

TECHNOLOGY

HOLYKELL®

UE3003

LEVEL

• DATASHEET •

1. Pressure Measurement **2. Level Measurement** 3. Temperature Measurement
4. Flow Measurement 5. Display & Control Instruments

UE3003

Ultrasonic Distance/Level Sensors

Profiles



UE3003 Ultrasonic Level Sensor combines ultrasonic sensors, temperature sensors, ultrasonic servo circuit, transmission circuit and uses SMD components and ASIC which is developed together with the United States partner. All these features realize a concise and smart level transmitter. All gold-plated circuit boards, internal electromagnetic shielding and software digital filter are tested for (industrial) 48 hour under high and low temperature aging. It promises higher and long-term reliability. Shell is made of solid texture and good NLEPF acoustic characteristics of synthetic material. The body is shape sophisticated aesthetics, waterproof, dustproof, and can adapt to the most of working conditions on site. A very quick and easy installation, maintenance can be realized.

Installation

<p>The diagram shows a cross-section of a tank with a sensor mounted at the top. A dashed line indicates the 'Blind area' at the bottom of the tank. A dimension line labeled '②' indicates the distance from the sensor to the liquid level.</p>	<p>The diagram shows a cross-section of a tank with a sensor mounted at the top. A sun and rain icon above the sensor indicates the need for a shade. The sensor is shown measuring the liquid level in the tank.</p>	<ol style="list-style-type: none">1. Measure reference surface is the bottom line of sensor2. Highest solid level cannot enter into the blind area3. Level measurement should avoid the feeling hole, aim the smoother level surface4. Better use sun/rain shade when mounting in out field5. When mounting, sensor should be kept distance to the wall surface because of beam angle of ultrasonic wave.6. When measuring the object level, the feeding hole should be avoided to prevent the ultrasound echo being interfered.
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Features

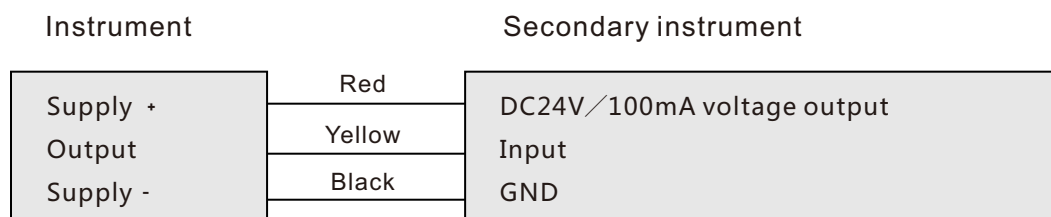
- 1.Support M49*1.5 mm threaded into type installation and coil clamping type installation,the installation more convenient
- 2.Many model output optional customizable 4-20ma three-wire system, 1-5v, RS485 more customizable
- 3.Less than 9°C Beam angle design ,Resolution 3mm, less than 200ms responsible time to make sure more accuracy
- 4.Wide range of application,Sealed high-temperature toxic volatile,flammable and explosive of strongly corrosive liquid medium level measurement of non-contact ultrasonic sensors
- 5.Housing adopts the NLEPE synthetic material IP66 waterproof,Anti-Skid,Anti-corrosion,Anti-explosion structure
- 6.High quality terminal blocks ,Excellent anti-jamming is strong, long term stability and durability

Specification

Parameter	UE3003		
Level Range	5, 7,10,12,15m optional		
Blind area	≤ 300 ~ 1200 mm (according to different range and sensor)		
Beam angle	< 12°		
Accuracy	0.5%FS (at blind-fold drive away, 25 °C)		
Output	Analog signal 4~20mA; 1 ~ 5V;0~5V; Load>300Ω; 0~5V; 0~10V	Digital signal RS485/ RS232	Switch signal NPN Switch signal/ Relay (1 OR 2 channels optional)
Power supply	DC24V/300mA		
Consumption	< 1.5W		
Display	4 bits 8 segment LED display (LCD option available)		
Min. resolution	1mm		
Frequency	20 KHz~43.0KHz		
Protection class	IP65 (default); IP67, IP68 (customized!)		
Explosion proof	ExiaII BT4Gb		
Operation temp.	-20°C ~60°C		
Housing	ABS/ Nylon		
Cable	User defined (with connectors)		
Dimension	Φ92mm x 198mm x M60 (5m-15m range) Φ92mm x 270mm x DN80 nonstandard flange (20m-30m range)		
Installation	M60 x 2 or Φ61mm hole with gasket (5m-15m range) DN80 nonstandard flange (20m-30m range)		

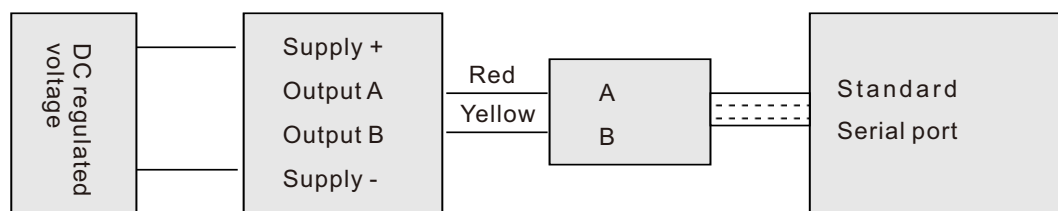
Wiring connection

- 1、Wiring diagram of current (voltage) output connecting with secondary instrument



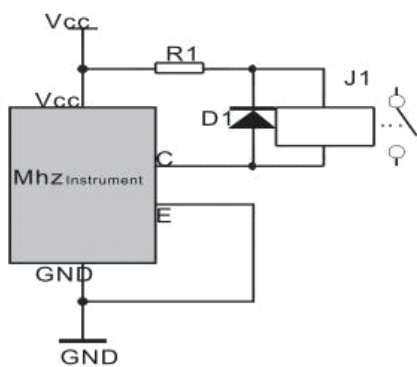
- 2、Wiring diagram of serial output connecting with PC

External power/ instrument/ 485—232/ PC

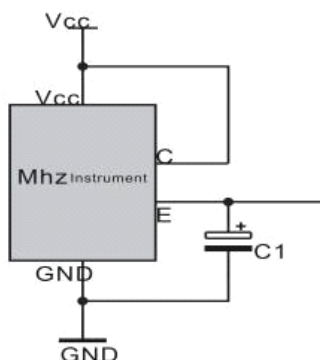
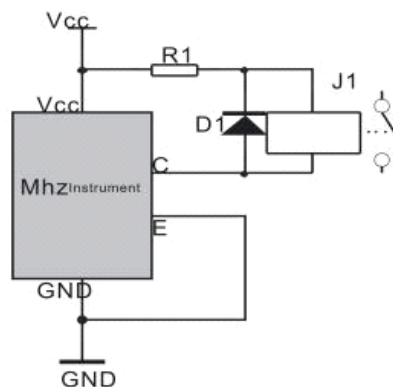


- 3、NPN output wiring diagram

Conventional relay



TTL output



How to Order

Part Number Selection Table

UE3003 Selection Type	02	A	U1	A2	T1	002
Range	01= 1 Meter 02= 2 Meters 15= 15 Meters					
Water Proof	A= IP66 B= IP65 C= IP67 D=IP68					
Power Supply	U1=DC12V/max 300mA U2=DC24V/max 300mA (UE3001) Ue=DC12V/max 300mA Ex					
Output	A2=Current Output (4-20mA 2 wires) A3=Current Output (4-20mA 3 wires) A4=Current Output (4-20mA 4 wires) N1/N2=Switch output (1 or 2 switches) J1 = Relay (Upper & Lower alarm) V1=Voltage output (0-5V) V2= Voltage output (1-5V) R=Digital RS485(MCU Protocol) X=By Customized					
Temperature	T= 0...50 °C T1= -10...60 °C T2= -20...70 °C					
Cable Length	001= 1 Meter	002= 2 Meters	X= By Customized			

Application

