GI/TP/HPP 4XX
USER MANUAL

EN
INDUSTRIAL WEIGHING INDICATOR

V.7.2
05/02/2024

GI 41X series

HPP

TP 410 series

GI 410 Print

Pol. Empordà Internacional Calle Molló, 3
17469 VILAMALLA - (Girona) SPAIN
T. (34) 972 527 212

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EN

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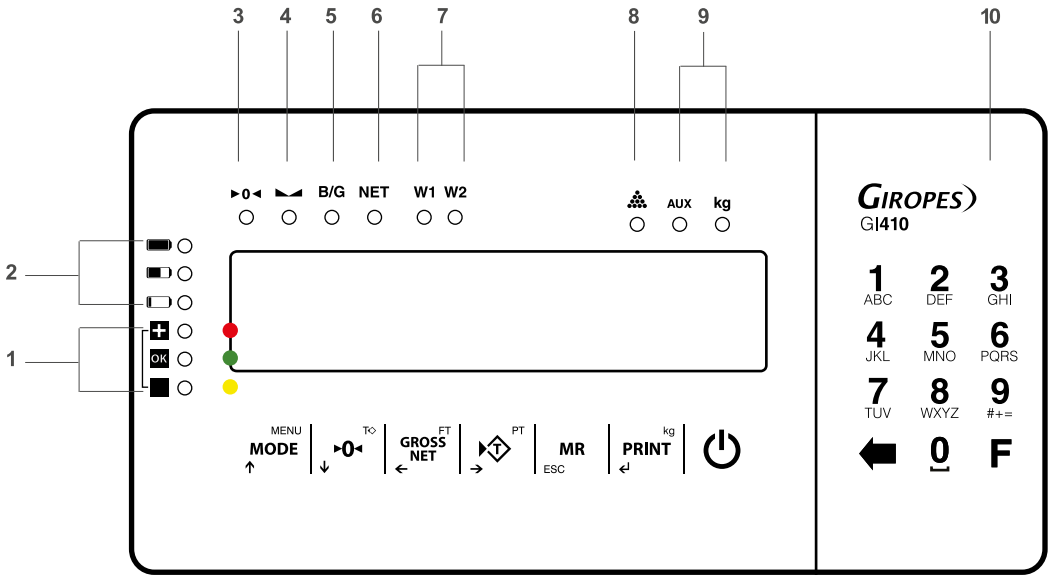
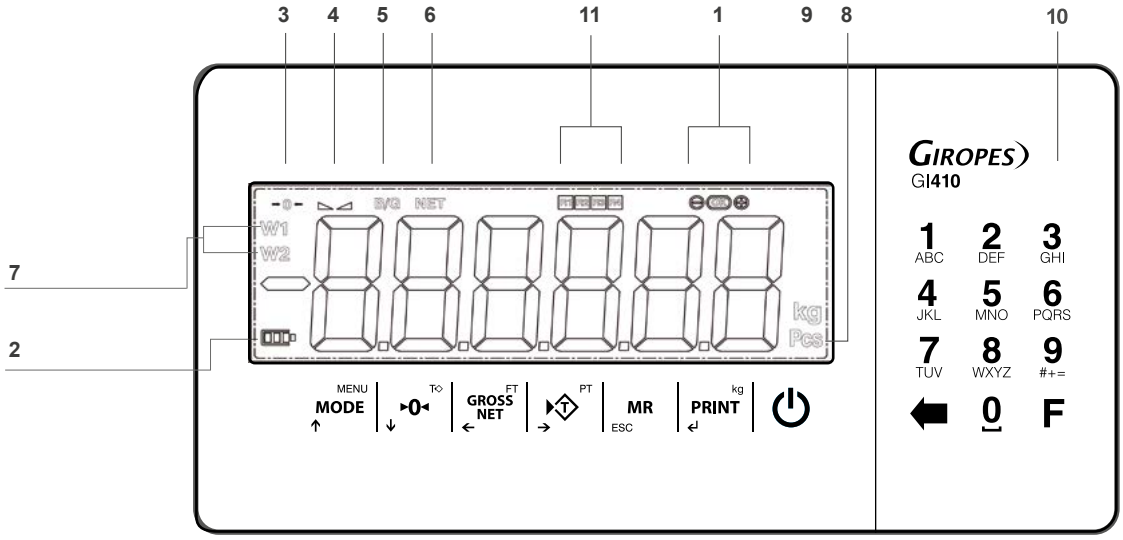
1. MECHANICAL DESCRIPTION

1.1 FRONT PANEL

LED



LCD



SIGNS

1	Limit-signal in checkweigher mode
2	Level of battery-charge (only with optional battery)
3	Zero-signal
4	Stable weight
5	Gross weight
6	Net weight
7	Weighing range
8	Pieces counting mode
9	Measure units
10	Numerical keyboard (only for 410 Models)
11	Relay-signal (only LCD)

KEYBOARD

KEY	EXPLANATION
MENU MODE ↑	Short Press: Acces to user menu Long Press: Technical menu
T◇ ▸0◂ ↓	Short Press: Manual zero Long Press: Remove tare
FT GROSS NET ←	Short Press: Show Gross/Net Long Press: Lock tare
PT (T) →	Short Press: Set tare Long Press: Manual tare
MR ESC	Short Press: Weight totalization and total accumulation Print-out
kg PRINT ↵	Short Press: Print / Manual accumulation
⏻	Switch ON / Switch OFF

ARROW KEYS (only work in editable menus)

PT (T) →	Move editable digit to the right
FT GROSS NET ←	Move editable digit to the left
MENU MODE ↑	Increase selected digit
T◇ ▸0◂ ↓	Decrease selected digit

DELETE AND VALIDATE KEYS

MR ESC	Short Press: Erase current value Long Press: Go out / Go back from current menu
kg PRINT ↵	Validate current value

NUMERICAL KEYBOARD (ONLY 410 MODEL)

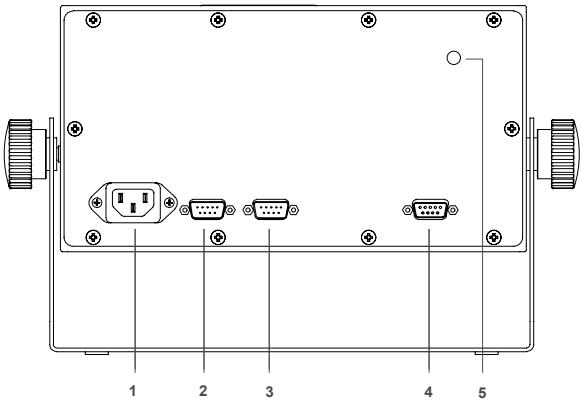
⌫	Erase key
F	Short Press: Change numbers to characters Long Press: Enter the functions menu

MENU FUNCTION			
KEY			**DESCRIPTION**
F	**1**	**0**	Acces to code 1 edit menu
F	**1**	**1**	Activate code 1
F	**1**	**2**	Deactivate code 1
F	**2**	**0**	Acces to code 2 edit menu
F	**2**	**1**	Activate code 2
F	**2**	**2**	Deactivate code 2
F	**3**	**0**	Enters the programmed tares editing menu
F	**3**	**1**	Activate Tare
F	**3**	**2**	Disable Tare
F	**4**	**0**	View weighing information.
F	**4**	**1**	Configuration of the desired type of warning when filling 80% of the weighing buffer.
F	**5**	**0**	Shows the total weights associated with Code 1
F	**5**	**1**	Shows the total weights associated with Code 2
F	**6**	**0**	Print total weight with or without memory clear
F	**6**	**1**	Print list of filtered weighings, by Code 1 or Code 2, and by Date
F	**6**	**2**	Prints the information of one or several Codes 2
F	**6**	**3**	Prints the information of one or several Codes 1
F	**7**	**0**	Clears Code 1 Totals or Code 1 Completely
F	**7**	**1**	Clears totals for Code2 or Code2 completely
F	**7**	**2**	Deletes a programmed tare
F	**7**	**3**	Delete the weight table
F	**7**	**4**	Deletes everything in general, Code 1, Code 2, tares and weight table
F	**7**	**5**	Allows you to modify the password to access the deleted menu
F	**7**	**6**	PLU 1 Factory
F	**7**	**7**	PLU 2 Factory
F	**8**	**1**	Sequential activation of temporary (plus) registers (that are not saved in the flash)

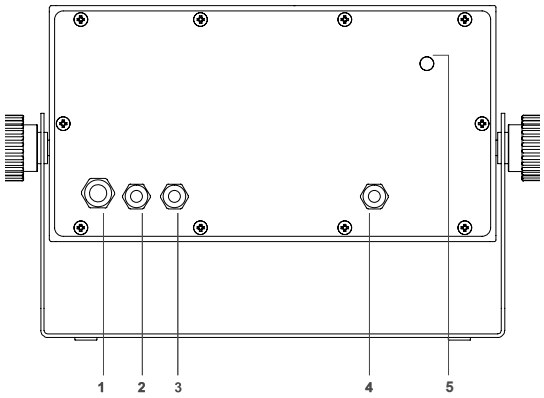
KEY	DESCRIPTION
ANALOG MENU	
F 8 0	Edit the Maximum value of analog
DOSIFI MENU	
F 8 2	Dosage Menu Prod. Weight 1
F 8 3	Dosage Menu Prod. Weight 2
USER MENU	
F 9 0	MenuWeight
F 9 1	AUW
F 9 2	Menu By10 (extended resolution)
F 9 3	AUW calculation menu
F 9 5	Show subtotal
F 9 8	Disable Simple Checkweigher
F 9 9	Activate the Simple Checkweigher

1.2 BACK PANEL

INOX IP54

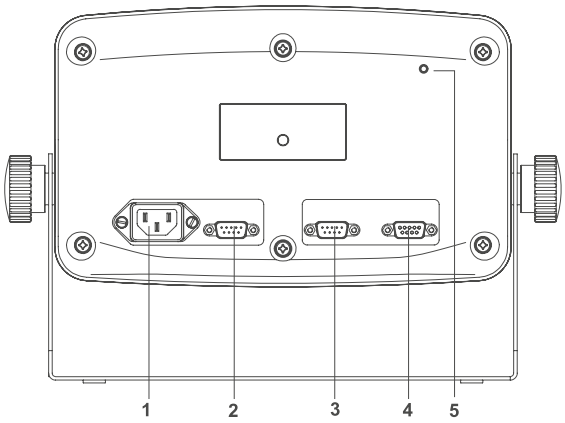


INOX IP65

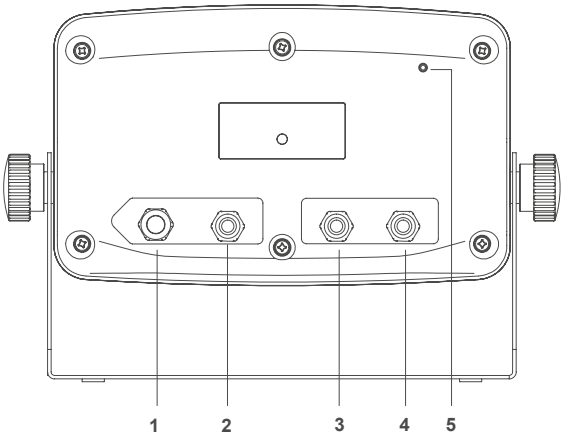


1	**Power connection IEC**	**PG9 for Powersupply**
2	**Connector RS 232-COM 1** (SubD 9 male)	**PG7 for RS 232-COM 1**
3	**Connector RS 232-COM 2** (SubD 9 male)	**PG7 for RS 232-COM 2**
4	**Connector Load cell** (SubD 9 fem)	**PG7 for Load cell**
5	**Calibration switch**	**Calibration switch**

ABS IP54

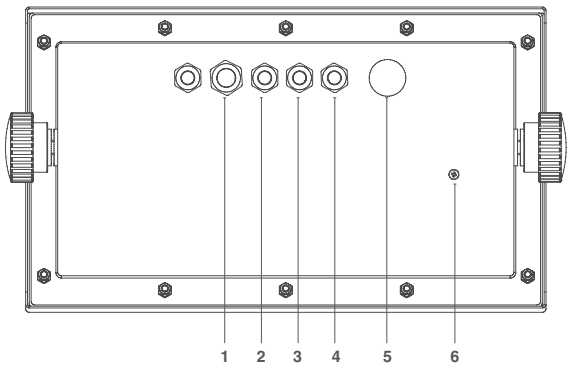


ABS IP65

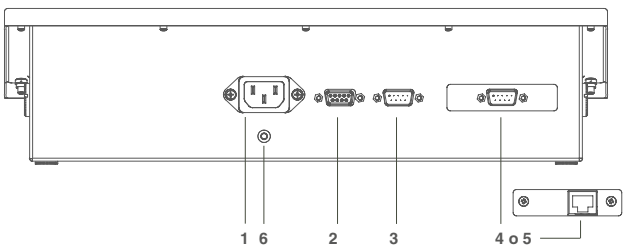


1	**Power connector IEC**	**PG9 for Powersupply**
2	**Connector RS 232-COM 1** (SubD 9 male)	**PG7 for RS 232-COM 1**
3	**Connector RS 232-COM 2** (SubD 9 male)	**PG7 for RS 232-COM 2**
4	**Connector Load cell** (SubD 9 fem)	**PG7 for Load cell**
5	**Calibration switch**	**Calibration switch**

INOX IP68



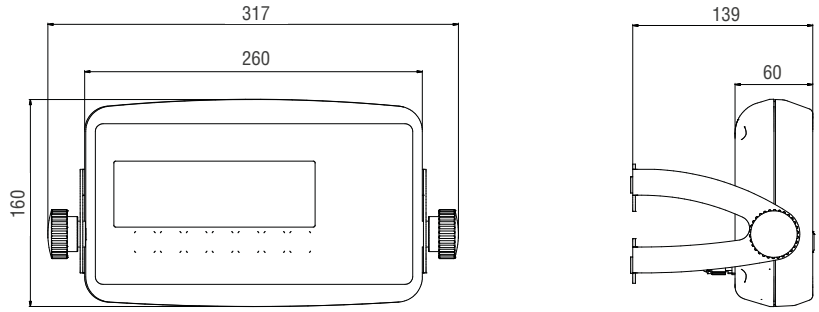
GI410 PRINT



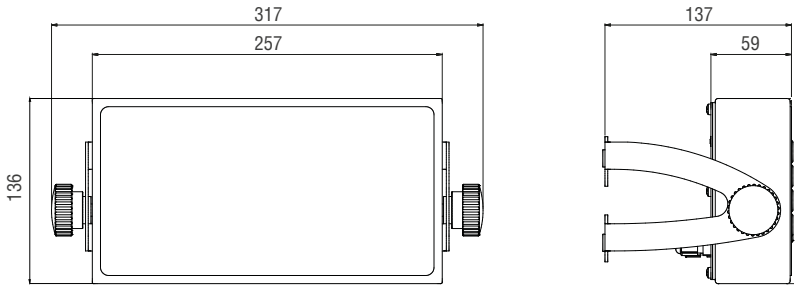
1	**PG9 for Powersupply**	**Power connector IEC**
2	**PG7 for RS 232-COM 1**	**Connector Load cell** (SubD 9 fem)
3	**PG7 for RS 232-COM 2**	**Connector RS 232-COM 1** (SubD 9 male)
4	**PG7 for Load cell**	**Connector RS 232-COM 2** (SubD 9 male)
5	**Pressostatic membrana**	**Ethernet Connection** (optional)
6	**Calibration switch**	**Calibration switch**

1.3 DIMENSIONS

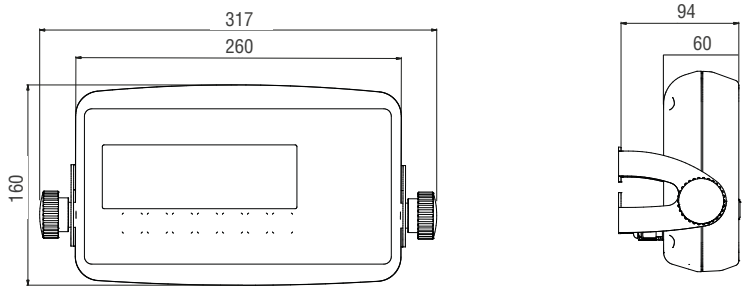
GI4XX ABS IP 54 - 65



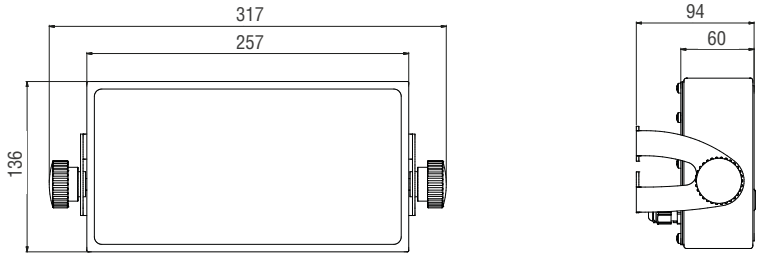
GI4XX INOX IP 54 - 65



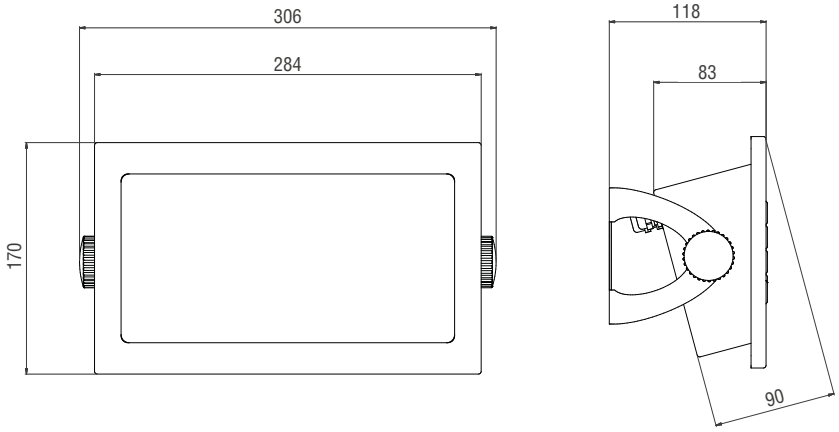
GI400 BAT LI-ION ABS IP 65



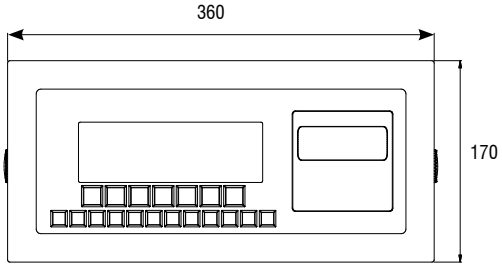
GI400 BAT LI-ION INOX IP 65

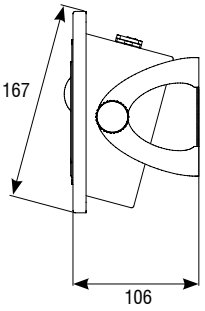


GI4XX INOX IP 68 / GI4XX ATEX

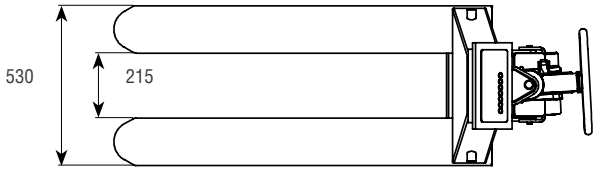


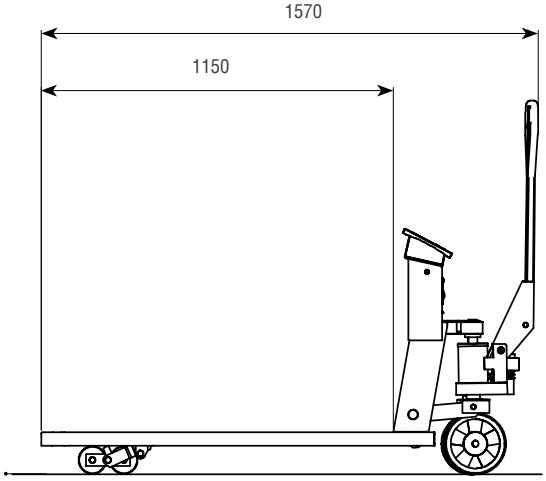
GI410 PRINT INOX IP 54

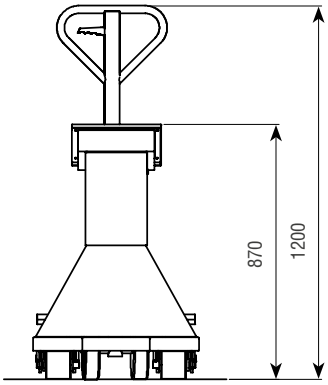




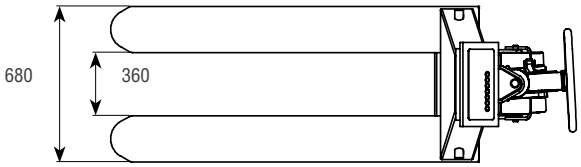
TP410

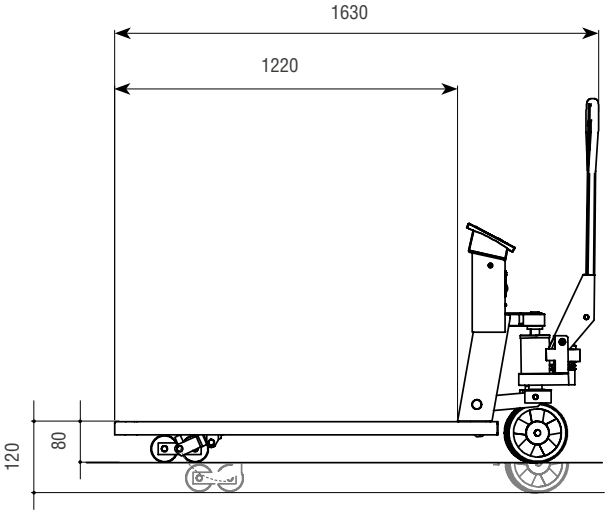


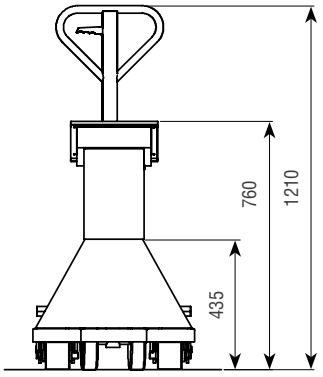




TP410 WIDE







2. SWITCH ON

Connect the indicator. To switch on the indicator, press and hold the key ⏻ for 1 sec. To turn off the indicator, it is necessary to keep the key ⏻ pressed for a few seconds.

2.1 START SEQUENCE

DISPLAY	EXPLANATION
9 1 4 1 0 o 9 1 4 1 1	At first, the model appears (9 1 4 1 0=GI410) o (9 1 4 1 1=GI411).
L0.003	Then the version of the program loader.
8.8.8.8.8.8	Then all the segments of the display as well as the LED are validated (**LED Version only**).
u 1.000	Followed by the Software Version.
9rAv.T	The Display will show the message 9rAv.T
9.8035	After that the selected gravity value.
n calib	Next, the number of calibrations appears, followed by the corresponding value.
9 6.000	Internal firmware version.
P x.xxx	Finally the weighing software version.
InC nO	If the Indicator doesn't detect the Inclinometer (only TP-Model).

2.2 DISPLAY THE SERIAL NUMBER

During the start sequence, press the key MENU MODE and the device shows the serial number

001234

You will also find the serial number printed on the back label.

2.3 SETTING INITIAL ZERO

When the indicator is connected with a load cell, it performs a zeroing of the scale provided that the following conditions are made:

1. Stable weight (luminous indication of stable weight ▁◢▁ on).
2. Weight value not less than -5% of Max. regarding the calibration zero of the scale.
3. Weight value not exceeding 10% of Max. regarding the calibration zero of the scale.

During the zeroing operation, the message ZEro is displayed.

If the weight is stable but outside the zero range, the 0 in the display will flash.

Note: Until the zeroing has not been carried, no operation can be carried out

The zeroing accuracy is within and not beyond: 0,25e

3. EXECUTABLE FUNCTIONS

3.1 SETTING THE SCALE TO ZERO

When press the key ▸0◂ (TARE) assumes the metrological function of weight zeroing, in the modality described below, in reference to the current regulations.

1. Stable weight (luminous indication of stable weight is on)
2. Weight value not less than -2% of the Max. regarding the calibration zero of the scale.
3. Weight value not higher than 2% of the Max regarding the calibration zero of the scale.
4. The indication ▸0◂ indicates that the function has been done.

3.2 WEIGHT

The device switches on a indication of stable weight when a weight is placed and its steady.

When the scale is unloaded the device additionally switches one the zero indicator ▸0◂.

3.3 TARE, CONSECUTIVE TARE, GROSS-NET

To do a tare the user must press the key (PT). When this key is pressed the indicator is going to show immediately the net weight, and the Net indicator switches on (**NET**) .

If the user wants to do another tare, s/he needs to press the key (PT) again.

To know the gross weight (container plus contents) the user must press the key GROSS NET (FT). On the display the indicator 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 back to the net weight and the indication 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 when the brut weight is zero, the user must press for at least 2 seconds, the key GROSS NET (FT) after perform a tare. The tare value remains blocked. The display informs the operation showing "Tar.Blo".

To unblock the tare the user must keep pressed 2s the key ▸0◂ (TARE). The display is going to indicate this action by showing the message "Tar.YES" on the screen.

To program the indicator to block the tare automatically, you have to enter the technical menu. Select Config --> AuTarb. Choose YES to automatically block the tare.

3.5 MANUAL TARE

Its possible to input a manual tare by pressing the key (PT) for 2 seconds.

Put the desired Value with the Arrow-Keys and confirm with PRINT (kg).

3.6 MEMORIZED TARE TLU

The device has 5 memorized tares: TLU1, TLU2, TLU3, TLU4, TLU5.

Before you can use this function you must edit and activate the desired tare from the User menu FUnCio--> TLU

The tare value is blocked until it is unblocked with the procedure explained in point 3.4

3.7 ACCUMULATION

The user can not use this function without activating the print protocol first (discribed in point 7).

To activate the accumulation the user must go to the Technical-menu ConFUE (described in section 6.4).

Each time the accumulation is done, the message Acc appears on the screen. This message disappears after some seconds and it shows again the value of the weight placed on the platform. If a printer is connected, the printer prints the weight with the selected format.

Note: The accumulation can work manually or automatically

SUCCESSIVE MANUAL ACCUMULATIONS

Select the accumulation and printing in manual mode.

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.

SUCCESSIVE AUTO ACCUMULATIONS

Select the accumulation in automatic mode and enter the number of accumulations to totalize. The printing-trigger must be StAbLE, St60 or St60Mo.

Place the weigh on the plate, when stability indication ◣◢ turns on, it will accumulate.

The indicator will continue memorizing if: the weight on the plate is changing according to the selected trigger until reaching the number of accumulations programmed or totalized.

3.8 WEIGHT TOTALIZATION

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

If there is a printer connected, a ticket is going to be printed.(For ticket copies see menu Config-> Prin1-> Copy).

4. OPERATION MODES (USER MENU)

KEY	EXPLANATION
MENU MODE ↑	Increases the Value or selected number Goes to the previous function
T◇ ▸0◂ ↓	Decreases the Value or selected number Goes to the next function
FT GROSS NET ←	Moves the edition Digit to the left
PT ▸T◂ →	Moves the edition Digit to the right
MR ESC	Long Press: Exit the menu without memorizing (function ESC) Short Press: In editable menu, sets the value back to 0
kg PRINT ↵	Choose the function and enter the menu Inside a menu, memorizing the selected option/value

MENU	
WEIGHt	WEIGHT - MODE (STANDARD)
CAL AUU	CALCULATION OF THE AVERAGE UNIT WEIGHT
AUU	PIECE COUNTING
CHECK	CHECKWEIGHER
CCK SI	CHECKWEIGHER SIMPLE
CHCK d	DOUBLE CHECKWEIGHER (As of firmware version 8,000, this function is merged with the normal Checkweigher and we now only have the Checkweigher and Simple Checkweigher function)
CUrELE	CHECKWEIGHER + RELAY FUNCTION (**only with optional Relay-board**)
TAkEoU	TAKEOUT-FUNCTION
UE:ACC	WEIGHT-ACCUMULATION FUNCTION
ok Tm	INITIAL AUTO TARE+CHECKWEIGHER OK FUNCTION
by 10	SHOWS THE WEIGHT IN HIGH RESOLUTION
SubtoL	SUBTOTAL
TCodE	SET A FIXED NUMBER ON THE TICKET
n TIC	SET THE TICKET - NUMBER
doSiFi	DOSAGE - MODE (**only with optional Relay-board**)
LiMiL	LIMITS - MODE (**only with optional Relay-board**)
2rEL	2REL - MODE (**only with optional Relay-board**)
dSd	FISCAL MEMORY MENU (**only with optional Fiscal Memory plugged**)
tLU	MEMORIZED TARA
AnALog	ANALOG OUTPUT (**only with optional Analog-board**)
FUnCio	FUNCTION - MENU
rEL:SA	RELISA PROTOCOL MENU
PT653	PT653 PROTOCOL MENU

4.1 WEIGHT MODE WEIGH

The user access the normal weighing mode. (Standard - mode)

4.2 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 known number of pieces on the plate and press PRINT. The screen is going to show the message SP.xxxxx. The user must introduce, the number of pieces by using the Arrow - Keys.

To calculate and register the value of the average unit weight the user must press PRINT.

The indicator shows, during two seconds, the message WEUnit on the screen, followed by the unit weight of one piece. After that, the indicator goes back and shows the number of pieces in the scale.

4.3 PIECE COUNTING AUU

This function is used to do the calculation of the pieces loaded on the platform. By taking the programmed average weight (AUU).

The indicator asks for the AUU by showing the message Px.xxxx.

The user must introduce the value of the unit weight using the Arrow - Keys. Press PRINT to confirm.

Note: The Piece counting - mode remains active until set the weight mode again.

4.4 CHECKWEIGHER CHECk

(CHECKWEIGHER FUNCTION CONFIGURATION UP TO FIRMWARE VERSION 7.000. FOR LATER VERSIONS SEE THE NEXT PAGE)

This function activates the **Checkweigher**.

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 CHECk the first parameter s/he must configures is the tArgEt: this menu programs the value of the target of weight that the user wants to achieve.

After that the user must choose the type of **Checkweigher** between TTYPE 1 and TTYPE2.

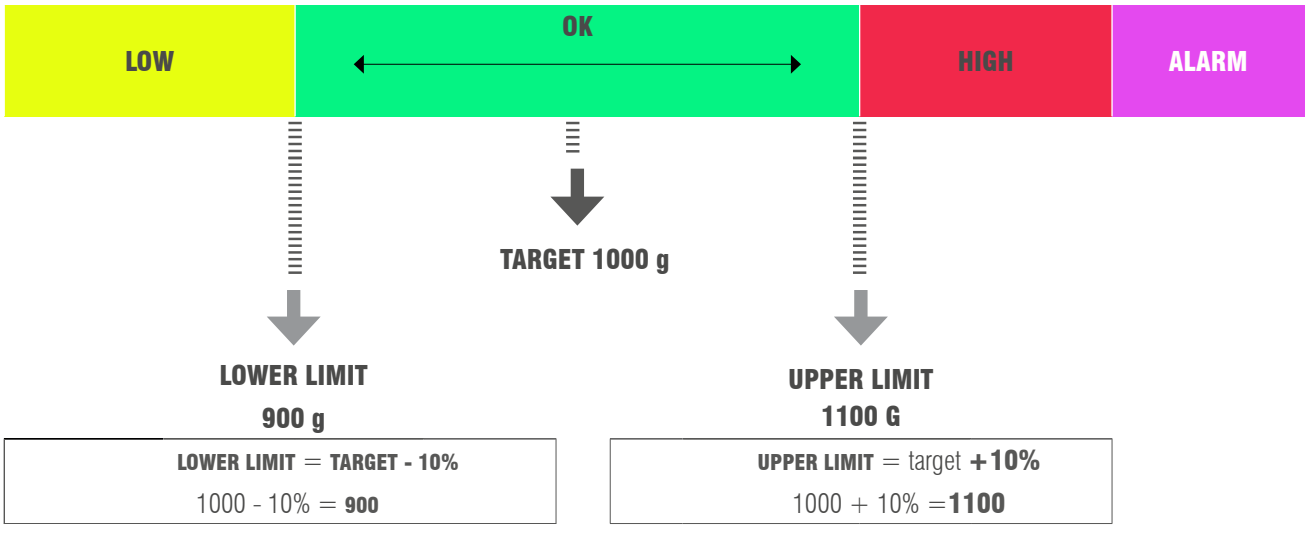
TARGET TYPE 1 T.TYPE 1

If the user chooses the T. TYPE 1it allows to choose the upper limit and the lower limit with a **percentage of the tArgEt value**.

Example:

-PC. 010 (Lower limit 10% below the Target)

PC. 010 (Upper limit 10% above the Target)

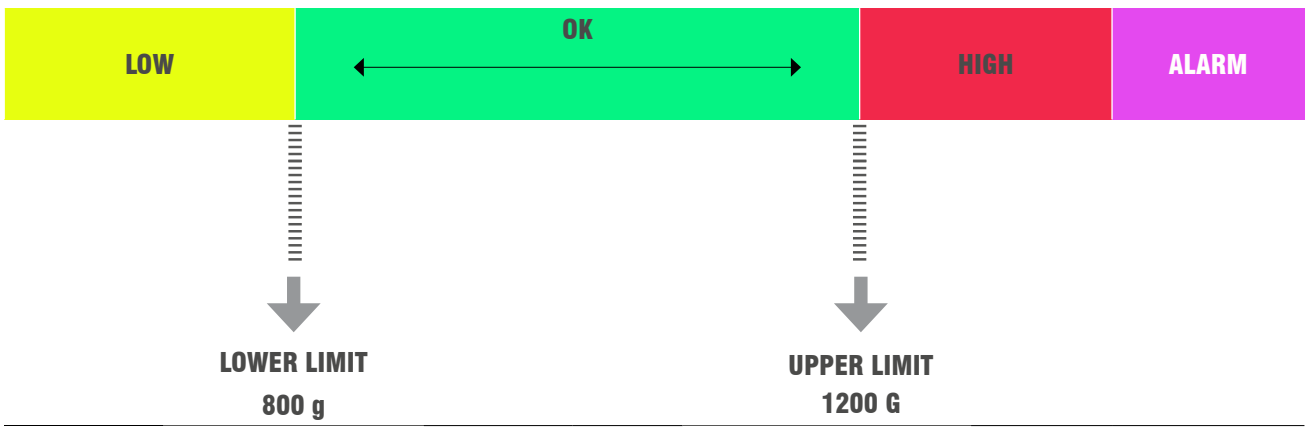


TARGET TYPE 2 T.TYPE 2

Example:

If the user chooses the T.TYPE 2, it allows to choose the upper and lower limits directly: L (lower) XXXXX and H (Upper) XXXXX

L 800
H 1200



Once the **TARGET** value and the **LIMITS** are programmed, the indicator ask the user to configure the **ALARM**. This programs the value, wich any value above this is going to activate the alarm. On **LED-Version** the 3 lights are going to turn on. Finally the user must choose the alarm type and mode. He can choose between bEEPt or bEEPM.

BEEP TYPE bEEPt

First we choose the area in which we want the beep - sound, this will occur when entering the selected zone:

noAr: When it's **not in** the target range.

LoU: **Below** the target range.

tGtrnG : When it's **in** the Target range.

HiGH : **Above** the target range.

BEEP MODE bEEPM

Then choose the kind of beep: B off/long/short

YES/NO ACTIVE

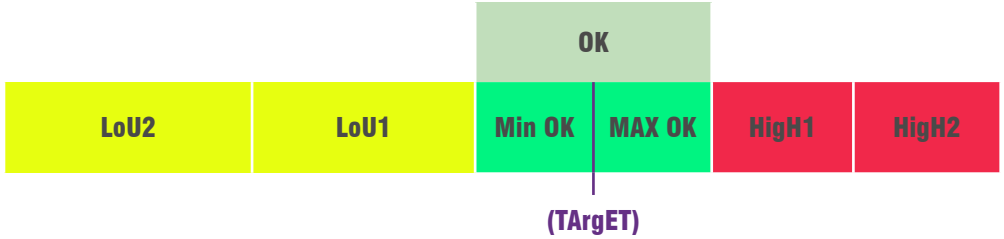
Finally the indicator asks if we want to activate the **Checkweigher**, in the case of not activating it is also memorized the configuration we have chosen previously.

CHECKWEIGHER FUNCTION

(FROM FIRMWARE VERSION 8.000 ONWARD)

Starting from version 8.000, the dual Checkweigher function is discontinued, and the Checkweigher function is expanded. Essentially, the operation and configuration remain the same, but with some new implementations that we will detail below:

- We now have control over six zones. In the **OK** zone, two subranges are added, the "**Min OK**" and "**Max OK**"



- We can choose in which range(s) we want the beep (acoustic signal, short or long).
- We can choose to record the weight within any range(s). To configure this function, we need to go to the Technical menu / CONFUE / CUrAns and select "yes" or "no" for each range individually.

OTHER CONSIDERATIONS OF THIS FUNCTION

The checkweigher function can be activated by selecting a previously created PLU associated with this working mode **(see the functions menu in section 5).**

We can create or configure PLUs, either from the device unit itself or from the PC program, configtools:

Note: The Checkweigher - mode remains active until set the weight mode again.

4.5 CHECKWEIGHER SIMPLE CCk S

This function activates the **Checkweigher Simple** - Mode.

In the case of having indicators with numeric keypad, we can also activate it through F+9+9.

The device is prepared to automatically manage up to **3 zones by two weight limits**.

When accessing the CCk S menu the first parameter to be configured is the Lower limit. The screen briefly show InF: and remains showing L00000. With the Arrow-Keys or the membrane keyboard, enter the value of the Lower limit and confirm with PRINT.

The screen will briefly show SuP: and remains showing H00000. With the Arrow-Keys or the membrane keyboard, enter the value of the Upper limit and confirm with PRINT. The screen briefly show CWS.on and returns to weighing mode with the **Simple Checkweigher** activated.

Note: The Checkweigher Simple - mode remains active until activate the weight mode again. In case of having indicators with numeric keyboard, it can also be deactivated by pressing F+9+8.

4.6 DOUBLE CHECKWEIGHER CHCK d

(THIS FUNCTION DISAPPEARED STARTING WITH FIRMWARE VERSION 8.000)

This function works like the normal **Checkweigher**, but with 2 Low and High values, one after the other.

- When enter the menu at first the user have to set the Paramter in the Menupoint **Weight**.
- Once the values are entered, it asks us if we want to save them.
- Activate or not.
- We go back.
- The beep mode can be set.

Note: The Double - Checkweigher - mode remains active until activate the weight mode again.

4.7 CHECKWEIGHER + RELAY FUNCTION CUrELE

Before using this function we must enter the different values in the Checkweigher. This function allows us to work in Checkweigher mode in addition to activating the relays.

4.8 TAKEOUT-FUNCTION (only in CAL_open) TAKEoU

The user has the option to work with a checkweigher in negative, for example to empty a big box of material into small boxes. For use this function, the user have to set a checkweigher. (Last checkweigher settings will be used when activate this function)

When the user activate this function, following Parameters will be changed:

ConFUE --> ACC--> STAbLE
ConFUE --> ToTAL --> ACCAUT
ConFUE --> SignAL --> Sign
ConFUE --> TArAUT --> TAr Y

The main difference with standard checkweigher working mode is the production speed. The user have to Tare the whole Box, and start to remove material from this box. Whenever enough material is removed (according to the target-weight of checkweigher setted) and the stability-indicator is turned on, the indicator will perform a auto-tara and a new weighing will start.

4.9 WEIGHT-ACCUMULATION FUNCTION (only in CAL_open) WEiACC

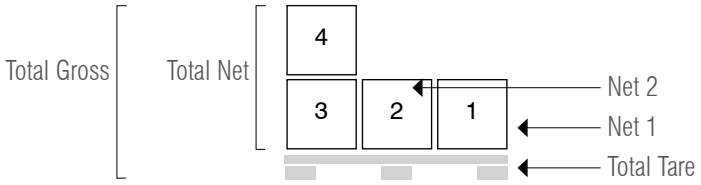
The user has the option to work with a Accumulation function, including Auto-tara each weight, for example to a Pallet with Boxes.

When the user activate this function, following Parameters will be changed:

ConFUE --> TArAUT --> TAr Y

At first the Indicator will ask, if the user wants to work with Totalization Manual, Automatic or OFF.

The main difference with standard accumulation is the Auto-Tara. After each Weighing, the indicator is performing a Auto-Tara and subtract the weight on the scale. On the end of the Accumulation, after Totalizing, the Tara will be disabled.



Note: The ACC (accumulation) has to be in manual ConFUE / ACC / MAnuAL

4.10 INITIAL AUTO TARE+CHECKWEIGHER OK FUNCTION ok7in

The user has the option to work with a Checkweigher, but autodetecting the first weight as an Auto-tara, for example when use a container that has little desviations of the weight, to not always input each Tare-value for each container. For use this function, the user have to set a checkweigher. (Last checkweigher settings will be used when activate this function)

When the user activate this function, following Parameters will be changed:

ConFUE --> ACC --> 57600d0

ConFUE --> 7o7AL: --> 7o7oFF

ConFUE --> TAU7in --> TAr Y

The main difference with standard checkweigher is, that the first stable weight will automatically be tared and after this the weighing-procedure is starting once reached the weight target (OK zone).

4.11 SHOWS THE WEIGHT IN HIGH RESOLUTION BY 10

With the selection of this function the indicator displays 1 more decimal in the weight -screen, to have a higher accuracy. 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 calibration. 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 5 seconds, after this time, or by press **PRINT** (kg) | or **MR** (ESC) | the Indicator, automatically, sets the display in normal weight.

4.12 SUBTOTAL SUBTOT

With this function the user can look up the number of accumulated weights and the total weight at the actual moment. The screen displays first the number of weights and following the total accumulated weight. This function doesn't print or delete any information, its only Look-up.

4.13 CODE 7CodE

This function allows the introduction of a code which is added to the printed ticket.

To introduce this code the user must use the Arrow Keys.

Note: This option is only valid using Print Protocol

4.14 NUMBER OF TICKET nTiC

With this function the user can print a ticket number which is increasing automatically with every ticket. It is only increasing when the Ticket number is **different from 0**. If the Ticket number **is 0**, this function is deactivated.

4.15 DOSIFICATION DOSIFI

(**only with optional Relay-board**)

The Board 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 Board also has four inputs, emulated to the keys of the equipment when they are in Dosage mode.

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 programming, for each product, the weight of product 1, and the value of the weight when the device works at slow speed or the value of the product 2.The device can also program a zone of unload where it is defined the value of the dosification (to correct the blocking of the system because there is product left in the weighing zone).

When the indicator starts working it automatically loads the last introduced formula. This allows the device to start again with its daily work. When the user gets into the menu to program the Dosage *doSF1*, the following menu appear on the screen:

doSF1			
	reset	**YES / NO**	Reset the values to 0, and starts a new Dosage - process
	Prod1W	**WEIGHT**	Weight of Product 1
	Prod1t	**TIME**	If the weight doesn't change in this time, it activates the Alarm - Relay.
	Prod2W	**WEIGHT**	Weight of Product 2
	Prod2t	**TIME**	If the weight doesn't change in this time, it activates the Alarm - Relay Max.
	2dscw	**WEIGHT**	Waste weight (Max. weight that is accepted to keep on the Plate) once downloaded.
	2dsct	**TIME**	Time of stability needed, when inside the discw - range, to finish the process.
	tArEC	**AUTO/NO**	Perform Auto - Tare when start the Dosage.
	EnAbLE	**YES / NO**	Start the Process

rESEt

By selecting YES, all parameters are set zero.
By selecting NO, you can access and modify the saved values.

Prod1

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

- *W* : The desired weight for this product.
- *T* : Time of lack of material, if the weight does not vary in this time, it is going to activate the Alarm - Relay (RL4)

Prod2

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

- *W* : The desired weight for this product.
- *T* : Time of lack of material, if the weight does not vary in this time, it is going to activate the Alarm - Relay (RL4)

2.DISC

- *W* : Max. Weight that is accepted to keep on the Plate when discharge the Plate.
- *T* : Time of stability needed, when inside the discw - range, to finish the process, if the weight does not vary in this time, it is going to activate the Alarm - Relay (RL4).

ENABLE

Ask the user if he want to start the Dosage process. If choose *YES* the screen will display *dos ON*.
The keys will do the functions specified below:

Note: The value of timers must be bigger than 0s for activate the Alarm - Relay (RL4).
If the value is 0s, the Alarm - function is turned Off.

ENTRANCE EXT.	KEY INDICATOR	FUNCTION
INPUT 1	kg PRINT ↵	START
INPUT 2	MR ESC	STOP
INPUT 3	PT →T	RESTART
INPUT 4	FT GROSS NET ←	ABORT Need to press 2 times to exit the Dosage - Mode

Note: If the Alarm - Relay is activated, press Stop and than Restart to continue the process where it was interrupted.
Note: The Dosage function remains active until it is switched off in the Menu.

DOSIFICATION - DOWNLOADING

Also it is possible to work in the Silo-mode.

Silo-mode:

CAL-PA --> indiCA --> 0 in 7 --> noCEr0

CAL-PA --> indiCA --> 8 in 7 --> in0 100

ConFUE --> Signal --> Sig n

Please take care that always there is enough Material in the Silo for the Dosification-process, otherwise it will not be possible to finish the process properly.

The setup of the indicator is the same like in normal working-mode, the only difference is to set the 2diSCU the same value like the **FS** of the Scale, and the TArE C to AU To.

4.16 LIMITS LIMIT

(only with optional Relay-board)

The equipment is able to manage automatically up to 4 limits through registers of weight. 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 (LIMIT), the following menu is going to appear on the screen:

DISPLAY		EXPLANATION
RESET	NO:	Goes to next parameter without erase the information.
	YES:	It reset all values and turn off the Relays.
START	S xx.xxx:	It programs the Start value, every value **above** this one is going to activate Relay 1.
L.LoU	L xx.xxx:	It programs the Low value, every value **below** this one is going to activate Relay 1.
OK	This value can't be programmed, it activates Relay 2 whenever the weight is **between** L. Low and High.	
HIGH	H xx.xxx:	It programs the High value, every value **above** this one is going to activate Relay 3.
ALARM	A xx.xxx:	It programs the Alarm value, every value **above** this one is going to activate Relay 4.
ENABLE	NO:	Exit from the Menu without activating this function.
	YES:	Exit from the Menu and activate this function.

Note: The Limit function remains active active until it is switched off in the Menu.

4.17 ACTIVITY CONTROL 2 REL

(only with optional Relay-board)

It is a variant of the limit function, but only using two relays.

2 rEL			
	reset	Yes / No	Reset the values to 0
	Weight 0		**Activate Relay 2**
	Start	Weight	Weight to **Activate Relay 1** (Relay 1 is only **turned on** on this value)
	target	Weight	Weight to **Deactivate Relay 2**
	EnAbLE	Yes / No	Activate this function

4.18 DATA VISUALISATION dSd

(only with optional Fiscal Memory plugged)

Accessing to DSD menu the indicator give access to DSD file to see the weights stored with fiscal memory process.
The indicator will show the last Code in use.
Input the desired Code with the Arrow-Keys.
If all is correct, it will show weighing data.
If data is not stored, it will show an error message. (AL.Err)

4.19 MEMORIZED TARAS TLU tLU

The visor has 5 memorized tares: tlu 1, tlu 2, tlu 3, tlu 4, tlu 5.
Before you can use this function you must edit and save the desired tare from the User menu TLU.
The tare value is blocked until it is unblocked with the procedure explained in point 3.4.

EDIT: To create and edit the tares up to a maximum of 5.
SELECT: To select the tare that we want to activate (have to be created previously)
DELETE: To erase all memorized tares.

4.20 ANALOG OUTPUT AnALoG

(only with optional Analog-board)

This Board allows the exit of 4 - 20mA or 0 - 10V, proportional to the gross 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.

AnALog			
	ActivA	Yes / No	Turn function On
	4-20mA	Weight	Requesting Full Scale in Kg
	0- 10V	Weight	Requesting Full Scale in Kg
	AdJUSt	An Min	Output for -UL-
		An.Zer	Output for Zero weight
		An MAX	Output for selected Full Scale

We have to activate the AnALog function before we start setting.

The setup process begins by selecting the operating mode. 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 or less than the full scale of the scale.

When the U MAX of the scale is confirmed, the device starts the establishment of values of the analog exit, or the values of the digital/ analog converter. The values are introduced between 0 and 65535. For these values it is appropriated a determined value of exit in voltage.

An Min (N. xxxxx)

It establishes the minimum value of the analog exit (UnderL). 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.

An.Z Er (z. xxxxx)

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 MAX (M. xxxxx)

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 Full Scale programmed.

Press MR (ESC) to access the menú ACTIVA.

EXAMPLE

We are going to take as example a hopper scale with a Full Scale of scale of 300kg.

On 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 Full Scale we will introduce 200kg and adjust the value of AnMax so that in the exit we can register 20mA with a multimeter.

Next we are going to the parameter AnZer 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 4mA. 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.

Note: When you have an indicator with Numeric-Keyboard, you can use the Fast-access to U-MAX with the Keys **F** + **8** (WXYZ) + **0**.

4.21 FUNCTION MENU FUnCio

In the next stitch, it is explained, how to work with indicators with numeric keyboard.
The diagram of the left side is common for all indicators, and in the detail the operation of each section to manage, items of weighing, descriptive items, tares, navigating the menus with the keys with arrows enter and ESC.

4.22 RELISA rELiSA

This Menu is related to the Protocol rELiSA.
Here you can input the fixed variable of Protocol rELiSA.

4.23 PT653

Menu according to Protocol Trayvou PT653, DSD Protocol too.

4.24 dELEAr

This Menu is related to the Protocol dELEAr.
Here you can input the fixed variable of Protocol dELEAr.

5. SPECIAL FUNCTIONS OF THE NUMERICAL KEYBOARD

You can enter the following menu by press and hold the **F** key. You can also access each function directly using the direct keys. The numeric keyboard allows us to enter the values of the different menus of the indicator much faster than with the Arrow-keys, which still continue working. Without numeric keyboard you access by FUnCio Menu.
Using the numeric keyboard it is possible to memorize a maximum of: 400 items of type 1 (File1) (the items type 1 can be weight or chW or PCS, each item can have its own tare associated, also a description which depending of printer format will be printed too. There is the possibility of associate a barcode or rfid) , 400 items of type 2 (File2), 10 tares and 1000 weight.

Pr. File 1	Filxxx (Select File 1)		
Code	XXXXX	Up to 6 Numbers	
Descri	XXXXX	Up to 24 Characters	
Tara	Weight	Tara-value	
Type	Weight	Weight-value	
	Checkweigher	Checkweigh values	
	AUU	Average weight	
EAnCod	XXXXX	Up to 13 Numbers	
rFid	XXXXX	Up to 20 Characters	

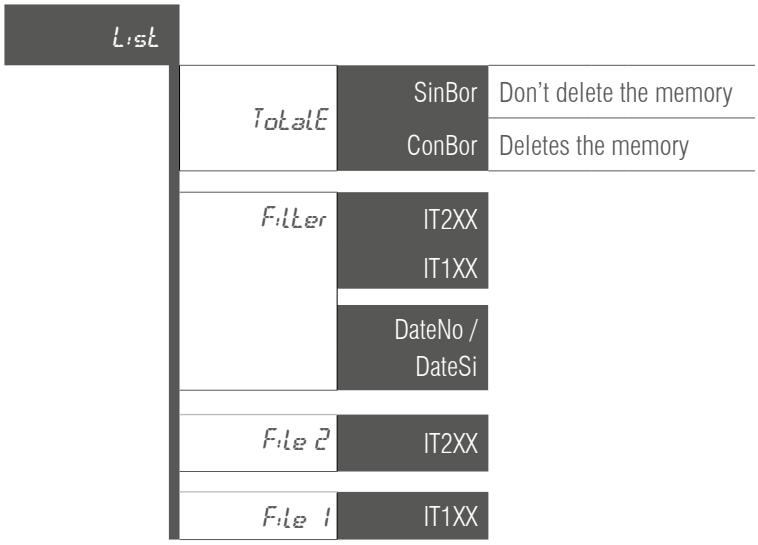
DIRECT KEYS	FUNCTION
F + 1 ABC + 0	Menu File 1
F + 1 ABC + 1 ABC	Activate File 1
F + 1 ABC + 2 DEF	Deactivate File 1

Pr. File 2	Filxxx (Select File 2)		
Code	XXXXX	Up to 6 Numbers	
Descri	XXXXX	Up to 24 Characters	
rFid	XXXXX	Up to 20 Characters	

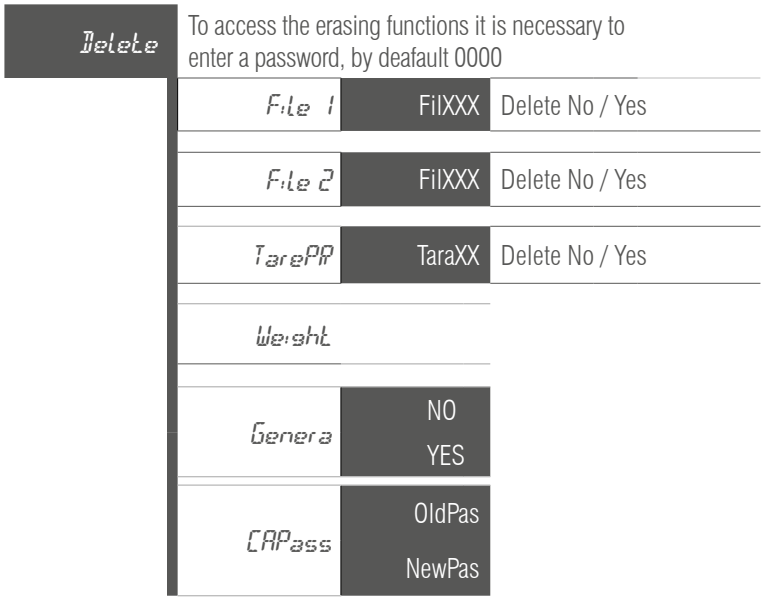
DIRECT KEYS	FUNCTION
F + 2 DEF + 0	Menu File 2
F + 2 DEF + 1 ABC	Activate File 2
F + 2 DEF + 2 DEF	Deactivate File 2

				DIRECT KEYS	FUNCTION
PrTare					
	TareXX	Weight	Tara-value	F + 3 GHI + 0	Menu Pre-Tare
				F + 3 GHI + 1 ABC	Activate Pre-Tare
				F + 3 GHI + 2 DEF	Deactivate Pre-Tare
Weight	Visual	000000	Ticket number	F + 4 JKL + 0	Displays the information of the weights
			File1 number		
			File2 number		
			Net Weight		
			Brut Weight	F + 4 JKL + 1 ABC	Sets the type of warning when 80% of the weighing buffer full. When reaching the 100% the indicator displays the error message OveBuF
			Tare Weight		
			Number of Pieces		
			Date		
	CONFIG	BFULLX	0 No warning		
			1 Beep		
			2 Beep + Message		

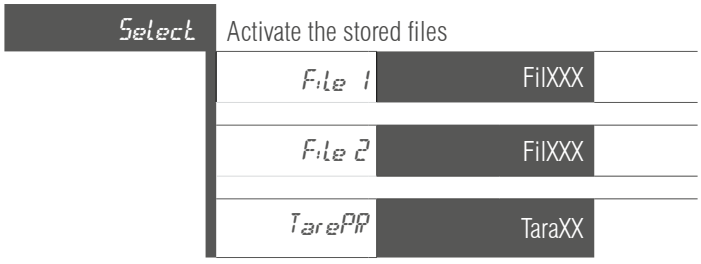
				DIRECT KEYS	FUNCTION
Total					
	File 1	Filxxx	Net Weight	F + 5 MNO + 0	It shows the total of the weighing associated to the item 1
			Brut Weight		
			Tare Weight		
			Number of Pieces		
			Total Weight		
	File 2	Filxxx	Net Weight	F + 5 MNO + 1 ABC	It shows the total of the weighing associated to file 2
			Brut Weight		
			Tare Weight		
			Number of Pieces		
			Total Weight		



DIRECT KEYS	FUNCTION
F + 6 PQRS + 0	Prints the memory of weights with or without deleting.
F + 6 PQRS + 1 ABC	Prints the lists of the filtered weighing, per item 2, item 1 and date.
F + 6 PQRS + 2 DEF	It shows the total of the weighing associated to file 2.
F + 6 PQRS + 3 GHI	It shows the total of the weighing associated to file 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 Menu by long-press MENU **MODE** and access to the Menu-point ConFig.

Select the option CodES and the item-file you need. (FILE 1 FILE 2 or T Code)

Change the Name as desired.

EXAMPLE

In FILE 1 change to "Product" and in FILE 2 to "Client", press kg **PRINT** to confirm.

EDIT THE DATA OF THE ITEM OF TYPE 1 (FILE1)

To access from the normal weighing mode, press **F** + 1 ABC + 0 .Introduce the number of File 1 you want to edit / create.

DISPLAY	EXPLANATION
Code	Numerical Code of the item
dESCr1	Discription of the item (maximum 24 Signs)
TArE	Tare-value
TYPE	Type of weighing. Possible options: Weight, Checkweigher or PMU
EAnCod	Ean-Code of this item (Ean 13)
rFid	rFid-Code of this item (20 Signs)

After you confirmed the rFid with kg **PRINT** the item will be saved and stored.

You also can press **MR** ESC at any time, to leave Menu. (item will be stored in this case too).

EDIT THE DATA OF THE ITEM OF TYPE 2 (FILE2)

To access from the normal weighing mode, press **F** + 2 DEF + 0 Introduce the number of File 2 you want to edit / create and confirm with kg **PRINT** .

DISPLAY	EXPLANATION
Code	Numerical Code of the item
dESCr1	Discription of the item (maximum 24 Signs)
rFid	rFid-Code of this item (20 Signs)

After you confirmed the rFid with kg **PRINT** the item will be saved and stored.

You also can press **MR** ESC at any time, to leave Menu. (item will be stored in this case too)

EDIT THE DATA OF TARA

To access from the normal weighing mode, press **F** + 3 GHI + 0 to access to the Tare-menu. The screen will show TAREOO.

Introduce the Number of tare you want to edit / create and confirm with PRINT (kg). The screen will change to T00.000.

Now introduce the Tare-value and confirm with PRINT (kg). After this the Screen will show SAVED to confirm the change and step back into the menu. Once you finished the setting of the Tare you have to press MR (ESC) during 3 seconds for return to the weighing-mode.

Note: When you have an indicator with Numeric-Keyboard, you can use the Fast-access **F** + 8 WXYZ + 1 ABC to input Item1 and Item2 without store them before

CONNECT WEIGHING TO ITEMS AND TARE

Each weighing can be connected to one or more items and / or a stored tare.

Example: Weighing linked to Item1, Item2 and Tare.

For activate Item1, press **F** + 1 ABC + 1 ABC. The screen will show FIL000, introduce the Number of Item1 you want to activate and confirm with PRINT (kg).

For activate Item2, press **F** + 2 DEF + 1 ABC. The screen will show FIL000, introduce the Number of Item2 you want to activate and confirm with PRINT (kg).

For activate the Tare, press **F** + 3 GHI + 1 ABC. The screen will show TArA00, introduce the Number of stored Tare you want to activate and confirm with PRINT (kg).

Note: When Item1 has a pre-tare included, and also the Pre-Tare (F31) will be activated, only the last one activated will work.

DEACTIVATE ITEMS AND TARE

You can deactivate the Items / Tare one by one with following combination:

F + 1 ABC + 2 DEF Deactivates Item1

F + 2 DEF + 2 DEF Deactivates Itam2

F + 3 GHI + 2 DEF Deactivates Pre-Tare

Note: The Items / Tare will stay activated till you deactivate them.

SEE THE STORED INFORMATION

For see the stored information, press **F** + 4 JKL + 0, Introduce the Number of the stored weighing you want to see and confirm with PRINT (kg).

CUMULATED TOTAL

For see this information, press **F** + 5 MNO + 0 (for item1) or **F** + 5 MNO + 1 ABC (Item2). Introduce the Number of the Item1 / Item2 and confirm with PRINT (kg).

PRINT THE TOTAL LIST

For print the Total List of weighings, press **F** + **6** PQRS + **0**. The Indicator will ask *Sinbor* (without delete the weights) or *Conbor* (delete the weights). Choose the option you prefer and confirm with **PRINT** kg.

Note: To Print the List of weighings, a Print-protocol have to be set and a Printer have to be connected.

TOTAL LIST

```
Weighing info
From:       02/07/20
To:         11/07/20
--------------------------------
Gross total:       4.045 kg
Tare total:        0.800 kg
Net total:         3.245 kg
Pieces total:        000000
Weighing total:      000067
--------------------------------
```

LIST FILTERED BY ITEM1, ITEM2 AND DATE

For see the filtered List, press **F** + **6** PQRS + **1** ABC. Introduce the Number of Item2 / Item1 and also decide if *dATEno* (not filtered by Date) or *dATES:* (filtered by Date).

FILTERED LIST

```
Report:  Weighing
11/07/2020
---------------------------------
From:              00/00/00
To:                11/07/20
Item1:                 001
Item2:                 001
---------------------------------
Item2 number:             001
Item2 code:            000122
Item2:                 Apple

Item1 number:          001
Item1 code:            000123

Item1:                 London

Gross weight:          1.500
Tare:                  0.200
Net weight:            1.300
Number of pieces:

Item2 Number:          001
Item2 code:            000172
Item2:

Item1 Number:          001
Item1 code:            005508
Item1:

Gross weight:          1.500
Tare:                 0.000
Net weight:            1.500
Number of pieces:      0000000


---------------------------------

Gross Total:            3.000 kg
Tare Total:             0.200 kg
Net Total:              2.800 kg
Pieces Total:           000000
Weight Total:           000002
---------------------------------
```

LIST FILTERED BY ITEM2

For see the List filtered by file2, press **F** + 6 PQRS + 2 DEF . The screen will show F:L000, introduce the Number of file2 and confirm with PRINT kg.

LIST FILTERED BY ITEM2

```
Report:  Item2

11/07/20
---------------------------------
Item2 number:           001
Item2 code:             005508


Item2:

Gross Total:           3.000
Tare Total:            0.200
Net Total:            2.800 kg
Pieces Total:         000000

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

LIST FILTERED BY ITEM1

For see the List filtered by file1, press **F** + 6 PQRS + 3 GHI The screen will show F:L000, introduce the Number of file1 and confirm with PRINT kg.

LIST FILTERED BY FILE1

```
Report:  Item1

11/07/20
---------------------------------
Product number:          001
Product code:            000222

Item1:


Gross Total:             3.000
Tare Total:              0.200
Net Total:               2.800
Pieces Total:            000000

Weight Total:            000008
---------------------------------
```

DELETE ITEM1

For delete the Item1, press **F** + 7 TUV + 0. The screen will show CodOOO, introduce the Number of the Item1 you want to delete and confirm with PRINT kg. Now you will have decide between ALLCod (deletes all the information of this Item1) or ToTCod (deletes all information according to this item1 without delete the item1) and confirm with PRINT kg.

DELETING ITEM2

For delete the Item2, press **F** + 7 TUV + 1 ABC. The screen will show CodOOO, introduce the Number of the Item2 you want to delete and confirm with PRINT kg. Now you will have decide between ALLCod (deletes all the information of this Item2) or ToTCod (deletes all information according to this item2 without delete the item2) and confirm with PRINT kg.

6. TECHNICAL MENU

For access to the Technical menu, press and hold MENU MODE for about 2 seconds. If the Calibration is "open" (Cal-switch pressed) you will have to introduce a Password, by default 0000.

DISPLAY	EXPLANATION
CAL_PA	Calibration Parameters (**metrological menu**)
CAL 0	Calibration of 0-point (**metrological menu**)
CAL	Perform the Calibration (**metrological menu**)
CALTEO	Teoric Calibration, when the correct Calibration-weight is not available (**metrological menu**)
GrAv.7	Gravity setting (**metrological menu**)
PArAME	Communication parameter (**non metrological menu**)
ConF.9	Basic Parameter (**non metrological menu**)
ConFUE	Basic Weighing - Parameter (**non metrological menu**)
Ab7VN	Visualization of Software-versions (**non metrological menu**)
dEFAUL	Restore the different Default-settings

- PARAME
  - COM 1 (RS-232): Frame, Baud, Protoc, AddrEs, dELivE
  - COM 2 (RS-232): Frame, Baud, Protoc, Addres, dELivE
  - RS-485: Frame, Baud, Protoc, Addres, dELivE
  - COM 4 (ETHERNET): Protoc, Addres, dELivE

- CONFIG
  - Filter
  - Date
  - Time
  - Mv
  - ICount
  - Lang
  - Chpass
  - Autarb
  - Blight
  - Standby
  - Print: Num LF, Cut, Copy, Model, Prttic
  - Codes
  - Power
  - Repeat
  - Decima
  - Rfid
  - Ean
  - Wifi
  - Boot
  - Pieces: Digits, DefPcs
  - P net
  - Tmin
  - Key Cg

- CONFUE
  - Saveue
  - Acc
  - Totali
  - CUrang
  - Tautin
  - Signal
  - Taraut
  - CU Acc

- ABT VM
  - verSio
  - CrC
  - Pr HEu
  - Pr HEr
  - Pr HUP

Note: To access to the metrological Paramter, it is necessary to press the Calibration-Switch on the Back (also can be seen in the images of Point 1.2)

ATTENTION!!

This action automatically selects the configuration of the metrological parameters that condition the operation of the instrument with CE compliance.

6.1 MENU PARAME *PARAME*

PARAME		
COM 1 (RS-232)	Frame	7e1-7o1-8n1-8n2-8e1-8o1-9n1-9n2
	Baud	1200-2400-4800-9600-19200-38400-57600-115200
	Protoc	A list of the protocols can be found on page 35
	AddrEs	Device number 00 - 99
	dELivE	intErv, Stb 0, rEPEAT, STb0do, STAbLE, MAnuAL, PC.req, Contin
COM 2 (RS-232)	Frame	7e1-7o1-8n1-8n2-8e1-8o1-9n1-9n2
	Baud	1200-2400-4800-9600-19200-38400-57600-115200
	Protoc	A list of the protocols can be found on page 35
	AddrEs	Device number 00 - 99
	dELivE	intErv, Stb 0, rEPEAT, STb0do, STAbLE, MAnuAL, PC.req, Contin
RS-485	Frame	7e1-7o1-8n1-8n2-8e1-8o1-9n1-9n2
	Baud	1200-2400-4800-9600-19200-38400-57600-115200
	Protoc	A list of the protocols can be found on page 35
	AddrEs	Device number 00 - 99
	dELivE	intErv, Stb 0, rEPEAT, STb0do, STAbLE, MAnuAL, PC.req, Contin
COM 4 (ETHERNET)	Protoc	A list of the protocols can be found on page 35
	Addres	Device number 00 - 99
	dELivE	intErv, Stb 0, rEPEAT, STb0do, STAbLE, MAnuAL, PC.req, Contin

COM 1	Port Configuration RS 232 PC, Printer etc...
COM 2	Port Configuration RS 232
RS485	Only available with the optional plate
COM 4 (ETHERNET)	Only available with the optional plate

Note: Its not possible to put the same Protocol on 2 different Com-ports at the same time.

FRAME (COM1 / COM2 / RS485)

It allows to define the format of the communication data. The possible choices are:

8n1-8n2-8E1-8o1-9n1-9n2-7E1 and 7o1

BAUD (COM1 / COM2 / RS485)

It allows to define the Baudrate The possible choices are:
1200-2400-4800-9600-19200-38400-57600 and 115200

PROTOCOL

Currently the device has various communication-protocols for use:

nonE	no selected Protocol
Print	Printer-Protocol
GIPEs	Protocol Giropes
SPi 2	Protocol Sipi II
tol dS	Protocol Mettler - Toledo DS
EriC	Protocol Eric (Master K.)
EPSA	Protocol Epelsa ($)
EPEL A	Protocol Epelsa A
EPEL 80	Protocol Epelsa 80
M-t	Protocol Mettler - Toledo
MobbA3	Protocol Mobba 3
FS01	Protocol F501 (Mobba)
SAIE	Protocol Saie
MuLtiP	Protocol Multipoint 2000
SEUr	Protocol Seur
tISA	Protocol Tisa
Ud-0	Protocol VDO (Dibal)
SSCAr	Protocol Sensocar
CSCOMP	Protocol Cas Novitus
Sb-400	Protocol SB-400 (Cardinal)
SMART	Protocol Smart (F1 UtilcelI)
tHL	Protocol Teaxul
biLANC	Protocol Bilancai
br80	Protocol BR80 - Baxtran
br801	Protocol BR80 - Baxtran (invertida)
9rAui7	Protocol Gravitation
ALibi	Protocol Alibi Memory (Fiscal)
9iConF	Protocol Giscale-Communication
rAFEL	Protocol Rafel
bizErb	Protocol Bizerba
SPi 0	Protocol Sipi (Giropes version)
APLUS	Protocol A+ Slave (Precia Molen)
CAMP	Protocol Campesa
vErMAg	Protocol Vermag
rELiSA	Protocol Relisa
HbM	Protocol HBM
bArCod	Protocol for Barcode-reader
doSi-C	Protocol Dosification by comands
rinS7	Protocol Rinstrum (modell R420)
rinS71	Protocol Rinstrum (modell R420)
rHEUA	Protocol Rhewa
rHEWA1	Protocol Rhewa
SOEHNL	Protocol Soehnle
PESAdA	Protocol with PC reception confirmation
SYSTEC	Protocol Systec
SCAIME	Protocol Scaime
MT 429	Protocol Mettler - Toledo (Template 1)
d PESA	Protocol Seur + 2/3 Digits
EXPrES	Protocol Bizerba (Correos version)
TrAnSC	Protocol Transcell
TAGS	Protocol personalizable by User
PT6S3	Protocol Trayvou PT6S3
v7300	Protocol Vishay VT 300
dELAEr	Protocol dELAEr
PT6S2	Protocol PT6S2
bAYCon	Protocol bAYCon
LA7IS	Protocol LA7IS
M7SiCS	Protocol M7SiCS

ADDRES (COM 1 / COM 2 / RS485)

Adjustment of the direction of the device.

DELIVE
TRANSMISSION MODE (COM1 / COM2 / RS485 AND ETHERNET)

It allows the user to configure the device, through the selected serial channel, for sending data to the PC.

MAnual: The device sends the data string, by press the key PRINT.

PC.req: The device sends the data string, at the request of the PC.

Contin: The device sends the data string continously.

intErv: The device sends the data string, in time intervals (the interval can be configurated by the user)

Stb 0: The device sends the data string, once a stable weight has been acquired and previously having gone through zero.

rEPEti: Send mode reserved for the function of the device as a repeater. (Only working with following Protocols: Sip 2, Sip0, Smart, SSCAr, biLAnC)

Stb0do: The device sends the data string, once a stable weight has been acquired, previously having passed through zero and once unload the scale.

STAbLE: The device sends the data string, once a stable weight has been acquired.

WITH THE PRINT PROTOCOL Print SELECTED, THE USER WILL ONLY HAVE FOLLOWING SENDING MODES: **MAnual, Stb 0, Stb0de AND STAbLE**

6.1.1 MENU ETHERNET

MENU ETHERNET (ONLY AVAILABLE WITH OPTIONAL PLATE)

Connect the Device to the PC, using a switch

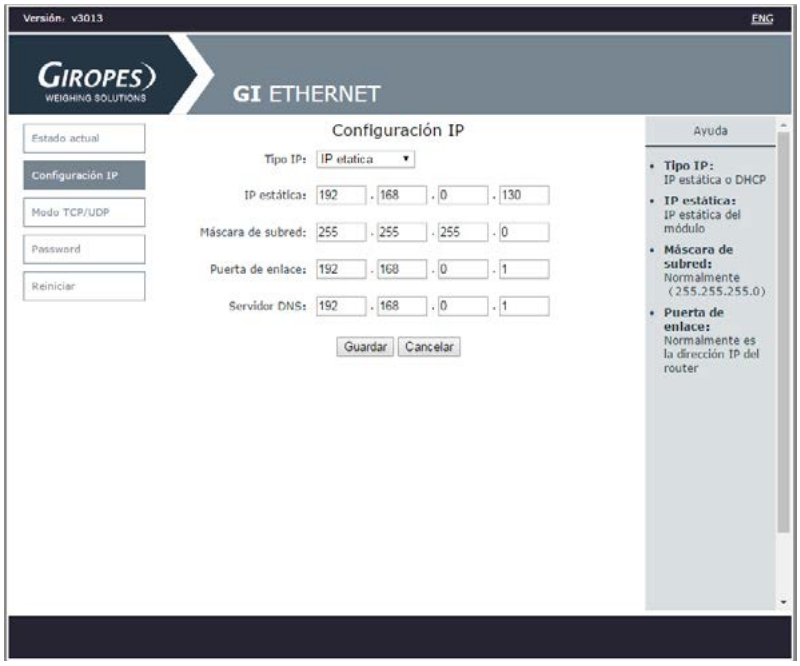
Enter the IP of the Device in the Browser

192.168.**0**.130 (by default)

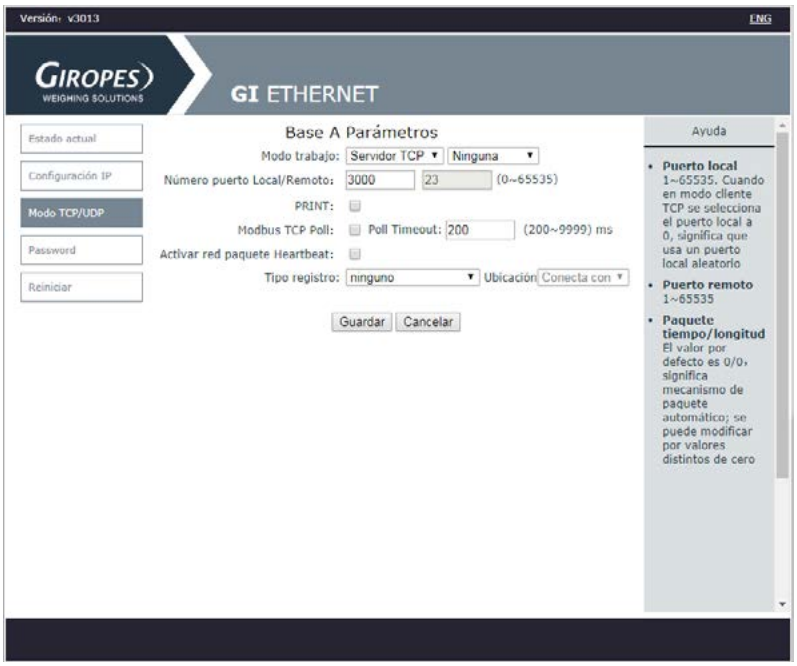
Note: The IP of the PC has to be in the same range as the IP of the device

Enter the username and password. **(admin and 1234)**

In the **IP Configuration** tab you can change the IP



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

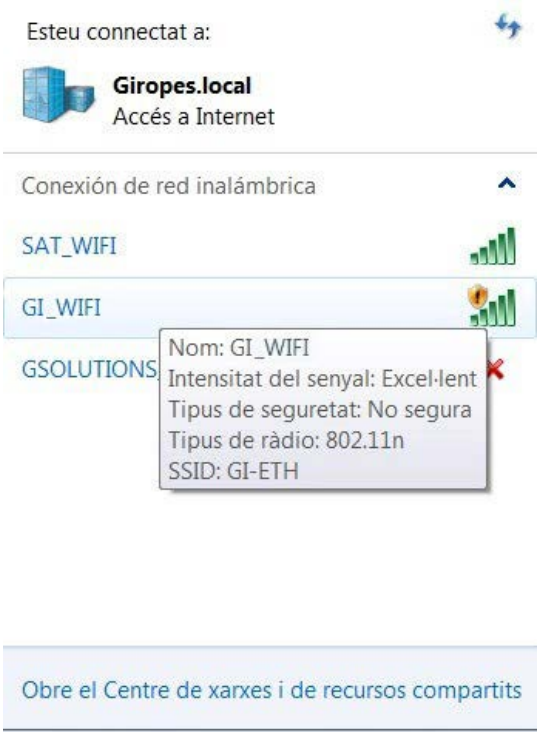


You can change the username and / or password in the Password tab.
If you forget them, you have to open the device and bypass the RLD pads
for 5s to reload the factory parameters.

6.1.2 OPTIONAL WIFI FOR GI4XX CONFIGURATION.

6.1.2.0 Access to webserver

Search in “Wifi Network Connection” the network of GI-Wifi or USR...

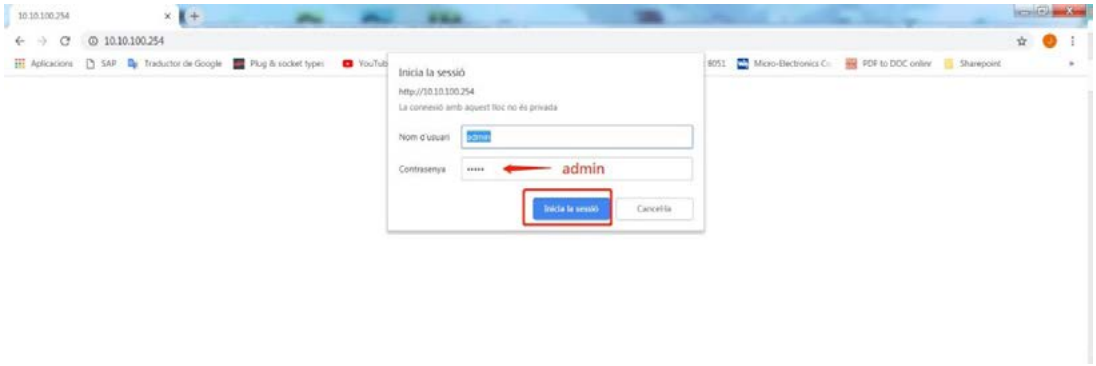


Connect to the network and give it privileges of “Network work”.

In the internet explorer enter the IP of the "gateway" (Wifi Gateway of the indicator).

By default 10.10.100.254 o 192.168.0.130

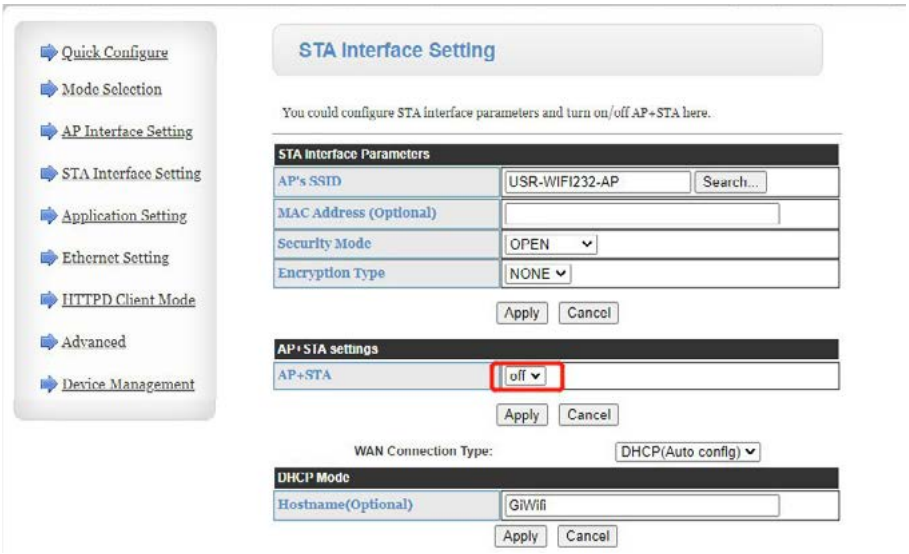
To access: Username "admin" and password "admin" or 1234



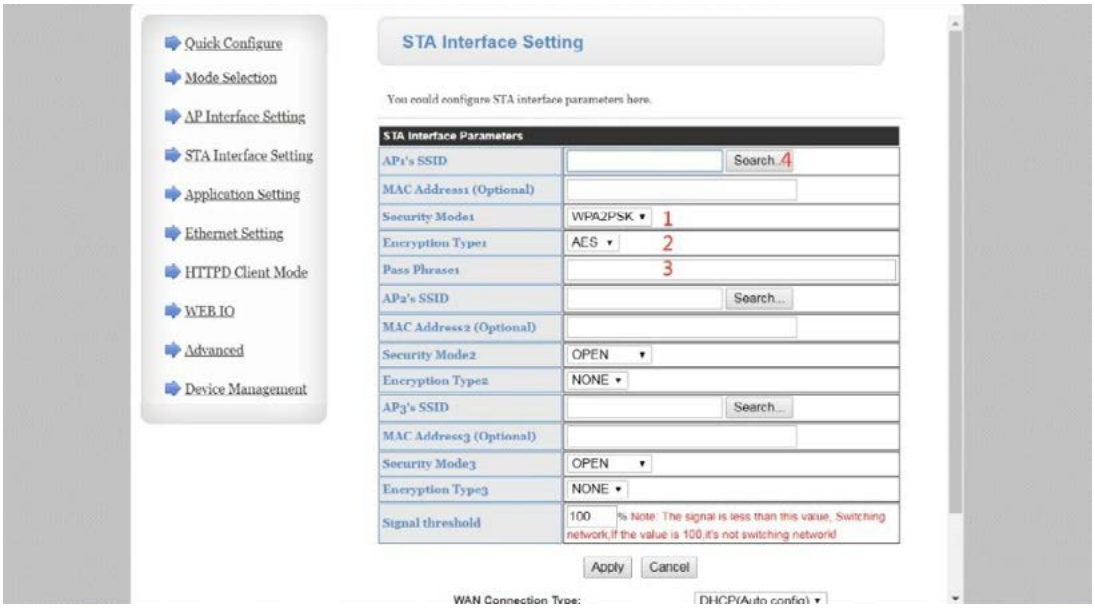
6.1.2.1 Work directly with the indicator network

6.1.2.2 Set the indicator inside the network, STA mode, (station)

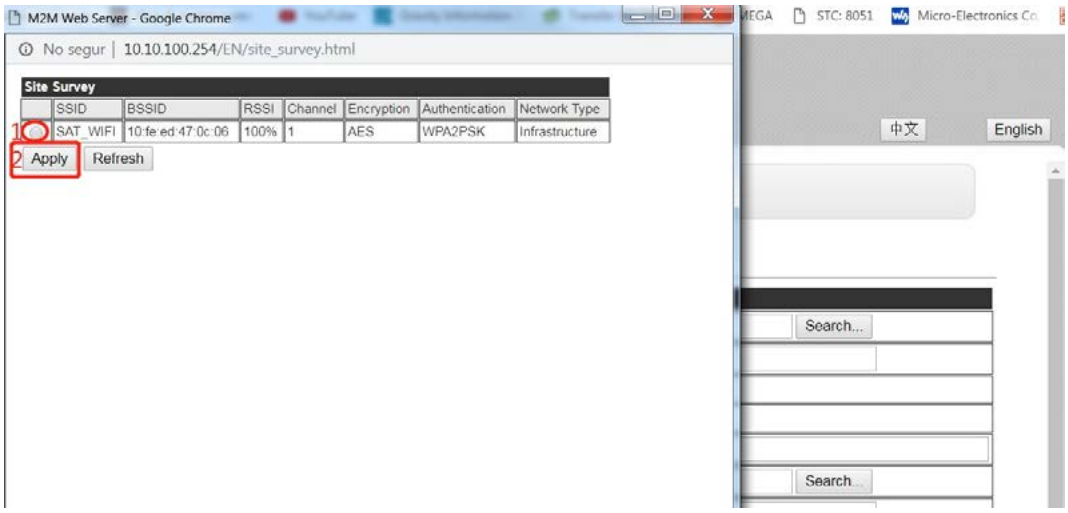
Note: Select STA Interface Setting. There you set AP+STA to OFF for **hide** the indicator network, when you place it inside company network. Click on APPLY for to validate.



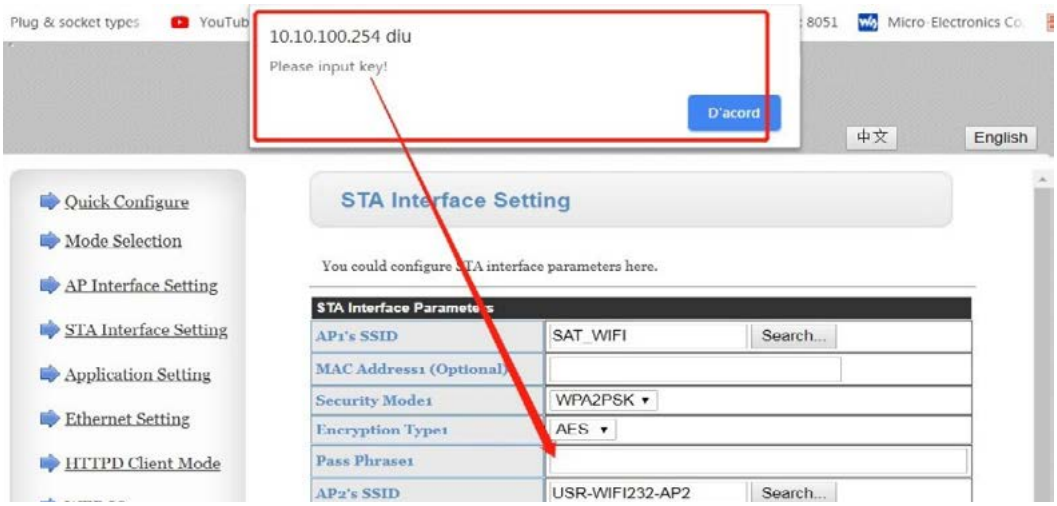
Select STA Interface Setting. There you select the security mode of your network and the type of encryption.



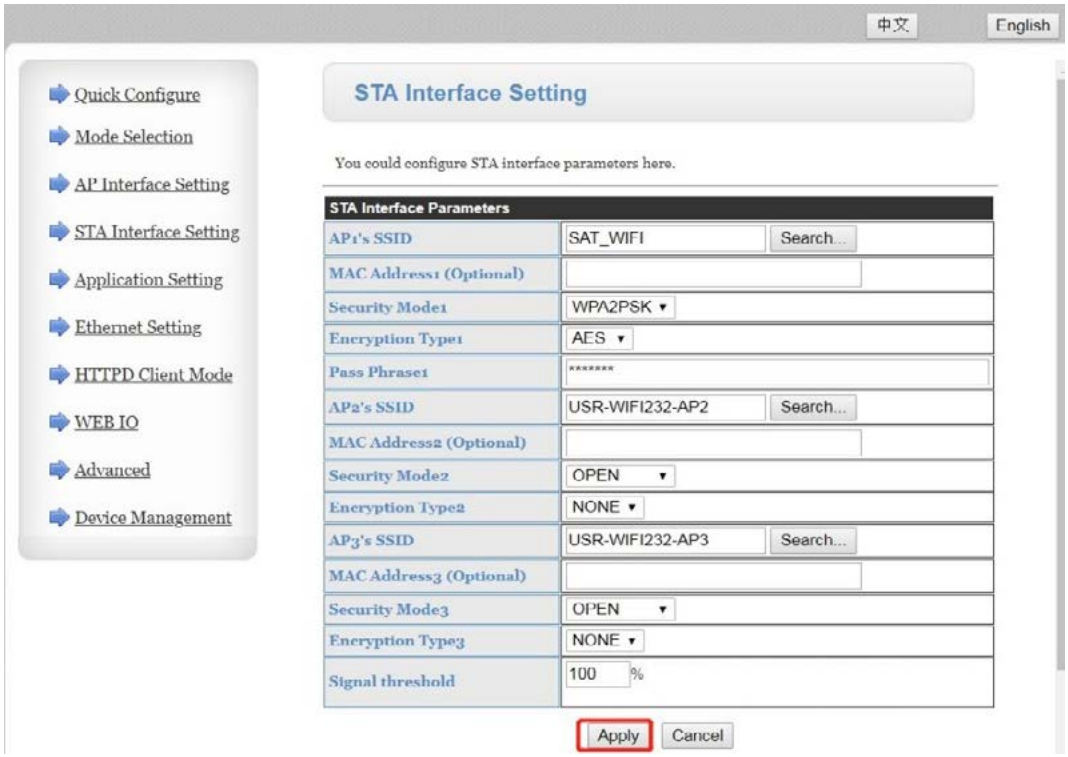
After on “search”, click on your wifi network.



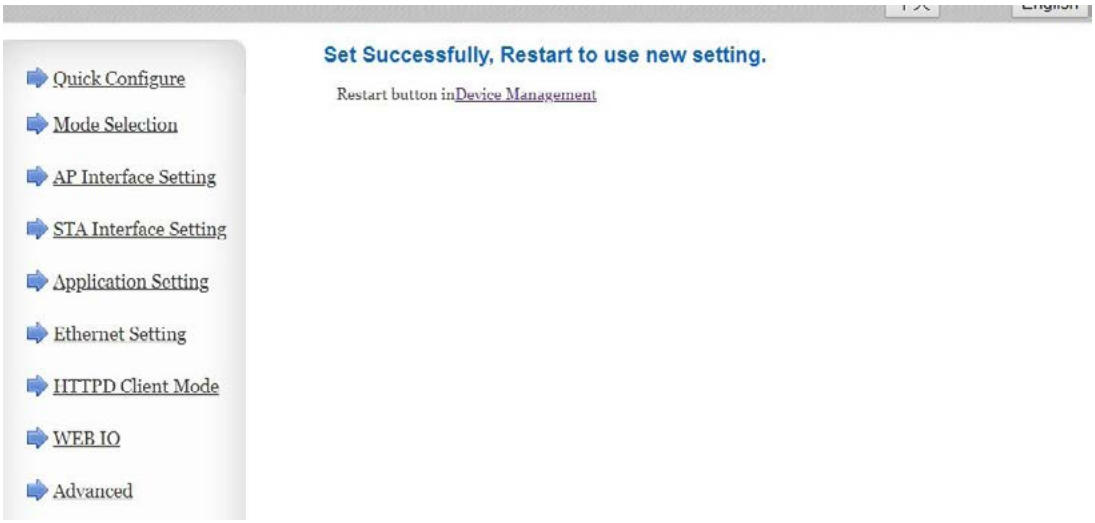
Confirm with “Apply”.



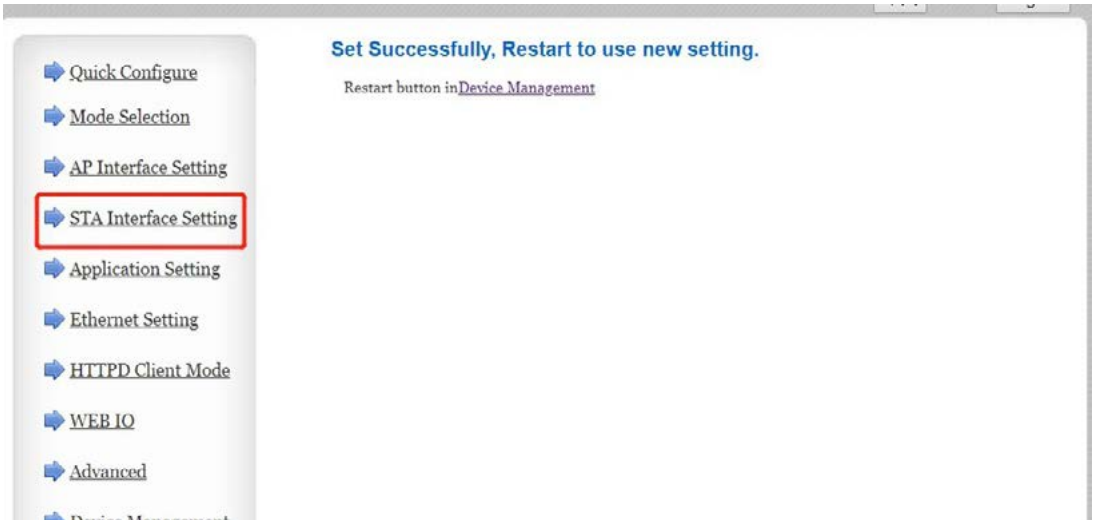
The device will ask you for the network password.



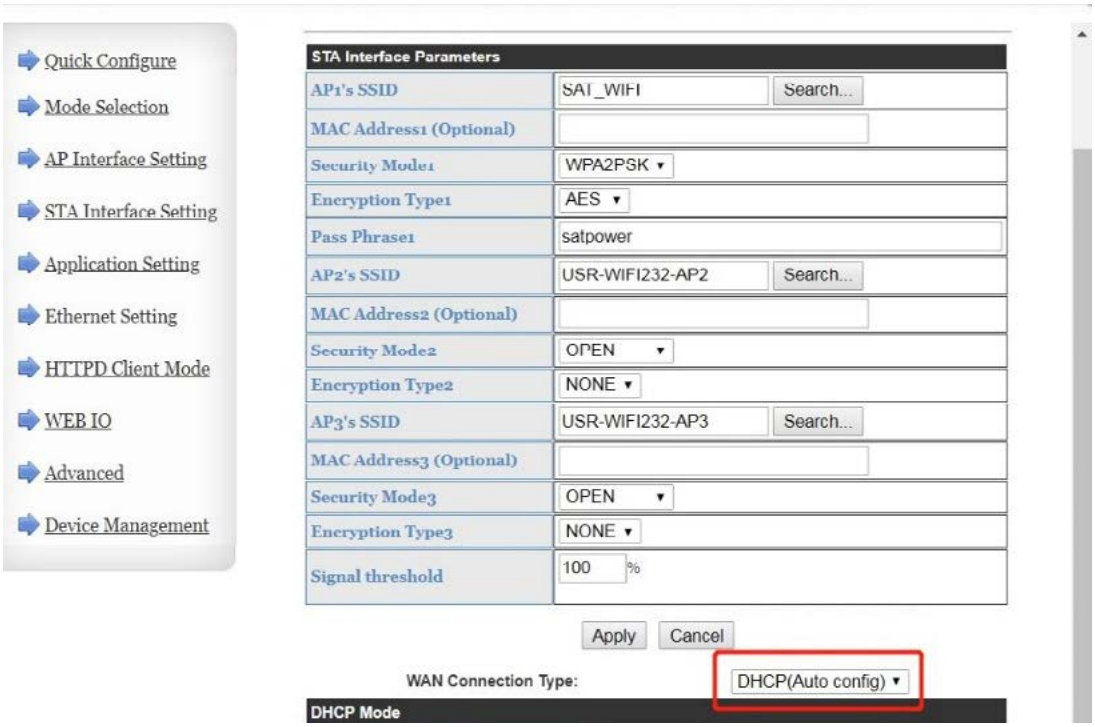
Enter it and confirm with Apply.

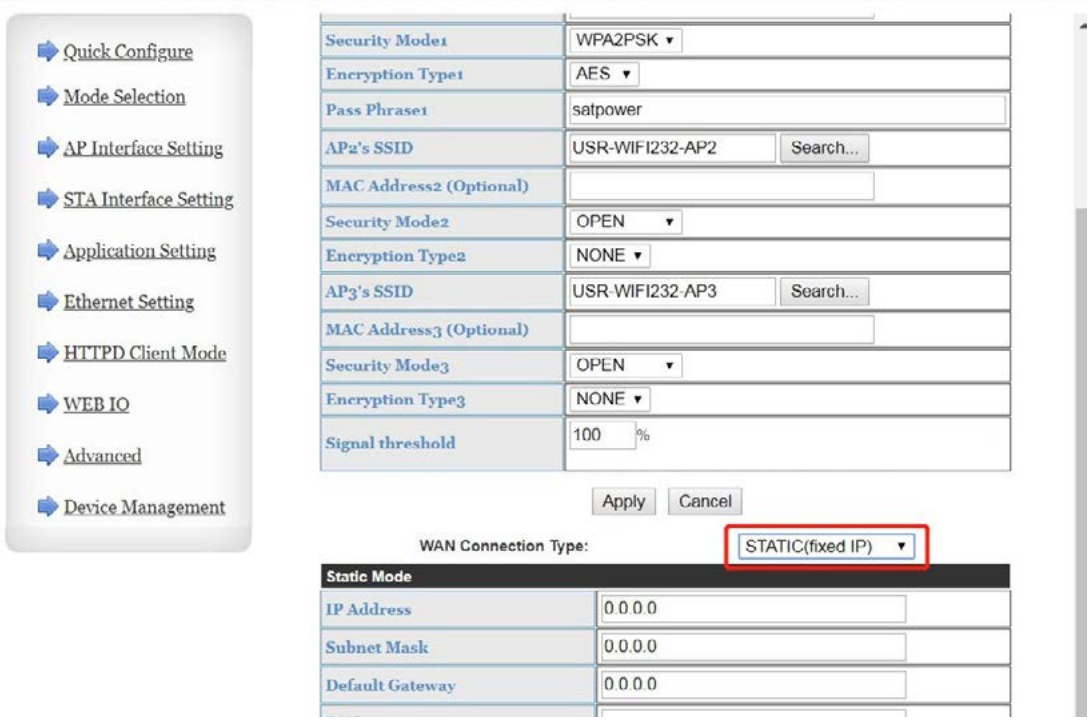


Select STA Interface Setting again.

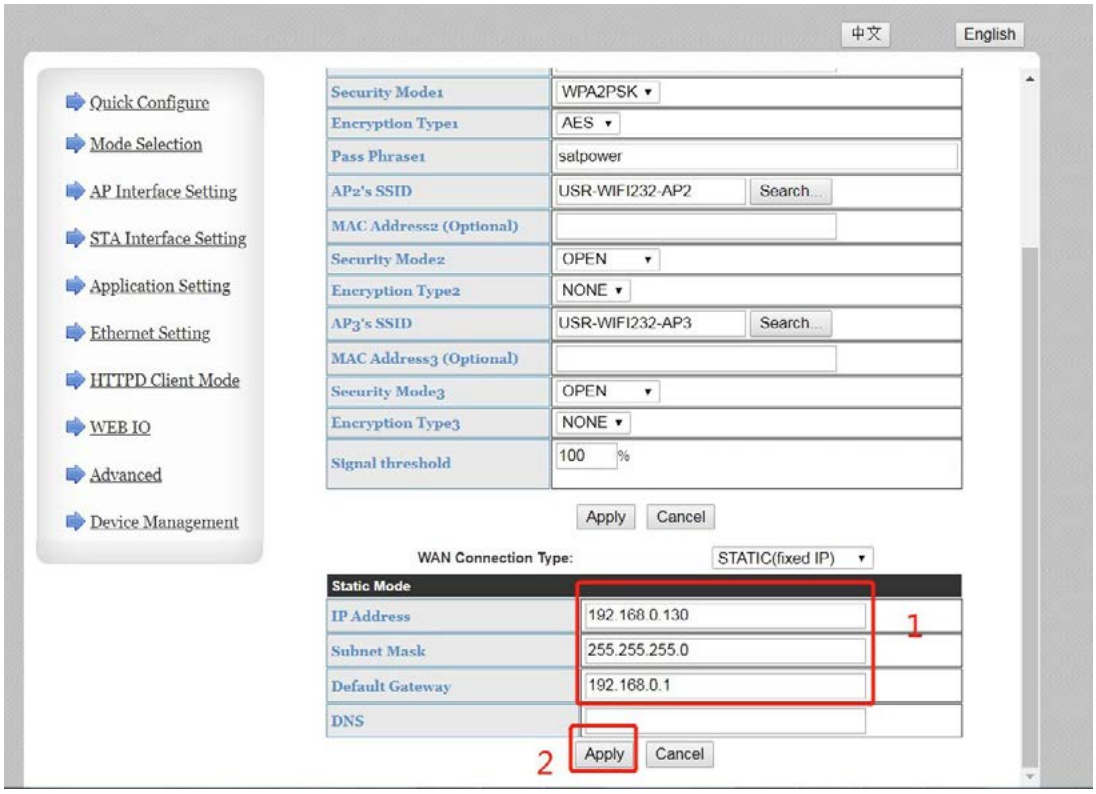


On “WAN Connection Type” choose STATIC (fixed IP).



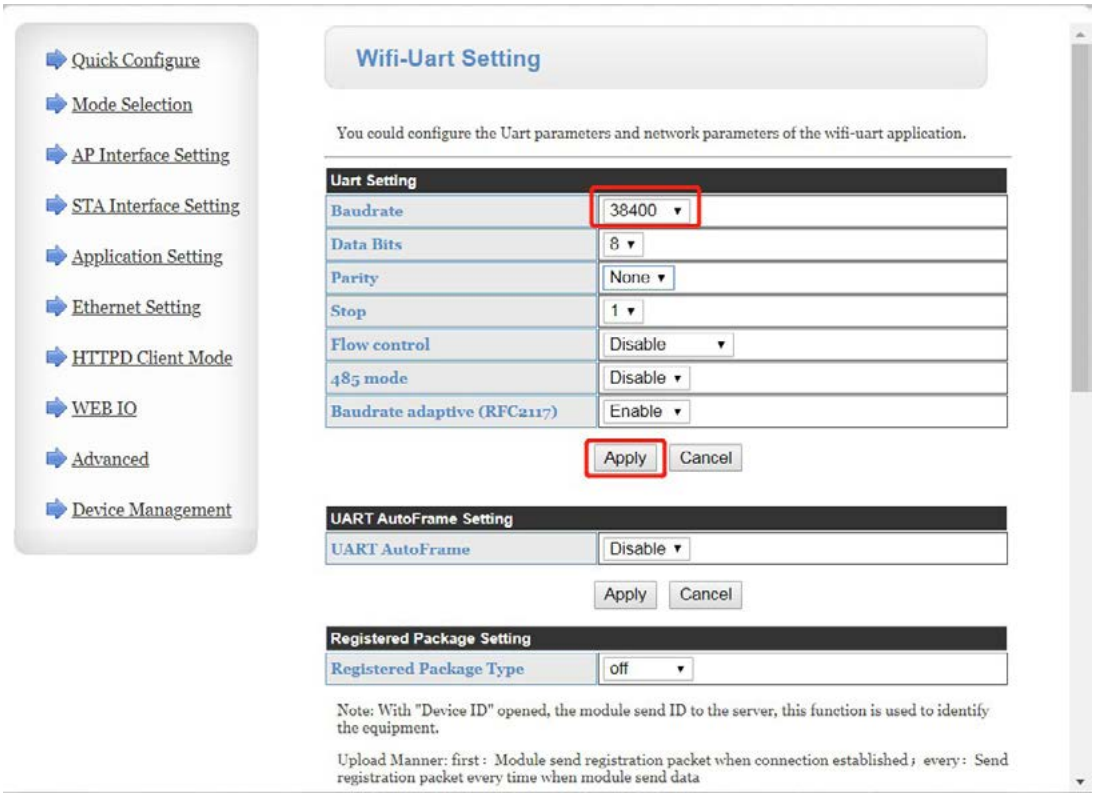


Enter the desired IP for your device, for example 192.168.0.130, and also enter the one for the network mask, the gateway and the DNS server of your network. **The IP of STA mode must be set on a different range than the IP of AP mode (point 2)**



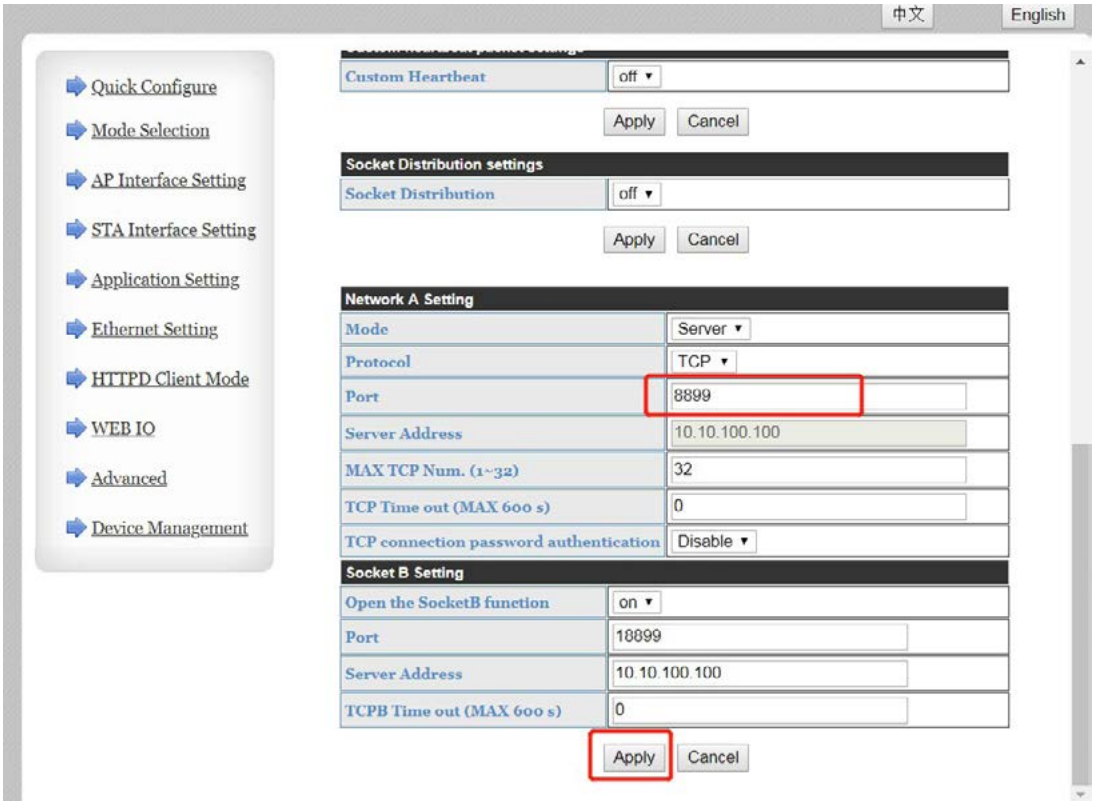
Confirm with Apply.

Access to Application Setting menu, and change the baudrate for 38400.



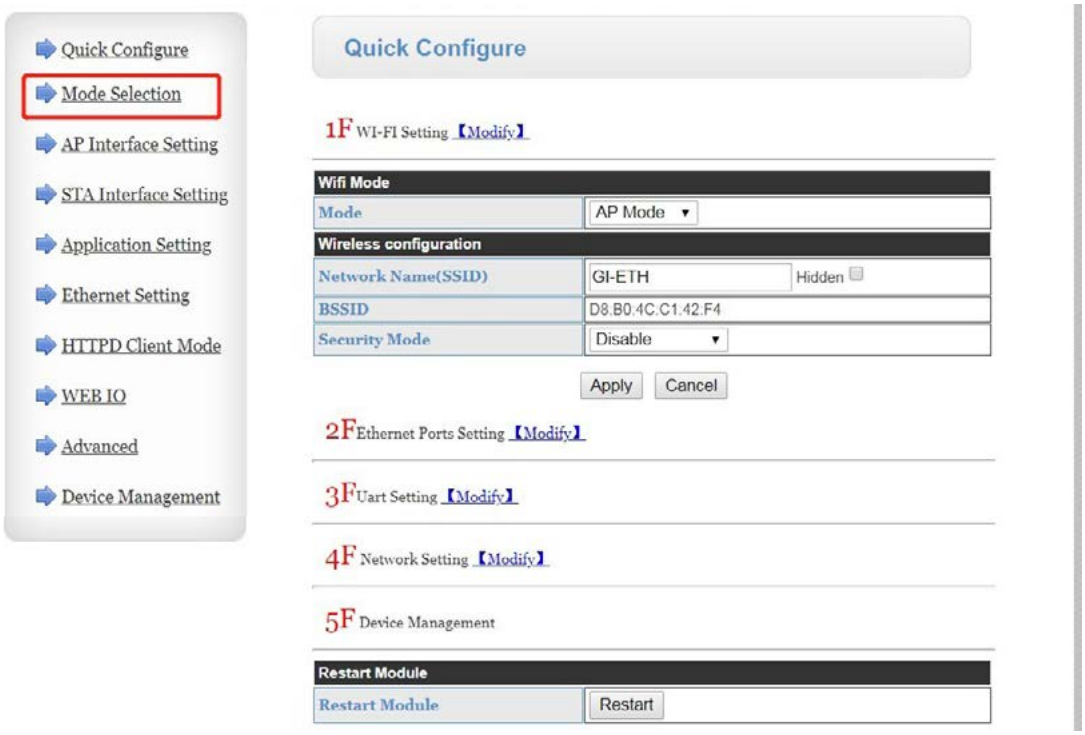
Confirm with Apply.

Access to Application Setting menu, and change the port for the desired one.

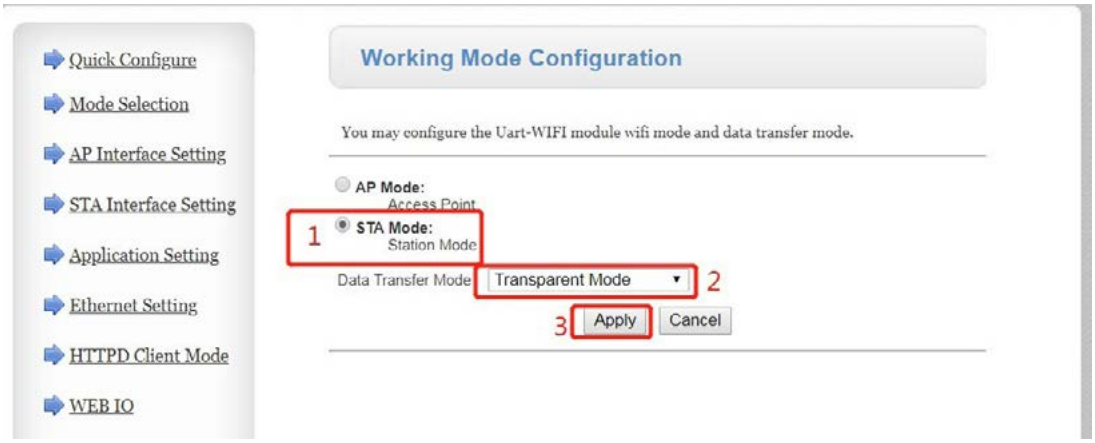


Confirm with Apply.

Finally select Mode Selection

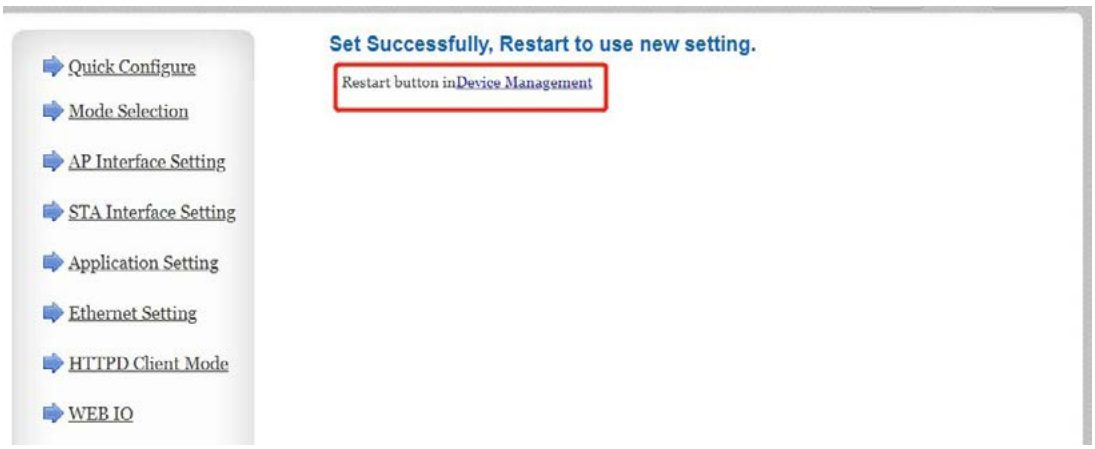


And STA Mode with Transparent Mode option.

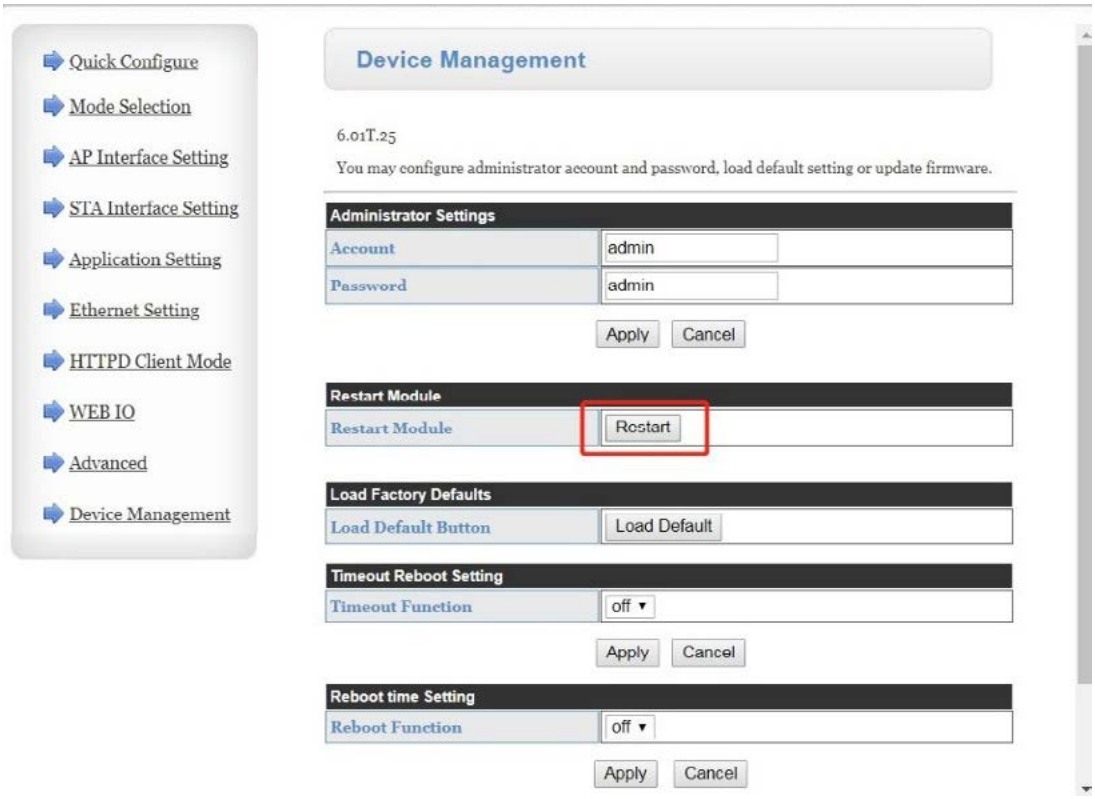


Confirm with Apply.

Select Device Management.

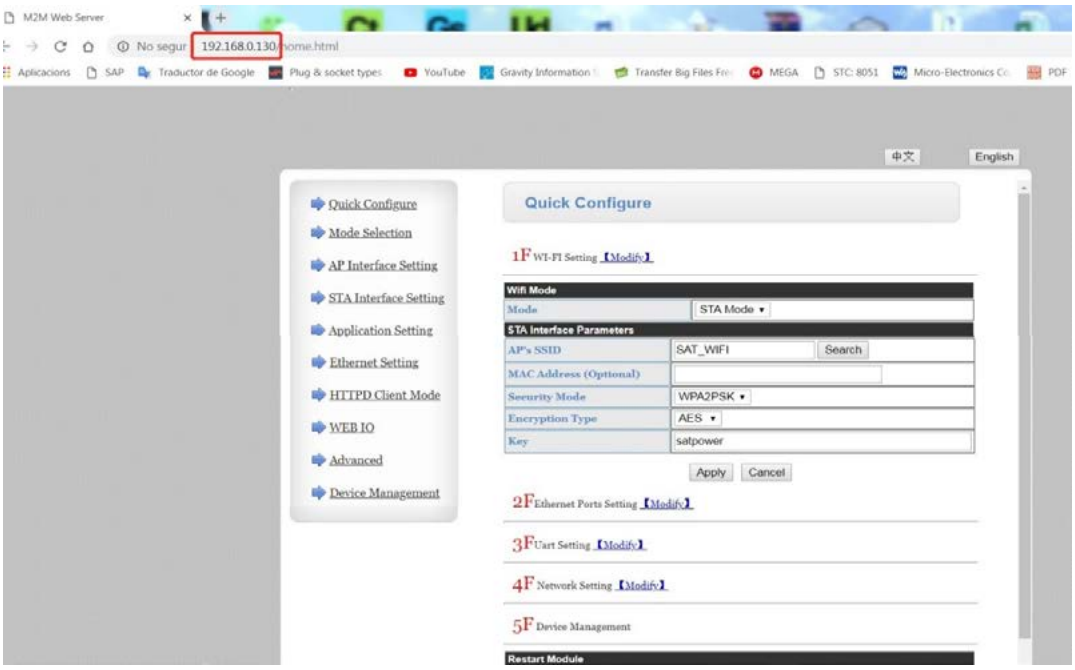


And on “restart module” click on “RESTART”.

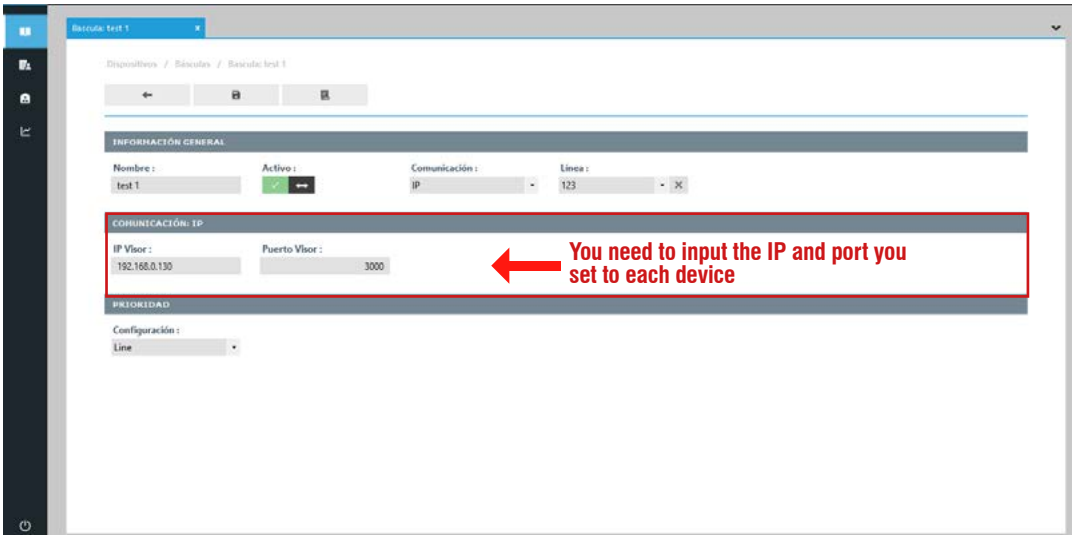


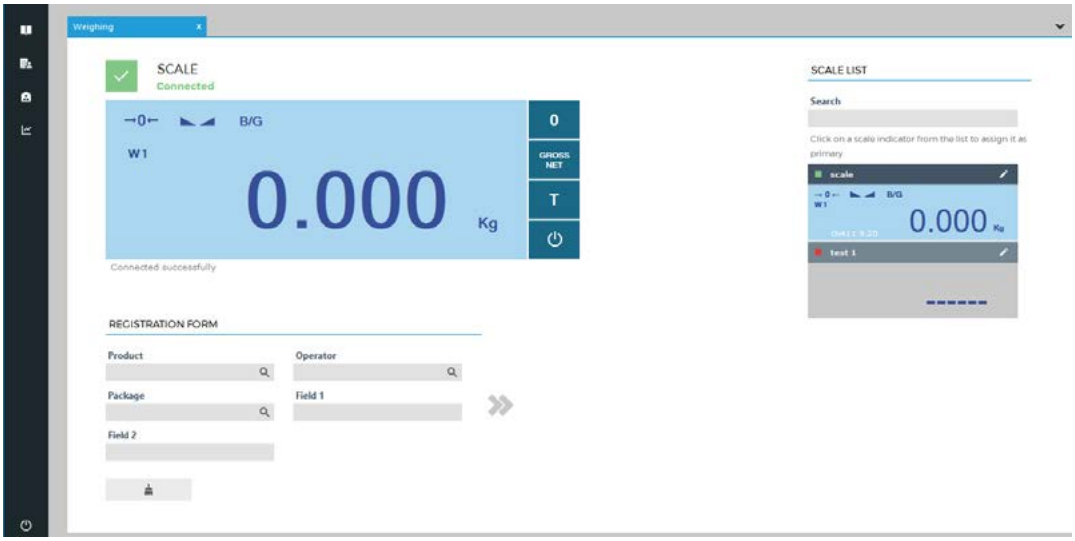
From now on the indicator will retransmit into your network with the IP and the chosen port.

If you want to access the device configuration again, you must write the IP that you gave to the device



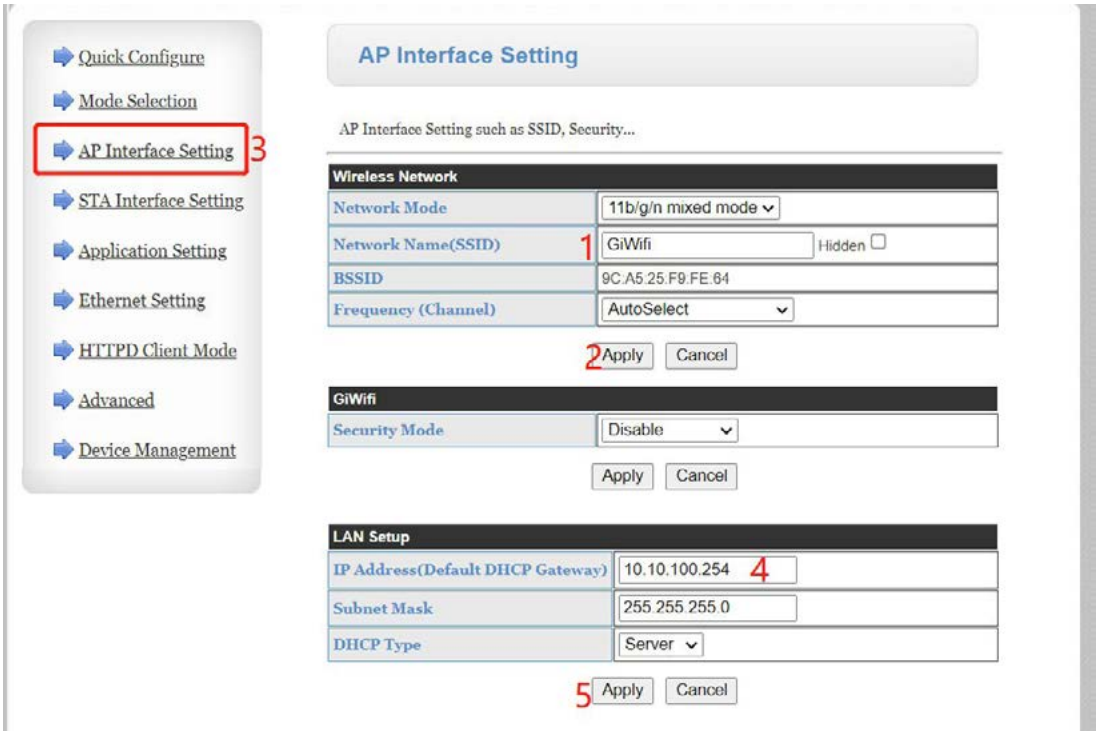
Now on the GISCALE, you can configure the scale. Check with your dealer for Giscale pricing.





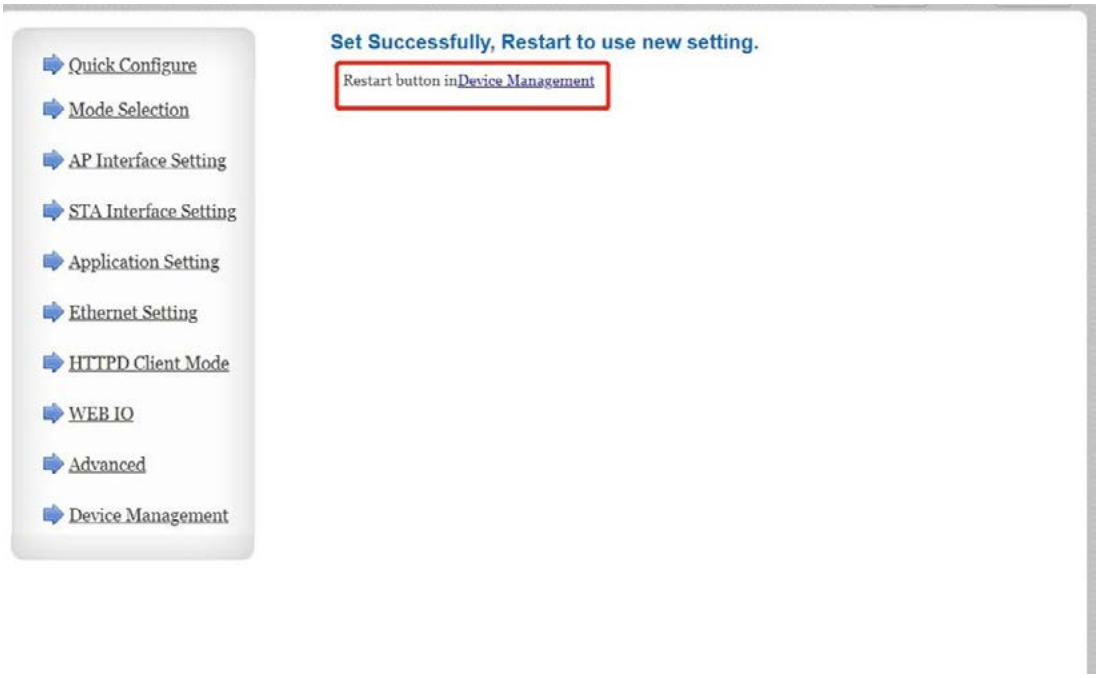
6.1.2.2 Work directly with indicator network, AP (access point)

Select AP Interface Setting. There you input the name of the network generated(1) on mode AP, and click sur APPLY(2) to validate.

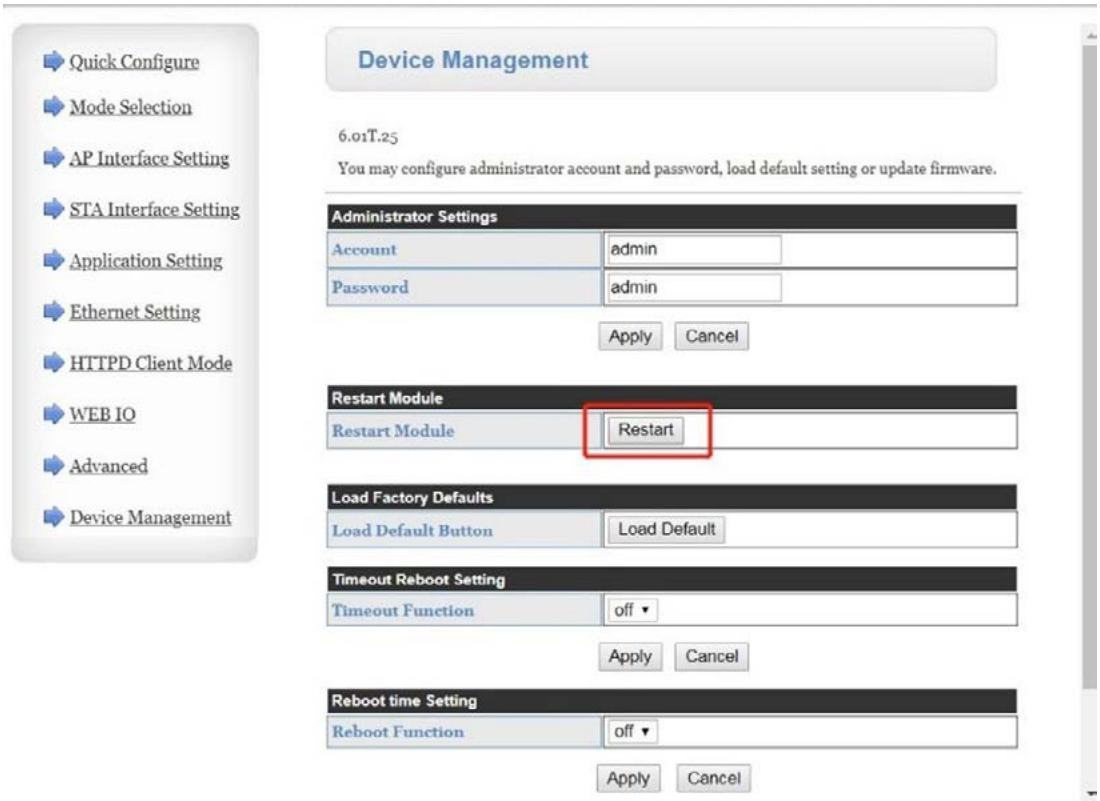


Select AP Interface Setting(3) again, and input the IP (4) of device on AP mode. Click on APPLY(5) to validate.

Select Device Management.



And on “restart module” click on “RESTART”.

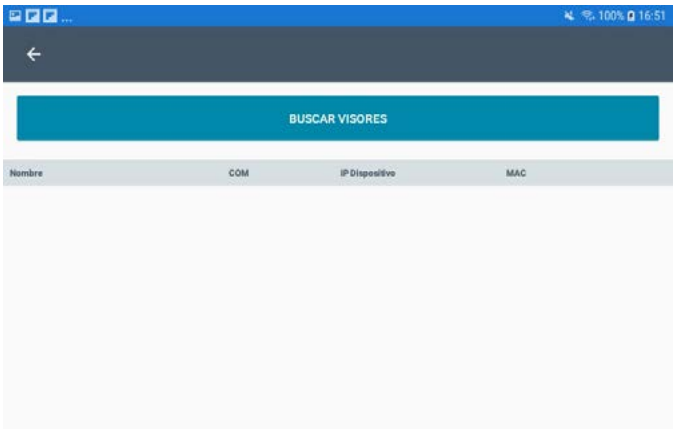


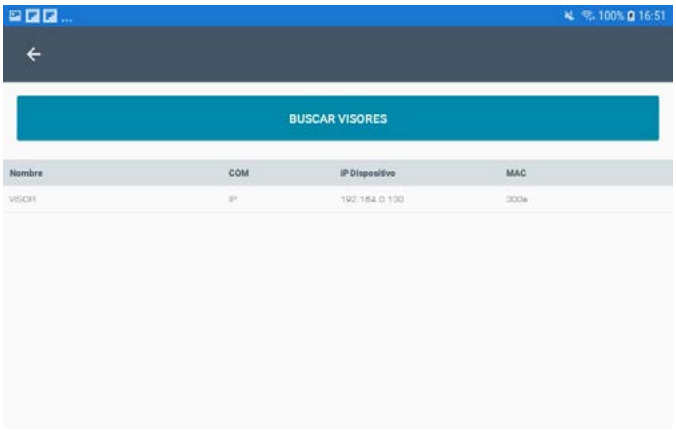
GiAPP

1- On **ANDROID** tablet or mobile, download GiAPP

2- Connect to the viewer’s Wi-Fi network (giWifi-...)

3. Open the GiAPP application.





6.2 CONFIG MENU

CONFIG		
	FILTEr	To select the average weighing filter (from **1** to **6**).
	dATE	To set the current date.
	TIME	To set the current time.
	Mv	Displays the millivolts of the load cell.
	iCOUNt	Displays the internal AD counts.
	LANG	To select the indicator language (**English**, **Spanish**, **French**, **Italian**, **Portuguese**, or **German**).
	CHPASS	To change the technical menu password if desired, default is "**0000**".
	AUTArb	For automatic tare lock every time the → PT tare key is pressed.
	bLiGHt	Backlight of the screen (only with LCD indicator).
		on oFF: Backlight configuration (on: always on, oFF: off, auto: automatic, Stb 3s: turns off when stability is reached for three seconds).
		dEF Co: To define the default backlight color.
		CU CoL: To define the colors for different ranges in the checkweigher
		CUSTOM: Custom color configuration for ranges.
		FABriC: Reset colors to factory default.
	STANDBY	Automatic standby adjustment (only with LED indicator).
	PRINT	Printer settings.
		nUM LF: Lines to advance on the ticket.
		CUT: Enable or disable ticket cutting if the printer supports this function.
		CoPy: Set the number of copies for a ticket. If set to "0," it only prints one copy of the ticket.
		ModEL: Set the printer driver compatible with your printer model. Options: ESC/POS, PLUS2, LX350, bTPr99, LABEL or iMPOS.
		PrTT.C: Activate or deactivate the ticket printing function.
		rEPrin: Activate or deactivate the reprinting of the last printed ticket (long press of the MR ESC key).
	CodES	Allows you to rename the "**File1**" and "**File2**" files, as well as the "**TCode**" file (only on indicators with a numeric keypad).
	inCLin	To configure the inclinometer (only on TP and HPP models) (accessible only in open calibration).
		Zero: Set the zero inclination point.
		Enable: Activate the inclinometer.
		AngH: Display the inclination angle of axis H. (In degrees)
		AngY: Display the inclination angle of axis Y. (In degrees)
		H 100: Set the maximum inclination angle for weighing: **2** or **5**%. (In percentage)

PoUEr	To configure the battery type, if available.	
	no bAt	Default for indicators without optional battery.
	6 V	Internal battery with external charger.
	12 V	External battery with external charger.
	3,7 V	Internal battery without external charger.
	7,4 V (240v o 12v)	Internal battery with external charger (**240v** option) and internal battery with optional 12V power supply(**12v** option).
rEPEAt	Menu to choose whether to duplicate (send) what is received through the repeater channel: TH rep or no TH (only between COM1 and COM2 ports).	
dEC.MA	Set the decimal point type for printing: **period** or **comma** (only in open calibration).	
rFid	Configure the RFID card reading function (optional).	
	rFdoFF	Deactivate the RFID function.
	ACPLU1	Read/activate the PLU corresponding to "File1."
	ACPLU2	Read/activate the PLU corresponding to "File2."
	AdddAT	Send the data read by RFID.
EAn	Configure the barcode reader function (optional).	
	ACPLU1	Read/activate the PLU corresponding to "File1."
	AdddAT	Send the data read by the barcode reader.
Wifi	Reset the Wi-Fi board to factory settings: res n or res S.	
booT	Manually enter the indicator update mode.	
PIECES	Enter the quantity of items associated with a weighing using the numeric keypad (for use with the Giscale PC program).	
	dIgITS	Number of digits to enter when different from the default number of items: no (disables the function), 1dig, 2dig, or 3dig.
	dEFPCS	Default number of pieces to send with the weighing.
P nET	Set the minimum weight in steps to accumulate/register. Default is **20**.	
TMin	Set the minimum weight to perform the initial auto tare function and not tare small zero deviations before placing the weight to auto-tare.	
KEY Co	Deactivate the functionality of the indicator keys: choose to leave each one active or deactivate it one by one.	

6.3 CONFUE MENU

ConFUE		
SAvEUE	Configure whether to save the weighings performed in the indicator memory: **YES** or **NO**.	
ACC	Configure the accumulation/registration mode for weighings. (To enable accumulation, select the iMP protocol on a port and enable Totalization)	
	MAnuAL	Accumulation when pressing the PRINT (kg) key.
	PC.rEq	Accumulation upon external request to the indicator.
	Stb 0	Accumulation by load stability, passing through zero before each weighing.
	Stb0do	Accumulation by discharge stability, passing through zero before each weighing.
	STAbLE	Accumulation by stability
ToTAL:	Configure the totalization mode for weighings.	
	ToToFF	Totalization and accumulation deactivated.
	ToTMAn	Totalization when pressing the MR (ESC) key.
	ToTAUT	Automatic totalization, with the option to select the number of accumulations for automatic totalization.
CUrAn9	Configure the ranges in which you want to allow accumulation of weighings in the checkweigher function.	
TAUT:n	Activate or deactivate automatic initial tare. (Not compatible with accumulation modes Stb 0 and ESTAbL)	
S:9nAL	Decide whether to consider the sign of the weight value or not. For example, when working with the TAKEOUT mode (negative checkweigher), this option configures among other things Sign. (Only accessible in open calibration)	
TArAUT	Activate or deactivate the function of successive automatic tares when the weight is correct and stable. When the PRINT (kg) key is pressed, the weighing is recorded, and the weight on the platform is automatically tared. This function is activated automatically when entering the "Takeout" or Pesacc. (Only in open calibration)	
CU ACC	Configure accumulation in checkweigher mode. (Only in open calibration)	
	C nET	Normal checkweigher.
	C nETA	Checkweigher based on accumulated value.

INCLINOMETER “inCLin”

Before starting the calibration, make sure the weighing pallet truck is **level** and **secure**.

DISPLAY	EXPLANATION
P. 10000	The device will ask for the Password. By default 0000
ConFiG	Choose the menu ConFiG use the Arrow-Keys and press PRINT (kg) to confirm.
inCLin	Choose the menu inCLin use the Arrow-Keys and press PRINT (kg) to confirm.
H 100	Select the maximum deviation of the inclination. The user can choose between 2% and 5%. Press PRINT (kg) to confirm.
2Ero	Make sure the weighing pallet truck is level and secure, and also there is no weight on the device. Press PRINT (kg) to confirm. The device shows 2Ero 1 in the display. Press PRINT (kg) to confirm
EnAbLE	To activate the inclinometer choose inC Y. Press PRINT (kg) to confirm

Note: By default the deviation of the weighing pallet trucks is set on 2%.

6.4 ABT VM

ABT VM	SHOW THE DIFFERENT VERSIONS OF THE PROGRAM
VERSIO	Shows the version of the weight-modul
CRC	Checksum where the 4 digits of less priority are displayed first (right part of the sum) and after the 4 digits of more priority (left part of the sum).
Pr Hev	Printing of events
Pr Her	Printing errors
Pr HuP:	Printing of updates (version and CRC)

6.5 DEFAUL

Defaul	
USER P	Sets the user settings back to the factory settings (Menu Config)
COM P	Sets the settings of the Com ports back to the factory settings.
TECH P:	Sets back all themetrological parameters to the factory settings **Only in CAL_open available**
Prin7	Sets back the printer settings to factory

7. PRINTER

For use a Printer, you have to set the Print-protocol and format first (By default Print-protocol is set in COM1).

To set the Printer-protocol and format, access to the Technical menu by press MENU **MODE** for about 2 seconds and choose the menu point *PArAME*. Now choose the desired COM-Port where the Printer will be connected (if you have a build in printer it is using COM1), confirm the COM-port with **PRINT** and choose the point *Pro toC*. Now choose the Protocol *Prin t* and confirm with **PRINT**. Following you will have to decide the Print-format. There are 7 default formats and 1 free configurable (with the Software Configuration-Tools). Select the desired format and confirm with **PRINT**.

7.1 TICKET FORMAT:

FORMAT FOR WEIGHT

Printformat: *PrnF. 1*

```
Date: 11/06/2020      Time: 11:08:06
Gross:                        654 kg
Tare:                          10 kg
Net                           644 kg
_____________________________________
```

Printformat: *PrnF. 1* (with numeric Keyboard)

```
Weighing Number:                #1   → 1
Date: 11/06/2020      Time: 11:15:12
3 ← T code: 123                    → 2
4 ← Truck: Tank                    → 5
6 ← Grain: Corn                    → 7
Gross:                        654 kg
Tare:                          10 kg
Net                           644 kg
_____________________________________
```

FORMAT FOR PIECE-COUNTING:

Printformat: *PrnF.2*

```
Date: 11/06/2020      Time: 11:32:35
PMU:                  20000001953 g
Gross:                        654 kg
Tare:                           0 kg
Net                           654 kg
Units                          33 u
_____________________________________
```

Printformat: *PrnF.2* (with numeric Keyboard)

```
Weighing Number:                #5   → 1
Date: 11/06/2020      Time: 11:15:12
3 ← T code: 123                    → 2
4 ← Truck: Dump                    → 5
6 ← Grain: Stones                  → 7
PMU:                  20000.001953 g
Gross:                        652 kg
Tare:                           0 kg
Net:                          652 kg
Units:                         33 u
_____________________________________
```

FORMAT FOR CHECKWEIGHER

Printformat: PrnF.3

```
Date: 11/06/2020      Time: 11:37:08
Target Weight:                500 kg
Actual weight:                652 kg
Deviation:                    152 kg
_____________________________________
```

Printformat: PrnF.3 (with item weighing and T-code)

```
Weighing Number:                  #1      → 1
Date: 11/06/2020      Time: 11:38:31
3 ← Tcode: 123                        → 2
4 ← Truck: Trailer                    → 5
6 ← Grain: Barley                     → 7
Target weight:                100 kg
Actual weight:                644 kg
Deviation                     544 kg
_____________________________________
```

FORMAT FOR TOTALIZED WEIGHTS

Printformat: PrnF. 1 - 3

```
=====================================
                TOTAL
=====================================
Date: 11/06/2020      Time: 11:37:08
*************************************
Weighing Number:              00002
=====================================
Tot Gross:                  2614 kg
_____________________________________
Tot Tare:                     10 kg
_____________________________________
Tot Net:                    2604 kg
=====================================
```

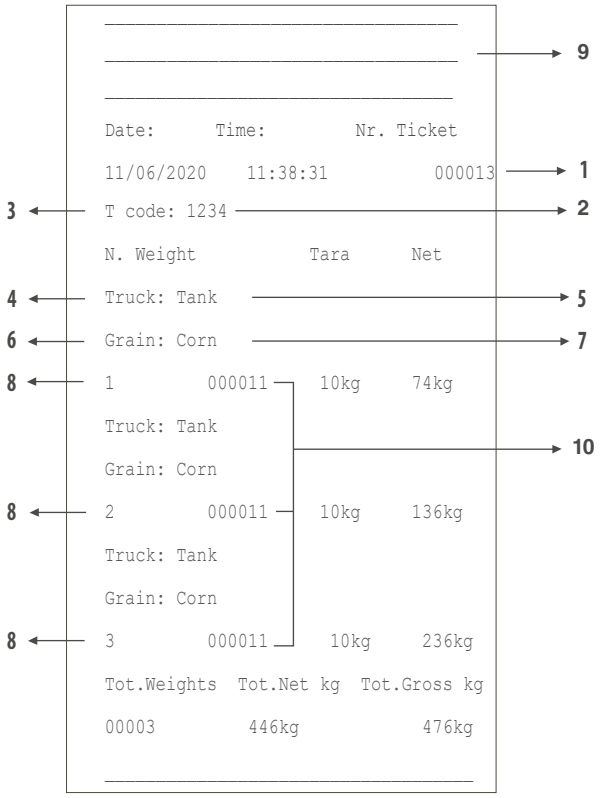
Printformat: PrnF. 1 - 3 + weighing n°

```
=====================================
                TOTAL
=====================================
Date: 11/06/2020      Time: 11:42:10
*************************************
Weights:              #00001 - 00001
Number of weights:            00001   → 1
=====================================
Tot Gross:                  654 kg
_____________________________________
Tot Tare:                     10 kg
_____________________________________
Tot Net:                    644 kg
=====================================
```

FORMAT FOR ACCUMULATION WITH TOTALIZATION PRINTFORMAT:

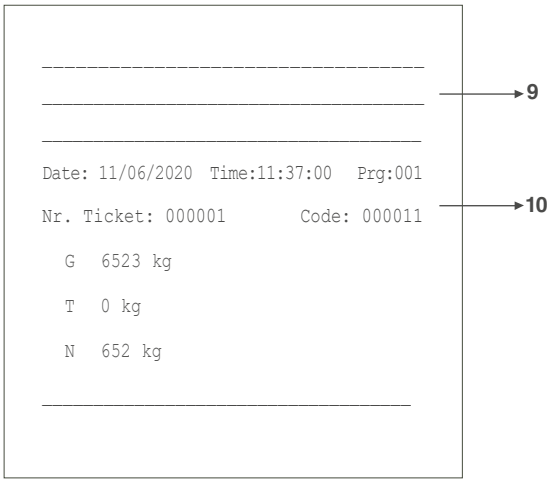
PrnF.4 (Line by Line)

3 header lines of 40 characters editable with software **configuration tool**

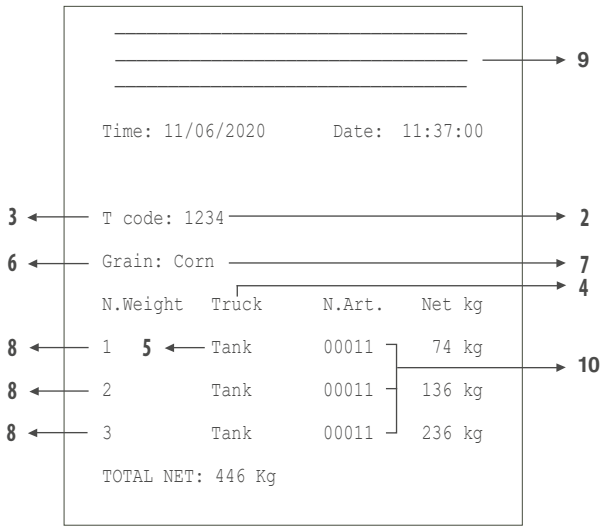


Printformat: PrnF. 5

3 header lines of 40 characters editable with software **configuration tool**



Printformat: PrnF.6 (Line by Line). 3 header lines of 40 characters editable with software **configuration tool**



LEGEND

1. The initial value of the editable counter from which each new ticket is added (in the 1-3 format, the weighing number = ticket number. If the ticket number is at zero, it will not appear).
2. Fixed editable number (if set the value to 0, will not appear in the ticket)
3. Fixed editable field (the name of the T-Code can be changed as desired in Menu Config)
4. Name Item 1 (only with item 1 activated)
5. Name of the activated item 1 (only with item 1 activated)
6. Name Item 2 (only with item 2 activated).
7. Name of the activated item 2. (Only with Item 2 activated).
8. Weighing number.
9. Header lines (only appear if them are previously edited).
10. Code Element 1

8. ERROR MESSAGES

DISPLAY	POSSIBLE PROBLEM	POSSIBLE SOLUTION
H.9FEr Function of initial zero setting	1. The current zero value is higher than calibration zero 2.The weight on the pan is not stabil 3. Load-cell connection / broken	1.Unload the platform. 2.Wait till the stable-indicator is active. 3.Make sure the load cell is working properly, use the menu “mV” in config **If the anormaly persists, pls contact your supplier service.**
LoWFEr Function of initial zero setting	1.The current zero value is lower than calibration zero 2.The weight on the Platform is not stabil 3.Load-cell connection / broken	1.Please take care that nothing is touching/lifting the platform 2.Wait till the stable-indicator is active. 3.Make sure the load cell is working properly, use the menu “mV” in config **If the anormaly persists, pls contact your supplier service.**
Over L **OVERLOAD**	1.The load cell is not (not correct) connect 2.Cable broken 3.Load cell broken 4.Weight on the platform is above the maximum capacity of the scale	1. Make sure the load cell is connected properly. 2. Make sure the cable of the load cell is working properly, if not replace it. 3. Make sure the load cell is working properly. Use the menu “mV” inside config, unload platform and give attention to the signal, if its not changing or changing very slow, there might be an error of the load cell. 4.Unload the platform. **If the anormaly persists, pls contact your supplier service.**
UnderL **UNDERLOAD**	1.The load cell is not (not correct) connect 2.Cable broken 3. Load cell broken 4. Weight on the Platform is lower than the maximum negative indication of the scale	1.Make sure the load cell is connected properly. 2.Make sure the cable of the load cell is working properly, if not replace it. 3.Make sure the load cell is working properly. Use the menu “mV” inside config, unload platform and give attention to the signal, if its not changing or changing very slow, there might be an error of the load cell. 4.Check if something is touching the Platform or put weight on the Platform. **If the anormaly persists, pls contact your supplier service.**
-0-Err Function of manual zero setting	Weight on the Platform is to high to perform a manual zero setting	Unload the Platform

tArHig Function of manual Tare	The selected Tare-value exceed the maximum capacity of the scale	Input a Tare-value according to the maximum capacity of the Scale
No STB	The weight on the Platform is not stabil	Wait till the stabil-indicator turn on
Buff Full Ove Buff	**Memory 80% full** **Memory full**	Delete the weighings with F74 (only with numerical keyboard) or from the functions menu explained in the user manual. The device has an option SAVEWE in CONFUE, so that the weighings are saved or not.
Wei Err	Weight less than minimum	Put a weight higher than the minimum
neu Wei	Same weight	Vary the weight on the platform

BUILT-IN PRINTER ERRORS G410 PRINT

STATUS LED		DESCRIPTION
○	**OFF**	Printer turned Off
●	**ON**	Printer turned On, no errors
	X2	Temperature High
	X3	Paper empty
●	**X4**	Incorrect supply voltage
	X5	Reception error
	X6	Unrecognized Command
	X7	Command reception time out

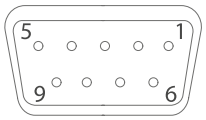
9. CONNECTIONS

WIRING DIAGRAM IP54
LOAD CELL (DB9)

THE IP54 INSTRUMENT IS SUPPLIED COMPLETELY FOR CONNECTING THE LOAD CELL

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

The cable that comes from the Load Cell is connected by welding, it is recommended to be very careful with the quality of the same and the insulation between the conductors and the use of tin of good quality since a product of poor quality or not Ideally, it could impair the proper functioning of the instrument.



FUNCTION OF PINS IN G4XX			FUNCTION OF PINS IN HPP		
n.º pin	Description	Function	**n.º pin**	Description	Function
1	-EXC	- Excitation	**1**	-EXC	- Excitation
2	-SENSE	- Sign SENSE	**2**	INT	Interruption inclinometer
3	GND_A	analog mass	**3**	GND_A	analog mass
4	+SENSE	+ Sign SENSE	**4**	SDA	Data signal I2C
5	+EXC	+ Excitation	**5**	+EXC	+ Excitation
7	- OUT	- Sign Load cell	**6**		Not connected
8	+ OUT	+ Sign Load cell	**7**	- OUT	- Sign Load cell
			8	+ OUT	+ Sign Load cell
			9	SCK	Clock signal I2C

If the Load Cell is equipped with a 4-wire connection cable plus protection, and not with 6 wires plus protection, it is necessary to connect the power supply (+) with SENSE (+) and (-) with SENSE (-) joining pin 1 with pin 2 and pin 4 with pin 5.

To minimize electrical and radio interference, it is absolutely necessary that all connection cables between the Device and Load Cell be of the protected type and that the entire system be connected to an optimum grounding.

The supplier of the Device can supply a type of connection cable purposely studied and equipped with double protection to weld the shield and ground terminals.

Regarding the connection of the protection shields of the cable, refer to the following figure.

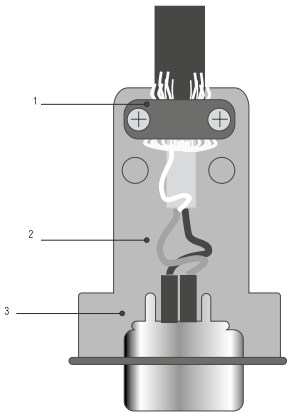
Minimum impedance 25 Ω

Maximum impedance 1100 Ω

1- The external protection of the cable that must be tightened in the metal parachute with terminal mustaches SITUATED between the two covers of the cover

2- The termination of the internal protection of the cable must be closed in the metal parachute WITH BIGOTES: Do not connect to pin 3 of the connector

3- Protected coverage in conductive material



INTERFACE SERIE RS 232 COM 1 & COM 2 (DB9)

The Device includes in 2 serial exit of the type RS-232.

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)	

OPTIONAL RS485 COM 3 (DB9)

n° pin	Description
1	EARTH
8	RTx -
9	RTx+

OPTIONAL 4-20MA / 0-10V ANALOG (DB9)

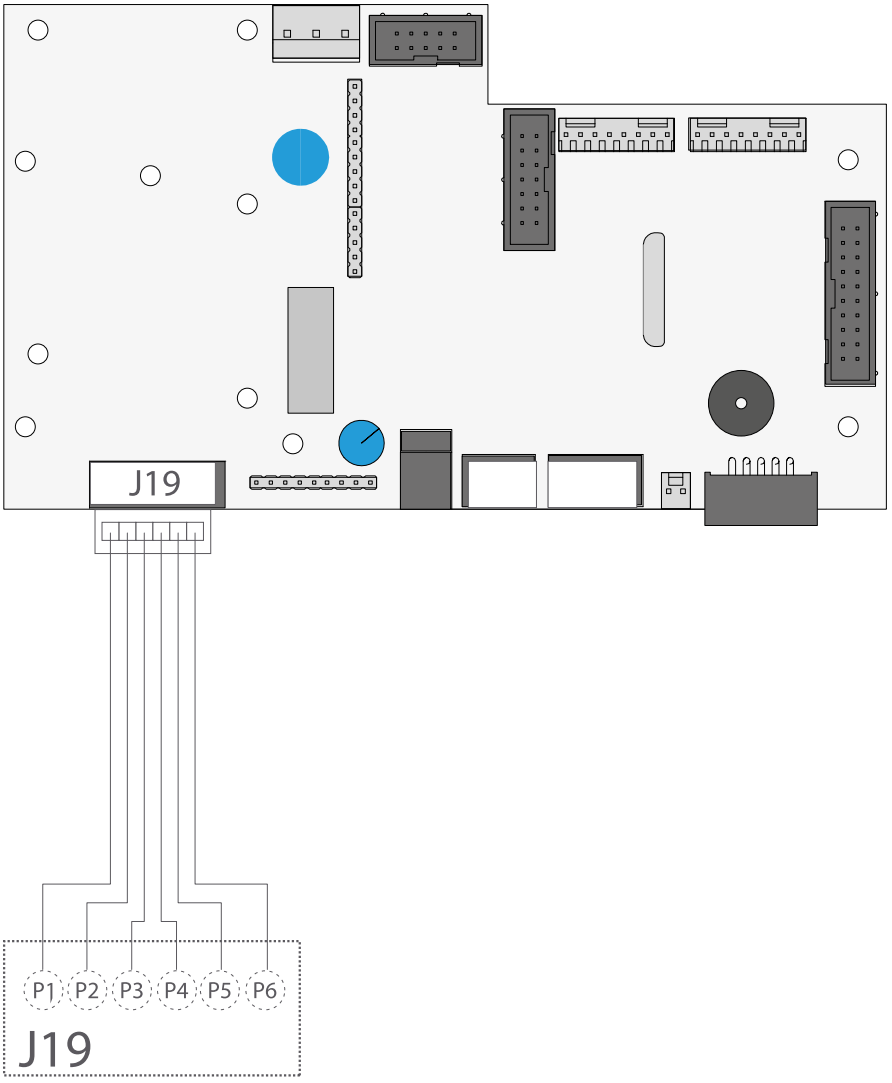
n° pin	Description
6	GND
7	V_{OUT}
8	I_{OUT} -
9	I_{OUT} +

OPTIONAL 4E/4S(RELAY) (DB25)

n° pin	Description	n° pin	Description
1	RLY1_C	13	IN1-
14	RLY1_NO	25	IN1+
2	RLY2_C	12	IN2-
15	RLY2_NO	24	IN2+
3	RLY3_C	11	IN3-
16	RLY3_NO	23	IN3+
4	RLY4_C	10	IN4-
17	RLY4_NO	22	IN4+
5	$+5V_{DC}$	9	$+5V_{DC}$
18	GND	21	GND

WIRING DIAGRAM IP65 / IP68

LOAD CELL

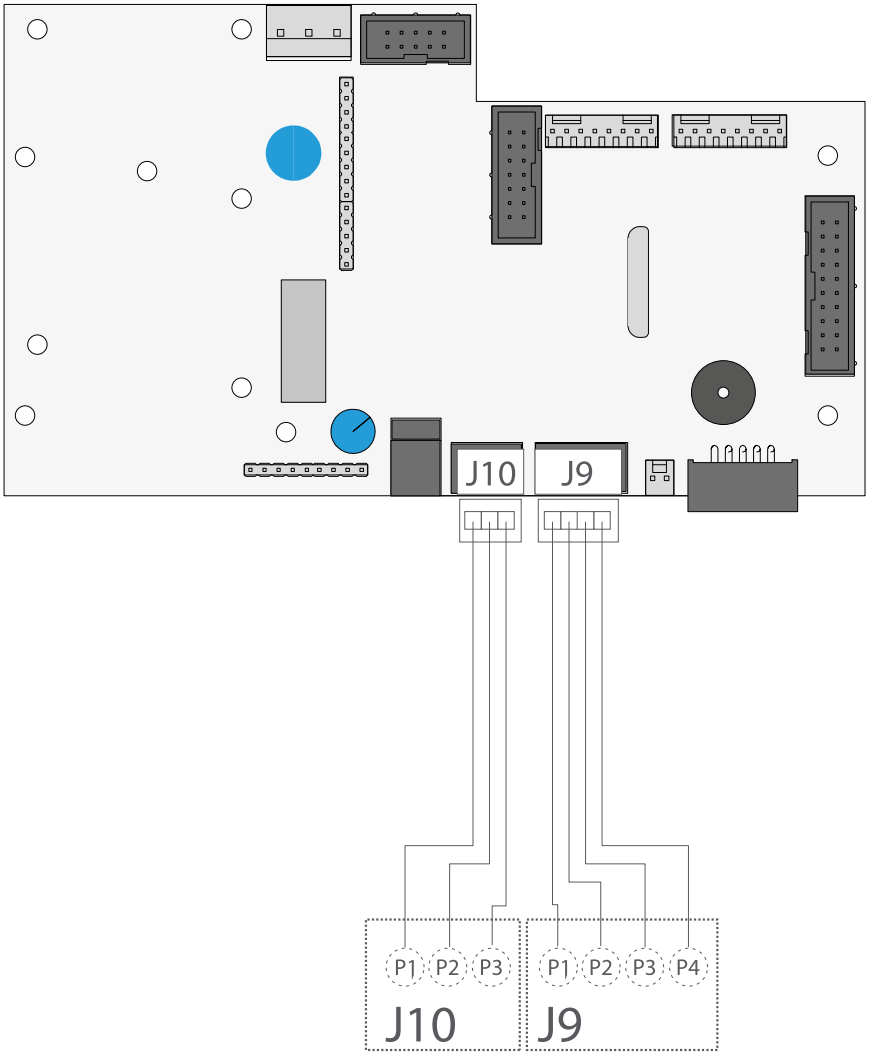


LOAD CELL CABLE

CONNECTOR J19

pin 1	IN+ (Exit Load cell)
pin 2	IN- (Exit Load cell)
pin 3	SENSE+
pin 4	SENSE-
pin 5	EXC+
pin 6	EXC-

SERIAL INTERFACE RS-232 COM1 / COM2



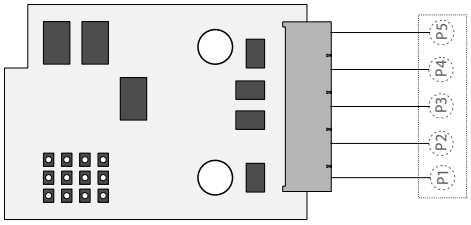
COM 1
RS232
CONNECTOR J9

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

COM 2
RS232
CONNECTOR J10

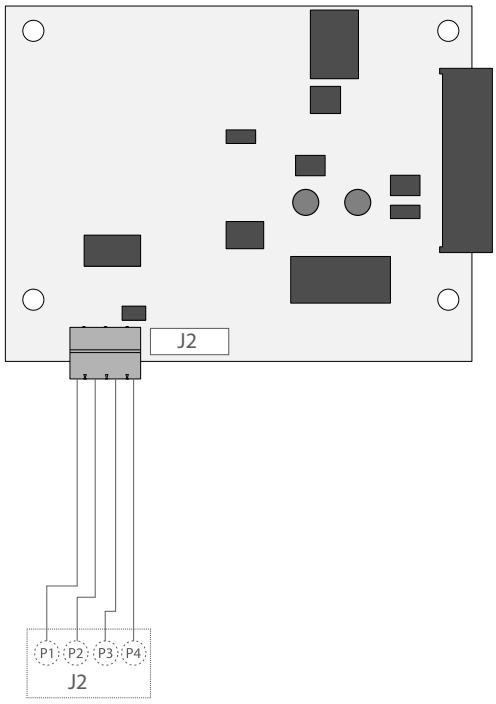
pin 1	RX
pin 2	TX
pin 3	GND

SCHEME OPTIONAL RS485

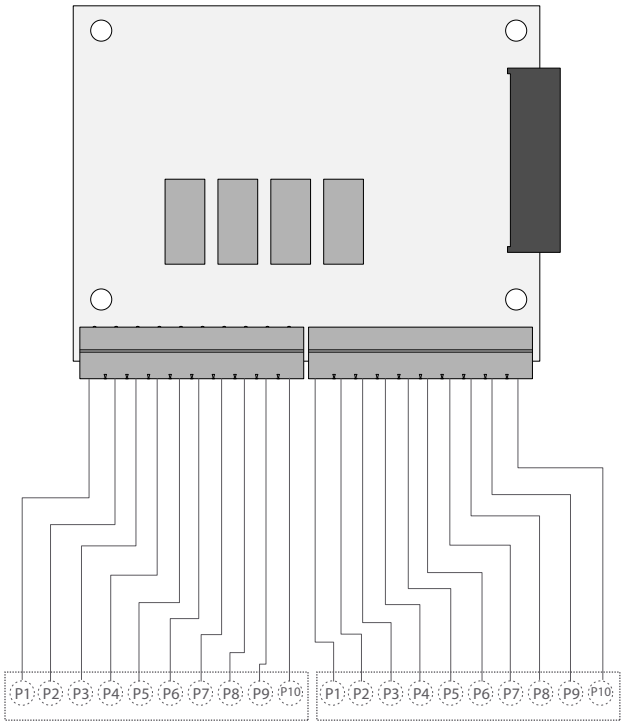


pin 1	RTX +
pin 2	RTX -
pin 5	EARTH

SCHEME OPTIONAL 4-20MA / 0-10V ANALOG (DB9)



SCHEME OPTIONAL 4E/ES (RELAY)



CONNECTOR J2

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

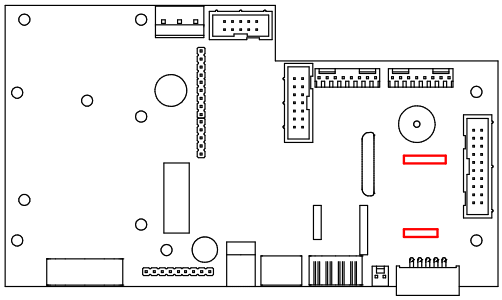
pin 1	RLY1_C	pin 1	IN1 -
pin 2	RLY1_NO	pin 2	IN1 +
pin 3	RLY2_C	pin 3	IN2 -
pin 4	RLY2_NO	pin 4	IN2 +
pin 5	RLY3_C	pin 5	IN3 -
pin 6	RLY3_NO	pin 6	IN3 +
pin 7	RLY4_C	pin 7	IN4 -
pin 8	RLY4_NO	pin 8	IN34+
pin 9	+ $5V_{DC}$	pin 9	+ $5V_{DC}$
pin 10	GND	pin 10	GND

10. MOUNTING THE OPTIONALS

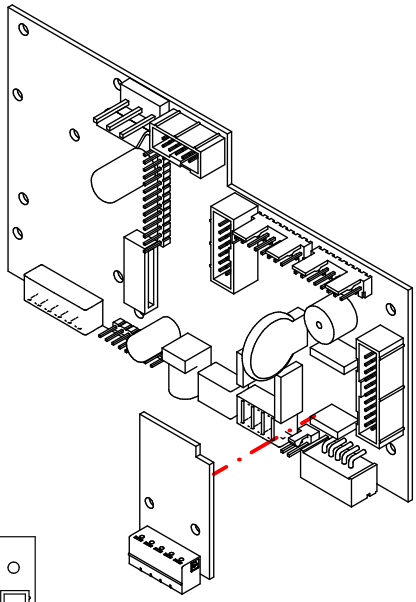
RS485 / IP54

RS485

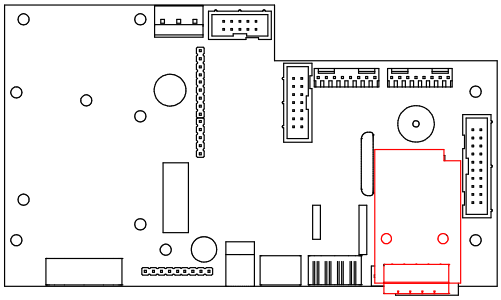
1.



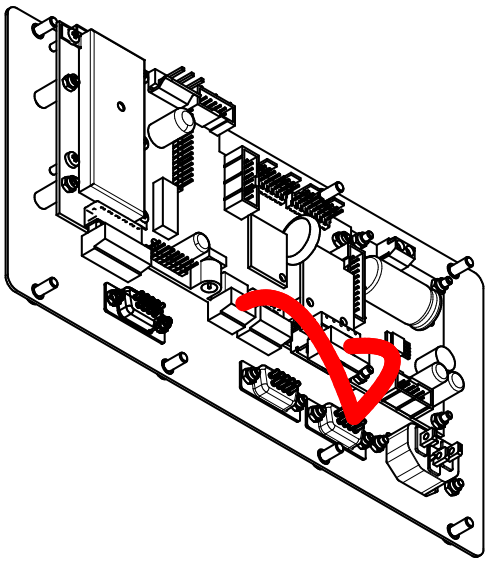
2.



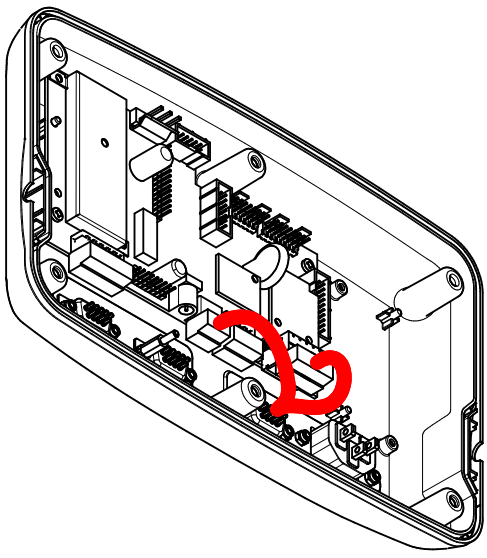
3.



4.

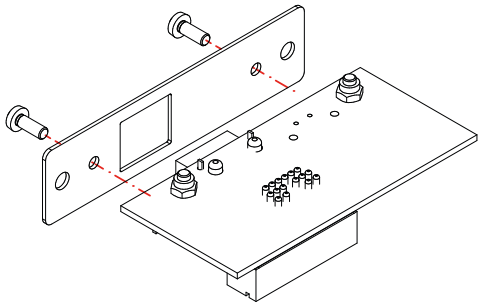


5.



ETHERNET FOR STAINLESS STEEL CASE IP54

1



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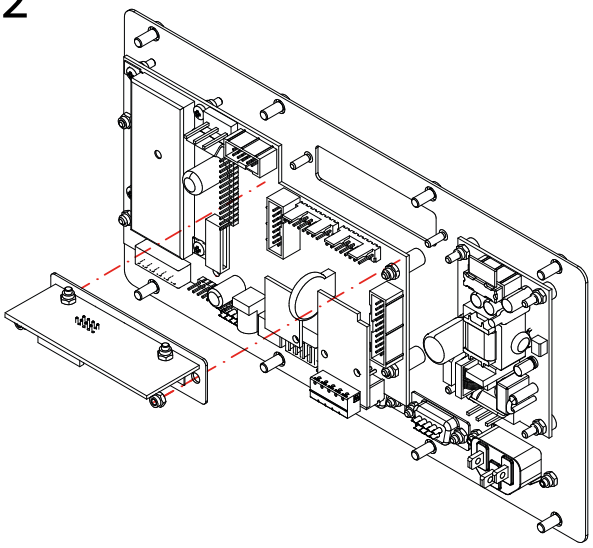

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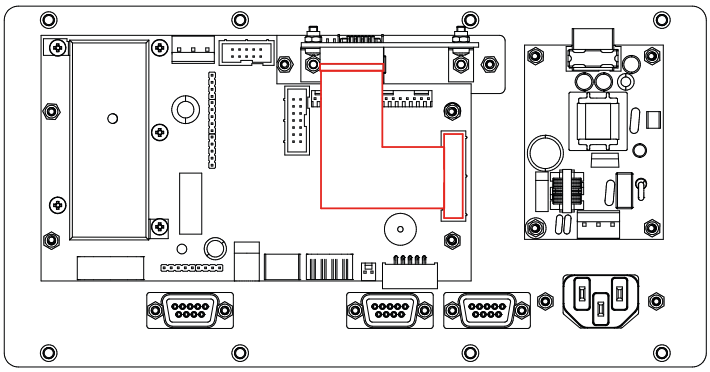

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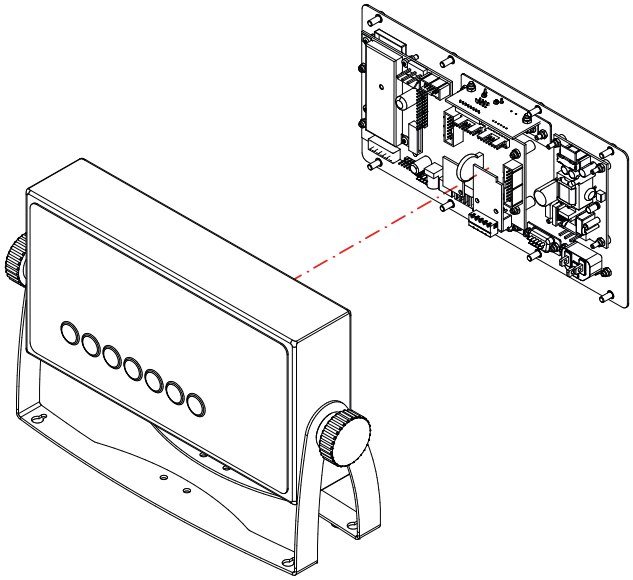
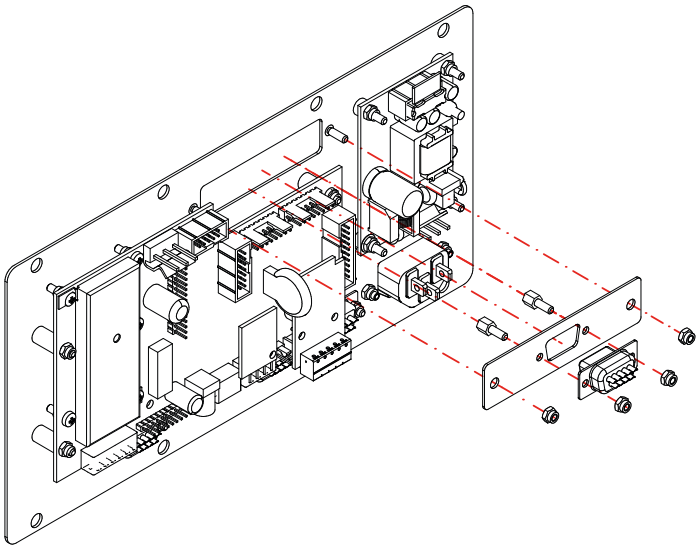


4-20MA / 0-10V FOR STAINLESS STEEL CASE IP54

1



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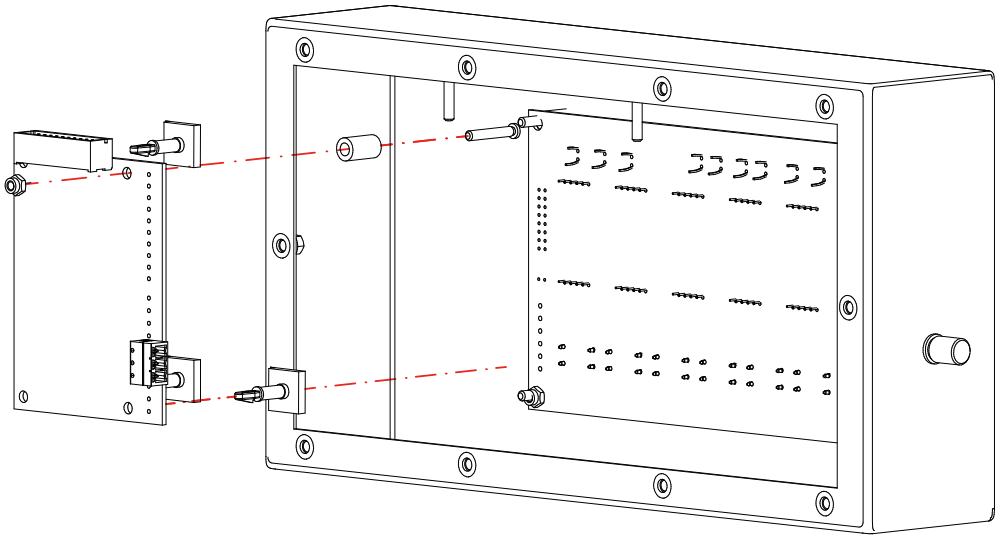

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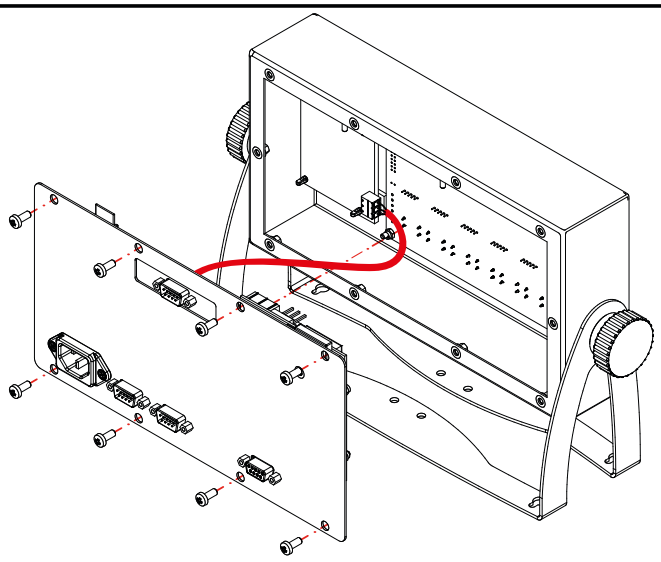
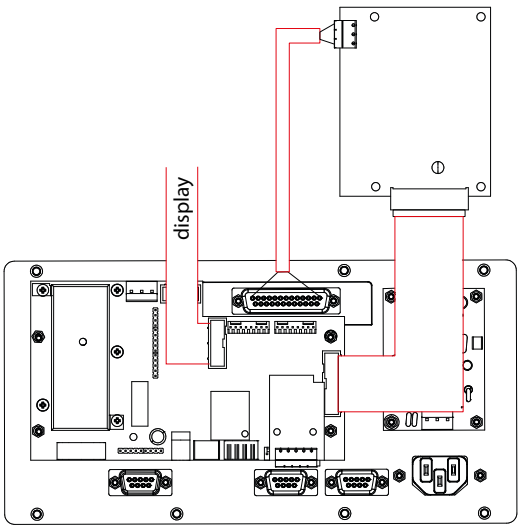
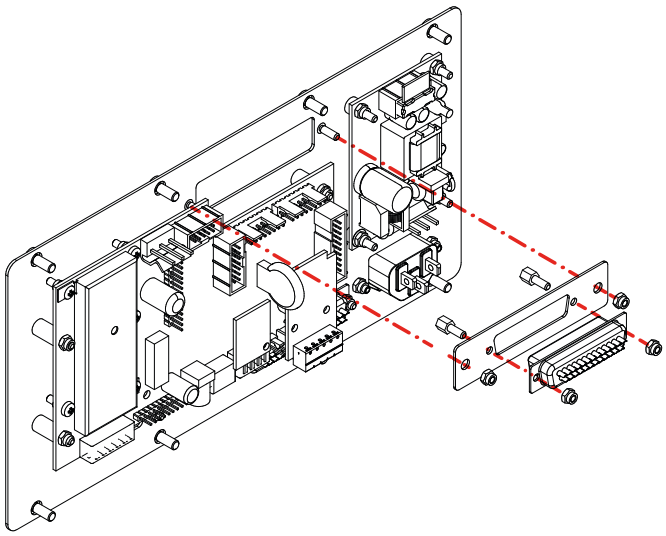




RELAY FOR STAINLESS STEEL CASE IP54

1



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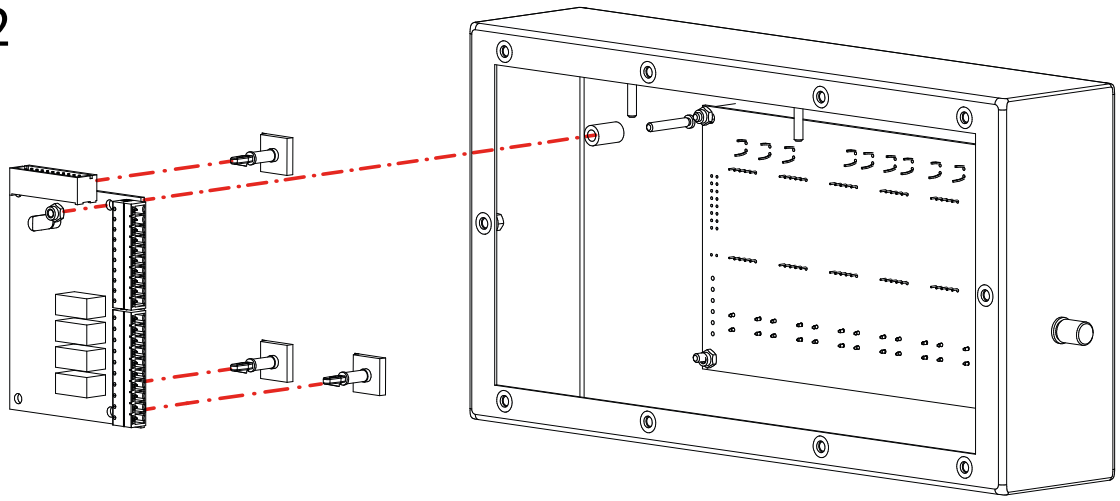

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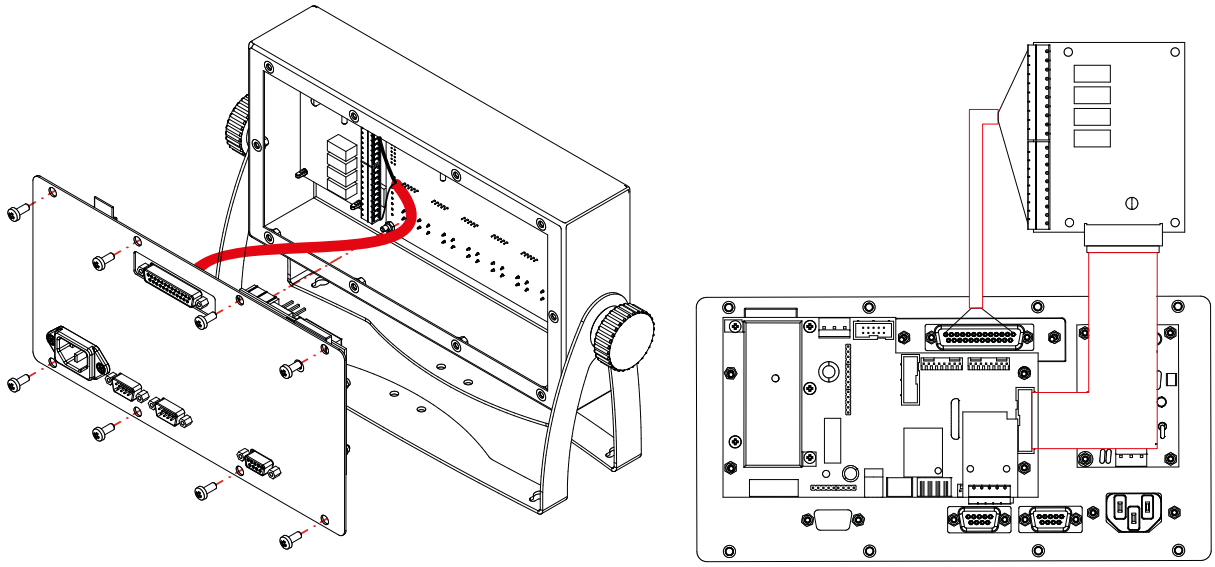
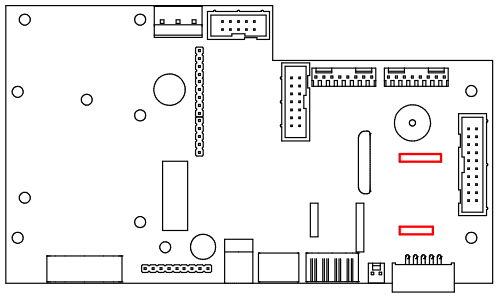


RS485 / IP65

RS485

1.



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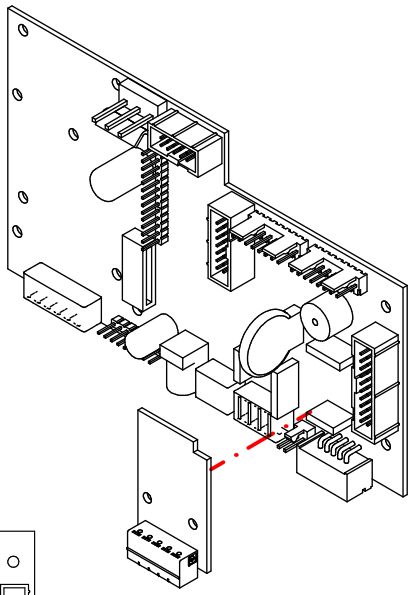

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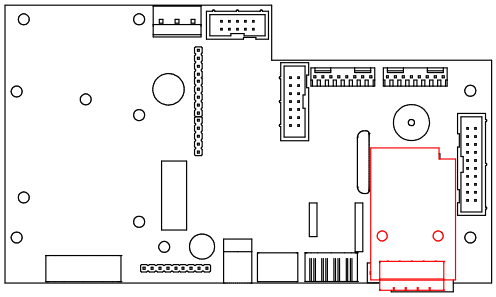

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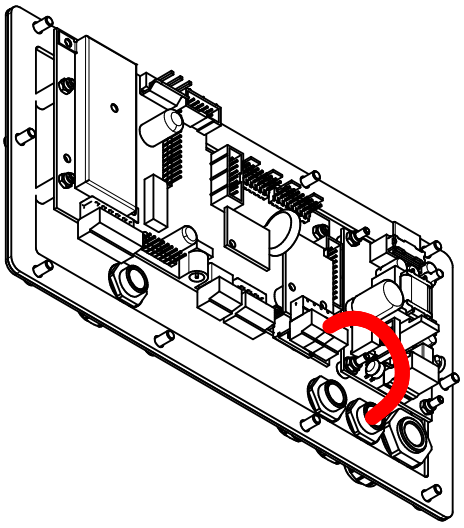

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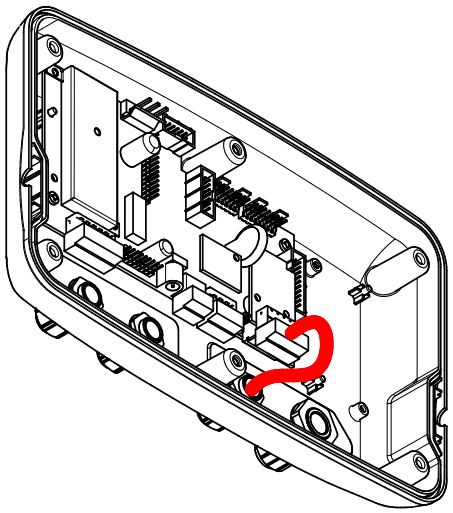
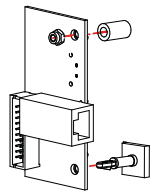
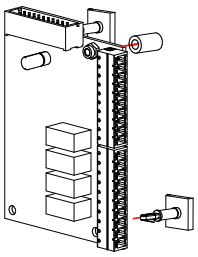


ETHERNET OR RELAY OR 4-20MA / 0-10V FOR STAINLESS STEEL CASE IP65

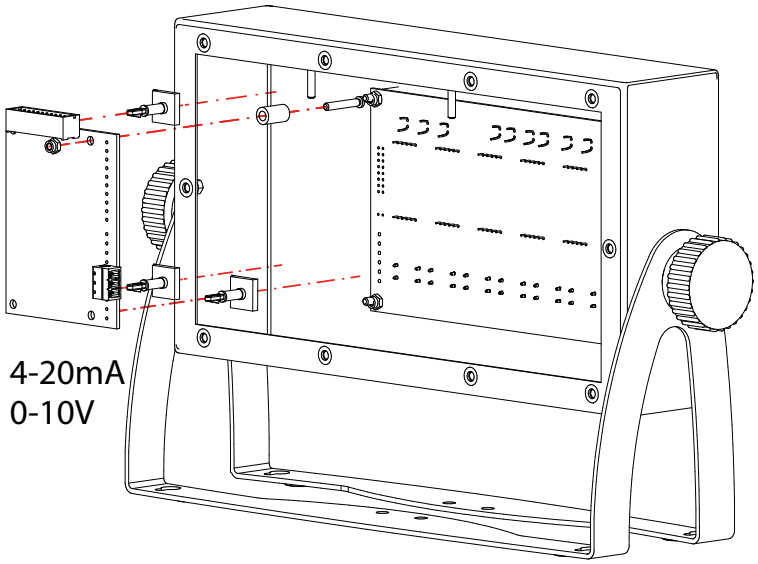
1



ETH

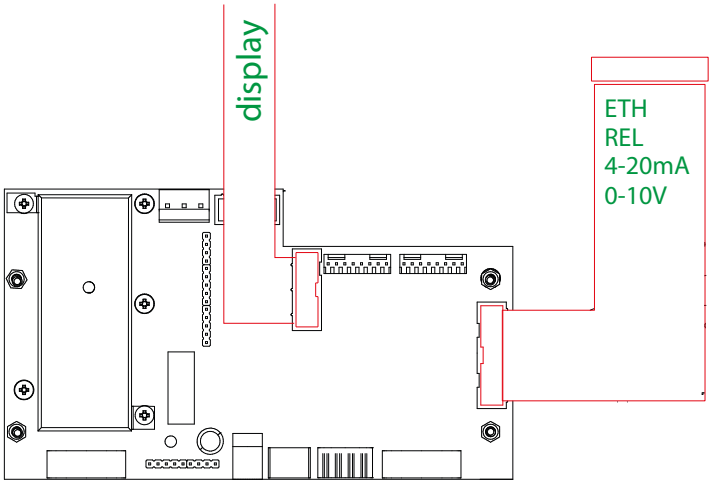


REL

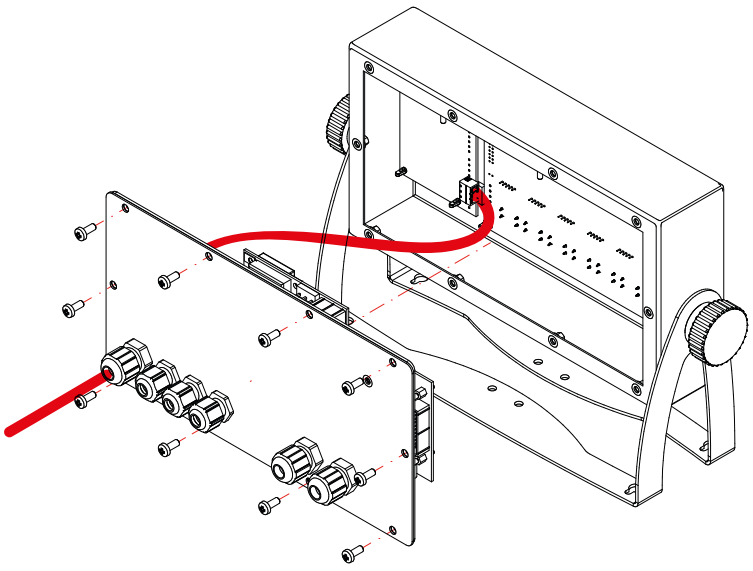


4-20mA
0-10V

2



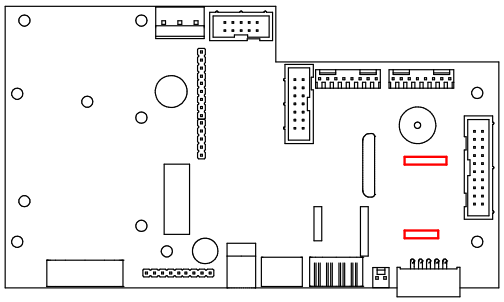
3



RS485 / IP68

RS485

1.



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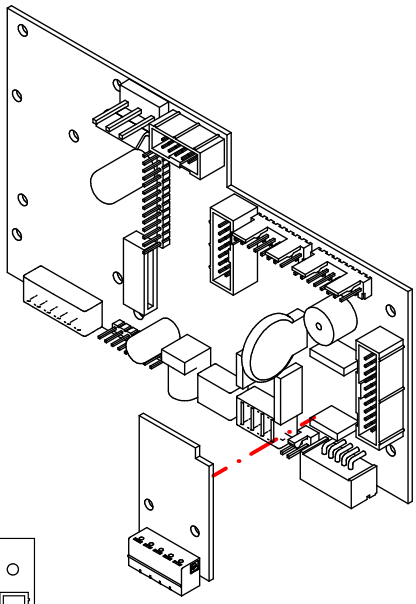

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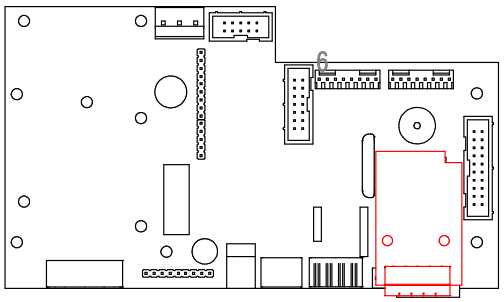

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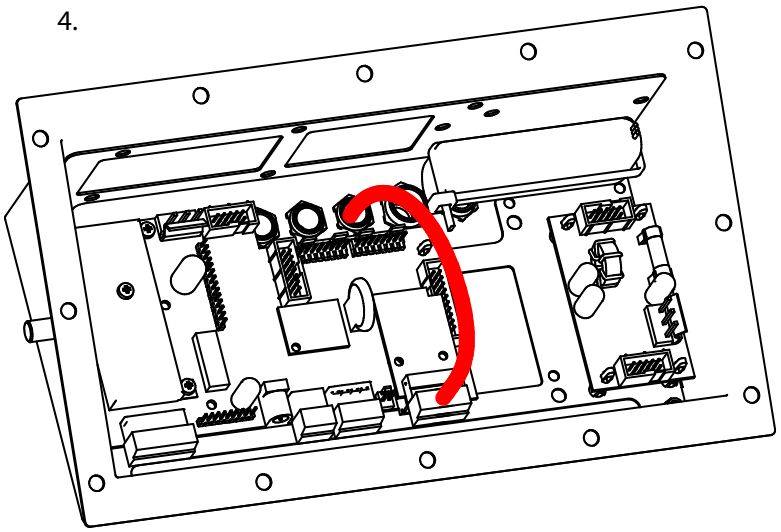
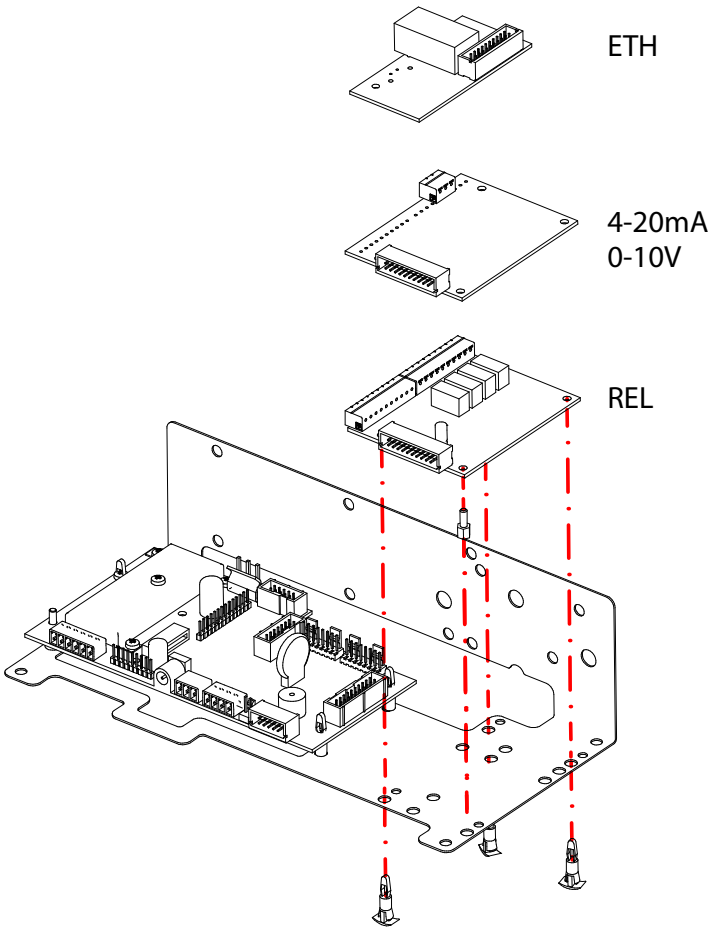
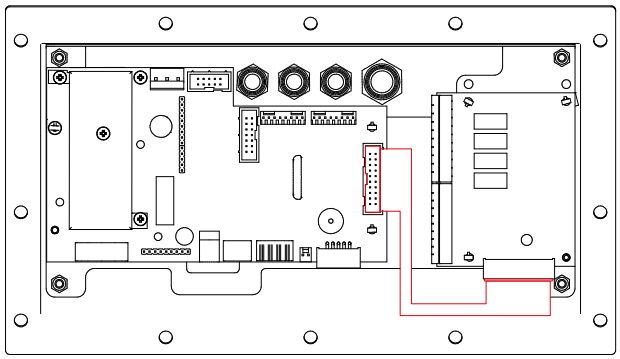


ETHERNET OR RELAY OR 4-20MA / 0-10V FOR STAINLESS STEEL CASE IP68

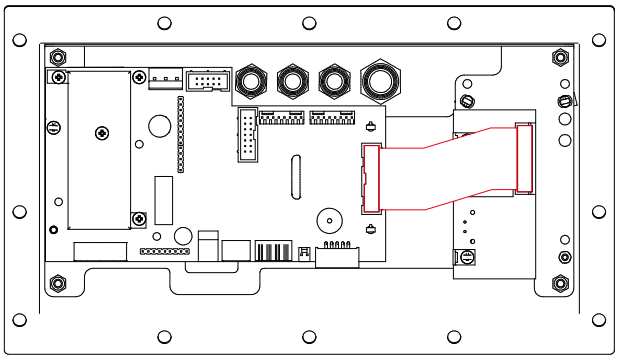
1



2a REL / 4-20mA 0-10V

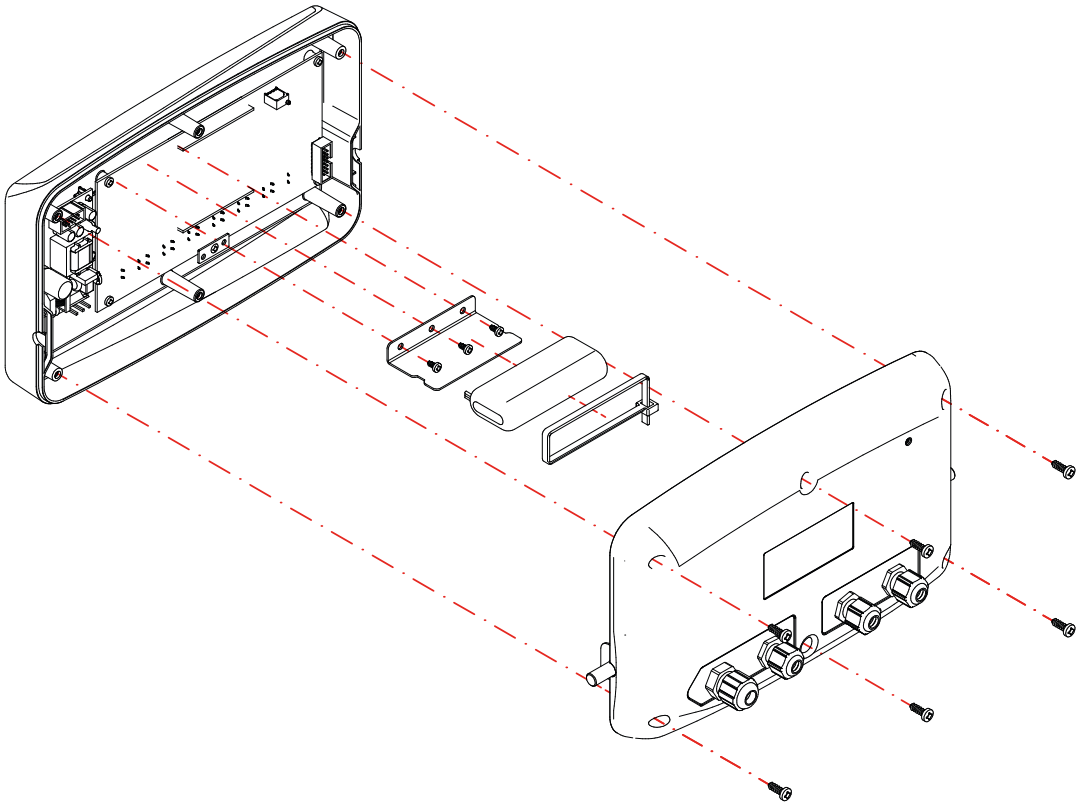


2b ETH



BATTERY FOR ABS-CASE IP54 OR IP65

1



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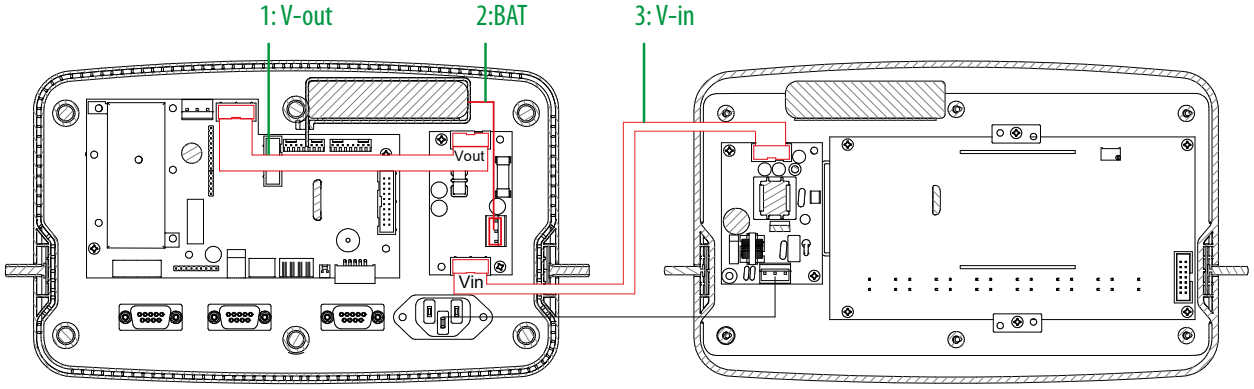
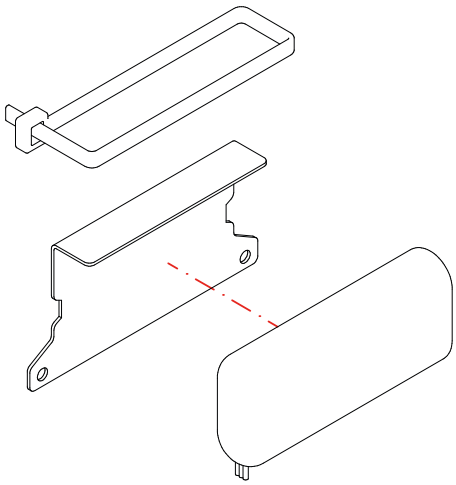


BATTERY FOR STAINLESS STEEL CASE IP54 OR IP65

1



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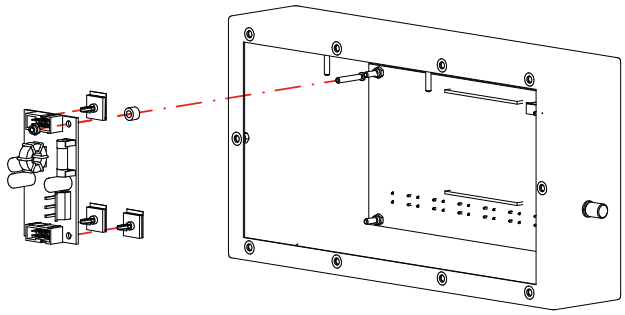

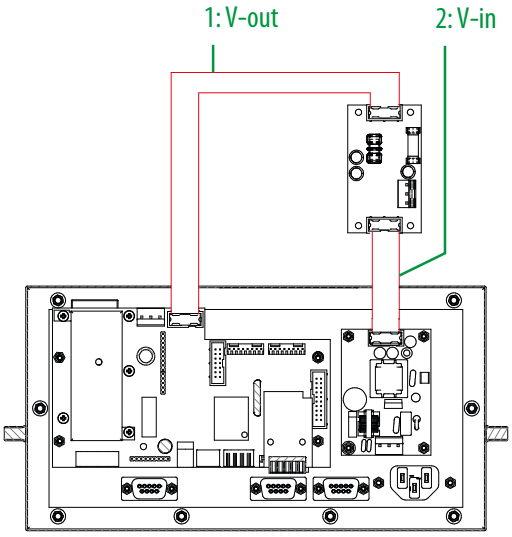

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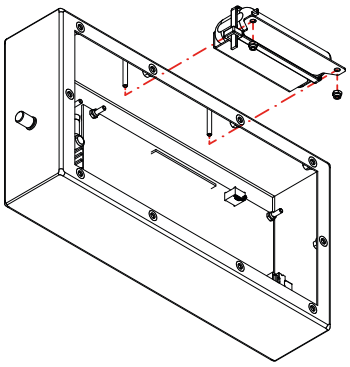
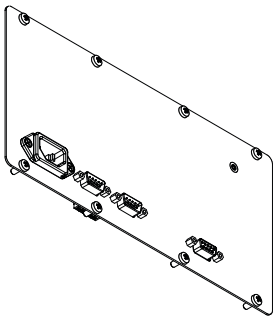
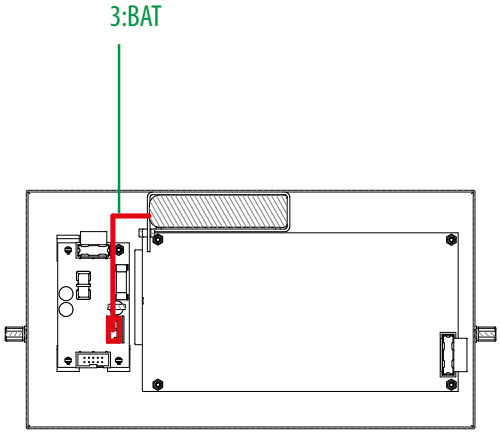
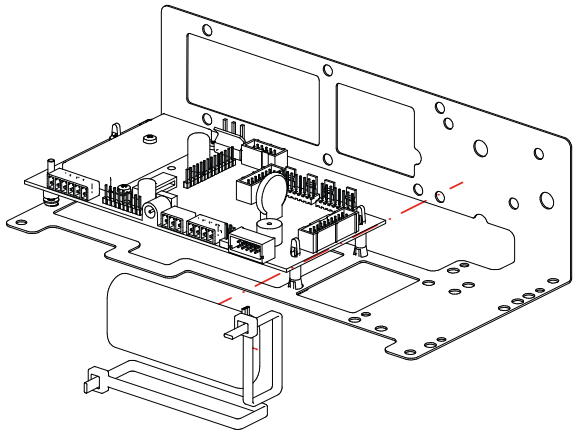






BATTERY FOR STAINLESS STEEL CASE IP68

1



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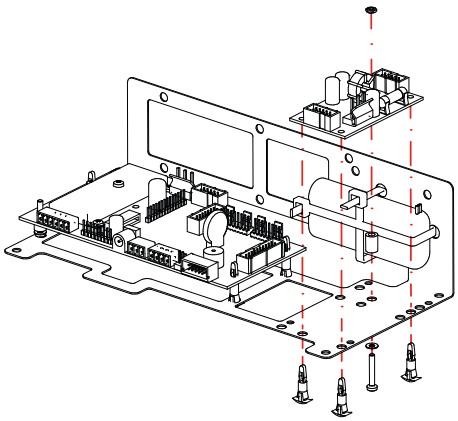

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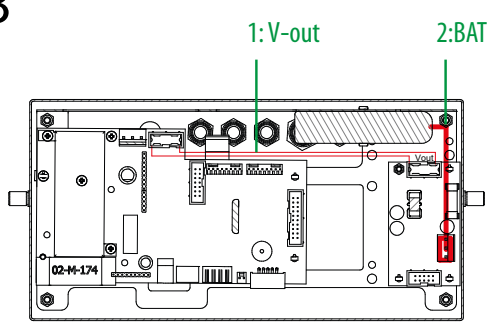

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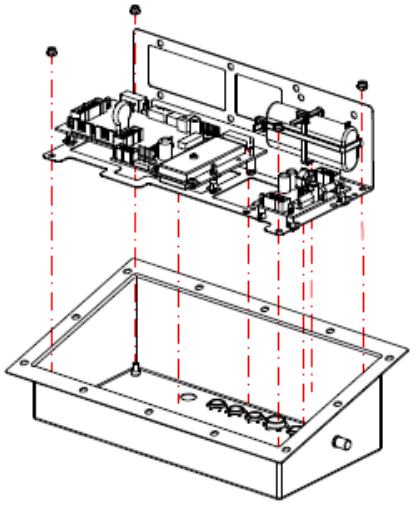

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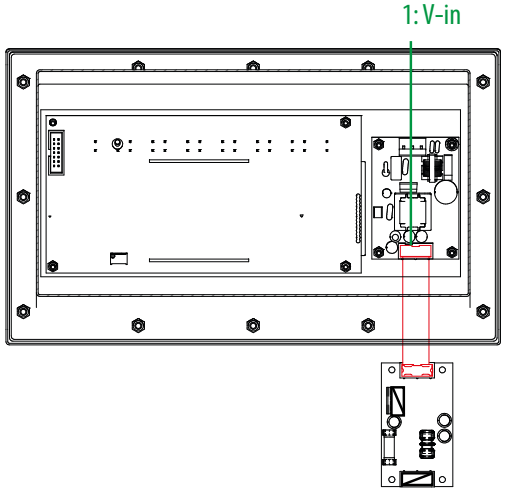
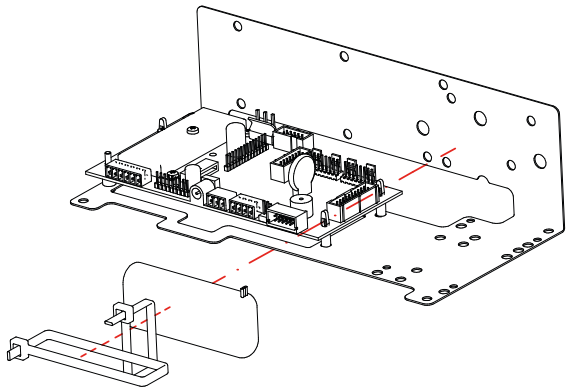


BATTERY+ ETHERNET OR RELAY OR 4-20MA / 0-10V FOR STAINLESS STEEL CASE IP68

1



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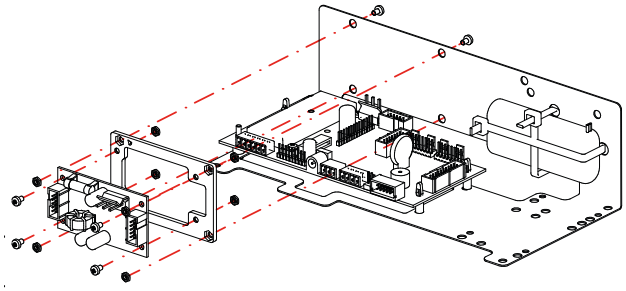

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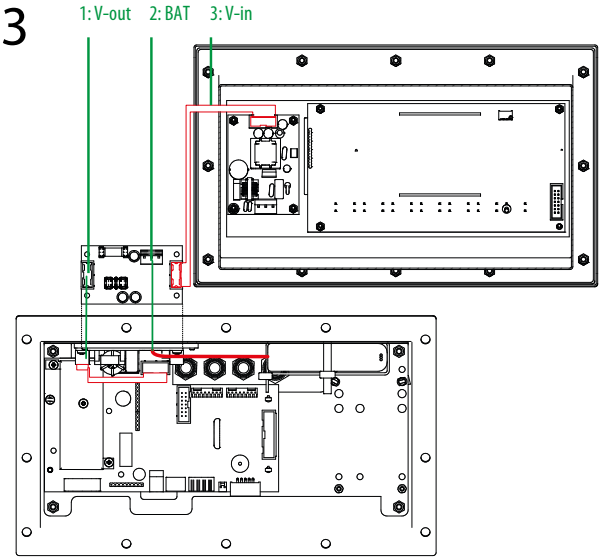
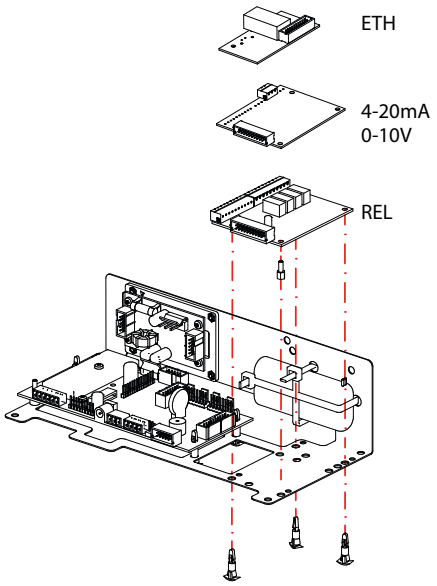
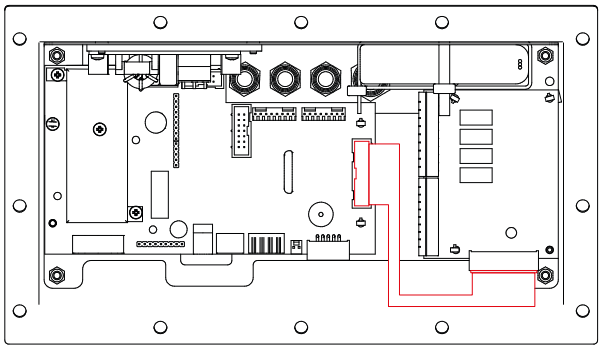


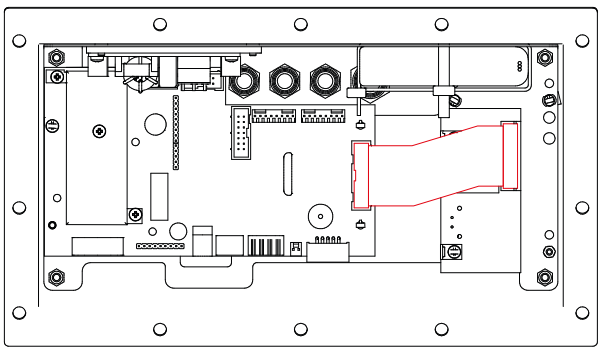
4



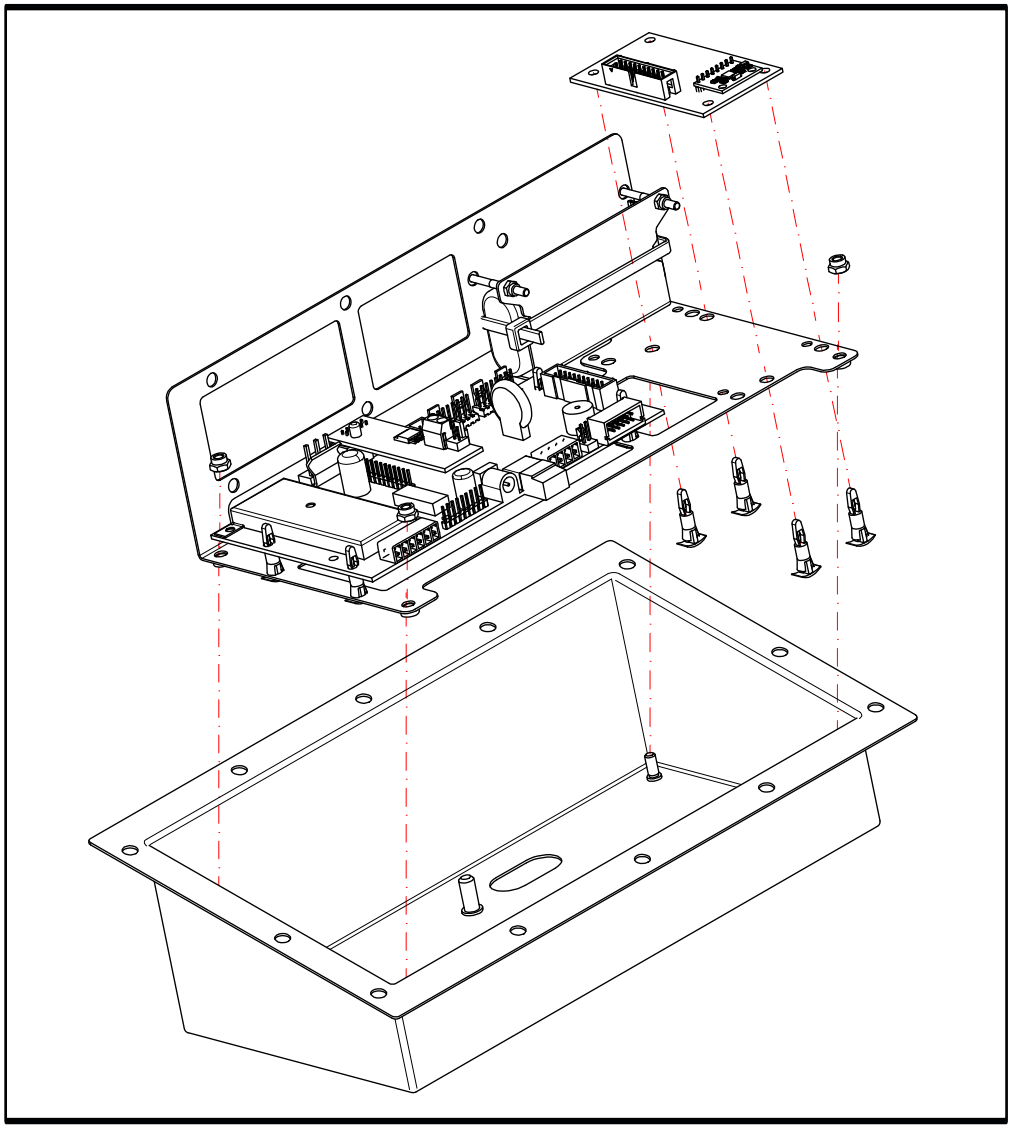
5a REL / 4-20mA 0-10V

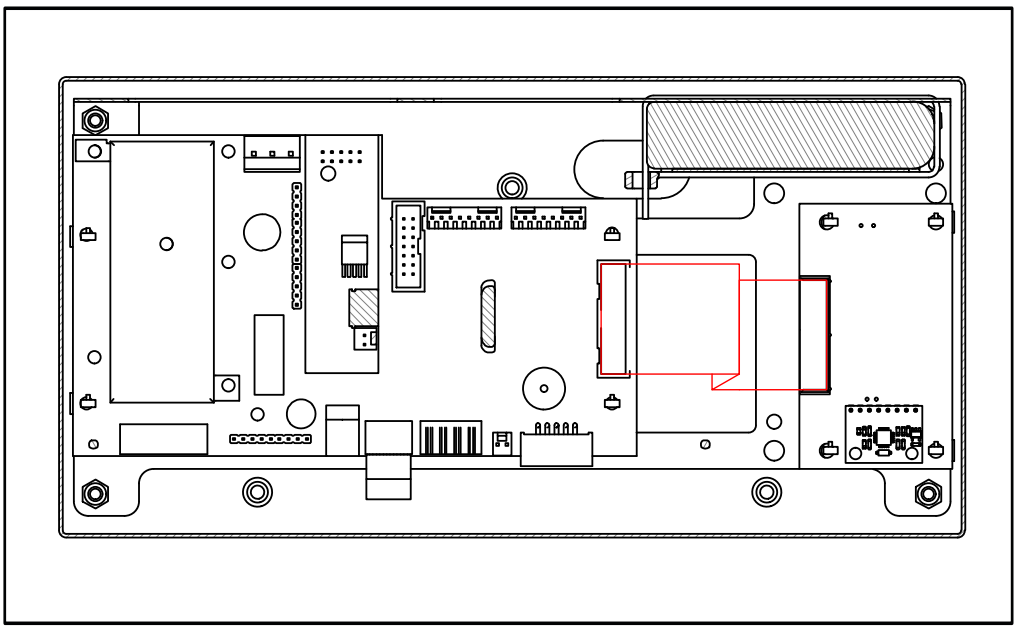


5b ETH

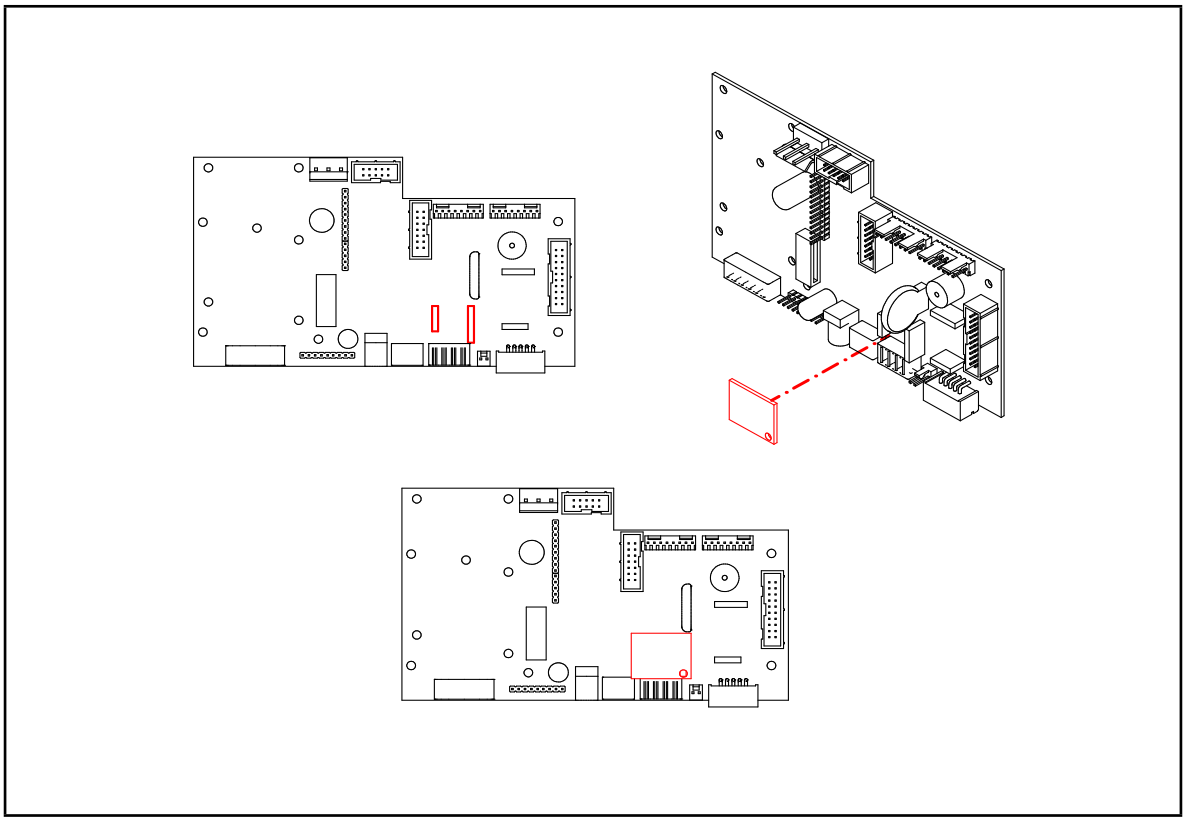


INCLINOMETER FOR TP 410





11. DSD-MEMORY



It is possible to increase the Memory of the weight indicator with the additional plate that performs the function of FISCAL MEMORY; this consists in archiving all the weight values transmitted to a computer for a subsequent elaboration or integration of the data transmitted by the serial channel COM / ETHERNET

Each archived value is associated with an ID code. The memorized value can be consulted on the display of the indicator using the ID. (as a control with respect to the data printed by the PC).

The ID has the following format:

<Unique code number>, <weight number>

Unique code number: 5-digit number ranging from 0 to 99,999, indicates the complete unique code number of the dsd memory.

The dsd memory can store a maximum of 400,000 weights, (once this value is reached) the weighing number starts again by 00000 and the unique code number is increased by one.

The relative weight of an ID can be verified only if:
it has a unique code number equal to the current one in the dsd memory and a weighing number less or equal to the last value received with the “PID” command.

12. REMOVAL OF ELECTRONIC EQUIPMENT

For the European Union customers:

All the products that arrived at the end of their respective circle of life, have to be returned to the constructor in order to be recycled. For information on refund procedures contact the reseller or the builder

13. OPTIONAL BATTERY

The GI400 has three battery indications via LED or LCD screen.

HIGH battery level between **100% and 70%**

MEDIUM battery level between **70% and 40%**

Battery level less than 40%, you must connect the equipment immediately to the power supply

- During the charging on LCD devices
- During the charging in LED devices, turn on HIGH level and LOW level at the same time.

14. WARRANTY

This device is guaranteed against all manufacturing and material defects, for a period of 1 year from the date of delivery. During this period, GIROPÈS will take over the repair of the device.

This warranty does not include damages caused by improper use or overloading.

The guarantee does not cover the shipping costs (postage) necessary for the repair of the balance.

GIROPES

Pol. Empordà Internacional Calle Molló, 3
17469 VILAMALLA - (Girona) SPAIN
T. (34) 972 527 212