KACISE KUS630 Series Ultrasonic Level Sensor User Manual

Contents

KACISE KUS630 Series Ultrasonic Level Sensor

Product Information:

Product Name: Ultrasonic Level Sensor
Model No.: KUS630 Series
Manufacturer: Xi’an Zhizun International Trade Co., Ltd.

Features:

- High sensitivity
- Fully sealed
- IP68 corrosion resistant housing suitable for corrosive media and applications

Dimensions:

Sensor Picture:
Dimension (unit: mm):

Product Usage Instructions

Electrical Connection:

The ultrasonic sensor has the following PIN connections:

PIN No.	Cable Color	Definition
1	Red	Power supply+
2	Black	GND
3	Yellow	Switch output
4	White	Switch output
5	Brown	RS485 A+
6	Green	RS485 B-

Parameter:

Model: KUS630
Measuring Range: 600~12000 mm, 1200~30000mm,1800~50000mm
Blind Area: 0~600 mm (the working area within 600mm is unstable and not recommended)
Power Supply: 3.3~24V DC, ripple 10%SS
Working Current: 45mA (maximum measurement speed), Low-power version: hibernation power 0.3mA, transmit power consumption is 20mA (2ms), receive power consumption is not more than 8mA (150ms)

Output:

- Analog output
- Switch output
- RS485 digital output
- UART serial port output

Accuracy: 1% F.S

Temperature Compensation: Yes

Description of Sensor Functions:

Analog Output:

To set up the analog output:

1. Connect the sensor to the computer
2. Set a near distance point D1
3. Set a far distance point D2
4. Set the voltage or current of D1 output
5. Set the voltage or current of D2 output
6. Set analog output to switch characteristic output
7. Set the analog output to a linear output or switch output option
8. Reset sensor to make the new parameters take effect

Switch Output:

The switch output has 8 different functions:

1. Default window mode normally open
2. Default window mode normally closed
3. Default single point switch mode normally open
4. Default single point switch mode normally closed
5. Default single point hysteresis mode normally open
6. Default single point hysteresis mode normally closed
7. Default object detection mode normally open
8. Default object detection mode normally closed

Digital Output: RS485
The communication protocol for RS485 digital output is Modus-RTU. For more information, please contact us for the software engineering guide.

Contact Information:

Tel: 0086-029-87858956

Email: **contact@top1sensor.com**

Ultrasonic Level Sensor User Manual Model No. KUS630 Series

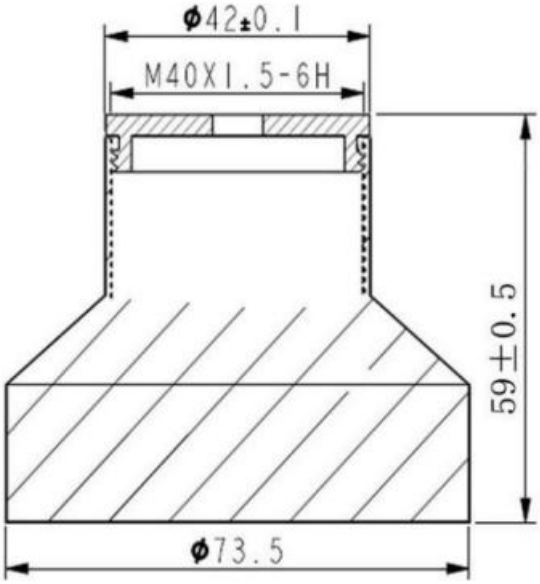
Feature

- High sensitivity
- Fully sealed
- IP68corrosion resistant housing suitable for corrosive media and applications

Dimension

Sensor picture

Dimension (unit: mm)



Electrical connection

PIN No.	Cable color	Definition
1	red	Power supply+
2	black	GND
3	yellow	analog output
4	blue	RS485 A+ or UART TXD
5	green	RS485 B- or UART RXD

PIN No.	Cable color	Definition	Note
1	Red	Power supply+	3.3v~30v voltage range
2	Black	GND	
3	Yellow	Switch output	Load capacity of switch terminal is 1A and 60V, support independent logic two road switch output at most, the two terminals are the two contact points of the switch, They don’t distinguish between the positive and negative poles, and can connect at will.
4	White	Switch output	
5	Brown	RS485 A+	
6	Green	RS485 B-	

Parameter

Model KUS630	
Measuring range	600~ 12000 mm, 1200~30000mm, 1800~50000mm
Blind area	0 ~ 600 mm (the working area within 600mm is an unstable, it is not recommended to work in this range) Minimum 300 mm blind zone version can be customized.
Power supply	3.3~24V DC , ripple 10 %SS
Working current	≤ 45mA(maximum measurement speed) Low- power version: the hibernation power ≤ 0 . 3 mA, the transmit power consumption is 20 mA (≤ 2 ms), and the receive power consumption is not more than 8mA (≤ 150ms).
Output	1.Analog output 2.Switch output 3. RS485 digital output. 4. . UART serial port output
Accuracy	≤ 1 % F.S
Temperature compensation	Yes

The working conditions

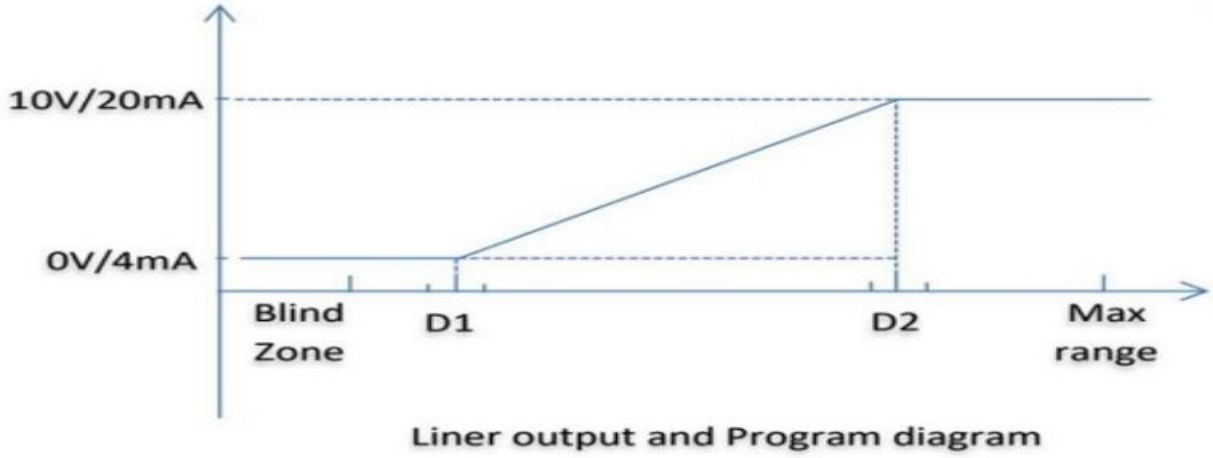
Operating temperature	-25 ~70℃(233~358K)
Storage temperature	-40~85℃(233~358K)

Other instructions

Electrical	5-wire cable / 6 wire cable for switch ouput
Protection grade	IP68
Material Housing	PVC /PVDF/PTFE (Default PVC)

Description of Sensor Functions

Analog output



Liner output and Program diagram

The analog output can be set through RS485 interface, the setting procedure is as follows,

Step 1: connect the sensor to the computer through serial port debugging assistant or Modbus debugging assistant.

Step 2: set a near distance point through RS485

Step 3: set a far distance point through RS485

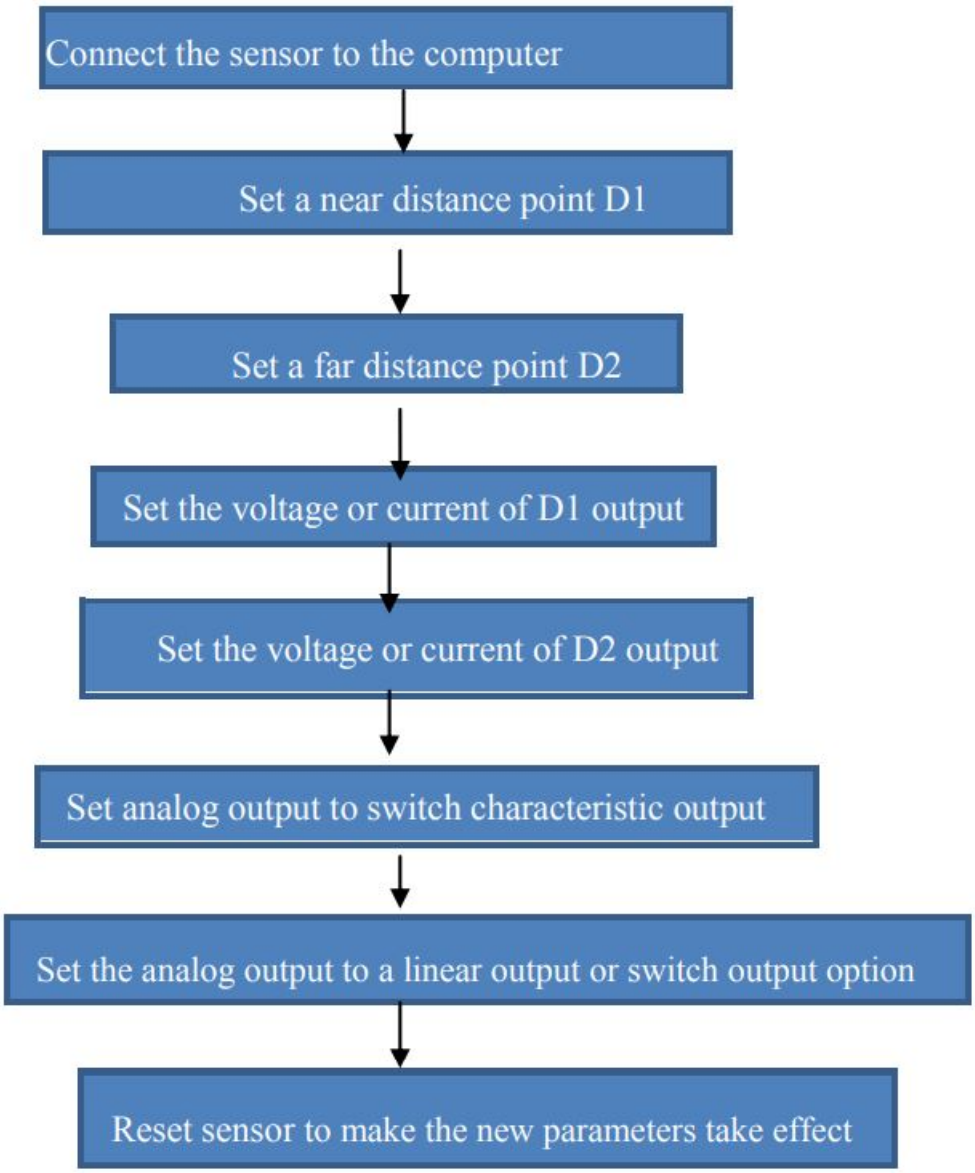
Step 4: set the output voltage or current of the near distance point

Step 5: set the output voltage or current of the far distance point

Step 6: set the analog output to the switch characteristic option

Step 7: set the analog output to a linear output or switch output option

Step 8: reset the sensor to make the new parameters take effect

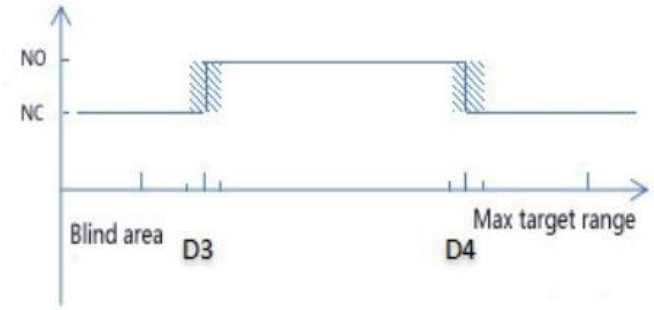


Switch output There are 8 different functions

1. Default window mode normally open
2. Default window mode normally closed
3. Default single point switch mode normally open
4. Default single point switch mode normally closed
5. Default single point hysteresis mode normally open
6. Default single point hysteresis mode normally closed
7. Default object detection mode normally open
8. Default object detection mode normally closed

Digital output: RS485

Communication protocol is Modus-RTU. For more information please contact us for the software engineering guide

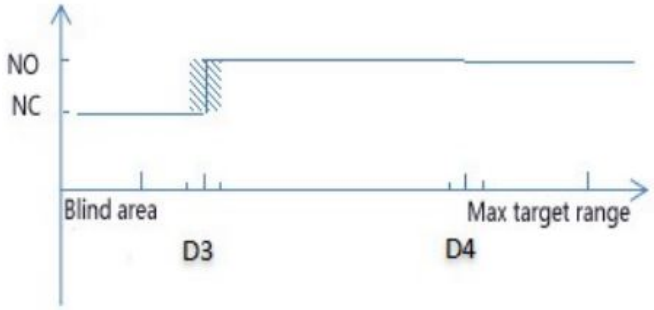


: Default 5% hysteresis interval

1. Window mode normally open

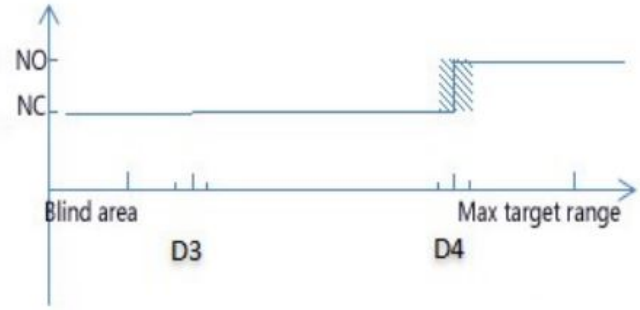
: Default 5% hysteresis interval

2. Window mode normally closed



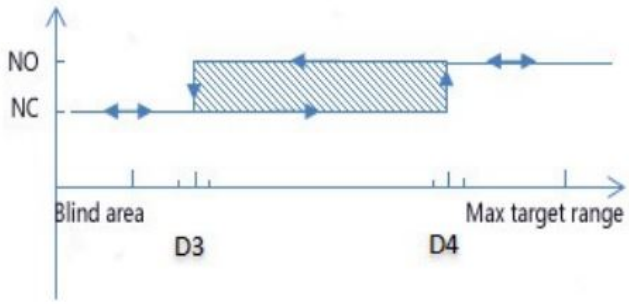
: Default 5% hysteresis interval

3. Single point switch mode normally open



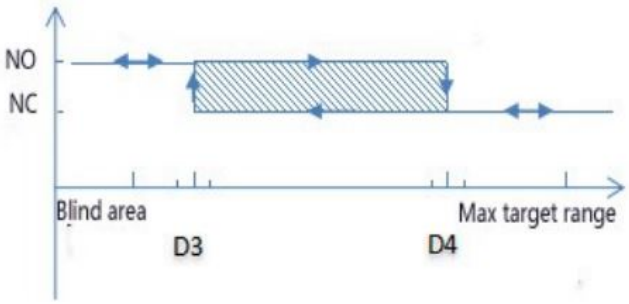
: Default 5% hysteresis interval

4. Single point switch mode normally closed



: Default 5% hysteresis interval

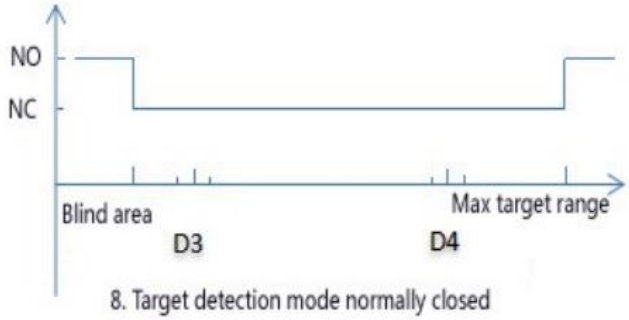
5. Single point hysteresis interval mode normally open



: Default 5% hysteresis interval

6. Single point hysteresis interval mode normally closed

7. Target detection mode normally open



8. Target detection mode normally closed

Installation conditions

If the sensor is installed at the environment temperature fall below 0°C, it should do well on the protective measures. In case of direct mounting of the sensor in a through hole using the nuts, it has to be fixed at the middle of the housing thread

Order information

Model No.:	Output	Max range	Description
KUS630	Analog output		
	RS485 digital output		
	Switch output		
		XXX mm	Default 10000 mm
	RS485	10000mm	

Contact us

Xi’an Zhizun International Trade CO., Ltd.

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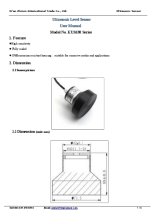
E-mail: contact@top1sensor.com
Getting more info & supports from http://www.top1sensor.com

Email:contact@top1sensor.com

Xi’an Zhizun International Trade Co., Ltd. Ultrasonic Sensor

Documents / Resources

	KACISE KUS630 Series Ultrasonic Level Sensor [pdf] User Manual KUS630 Series Ultrasonic Level Sensor, KUS630 Series, Ultrasonic Level Sensor, Level Sensor, Sensor

References

- Xi'an Zhizun International Trade Co., Ltd. – Top1 laser distance sensor supplier from China
- User Manual

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