PENKO ENGINEERING B.V.

Optimising Precision Weighing

SGM700 Digitizer Series

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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.

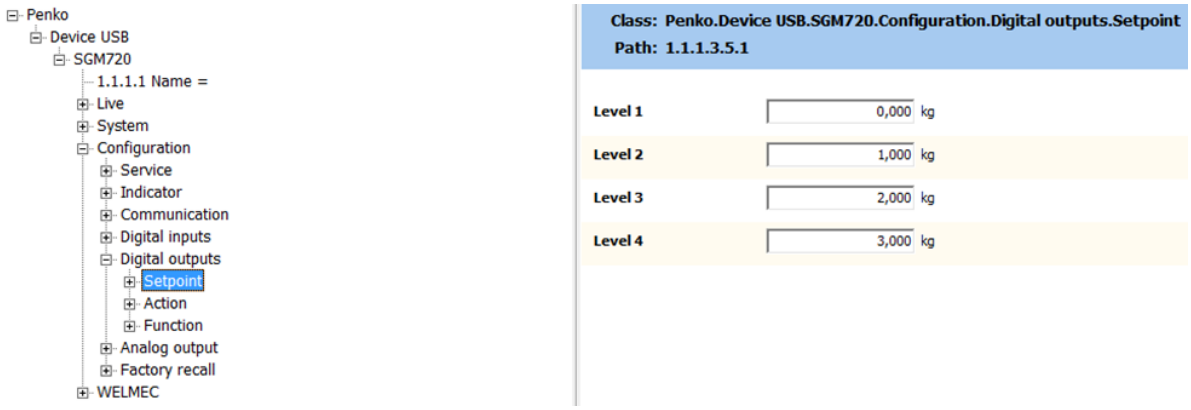


Figure 1: example of PI Mach II Manage for SGM700 Series.

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

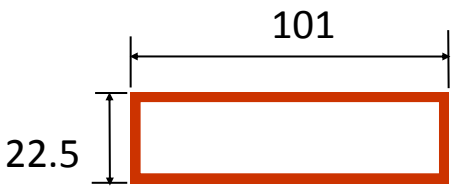
Speaks the language of your device

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

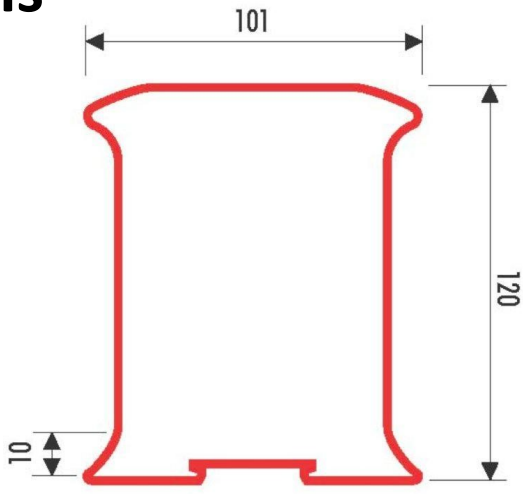
High performance

- 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	1200 Ω	1200Ω	1200 Ω	1200 Ω	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 350 Ω	8	8	8	8	8	8
1000 Ω	22	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	No	Yes
RS485	Yes	Yes	Yes	Yes	Yes	Yes
Ethernet	No	No	Yes	No	No	No
USB	Yes	Yes	Yes	Yes	Yes	Yes
CANBUS	No	No	No	Yes	No	No
Profibus	No	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.

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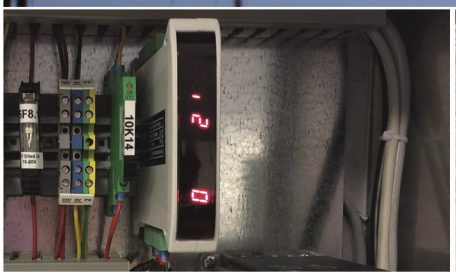

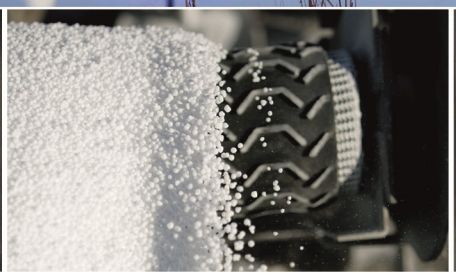

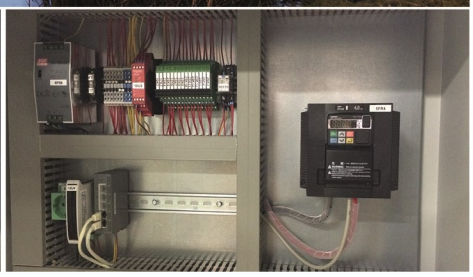

Certifications

PENKO sets high standards for its products and product performance to ensure they meet - and even - exceed metrology industry guidelines. As of 2016 PENKO is ISO9001 certified, giving our long term quality work the official stamp of approval. Additional certificates are available on:
www.penko.com

PENKO is a member of the Association of Dutch Suppliers of Weighing Equipment (VLW) and represented in he European Weighing Association (CECIP).

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