Underwater sensors

Underwater Ultrasonic Ranging Sensor, 10 m Depth, IP68

Model L08-V1.0

Compact IP68 ultrasonic underwater obstacle-avoidance sensor, stable at 10 m depth, with 5-800 cm or 8-800 cm range variants and UART or RS485 output.



Range	Accuracy
5-800 cm	+/-(1+S*1%) cm
Output	**Blind zone**
UART controlled	5 cm

Features

- Beam angle 15° or 25° by variant
- Supports Modbus protocol
- Accuracy +/-(1 cm + 1% of distance)
- 3.3-5 V supply
- Operating temperature -15 to 55 °C

Applications

Underwater robots, Underwater obstacle avoidance

Specifications

Basic parameters

Operating voltage	3.3-5.0 V
Standby current	<=15 mA
Average operating current	<=20 mA
Blind zone (L081MTW / L081M4W)	5 cm
Blind zone (L08B50TW / L08B504W)	8 cm
Measuring range, flat object (L081MTW / L081M4W)	5-800 cm
Measuring range, flat object (L08B50TW / L08B504W)	8-800 cm
Output response time	<=40 ms
Power-on working time	<=1000 ms
Working cycle	Controlled

Output (TW models)	UART controlled
Output (4W models)	RS485
Ranging accuracy	+/-(1+S*1%) cm
Temperature compensation	Yes
Beam angle (L081MTW / L081M4W)	15°
Beam angle (L08B50TW / L08B504W)	25°
IP rating	IP68
Operating temperature	-15 to 55 °C
Maximum working depth (stable)	10 m

Wiring	
Pin 1: VCC (red)	Power input wire; remark: power ground pin
Pin 2: GND (black)	Power ground wire; remark: power input pin
Pin 3: rx/b (yellow)	Function wire; remark: function wire (1)
Pin 4: tx/a (white)	Function wire; remark: function wire (1)

Marketing text	
Underwater depth	10 m (marketing text: obstacle avoidance at 10 m water depth)

Variants and ordering

L081MTW	UART controlled, 5-800 cm, 15 deg
L081M4W	RS485, 5-800 cm, 15 deg
L08B50TW	UART controlled, 8-800 cm, 25 deg
L08B504W	RS485, 8-800 cm, 25 deg

Ordering and support

Pricing, samples, lead time and custom versions: dwinsales@163.com, +86 181 0280 8901.

Guangzhou Dwin Technology Co., Ltd., 4th Floor, Building 2, No. 4 Xingye Road, Xiaowu Second Industrial Zone, Dongyong Town, Nansha District, Guangzhou, China. Specifications are typical values and may change without notice; confirm critical values with DWIN before design-in. Revision 2026-11.