



## Disposable Digital pH Sensor

OTT ID #1372

### APPLICATION

An electrochemical pH paper sensor

### TARGET PROBLEMS

Currently there are two common ways to measure pH, a pH meter or pH paper:

**pH meter:** Must be used with care and is difficult to maintain, specifically, they must be calibrated and cleaned before each use. Also, large volumes of liquid must be tested.

**pH paper:** This method is subjective and semi-quantitative, it lacks the ability to give an exact measurement of a solution, and is only accurate for a quick check of whether a solution is acidic, basic, or neutral.

### KEY BENEFITS

**More Accurate:** Increased pH testing accuracy, to the second decimal, measures a very wide pH range

**Easy to Read:** Digital readout for easy quick and easy viewing

**Portable:** Compact handheld electrode for convenient usage

**Inexpensive:** Single use disposable paper used with multi-use electrode for low cost measurements

**Easy to Use:** Only a small sample is needed for testing

**Minimal Contamination:** The patterned paper fluidic channel can minimize contamination

### TECHNOLOGY

The hand-held electrochemical reader and screen-printed electrodes can be used as a disposable device or can also be reused several times. The paper test strip for liquid samples is a one-time-use, which serves for sample delivery and storage. This electrochemical pH paper sensor can also be combined with other electrochemical detection technologies for simultaneous multiplex detections such as glucose, heavy metals, etc.

### INTELLECTUAL PROPERTY

[WO 2016/090176](#) nationalized patents pending

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