产品型号 UKS1000-G18-VP7L-Q12

版本：V1.6

超声波接近开关

- PNP 输出
- 可学习 A1/A2 点
- 温度补偿
- 盲区小
- 可串口升级

技术参数

检测范围	60~1000mm
调节范围	60~1000mm
盲区	0~60mm
标准检测板	100×100mm
角度	±7°
传感器频率	约 200KHz
响应延时	100ms
工作电压	9~30VDC，10%Vpp
保护电路	防反接保护、瞬时过压保护
空载电流	≤25mA
额定工作电流	200mA，短路保护/过载保护
LED 红灯	学习状态下未检测到目标，常亮
LED 蓝灯	学习状态下检测到目标，闪烁
LED 黄灯	正常工作模式下，开关状态
LED 绿灯	电源指示灯，常亮

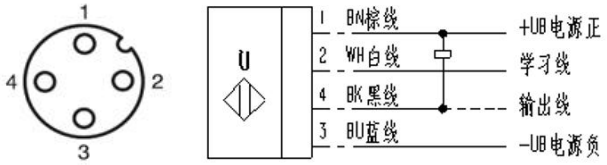
输 出

输出方式	PNP
分辨率	0.5mm
重复精度	0.3%满量程值
温度漂移	0.05%/℃ （内置温度补偿）
线性度	<1%

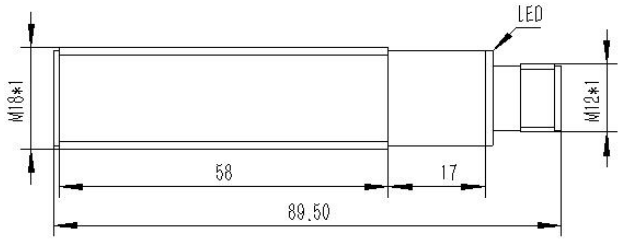
特 性

工作温度	-20℃~+70℃（253~343K）
储藏温度	-40℃~+85℃(233~358K)
电磁兼容	GB/T17626.2-2006 GB/T17626.4-2008
防护等级	IP65
连接方式	V1，M12 连接器，4 针
外壳材料	铜镀镍
重量/线长	46g

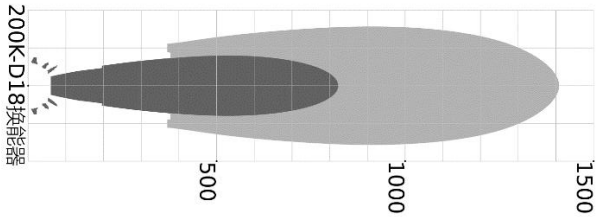
电气连接



外形尺寸



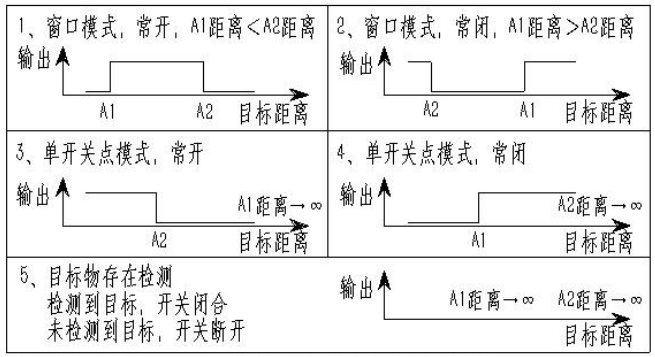
响应特性曲线



深色：直径 25mmPVC 管　　单位：mm
浅色：100mm*100mm 平板　　注：可能存在偏差，仅供参考

设置检测范围

出厂设置：默认窗口模式，常开，A1=60mm；A2=1000mm
A1：目标距离从近及远，经过 A1 点，开关由断开到闭合
A2：目标距离从近及远，经过 A2 点，开关由闭合到断开
工作模式：A1、A2 可单独学习，通过设置 A1 点和 A2 点位置，可选择工作模式，工作模式共以下 5 种：



注：A1或A2距离→∞，表示学习时，未检测到目标（红灯亮）

首先传感器通电，传感器的后面绿色指示灯会亮起.
设置 A2 点：
1）在需要设定距离的地方放一个被测物.
2）将白线（学习线）和棕色（电源正）接在一起，在此期间，如果被测物被捕捉到了，蓝灯一直闪烁，此状态持续两到三秒之后，把白线拿开， A2 设置成功，如果设定期间未检测到目标则红灯亮.
设置 A1 点：
1）在需要设定距离的地方放一个被测物.
2）将白线（学习线）与蓝线（电源负）连接，重复上述步骤即可.
注意:为保证最好的精度和系统稳定性，请尽量不要把 A1、A2 点设置在距离盲区 20mm 以内.学习模式在上电 5 分钟以内有效，超过 5 分钟需重新上电，才能学习.

安 装

由于超声波传感器具有方向性，所以需要注意安装位置。建议安装位置和被测物垂直以获得更好的相对精度.

注意事项:

1）请不要输入正常工作电压以外的电压以避免接近开关烧毁失效.
2）请避免用力拉扯接近开关引出线以防损坏接近开关的电气连接.
3）禁止覆盖传感器探头表面以避免影响传感器探测范围.
4）请使用附送安装螺母固定传感器的位置，避免使用其他非标准夹持器材对传感器进行固定以保证传感器良好的灵敏度.
5）传感器使用时应避免强烈的机械振动，工作环境不应该有强烈的电磁干扰以及快速的空气流通.
6）请不要私自拆开传感器，如传感器不能正常工作请及时与售后联系解决，私自拆开导致的一切后果本公司概不承担.

Product model:UKS1000-G18-VP7L-Q12

Ultrasonic proximity switch

- PNP Output
- A1/A2 points can be learned
- Temperature compensation
- Small blind area
- Serial upgradable

Technical Parameters

Measuring range	60~1000mm
Adjustment range	60~1000mm
Blind zone	0~60mm
Standard inspection plate	100×100mm
Angle	±7°
Sensor frequency	Approx 200KHz
Response delay	100ms
Operating voltage	9~30VDC，10%Vpp
Protection circuit	yes
No-load current	≤25mA

LED red	No target is detected in the learning state. light on
LED blue	target is detected in the learning state, flashing.
LED yellow	the switch status:In working mode
LED green	Constant light:power on

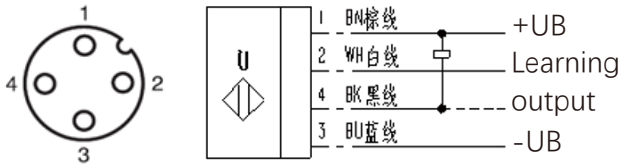
Output

Output Method	PNP
Resolution	0.5mm
Repeatability	0.3% of full scale value
Temperature drift	0.05%/℃ (built-in temperature compensation)
Linearity	<1%

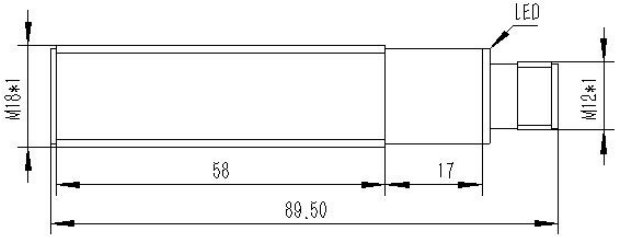
Characteristic

Working Temperature	-20℃~+70℃ (253~343K)
Storage temperature	-40℃~+85℃ (233~358K)
Electromagnetic compatibility	GB/T17626.2-2006 GB/T17626.4-2008
Protection class	IP67
Connection	V1，M12 connector，4-pin
Housing Material	Copper nickel plated
Weight / Cable length	46g

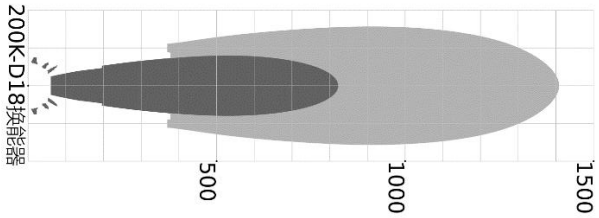
Electronic Connection



External Dimension



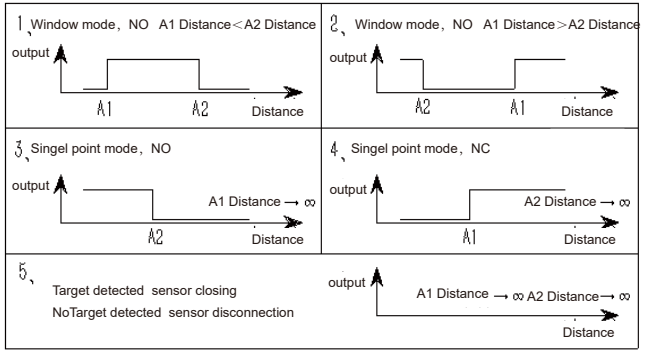
Response Characteristics Curve



Dark colour: 25mm diameter PVC pipe Unit: mm
Light colour: 100mm*100mm flat plate Note: There may be deviation,for reference only

Setting detection range

Factory Settings: Default Ascending mode, A1=60mm; A2=1000mm
A1: The minimum output corresponds to the distance point
A2: The maximum output corresponds to the distance point
Working mode: A1 and A2 can be learnt individually, and the working mode can be selected by setting the position of A1 point and A2 point, and the working modes are as follows 5 kinds:



First, the sensor is powered on, and the green indicator behind the sensor will light up。
Set A2 point:
1) Place a measured object where the distance needs to be set.
2) Connect the white line (learning line) and the brown line (positive power supply) together. During this period, if the measured object is captured, the blue light keeps flashing. After this state lasts for two to three seconds, remove the white line, A2 is set successfully, and if the target is not detected during the setting, the red light will turn on.
Set A1 point:
1) Place a measured object where the distance needs to be set.
2) Connect the white line (learning line) to the blue line (negative power supply) and repeat the above steps.
Note: In order to ensure the best accuracy and system stability, please try not to set the A1 and A2 points within 20mm of the blind area. The learning mode takes effect within 5 minutes of being powered on. After 5 minutes, you need to power it on again to learn.

Mounting

Due to the directional nature of ultrasonic sensors, the mounting position needs to be taken into account. It is recommended that the mounting position be perpendicular to the object to be measured in order to obtain a better relative accuracy

Caution:

1) Do not supply voltages other than the normal operating voltage to avoid burnoutof the proximity switch.
2) Avoid pulling on the proximity switch lead wires to prevent damage to the electrical connections of the proximity switch.
3) Do not cover the surface of the sensor probe to avoid affecting the detection range of the sensor.
4) Use the supplied mounting nut to fix the sensor in place, avoid using other non-standard clamping devices to fix the sensor to ensure good sensitivity.
5) The sensor should be used to avoid strong mechanical vibration, the working environment should not have strong electromagnetic interference and rapid air circulation.
6) Please do not privately disassemble the sensor, such as the sensor does not work properly, please contact with the after-sales solution in a timely manner, private disassembly of all the consequences caused by the company will not be liable.