
NOTES

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1.0 INTRODUCTION

The DHT-2 Textile Moisture Meter accurately measures the percentage (%) of humidity contained in textiles. It can be equipped with different transducers (called “electrodes”), according to the type of material being tested.

1.1 Principle of Operation

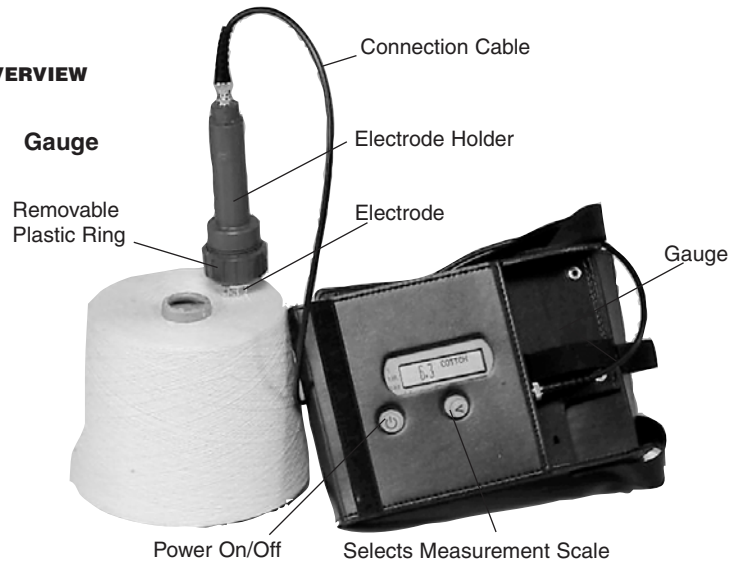
When the DHT-2 probe is placed in contact with a textile sample, it measures the electrical conductivity of the material, which varies based upon the type of material under test, and the amount of moisture present.

Next, using one of its 17 built-in, user selectable material measurement scales, the DHT-2 automatically converts the conductivity reading into an accurate measurement of humidity percentage contained in the textile. This measurement appears on the LED display.

If material under test is not included in the DHT-2’s built-in measurement scales (see specifications, section 5.1), the absolute value of electrical conductivity (range 0–100) can be converted to a percentage of humidity reading using the conversion tables provided in the Appendix.

2.0 OVERVIEW

2.1 Gauge



2.2 Complete Kit

The DHT-2 is shipped with everything you need to begin taking measurements, including:

- Gauge
- Electrode Holder
- Connection Cable
- 9 Volt Battery
- Operating Manual
- Leather Carrying Case

7.0 WARRANTY

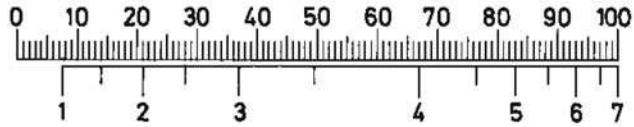
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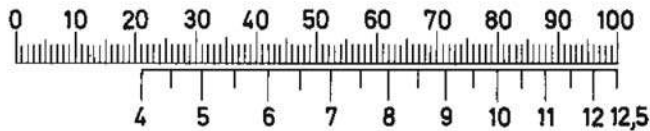
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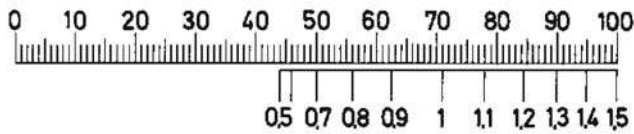
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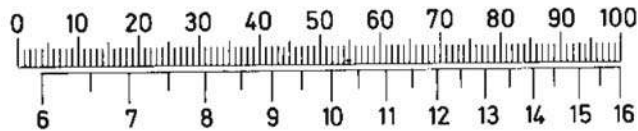
Moisture%
50 PES / 50 Bw



Moisture%
50 PES / 50 Zw



Moisture%
50 PES / 50 PAC

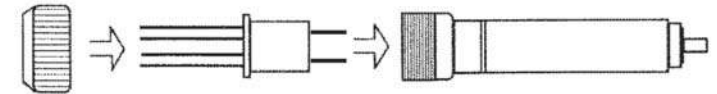


Moisture%
Sisal


3.0 MEASURING PROCEDURE

3.1 Preparation

1. Connect the gauge to the electrodes holder using the supplied Connection Cable.
2. Unscrew the upper plastic ring of the electrode holder, insert the desired electrode, replace the plastic ring.



3.2 Taking A Measurement

1. Press the Power On/Off key. 
2. Select one of the built-in measurement scales by pressing the < key until the desired material name appears on the display (see photo). For other materials, select the 0-100 scale.



3. Insert the prongs of the electrode **completely** into the sample.



4. If you are using one of the built-in measurement scales, the percentage of humidity appears on the LED display. For other materials use the conversion scales (see Appendix) to convert the 0-100 reading into a humidity percentage.



4.0 CALIBRATION

Need information on why and when to perform a calibration.

To calibrate the DHT-2, please perform the following procedure:

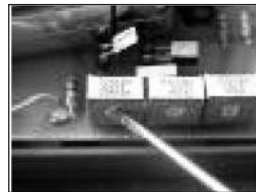
1. Turn the instrument **On**.
2. Remove the four fixing screws on the **rear** of the instrument. Carefully remove the rear of the plastic case and set it aside.
3. Locate the 1 K Ohm and 1 M Ohm trimmers. See photo A.
4. **Connect the reference probe of beginning of the scale (29%). Not sure what this means.**
5. Use a slotted screwdriver to adjust the 1 K Ohm trimmer until the instrument's LED display reads approximately 30 on the 0 to 100 scale. See photo B.
6. **Connect the reference probe of the end of the scale (59%). Not sure what this means.**
7. Use a slotted screwdriver to adjust the 1 M Ohm trimmer until the instrument's LED display reads approximately 59 on the 0 to 100 scale. See photo C.
8. Repeat steps 4 and 6 to verify that the display reads 30% and 59%, respectively. If necessary repeat the calibration procedure.
9. Replace the back of the plastic case, being careful not to squeeze the probe's wires. Replace fixing screws.



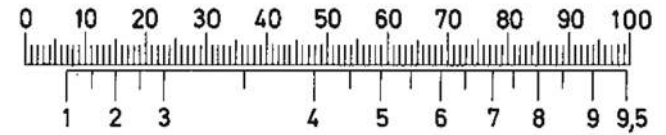
A



B



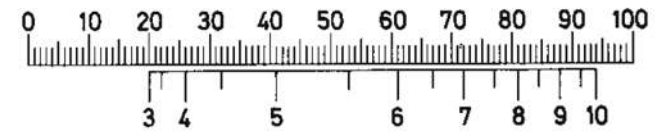
C



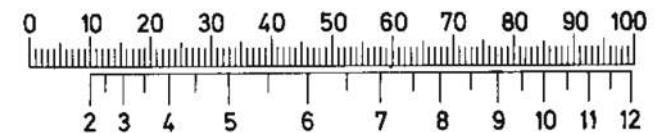
Moisture%
70 PES / 30 Zw



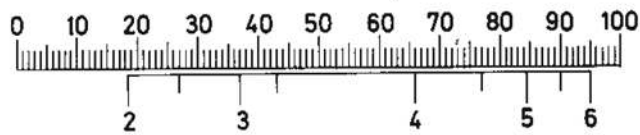
Moisture%
67 PES / 33 Bw



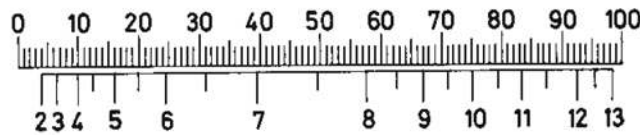
Moisture%
65 PES / 35 Zw



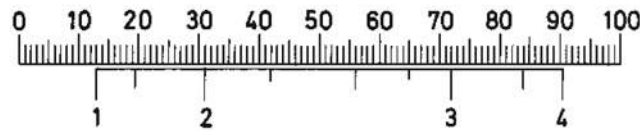
Moisture%
55 PES / 45 Zw



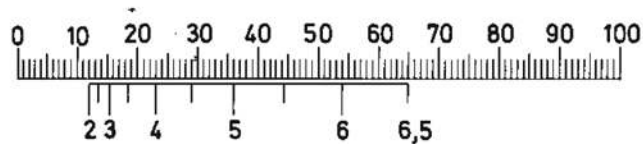
Moisture%
67 PAC / 33 Bw



Moisture%
55 PES / 45 Wo



Moisture%
80 PES / 20 Li



Moisture%
70 PES / 30 Wo

5.0 SPECIFICATIONS

LCD Display	Digital reading of the humidity percentage
Measuring tolerance	±1%
Precision Display Reading	0.1
Repeat Measurement Accuracy	± 0.3%
Dimensions	160x83x30mm
Weigh	300 grams
Power Supply	9V battery Automatic low battery signal Automatic switch off after 2 minutes

5.1 Built-In Measurement Scales

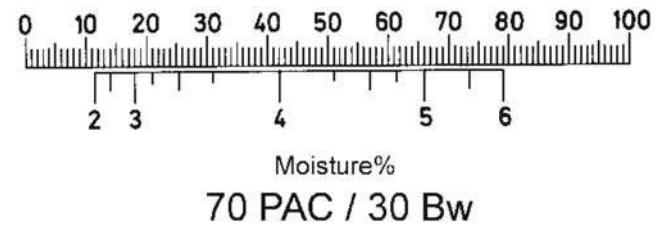
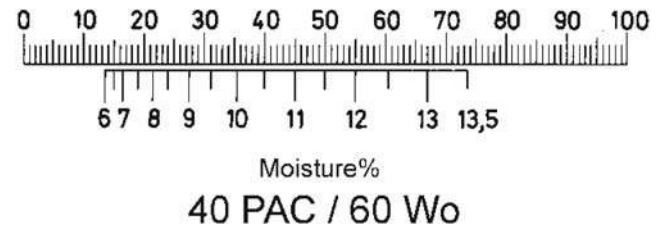
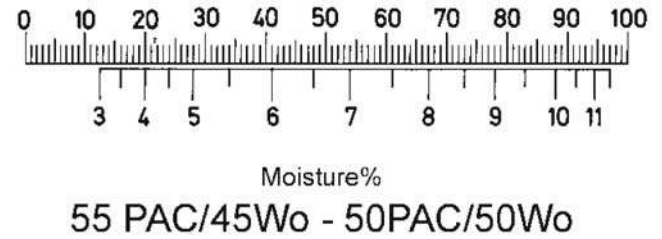
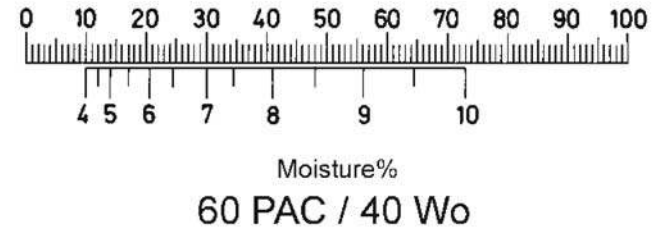
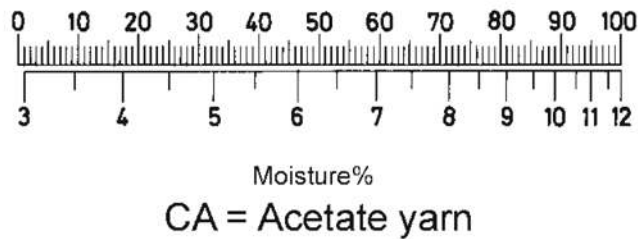
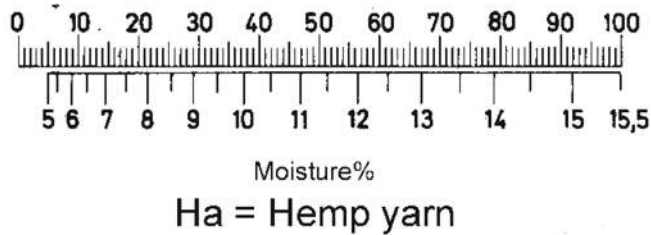
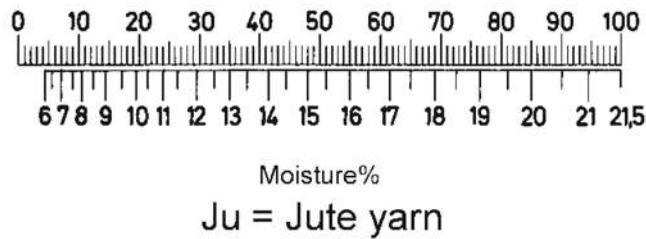
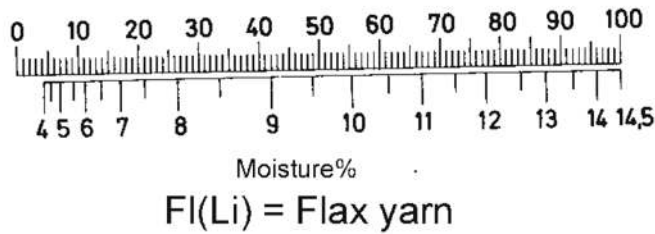
Wool
Rayon
Cotton
Linen
Nylon
Acrylic
Polyester
50% wool / 50% cotton
60% cotton / 40% PES
70% PAC / 30% wool
67% PAC / 33% cotton
70% PES / 30% wool
70% PES / 30% rayon
67% PES / 33% cotton
50% PES / 50% cotton
50% PES / 50% rayon
50% PES / 50% PAC

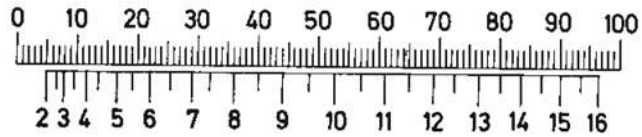
Conductivity general scale with range 0-100.

5.2 Options

- 8 pins electrode length 6 cm for spool and reel Cod.185.418
- 2 pins electrode length 10 cm for taw Cod. 185.414
- 2 pins electrode length 30 cm for cotton and wool bale Cod. 185.412
- Electrode with rolls for fabric Cod. 185.416
- Calibration kit. Cod. 185.422
- (On request complete with calibration report) Cod. 185 ccl

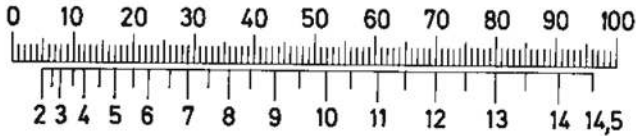
6.0 APPENDIX





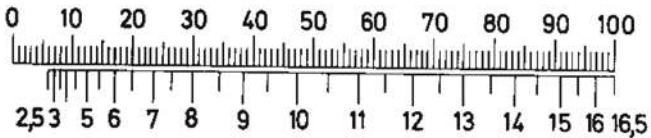
Moisture%

50 Bw / 50 Polynosic (PON)



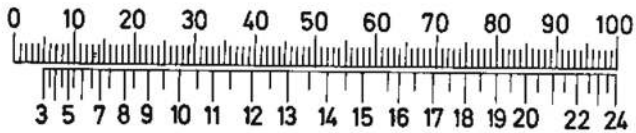
Moisture%

40 Bw / 60 Li



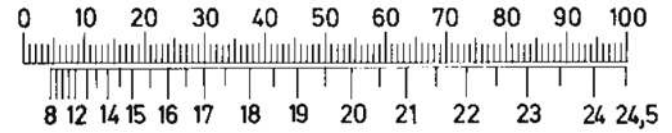
Moisture%

84Zw/16Polypropilen(PP)-56Zw/44Bw



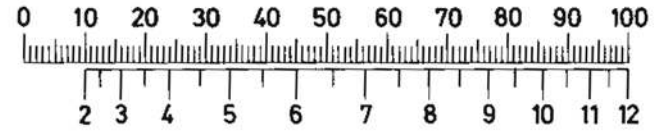
Moisture%

80 Zw / 20 Wo



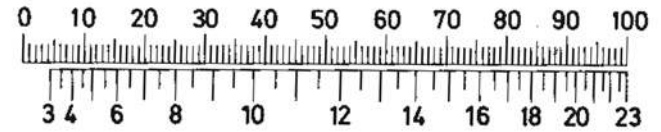
Moisture%

Wo = Wool



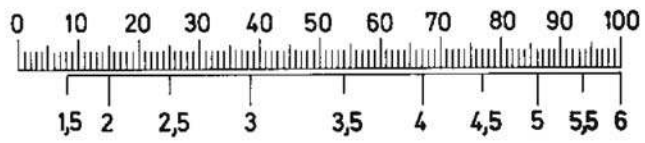
Moisture%

Bw = Cotton



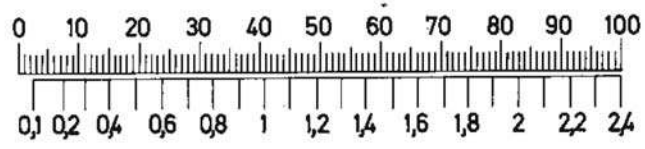
Moisture%

ZW(Cv) = Rayon



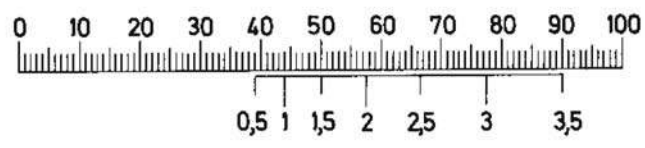
Moisture%

PA = Polyamid - Nylon



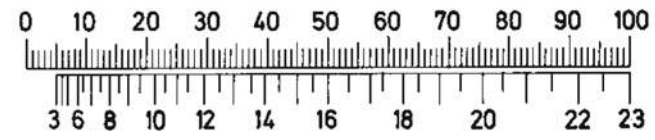
Moisture%

PAC(PAN) = Polyacrylnitril



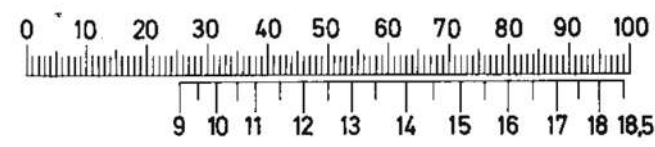
Moisture%

PES = Polyester



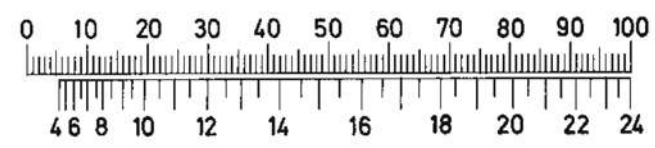
Moisture%

70 Wo / 30 Zw



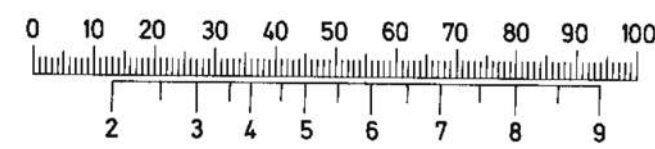
Moisture%

70 Wo / 20 Zw / 10 PA



Moisture%

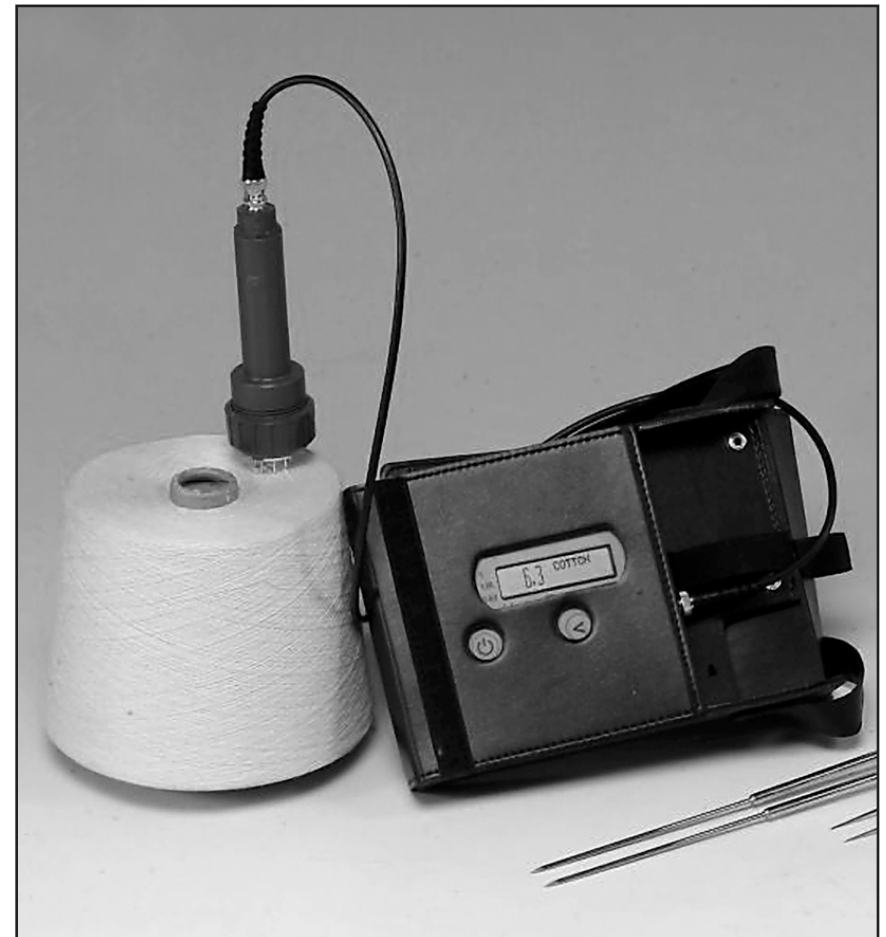
50 Wo / 50 Zw



Moisture%

60 Bw / 40 PES

MOISTURE METER MODEL DHT-2



ELECTROMATIC
EQUIPMENT CO., INC.

600 Oakland Ave., Cedarhurst, NY 11516-U.S.A.
TEL: 516-295-4300 • FAX: 516-295-4399

Operating Instructions