1. Product Description

* Be a powerful and versatile instrument for measuring and diagnosing dampness in grains. Widely used for fast and accurate measurement of moisture and temperature in the process of allotment, acquisition, storage, machining of packed grains.

Digital display gives exact reading with no quessing or errors while a color coded light (LED) indicates the moisture condition of the material. This combined presentation of moisture measurement helps the user to map the extent of problems and monitor changes in condition precisely and reliably.

Used the exclusive Micro-computerLSI circuit and crystal time base to offer high accuracy measurement. It can obtain automatically the temperature corrected moisture value.

* Wide measuring range and high resolution.

* Automatic power off to conserve power.

* Can communicate with PC computer for statistics and printing by the optional cable and software for USB interface.

* Can store 99 groups of measurement results with statistical functions.

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2. Technical Parameters

Display: 4 digits, 10mm LCD

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GRAIN

MOISTURF MFTFR

AM-128G

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With color coded LEDs indication Green LED represents a safe, air-drv state, Yellow LED represents a borderline State. Red LED represents a damp state. Range: average 7-30% Accuracy: $\pm (0.5\% n+0.5)$ Resolution: 0.1 PC interface:USB interface Cable and software is not included) Power supply:4x1.5 AAA size (UM-4) battery Power off: 2 modes Manual off at anytime Auto power off after 10 minutes from last key operation Operating conditions: Temperature: 0-50°C (32~122°F) Humidity: < 90%RH Dimensions: Unit: 140x70x31mm 5.5x2.8x1.2inch Long rod sensor: 368x44x44mm 14.5x1.7x1.7inch Length of rod: 290mm Diameter of rod: 6mm Distance between 2 rods: 14mm Small pin sensor: 157x44x44mm 6.2x1.7x1.7inch Lenath of pin: 10mm Diameter of pin: 0.7mm 2

4. Measuring Procedure

4.1 Depress the Power/Menu key to power on the meter

4.2 To check if the grain code is right by pressing and releasing the Select key. Such code can be changed by the Plus/Zero key or Minus key when the `cdxx` is on the display. Here `cd` is the abbreviation for `code` and xx`is the grain code no. If keep depressing the Plus/Zero or Minus key, the material code will step into next code about every second and releasing it till the grain code is right. 4.3 Grain code selection

The grain codes are listed in the table on page 9, if the grain to be measured is not listed in the table, please ascertain its grain code among `cd01` and `cd36` by the standard oven-drying method, that is by oven-drying of commercial samples of the grain to be measured. Write down the code for later use.

4.4 Insert the plug (3-2) of the measurer into the probe jack(3-3).

4.5 Insert the needles into the grain to be measured.

The reading on the display is the moisture content. Read the moisture level value from the display and note the moisture condition of 5

Distance between 2 pins: 3.5mm Weight: 420g (not including batteries but
including the probe) 14.82oz
Standard accessories included :
Carrying case1 pc
Operation manual1 pc
Long rod sensor1 pc
Optional accessory
Small pin sensor (for whole grain of
certain size)
USB Cable and software

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the material from the color coded LED. Please note that reading will change if needles stay in grain longer. 4.6 Zero calibration The zero feature enable the user to compensate for the effect of changes In both temperature and humidity. When the probe does not touch anything besides air, the reading on the display should be `0` or `0.0`. If not, please depress and release the zero key to carry out zero calibration. 5. Statistics

The gauge calculates and displays a statistical analysis of readings as they are taken. The statistics available are:

- * Last value
- * Mean value marked by Ave
- * Highest Reading marked by Max.
- * Lowest Reading marked by Min.
- * Number of Readings taken

To clear the statistical data when starting a new set of data, just press and release the Plus/Zero key. In the measurement mode marked by SV, last value could be deleted singly by pressing the Delete key and restatistics is calculated and displayed it self.

6. Storing And Recalling Readings

6.1 Readings taken are automatically saved

to the memory of the gauge. The memorized data can be browsed by pressing and releasing the Read key to enter into the browsing state marked by "RD" on the display.

6.2 In the browsing state, all the readings memorized can be recalled on the display by depressing the Plus/Zero key or the minus key.

6.3 To delete singly a memorized value in the memory, just locate the reading to be deleted by the Plus/Zero key or Minus key, then press and release the Delete key. If there is an "Err0" on the display, it indicates there is no reading to delete any more.

7. Deleting Readings

7.1 To delete a reading on the display, just press the Delete key no mater in the measurement state marked "SV "or in the browsing state marked by "RD". Go into the browsing state by pressing the Read key. 7.2 To delete all the readings in the memory, just depress the Delete key in the measurement state marked by "SV "on the display for about 5 seconds till the number of readings memorized becomes 0.

8. Alarm Limits

8.1 There is a coded colored LED indicating

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Code	Grain	Range (%
Cd20	Mustard Seed (Whole)	7-21
Cd21	Sorghum / Milo (Whole)	7-31
Cd22	Sorghum / Milo (Ground)	7-29
Cd23	Sunflower Seed (Whole)	7-29
Cd24	Sugarbeet Seed (Whole)	7-26
Cd25	Flax (Whole)	7-29
Cd26	Peas (Progreta) (Ground)	7-25
Cd27	Peas (Ground)	7-27
Cd28	Ground Nuts Hulled (Whole)	7-26
Cd29	Grass Seed/Rye Grass (Whole)	6-28
Cd30	Grass Seed/Cocksfoot (Whole)	5-22
Cd31	Flour / Soft Wheat	7-34
Cd32	Clover / White Seed (Whole)	7-29
Cd33	Clover/Red lucerne Sees(Whole)	7-31
Cd34	Buckwheat (Ground)	7-26
Cd35	Brassicas / Brussels Sprout (Whole / Ground)	7-27
Cd36	Beans / Tic / Winter (Ground)	4-13

the status of moisture. It is controlled by 2 alarm limits. The factory settings are as follow.

AL1 = 13 and AL2 = 18

If the reading<AL1, the green LED is on. If the reading>AL2, the red LED is on. If the reading lies between Al1 and AL2, the yellow LED is on.

Users can change the alarm limits when as per their intention.

8.2 How to set the alarm limits

8.2.1 Depress Select key and not release it till 'AL1' 'AL2' appears on the Display. It is about 3 seconds from starting depressing the Select key.

8.2.2 Such value can be changed to your intend-ed Value by depressing the Plus/Zero key or Minus key. Depress the Select key to return to the state of measurement. If the second limit AL2 is less than the first limit AL1, the setting is invalid and the factory settings for AL1 and AL2 are restored to AL1=13 and AL2=18 automatically.

9. Considerations

9.1 Please keep it in a dry, dust proof place.
9.2 The measurement result may be different if taking the measurement from different directions of the surface. That is because

water in the mater-ial is not distributed evenly.

10. Battery Replacement

10.1 When it is necessary to replace the battery, the battery symbol ' - ' will appear on the display.

10.2 Slide the Battery Cover (3-4) away from the instrument and remove the batteries. 10.3 Install the batteries (4x1.5vAAA/UM-4) correctly into the case.

10.4 If the instrument is not used for a

extended period, remove batteries. 11. Transferring Readings To A Computer

11.1 Install the software on your PC, plea-se always click 'the continue' button in the install-ing process.

11.2 Connect your gauge to your PC using the optional cable.

11.3 Switch on your gauge and ensure the Read-ing Screen is displayed.

11.4 Start the software and follow the instructions included with the software Demo.EXE.

12. Appendix: Code Table for Grains

Code	Grain	Range (%)
Cd01	Wheet / Rye (Whole)	7-31
Cd02	Wheet / Rye (Ground)	7-29
Cd03	Paddy (Whole)	7-29
Cd04	Paddy (Ground)	7-26
Cd05	Rice (Milled)	7-29
Cd06	Semolia	7-25
Cd07	Maize / Corn (Whole)	7-27
Cd08	Maize / Corn (Ground)	7-26
Cd09	Soya Beans (Whole)	6-28
Cd10	Soya Beans (Ground)	5-22
Cd11	Barley Oats (Whole)	7-34
Cd12	Barley Oats (Ground)	7-29
Cd13	Coffee (Whole)	7-31
Cd14	Coffee (Ground)	7-26
Cd15	Coffee Green (Ground)	7-27
Cd16	Cocoa Beans (Whole)	4-13
Cd17	Linseed (Whole)	6-21
Cd18	Lentils (Ground / Whole)	7-21
Cd19	Oilseed Rape (Ground)	5-26



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