WOOD TYPE SELECTION

TYPE	WOOD SPECIES
1	ZEBRANO, CORK, RUBBER TREE
2	IROKO, BEECH, LIME, NIANGON, EBONY, PEAR, OLIVE TREE
3	PINE, ASH, BIRCH, LARCH, CHERRY, LOCUST, OAK, MAHOGANY, POPLAR, SAPPELI, WALNUT, CHESTNUT, MAPLE, VARIOUS FRUIT TREES
4	DIBETOU, UTILE, SIPO, KAPUR

NOTE: to measure moisture of the concrete, use TYPE 3 and temperature of 20^{0}C

NIGOS ELEKTRONIK·NIŠ
EQUIPMENT FOR MEASUREMENT & CONTROL AND DRYERS
Borislava Nikolića - Serjože 12, 18000 Niš, Serbia
tel. / fax (+38118) 211 212, 217 468

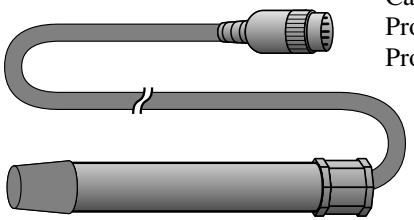
UNIVERSAL PORTABLE MOISTURE METER RVD - 903

Measures:
- Wood moisture content
- Air temperature
- Relative humidity and temperature
- Concrete moisture content

RELATIVE HUMIDITY & TEMPERATURE PROBE

Optional configuration

SVT - 03 / U

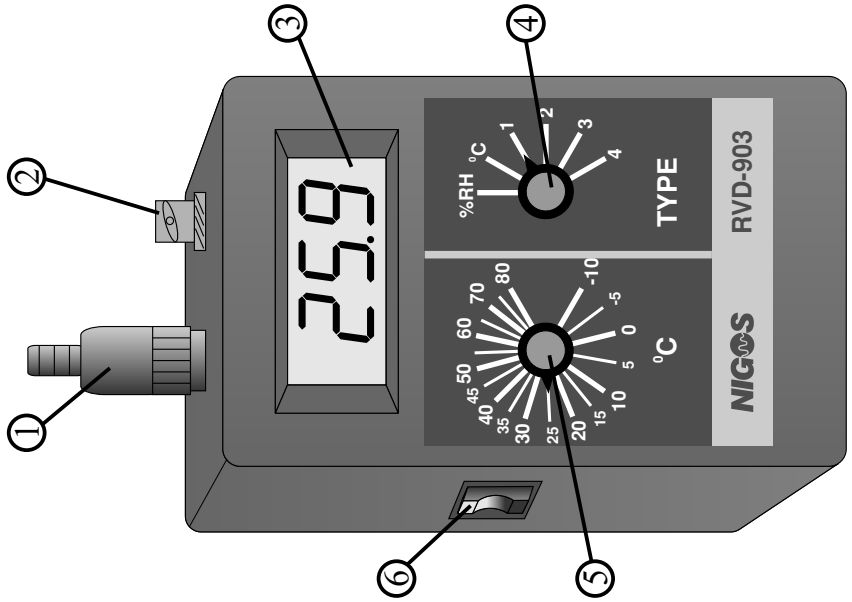


Temperature range:	5 ÷ 85 ^{0}C
Humidity range:	5 ÷ 100 %RH
Output signal:	50 ÷ 850mV (temperature) 50 ÷ 1000mV (humidity)
Accuracy:	1 (temperature) 5 (humidity)
Load:	R > 1 kΩ
Supply:	from RVD - 903
Connector:	DIN 5 - pin
Cable length:	2.5m
Probe length:	210mm
Probe diameter:	22mm

RVD - 903 DESCRIPTION

1. Connector DIN 5 - pin	connector for temperature probe and SVT - 03 / U probe (temperature / humidity) measurement
2. BNC connector	connector for wood moisture content probe
3. LCD digital display	indication of measurement result
4. Switch TYPE	
a) %RH	air relative humidity measurement
b) ^{0}C	air temperature measurement
c) 1 - 4	wood moisture content measurement
5. Pot ^{0}C	temperature compensation for wood MC measurement
6. Power button	

DEVICE LAYOUT



RELATIVE HUMIDITY / TEMPERATURE MEASUREMENT

1. Place SVT - 03 / U probe inside dryer leaving its connector outside.
2. Connect probe SVT - 03 / U to DIN 5 - pin (1) connector on RVD - 903 instead of air temperature probe.
3. Set switch TYPE (4) to **%RH**, for relative humidity measurement, or **^{0}C** for temperature measurement.
4. When power button (6) is pressed, measured value is displayed.

NOTE

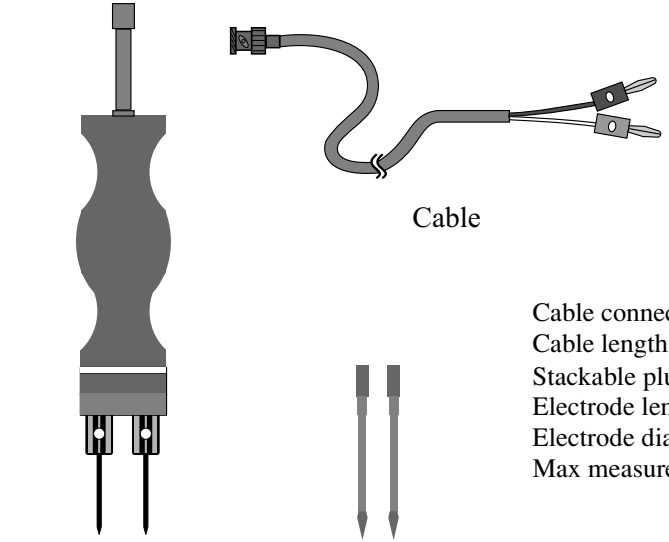
Leave the probe at least 10 minutes in the dryer before measurement starts, so that it could acclimate to ambient characteristics (temperature and humidity in the dryer).

Also, when device is transported from cold to warm room and vice versa, wait 10 minutes so that it could acclimate, and than proceed with measurement.

Device works properly in the surrounding temperature in range -10^{0}C to 50^{0}C.

Device is sensitive to static electricity, so adequate protection from electro-static discharge should be provided during usage.

WOOD MOISTURE CONTENT PROBE



Cable

Hammer with electrode

Electrode

Cable connector:	BNC
Cable length:	1m
Stackable plugs:	4mm
Electrode length:	56mm
Electrode diameter:	2.5mm
Max measure depth:	40mm

WOOD MOISTURE CONTENT MEASUREMENT

1. Use the hammer to stick the electrode in the wood at the measurement depth, perpendicularly to wood fiber. In the middle of the board is the highest moisture, and average moisture is obtained by measurement at 1/3 of the board thickness.
2. Connect the electrodes to device using appropriate cable via BNC connector (2).
3. Connect air temperature probe to DIN 5 - pin connector (1).
4. Set switch TYPE (4) to **^{0}C**.
5. Press the power button (6) to read the temperature on the LCD display.
6. Set potentiometer **^{0}C** (5) to match measured temperature.
7. Set switch TYPE (4) to one of positions **1** to **4** depending on the type of the wood. Wood type table is given both on the last page of this manual and on the device.
8. Press the power button (6). Wait a few seconds and read the wood MC.
9. Repeat step 8. of the procedure once more, and if the reading matches the previous one - measurement has been done properly.

NOTE

When wood MC decreases, time for indication to settle increases. In practice it lasts from 1 to few seconds. Also, for proper measurement of extremely low MC, repeat measurement step 8. several times. Avoid any movement near the measuring spot because it disturbs measurement.