

PENKO Engineering B.V.



SGM700 Digitizer Series

The Experts In Weighing & Dosing
Your Partner For Fully Engineered Factory Solutions



PENKO

an ETC Company

PENKO Engineering B.V.

SGM700 Digitizer Characteristics

SGM700 Series for force measurement, automatic and non-automatic weighing

The SGM700 Series 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. They all are easy dinrail mountable, and can be used as a stand alone 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.

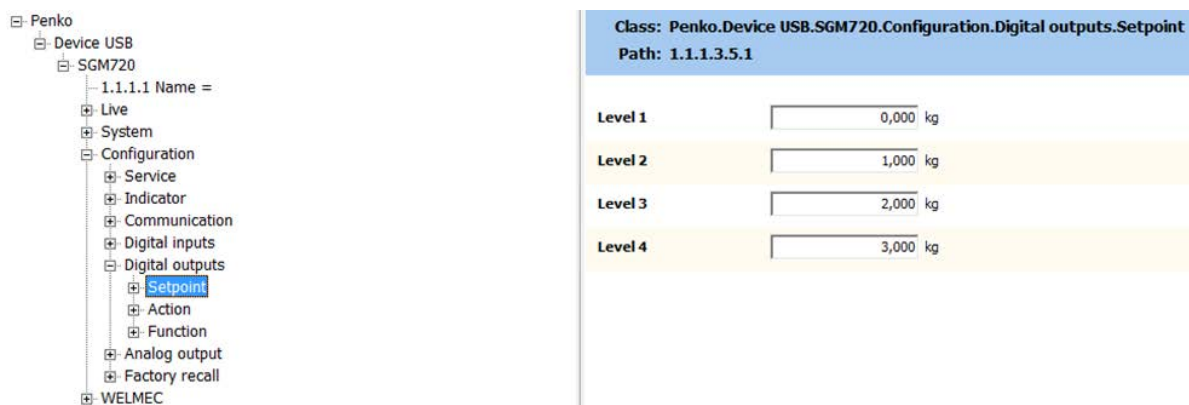


Figure 1: example of PI Mach II Manage for SGM700 Series.

Saving space with more flexibility & functionality

- Time-saving G-Cal™ technology (Geographical Calibration) for fast and accurate calibration without using weights anywhere on the planet
- Compact housing with standard built in 3 DI and 4 DO built in
- Back up and restore function through USB connection
- Option analog output

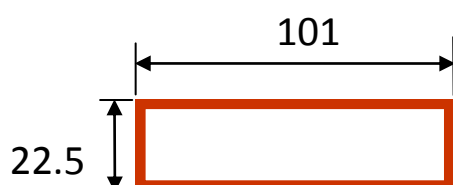
Speaks the language of your device

- RS485, USB and optional RS232, RS422, Ethernet, Canbus and Profibus.
- Various industrial protocols like Ethernet IP, Modbus TCP, Modbus RTU, FINS and Profibus DP.
- Communicates conveniently via remote devices

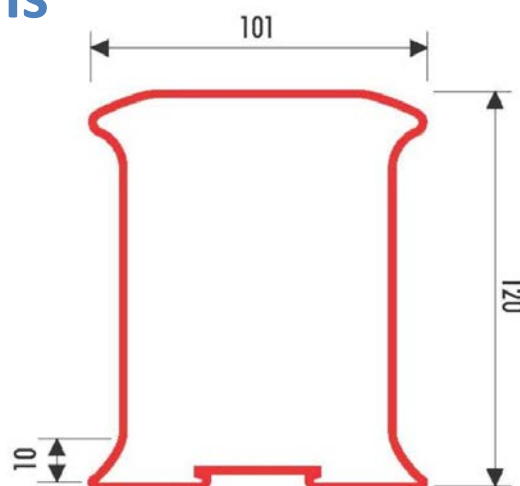
High performance

- 1600 samples per second
- 24 bit internal resolution
- 100 000 parts display resolution

SGM700 Digitizer Dimensions



Top view



Side view



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SGM700 Digitizer Specifications

Type	SGM700	SGM710	SGM720	SGM730	SGM740	SGM750
Wiring	With sense	With sense	With sense	With sense	With sense	With sense
Type of sense	Passive	Passive	Passive	Passive	Passive	Passive
Power supply	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.
Load cell power supply	5 Vdc	5 Vdc	5 Vdc	5 Vdc	5 Vdc	5 Vdc
Sensitivity	0,1 µV/d	0,1 µV/d	0,1 µV/d	0,1 µV/d	0,1 µV/d	0,1 µV/d
Selectable ranges	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V
Input voltage Unipolar @3mV/V	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV
Input voltage Bipolar @3mV/V	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV
A/D Conversion speed	1600/s	1600/s	1600/s	1600/s	1600/s	1600/s
Max. load cell impedance	1200Ω	1200Ω	1200Ω	1200Ω	1200Ω	1200Ω
Min. Load cell impedance	43,75 Ω	43,75 Ω	43,75 Ω	43,75 Ω	43,75 Ω	43,75 Ω
Max. no. of load cells	8	8	8	8	8	8
	1000 Ω	22	22	22	22	22
Max. number of d	10.000	10.000	10.000	10.000	10.000	10.000
Display resolution	100.000	100.000	100.000	100.000	100.000	100.000
Internal resolution	24 bits	24 bits	24 bits	24 bits	24 bits	24 bits
Display steps	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200
Display size	6 x 7 segments LED 0,3"	6 x 7 segments LED 0,3"	6 x 7 segments LED 0,3"	6 x 7 segments LED 0,3"	6 x 7 segments LED 0,3"	6 x 7 segments LED 0,3"
Inputs, 24 V	3; 18-28Vdc, PNP or NPN or count ≤ 5kHz	0	3; 18-28Vdc, PNP or NPN or count ≤ 5kHz	3; 18-28Vdc, PNP or NPN or count ≤ 5kHz	3; 18-28Vdc, PNP or NPN or count ≤ 5kHz	3; 18-28Vdc, PNP or NPN or count ≤ 5kHz
Outputs, 24 V; PNP or NPN	4; Max. 35V / 0.5A	0	4; Max. 35V / 0.5A	4; Max. 35V / 0.5A	4; Max. 35V / 0.5A	4; Max. 35V / 0.5A
Analog output	option	Yes; 0/4-20/24mA, 10.000d	option	option	option	option
Communication	RS232/422	No	No	No	No	Yes
	RS485	Yes	Yes	Yes	Yes	Yes
	Ethernet	No	No	No	No	No
	USB	Yes	Yes	Yes	Yes	Yes
	CANBUS	No	No	No	No	No
	Profibus	No	No	No	Yes	No
Operating temperature	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C
Storage temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Relative Humidity	Max. 85% non-condensing	Max. 85% non-condensing	Max. 85% non-condensing	Max. 85% non-condensing	Max. 85% non-condensing	Max. 85% non-condensing
Protection class	IP20	IP20	IP20	IP20	IP20	IP20
Weight	± 150g	± 150g	± 150g	± 150g	± 150g	± 150g

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





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.

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.



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

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