G5 Panel Mount Weighing Instrument

Short form instructions

About this document

This document applies to the following instruments:
G5-PM-S-DC-W, P/N 110767, HW version 2
G5-PM-S-AC-W, P/N 110768, HW version 2
This manual is a short form instruction to get started with the G5 Weighing Instrument. Please refer to technical manual for detailed information. Technical manual(s) as well as other manuals are available for download as pdf files from the www.blhnobel.com website. Manuals can be ordered in printed format, contact your supplier.

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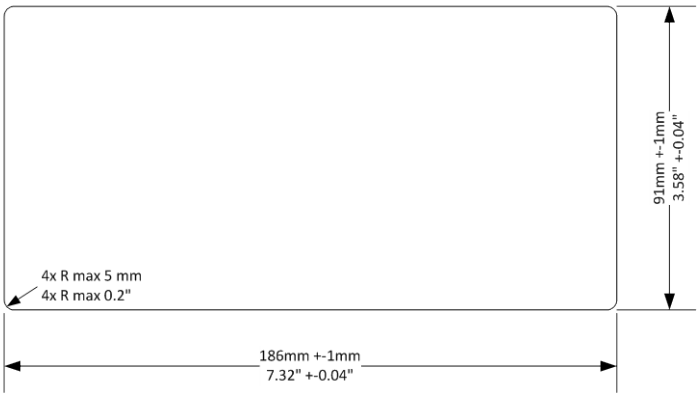
Content of delivery

With this instrument and this short form manual are mounting brackets (x4) and detachable screw terminals (x5 with AC-version or x6 with DC-version) enclosed. Make sure all parts are available when the instrument is installed.

Panel cut-out

The unit will fit in cut-outs made for TAD-3, LcP100, LcP200, LcP400, LcP104 etc. Make sure the surface behind the front panel gasket is clean and smooth and without scratches to ensure proper sealing.



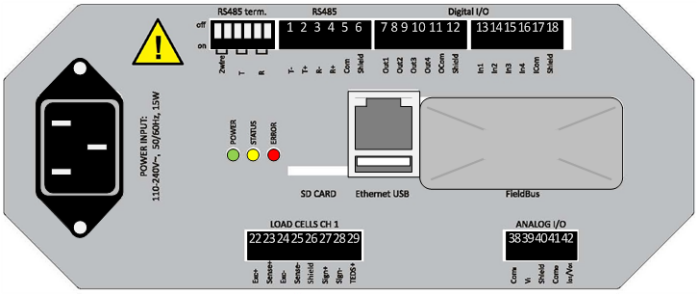
Mounting

In an enclosed plastic bag there are four M5x30 hexagon socket head screws and four fastening brackets.

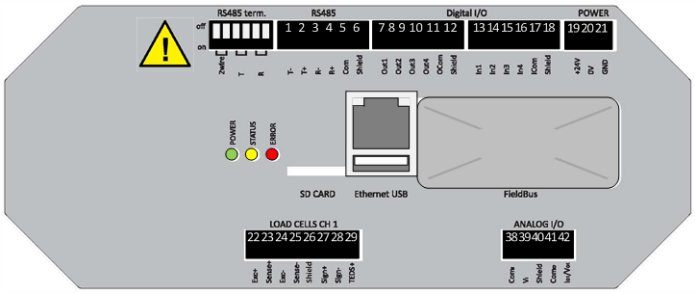
1. Insert the instrument in the panel cutout.
2. Place a bracket in the corner recession of the rear of the instrument and use the M5 screw to secure it without tightening it.
3. Place the remaining three brackets and secure each with M5 screws. Tighten the screws until the brackets start to press against the inside of the panel.
4. Make sure the tip of the brackets is resting against the panel on which the instrument is mounted and not on the instrument plastic front. This might happen if the cutout is large.
5. Check that the instrument is positioned so that the blue front sealing is not visible through the cutout which might compromise the sealing properties.
6. When the instrument is properly positioned tighten the screws 2 – 3 turns. Do not overtighten. Note that the brackets are flexible.

Connectors

On the rear panel of the instrument there are connections for power supply (AC inlet or DC terminals depending on model), RS485 serial communication, 4 digital outputs, 4 digital inputs, SD card slot, Ethernet, USB, Fieldbus (optional module), load cell input and analog I/O. See pictures below.



Rear panel of a G5-PM-S-AC model.

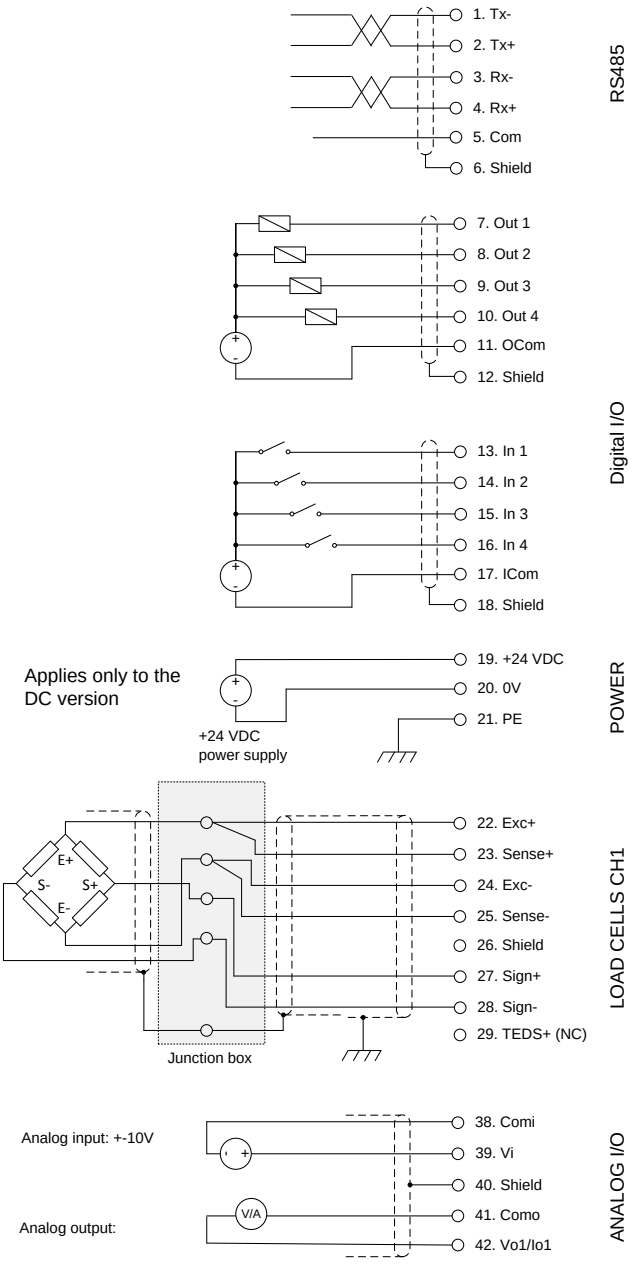


Rear panel of a G5-PM-S-DC model.

Connections

Use DIP-switches (ON) to apply termination resistors to the RS485 lines if the G5 is the end point of the communication line. Set the 2 wire DIP-switches to ON if a two wire connection is used.

Load cell connection is shown with a single load cell connected. If more than one load cell is used they should be connected in parallel to the junction box. Use a 6 wire cable between junction box and instrument.



Firmware Upgrade

1. Place the upgrade file (G5Upgrd.fwp) on a micro SD-Card.
2. Turn off G5 power and insert the SD-Card in the instrument.
3. Turn on power and wait until red or green LED is lit. Upgrading will take about 2 minutes.
4. Green LED indicates upgrade success and red failure. Try again if upgrade fails. Turn off power.
5. Remove SD-Card and power up instrument.

Connecting a G5 to a network

At delivery (factory default) the instrument is configured for static (manual) ip-address. The ip-address (192.168.99.150) is chosen to reduce the risk of problems if the instrument is connected to a network without configuration. The network settings should be configured before connecting an instrument to a network. A G5-PM can be set-up using the front panel or by connecting to the instrument using a PC with a web browser. Connect the PC to instrument with a standard Ethernet cable

Calibration

Two menus are used to handle the calibration of the scale:

Main Menu -> Parameter Set-up -> Calibration Parameters

and

Main Menu -> Parameter Set-up -> Calibration

The 'Calibration Parameters' menu holds the parameters that control the general behavior of the scale such as unit, resolution, capacity etc. while the menu 'Calibration' is used when the scale is calibrated.

In this short form instruction the Data sheet calibration procedure is briefly described.

Data sheet calibration will quickly give a good accuracy if the mechanical system allows it. If very high accuracy is desired a dead load calibration should be done. Data sheet calibration will always give a good starting point.

Data sheet calibration procedure:

1. Select resolution, unit and capacity of the scale. The higher the resolution is (in relation to capacity) the lower should the bandwidth be set. If the output is unstable the bandwidth should be lowered and/or the resolution reduced (higher value).
2. Enter the Conversion factor which gives the relation between the load cell calibration unit and the scale unit. Multiplying the load value in load cell units with the conversion factor should give the load in scale units.
3. Set the number of load cells used for the scale.
4. Enter the load cell rated load and the load cell output values in mV/V for each LC.
5. Finally zero is set by entering the actual load to the set zero parameter.

Vishay Nobel AB

Box 423, SE-691 27 Karlskoga, Sweden
Phone +46 586 63000 · Fax +46 586 63099
blhnobel.se@vpgsensors.com
www.blhnobel.com

BLH

3 Edgewater Drive, Norwood, MA 02062, USA
Phone: 781-298-2200 Fax: 781-762-3988
blhnobel.usa@vpgsensors.com
www.blhnobel.com

Document no. -
Publication no. 601 328 R1

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