PENKO Engineering B.V.

Your Partner for Fully Engineered Solutions

Quickstart:

SGM800 Digitizer

1. **Indication of Display**
2. **Explanation of front keys**
3. **Load cell/power connection**
4. **First use of Indicator**
5. **Calibration**
6. **Weigher Error Codes**
7. **Standard Factory Settings**

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SGM800 Digitizer

1. Indication of Display

With cover closed

1. Weigher stable
2. Zero active
3. Tare active
4. Output active 1-4
5. Weigher value

With cover opened

1.   key 1 press <2sec.=   **1** SHORT   3.   key 2 press <2sec.=   **3** SHORT

     key 1 press >2sec.=   **1** LONG   key 2 press >2sec.=   **3** LONG

2.   key 2 press <2sec.=   **2** SHORT

     key 2 press >2sec.=   **2** LONG

Functions of these keys will be described on the next page.

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2. Explanation of front keys

All keys have different functions depending if you are in weighing or menu mode.

1 SHORT
Pressing key 1 "short".
In Weighing mode: create a new zero level.
In Menu mode: increase value by 1 or move up in menu.

1 LONG
Pressing key 1 "long".
In Weighing mode: reset zero level to the original zero level.
In Menu mode: decrease value by 1 or move down in menu.

2 SHORT
Pressing key 2 "short".
In Weighing mode: set/ reset tare and reset preset tare.
In Menu mode: go into sub-menu or move cursor 1 position to the left.

2 LONG
Pressing key 2 "long".
In Weighing mode: set preset tare.
In Menu mode: move cursor 1 position to the right.

3 SHORT
Pressing key 3 "short".
In Weighing mode: enter menu.
In Menu mode: escape move back in menu without saving changes.

3 LONG
Pressing key 3 "long".
In Weighing mode: enter configuration menu.
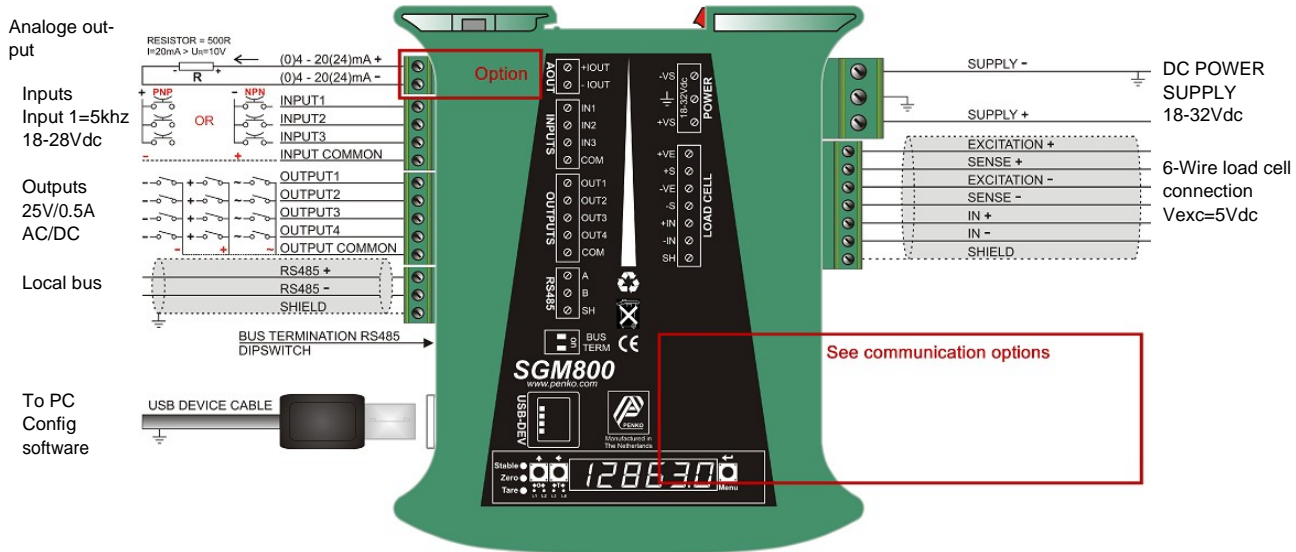In Menu mode: Confirm made changes.

Menu will jump back one level every 30 seconds of inactivity.

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

When the SGM800 is powered by USB (not 24Vdc) the loadcell interface, the analog output, Profibus and Serial communication don't work.
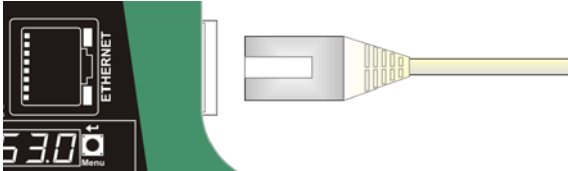
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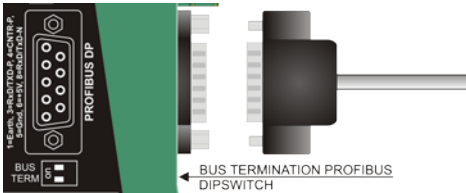## 3. Load cell / power connection

Communication options

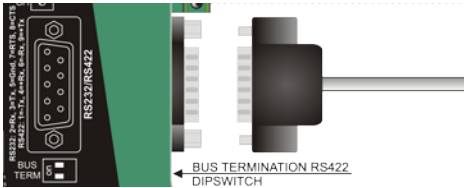#### SGM820
Ethernet connection

SGM840
Profibus DP connection

SGM850
Serial connection

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4. First use of indicator -Weigher settings-

Set up the correct indicator setting (step size and decimal point position).

The start
Turn the indicator on by connecting it to the power supply.

Press key 3 for >2 sec. to get in to **Configuration Menu**.

Go to   the Indicator parameters pressing key 1 <2 sec. 5 times.

Go   into the Indicator parameters pressing key 2.

Use **Ind 1** to set the **maximum net weight value**. Set maximum load to prevent overload by the user. The indicator will not show any weight above the filled in value. Range: 0 – full display.

To change the value, press key 2 <2 sec.

Use key 1 and 2 to change the value. Key 1 is for changing the number (1-9), key 2 is for changing the position of the cursor. Confirm by pressing key 3 for >2 sec.

Left   Right   Confirm   Up   Down

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4. First use of indicator -Weigher settings- -continue-

When the maximum net weight value is set successfully, the following screen is visible:

Dis-   *play step size*

Press key 1 <2 sec. until you see **Ind 5** and press key 2 <2 sec.

Use   **Ind 5** to set the **display step**   **size**. The step size defines the scaled parts of the weight value. The display value will be rounded off to the nearest value with a valid step size.

Use key 1 to select the correct step size.
Choose between 1, 2, 5, 10, 20, 50 and confirm by pressing key 3 for >2 sec.

                    Up   Down   Confirm

Done successfully, the following screen is visible:

Decimal point

To set the **Decimal point position**, enter **Ind 6** by pressing key 2 <2 sec.

The following screen is visible:
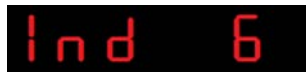
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4. First use of indicator -Weigher settings- -continue-

Press key 1 to define the point position and confirm by pressing key 3
for >2 sec.

                                              Left   Right   Confirm

Done successfully, the following screen is visible:

Press key 3 <2   sec to go back to **Configuration**
            Menu.

Press   key 3 <2 sec to go back to **main weigher display.**

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5. Calibration

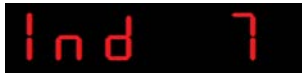**Press** key 3 for >2sec. to get in to **Configuration Menu**.

Go to   the Calibration parameters by pressing key 1 <2 sec. until you see
- - -   **CAL**

Check and delete calibration points.

To enter the Calibration settings, press key 2   <2 sec.

The following screen is visible:

Press key 1 <2 sec. to go to **CAL 3** and press key 2 <2 sec.

Use   **CAL 3** to **check and delete   all existing calibration
points**. Step through the calibration points with key 1. Delete a calibration point by
pressing
key 3   >3 sec.

   Up   Down   Delete

During de-   letions, the following screen is visible:

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5. Calibration -continue-

When a number is shown, the deletion of one calibration point is completed and more points need to be deleted. Press key 3 >3 sec to do so.

 >3 sec.
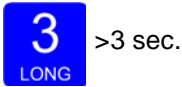
When all calibration points are deleted, the following screen is visible:

Entering new calibration points.

Use key 1 <2 sec. to go to **CAL 1** and press key 2 <2 sec.

After   entering, the following screen is visible:

And will automatically jump to:

First calibrate the **zero point (CP1)**. Make sure the weigher is unloaded and press key 3 >2 sec.

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5. Calibration -continue-

The indicator now shows CP2 to calibrate the **gain point (CP2)**.

$$- C P 2 - -$$

And will automatically jump to:

$$0 0 0 . 0 0 0$$

Use key 1 and   key 2 to enter the reference value.
Key 1 is used for changing the number (1-9), key 2 is used for changing the posi-
tion of the cursor. Load the weigher with the reference value and press key 3 >2
sec.

1 SHORT	1 LONG	2 SHORT	2 LONG	3 LONG
Up	Down	Left	Right	Confirm

Done   ly the following screen is visible:
successfull-

$$C A L \quad 2$$

Press key 3 <2 sec. to go back to **Configuration Menu.**

3 SHORT

Press key 3 <2 sec. to go back to **main weigher display.**

3 SHORT $$0 . 0 0 0$$

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6. Weigher Error Codes

Error Code	Description	Solution
CCCCCC	No proper calibration available	Check calibration setting
UUUUUU	Underflow	Check loadcell Check platform construction
OOOOOO	Overflow	Check loadcell Check platform construction
======	Display overflow; Exceed maximum display value (max. load)	Reduce load on platform

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7. Standard Factory Settings

Description	Display	Value	Your setting
Setpoint function	Fun 1	1	
	Fun 2	1	
	Fun 3	1	
	Fun 4	1	
Setpoint action	Acn 1	000,010	
	Acn 2	000,010	
	Acn 3	000,010	
	Acn 4	000,010	
Analog output	dAC 4	2	
	dAC 5	000.000	
	dAC 6	010.000	
	dAC 7	4	
Local bus communication	485 1	1	
Profibus	Pb 1	1	
	Pb 2	FL	
Ethernet	Adr 1	010	
	Adr 2	001	
	Adr 3	002	
	Adr 4	004	
	Sub 1	255	
	Sub 2	255	
	Sub 3	255	
	Sub 4	0	

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7. Standard Factory Settings -continue-

Description	Display	Value	Your setting
Ethernet	gAT 1	0	
	gAT 2	0	
	gAT 3	0	
	gAT 4	0	
Indicator	Ind 1	10.009	
	Ind 2	2	
	Ind 3	1.000	
	Ind 4	-	
	Ind 5	1	
	Ind 6	- - - . - - -	
	Ind 7	25	
	Ind 8	In	
	Ind 9	1.60	
Multi range/interval	Rng 1	0	
	Rng 2	[1]	
	Rng 3	oF	
Filter	FIL 1	0	
	FIL 2	-	
	FIL 3	0	
Digital filter	dSF 1	Dynamic	
	dSF 2	2.5Hz	
	sSF 3	50	

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7. Standard Factory Settings -continue-

Description	Display	Value	Your setting
Pre-calibration	Pcl 1	un	
	Pcl 2	2.0	
	Pcl 3	0	
Theoretic calibration	tCL 1	10.000	
	tCL 2	0.000	
	tCL 3	0.000	
	tCL 4	0.000	
	tCL 5	0.000	
Geographic calibration	gCL 1	52.00	
	gCL 2	0	
	gCL 3	52.00	
	gCL 4	0	

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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 guaranties 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

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

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

PENKO Distributor

A complete overview you will find on: www.penko.com/Find-A-Dealer

7. Standard Factory Settings -continue-