ISSR 英萨智研

Product Model: ISUB250-F77K12-E0-V31 View Details

Ultrasonic sensor

- NPN normally open output
- Miniature design
- You can learn A1 points
- Small blind spots
- Serial port upgrade

Technical parameters

Detection range: 20...250mm
Adjustment range: 45...250mm
Blind spots: 0...20mm
Standard detection plate: 100×100mm
Angle: ±5°
Sensor frequency: Approx. 300 kHz
Response delay: ≤50ms
Power-on delay: ≤250ms
Operating voltage: 20...30V DC, 10%Vpp
No-load current: ≤30mA
LED yellow light: Always-on: Switch (closed), Flashing: The learning state detects the target
LED red light: Solid on: Switching status (open circuit), Flashing: The learning state does not detect the target

Infusion

Enter the form: A1, learning wire-UB;

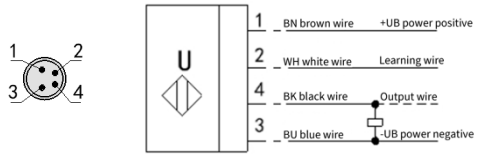
lose

Output method: NPN is always open
Rated working current: 200mA, short-circuit protection/overload protection
Voltage drop: ≤2V
Default settings: A1=250mm
Repeatability: ±1mm
Hysteresis range: 2.5mm
Temperature drift: 0.17%/K

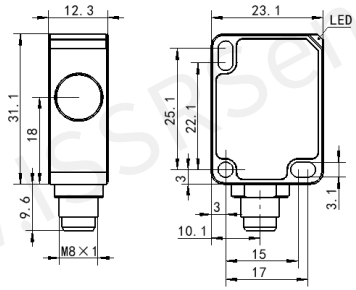
Characteristics

Operating temperature: -10° C... 50°C
Storage temperature: -40°C... 60°C
Electromagnetic compatibility: GB/T17626.2-2006, GB/T17626.4-2008
Protection level: IP67
Connection: V31 connector (M8×1), 4 pins
Shell material: Plastic, epoxy resin + glass beads
Weight: Approx. 13g
Connector torsion: 0.2 Nm max

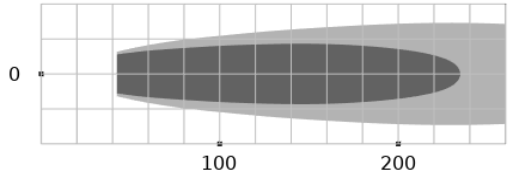
Electrical connections



Dimensions



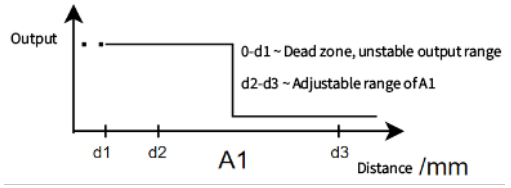
Response characteristic curve



Dark color: 25mm diameter PVC pipe Light color: 100mm×100mm flat Unit: mm
Test conditions: power supply 24V, 25° C, humidity 50%, actual deviation, for reference only

Set the detection range

Working mode: By setting the A1 point position, the working mode is as follows:



First, the sensor is energized
Set A1 point:
1) Place a test object where the distance needs to be set; 2) Negative connection between the learning line and the power supply, during this period, if the test object is captured, the yellow light flashes, this state lasts for 2 to 3 seconds, then disconnect the learning line **(note that do not cut off the power within 2 seconds after disconnecting the learning line, otherwise the setting may fail)**, A1 is set successfully, if the target is not detected during the setting period, the red light flashes;
Note: The learning mode can only be learned within 5 minutes of power-up

Installation

Since ultrasonic sensors are directional, attention needs to be paid to the installation position. It is recommended that the mounting position and the DUT be perpendicular for better relative accuracy

Notes:

1) Do not input voltages other than the normal operating voltage to avoid sensor burnout failure.
2) Do not wire incorrectly to avoid sensor burnout failure.
3) Avoid pulling the sensor lead wire too hard to prevent damaging the sensor's electrical connection.
4) It is forbidden to cover the surface of the sensor probe to avoid affecting the detection range of the sensor.
5) The sensor should avoid strong mechanical vibration when used, and the working environment should not have strong electromagnetic interference and rapid air circulation.
6) Please do not disassemble the sensor without permission, if the sensor does not work properly, please contact the after-sales service in time to solve it, the company will not be responsible for all the consequences caused by unauthorized disassembly.