Ultrasonic distance sensors

Wide-Voltage Ultrasonic Distance Sensor, Round Housing

Model A12-V1.0

Ultrasonic distance sensor in a Ø55 mm round housing, measuring 25-500 cm from a 3.3-24 V supply with UART, PWM or switch output and ≈21° reference beam angle.



Range	Output
25–500 cm	**UART output pin**
Blind zone	Supply voltage
25 cm	**3.3–24 V**

Features

- 25 cm blind zone
- Accuracy ±(1 cm + 0.3% of distance)
- Static current <15 uA
- Temperature compensated
- UART auto or controlled, PWM and switch modes

Specifications

A12A series	
Operating voltage	3.3–24 V
Static current	<15 uA
Measuring state current	<10 mA
Measuring state duration	≤50 ms
Blind zone	25 cm
Measuring range, flat object	25–500 cm
Reference beam angle	≈21°
Measuring accuracy	±(1+current detection distance×0.3%) cm
Temperature compensation	Compensated

Wiring	
VCC	DC3.3-24V (red, wire 1)

GND	black, wire 2
RX	yellow, wire 3
TX	white, wire 4
PWM mode: RX	Trigger input pin
PWM mode: TX	High-level pulse-width output pin
Switch mode: RX	Empty (not used)
Switch mode: TX	Switch output pin
UART auto output: RX	Processed/real-time value output selection pin
UART auto output: TX	UART output pin
UART controlled output: RX	Trigger input pin
UART controlled output: TX	UART output pin

Dimensions	
Round housing diameter	Ø55±0.3 mm
Housing height	39±0.2 mm
Flange thickness	3±0.1 mm
Mounting holes	4-Ø4.2±0.1 mm
Mounting hole spacing	43±0.2 (and 52±0.2) mm
Flange outline	55±0.3 x 64±0.4 mm
Cable length	300±20 mm
Connector	HY2.0-4Y white (large buckle)
Operating voltage	3.3-24 V
Output	UART / PWM / switch output
Measuring range (without horn)	25-500 cm

Ordering and support

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

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