

Richen Power

LIQUID LEVEL SENSOR V2

Read This First

V2 Version

NEW



Old Version



LIQUID LEVEL SENSOR V2

English

This manual can be downloaded from the following website:

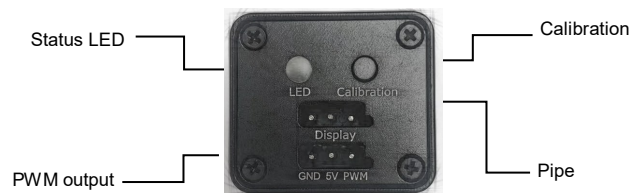
<https://www.richenpower.com/download>

Specification	
	LIQUID LEVEL SENSOR V2
Weight	16 g (0.56 oz)
Power Supply	DC 5 V \pm 0.3
Demension (L x W x H)	24 x 21 x 20 mm/ 0.9 x 0.8 x 0.8 in
Range	90 cm water or other liquid comparable
Output	5V 50 Hz PWM 0%—1100us 100%—1900us
Liquid Type	Water, oil, gasoline, diesel, jet fuel, agricultural chemicals and etc. Check the corrosion of liquid on pipes before use
Service Temperature	-20 ~ 50 °C

Checking the bundled items

- Sensor (1)
- Pipe, length of 60cm (1)
- Manual (this)

Port Discription and Connection



PWM output port:

Signal: 5V, 50Hz Minimum liquid level 0%—1100us

Maximum liquid level 100%—1900us

5V: power supply +

GND:power supply -

Installation

- a. Liquid may damage sensor chip. It is necessary to avoid contact between liquid and sensor through the pipe. We recommend to install sensor above the liquid container. Pipe comes into the container through the top of container.
- b. The pipe comes into container from top. Lie pipe end on the bottom of liquid container.

Calibration

- a. Calibrate by first time use.
- b. The green status light is on when power supplied.
- c. Calibrate 0% empty level: when the liquid level at the desired low position, press calibration button 20 seconds, status light begin to blink. 0% liquid level is calibrated.
- d. Calibrate 100% full level: Fill the container with liquid. Press calibration button 20 seconds, status light stops blinking. 100% liquid level is calibrated.
- e. Calibrate again when container is changed or the sensor does not work properly.

APM key parameters (Adrupilot)

<https://ardupilot.org/copter/docs/common-fuel-sensors.html>

BATT2_MONITOR =12 for PWM fuel level sensors

BATT2_CURR_PIN = 55 (AUX 6, 54 for AUX5)

BATT2_AMP_PERVLT =1 A/V

BRD_PWM_COUNT =4 (set AUX 5 and AUX6 as input, ServoX_function=-1 (GPIO) for firmware Copter4.2.3 or higher)

MissionPlanner right click mouse on HUD -> items -> select Battery2_remaining:

QGC automatical displays on up right corner as Power2 in %.