

TECHNOLOGY

**HOLYKELL®**

**UE2000/  
US8000/US9000**

**LEVEL**  
• DATASHEET •

1. Pressure Measurement   2. **Level Measurement**   3. Temperature Measurement  
4. Flow Measurement   5. Display & Control Instruments  
6. Wireless Monitoring System   7. Velocity Measurement

# UE SERIES Explosion Proof Type Ultrasonic Level Meter

# US SERIES Universal Type Ultrasonic Level Meter

## Profiles



UE2000(Explosion Proof Type)



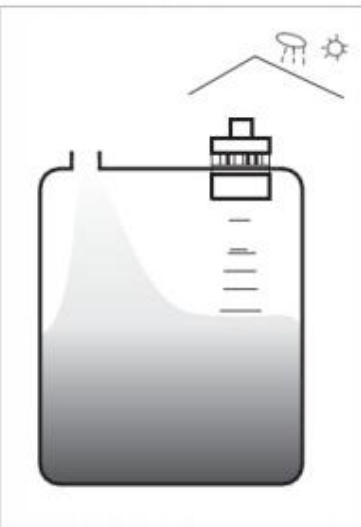
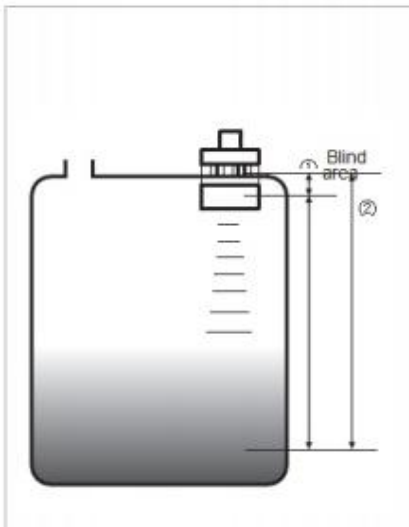
US9000 (Separated Type)



US8000 (Integrated Type)

Holykell’s ultrasonic level meter has beautiful appearance, stability performance; explosion-proof design and good measurement function. Isolated power supply by industrial instruments, all of the output, input lines with lightning protection, overvoltage, over current protection circuit functions. It features low power consumption, high sensitivity; a complete sensor system can accurately complete the objects in different environments by adopting the continuous non-contact measurement; small blind spot, high accuracy, wide application, which can accurately receive weak echo signals to ensure the accuracy and reliability.

## Installation



1. Measure reference surface is the bottom line of sensor
2. Highest solid level cannot enter into the blind area
3. Level measurement should avoid the feeling hole, aim the smoother level surface
4. Better use sun/rain shade when mounting in out field
5. 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.

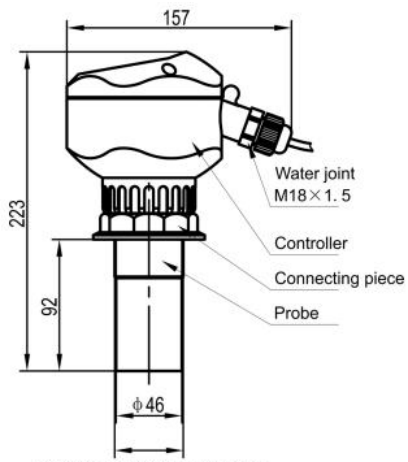
### Features

1. Support M78\*2 mm threaded into type installation and coil clamping type installation, it's more convenient to install.
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

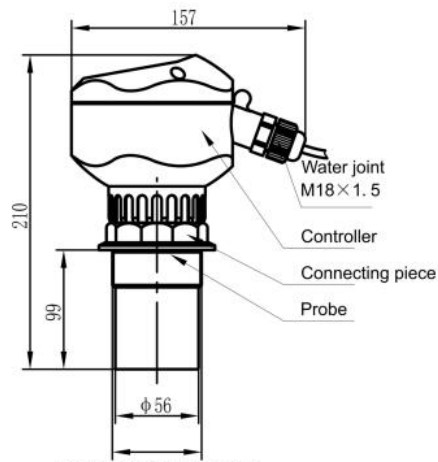
Function	Integrated Type	Separate Type
Measuring range	5m, 10m, 15m, 20m, 30m, 40m, 50m, 60m	5m, 10m, 15m, 20m, 30m, 40m, 50m, 60m, 70m
Accuracy	0.5%-1.0%	0.5%-1.0%
Resolution ratio	3mm or 0.1% (whichever is greater)	3mm or 0.1% (whichever is greater)
Display	English LCD	English LCD
Analog output	4-line system, 4~20mA/ 510Ω load 2-line system, 4~20mA/ 250Ω load	4~20mA/ 510Ω load
Relay output	2 groups (i.e. AC 250V/ 8A or DC 30V/ 5A) optional, state programmable	2 groups for single channel and 4 groups for double channels (optional) AC 250V/ 8A or DC 30V/ 5A, state programmable
Power supply	Standard configuration: 24VDC Optional: 220V AC±15% 50Hz	Standard configuration: 220V AC±15% 50Hz Optional: 24VDC 120mA Customized: 12VDC or battery powered
Ambient temperature	Display instrument: -20~+60°C Probe: -20~+80°C	Display instrument: -20~+60°C Probe: -20~+80°C
Communication	485, 232 communication (optional) (manufacturer agreement)	485, 232 communication (optional) (manufacturer agreement)
IP grade	Display instrument: IP66, probe: IP68	Display instrument: IP65, probe: IP68
Probe cable	None	100m available, standard configuration: 10m
Probe installation	Select type based on measuring range & probe	Select type based on measuring range and probe
Product power consumption	The power supply of separated type is 24V and its electricity consumption is 100mA without relay, 120mA with a replay, 145mA with 2 relays, 170mA with 3 relays and 190mA with 4 relays. Specific power consumed is shown in below: 24×100mA=2.4W for separate type without relay; 24×120mA=2.9W for separate type with a relay; 24×145mA=3.5W for separate type with 2 relays; 24×170mA=4.1W for separate type with 3 relays; 24×190mA=4.6W for separate type with 4 relays;	
Product power consumption	The integrated type with four-wire system is powered by 24V power supply and its electricity consumed is 80mA without relay, 105mA with a relay and 130mA with 2 relays. Specific power consumed is shown in below: 24×80mA=1.9W for integrated type without relay; 24×105mA=2.5W for integrated type with a relay; 24×145mA=3.1W for integrated type with 2 relays;	
Product power consumption	The integrated type with two-wire system is powered by 24V power supply. It cannot be equipped with relay and its electricity consumed is 30mA. Specific power consumed is shown in below: 24×30mA=0.72W for integrated type without relay;	

**Dimensions**



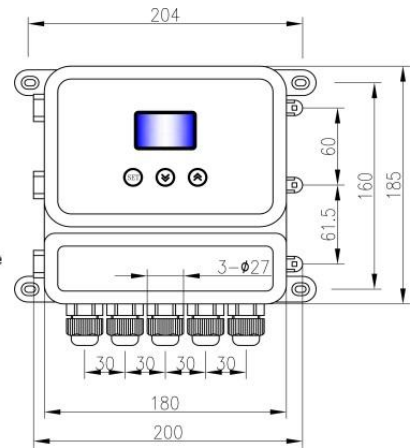
M48X2 or G1-1/2 screw thread  
Thread M48×2 or G2 Sensor

**US8000**

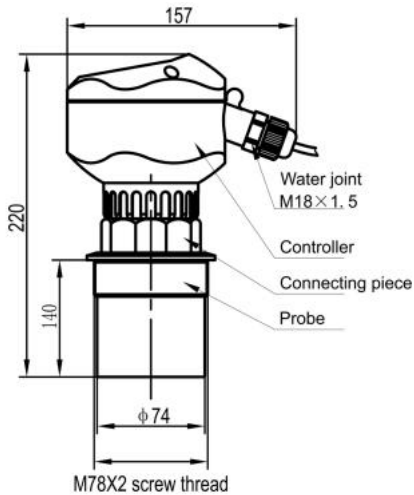


M60X2 or G2 screw thread  
Thread M60×2 or G2 Sensor

**US8000**

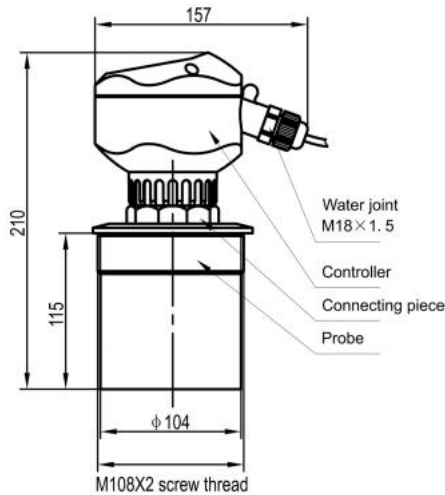


**US9000**



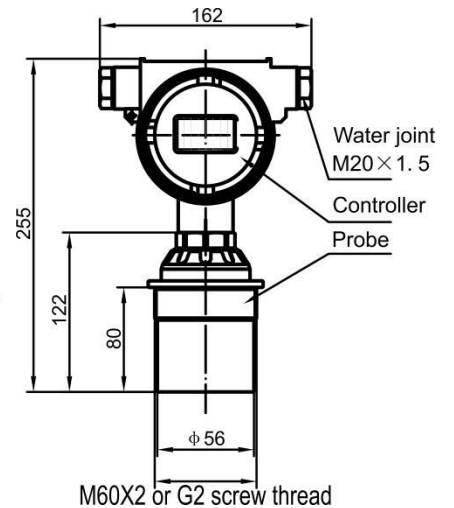
M78X2 screw thread  
Thread M78×2 Sensor

**US8000**



M108X2 screw thread  
Thread M108×2 Sensor

**US8000**



**UE2000**

**Wiring connection**

Electrical Wires Connection		
Current	Red	Vcc+
	Yellow	Signal+
Voltage	Red	Vcc+
	Yellow	Signal+
	Black	GND
RS485	Red	Vcc+
	Yellow	RS485A
	White	RS485B
	Black	GND

**How to Order**

Part Number Selection Table

Selection Type	UE2000	05	B	U1	A2	T1	002
Model	UE2000(Explosion-proof Type) US8000(Integrated Type) US9000(Segregated Type)						
Range	05= 5 Meter 10= 10 Meters ..... 70= 70 Meters						
Water Proof	A= IP66	B= IP65	C= IP67	D=IP68			
Power Supply	1=DC12V/max 2=DC24V/max 3=220VAC						
Output	A2=Current Output (4-20mA 2 wires) A4=Current Output (4-20mA 4 wires) J1 = Relay (Upper & Lower alarm) V2= Voltage output (1-5V) X=By Customized			A3=Current Output (4-20mA 3 wires) N1/N2=Switch output (1 or 2 switches) V1=Voltage output (0-5V) R=Digital RS485(MCU Protocol)			
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**

