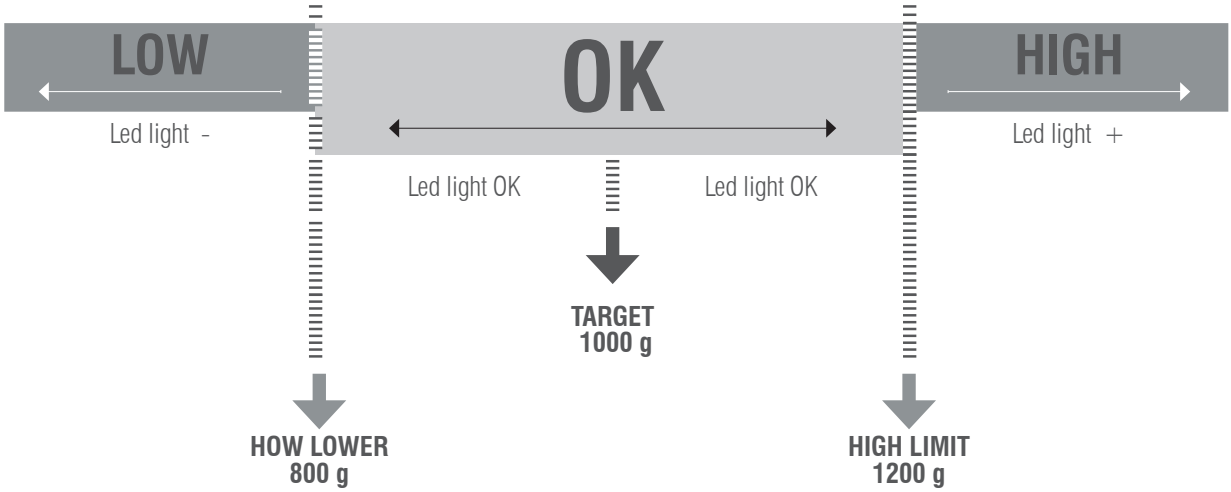



### 4.3.2 TTYPE2

If the user chooses the ttype2 it allows to choose the inferior and superior limits directly: LOU L XXXXX ¡ HIGHL XXXXX

Exemple:

LOU L 800
HIGHL 1200




Once they are configured, the **TARGET** value and the **LIMITS**, the program ask the user to configure the limit of the **ALARM**. The alarm programs the value wich any value above this one is going to activate the alarm sign, and 3 lights are going to bright. Finally the user must choose the alarm sound. He can choose between btype 1 or btype2.

### 4.3.3 BTYPE1

If the user chooses the btype 1 can to choose between the:

bmode 1: no beep sound

bmode 2: a short beep sound, when access the OK zone, it can be done above or below.

bmode 3: a long beep sound, when access the OK zone, it can be done above or below,

### 4.3.4 BTYPE2

If the user chooses the btype 2 can to chosse between the:

bmode 1 : with no beep sound

bmode 2 : short beep sound when moving away from the superior or inferior limit +-2% **FS**

bmode 3 : long beep sound when moving away from the superior or inferior limit -+2% **FS**

**EXAMPLE;**

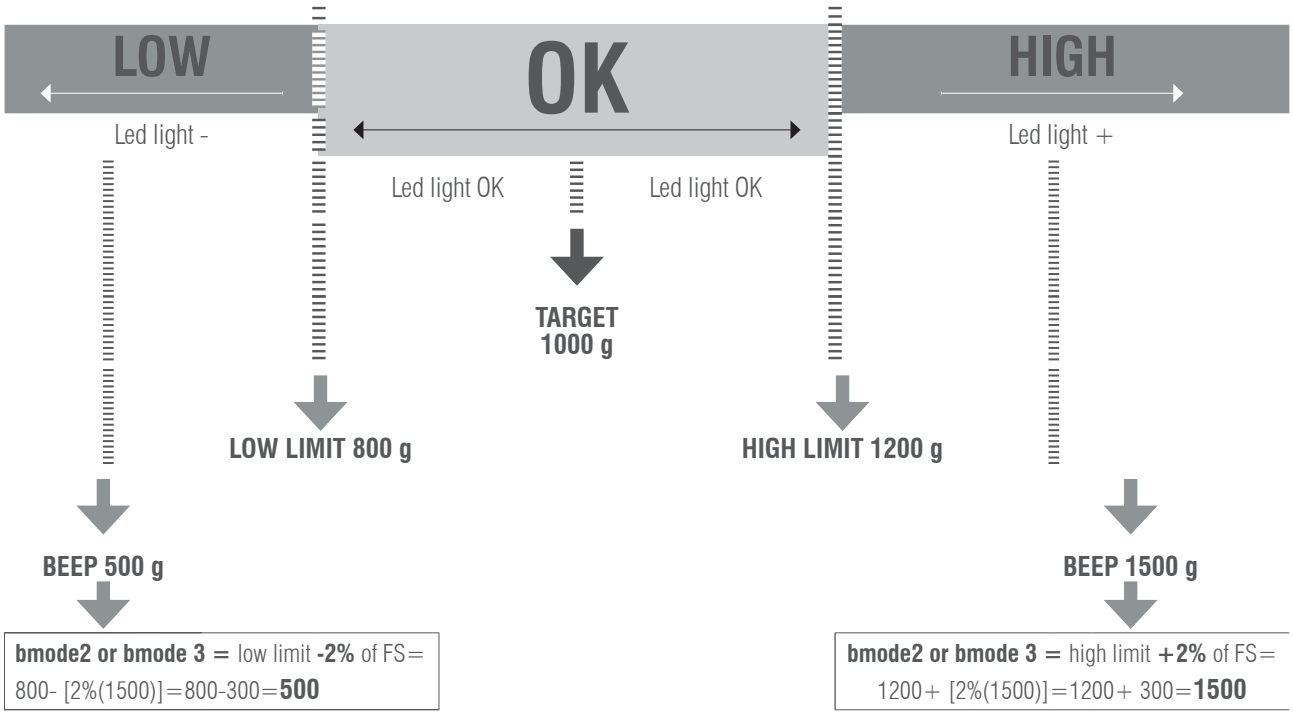
TARGET= 1000g

FS=15000 g

Active btype2 and ALARM is 3000g.

high limit = 2200g

low limit = 1800g




### NOTE: ZONE OK

This value is activate, when the value of the weight is superior to the inferior limit and inferior to the superior limit, the green LED is going to activate

**FULL EXAMPLE;**

FS=15000 g

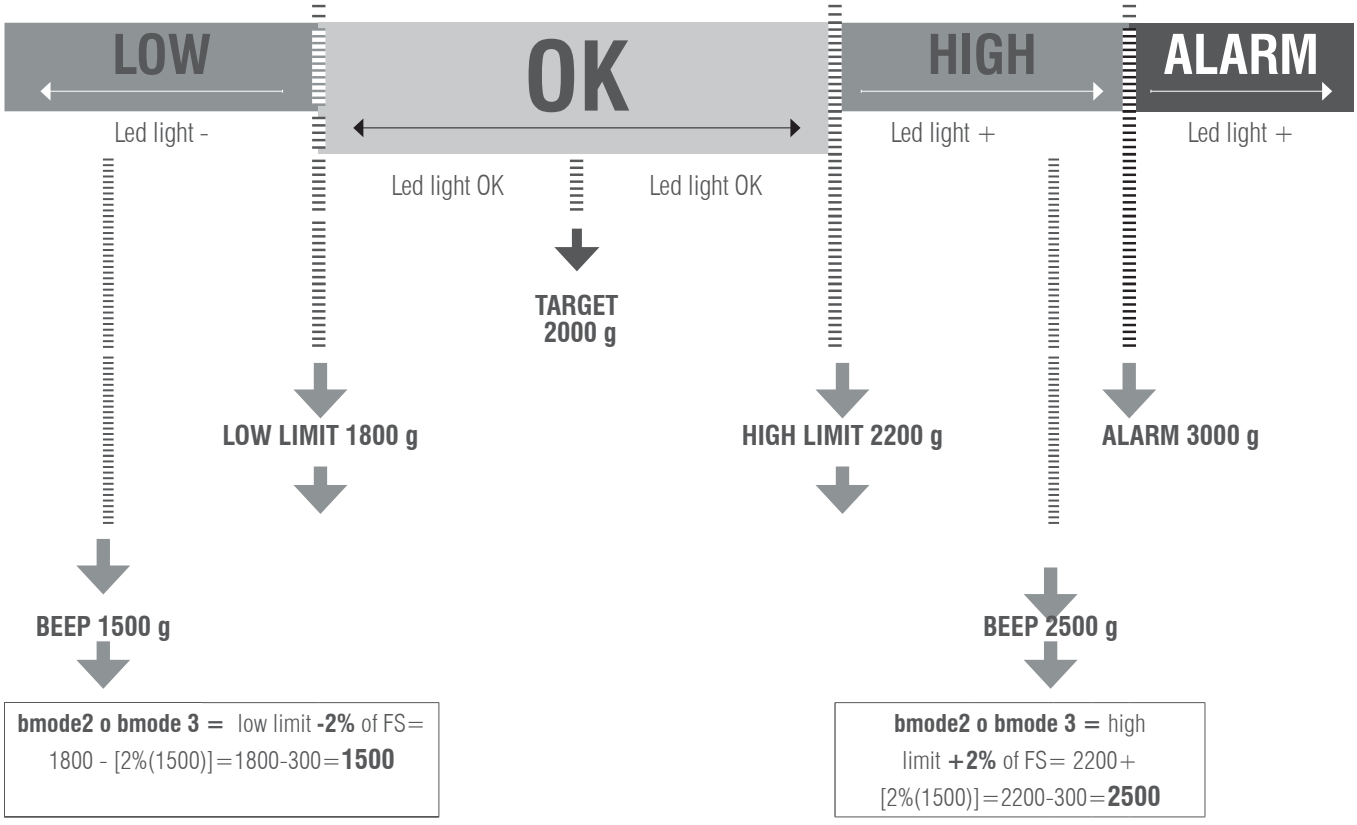
Active btype2, mode 2 or 3.

ALARM 3000g

Target 2000g

high limit = 2200g

low limit = 1800g




**To go back to the weighing mode al mode, the user must select the menu WEIGHT (4.12)**

## 4.4 IT SHOWS THE WEIGHT WITH A DECIMAL MORE FOR ACCURACY by 10

With the selection of this function the indicator displays a decimal more in the weight.

Once this function is authorized there is an activation of the display. In this situation the less significant number of the display gets activated and it indicates the value per 1/10 of the division of the verification. The decimal moves but the display does not increase a digit.

With the device connected, the display of the data of weight does not respect the metrological indication. It is for this reason that while it is activated all the communication with the series channel is inhibited. The display remains active for a period of approximately **6 seconds**, after this time the terminal, automatically, sets the display in normal weight. Being out of legal metrology, the device keeps extra accuracy till user press MR ESC key.

## 4.5 ACCUMULATION ACUMUL

This function carries out the process of auto accumulation and ticket printing

TO MAKE THE AUTO-ACCUMULATION FUNCTION WORK, IT IS NECESSARY TO SELECT FIRST THE PROTOCOL PRINT IN COM1 OR COM2, AS IT IS DESCRIBED IN THE SECTION 5 OF THIS MANUAL

**1.**

| DISPLAY | STEPS |
|---|---|
| ACUMUL | • Press the key PRINT (kg) |

THE DISPLAY IS GOING TO SHOW ONE OF THE LEGENDS DETAILED BELOW

ACCoFF  ACCAut  ACCMAn

The user must choose them with the keys MENU MODE and →0← (T), the selected option is memorized by pressing the key PRINT (kg).

**2.**

**DESCRIPTION: ACCOFF, ACCAUT AND MANACC, AND CONFIGURATION**

ACCoFF

• **ACCUMULATION OFF**
The accumulation mode is deactivated

ACCAut

• **AUTO ACCUMULATION** The accumulation mode is automatic. In the moment of detecting steady weight the device does the accumulation automatically. Once this function is validated the terminal shows on its display the message (nA xxxx). The user must introduce the desired value of the number of accumulations using the following keys:

If this value is **DIFFERENT FROM** 0 the system continues with the accumulation of weights until it reaches the prearranged value. If the programmed value is 0, the weights are accumulated until the user decides to press the key MR (ESC) (limit 9999). (Totalitzation)

ACCMAn

• **ACCUMULATION MANUALLY**
The mode of accumulation is done manually by pressing the key PRINT (kg). The weight must be stable and must change from accumulation before. It will accumulate till the user press MR (ESC).

## 4.6 SUBTOTAL SubTot

With this function the user can see the number of accumulated weights and the total weight up to the actual moment. The screen displays first the number of weights and next it automatically shows the total accumulated weight. This function does not entail the elimination of the number of weights and the total of weight.

## 4.7 TOTALITZATION

By pressing MR (ESC) key device shows totalitzation value. If one printer mode is selected, the total ticket will be printed. By pressing again MR (ESC) key will print a copy. Making a new accumulation after MR (ESC) the memory will be erased.

## 4.8 CODE t. Code

This function allows the introduction of a code which is added to the printed ticket. To introduce this code the user must use the keys specified below.

THIS OPTION IS ONLY VALID USING PROTOCOL PRINTER WITH THE OPTION PRNF9 ACTIVATED.

## 4.9 NUMBER OF TICKET n. tic

With this function the user can print in the ticket a ticket number which is going to increase automatically at the end of the weight, (number of delivery or number of ticket). Use the cursor keys for change the value and enter escape to exit or memorize.

## 4.10 DATE dAtE

Function for updating the date, with format day/month/year use the cursor keys for to change the value and enter/escape to memorize/exit.

**EXAMPLE:** 17.03.14

## 4.11 TIME tiME

Function for updating setting of the time, with format hour/minute/second. Use the cursor keys for change the value and enter/escape for memorize/exit.

**EXAMPLE:** 19.05.59

## 4.12 WEIGHT MODE UEIGHT

The user access the normal mode of weighing again.

## 4.13 DOSAGE doSiFi

**IT ONLY WORKS WITH AN OPTIONAL RELAYS BOARD (4I/4O)**

With 4 inputs and 4 outputs. The dosing function is only available when the plate is correctly connected to the display.

The card has four relays with potential-free output up to 0.5A 125VAC or 2A 30VDC. With them you can check remote instruments such as relays, signal lamps and PLC. The card also has four inputs. The 4 inputs are emulated to the keys of the equipment when they are in dosage mode. The dosing function remains active until it is switched off.

The equipment is ready to dose automatically with two different possibilities: 1 product at two speeds or 2 products at one speed, with unload. The device allows the pogramming, for each porduct, of the weight of the value of the thickness or product 1, and the value of the weight when the device works at slow speed (that is the value of the smooth) or the value of the product 2.The device can also program a zone of unload where it is defined the value of the dosage( to correct the blocking of the system because there is product left in the weighing zone).

When the equipment starts working it automatically functions with the last formula it has worked with. This allows the device to start again with its daily work. When the user gets into the menu to program the dosage "doSiFi", the following menu is going to appear on the screen:

| doSiFi | | |
|---|---|---|
| reset | **YES / NO** | yes-no (It sets the process to zero, it also places all the weights to ZERO) |
| P.PROD 1 u | **WEIGHT** | thick weight to program or weight of the product 1 |
| T.PROD 1 t | **TIME** | time of lack of material, if the weight on the screen does not change in this space of time, it activates the relais of alarm. |
| P.PROD 2 u | **WEIGHT** | smooth weight to program or weight of the product 2 |
| T.PROD 2 t | **TIME** | Time of lack of material |
| P.Z.DISC u | **WEIGHT** | Maximum waste weight |
| T.Z.DISC t | **TIME** | Time of zero, when the zero is activated a time to wait for the falling of the material is also activated |
| C. Tare | **AUTO/NO** | Make, or not, auto tare when dosage starts |
| ENABLE | **SI / NO** | |

**RESET**

By selecting YES, all parameters are set zero.

By selecting NO, you can access directly to the parameters to modify them.

**PROD1**

It edits the values of the formula for the product 1. If the weight is programmed to 0, the equipment is going to dosify the product 2.

- WEIGHT: The desired weight for this product is programmed.
- TIMER: Time of lack of material, if the weight on the screen does not vary in this space of time, it is going to activate the alarm (RL4).

**PROD2**

It edits the values of the formula for the product 2. If the weight is programmed at 0, the equipment will dosify only the product 1.

- WEIGHT: The desired weight for this product this product added to product 1 weight is programmed.
- TIMER: Time of lack of material, if the weight on the screen does not vary in this space of time, it is going to activate the relais of alarm. (RL4)

**Z.DISC**

- WEIGHT: This option programs the weight within which the equipment determines that the dosage has been finished, (maximum of possible waste weight that may stay without the alarm ringing)
- TIMER: Time waste of material, if the weight on the screen does not vary in this space of time, it is going to activate the relais of alarm. (RL4)

**ENABLE**

It exits from the menu of dosage and asks to the user if he wants to get start doing the dosage. To start doing the dosage appears on the display the legend - DOS – The keys will do the functions specified below:

Note:
The value of timers must be bigger than 000,0 s. for assure the capacity of activate the alarm (RL4). If you want that RL4 (alarm) will never be activated, keep timers to 0s.

| ENTRANCE EXT. | KEY INDICATOR | FUNCTION |
|---|---|---|
| INPUT 1 | kg PRINT ↵ | START key |
| INPUT 2 | MR ESC | STOP Key |
| INPUT 3 | PT →T← | RESTART key |
| INPUT 4 | FT GROSS NET ← | ABORT key / exits from the DOSI function and goes back to the normal mode.<br>You need to press two times if you use the indicator key. |

Note:
If the alarm is activated /(RL4), press key STOP and then RESTART for continue where it was stopped.

## 4.14 ANALOG EXIT 4-20MA / 0-10V (ONLY FOR LED DEVICES!)

**ACCESS TO THE MENU IS POSSIBLE ONLY WHEN THE CARD IS CONNECTED**

This card allows the exit of 4-20mA o 0-20mA or 0...+10V o 2…+10V, proportional to the gross weight or the net weight in the scale.

The exit of the current is active and supplies the necessary voltage.

The analog exit is actualized every 50ms and acquires the appropriate value of the weight, converted into in that moment. It is for this reason that if the filter in the weight is decelerated, the analogical exit is also decelerated.

To do the setting of the parameters, the user must access to:

| AnALog | | | |
|---|---|---|---|
| 4-20MA | REQUESTING THE FULL SCALE (U MAX) IN KG THAT WILL DELIVER 20mA. | | |
| 0- 10V | REQUESTING FULL SCALE (U MAX) IN KG THAT WILL DELIVER 10V. | | |
| **ADJUST** | **AN MIN** | OUTPUT FOR NEGATIVE WEIGHT | |
| ADJUST | **AN ZER** | OUTPUT FOR ZERO WEIGHT | |
| | **AN MAX** | DEPARTURE FOR THE FUND ALLOCATED SCALE (U MAX) | |
| ENABLE | SELECT YES / NO TO ACTIVATE OR DEACTIVATE FUNCTIONALITY | | |

The setup process begins by selecting the operating mode, either 4-20mA or 0-10V depending on the type of output you want. At this point you must specify the full scale **U MAX** which must be equal to or less than the full scale of the scale.

When the back of the scale is confirmed, the device starts the establishment of values of the analog exit, or the values of the digital/analog converter are introduced (comprised between 0 and 65535), for these values it is appropriated a determined value of exit in voltage or current.
In this configuration the keys of the device acquire the following functions:

An MAX
It establishes the magnitude of the analog exit, be that in current or voltage, when the scale displays the maximum weight, which is going to belong to the previous FS programmed.

An ZEr
It establishes the magnitude of the analog exit, be that in current or voltage, when the scale displays the minimum weight, which is going to belong to the Zero of the scale.

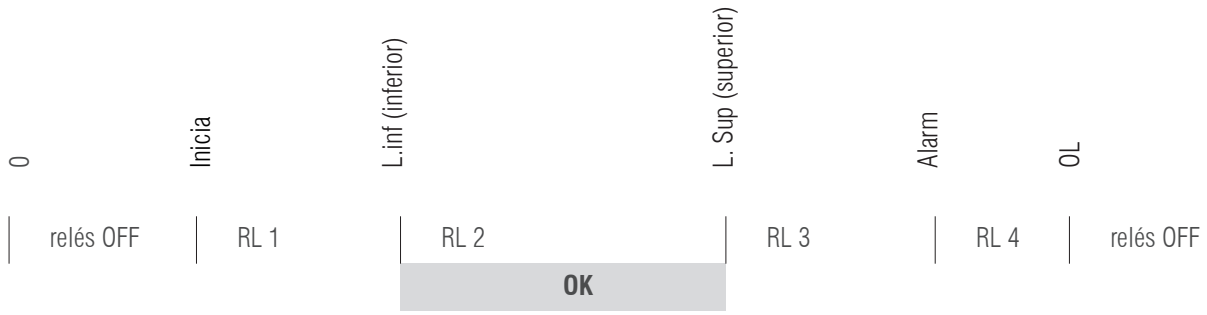
An Min
It establishes the minimum value of the analog exit. With this value we adjust so that the equipment gives a value below 4 mA or 0v. It also allows us to program the magnitude of the signal when the value loaded on the platform is below zero, belonging to the condition underload.

**Example**
We are going to take as example a hopper scale with a back of scale of 300kg. Of this scale we only use the range up to 200kg for the exit of 20mA as this is the maximum capacity of the hopper.
In F.S we will introduce 200kg and we will adjust the value of An_Max so that in the exit we can register 20mA with a multimeter or an automaton. Next we are going to go to the parameter An_Zer and adjust the value to obtain 4mA in the exit; with this we are going to have a perfect measuring range of 200kg and 16mA. In the parameter An_Min we are going to introduce a value so that we can read the negatives to up to the 3mA. In the case that the automaton does not allow it, we will adjust the zero to 5mA. The measuring range is going to be of 200kg and 15mA.

## 4.15 LIMITS LiMit

**THEY ONLY WORKS WITH THE OPTIONAL RELAYS BOARD**
The equipment is able and thought to manage automatically up to 4 limits through registers of weight for each one of them.
These registers are called

- Start
- Low Limit (Low.L.)
- High Limit (High. L.)
- Alarm
  The associated relays is always activated when the weight of the scale is placed between the two limits.




As each relay is in fact a commute circuit, taking the normaly closed contacts, the user is going to obtain the inverse sign of the previous figure.

When we go to the function of the programming of limits (L.MLE), the following menu is going to appear on the screen:

| | | |
|---|---|---|
| **RESET?** | NO<br>YES | Goes to next parameter without erase the information.<br>It places at 0 all the relays so that it deactivates all of them. |
| **StArt** | | It programs the value, every value above this one is going to activate the relays of the L.INF, RELAYS 1 (S xx.xxx) |
| **L. Low** | | It programs minimum value, every value below this one is going to activate the relays of the L:INF, RELAYS 1 (L xx.xxx) |
| **O.K.** | | This value can not be programmed but it activates the RELAYS 2 whenever the value of the weight is superior to Low L and inferior to the High L |
| **L. High** | | It programs the high value, every value above this one is going to activate the relays of the L.SUP, RELAYS 3 (H xx.xxx) |
| **ALARM** | | it programs the high value, every value above this one is going to activate the relays of alarm, RELAYS 4 (A xx.xxx) |
| **ENABLE** | | Exit from the menu limits and start to apply them if YES is choosed. If we choose NO exit from the menu and doesn't apply the limits stored on memory. |

NOTES: THE FUNCTION OF THE LIMITS IS AUTOMATIC WHEN IT EXITS FROM THE ZERO RANGE. THE LIMIT FUNCITON CONTINUES ACTIVATE TILL USER DESAVTIVATES IT.

| ENTRANCE EXT. | KEY INDICATOR | FUNCTION |
|---|---|---|
| Input 4 | GROSS NET FT ← | ABORT key, turns off limit function and returns to weight mode with external pushbutton, IN4, and with display key. |

## 4.16 DATA VISUALISATION MEMORY DSD

**IT ONLY WORKS WITH THE OPTIONAL ALIBI BOARD**

- Accessing to DSD menu (only available if DSD memory is installed) the indicator give access to DSD file to see the weights stored with fiscal memory process.
- The indicator will show the last code inuse, with cursor keys you can input the desired value.
- On last line it shows the current weight.
- Then, operator must input the weighing number about he/she want fet data of brut and tare.
- If data is not stored, it will show an error message, if all is correct, it will show weighing data.

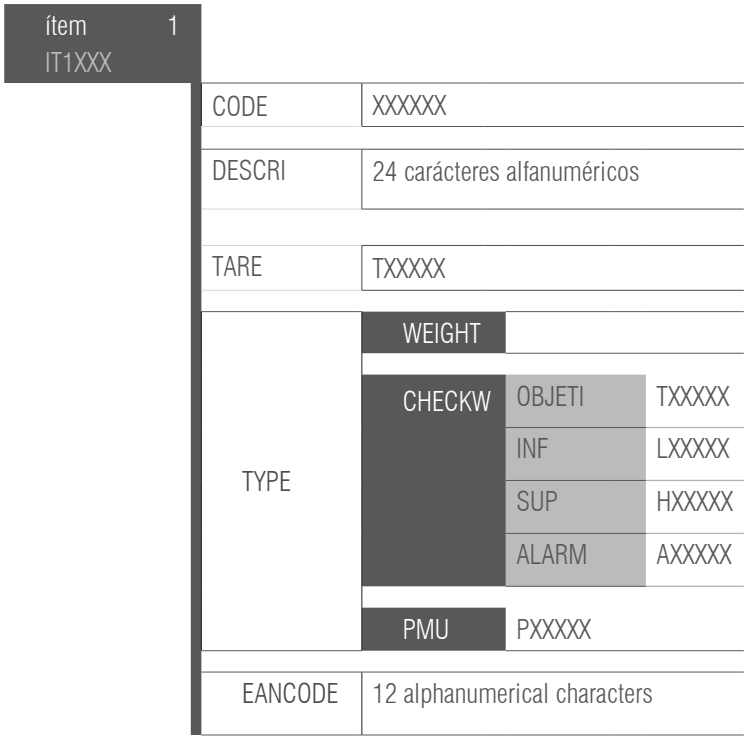
For exit from data menu, keep pressed MR ESC key some seconds.
During data viewing "Tx" funciton from PC will not work.

# 5. NUMERICAL KEYBOARD OPTIONS

The numerical keyboard allows the user introduce the different menus of the indicator in a quicker way than with the arrows, which can also do this function if the user prefers to use them.

## 5.1 SPECIAL FUNCTIONS OF THE NUMERICAL KEYBOARD

Using the numerical keyboard it is possible to memorize a maximum of 400 items of type of weight (item 1), 400 descriptive items (item2), 10 tares and 1000 weighing. The user can enter the following menu by pressing during some seconds the **F** key. Another way to access each function is by using immediately the direct keys.




| DIRECT KEYS | FUNCTION |
|---|---|
| F + 1 ABC + 0 | Edit item1 menu |
| F + 1 ABC + 1 ABC | Activates the item 1 |
| F + 1 ABC + 2 DEF | Deactivates the item 1 |




| DIRECT KEYS | FUNCTION |
|---|---|
| F + 2 DEF + 0 | Edit item2 menu |
| F + 2 DEF + 1 ABC | Activates the item 2 |
| F + 2 DEF + 2 DEF | Deactivates the item 2 |

| PrTare | | |
|---|---|---|
| TAREXX | | |
| | TXXXXX | |

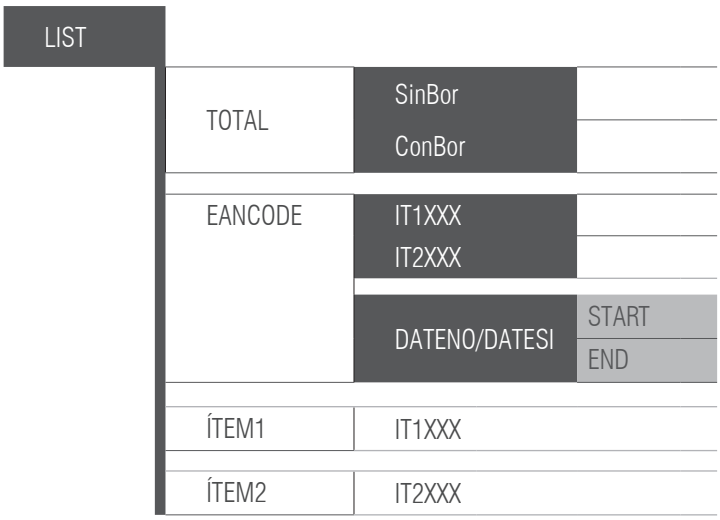
| DIRECT KEYS | FUNCTION |
|---|---|
| F + 3 GHI + 0 | Edit pretare menu |
| F + 3 GHI + 1 ABC | Activates tare |
| F + 3 GHI + 2 DEF | Deactivates tare |

| WEIGHT | | |
|---|---|---|
| | inUnun | 000000 (ticket number) |
| | | IT1num |
| | | IT2num |
| | | W Net |
| | | W Brut |
| | | W Tare |
| | | N Piece |
| | | DATE |
| CONFIG | BFULLX | 0 No warning |
| | | 1 Bip |
| | | 2 Bip+ BUFFULL Message |

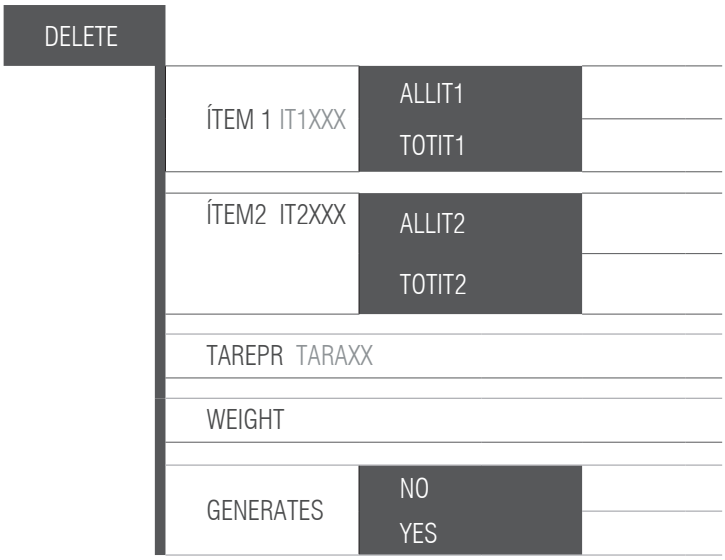
| DIRECT KEYBOARDS | FUNCTION |
|---|---|
| F + 4 JKL + 0 | Displays the information of the weights |
| F + 4 JKL + 1 ABC | Sets the type of warning when filling out the 80% of the weighing buffer. When reaching the 100% the indicator displays the error message OveBuf |

| TOTAL | | |
|---|---|---|
| ITEM 1 | IT1XXX | |
| | | Net |
| | | Gross |
| | | Tare |
| | | Pieces |
| | | TotWeigh |
| ITEM 2 | IT2XXX | |
| | | Net |
| | | Gross |
| | | Tare |
| | | Pieces |
| | | TotWeigh |

| DIRECT KEYS | FUNCTION |
|---|---|
| F + 5 MNO + 0 | It shows the total of the weighing associated to the item 1 |
| F + 5 MNO + 1 ABC | It shows the totals of the weighing associated to the item 2 |




| DIRECT KEYS | FUNCTION |
|---|---|
| F + 6 PQRS + 0 | Prints the weight total with or without deleting the memory |
| F + 6 PQRS + 1 ABC | Prints the lists of the filtered weighing, per item 1, item 2 and date |
| F + 6 PQRS + 2 DEF | Prints the filtered information per item 2 |
| F + 6 PQRS + 3 GHI | Prints the filtered information per item 1 |




| DIRECT KEYS | FUNCTION |
|---|---|
| F + 7 TUV + 0 | Deletes item by item the totals of the item1 selected (TOTIT1) or the item1 completely (ALLIT1) |
| F + 7 TUV + 1 ABC | Deletes item by item the totals of the item2 selected (TOTIT2) or the item2 completely (ALLIT2) |
| F + 7 TUV + 2 DEF | Deletes a tare scheduled before |
| F + 7 TUV + 3 GHI | Deletes the stored table of memorized weighing |
| F + 7 TUV + 4 JKL | General deleting, it deletes all the information in item1, item2, tares and table of weighing. |

**CHANGE THE NAME OF THE ITEM1 AND THE ITEM 2**

Enter the technical no metrological menu, inside the menu CONFIG, select the option CODES.
Choose the items that you need to change the name from FILE 1, FILE2.
Write the new name of the item in the numerical keyboard.

**EXAMPLE**

In FILE 1 we write "lorry" and in FILE2 we write "product", we press the ENTER key during each operation to confirm.

### EDIT THE DATA OF THE ITEM OF THE TYPE OF WEIGHING (ITEM1)

Now we introduce the desired data:

| DISPLAY | DESCRIPTION |
|---|---|
| CODE | numerical code of the item |
| DESCRI | description of the item with a maximum of 24 alphanumerical characters |
| TARE | value of the tare item |
| TYPE | to select the type of item WEIGHT, CHECKW or PMU, in the case of Checkweigh and PMU the user must set its parameters |
| EANCODE | code EAN of the product |

Once each one of the parameters are confirmed with the key PRINT, the user must press the key MR ESC, the screen will display briefly the message SAVED and next it will return to the weighing mode.

### EDIT DATA OF THE DESCRIPTIVE ITEM (ITEM2)

Once the user is in the normal weighing mode, press the keys F + 2 DEF + 0 ( one after the other).
The screen is going to display the message PRO (the first three digits of the "product"), followed by 000.
Write now the number of the item2 that the user wants to edit, for example PR000 1 and press the key ENTER, the screen is going to display the menu described beFore.
Introduce now the desired data:

| DISPLAY | DESCRIPTION |
|---|---|
| CODE | numerical code of the item |
| DESCRI | description of the item with a maximum of 24 alphanumerical characters. |

Once each one of the parameters have been confirmed with the key MR ESC the user must press the key MR ESC, the screen will briefly display the message SAVED and next I will return to its weighing mode.

### EDIT TARA DATA

Once the user is in the normal weighing mode of the device, press the keys F + 3 GHI + 0 ( one after the other).
The screen is going to show the message TARE00. Write the number of tare that the user wants to edit, for example TARE01, and then press the key PRINT the screen is going to display the message T00.000,, so that the user can introduce the value of tare.
Once it is set, the user must press the key PRINT to confirm the operation, the screen will briefly display the message SAVED and it is also going to show again the message TARE01 so that the user can choose another tare to edit. Once the user has edited all the tares needed, the user must press the key MR ESC during 3 seconds so that the device goes back to its normal weighing mode.

### CONNECT WEIGHING TO ITEMS AND TARE

Each weighing can be connected to one or more items and/or a stored tare, to do so the user first needs to activate them. To do it first introduce the activation code of each one of them.

**EXAMPLE.** Weighing linked to item1, item2 and to a tare.
Choose F + 1 ABC + 1 ABC, the indicator is going to ask for the number of item1, we choose the desired one, CAM001 and then press the key PRINT. If that key has a tare connected to it, it is going to be displayed on the screen.

Press the keys **F** + 2 DEF + 1 ABC, the indicator is going to ask for the number of item2, the user must choose the desired number, PR000 1 and then press the key PRINT kg.
Press the keys **F** + 3 GHI + 1 ABC , the indicator is going to ask for the number of tare, the user must choose the desired number TO 1, and next the indicator is going to ask if it is needed to activate it, if we press the option YES, then we must also press the key PRINT kg.

Now the user can proceed to do the weighing with an activated mode of accumulation, all the weighing are going to be stored with the associated data until the user selects other data or deactivates by pressing the keys **F** + 1 ABC + 2 DEF, **F** + 2 DEF + 2 DEF respectively or **F** + 3 GHI + 2 DEF when proceeding with a tare.

**NOTA:** If the item1 has a pre tare with a value different to 0 and we also activate a tare by pressing the keys **F** + 3 GHI + 1 ABC , the last one to activate is the one which becomes effective.

### SEE THE STORED INFORMATION

Via the combination of the keys **F** + 4 JKL + 0, the user can view the information of a stored weighing. To view it the user must only introduce the number of the weighing we are interested in viewing the data.

### CUMULATED TOTAL OF THE ITEM ON THE SCREEN

By using the combination of the keys **F** + 5 MNO + 0 ( for item1) or **F** + 5 MNO + 1 ABC ( for item2), the user can view the information of the cumulated total associated to each item. To view it the user must only introduce the number of the item s/he is interested in viewing the data cumulated total.

### PULL OUT THE TOTAL LIST

Via the combination of the keys **F** + 6 PQRS + 0 the user can pull out a total of the weighing no matter if they have been deleted or not from the memory.

TOTAL LIST

```
Weighing info
From:       25/11/15
To:       11/04/16
--------------------------------
Gross Total:       4.045 kg
Tare Total:       0.800 kg
Net Total:        3.245 kg
Pieces Total:     000000
Weighing Total:   000067
--------------------------------
```

### LIST FILTERED PER ITEM1, ITEM2 AND DATE

By using the combination of the keys **F** + 6 PQRS + 1 ABC , the user can select the number of item2 (PR000 1),, then the number of the item1 (CAM00 1) and decided not to filter by date ( date NO)

FILTERED LIST

```
 Report:  Weighing
11/04/2016
 ---------------------------------
 From:              00/00/00
 To:              11/04/16
 Product:               001
 Lorry:                 001
 ---------------------------------
 Lorry number:             001
 Lorry code:          000122
 Lorry:      Mpdj

 Product number:           001
 Product code:        005508

 Product:


 Gross weight:           1.000 kg
 Tare:                   0.200 kg
 Net weight:             0.800 kg
 Number of pieces:    000000

 Lorry Number:           001
 Lorry code:          000122
 Lorry:      Mpdj

 Product number:           001
 Product code:        005508
 Product:

 Gross weight:           1.000 kg
 Tare:                   0.200 kg
 Net weight:             0.800 kg
 Number of pieces:    000000

 Lorry Number:           001
 Lorry code:          000122
 Lorry:      Mpdj


 Product number:           001
 Product code:        005508
 Product:
 ---------------------------------

 Gross Total:            3.000 kg
 Tare Total:              0.200 kg
 Net Total:             2.400 kg
 Pieces Total:          000000
 Weight Total:         000003
 ---------------------------------
```

**FILTERED LIST PER ITEM2**

In this case we use the keys **F** + **6** PQRS + **2** DEF and we select the number of item2(PR0001)

FILTERED LIST PER ITEM2

```
 Report:  Weighing

 11/04/16
 ---------------------------------
 Product number:           001
 Product code:        005508

 Product:


 Gross Total:            3.000 kg
 Tare Total:              0.200 kg
 Net Total:             2.400 kg
 Pieces Total:          000000

 Weight Total:         000003
 ---------------------------------
```

**FILTERED LIST PER ITEM1**

To do so we press the keys **F** + 6 PQRS + 3 GHI and select the number of item1 (CAM001)

FILTERED LIST PER ITEM1

```
Report: Lorry
11/04/16
--------------------------------
Num camion:        001
Codigo Camion:     000122
Camion:      Mpdj

Gross Total:        4.200 kg
Tare Total:         0.800 kg
Net Total:         3.400 kg
Pieces total:      000000
Weight total:     000004
--------------------------------
```

**DELETING ÍTEM1**

This operation can be done by using the combination of the keys **F** + 7 TUV + 0, we can delete the information related to an item. To do so the user must select the desired item CAM001 and then choose between ALLCAM (it deletes all the information which refers to CAM001 including the item CAM001) and TOTCAM( it deletes the cumulated total referring to CAM001, without deleting the item CAM001)

**DELETING ITEM2**

This operation is done using the combination of the keys **F** + 7 TUV + 1 ABC, we can delete the information related to an item. The user must select the desired item PRO001 and then choose between ALLPRO ( it deletes all the information which refers to PRO001 including the item PRO001) and TOTPRO ( it deletes the total stored referring to PRO001, without deleting the item PRO001)

# 6. NO METROLOGICAL TECHNICAL MENU

In this page the user can find the description of the options of the LIMITED PROGRAMATION. Functions to personalize ONLY the configuration of the NO METROLOGICAL PART (printers, peripherals, analog exits and relays):

- The procedure of the limited programming is done by pressing for a long time the key MENU MODE
- A pin code must be inserted (4 digit numbers)

The pin of factory is 0000: P:0000, press kg PRINT for confirm.

If the user does not know the pin or to program it for the first time, the user must enter the set up through the switch and access the menu CHG_PIN. .

Note: The functions availables are the following:

| DISPLAY | DESCRIPTION |
|---|---|
| CAL-PA | (metrological) |
| CAL 0 | (metrological) |
| CAL | (metrological) |
| GrAuE | (metrological) |
| ParaMe | |
| Confg | |
| tESt | |
| AbTUM | |
| FAbrC | (metrological) |

If you don't know the pin code, enter the setup via the switch and access to the CA.PASS menu.

**5 Technical menu NO metrologic**

- Parameters (Parame)
  - COM1, COM2, RS485
  - Frame
  - Baud
  - Protoc
  - Addres
  - Delive
- Configuration (Config)
  - Filter
  - Date
  - Time
  - Sleep (only for LED)
  - Mv
  - Language
  - CH.PASS
  - I.COUNT
  - AUTARB
  - BLight (only for LCD)

## 6.1 MENU PArAME; COM1, COM2 and RS485

Once the Pin is introduced in the mode of limited programming, the display is going to show the following message:

| | |
|---|---|
| PArAME | In the mode of opened programming, it will show CAL--PA, press ↓ 0 key till it show PARAME. Press ↵ for access. With this function you can set NON METROLOGICAL parameters. Use ↑ and ↓ for select the option and ↵ for access. |

| | |
|---|---|
| **COM 1** | Setting up port 1 Rs 232 to PC, Printer, etc…. |
| **COM 2** | Setting up port 2 Rs 232 to PC, Printer, ethernet, etc…. |
| **RS485** | Setting up port 2 on Rs 485 mode. Option only available with RS 485 board. |

### FRAME

The frame allows data communication format.
The possible choices are:

**7/none/2, 7/odd/1, 7/odd/2, 7/even/1, 7/even/2, 8/none/1, 8/none/2, 8/odd/1 y 8/even**

### BAUD RATE bAUd

It allows the definition of the speed of communication using the cannel of series rs232 com1, com2 and Rs485
The possible choices are:

**300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200** baud.

### PROTOCOLO ProtoC

Currently the terminal includes different protocols of communication that can be used through the port of RS-232:

| | |
|---|---|
| SPi2 | Protocol – SIPI II -- standar sipi series of the type II (22 characters) |
| toLdS | Protocol – Toledo DS |
| ERIC | Protocol – ERIC |
| EPSA | Protocol EPEL |
| EPEL A | Protocal EPEL A |
| EPEL 80 | Protocal EPEL80 |
| M-t | Protocol of METLER |
| Mobba3 | Protocol Mobba3 |
| F501 | Protocol of F501 |
| SAIE | Protocol SAIE |
| MultiP | Protocol MULTIPUNTO 2000 |
| Seur | Protocol SEUR |
| Tisa | Protocol TISA |

| | |
|---|---|
| Ud-0 | Protocol VD0 |
| SScar | Protocol SENSOCAR |
| CScomP | Protocol CAS NOVITUS |
| Sb-400 | Protocol SB-400 |
| SMART | Protocol Smart |
| TXL | Protocol Teacsul |
| BILANC | Protocol Bilancai |
| AL:bi | Fiscal memory protocol |
| GI CONF | Communication protocol with GISCALE |
| none | Protocol none |
| Print | Printer protocols |
| G.Pes | ETD special protocol |

Ind.Add

Adjust the direction of the terminal.

### tr.99r (MODE OF TRANSMISSION)

It allows the configuration of the terminal to send the information to the PC through one of the following modes:

**Continuos**: the terminal sends the chain of information, depending on the protocol, in a continuous way.

**Manual**: the terminal sends the chain of information, depending on the protocol, when pressing the key PRINT (kg)

**pc req**.: the terminal sends the chain of information, depending on the protocol, when the order from the PC has been received.

**Stable**: the terminal sends the chain of information, depending on the protocol, once it has acquired a value of steady weight.

**Interval**: the terminal sends the chain of information, depending on the protocol, when a variation of the weight is obtained.

**Stable 0**: the terminal sends the chain of information, depending on the protocol each time takes stability and the value is different to 0. It needs to pass trought 0 each time.

**Repeti**: on this mode the indicator work as a repeater from another GI400 in mode SIPI II continues or interval. Valid for RS485, for RS232 (limit distance: 16m) or ethernet. In RS232 case, use the CM2 in both computers.

## OPTIONAL RS485

Only works with RS485 board.

Protocols available on RS485 mode with ID are:

**MULTIPOINT 2000 AND SENSOCAR WITH INDICATOR CAN BE SET AS A REPEATER.**

On indicator with RS485 board board you need to set PARAME ➔ RS485 ➔ Protocolo SIPI II ➔ Trigger contin.
On indicator with RS485 board wich works as a repeater, you need to set PARAME ➔ RS485 ➔ Protocolo SIPI II ➔Trigger romte.
The repeater send of it COM2 (RS232) the SIPI II frame received.

In case yoiu use mdoe REPETI by RS232 (without the additional RS485) config the COM1 the same way like the RS485.

## 6.2 ETHERNET MENU ( IT ONLY WORKS WITH AN OPTIONAL ETHERNET BOARD)

Connect the equipment to the PC using a switch. Enter the IP of the device in the browser **192.168.0.130 (by default)**

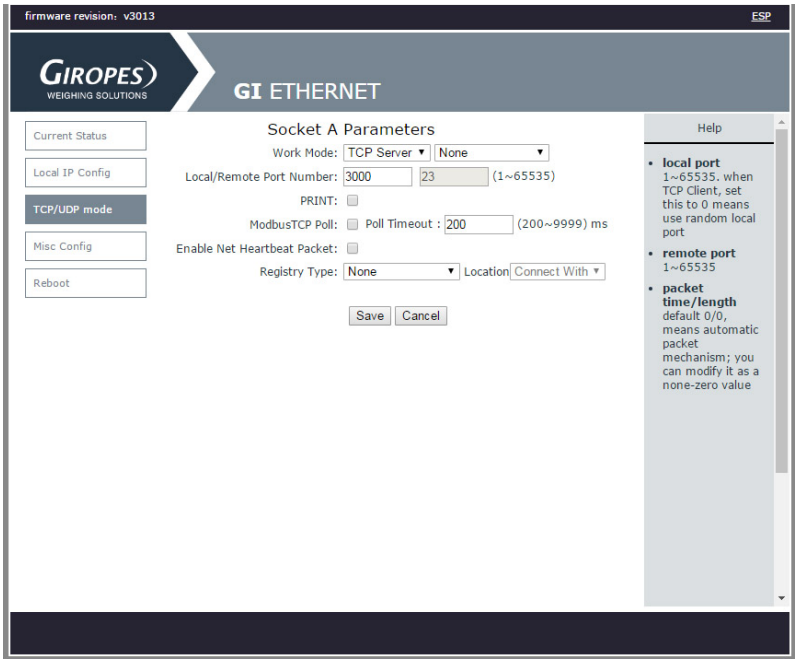



Enter the username and password. **(Admin and 1234 by default)**

In the **"Local IP Config"** tab you can change the IP




In the **"TCP / UDP mode"** tab you can change the port.




You can change the username and / or password in the **Misc Config**
**If you forget them, you have to open the device and press the RST pads for 5s to reload the factory settings.**

## 6.3 CONFIGURATION MENU

Once the PIN has been introduced, the user is in the mode of restricted programming, move up to ConFIG By using this function the user can program the following NO METROLOGICAL parameters:

| | |
|---|---|
| FILTER | filters |
| DATE | date |
| TIME | hour |
| SLEEP | autostanby (only for LED version) |
| mV | mV of the cell |
| LANG | Languange |
| CH.PASS | Password change |
| I.COUNT | Internal accounts |
| CODES | Name of the item1, item2 and tcode |
| AUTARb | Tare self-locking |
| BLight | (Only for LED version) |

**FILTER:** SELECT BETWEEN 6 PRESETS OF FILTERS CHANGING THE VALUE OF THE FILTER. PREDEFINED VALUE 2.

| filter | description | Filter value | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| **d.filte** | Display refrechment | | 1 | 1 | 1 | 1 | 1 | 1 |
| **Stb** | Filter of stability | | 3 | 4 | 5 | 6 | 7 | 8 |
| **tmp.stb** | Time of stability | | 2 | 2 | 2 | 2 | 2 | 2 |
| **Average** | Mobile average | | 7 | 9 | 11 | 13 | 15 | 20 |

**DATE:** Select the date in the format DD.MM.AA. Being DD the day, MM the month and AA the year.

**TIME:** Select the time using the format hh.mm.ss. Being hh the time in format 24h, mm the minutes and ss the seconds.

**SLEEP:** Choose the time of SLEEP. If toFF is in 00, the SLEEP is deactivated . The value introduced is the time without variation due to weight or the time that the device lasts to get into standby from the moment when the key has been pressed. It only works when the excitation comes from the optional battery. This option is incompatible with the additional Ethernet board.(Only for LED devices).

**MILIVOLTS:** It shows the milivolts of the load cell.

**LANGUAGE:** : using this menu the user can choose the language in which the tickets are going to be printed and which appears on the display. The languages that are available are: Spanish, French, English, French and Italian.

**PASSWORD CHANGE:** It changes the entrance password to the technical menu, the user must introduce first the current password and then the new one. The password by default is 0000.

**I.COUNT :** It shows the data of the converted ALI. in mode CAL.ABI. Press MR ESC | to exit.

**CODES:** It allows to edit the name of the item1, item2 and tcode.

**AUTARB:** Using this menu the user can choose if s/he wants to block the tare automatically.

**BACKLIGHT:** allows to select backlight working mode whithin Auto, ON, OFF (only for LCD devices).

## 6.4 TEST

After entering the PIN in the programming mode, scroll to TEST. With this option you can check the correct functioning of the LEDs, or LCD

# 7. PRINTER

The available printers are the following ones:

- IMP05
- IMP27
- IMP28

The working of the printer is described below:

When the user presses the key kg PRINT ↵ | the weight is printed, with its number of weighing and its corresponding tare if the mode of transmission is manual (5.1.15).

The user can do successive weights pressing the key kg PRINT ↵ |. This process can be done if the system goes first to zero or if a tare is done or if an additional weight is situated on the platform.

Once the user has done all the needed weights, when pressing the key MR ESC | the user will obtain the definitive ticket with the number of weights and the total weight in case that the device has the accumulation option in active mode.

If the accumulation mode is automatic, there should be chosen **tri99r or Stble**. Conversely, if the transmission mode is manual should be chosen **manually tri99r**

The printed ticket has 40 characters wide.

## 7.1 TICKETS FORMATS GI400

FORMATS FOR WEIGHT

*PRNF1*

```
Weighing Number: #85
08:33:57        25/11/14
Net:            2.400 kg
Tare:           0.000 kg
------------------------
```

*PRNF2*

```
Weighing Number: #86
08:37:25        25/11/14
Net:            2.000 kg
Tare:           0.000 kg
Gross:          2.000 kg
------------------------
```

FORMATS COUNTING

*PRNF3*

```
Weighing Number: #87
08:41:28        25/11/14
Unit W:    222.222229 g
Tare:           0.000 kg
Gross:          2.000 kg
Net:            2.000 kg
Total Units:         9 u
------------------------
```

*PRNF4*

```
Weighing Number: #88
Unit W:    222.222229 g
Tare:           0.000 kg
Gross:          0.400 kg
Net:            0.400 kg
Total Units:         0 u
------------------------
```

## FORMATS CHECKWEIGHER

*PRNF5*

```
Weighing Number: #89
08:46:13       25/11/14
Target weight: 1.000 kg
Actual weight: 0.400 kg
Deviation:     0.600 kg
-----------------------
```

*PRNF6*

```
Weighing Number: #90
Target weight: 1.000 kg
Actual weight: 2.000 kg
Deviation:     1.000 kg
-----------------------
```

## TOTALITZATION *PRNF1* TO *PRNF3*

```
=======================
         TOTAL
=======================
08:58:33       25/11/14
**********************
Weights:#00095 - #00096
Number of Weights:00002
=======================
Tot Gross:     4.000 kg
-----------------------
Tot Net:       4.000 kg
-----------------------
Tot Tare:      0.000 kg
=======================
```

## FORMATS FOR ACCUMULATION (MANUAL OR AUTOMATIC) WITH TOTALITZATION

PrnF .4 M.LINE

3 header lines of 40 characters editable with the software "configuration tool"

```
_____________________________
_____________________________
_____________________________
------------------------------
Date:          Hour:         Nr.
Ticket
25/11/0014   08:51:06   000091
Weighing  n°  Code      Tare  kg
Net kg
  1   041608   0.000 kg   0.400
kg
  2   041608   0.000 kg   0.400
kg
  3   041608   0.000 kg   0.400
kg
 Tot. Weighing     Tot.Weighinng
Net kg
     3                 1.200 kg
------------------------------
```

PrnF .5

3 header lines of 40 characters editable with the software "configuration tool"

```
_____________________________
_____________________________
_____________________________
------------------------------
Date:25/11/0014  Hour:08:54:42
Prg:001
Nr. Ticket: 000093      Code:
041608
G    2.000 kg
T    0.000 kg
N    2.000 kg
------------------------------
--
```

PrnF.4 S.LINE

```
  1   041608   0.000 kg   0.400
kg
  2   041608   0.000 kg   0.400
kg
  3   041608   0.000 kg   0.400
kg
```

# 8. MESSAGES OF ERROR

| DISPLAY | POSSIBLE CAUSES | SOLUTION |
|---|---|---|
| <br>Function of initial zero setting or through a key <br>in process (blinking message). | 1. On the scale there is a weight value superior to the accepted limit of the function.<br>2. The weight on the scale is not steady. | 1. Unload the scale .<br>2. Wait until the weight is steady.<br>**If the anomaly persists you must ask for help to your supplier service centre.** |
| <br>**OVER LOAD**<br>The analog sign of the load cell is out of the working range of the A/D chip. This error finishes when the sign reenters the expected range. | 1. Connector of the load cell not connected.<br>2. Broken cable.<br>3. Broken load cell (due to overload). | 1. Control that the connector is correctly connected.<br>2. Control carefully the cable of connection to the load cell and replace it if it defective.<br>3. Control the sign of the cell when unloading. If it is very high you must also replace it.<br>**If the anomaly persists you must ask for help to your supplier service centre.** |
| <br>**UNDER FLOW**<br>The analog sign of the load cell is out of the working range of the A/D chip. This error finishes when the sign reenters the expected range. | 1. Connector of the load cell not connected.<br>2. Broken cable.<br>3. Broken load cell (due to overload). | 1. Control that the connector is correctly connected.<br>2. Control carefully the cable of connection to the load cell and replace it if it defective.<br>3. Control the sign of the cell when unloading. If it is very high you must also replace it.<br>**If the anomaly persists you must ask for help to your supplier service centre.** |
| <br>**ERROR RD/WR EEPROM** | 1. Error after an operation of Reading or writing of the EEprom device | **If the anomaly persists you must ask for help to your supplier service centre.** |

# 9. CONNECTIONS

## 9.1 IP54 CONNECTIONS

### 9.1.1 INTERFACE SERIES RS-232 COM1/2

The instrument includes in the standar model a series exit of the type RS232.

**DESCRIPTION OF THE CONNECTOR PIN-OUT MALE EXIT SERIES RS232-COM1**

| N° pin | DESCRIPTION | DIRECTION |
|---|---|---|
| **2** | TX (RS232C - TRANSMITTER) | EXIT |
| **3** | RX (RS232C - RECEIVER) | ENTRANCE |
| **5** | GND (SIGNAL COMMON) | |

### 9.1.2 INTERFACE SERIE RS-485 COM2

The instrument includes in the standar model a series exit of the type RS485.

**DESCRIPTION OF THE CONNECTOR PIN-OUT MALE EXIT SERIES RS485-COM2**

| N° pin | DESCRIPTION |
|---|---|
| 1 | EARTH |
| 8 | RTx - |
| 9 | RTx + |

### 9.1.3 ADDITIONAL BOARD 4-20mA/ 0-10V ANALOGUE

| n° pin | DESCRIPTION |
|---|---|
| 6 | GND |
| 7 | $V_{OUT}$ |
| 8 | $I_{OUT}$ - |
| 9 | $I_{OUT}$ + |

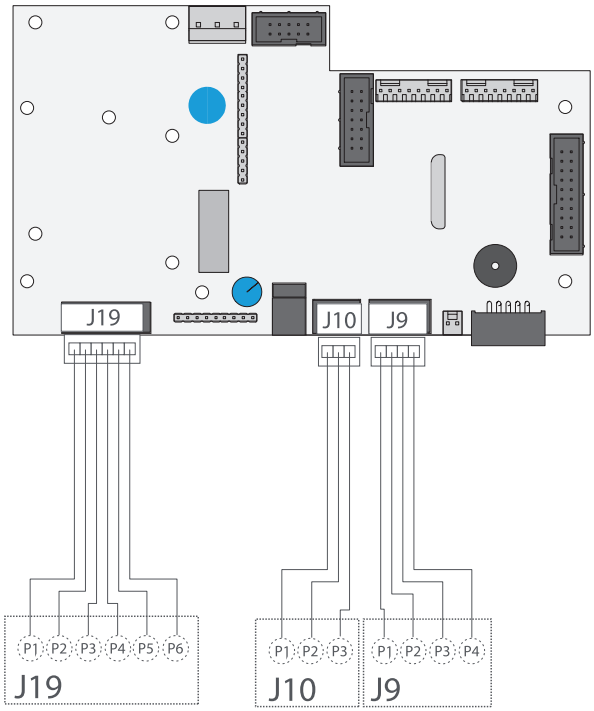
### 9.1.4 ADDITIONAL BOARD 4E/4S(relays)

| n° pin | DESCRIPTION |
|---|---|
| 1 | RLY1_C |
| 14 | RLY1_NO |
| 2 | RLY2_C |
| 15 | RLY2_NO |
| 3 | RLY3_C |
| 16 | RLY3_NO |
| 4 | RLY4_C |
| 17 | RLY4_NO |
| 5 | $+5V_{DC}$ |
| 18 | GND |

| n° pin | DESCRIPTION |
|---|---|
| 13 | IN1- |
| 25 | IN1+ |
| 12 | IN2- |
| 24 | IN2+ |
| 11 | IN3- |
| 23 | IN3+ |
| 10 | IN4- |
| 22 | IN4+ |
| 9 | $+5V_{DC}$ |
| 21 | GND |

## 9.2 CONNECTIONS SCHEME IP65

### CONNECTIONS SCHEME FOR VISOR GI400 IP65




**CELL CABLE**
**CONNECTOR J19**

| | |
|---|---|
| pin 1 | IN+ (out cell) |
| pin 2 | IN- (out cell) |
| pin 3 | SENSE+ |
| pin 4 | SENSE- |
| pin 5 | EXC+ |
| pin 6 | EXC- |

**RS232-1**
**CONNECTOR J9**

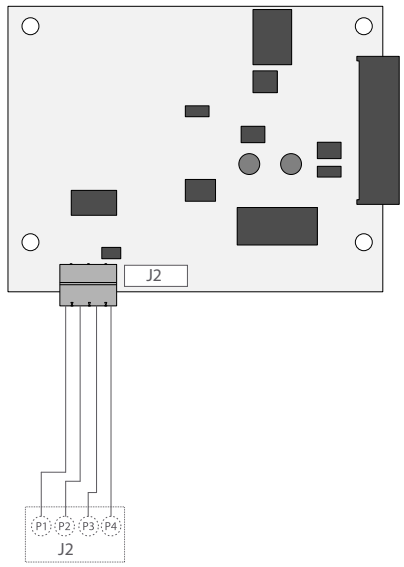
| | |
|---|---|
| pin 1 | - |
| pin 2 | RX |
| pin 3 | TX |
| pin 4 | GND |

**RS232-2**
**CONNECTOR J10**

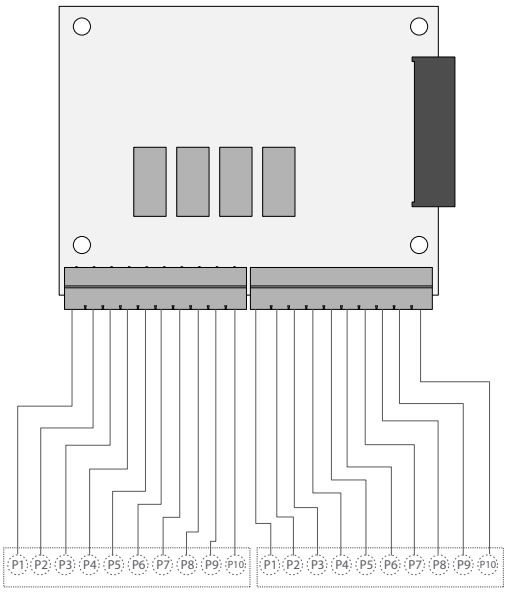
| | |
|---|---|
| pin 1 | RX |
| pin 2 | TX |
| pin 3 | GND |

**OPTIONAL SCHEME RS485**

### OPTIONAL SCHEME 4-20mA/0-10V (ANALOGIC)




### OPTIONAL SCHEME 4E/ES (RELAYS)

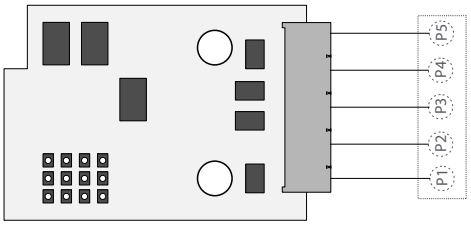



**CONNECTOR J2**

| | |
|---|---|
| pin 1 | $I_{OUT}$ + |
| pin 2 | $I_{OUT}$ - |
| pin 3 | $V_{OUT}$ + |
| pin 4 | $V_{OUT}$ - (GND) |

| | |
|---|---|
| pin 1 | RLY1_C |
| pin 2 | RLY1_NO |
| pin 3 | RLY2_C |
| pin 4 | RLY2_NO |
| pin 5 | RLY3_C |
| pin 6 | RLY3_NO |
| pin 7 | RLY4_C |
| pin 8 | RLY4_NO |
| pin 9 | + $5V_{DC}$ |
| pin 10 | GND |

| | |
|---|---|
| pin 1 | IN1 - |
| pin 2 | IN1 + |
| pin 3 | IN2 - |
| pin 4 | IN2 + |
| pin 5 | IN3 - |
| pin 6 | IN3 + |
| pin 7 | IN4 - |
| pin 8 | IN34+ |
| pin 9 | + $5V_{DC}$ |
| pin 10 | GND |




| | |
|---|---|
| pin 1 | RTX - |
| pin 2 | RTX + |
| pin 5 | EATH |

# 10. DSD MEMORY

It is possible to increase the operation of the weight indicator with the additional plate that performs the function of FISCAL MEMORY; It consisted in filing all the weight values transmitted to a computer for a subsequent processing or integration of the data transmitted by the COM serial channel.

Each archived value is associated with an ID code. The stored value can be consulted in the display of the indicator using the ID. (As control with respect to data printed by the PC).
The fiscal memory can store a maximum of 300 000 weighings, after which, it re-writes on the heavy number 0.
With the serial command "PID" or via the key PRINT (kg), the scale number, the gross weight, the tare weight and an ID that unequivocally identifies the weighing is sent, only in case the platform is **stable and The gross weight is not negative.**

The ID have the following format:
**<Unique code number>, <Number of weight>**

Unique code number: 5 digit number ranging from 0 to 300 000, indicative number of complete single code of fiscal memory.
The fiscal memory can store a maximum of 300 000 weights, after which the weighing number starts again by 00000 and the unique code number is incremented one at a time.
The weighing relative to an ID can be verified only if:
Has a unique code number equal to the current one in the fiscal memory and a weighing number less than or equal to the last value received with the "PID2" command.

# 11. LOAD CELL CONNECTOR

The device is completely supplied for the connection of the transducer (load cell). The kit includes:

- 1 male connector to be welded (9 tracks)
- 1 coverage/blocking cable protected

The cable that comes from the transducer or transducers is connected by welding it to the device. The user must be very careful with its quality and the isolation between the conductors and the use of a good alloy of tin. A bad quality product or a product that is not appropriated could damage or alter the correct working of the device.
In the figure 7 it is indicated the topography of the connector; the pins have the following functions:

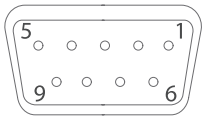



Fig. 8 - Delta connector 9 tracks for the LOAD CELL(S) ENTRANCE

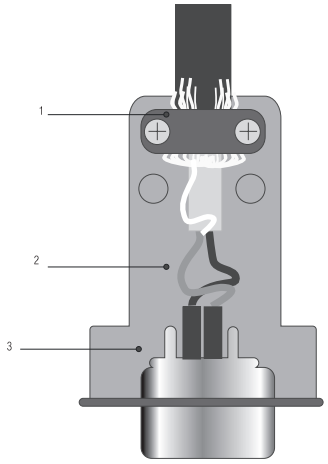
| **FUNCTION PIN IN C.D.C.** | | | | | |
|---|---|---|---|---|---|
| **N° PIN** | NOMBRE | FUNCTION | **N°PIN** | NAME | FUNCTION |
| **1** | -EXC | (- EXCITATION) | **4** | +SENSE | (+ TERMINAL OF CORRECTION) |
| **2** | -SENSE | (- TERMINAL OF CORRECTION) | **5** | +EXC | (+ EXCITATION) |
| **3** | GND_A | (ANALOG MASS) | **6** | | NOT CONNECTED |
| **7** | -OUT | (- TRANSDUCER SIGN) | **9** | | NOT CONNECTED |
| **8** | +OUT | (+ TRANSDUCER SIGN) | | | |

If the transducer includes a connection cable with 4 wires plus protection, and not with 6 wires plus protection, the excitation (+) of the device must be connected with SENSE (+) and the excitation (-) with SENSE (-) joining the pin 1 with the pin 2 and the pin 4 with the pin 5.
To reduce the electrical and radio interferences to the minimum , all the connection cables between the device and the transducer must be of a protected type, and all the system must be connected to an optimal earth wire.
The supplying company of the device can supply a type of connection cable that was made on purpose for such conditions. This cable includes a double protection to be welded to the terminals of the shield or on earth.
The following figure shows the different parts involved in the connection of the shields of protection of the cable.

**External protection** of the cable. It must be pressed in the metal box for cables with terminal moustaches which must be tightened between the two lids of the coverage

**Ending of the internal protection** of the cable. It must be closed in the metal box for cables of the NB. Protection: Do not connect to the pin 3 of the connector

**Coverage protected with conductive material**




## 12. REMOVAL OF ELECTRONIC EQUIPMENT



**For the European Union customers**:
All the products that have arrived to its ending in their life cycle must be restored to their builder so that they can be recycled. For further information about the restoring modalities, please contact your supplier.

## 13. OPTIONAL BATTERY

The GI410 has three battery indications (by LEDS on LED model).



HIGH battery level (100% - 70%)



MEDIUM battery level (70 % - 40%)



LOW battery level ( - 40%). You must connect the equipment to a power outlet.



During the charge (only LCD model)

## 14. WARRANTY

This viewer is guaranteed against defects in materials or workmanship for a period of 1 year from the date of delivery.
Giropès, will be responsible for repairing the viewer during this period.
This warranty does not cover damage caused by misuse or overloading.
The warranty does not cover shipping costs (freight) necessary to repair the balance.

GIROPES

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