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FP10-RS

Potentiometric Float & Pulley Water level Sensor

The potentiometric float and pulley water level sensor is a modernized version of a time-tested sensor technology. The sensing mechanism consists of a float and counter-weight which are attached to a flat tape. The tape runs over a pulley wheel. The openings on the tape mesh with the notches in the pulley wheel to give a positive drive.

As the water level rises or lowers, the float goes up and down, thus turning the pulley wheel. The pulley shaft is coupled to a precision 10-turn potentiometer. The potentiometer converts mechanical changes into electrical changes. Changes in the potentiometer's resistance are detected by the measurement system. The measurement system converts the potentiometer output to digital form and converts the results to the appropriate units of water level (i.e. feet) change.

The pulley wheel circumference is 12 inches so that each full turn of the potentiometer corresponds to a one-foot change in water level. A 10-foot change in water level can be measured. Used with flat tape, punched with holes every 2.4". Tape can have markings which can assist with visual water level measurements and calibration. This model can be used for the full 10-foot range.

Cable Length: Order cable separately and specify length. Cable Part #: 9720

Cable Termination: Sensors come standard a 4-place terminal block that will accommodate bare leads or leads with spade terminals.

Accessories: Order Separately

Requires: Flat tape, Hook clamps, Float, Counter-weight

Technical Specifications (FP10-RS Potentiometric Float & Pulley)

Excitation Voltage: 2.5 or 5 Vdc
Current Consumption: 4 mA
Range: 0...10 feet of water level change
Output: Ohms
Accuracy: +/- 0.1% FSO
Resolution: 0.01 ft.

General:
Operating Temp: -40...+60°C
Dimensions: 10" x 7" x 5"
Weight: 3.5lbs