English

DYP-ME007Y-PWM Ultrasonic sensor

DYP-ME007Y-PWM module provides ultrasonic 30cm-3m of non-contact distance measurement, the sensor senses an object is within the range corresponding to the high output pulse signal.
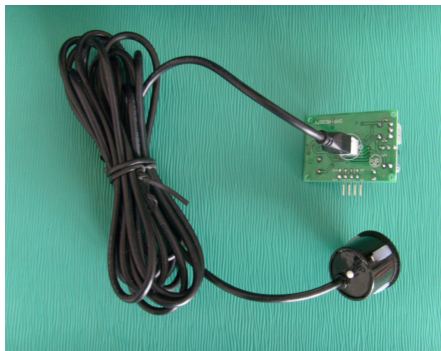
Features
• Small, easy to use
• low voltage, low power consumption
• Wide measurement range
• high accuracy
• the small blind
• waterproof

Application
• Apply waterproof ranging occasions;
• measuring the distance between objects:
• Programmable car obstacle avoidance:
• robot obstacle avoidance:
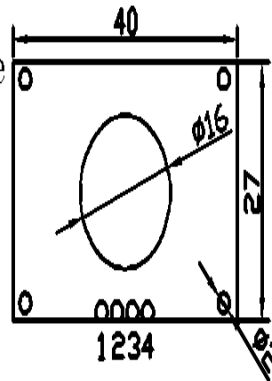• teaching apparatus;
• security, industrial contro

Product physical map:

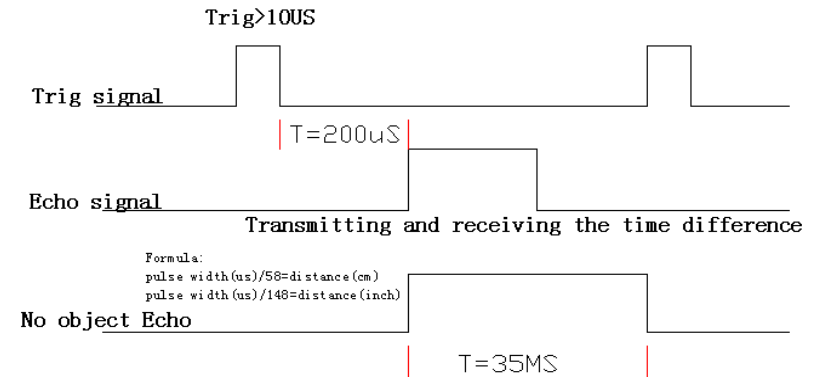## Product structure:

Pin Define
1:GND
2:ECHO/TX
3:TRIG/RX
4:VCC

40
Ø16
27
1234

Electrical parameters

TYPE	DYP-ME007Y-PWM
Operating voltage	DC 5V
Operating current	Less than 15mA
frequency	40KHz
Max distance	3.5m
Min distance	30cm
Output pin	2. ECHO/TX

Output signal	5V TTL level
Response time	100MS
accurcy	1cm
drectivity	Less than 50
Operating Temperature	-10-60°C
Storage Temperature	-20-80°C
size	40mm*27mm

Sequence chart

Trig>10US

Trig signal

T=200uS

Echo signal

Transmitting and receiving the time difference

Formula:
pulse width(us)/58=distance(cm)
pulse width(us)/148=distance(inch)

No object Echo

T=35MS

Description:
After power on, the module waiting for the trigger signal. Triggered automatically issued within 8 40kHz cycle level, and to detect the long echo time, and through the corresponding timer output level TTL level PWM pulse width. According to the object at different distances, a corresponding proportion of the output pulse width. MCU can be used to determine the timing of pulses calculated distance. Formula: uS/5.8 = mm, or uS/148 = inches. If the object is not detected, the module output pin pin will output a constant pulse width of about 35MS.

Note: The module detects a minimum distance of 30cm, 30cm inside the object, the signal will be inaccurate.