

## Ultrasonic sensor

## UM4000-30GM-E6R2-V15

## Parameters

## General

Inspect range	270...4000mm
Adjust range	270...4000mm
Blind Zone	0...2700mm
Standard plate	300mm×300mm
Transduce frequency	About 75 kHz
Response time	About 125ms

## Indication

LED blue	Object detected within the switch range
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## Electric

Work Voltange $U_B$	10...30VDC,Ripple10%ss
no-load current $I_0$	$\leq 20\text{mA}$

## Input/output

synchronous	Synchronous pulse 0 level $-U_B$ ...+1V; 1 level: +6V...+ $U_B$ Pulse period not < 120ms, high-level time not < 50ms
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TECH	TECH IN 0 level $-U_B$ ... +1 V; 1 level: +6V ... + $U_B$
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Output type	2 switch output E6,PNP NO/NC,programmable
resolution	0.11mm within the maximum range

Characteristic curve deviation	$\pm 1\%$ FS
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repeatability	$\pm 0.1\%$ FS
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Load impedance	>1k Ohm
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Temperature influence	$\pm 1.5\%$ Final
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## Standard

Standard	EN 60947-5-2:2007
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## Condition

ambient temperature	-25...70℃
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storage temperature	-40...85℃
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## 机械规格

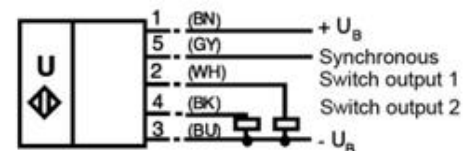
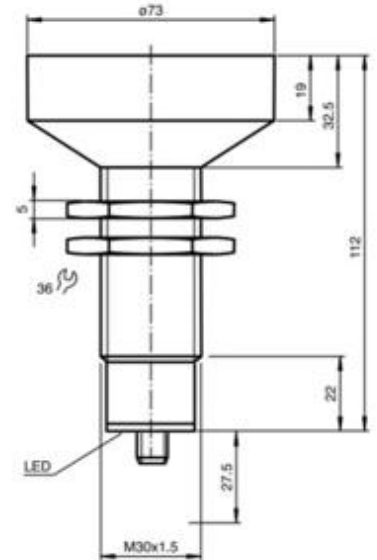
Protect class	IP67
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Connector	Connector M12x1,4-PIN
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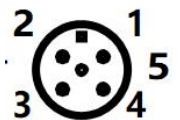
Material	Shell Brass nickel plating, plastic parts PBT (polybutylene)
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Transducer	Epoxy resin/hollow glass ball mixture/polyurethane foam;
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Weight	160g
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- 1 BN=BROWN  
2 WH=WHITE  
3 BU=BLUE  
4 BK=BLACK  
5 GY = GREY



V2 Connector

Sensor Function Description

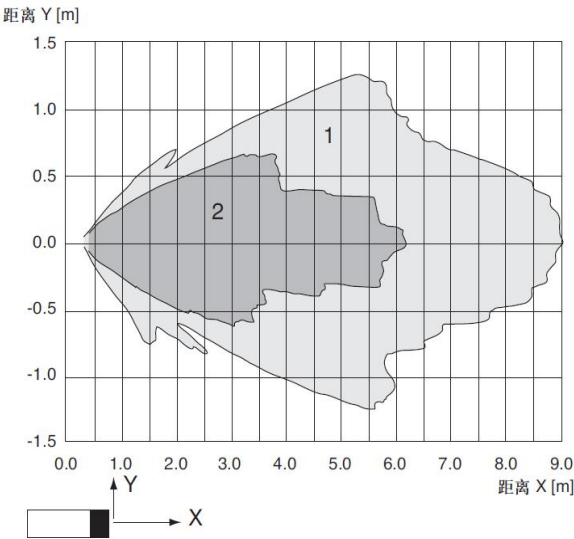
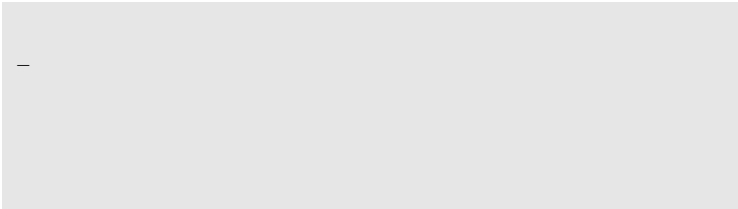
Synchronous

To suppress mutual influence, there is a synchronous input terminal on the sensor. If the input port is not connected, the sensor operates at its internal frequency. You can also add a square wave voltage to the input port to synchronize the sensor. The synchronization pulse on the synchronous input port triggers a measurement cycle. The synchronous pulse width must be greater than 120ms. The measurement cycle is triggered by the falling edge of the pulse. Due to the average of five measurements used internally by the sensor, the switch state will only change when all five measurements exceed the switch threshold. If the low-level duration reaches or exceeds 1 second, or if the synchronous input port is suspended, the sensor will operate normally. During the setting period, synchronization is not allowed. Conversely, if synchronization is used, learning cannot proceed. There are two ways to run synchronization.

- 1. Multiple sensors are triggered by the same synchronization signal and work synchronously.
- 2. Synchronous pulses are sequentially output to a sensor, meaning that each sensor operates in a multi-channel manner. Adding a high level to the synchronous input can stop the sensor from moving.

Switch point settings

The switch point setting of this device is completed through digital setting of the RS485 interface connected to the M8 connector. Please refer to the attached guide for specific operations;



曲线1: 平板 100 mm x 100 mm  
曲线2: 圆棒 Ø 25 mm

Factory settings

A1=blind spot, A2=maximum range

Working mode: normally open

Installation conditions

If the proximity switch is installed on a site where the ambient temperature may be below 0 °C, protective measures must be taken

When using steel nuts to directly install the proximity switch in a through-hole, the proximity switch must be fixed in the center of the installation thread

Programmed switching output function

