

PENKO Engineering B.V.

When Weighing Counts



Manual:
FLEX Check Weigher Controller

FLEX Check Weigher Controller

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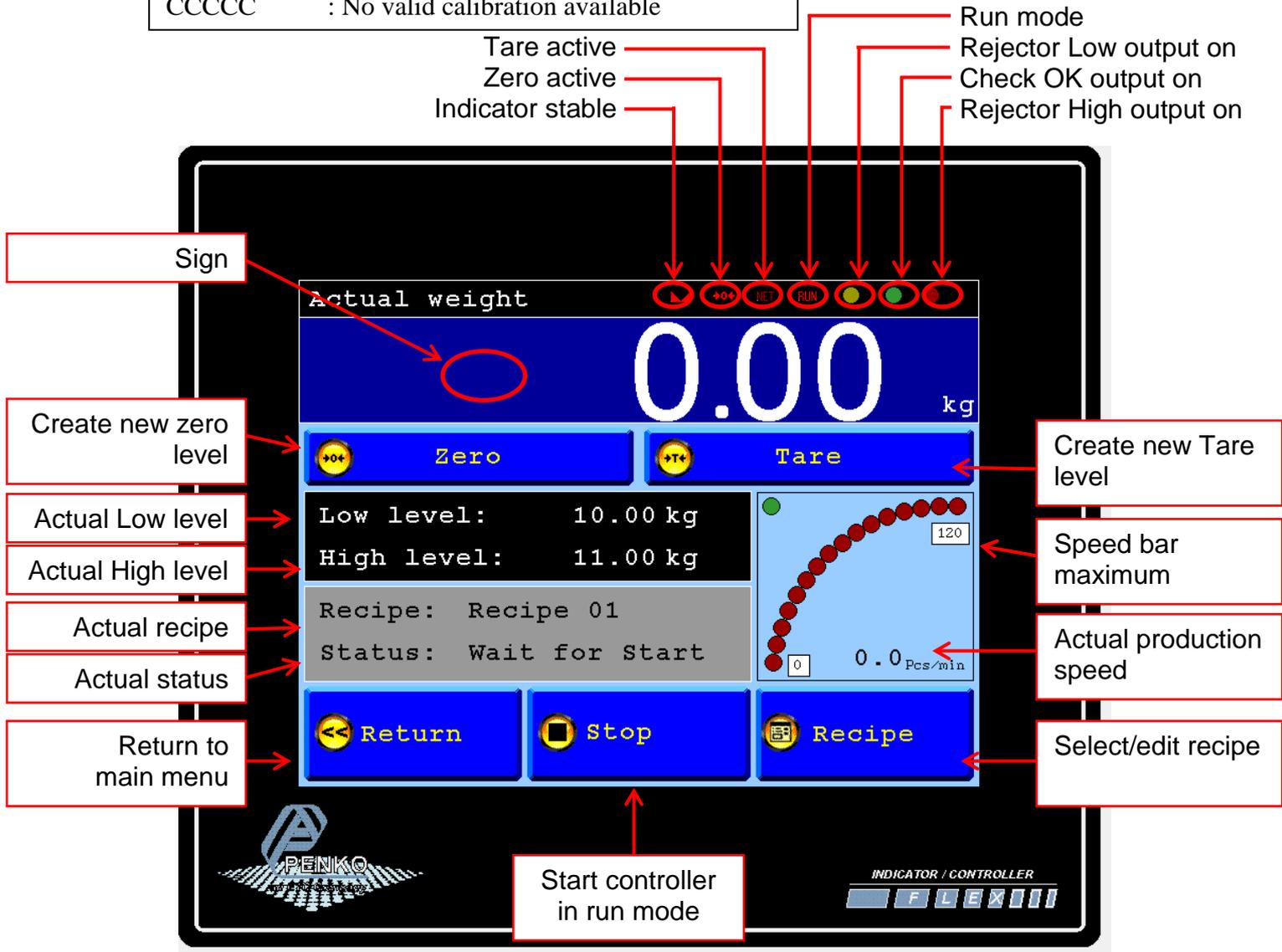


FLEX Check Weigher Controller

Explanation of production screen.

Possible Indicator Errors:

- : Indicator not available.
- ===== : Maximum display value exceeded.
- UUUUU : Hardware Under load (loadcell defect?).
- OOOOO : Hardware Over load (loadcell defect?).
- CCCCC : No valid calibration available

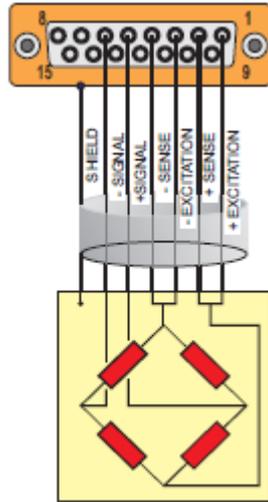


FLEX Check Weigher Controller

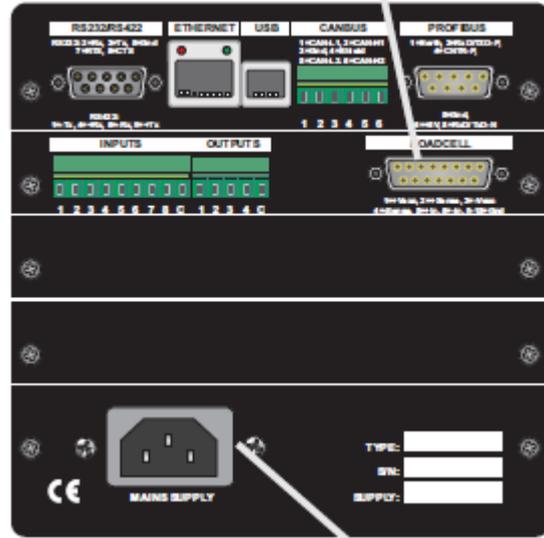
Wiring connection for Flex-CK model Flex.

Loadcell connection,
15p sub-D Female:

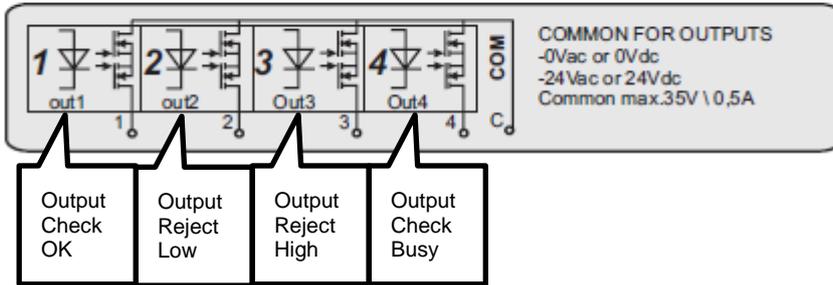
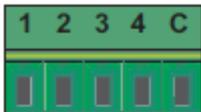
1. + Excitation
2. + sense
3. - Excitation
4. - Sense
5. + Signal
6. - Signal
- Housing. Shield



Loadcell connection

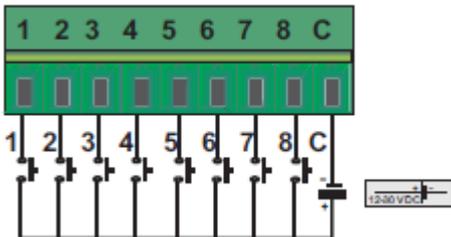


Digital Outputs:



AC Power supply
230 Vac 50/60 Hz

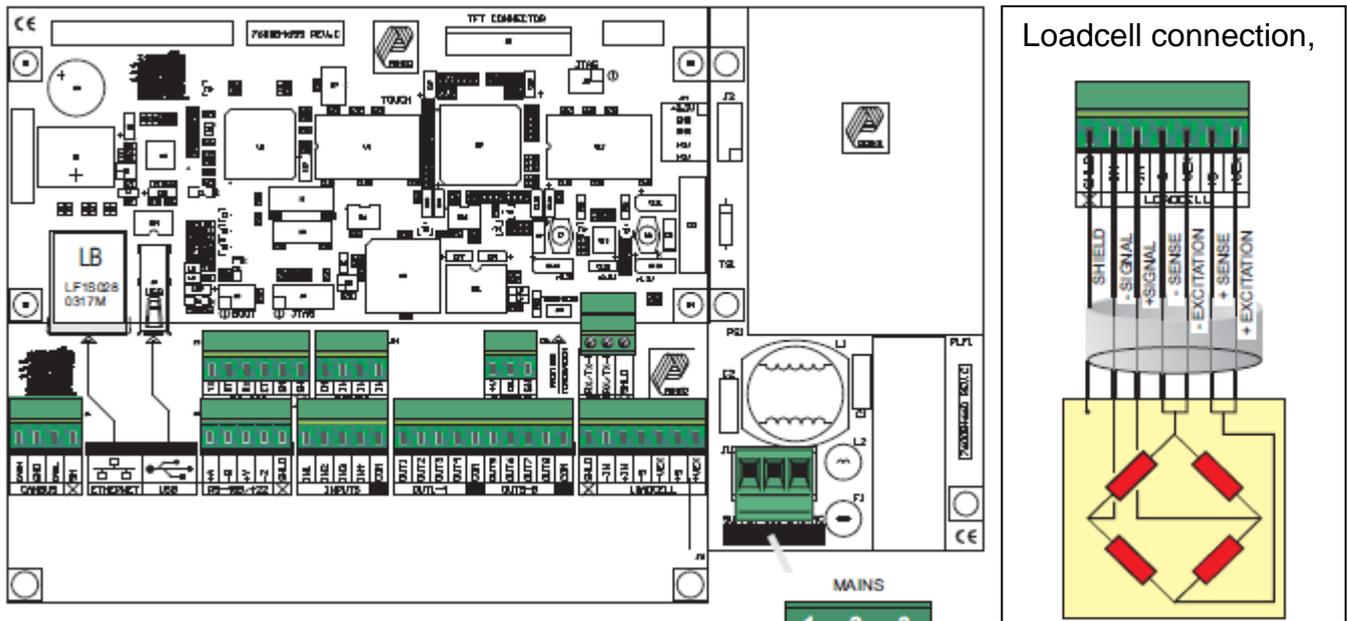
Digital Inputs:



- Input 1: Start (option)
- Input 2: Stop (option)
- Input 3: Start Check
- Input 4-8: Not used

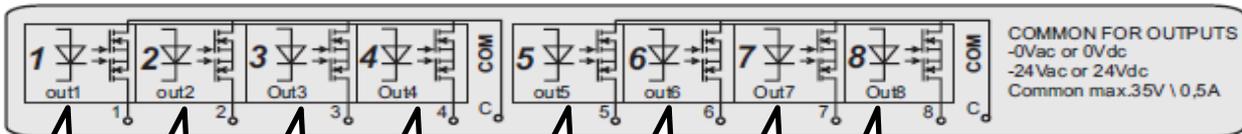
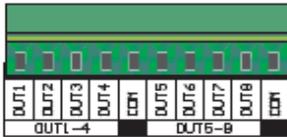
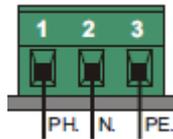
FLEX Check Weigher Controller

Wiring connection for Flex-CK model Flex-2100.



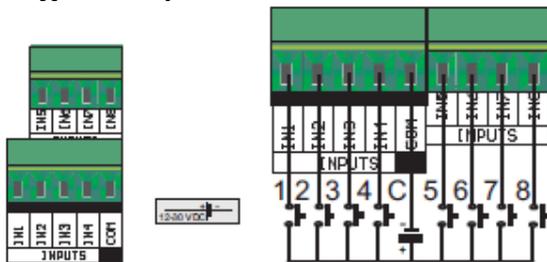
Digital Outputs:

AC Power supply
230 Vac 50/60 Hz



Output Check OK	Output Reject Low	Output Reject High	Output Dosing Busy	Output Run Mode	Output Check Ready	Not Used	Not Used
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Digital Inputs:



Input 1: Start (option)
Input 2: Stop (option)
Input 3: Start Check
Input 4-8: Not used

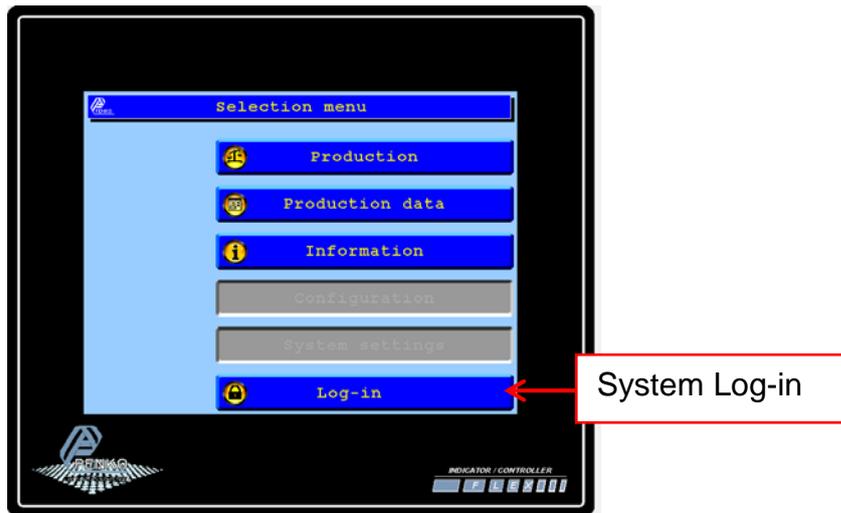
FLEX Check Weigher Controller

Selection Menu.

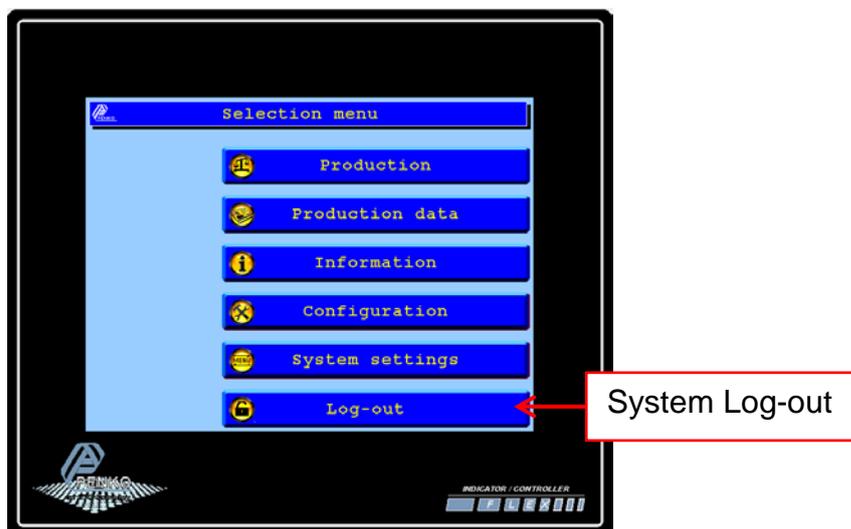
From the Selection menu it's possible to enter the several Screens.

The Configuration and System setting are locked by a password, log-in with the Log-in button first. To log-out, press the Log-out button. The overall password is "25630".

Screen if Configuration and System settings are disabled:



Screen if Configuration and System settings are enabled:

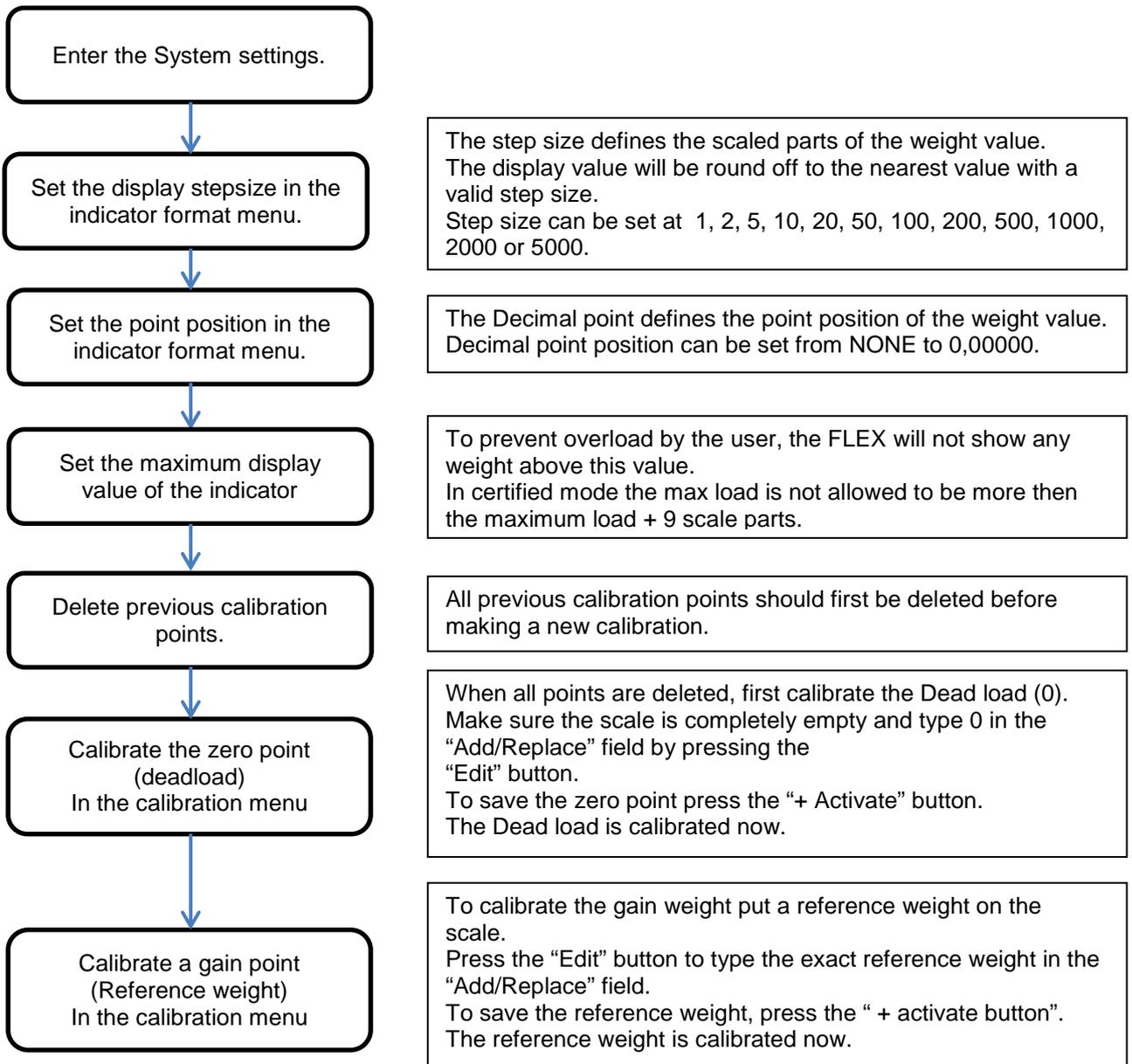


FLEX Check Weigher Controller

First use of the indicator.

Before using the controller, please setup the internal indicator first.

Login first to enter the System settings,
Default no password is selected.
The overall password is “25630”.



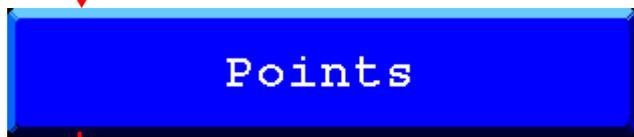
FLEX Check Weigher Controller

Calibration.

To calibrate the indicator, follow the next steps:



Enter the "CAL" code and press OK. This "CAL" code is shown in the right upper corner.



Delete all old calibration points. Make sure all points are deleted.



Make sure the weigher is empty and press the "+Activate" button to save the zero point



Press "EDIT" and put a reference weight on the weigher. Enter the weight of the reference weight and press OK.



To save the second point, press the "+Activate" button.

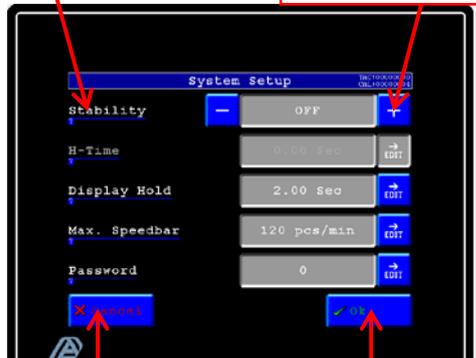
FLEX Check Weigher Controller

Setup the Checkweigher configuration.

Before using the controller, please setup the configuration for your application first.

Login first to enter the System settings,
Default no password is selected.
The overall password is "25630".

Press the blue "Edit" fields to enter the needed values.
Press the question marks to open information about the parameter.
Press the "OK" button to return to the previous screen and save the settings.



The screenshot shows the 'System Setup' screen with the following parameters and controls:

Parameter	Value	Control
Stability	OFF	Blue arrow button
H-Time	0.00 sec	Blue arrow button, EDIT button
Display Hold	2.00 Sec	Blue arrow button, EDIT button
Max. Speedbar	120 pcs/min	Blue arrow button, EDIT button
Password	0	Blue arrow button, EDIT button

Callouts on the screenshot:

- Open parameter information:** Points to the question mark icon next to the 'Stability' parameter.
- Edit parameters:** Points to the blue arrow button next to the 'Stability' parameter.
- Quit without saving:** Points to the 'X' button at the bottom left.
- Quit and save:** Points to the blue checkmark button at the bottom right.

Factory settings:

Stability	:OFF
Hold time	:0.00 sec (disabled)
Display hold time	:2.00 sec
Max. Speedbar	:120 pcs/min
Password	:0 (disabled)

FLEX Check Weigher Controller

Configuration Parameters.

Stability

Weigher stability (Check delay time) can be switched on or off. It selects the type of delay time before sampling starts.

This parameter works together with the H-Time.

OFF = No delay
H+S = First H-Time then Stable
H = Only H-Time
H/S = H-Time or Stable
S+H = First Stable then H-Time

Ok

H-Time

This is the time the controller waits before sampling starts.

The H-Time works together with the stability parameter.

Ok

Display Hold

After sampling is finished the display hold time starts. The sampled value will be frozen on the display for this time. After this time the display is "Live" again.

When a new package arrives during this time the hold time will be stopped.

Ok

Max. Speedbar

The max value of the speedbar on the production screen.

Ok

Password

Password to protect the system settings, configuration setting and edit recipe parameters. When this parameter is set to zero no password is active.

Ok

FLEX Check Weigher Controller

Select/Edit Recipe.

To select a recipe, press the “recipe” button from the production screen.

Select a recipe by pressing on the recipe name in the blue fields.

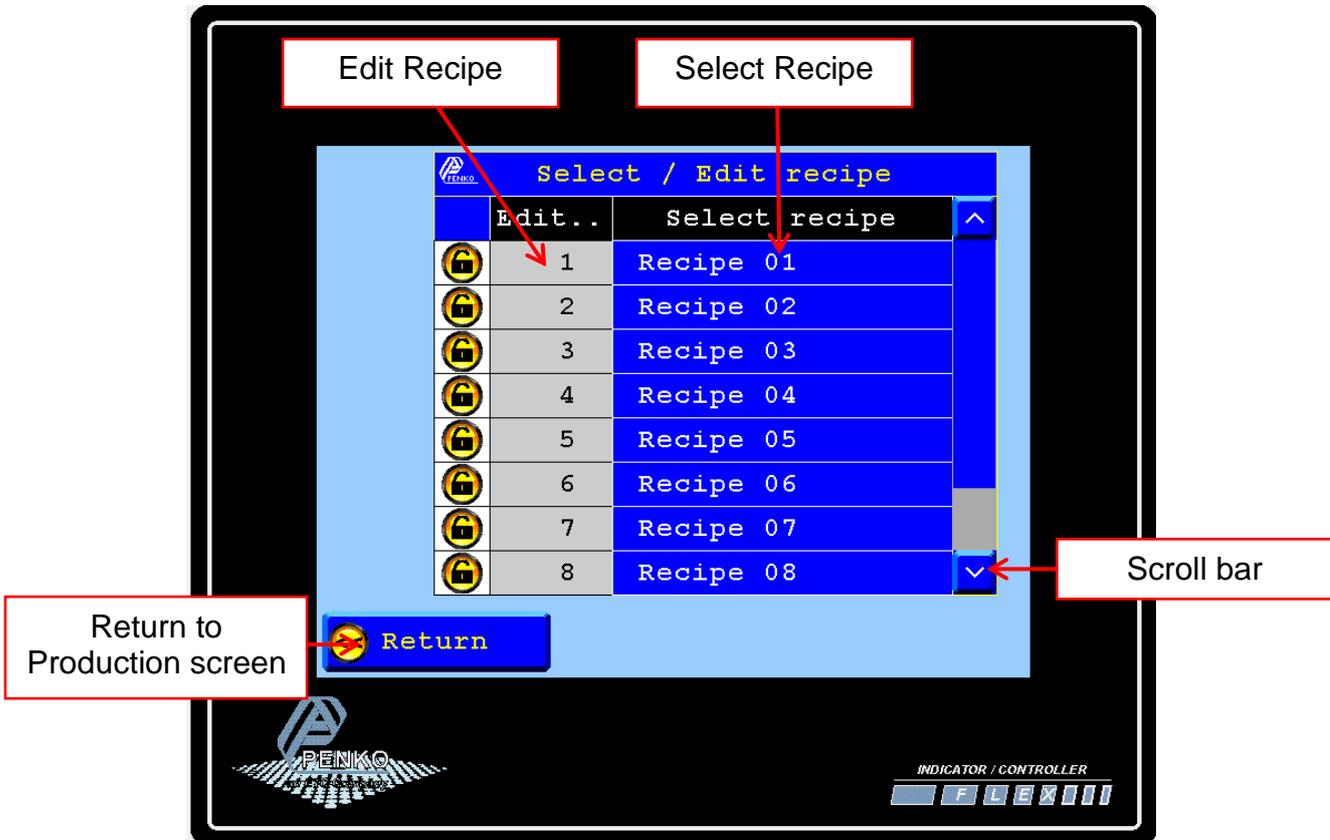
Use the scroll bar to select the next recipes.

The screen will automatically return to the production screen after selection.

To edit a recipe Press the recipe number in the gray fields.

To enter the recipe edit screen the user must be logged in.

To return to the production screen without changes, press the “Return” button.



FLEX Check Weigher Controller

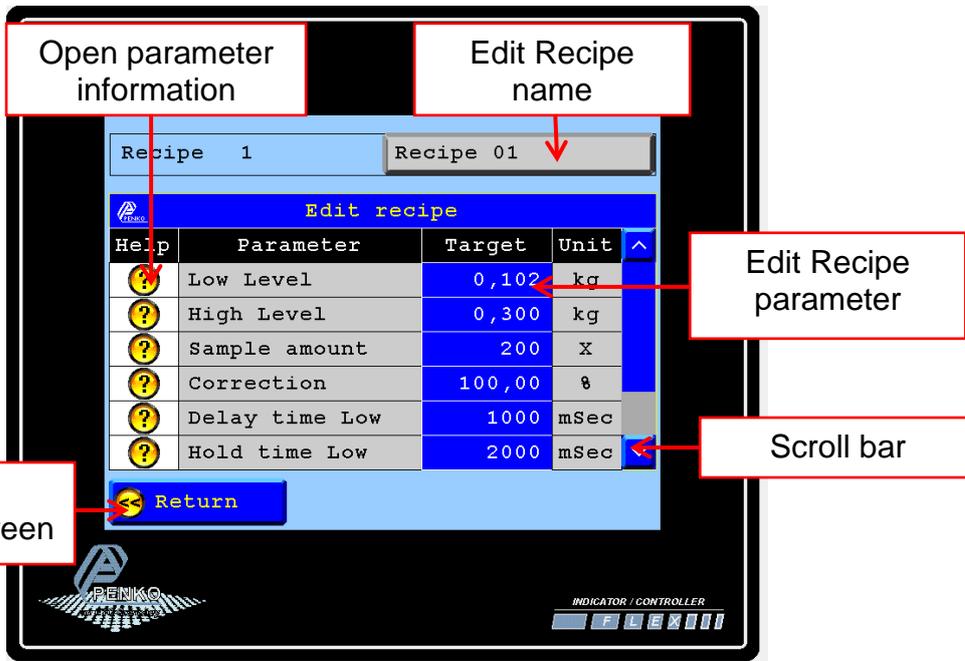
Edit Recipe parameters.

To edit the recipe name, press the recipe name button.

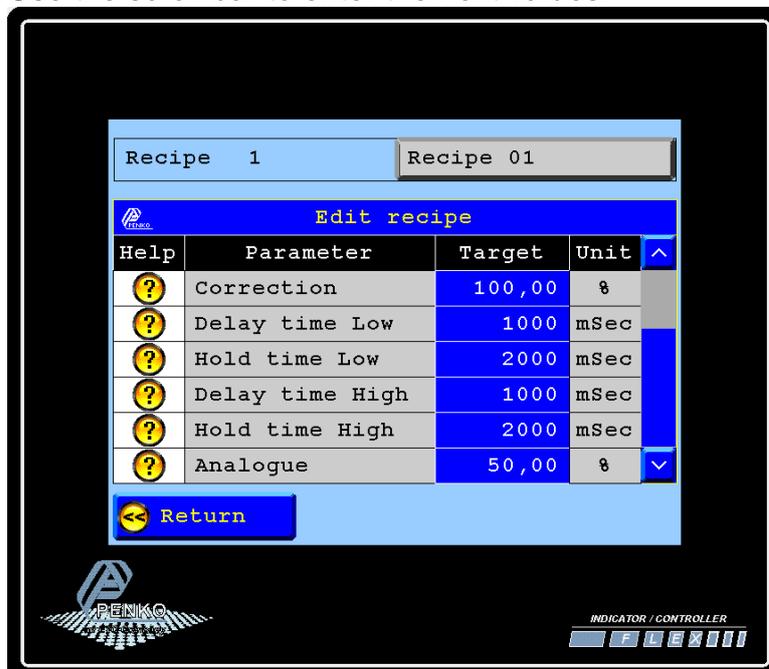
To edit a recipe parameter, press the value in the blue fields.

Press the question marks to open information about the parameter.

To return to the previous screen and save the recipe, press the "Return" button.



Use the scroll bar to enter the next values.



FLEX Check Weigher Controller

Recipe parameters.

 Low level	X
If the checked weight is below this value, the package will be rejected by output low.	
 High level	X
If the checked weight is above this value, the package will be rejected by output high.	
 Sample amount	X
Sample amount is the amount of samples to take during the check of the package.	
 Correction	X
With the Correction factor it's possible to correct the fault caused by the dynamic caristics of the machine.	
Correction is possible from 0,00 to 200,00 %.	
100,00 % means no correction	
 Delay time low	X
Delay time for output low after low level detection.	
 Hold time low	X
Hold time for output low after activating the output.	
 Delay time high	X
Delay time for output high after high level detection.	
 Hold time high	X
Hold time for output high after activating the output.	
 Analogue Speed	X
Set the value for the analogue output, in 0,01%	

FLEX Check Weigher Controller

Production data.

To view the total checked values, press the “production data” button.

To reset the subtotals, press the Subt.” Button

To reset the totals and subtotals, press the “Total” button.

Press the Question marks to open information about the parameter.

To return to the previous screen, press the “Return” button.

The screenshot shows a tablet interface with a table titled "Production data". The table has columns for "Parameters", "Subt.", and "Total". Below the table are three buttons: "Return", "Subt", and "Total". Callouts point to a question mark icon in the first row, the "Return" button, the "Subt" button, and the "Total" button.

Help	Parameters	Subt.	Total
?	Amount OK	0	0
?	Weight OK	0,000	0,000
?	Amount Low	0	0
?	Weight Low	0,000	0,000
?	Amount High	0	0
?	Weight High	0,000	0,000
?	Std. dev.	0,0000	0,0000
?	Average	0,0000	0,0000

Amount high [X]

The amount high shows the total pieces of the too high checked packages.

Weight OK [X]

The weight OK shows the total weight of the OK checked packages.

Amount low [X]

The amount low shows the total pieces of the too low checked packages.

Weight low [X]

The weight low shows the total weight of the too low checked packages.

Amount OK [X]

The amount OK shows the total pieces of the OK checked packages.

Weight high [X]

The weight high shows the total weight of the too high checked packages.

Standard deviation [X]

The standard deviation shows how much variation there is from the average.
A low standard deviation indicates a high repeatability.

Average [X]

This is the average value from the checked OK values.
The average should be as close as possible to the Setpoint.

FLEX Check Weigher Controller

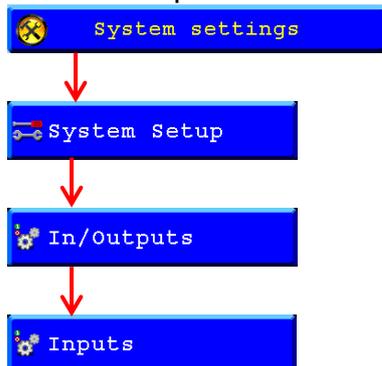
Manual Start/Stop via Pushbuttons (Option)

It is possible to start and stop the checkweigher via external pushbuttons.

To start the checkweigher Input 2 needs to be high (and stay high). To actually start the checkweigher input 1 needs to get a pulse.

To stop the checkweigher input 2 needs to be low.

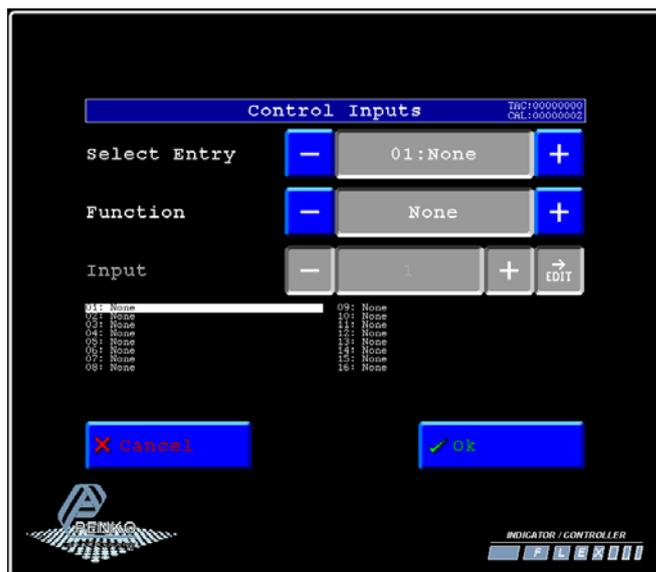
You have to define Input 1 as “start” and Input 2 as “stop”. To do this follow the next steps



To define Input 1 as “Start” press the “+” button next to “Function” until you see Start.

To define Input 2 as “Stop” press the “+” button next to “Select Entry”. Now can now define Input 2. Press the “+” button next to “Function” until you see Stop.

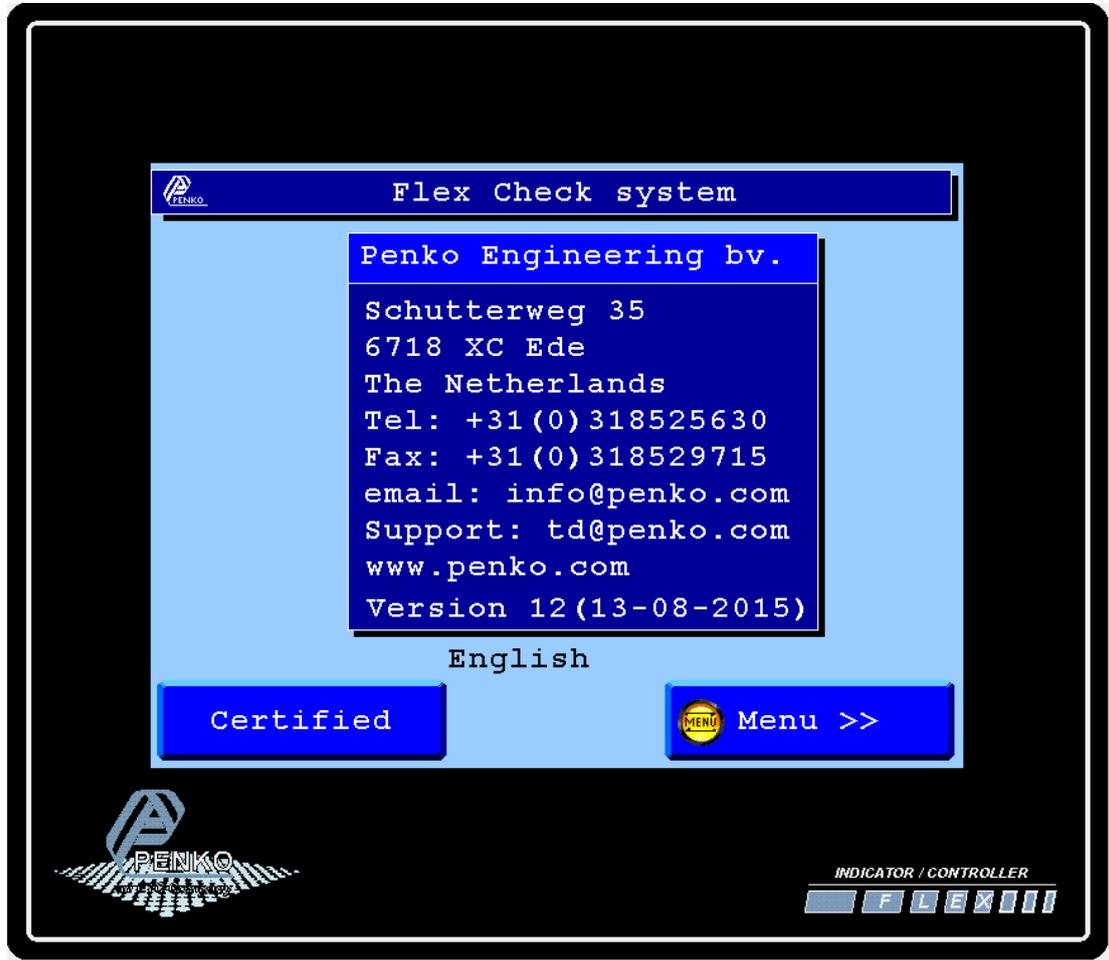
Press “Ok” to save the setting.



FLEX Check Weigher Controller

Information.

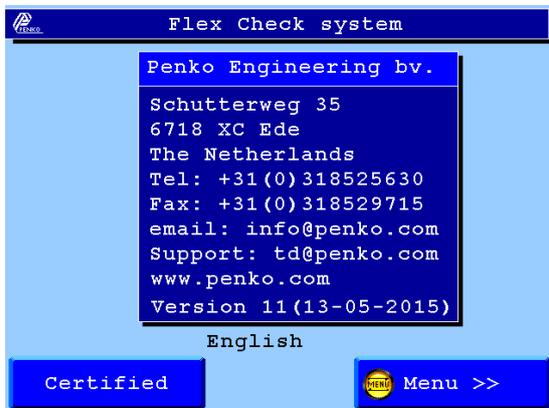
To view the Penko contact information, press the “information” button from the selection menu.



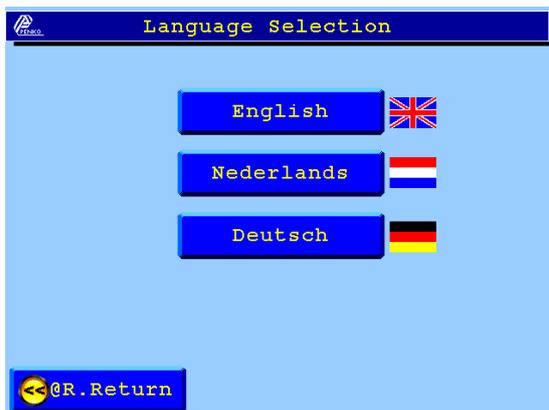
FLEX Check Weigher Controller

Select language

Go to the information screen to change the language. Press on 'Language' to go to the Language selection screen



Select the language you want or press on return to go back to the Information screen.



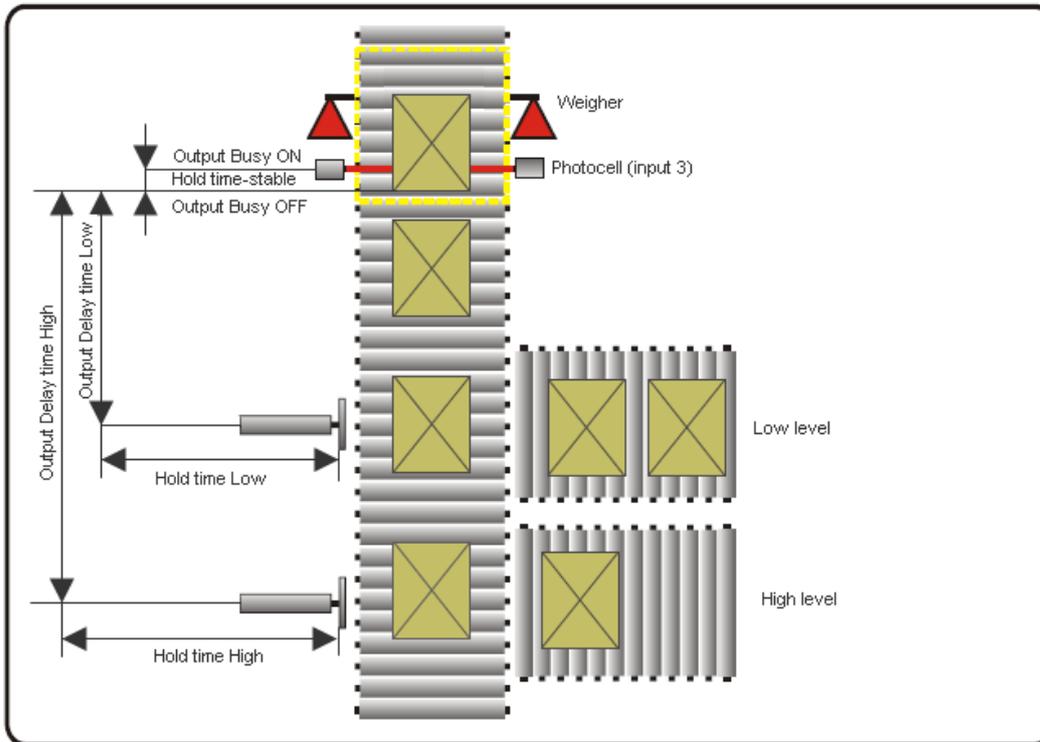
Select extra digit for Certified test.

Extra digit weigher can be activated by pressing on the weigher value on production screen, to return press weight again or wait 2 minutes



FLEX Check Weigher Controller

Sequence example.



Sequence:

1. Start.
2. Wait for Start
3. Start Check (Input 3).
4. Check busy ON
5. Wait for stable and Holdtime parameter.
6. Take amount of Samples.
7. Check if weight is too low
 - a. No, to point 8
 - b. yes, start Delay time low
8. Check if weight is too High
 - a. No, to point 9
 - b. Yes, start delay time high
9. If weight OK, output OK ON
10. Check busy OFF
11. Dosing ready ON.
12. Wait till input start OFF.
13. Dosing ready OFF.
14. Restart.



PENKO Engineering B.V. • Schutterweg 35, NL 6718XC Ede • Tel +31 (0) 318525630 • Fax +31 (0) 318529715 • info@penko.com
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About PENKO

Our design expertise include systems for manufacturing plants, bulk weighing, check weighing, force measuring and process control. For over 35 years, PENKO Engineering B.V. has been at the forefront of development and production of high-accuracy, high-speed weighing systems and our solutions continue to help cut costs, increase ROI and drive profits for some of the largest global brands, such as Cargill, Sara Lee, Heinz, Kraft Foods and Unilever to name but a few.

Whether you are looking for a simple stand-alone weighing system or a high-speed weighing and dosing controller for a complex automated production line, PENKO has a comprehensive range of standard solutions you can rely on.

Certifications

PENKO sets high standards for its products and product performance which are tested, certified and approved by independent expert and government organizations to ensure they meet – and even – exceed metrology industry guidelines. A library of testing certificates is available for reference on:

http://penko.com/nl/publications_certificates.html



PENKO Professional Services

PENKO is committed to ensuring every system is installed, tested, programmed, commissioned and operational to client specifications. Our engineers, at our weighing center in Ede, Netherlands, as well as our distributors around the world, strive to solve most weighing-system issues within the same day. On a monthly basis PENKO offers free training classes to anyone interested in exploring modern, high-speed weighing instruments and solutions. A schedule of training sessions is found on: www.penko.com/training

PENKO Alliances

PENKO's worldwide network: Australia, Brazil, China, Denmark, Germany, Egypt, Finland, France, India, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Syria, Turkey, United Kingdom, South Africa, Slovakia Sweden and Switzerland, Singapore. A complete overview you will find on: www.penko.com/dealers



PENKO Engineering B.V. • Schutterweg 35, NL 6718XC Ede • Tel +31 (0) 318525630 • Fax +31 (0) 318529715 • info@penko.com
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