

# PENKO ENGINEERING B.V.

Optimising Precision Weighing



SGM800 Certified Digitizer Series

# PENKO Engineering B.V.

## SGM800 Digitizer

### SGM800 Certified Series for automatic and non-automatic weighing

The SGM800 Series is a certified series that offers solutions for problem free connections of strain gage load cell based measuring with any supervisory and/or control system. The Series exists of 6 digitizers with different communication options. There is also a series of fixed software is available, making it possible to use the SGM800 certified series as a mini controller.

The image shows a software interface for the SGM800 digitizer. On the left is a tree view of the device configuration, with 'PENKO' at the root, followed by 'Device root', 'SGM820 Ethernet', and 'Access'. Under 'Access', the 'Alibi' program is selected, showing a list of configuration items such as 'Number of entries = 0', 'Entry Number = 0', 'Record = -----', 'Tag/Code = -----', 'Date/Value = -----', 'Time/Unit = -----', 'Print', and 'Clear'. On the right is a configuration window for the 'Alibi' program, showing the same configuration items with input fields and buttons for 'Print' and 'Clear'.

They all are easy DINrail mountable, and can be used as a standalone digitizer or as a buslink system. Up to 32 digitizers can be coupled in one buslink system. Configuration of the device can even be done from behind your desk using PENKO's freeware PI Mach II Manage. Trouble shooting is made easy by the small on board display, giving you a fast overview of the SGM800s status.

## SGM800 Digitizer Applications

### Applications

- Silo & tank weighing
- Weighbridges
- Amplifying strain gage load cell signal
- Digitizing strain gage load cell signal
- Every application where a certified weighing signal is used by a supervisory system

### Plug & Play applications

- Weighing module for PLC
- Plug & play solution for check weighing
- Plug & play solution for filling
- Plug & play solution for belt weighing



**This product is intended to be supplied by a Class 2 or Limited Power Source, rate 18 - 32 Vdc, 0.2A @24Vdc.**

# PENKO Engineering B.V.

## SGM800 Digitizer Characteristics

### Saving space with more flexibility & functionality

- Certified
- Small on board display for trouble shooting
- Easy to couple with PLC
- PC configurable
- Back up and restore function through USB connection
- Time-saving, patent-pending G-Cal™ technology (Geographical Calibration) for fast and accurate calibration without using weights anywhere on the planet
- Compact DINrail mountable housing with standard 3 DI and 4 DO build in (except SGM810)
- Analog output

### Speaks the language of your device

- USB and optional RS232, RS422, Ethernet and Profibus or Profinet.
- Various industrial protocols like Ethernet IP, Modbus TCP, Modbus RTU, FINS, Profibus DP and Profinet
- Communicates conveniently via remote devices

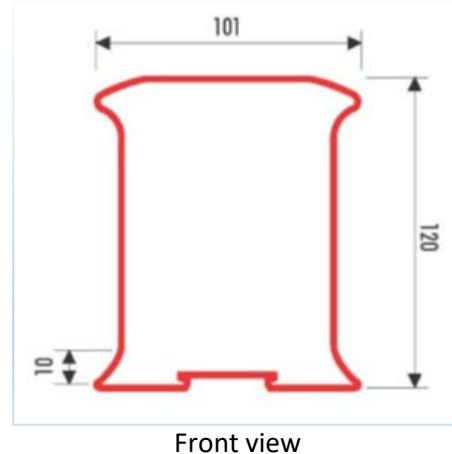
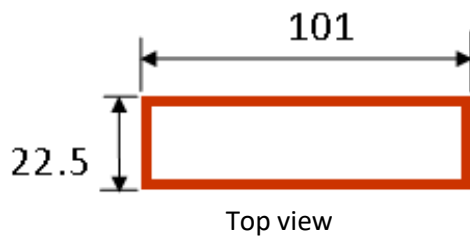
### High performance

- 1600 samples per second
- 24 bit internal resolution

### Controller options

- Filler
- Check weighing
- Belt weighing (not certified)

## SGM800 Digitizer Dimensions



# PENKO Engineering B.V.

## SGM800 Digitizer Specifications

Type	SGM800	SGM810	SGM820	SGM840	SGM850	SGM860	
Wiring	With sense						
Type of sense	Passive						
Power supply	18-32 Vdc; 4 W max.						
Load cell power supply	5 Vdc						
Sensitivity	0,1 $\mu$ V/d non-certified 0,4 $\mu$ V/d non-certified						
Selectable ranges	1; 1.5; 2; 2.5; 3 mV/V						
Input voltage Unipolar @3mV/V	-1 mV to +16 mV						
Input voltage Bipolar @3mV/V	-16 mV to +16 mV						
A/D Conversion speed	1600/s						
Max. load cell impedance	1200 $\Omega$						
Min. Load cell impedance	43,75 $\Omega$						
Max. no. of load cells	350 $\Omega$	8					
	1000 $\Omega$	22					
Max. number of d	10.000						
Display resolution	100.000						
Internal resolution	24 bits						
Display steps	1,2,5,10,20,50,100,200						
Display size	6 x 7 segments LED 0,3''						
Inputs, 24 V	3; 18-28Vdc, PNP or NPN or Counter inputs $\leq$ 1kHz @ 24VDC with 50% duty cycle	0	3; 18-28Vdc, PNP or NPN or Counter inputs $\leq$ 1kHz @ 24VDC with 50% duty cycle				
Outputs, 24 V; PNP or NPN	4; Max. 35V / 0.5A	0	4; Max. 35V / 0.5A				
Analog output	Yes; 0/4-20/24mA, 10.000d						
Communication	RS232/422	No	No	No	No	Yes	No
	Ethernet	No	No	Yes	No	No	No
	USB	Yes	Yes	Yes	Yes	Yes	Yes
	Profibus	No	No	No	Yes	No	No
	Profinet	No	No	No	No	No	Yes
Operating temperature	-10°C to +40°C						
Storage temperature	-20°C to +70°C						
Relative Humidity	Max. 85% non-condensing						
Protection class	IP20						
Weight	$\pm$ 150g						

This product is intended to be supplied by a Class 2 or Limited Power Source, rate 18 - 32 Vdc, 0.4A@24Vdc.



## About PENKO

At PENKO Engineering we specialize in weighing. Weighing is inherently chemically correct, independent of consistency, type or temperature of the raw material. This means that weighing any kind of material guarantees consistency and thus, it is essential to sustainable revenue generation in any industry. As a well-established and proven solution provider, we strive for the ultimate satisfaction of custom design and/or standard applications, increasing your efficiencies and saving you time, saving you money.

Whether we are weighing raw materials, components in batching, ingredients for mixing or dosing processes, - or weighing of static containers and silos, or - in-motion weighing of railway wagons or trucks, by whatever means required during a process, we are essentially forming vital linkages between processes and businesses, anywhere at any time. We design, develop and manufacture state of the art technologically advanced systems in accordance with your strategy and vision. From the initial design brief, we take a fresh approach and a holistic view of every project, managing, supporting and/or implementing your system every step of the way. Curious to know how we do it? [www.penko.com](http://www.penko.com)

## 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:

[www.penko.com/nl/publications\\_certificates.html](http://www.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. Training sessions on request:

[www.penko.com/training](http://www.penko.com/training)



## PENKO Alliances

PENKO's worldwide network: Australia, Brazil, China, Denmark, Germany, Egypt, Finland, France, India, Italy, 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/distributor](http://www.penko.com/distributor)

