Sefram
INSTRUMENTS & SYSTEMES

SEFRAM 9861 LED Bargraph Type Moisture Meter

Instruction Manual

Thanks for purchasing the newest type of moisture meter, SEFRAM 9861 has the ergonomics design shape and uses the new type of circuit design, high authenticity, quickly response, and it also pass **CE** and **RoHS** electric security and green regulatory.

A. Application

SEFRAM 9861 can be used to measure the moisture (%) of wood, architectural material and the moisture equivalent (%*WME*) of most material. It is very practical to quality control and management/inspection after processing or before processing and business trade.

B. Preparation

1.Please check all equipment before using the instrument：

Main instrument SEFRAM 9861	1 ea	Replacement needle screw	2 pcs
Protection cap	1 pc	Soft portable leather case	1 pc
Needle probe	1 pc	9V battery	1 pc
Replacement needle	2 pcs	Instruction manual	1 set

2. Please push down the round marks of battery cover and slide out the battery cover at the same time, then put 9V battery according to polarity and reinstall the battery cover.

C. Using the SEFRAM 9861

1. Remove the protection cap to expose the needles.
2. Switch the instrument power on by pressing ⏻ key , the green LED (ON) at the instrument below will light up and make a voice "Beep".
3. Before needle contacts anything, the other LED will not be bright. If not, please check or calibrate the instrument.

> ※Low power warning：Complete the steps above to turn on, if the top red LED (Low Batt) flashes and makes voice "Beep" twice, it represents low power, please exchange new battery before using the instrument.

4. Use the two needles to push into the object for measuring moisture, when the instrument is stable to get the accurate reading, it will make short voice "Beep" warning twice, and LED display will show the reading of moisture value.
5. If the condition is difficult to operate or needs long needle to measure deeply, please connect the extension probe into the right side socket to assist for operating.

> ※The reading value of same object measured by extension probe and needle is equal.

6. After operating, please clear needles , and press ⏻ key to turn off and put the protection case back.

※This instrument has the auto power-off function, the instrument will turn off automatically to save power without any operating within 40 seconds.

D. LED Display function

1. SEFRAM 9861 uses the new type LED with power save function, high brightness, and quick response, it not only has high DPI and also has multi-color indicator to resolve the moisture percentage of material.

2. Multi-color indicator within LED range as below：

LED color	Range	Moisture condition of material
Green	5.5％ ~ 16%	Normal、dry
Yellow	17% ~ 21%	Over normal range slightly
Red	Over 22%	wet, damped

Accuracy: ± 1% at room temperature.

Remark: The display value of this instrument is set according to the moisture of wood or construction material. When SEFRAM 9861 is used to measure the other material, the display value only represents the wood moisture equivalent (%WME), it is not actual moisture.

3.**ON** (green LED below)：Power on and LED lights.

4.**Low Batt.** (Top red LED)：Flashes for low power warning

E. Calibration and Inspection

The instrument had been calibrated completely before ex-work, and it can be operated stably for a long time by normal use, you don't need to adjust any more. In the special condition, if the instrument needs to be adjusted, it is available to use a small ⊖ screw driver to do fine adjust at the right side "CAL" potentiometer or contact our technical department.

F. Signal Output

SEFRAM 9861 has analog signal output function, and it can be sued to connect the recorder、logger or other equipments. When SEFRAM 9861 is used to constant measurement, it can be connected with the left output socket under the instrument.

Output level: 10mV / %WME (max. amplitude : 1V)

Output connector: jack 3.5mm

Minimum load: 250 ohms

G. Care and Maintenance

1. The instrument has the accurate temperature compensation function, but in the high temperature or high humidity environment, it may produce deference or wrong message.

2. The sensor (needles) is the electric conduction elements of connecting the measured material.
   In order to avoid damage to the instrument and electric shock, when the measured material has voltage or static electricity, please clear the voltage or cut off the power and then go to measure.

3. Please use the two needles to push into the material at the same time and keep them for a while to get the

more accurate value.

4. To avoid the incorrect reading, if the low power symbol appears, please replace the battery before using .

5. The sensor (needles) is the main element, if the sensor has damage or other problems, please replace the new one to use continually.

6. When not in use, remove the battery from the instrument and put the main instrument and all accessories into the protection case and store the kit in a dry, dust-free environment out of direct sunlight.

7. Please contact your distributor or our customer service department for any question or product repair.

H. General specifications

Display: 48 LED bargraph, 3 colours

Auto power-off: yes

Operating temperature: -20°C to +55°C

Storage temperature: -20°C to +60°C (without battery)

Power supply: single 9V battery 6F22

Autonomy: 150 hours typical

Dimensions: 153 x 56 x 32 mm

Weight: 145g

Warranty: one year

SEFRAM

32, rue E. Martel BP 55
F42009 – Saint-Etienne cedex 2
France
Tel : +33 (0)4 77 59 36 81
Fax : +33 (0)4 77 57 23 23

Web : www.sefram.fr
E-mail : sales@sefram.fr