

TEMPERATURE

Measuring range ^(*)	-5°C - 60°C
Sensor type	resistance
Response time T ₉₀	10 - 20 seconds
Accuracy	±1°C

(*) When only the sensor (not the whole device) is exposed to the heat, the temperature range extends up to 80°C.

Power	9V, battery 6F22
Size	32 * 200 * 80 mm

3. BASIC PRINCIPLE OF OPERATION

A change in the relative humidity of the air causes a change in the capacity of the measuring sensor of approx. 0.6 pF / % RH. The change of capacity is changed into voltage and after some processing is displayed as a digital value on the LCD.

During the temperature measurements a change in the resistance of the sensor is used. The change is caused by the change of the temperature.

4. MOISTURE CONTENTS MEASUREMENTS

To measure moisture contents of paper set the knob to the position marked „RH” and slide the electrode between the layers (sheets) of paper. Wait until the result stabilizes.

The device indicates the relative humidity of air which is in equilibrium with the moisture contents of the paper. Table 1 presents the approximate relation between the measured relative humidity and the moisture contents of the paper.

Table 1
Humidity equilibrium in 20°C

RH %	CARDBOARD	NEWSPAPER
10	3.65	3.1
20	6.07	5.2
30	7.72	6.6
40	10.6	7.8
50	12.5	9.0
60	14.3	10.9
70	16.5	12.9
80	19.3	14.8
90	23.9	-
100	31.1	-

(Table 1 is based on „Measurements and control of air humidity in rooms”, K. Kostyrko, B. Okołowicz-Grabowska, Arkady 1986)

WARNING:

The numbers given in Table 1 are approximate. Grade and thickness of paper have significant influence on the exact values.

5. TEMPERATURE MEASUREMENT

To measure temperature set the knob to the position marked “TEMP.”.

6. REPLACING THE BATTERIE

The device is powered by one 9V battery type 6F22. Minimal power consumption allows for approx 20'000 measurements on one battery.

The battery should be replaced when the "LO BAT" sign is displayed no the LCD. To replace the battery remove the cup, unscrew the screw on the back of the instrument and carefully remove the back panel.

7. REMARKS

- 7.1. Avoid placing a cold sensor in warm and humid air. This causes water condensation on the sensor and distorts the results. However it neither damages nor changes the characteristic of the sensor.
- 7.2. The sensor is not resistant to acetone or other chemical solvents.

8. MOISTURE TEMPLATES

A periodical check of the accuracy of the moisture meter can be done using special saturated salt solutions or humidity generators. The producer can check and calibrate the device. It is recommended to calibrate the device every 12 months.

9. PRODUCER

TANEL ELECTRONICS & IT,
General Partnership



Poland, 44-100 Gliwice, ul. Kopernika 121
tel./fax +48 32 2349615, 2381615
<http://www.tanel.com.pl/>

10. GUARANTEE

The manufacturer guarantees the correct functioning of the Wood Moisture Meter WCPT-100P under normal use for a period of 12 months:

Serial number

Production date



USERS MANUAL MOISTURE METER FOR PAPER WCPT-100P

1. APPLICATION

Moisture Meter WCPT-100P is designed to measure moisture contents of paper. It can be used to control technological processes that require appropriate moisture contents of paper (e.g. in printing houses).

2. TECHNICAL DATA

MOISTURE CONTENTS

Measuring range	20 - 95% RH
Sensor type	capacity
Display	LCD 3 ¹ / ₂ digits
Response time T ₉₀	10 - 20 seconds
Accuracy	±2% within range: 25 - 80% ±3% within other parts of the range