ULTRASONIC LEVEL SENSOR

UE3003

GENERAL FEATURES

- Ultrasonic working principle
- 0-50℃ wide automatic temperature compensation
- Advanced algorithm adopted, not affected by low temperature
- Small blind area
- 2.5m, 5m, 10m, 15m wide measuring ranges
- Non-contact and up to 0.25%F.S accuracy customized
- Reverse polarity protection, surge lightning protection, anti-obstacle interference supported
- Short response time, power-off self-recovery function
- Economical and maintenance free design
- IP67 high protection class, IP68 can be customized

UE3003 is an ultrasonic level(distance) sensor that adopts non-contact measurement mode, with high reliability, maintenance-free features. It does not easily receive disturbance from environmental electromagnetic fields, and meets the transmission requirements in most closed or open containers.

The communication protocol used is Modbus-RTU, and the serial port supports 1200, 2400, 4800, 9600, 19200, 38400, 57600, 11 5200 baud rates.
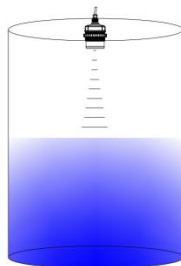
UE3003 owns high precision class. No matter 4-20mA, 0-5V, or RS485, it is all 0.25%-0.5%F.S, the blind area is small, and it owns complete protection and receives little interference from obstacles. Its response is fast, and reading is stable. Meanwhile, we support OEM service.
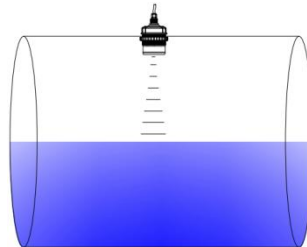
APPLICATIONS

- Water, oil, diesel level measurement, pump control in tank etc.
- Treatment plants
- Food industry
- Chemical industry
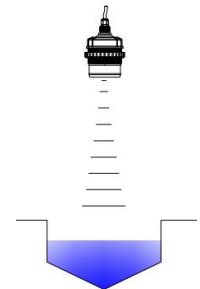- Rivers, channels, lakes...
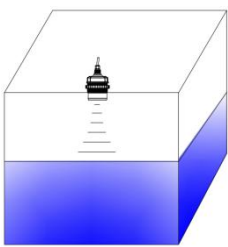
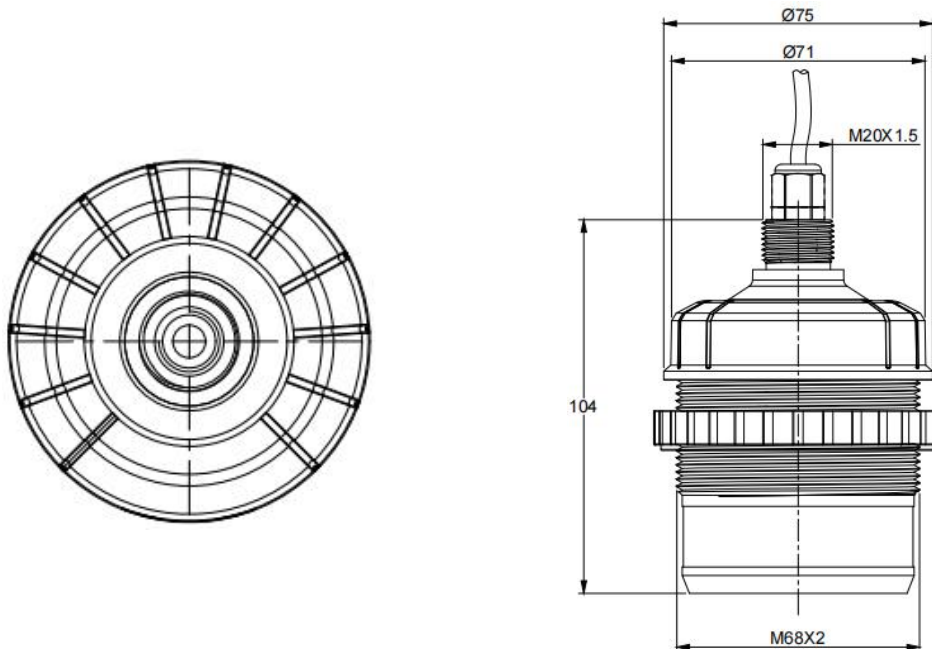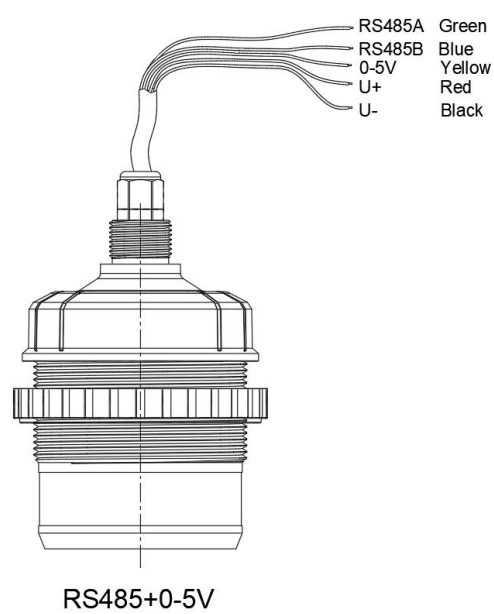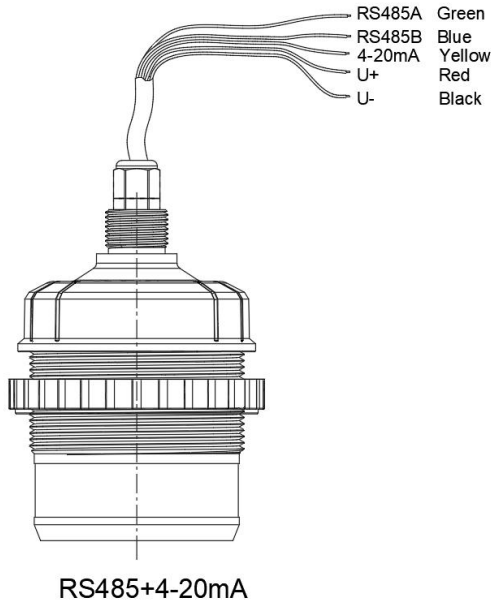| For rectangular tanks	For cylinder tanks	For horizontal cylinder tanks	For cube tanks	For flumes

TECHNICAL SPECIFICATIONS

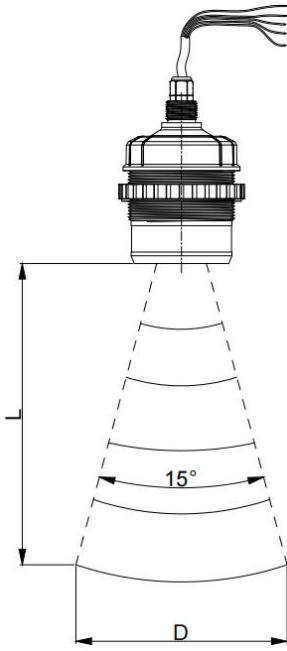|	
Measuring range	2.5m, 5m, 10m, 15m, others on request
Blind area	4-20mA/0-5V(2.5m/5m):≤200mm 4-20mA/0-5V(10m):≤300mm 4-20mA/0-5V(15m):≤500mm
Accuracy	0.5%F.S (typical), 0.25%F.S (by customized)
Beam angle	12°
Measuring mode	Distance mode(default), or level mode optional
Output signal	4-20mA(3 wires)&RS485 Modbus RTU; 0-5V(3 wires)&RS485 Modbus RTU Optional
Power supply	DC 24V(default); DC 12V(by customized)
Working temp.	-10~50℃(-40~80℃ by customized)
Working current	≤300mA
Installation mode	Nut clamping fixed installation, screw-in installation, M68×2
Response time	0.5s (2.5m/5m default); 1s (10m default); 2s (15m default); 0.5~10s adjustable with software or Modbus commands, the faster, the shorter the lifetime
Product material	Polypropylene + glass fiber
IP rating	IP67 typical, IP68 by customized

DIMENSIONS

HOLYKELL
TECHNOLOGY

ELECTRICAL CONNECTIONS

RS485A — Green
RS485B — Blue
4-20mA — Yellow
U+ — Red
U- — Black

RS485+4-20mA

RS485A — Green
RS485B — Blue
0-5V — Yellow
U+ — Red
U- — Black

RS485+0-5V

MECHANICAL MOUNTING

15°

L	D
1m	30cm
2m	60cm
3m	90cm
4m	120cm
5m	150cm
6m	180cm
7m	210cm
8m	240cm
9m	270cm

MOUNTING WARNINGS
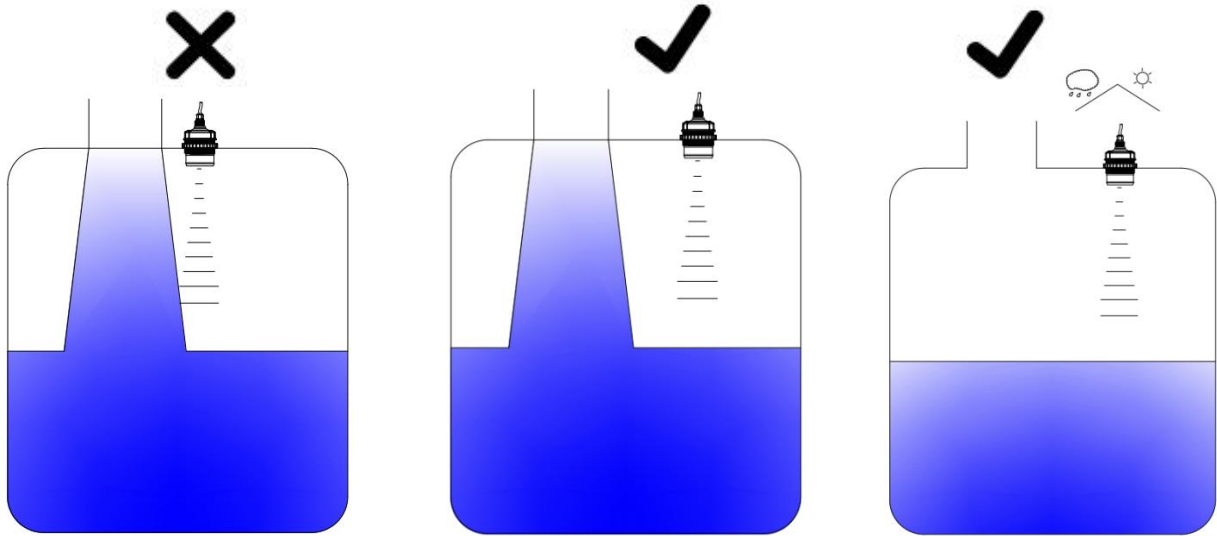
- For level measurement, the sensor must not be installed near the tank input.
- It is recommended that the sensor be protected against sun and rain.
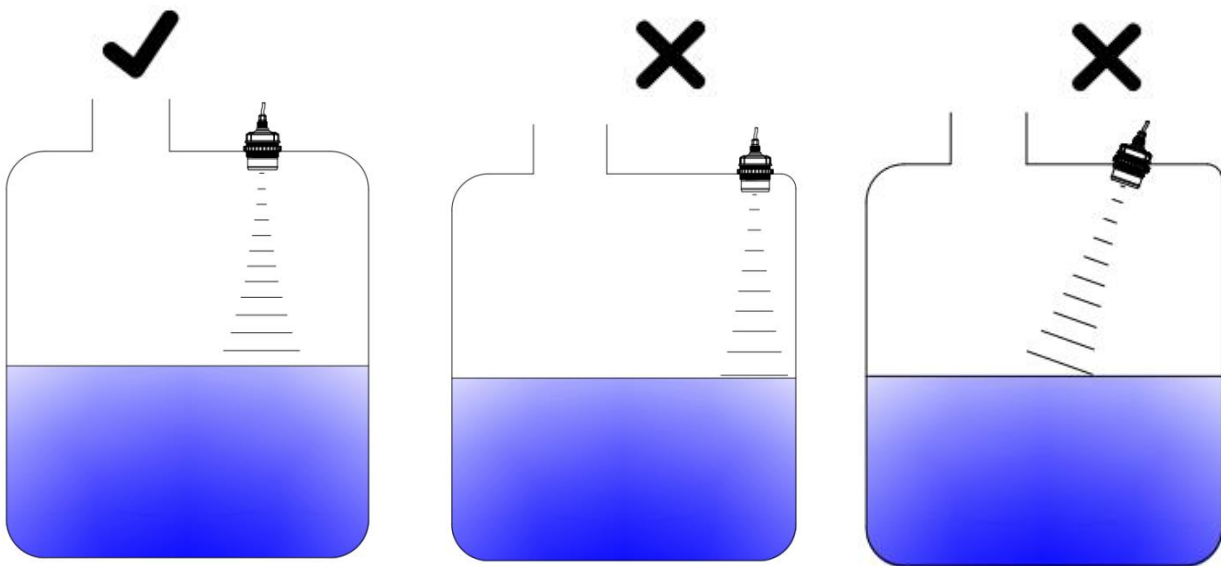
- The sensor must be installed perpendicular to the surface to be measured and should not be placed close to the side surface.

HOW TO ORDER

Accuracy
1=0.5%F.S(typical)
2=0.25%F.S(By customized)

Cable length
0=no cable
1=Cable 1m
X=Cable x m

Model No.

| UE3003 | ▬ | X | ▬ | X | ▬ | X | ▬ | X |

Measuring range
1=2.5m
2=5m
3=10m
4=15m
X=By customized

Signal output
1=4-20mA with RS485 Modbus RTU
2=0-5V with RS485 Modbus RTU
3=RS485 Modbus RTU
4=4-20mA 3 wires
5=0-5V 3 wires

Holykell Technology Company Limited

www.holykell.com   Tel: +86 731 89873265

info@holykell.com   Fax: +86 731 89873646