

MODEL: AR991

## Grain Moisture Meter User Manual



Thank you for purchasing Smart Sensor's product.
Please read this manual before using the product.
It will show you the right way to operate and also
easy way to maintenance, in order to exert the durable
performance of instrument.

## 1. All varieties codes and moisture measurement range

Variety	Paddy	Wheat	Corn	Barley	Rice	Sorghum	Feed
Code	PO	P1	P2	P3	P4	P5	P6
Range	11~55	11~55	11.5-50	11~50	11~50	11~50	11.5~50

Variety	Rapesced	Seed Melon	Sesame	Soymeal	Soybean	Peanut	Seed Cotton
Code	P7	P8	P9	P10	P11	P12	P13
Range	7.5-44	11~50	7.5~44	7.5~44	10~50	10~50	7.5~44

### 2. Display:

English characters with a low-power digital LCD backlight. Low-power backlight Description:
Backlight will be off when no measurment, and the backlight will be on when measuring.

#### 3. Voice-Over:

Instrument settings, testing, inspection, all accompanied by a voice reminder. Language: English voice-over includes the following 4 modes:

- d1 = The moisture content readings,
- d2 = high moisture content,
- d3 = Voice-over off,
- d4 = bip-sound.
- 4. Power supply: 4 \* AA batteries

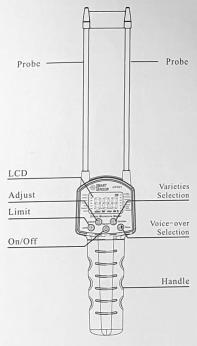
#### 5. Deviation adjustment:

Oven control calibration method, user can adjust -3% to +5%. Click the "Adjust" button to adjust the loop gain value, first addition and then subtraction. After amendment, press the "ON / OFF" button for 2 seconds. The setting will be saved when shuting down.

#### 6. Alarm setting:

Adjustable, factory default alarm is 10%.

### Product appearance and structure:



- 7. Sensor type: Double probe
- 8. Moisture meausrment resolution: 0.1%
- 9. Memory function setting:

If the battery was removed, the setting content will never disappear. To save the setting content, press the "ON / OFF" button for two seconds. The setting will be saved when shutting down.

#### 10. Low power reminder:

When battery power is low, the battery symbol on the LCD display will be blank, then user should replace the battery.

## 11. Measuring principle and sampling method:

resistance method and continuous sampling.

#### 12. Button function:

On / off, varieties <P0  $\sim$  P13>, adjust <-3 to +5>, Voice-over <d1  $\sim$  d4>, Limits.

All 5 function buttons are specific.

#### 12.1 ON / OFF button:

Press the "On / Off" button on the instrument panel for 2 seconds, LCD display will show "OFF", then release to shutdown; Press the "On / Off" button again for 2 seconds, display will show "ON", then release to switch on.

#### 12.2 Variety button:

This button switching P0 to P13 which 14 kinds of grain; Press the button to switch variety, starting from P0 to P13, and then back to P0. Press for 3 seconds, restore to P0 mode.

#### 12.3 Adjust button:

User can adjust from -3% to +5%. Each press of the button, the value increased by 0.5%.

Press for 3 seconds , restore to 0%.

#### 12.4 Voice-over button:

Press the button to switch a voice-over reminder, 4 kinds of reminder including:

- d1 = The moisture content readings,
- d2 = high moisture content,
- d3 = Voice-over off, d4 = bip-sound.

Press for 3 seconds, restore to d1 mode.

#### 12.5 Limit button:

This button is setting the value of the voice-over reminder, related to d2 = high moisture content and d4 = bip-sound. Value range: 10% to 40%.

Press for 2 seconds, value restore to 10%.

For example: If the value is set as 25.0%, then the voice reminder limit will be set as d2 = high moisture content, when the actual detected value is greater than 25.0%, the voice-over will report "The moisture content is high", if the actual detected value is less than 25.0%, Voice-over will report the actual reading.

## 13. The upper and lower limits of moisture measurement:

insert the meter into the measured object, when the moisture content was within range of the meter, the meter can measure the moisture of the measured object. When the measured object was too dry below the minimum measuring range, the meter will display "LO" for no result. When the test was too wet exceeded the maximum measuring range, the meter can only display "Limit".

#### 14. Single measurement:

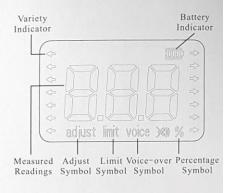
When the probe of the meter is inserted into the measured object, and the moisture content was within the measuring range, the LCD display will show the moisture readings for few seconds, and voice-over will report the reading immediately.

# 15. Auto shutdown in 15 minutes without any operation.

Battery Installation Instructions:



#### LCD Display Description:





### Statement

- a. We reserve the rights of upgrading and amending the design of the product as well as the manual updating, and the product is subject to change without any further notification.
- b. Dispose of battery should be in accordance with local laws and regulations.

