

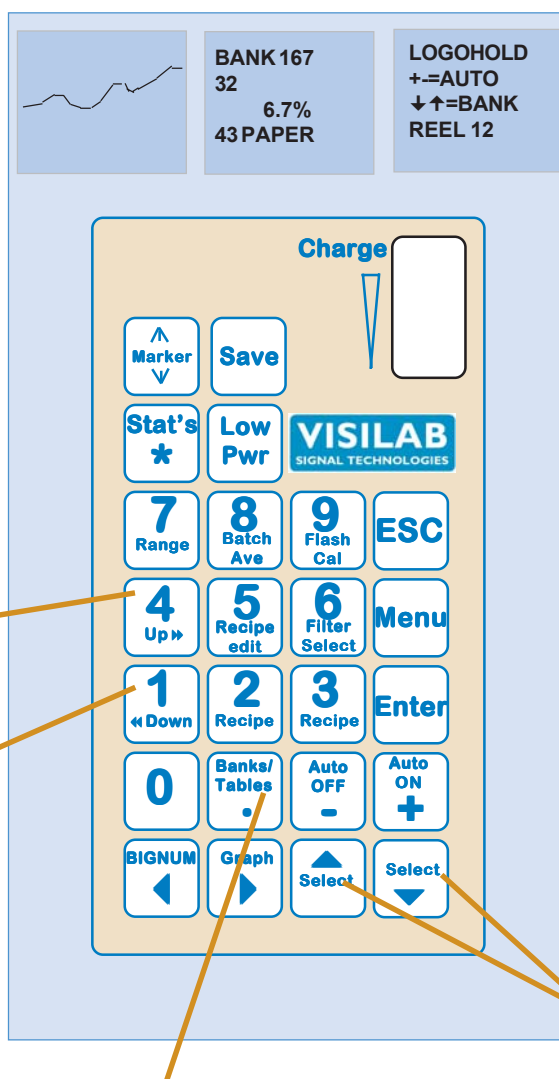
Key operations (outside of the menus)

Active in **BANKS** mode, handling of data memory banks while measuring. Changing of the calibration table is locked.

Graph with a curve of recent signal

Numeric results and various information and messages

Optional menus, messages and dialogs



BANKS

Key 4 for browsing up fast in **banks**

Key 1 for browsing down fast in **banks**

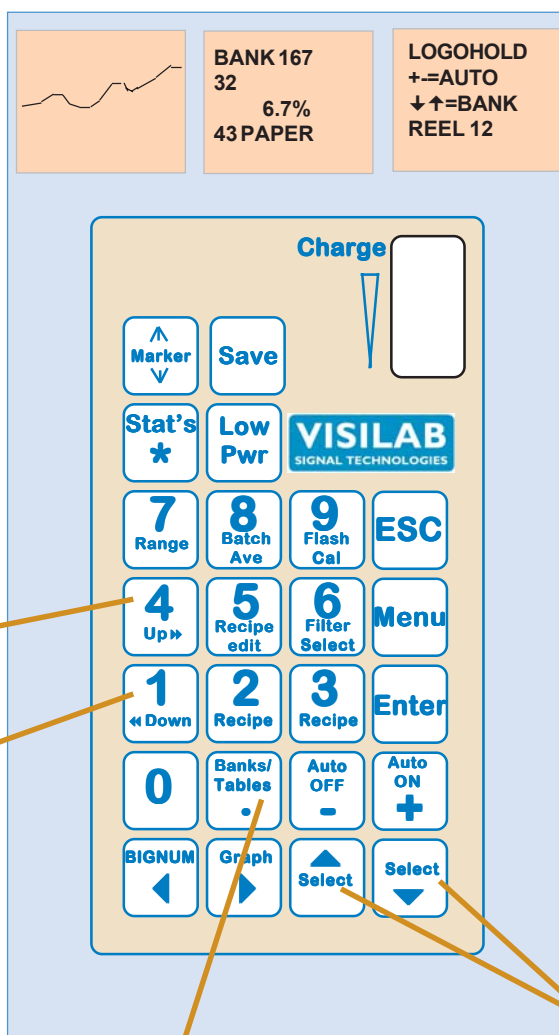
Up/Down for retrieving a memory bank (from 0 to 819 if available)

Switch between **BANKS** and **TABLES** modes. Text in blue indicates differences between the modes

Key operations (outside of the menus)

Active in **TABLES** mode, selection of another calibration table while measuring. Data memory bank selection is locked

Graph with a curve of recent signal Numeric results and various information and messages Optional menus, messages and dialogs



TABLES

Key 4 for stepping up fast in **calibration tables**

Key 1 for stepping down fast in **calibration tables**

Up/Down for changing to another **calibration table (of 1...100)**

Switch between **BANKS** and **TABLES** modes. Text in **yellow** indicates differences between the modes

Key operations (outside of the menus)

Active in **BANKS** and **TABLES** modes, additional keys

Key 8 is used for turning on/off the averaging of either a single bank (Normal) or a number of previous banks (Batch).

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Optional menus, messages and dialogs

Key 9 for Flash calibration + fine tuning of the new calibration

Marker to signal

LowPower key for turning the meter to power saving and back to normal

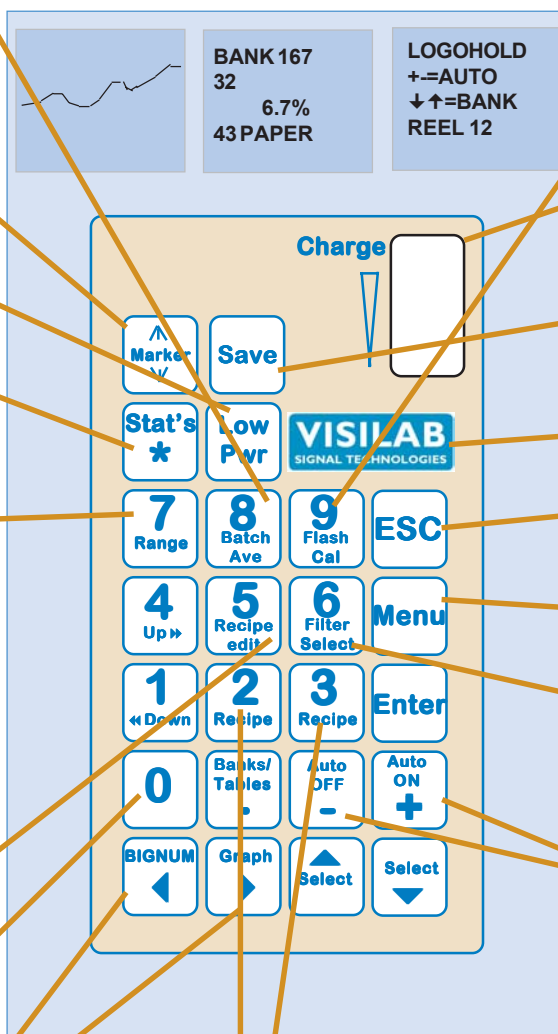
Stat's key for calculating statistics of the recent bank only

Key 7 is used for turning on/off the autoranging for the graph display.

Key 5 for editing the current recipe and label

Key 0 for adjusting time and date

Left/Right for switching between Multiple displays and a big Numeric display



Charge LEDs for the battery

Save for saving visible data on the graph to a new bank

Logo for Data HOLD

ESC key for backing up in menus

Menu to enter setup menus

Key 6 to switch between three Low-Pass Filters

Keys +/- for turning sampling Autotimer on/off

Select recipe (LABEL + optional calibration, five of them) for the measurement / memory bank to be created

Notes about the keys

As the display suggests, there is an internal date/time clock involved which is running when the meter is turned off. A time stamp is attached to every memory bank when saved. The data is kept for several years. The same stamp can be seen after downloading a bank from the meter to PC. To adjust the clock, press key **0** to set the date and time (submenus with keys 1 and 2). Press ESC a few times after setting it.

You can always press the **LowPower** key to stop the optical engine running and still utilize other features of the meter, like handling of banks or calibration tables, configurations etc.

The **Marker** key will add 0.5 % to the moisture at one point. This will serve as a marker if data is saved to a memory bank at the same time or acquired to PC. Use the marker as an indicator of some test period in your data, at both ends.

Keys **+/-**: The Autotimer may be set up for acquiring any number of samples between 1 and 500. The time interval between the samples is adjustable between 0.2 to 32000 sec. These are configured in the menu. When the number of preset samples has been reached sampling is stopped and the number of points is saved to a nonvolatile memory bank with the data. You can stop sampling by pressing the key **-**.

The **Save** key quickly saves the visible data (64 points) on the graph to a new bank just as if you had measured it with the Autotimer.

Stat 's key will retrieve the latest or the selected bank data, calculate its statistics and show them on the center and right displays. It will also show the graph of the data compressed to the 64 point display. The original calibration table name is momentarily visible and also the label.

Press the **Logo** key to stop having more data in general (= **HOLD** key, does not affect the Autotimer). The graph is frozen and also the numeric displays are. You can study the curve and optionally press the Save key to put the data to a bank. Press the **Logo** again to let it continue measuring releasing the HOLD.

Use the keys **Left/Right** (arrows) at the bottom to switch to big numeric display instead of the default multi-display and back.

Key **Bank Select** is used for switching between BANKS and TABLES modes. In BANKS mode you handle the existing data memory banks and the calibration table is locked. In TABLES mode you can switch between tables but the old banks can not be retrieved though you can still start the Autotimer, use the **Save** key and calculate Statistics of the latest bank.

The keys **Up/Down** (arrows) are used for selecting another bank or table according to the mode. The keys **4** and **1** are used for moving forth or back at a pace of 10 banks/tables at a time.

Key **5** opens up a dialog for editing the bank label belonging to the current recipe. The label is used as an additional information when the bank is downloaded to a PC and it also determines the beginning of the data file name. The label will appear at the end of the data file in the trailer part. The PC programs will show this label after downloading. Keys **2** and **3** allow one to select one of the available five recipes. When ending the editing of the label, a question is asked if you wish to use the current calibration table with this recipe. This will take effect when you switch the

recipe. If a table is used with the recipe, the calibration table is switched too, else the earlier calibration table is kept and only the label is switched. Still, one can always switch the calibration table at will. The calibration table in use is saved in all cases to the memory bank information. That table name is shown while browsing memory banks and when statistics are calculated from a bank. The calibration table name is also indicated in the file tag.

Key **6** toggles between FAST, MEDIUM and SLOW filters to filter out unwanted noise from the signal with a varying power. The filter strength affects the meter's response time. The SLOW option has an adjustable response time editing too.

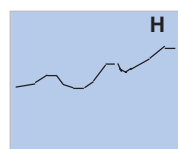
Key **7** is used for turning on/off the autoranging for the graph. When it is on, the curve is analysed before drawing it and the maximum value determines the upper end of the moisture range and the minimum value the lower end. That's why the curve seems to live a little all the time. If autoranging is off, the range is predetermined in the menu and remains fixed.

Key **8** is used for toggling on/off the averaging of either a single bank (Normal) or a number of previous banks (Batch). Normally you calculate statistics of one bank only. Optionally you can calculate the statistics of a preset number of banks (max 64) acquired before the current bank in use or just acquired. The graph of the last bank only is displayed. The number of banks to be averaged is set right after turning the Batch on, on the rightmost display. Edit and accept with **Enter**. This feature is most useful when a material's two sides need to be measured and averaged (thick papers and boards).

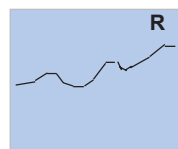
Key **9** opens the Flash calibration. It is best first to select some unimportant calibration table since this operation

Other pertinent information:

Graph with a curve of recent signal

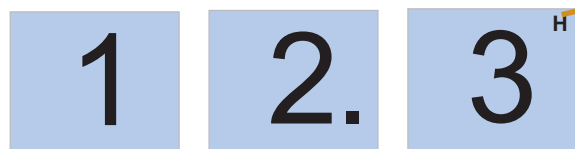


HOLD is on, press Logo again to release HOLD

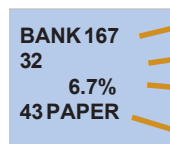


Data is retrieved from a bank

Big numeric display



Numeric results and various information and messages



current bank number

number of points in the current bank

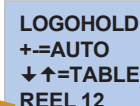
current moisture value

calibration table used

HOLD is on, press Logo again to release HOLD

selected label

Indicator for being at the top level of the menu system, all special keys are now active



will destroy the old calibration in use. A dialog opens up asking for the basis weight of the paper (g/m²) and then one will accept it and proceed to fine tuning. After that press ESC a few times and you are ready to measure with the new table.

The **Menu** key is used for entering the text-based menus. It is advised that you go there from the multiple displays, not the big numeric display. The measurement continues in the background and you can watch both the curve and the digital display while working in the menus. You can return back to the regular multiple display by pressing a few times the **ESC** key.

When the memory area is full (820 banks) you need to go to the Service menu and further to 9 = More.. to locate the option: 5 = ERDATA. Press key **5** to erase ALL DATA BANKS. **This operation is final and the data is gone.** If important data is contained in the banks, do some Downloading to a PC before attempting to erase.

When working with many of the submenus, the **Save** key has a new meaning. It can save the current meter configuration or the calibration table just modified. A simple safety interlock is put into some situations, as follows:

SURE(1)?

If you respond with key **1**, the saving is completed, else it is cancelled.