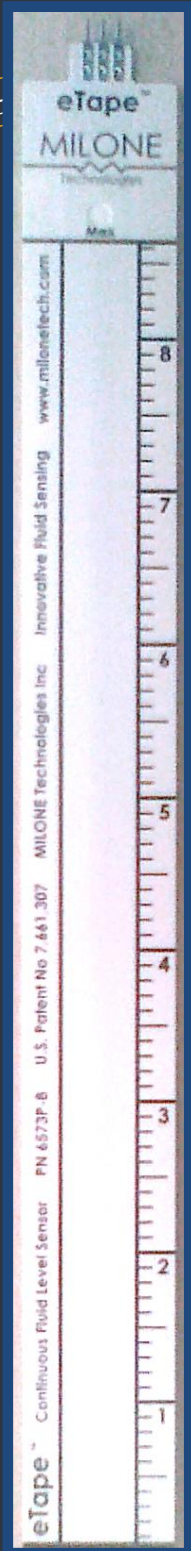


eTape™ Continuous Fluid Level Sensor

PN-6573P-8



• Description

The eTape sensor is a solid state, continuous (multi-level) fluid level sensor for measuring levels in water, non-corrosive water based liquids and dry fluids (powders). The eTape sensor is manufactured using printed electronic technologies which employ additive direct printing processes to produce functional circuits.

• Theory of Operation

The eTape sensor's envelope is compressed by hydrostatic pressure of the fluid in which it is immersed resulting in a change in resistance which corresponds to the distance from the top of the sensor to the fluid surface. The eTape sensor provides a resistive output that is inversely proportional to the level of the liquid: the lower the liquid level, the higher the output resistance; the higher the liquid level, the lower the output resistance.

• Specifications

Sensor Length: 10.1" (256.5mm)

Width: 1.0" (25.4mm)

Thickness: 0.015" (0.381mm)

Connector: Solder Tabs (middle pin inactive)

Active Sensor Length: 8.6" (218.4mm)

Substrate: Polyethylene Terephthalate (PET)

Sensor Output: 385Ω empty, 60Ω full, ± 10%

Actuation Depth: Nominal 1 inch (25.4mm)

Resolution: 1/32 inch (0.794mm)

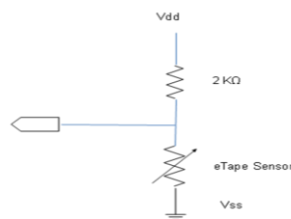
Temperature Range: 15°F - 140°F (-9°C - 60°C)

Resistance Gradient: 40Ω /inch (16Ω /cm), ± 10%

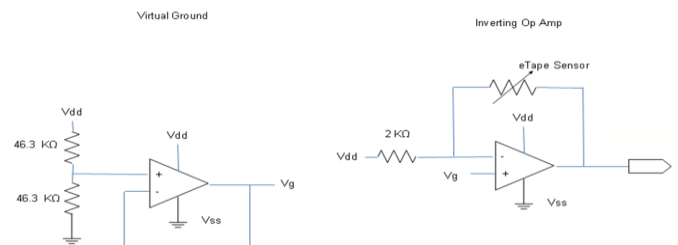
Power Rating: 0.5 Watts (VMax = 5V)

• Sample Circuits

Simple Voltage Divider Circuit



Active Resistance to Voltage converter
Using an inverting Op Amp and Virtual Ground



• Custom Applications

The eTape sensor can be manufactured in custom lengths to fit any application. Contact Milone Technologies if you have an application that requires specific length, configuration or output characteristics.

Innovative Fluid Sensing

MILONE

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