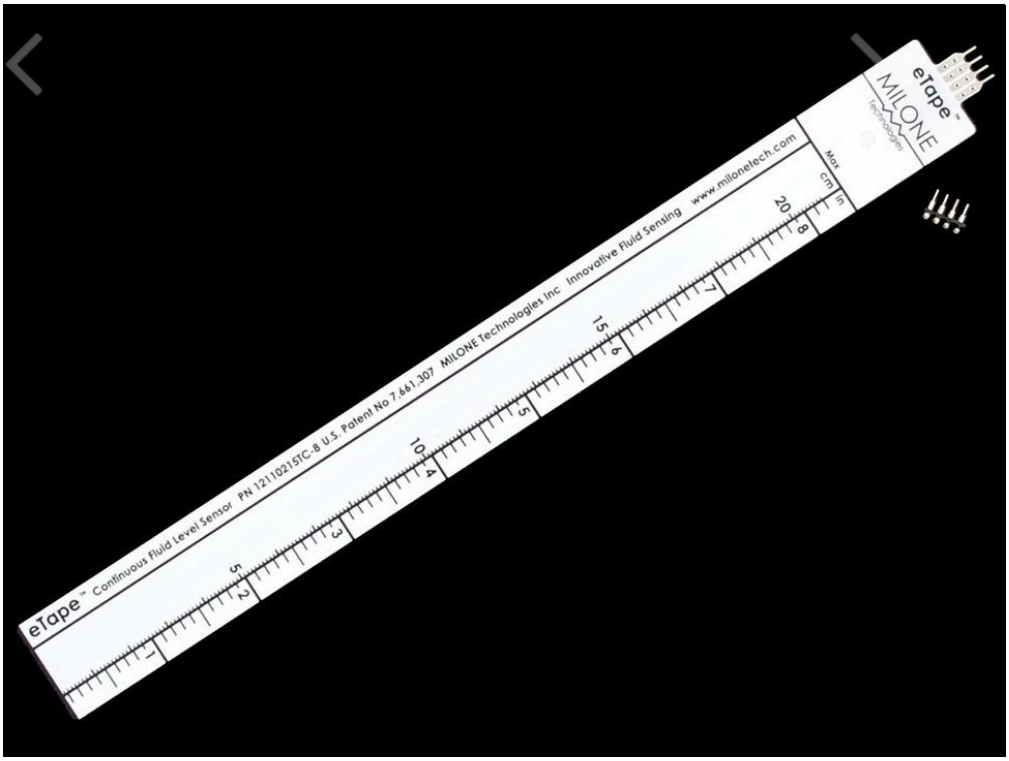

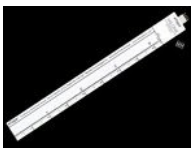

8" eTape Liquid Level Sensor + extras

PRODUCT ID: 463

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DESCRIPTION
TECHNICAL DETAILS

DESCRIPTION

The eTape Liquid Level Sensor is a solid-state sensor with a resistive output that varies with the level of the fluid. It does away with clunky mechanical floats, and easily interfaces with electronic control systems. The eTape sensor's envelope is compressed by the hydrostatic pressure of the fluid in which it is immersed. This results in a change in resistance that corresponds to the distance from the top of the sensor to the surface of the fluid. The sensor's resistive output is inversely proportional to the height of the liquid: the lower the liquid level, the higher the output resistance; the higher the liquid level, the lower the output resistance.

This is a very unique sensor, we haven't seen anything else that is affordable and accurate for measuring liquid level. This sensor seems like it would be a handy addition to an hydroponics, aquarium, fountain or pool controller, or perhaps measuring a rain tube. This particular sensor is the 8" model, **we also include a 4-pin connector and 560 ohm resistor**. The connector is so you don't have to solder directly to the delicate pins: instead, just solder to the connector and plug it onto the sensor.

Since the sensor is resistive, it is easy to read it using a microcontroller/Arduino ADC pin. Check the tutorials tab for a quick-start pointer.

TECHNICAL DETAILS

- Sensor Length: 10.1" (257 mm)
- Width: 1.0" (25.4mm)
- Thickness: 0.015" (0.208 mm)
- Resistance Gradient: 140Ω / inch (56Ω / cm), ± 10%

- Substrate: Polyethylene Terephthalate (PET)
- Sensor Output: 1500Ω empty, 300Ω full, ± 10%
- Actuation Depth: Nominal 1 inch (25.4 mm)
- Resolution: 0.01 inch (0.25 mm)
- Temperature Range: 15°F - 140°F (-9°C - 60°C)

For more information, check out: eTape Liquid Level Sensor Datasheet

eTape Liquid Level Sensor App note

Downloads:

- eTape Liquid Level Sensor Datasheet
- eTape Liquid Level Sensor App note

We don't have a detailed tutorial for this sensor but it acts very much like a thermistor so we suggest checking out that tutorial for background, and then following these instructions:

Connect pin #2 of the sensor to ground, then pin #3 to a 560 ohm resistor. The other side of the 560 ohm resistor to VCC (3.3V or 5V for example) to create a resistor divider. The ADC pin connects to the point between the resistor and sensor.

```
// the value of the 'other' resistor
#define SERIESRESISTOR 560

// What pin to connect the sensor to
#define SENSORPIN A0

void setup(void) {
  Serial.begin(9600);
}

void loop(void) {
  float reading;

  reading = analogRead(SENSORPIN);

  Serial.print("Analog reading ");
  Serial.println(reading);

  // convert the value to resistance
  reading = (1023 / reading)  - 1;
  reading = SERIESRESISTOR / reading;
  Serial.print("Sensor resistance ");
  Serial.println(reading);

  delay(1000);
}
```

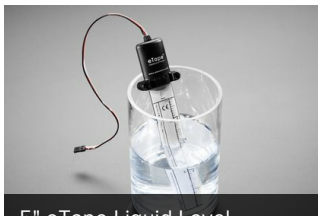
Then look in the App Note for the conversion between resistance and liquid level.

LEARN

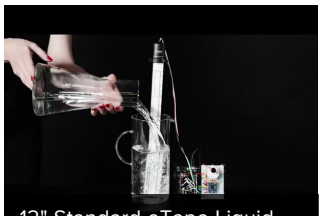
Smart Measuring Cup
Show the volume of liquid in a measuring cup on a web page!

MAY WE ALSO SUGGEST...

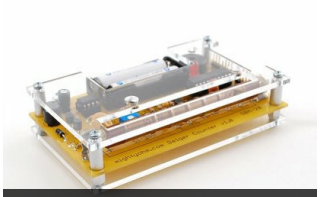
Geiger Counter Kit -



5" eTape Liquid Level



12" Standard eTape Liquid

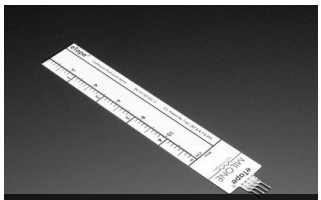


Geiger Counter Kit Case

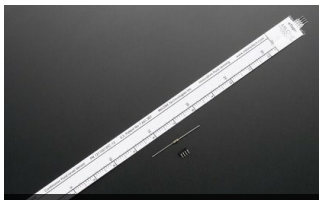
Peristaltic Liquid Pump with

Optomax Digital Liquid

Peristaltic Liquid Pump with



5" eTape Liquid Level



12" Chemical eTape Liquid

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