**VISHAY
PRECISION
GROUP**

PROGRAM DESCRIPTION

G4

Program: G4MI_1.2.108.1

This description is valid for:

G4 Weighing Instrument with application program **1.2.108.1**

This program is made for G4 PM/DT/HE

See also the following descriptions

G4 Weighing Instrument, Technical Manual PM/DT/HE(www.vishaypg.com/doc?35160)
G4 Weighing Instrument, Operating instructions, Quick installation PM/DT/HE
(www.vishaypg.com/doc?35196)

If these descriptions in any case are contradictory, this description is valid.
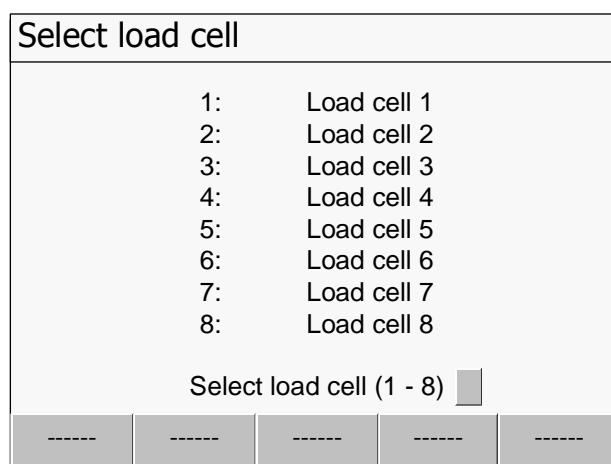
General

This special program is made for a one channel instrument that can be used with several different load cells. It can have eight sets of calibration set-ups stored as channel 1 – 8, and it adds a function to select one of these calibrations at power on.

It also has functionality for storing printouts to a log file and/or to send weight printouts to a serial printer.

Function

At power up a window appears where the operator can select load cell (set of calibration) to use. The operator enters a digit 1 – 8 and presses 'Enter' to select calibration set for channel 1 – 8. The window shows a list of channels 1 – 8 with the respective load cell name (scale name parameter) next to the channel number.

```
Select load cell

        1:        Load cell 1
        2:        Load cell 2
        3:        Load cell 3
        4:        Load cell 4
        5:        Load cell 5
        6:        Load cell 6
        7:        Load cell 7
        8:        Load cell 8

      Select load cell (1 - 8)

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```

When the operator has entered desired channel, the instrument starts up with that channel configured for the first channel of the weigh module in slot 1.

There is a new parameter in the 'General parameter' menu, called 'Log to file' (default value ON), and when this parameter is ON a log file is created in the instrument memory (in the USER folder). The log file which is a text file is named with the scale name (load cell name) and date and time
            <scale name>_<date>_<time>.txt

Some information about the load cell and the calibration is sent to the log file directly at start up.

7:Scale Name	LC 7
7:Calibration date	okt. 2007
7:Calibration Type	Data Sheet
7:No of Calibration Points	2
7:Value Cal. P1	0.0 kg
7:Transd. Signal P1	0.00000 mV/V
7:Value Cal. P2	500.0 kg
7:Transd. Signal P2	1.66631 mV/V
7:Zero Offset	0.00 kg

Then every time the 'PRINT' key is pressed, one line is sent to the log file containing the channel no, date and time, gross/net indication and the weight value.

7:	2007-10-08 11:10:11	G	034,7	kg
7:	2007-10-08 11:10:13	G	034,7	kg
7:	2007-10-08 11:10:15	G	034,7	kg
7:	2007-10-08 11:10:17	G	034,7	kg

The columns are tab-separated for easy import in e.g. excel or any database.

The same line is also sent to one (or both) of the serial port, if the port is configured for 'Std serial' in the 'Communication' menu.

If the weight is unstable, and the parameter 'Motion check' for this scale is set to 'On', the instrument will wait for stable weight before printing and logging.

During printing and while waiting for stable weight a status indicator in the display flashes with 'Printing' or alternates between 'Printing' / 'Unstable'.

Printout (and logging) can also be activated by activating a digital input (configured as 'print' input) or by sending a print command (command '9') to the command register via serial communication.

Log file handling

The log files are stored in the instrument public memory (the ''User' folder). This folder can hold roughly 5 Mbyte of data.

Every time the instrument is started a new log file is created (if logging is on) and depending on how much data is logged in each file, the available space for new data gets smaller.

The log files must regularly be moved from the instrument memory to some external memory (e.g. a USB memory stick or an external PC memory), before the available space is too small.

The available space is checked on two levels by the program.
If the available space is less than 1 Mbyte, a warning message is raised every 10[th] time a logging is done, telling the operator that the available space is small and he should consider moving files.
If the available space is less than 100 kByte, a warning message is raised every time a logging is activated, telling the operator the logging will not be done, since the available space is too small, and tells him to free up space by removing files.

Files can be handled either by the instrument internal file handling functions in menu 'Maintenance/file handling' (shortcut F2 in main window) where files can be copied, moved between folders or to a USB memory, or deleted

Files can also be handled with an ftp-session through the Ethernet port. Connect the ftp client (PC) to the IP-address of the G4 instrument and log in with user name 'G4User' and the password '1937' and you will open up the 'User' area of the memory in the instrument.

Parameters

The menu system is reached with the 'Info' key on the front panel (or by key F11 on a connected USB keyboard).

Modified parameters.

Menu 'Communication/Serial Com./COMX:Mode
This menu has been extended with a new choice '**Std Serial**' to be able to send data to a connected printer.

Menu 'Inputs/Inputs Slot X/Input XX Use
This menu has been extended with a new choice '**Print**' in order to be used as an external print command.

If an input is selected as a '**Zero**' input, a scale (1-8) must be selected, but the function will work on any scale number (selected at start up).
The 'Zero' function is extended to cover +/- full capacity.

New parameters.

Menu 'General/Log printout to file'
This parameter has two choices 'Yes' or 'No'
If set to Yes (default) a log file is created at start up and every printout is logged to this file.

Menu 'Calibration/Scale X/Calibration date'
This parameter can hold a string of 16 characters and is intended for information on when the load cell using this channel was last calibrated.