

USER'S GUIDE

PHL METER



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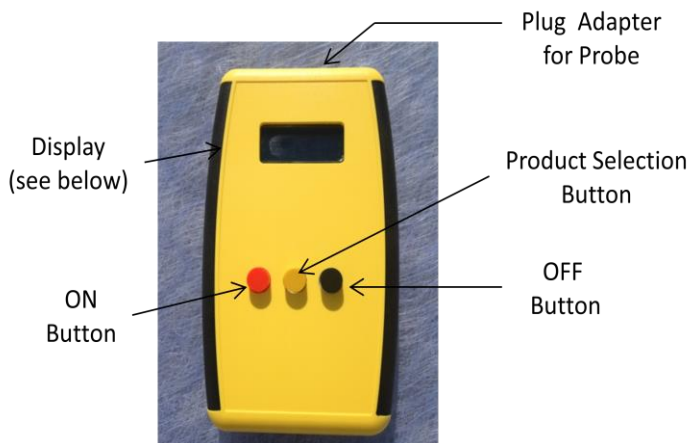
PHL Meter

The PHL Meter allows measurement of the moisture content of various agricultural commodities (hard wheat, soft wheat, yellow corn, soybeans, rough rice, and sorghum) while in bulk storage and at various grain depths, based on measurements of relative humidity and temperature.

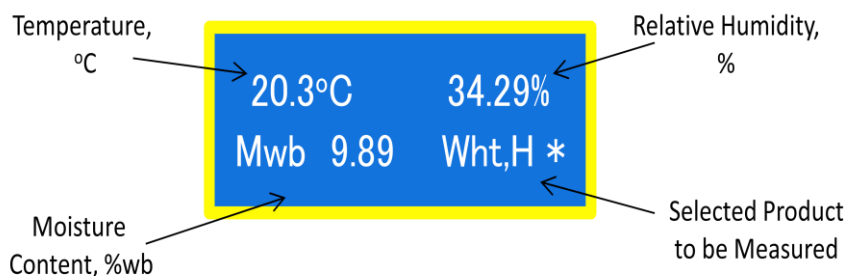
Grain moisture content is one of the most important and critical factors affecting quality of grains during storage. The PHL Meter uses relative humidity (rh) and temperature data to determine the equilibrium moisture content of agricultural commodities. This meter uses an an integrated rh and temperature sensor. Due to the sensitivity of sensor to grain dust and moisture, the sensor is protected by with wire mesh. The PHL Meter 4.0 displays relative humidity and temperature data along with MC. The probe can be used to obtain measurements at various grain depths.

PHL Moisture Meter Description

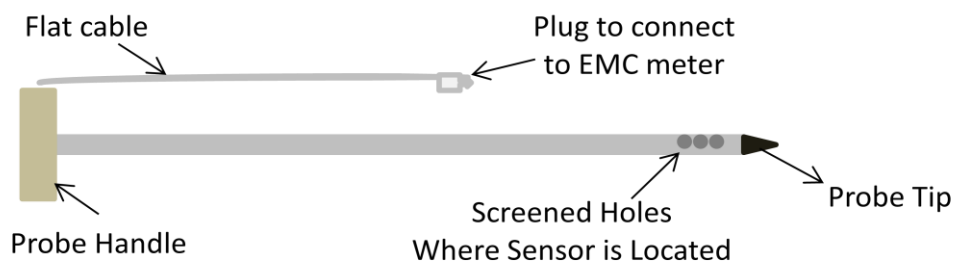
Meter Description:



Display Description:



Probe Description:



Setting Up Your PHL Meter

1. Open the back cover and install a 9V battery. Place the cover back.



2. Attach the probe (this contains the sensor) to the meter by carefully pushing the handset plug into the plug adapter (located at the top of the meter) until a click is heard.

Using Your PHL Meter

1. To turn on the meter, continuously press the ON button (orange button – left most button in the meter) until the display shows up “ARS-USDA EMC Meter X.X.”

2. To select the product to be measured from the six options available (1) hard wheat – Wht,H, (2) soft wheat – Wht,S, (3) yellow corn – Corn,Y, (4) Soybeans – Sybn, (5) rough rice – Rice,R, and (6) sorghum – Srghm, press the yellow button (located in the middle of the meter) and keep pressing down to find the product that you would like to measure. Release the press on the button when selected product is highlighted. Verify that the correct product has been selected by checking the display (right bottom most area of the meter display). If you have the correct product, you can resume with measurements. If not, repeat the process until the correct product has been properly selected.
3. Insert the probe to the product at the depth that you would like to measure but not less than 6 inches. Obtain RH (%), temperature (°C) and Moisture Content (% wet basis) readings shown in the meter display. **NOTE Make sure to allow the reading to equilibrate to the grain conditions. This can take from a couple minutes to six minutes depending on the initial grain probe temperature before insertion and the grain temperature.**
4. To turn off the PHL Meter 3.0, press the OFF button (black button - right most button in the meter).

Care and Handling

- Always keep the instrument dry.
- Keep the probe in a clean, dry place. Prevent dirt from accumulating, especially at the sensor area, which is located at the end tip of the probe. Make sure that it is not exposed to the possibility of small insects getting inside the probe. When not in use, cover the area of the probe where the sensor is located (close to the tip of the probe) with a plastic bag that will keep it safe from getting wet and or dirty.

Troubleshooting

1. If the instrument does not switch on, check to see if the batteries need replacement.
2. The sensor can be damaged if exposed to water. If this happens, try to check if it is still working by allowing the sensor to dry for about a couple of days (or more, depending on existing drying conditions) before trying to use it again.

