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Water Level Monitoring Board – One Probe – One Relay



This is a handy little board if you are interested in monitoring the level of a liquid. It uses Darlington Transistors which enable this circuit to work with very clean (low conductivity) water. Unlike other water level detectors that rely on a float switch, this does not require any moveable switch. It detects the presence or absence of liquid at the tip of the probe. The probe can be simply 2 wires that when they are both in the liquid at the same time, a relay closes. This relay can turn on or off a pump (up to 10 A) or be connected to a digital input line on your DAC card for event logging. This version has one probe connection and one relay. Useful for detecting the presence of a spill or leak.

Miscellaneous Information:

The relays on this circuit board are rated for 10 amps of current. The circuit board has not been tested at the maximum rated current. I have routinely used it to switch motors and solenoids that drew around 3 amps each for extended periods of time and have not seen any problems with the circuit handling those loads and expect it to perform well at higher currents. There is some back-EMF protection offered by the LED circuit and the circuit traces for the relay have been “beefed-up” with extra solder.

Specifications:

- Input Power: 12 VDC
- Number of Outputs: 1
- Output Control: 10 A max (see note above)
- Board Dimensions: 1.5 x 3.15 inches

Disclaimer:

These boards are designed for educational use only. In no circumstances should these circuit boards be used in critical situations where failure could mean injury or property damage.

For more information, contact us at:

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