## **Product Guide**

# Surface Mount Liquid Sensor

EZSnsLQD-Model #1010A

Undetected liquid damage, such as that caused by leaking pipes or corroded water heaters, cost homeowners thousands of dollars each year. Your EZSnsLQD sensor, in conjunction with a home automation input module or alarm panel, is ideal to notify/alarm before liquid damage occurs, thus preventing expensive repairs. Possible applications include computer and telephone room sub-floors, water storage tanks, water heaters piping, bathrooms, laundry rooms, air conditioners and refrigerator drip pans. The sensor uses no mechanical parts and is triggered by a moisture bridge across its contacts. The unit can be installed to detect a layer of water as thin as 1/16" in depth.

The sensor simulates a simple dry closure and can be readily interfaced to wireless or wired senders for alarming through a myriad of methods. The device is also self-resetting and will continue to protect for many years.



### **SPECIFICATIONS:**

Power Requirements:

Operating Voltage (min./max.) Standby Current (at max. voltage) Alarm Current (max.)

Wire Contacts:

Red Wire Black Wire Cable Length

Contact Characteristics:

Contacts

Normally Open

5-24VDC

10 uA

400 mA

+5-24VDC

- Ground

6 feet

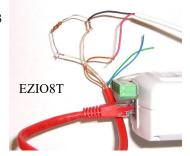
#### Installation

- Using the provided screws, mount the sensor in the location to be monitored. For proper operation the device must be located such that the presence of a thin layer of liquid will cover the sensor contacts (metal wires on the side of the sensor.)
- Connect the sensor to the I/O module or alarm panel per the suggestions below. If needed, the provided cord can be shortened as appropriate. Be sure to observe the wire polarity (Red to + and Black to -).
- IMPORTANT: The sensor is a normally open switch for an open loop application and requires 5VDC minimum across it for proper operation. See below for possible connections and measure to ensure the voltage on the sensor is between 5VDC and 24VDC.

### **Connection to Senders**

- The sensor can be used with wireless senders such as the Smartenit EZLOD that transmits a RF signal to companion receivers. This unit is sold as a complete subsystem consisting of the sensor and a transmitter capable of sending the alert up to 600 ft. For wired senders use any of the Smartenit EZIOxx modules or an alarm panel.
- Connecting a Smartenit EZIO8T: Choose Input 1 or Input 3 (do not use Input 2 as it has an internal resistor) and connect a "pull-down'

2.2K resistor between it and ground (terminal pin 3 or GND.) Then connect the sensor red wire to the +5V wire from the EZIO8T (pin 2) and the black wire to the selected input. When dry, the sensor is off, therefore the input is held at zero volts due to the "pull-down" resistor. Once tripped, the



sensor turns on (conducts) and applies the 5V to the input.

Please note that the EZIO8T interprets the zero volts as ON and the 5V as OFF.

Connecting a Smartenit EZIO2X4, EZIO6I or **EZIO8SA:** These modules offer the choice of analog/ digital 5V inputs as well as opto-isolated ones. It is possible to use the digital inputs with the setup explained previously



for the EZIO8T. It also possible to use one of the opto-isolated inputs. In this case, the red wire of the sensor is connected to the +V source, and the black wire to the (+) side of the selected input. The (-) side of the input is connected to ground (GND.) Thus connected, the sensor asserts the input ON when it trips. If the

voltage available on the 5V terminal of the EZIO2X4 is not sufficient for reliable sensor operation, this voltage can be boosted by connecting a 1.5—9V battery in series with the sensor (Battery + to the sensor, and Battery (-) to the 5V terminal.)

Connecting to a control panel: Select the desired open loop and connect the sensor with the correct polarity. The panel must be capable of producing a minimum of 5VDC with the sensor



connected. If not, a sensitive relay board and auxiliary power must be used.

**Note:** Cable can be extended to 100 feet maximum

