



Technical parameters

Detection range: 40...500mm
 Adjustment range: 45...500mm
 Blind spots: 0...40mm
 Standard detection plate: 100×100mm
 Angle: ±7°
 Sensor frequency: Approx. 200 kHz
 Response delay: ≤50ms
 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; A2, learning wire connection + UB

Iose

Output method: NPN
 Rated working current: 200mA, short-circuit protection/overload protection
 Default settings: Normally open window mode, A1=40mm; A2=500mm
 Repeatability: ±1% of full-scale value
 Hysteresis range: 1% of the set switching distance
 Temperature drift: ±2% of full-scale value (built-in temperature compensation)

Characteristics

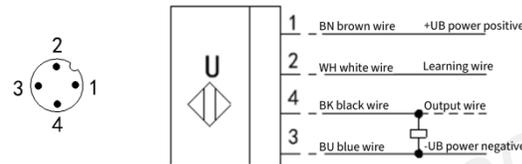
Operating temperature: -25° C... 70°C
 Storage temperature: -40°C... 85°C
 Electromagnetic compatibility: GB/T17626.2-2006, GB/T17626.4-2008
 Protection level: IP67
 Connection: V3 connector (M12×1), 4 pins
 Shell material: Brass nickel plated
 Transducers: Plastic, epoxy resin + glass beads
 weight: About 22g

Product Model: ISUB500-18GM40-E4-V3 View Details

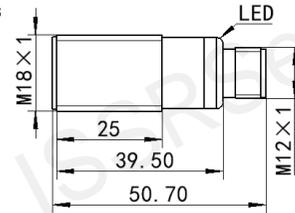
Ultrasonic sensor

- NPN output
- Short size design
- You can learn A1/A2 points
- Temperature compensation
- Small blind spots
- Serial port upgrade

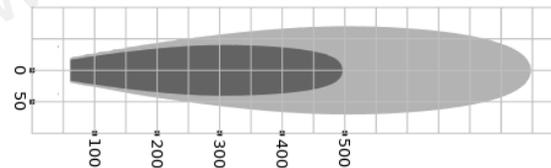
Electrical connections



Dimensions



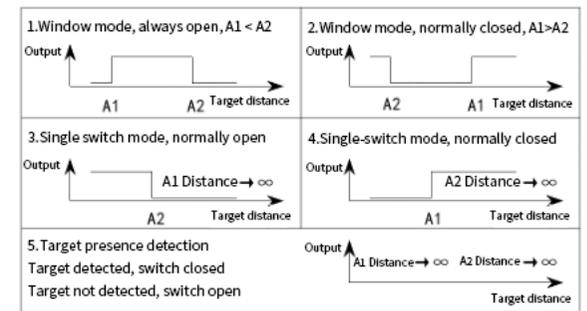
Response characteristic curve



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: A1 and A2 can be learned separately, by setting the position of A1 point and A2 point, you can choose the working mode, there are 5 working modes in total:



Note: Distance A1 or A2 → ∞ indicates that no target was detected during learning.

First, the sensor is energized

Set A2 points:

1) Place a test object where the distance needs to be set; 2) Connect the learning cable and the power supply positively, 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 cable (**note that do not cut off the power within 2 seconds after disconnecting the learning line, otherwise the setting may fail**), A2 is set successfully, if the target is not detected during the setting period, the red light flashes;

Set A1 point:

1) Place a test object where the distance needs to be set; 2) Connect the learning cable negatively to the power supply and repeat the above steps;

Note: The learning mode can only be learned within 5 minutes before powering on

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) The temperature drift is mainly due to the heating of the sensor at the beginning of the electric power, resulting in the temperature measurement bias inside the sensor, which in turn leads to the ranging deviation, which reaches stability after about half an hour.
- 2) Do not input voltages other than the normal operating voltage to avoid sensor burnout failure.
- 3) Do not wire incorrectly to avoid sensor burnout failure.
- 4) Avoid pulling the sensor lead wire too hard to prevent damaging the sensor's electrical connection.
- 5) It is forbidden to cover the surface of the sensor probe to avoid affecting the detection range of the sensor.
- 6) The sensor should avoid strong mechanical vibration when used, and the working environment should not have strong electromagnetic interference and rapid air circulation.
- 7) 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.