PENKO Engineering B.V.

Your Partner for Fully Engineered Factory Solutions

How to…

Configure the inputs and outputs on a SGM7xx or SGM8xx

PENKO
an ETC Company

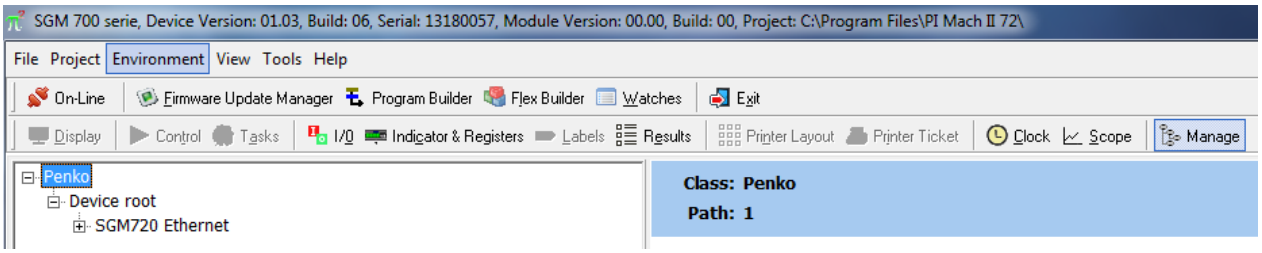
Table of Contents

Inputs

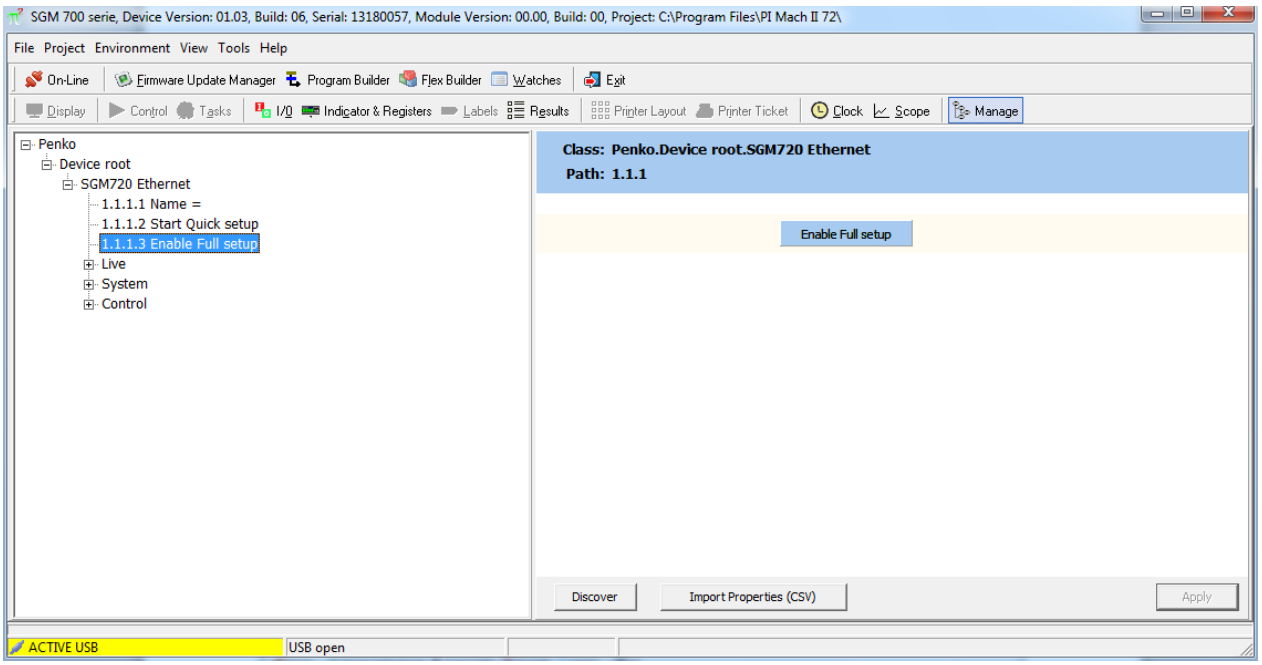
The SGM7xx/SGM8xx (except the SGM710 and SGM810) has 3 digital inputs which can be switched on manually using external push buttons of using a PLC.

The SGM7xx allows you to configure the three inputs to your desire. Follow the steps below to configure the inputs.

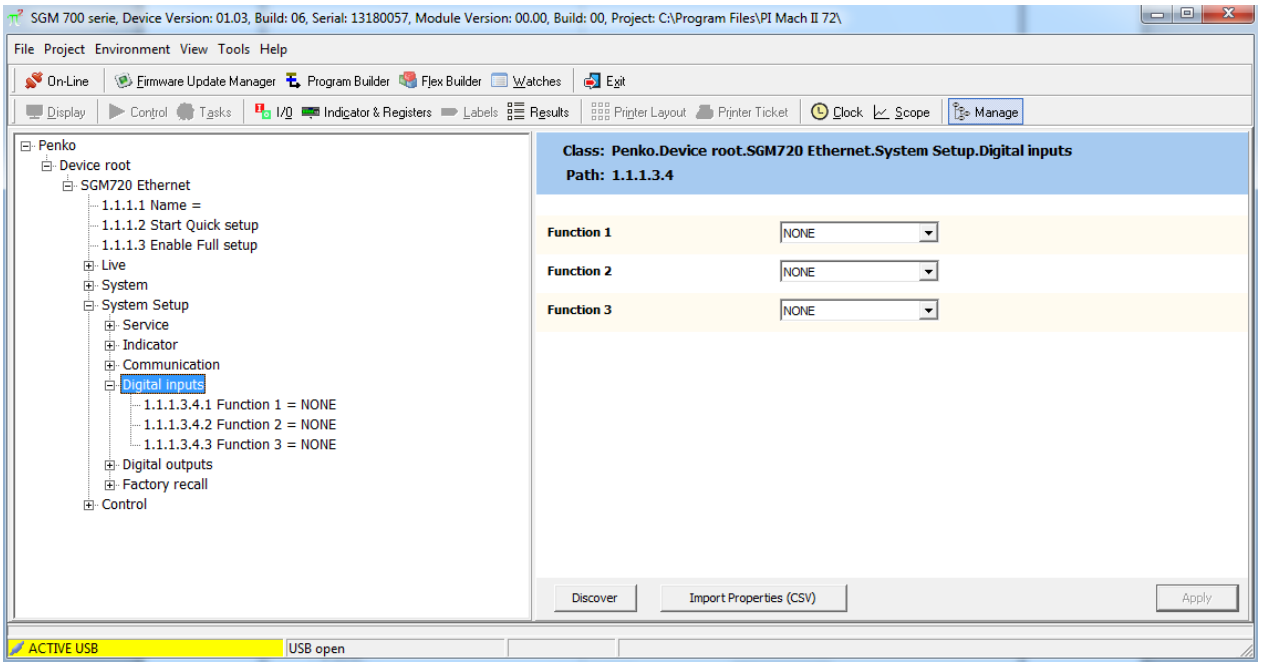
Connect the SGM7xx/SGM8xx to your PC using a USB-cable and start Pi Mach II. Double click on your **SGM7xx/SGM8xx** you want to configure (in this case it is a SGM720).



Double click on **Enable Full setup** in the left window. In the right window the button **Enable Full setup** will appear, click on it.



Double click on **System Setup** and double click on **Digital inputs**. You can adjust the Function setting to your desire and click on **Apply** in the bottom right corner to save the setting. The options you can select are explained below.



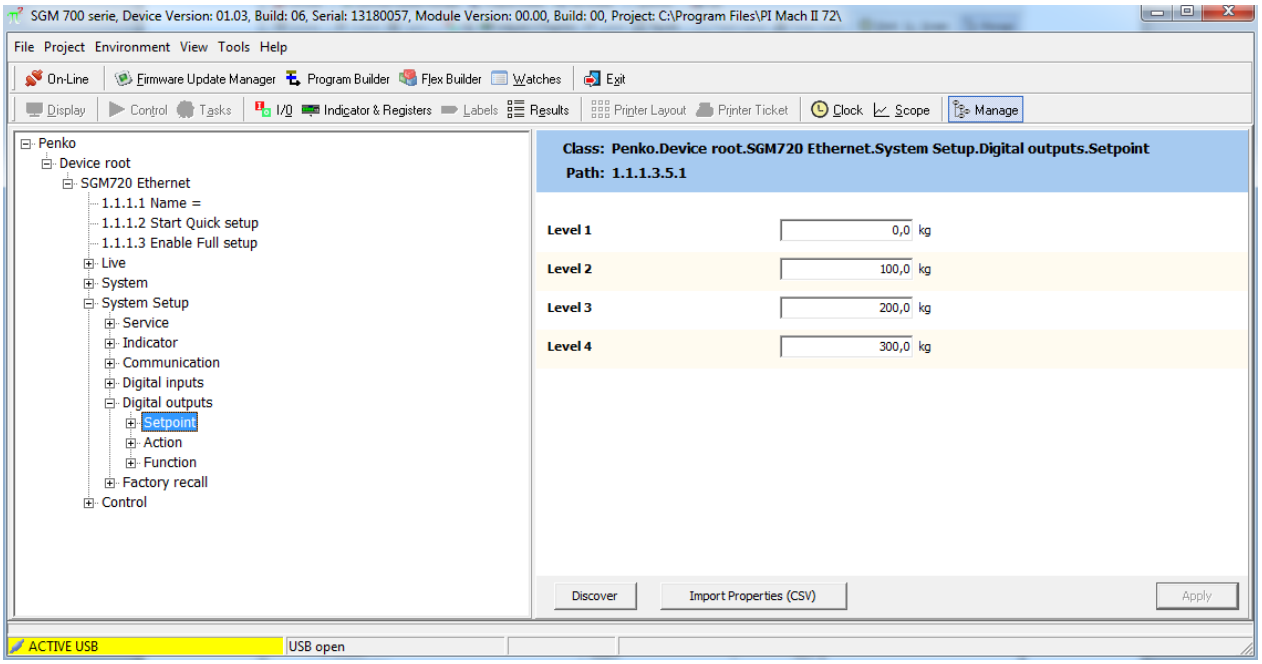
Function	Description
None	The selected input won't have a function.
Zero set	Set the indicators weight to zero.
Zero reset	Reset the indicators weight back to the original value.
Tare on	Set Tare weight on
Tare off	Set Tare weight off, the indicator will show the original value.
Tare toggle	Toggle between Tare on and Tare off.
Preset tare on	Use Preset tare to select a pre-tarred value.
Print	Print ticket.
Print subtotal (reserved)	Print the subtotal amount.
Print total	Print the total amount.
Print day total (reserved)	Print the day total amount.

Function	Description
Print batch total (reserved)	Print the batch total amount.
Totalize	Totalize
Subtotal (reserved)	Show Subtotal
Total reset	Reset total.
Day total (reserved)	Show Day total.
Batch total (reserved)	Show Batch total.
Peak reset	Reset the Peak value. This is the highest weight that is weighted on the device.
Valley reset	Reset the Valley value. This is the lowest weight that is weighted on the device.
Hold	Hold Display value.
Keyboard lock	If the input is high, it is impossible to use the keyboard on the front of your device.
Start/Stop (reserved)	Start/Stop program.
Print layout (reserved)	Print layout.

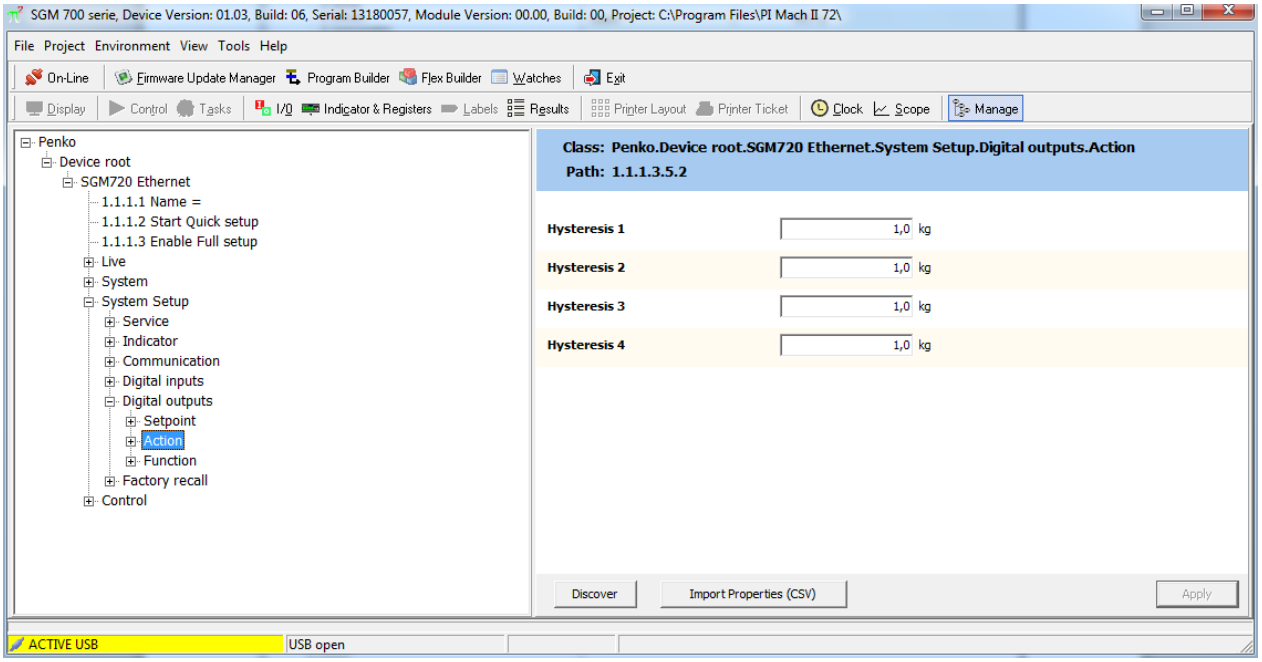
Outputs

The SGm7xx/SGM8xx (except the SGM710/SGM810) has 4 digital outputs which can be configured to your desire. Follow the steps below to configure the outputs.

Click on **Digital outputs**. You can see the three options Setpoint, Action and Function. Click on **Setpoint**. Here you can fill in the weight which will trigger the output. Level 1 is output 1, Level 2 is output 2 etc. after the changes are made click on **Apply** in the bottom right corner.



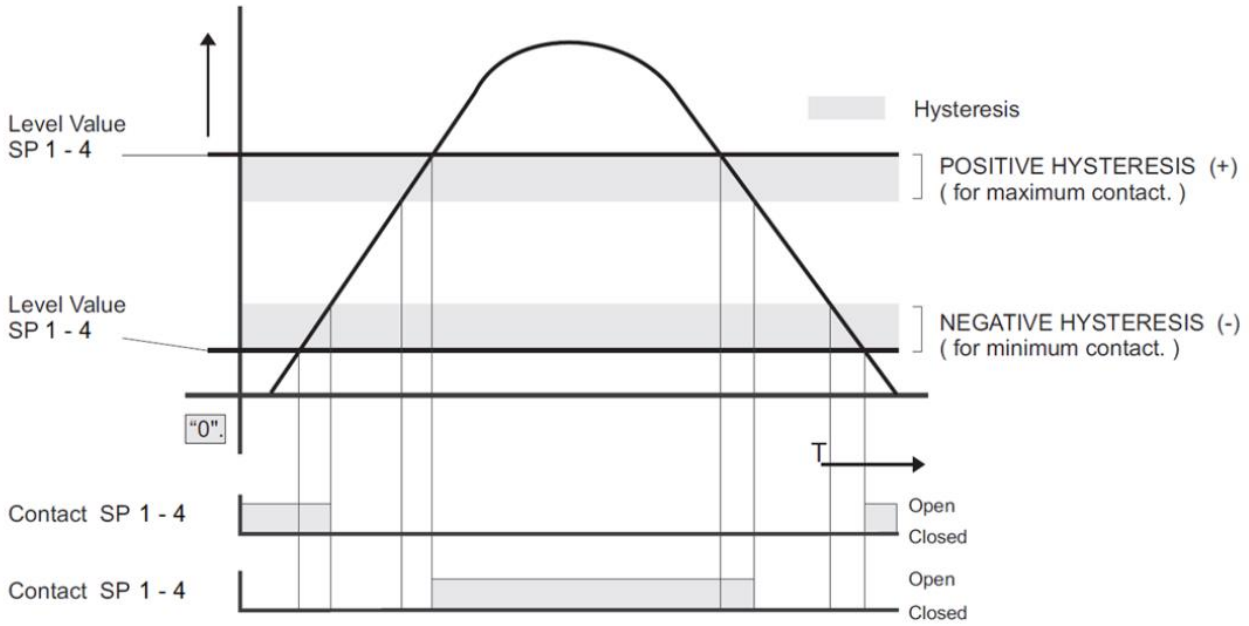
Click on **Action**. Here you can fill in the Hysteresis. Fill in the Hysteresis to prevent the output to constantly switch between on and off if the weight fluctuates above and below the setpoint. After the changes are made click on **Apply** in the bottom right corner.



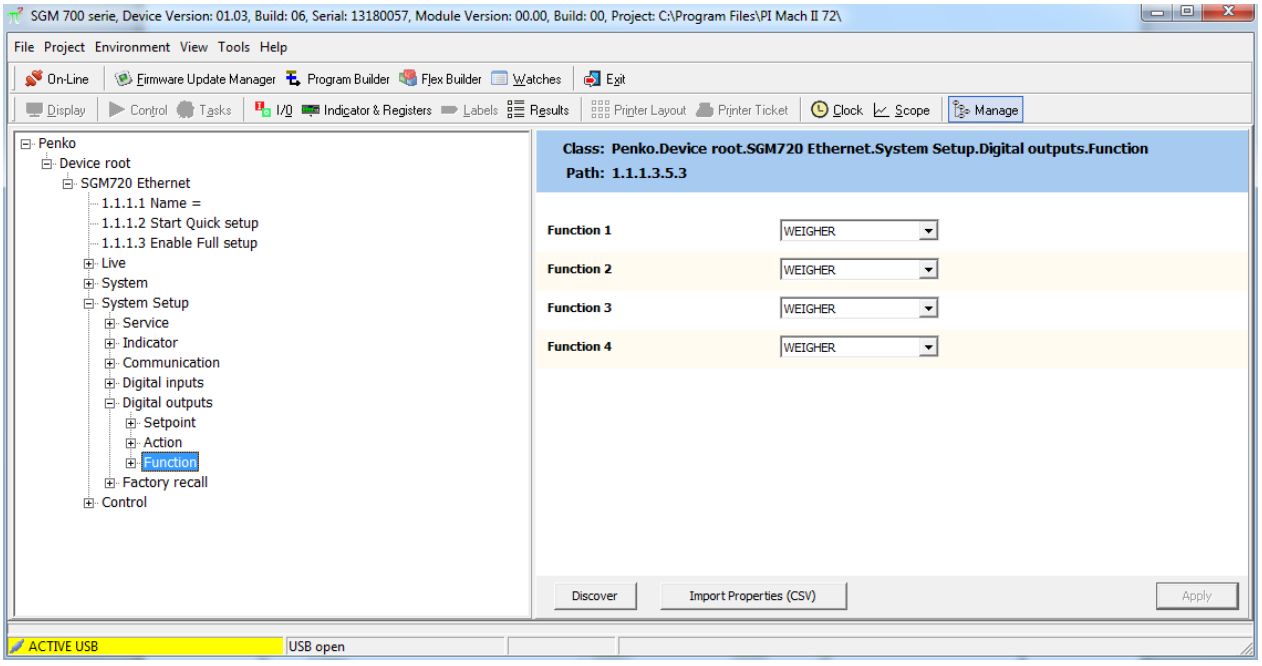
For example: if setpoint 1 is set to 100kg and the weight on the scale fluctuates between 101kg and 98 kg, set Hysteresis 1 to 3kg. Now the output will switch on at 100kg and stay on as long as the weight will stay above 100kg. If the weight decreases the output will stay on until the weight drops below the 97kg (Setpoint – Hysteresis).

It is possible to invert the output, just fill in -1,0kg

For example: if setpoint 1 is set to 100kg and the weight on the scale fluctuates between 101kg and 98 kg, set Hysteresis 1 to -3kg. Now the output will switch off at 103kg and stay off as long as the weight will stay above 100kg. If the weight decreases the output will stay off until the weight drops below the 100kg (Setpoint + Hysteresis).



Click on **Function**. Here you can fill in the Function of the output. You can adjust the Function setting to your desire and click on **Apply** in the bottom right corner to save the setting. The options you can select are explained below.



Function	Description
Weigher	The actual weight of the Indicator.
Fast Gross	The weight without filtering and Tare.
Fast Net	The weight without filtering and Tare deducted.
Display Gross	The weight with Display filtering and without Tare.
Display Net	The weight with Display filtering and Tare deducted.
Tare	The weight of an empty container. Gross – Tare = Net.
Peak	The highest point weighted on the Indicator.
Valley	The lowest point weighted on the Indicator.
Weigher x10	The actual weight of the Indicator with 1 extra decimal point for more accuracy.
Fast Gross x10	The weight without filtering and Tare with 1 extra decimal point for more accuracy.
Fast Net x10	The weight without filtering and Tare deducted with 1 extra decimal point for more accuracy.
Display Gross x10	The weight with Display filtering and without Tare with 1 extra decimal point for more accuracy.
Display Net x10	The weight with Display filtering and Tare deducted with 1 extra decimal point for more accuracy.
Tare x10	The weight of an empty container. Gross – Tare = Net with 1 extra decimal point for more accuracy.
Peak x10	The highest point weighted on the Indicator with 1 extra decimal point for more accuracy.
Valley x10	The lowest point weighted on the Indicator with 1 extra decimal point for more accuracy.
Sample	The actual sample of the load cell(s) in mV.

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, Belgium, Brazil, China, Denmark, Germany, Egypt, Finland, France, India, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Syria, Turkey, United Kingdom, South Africa, Slovakia Sweden, Switzerland and 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) 31852971 ▪ info@penko.com
Web ▪ www.penko.com ▪