Ultrasonic distance sensors

Dual-Probe Ultrasonic Sensor, 1 cm Blind Zone, IP67

Model A22-V1.0

Ultra-compact dual-probe waterproof ultrasonic sensor with a 1 cm standard blind zone and 2-300 cm range, with UART, PWM, RS485, IIC or switch output and IP67 protection.



Range	Accuracy
2–300 cm	1+(S*0.3%) cm
Blind zone	**Protection**
1 cm	IP67

Features

- Minimum blind zone 0.8 cm
- Angle settable to 30, 40, 50 or 60 deg
- 3.3-12 V supply
- Data output as fast as 13 ms
- Same-frequency interference filtering

Applications

Robot automatic control, Container water-level measurement, Security monitoring, Smart-machine wake-up

Specifications

Standard blind zone	1 cm
Minimum blind zone	0.8 cm
IP rating	IP67
Operating temperature	-25 to +65 °C
Default baud rate	115200 bps
Fastest data output time	13 ms
Angle settings	30 / 40 / 50 / 60°
Operating voltage	3.3–12 V
Blind zone distance	≤2 cm
Planar object measuring range	2–300 cm
Normal-temperature measuring accuracy	1+(S*0.3%) cm

Temperature compensation	Compensated
Angle	30–60 °
UART controlled	
Standby current	≤5 uA
UART auto	
Average operating current	≤9 mA
RS485	
Average operating current	≤10 mA
UART auto	
Output response time	8–140 ms
PWM pulse width	
Output response time	<15 ms
Switch output	
Output response time	300–1500 ms
RS485	
Output response time	15–750 ms
UART auto	
Power-on working time	≤1000 ms
Working cycle	100–180 ms
UART controlled	
Working cycle	controlled ms
UART auto	
Output mode	Auto
UART controlled	
Output mode	Controlled
Dimensions	
Cable length	320±10 mm
Body dimension	31±0.2 mm
Body dimension	33±0.3 mm
Body dimension	47±0.3 mm
Body dimension	4±0.2 mm
Body dimension	10±0.2 mm

Body dimension	2±0.2 mm
Body dimension	22.5±0.2 mm
Body dimension (side)	18±0.3 mm
Body dimension (side)	16±0.2 mm
Front view dimension	40±0.2 mm
Front view dimension	15±0.2 mm
Mounting holes	2-ø3±0.2 mm

Wiring	
Connector	HY2.0-4Y black plastic (large buckle)
Wire specification	1007 24AWG red/black/yellow/white parallel wires

Pin definition	
Pin 1	Red
Pin 2	Black
Pin 3	Yellow
Pin 4	White
Operating voltage	3.3-12.0 V
Output	UART / PWM / RS485 / IIC / switch output
Measuring range	1-300 cm

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.