

# ULTRASONIC LIQUID LEVEL TRANSMITTER

## GUT740



### Product Introduction

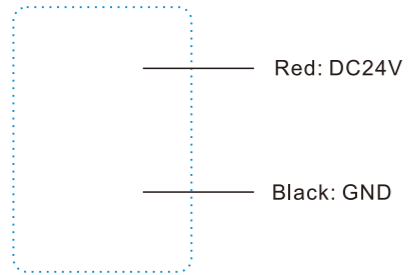
GUT740 Ultrasonic liquid level transmitter is a combination of ultrasonic sensor, temperature sensor, ultrasonic servo circuit and transmitter circuit. It uses SMD components and ASC chip, which makes the circuit compact and concise. The circuit board is plated and has high stability and long-term reliability. Meanwhile, the shell uses NLEPF synthetic materials with sturdy texture and good acoustic property. The transducer can be used in most working condition sites. While fixing it on the liquid wall or instrument housing, there is no need tools such as screws, but a 68mm hole. It has the features of stabilization, easy installation and disassembly.

### Mounting installation

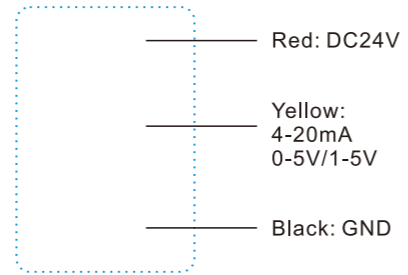
1. Measure reference surface is the bottom line of sensor
2. Highest solid level cannot enter into the blind area
3. Level measurement should avoid the feeling hole, aim the smoother level surface
4. Better use sun/rain shade when mounting in out field
5. When mounting, sensor should be kept distance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

Ultrasonic sensor	Low power-sensor	Middle power-sensor	Large power-sensor		
<b>The Max. range</b>	≤5m	≤7m	≤10m	≤12m	≤15m
<b>Blind area</b>	Standard: 300mm	500mm	500mm	800mm	800mm
	OEM:200mm	/	/		
<b>Power supply</b>	Standard: DC24V	DC24V	DC24V	DC24V	DC24V
	OEM: DC12V	OEM: DC12V	OEM:DC12V	/	/
<b>Beam angle</b>	15°	12°	9°		
<b>Operating frequency</b>	38K±10Khz	55K±10Khz	40K±5Khz		
<b>Accuracy</b>	Standard: ±0.5%FS or ±10mm(Take its maximum value); (at 25°C , Absolutely flat target under the condition of standard)				
	OEM: FS≤1m, accuracy can be ±3mm FS≤2m, accuracy can be ±5mm FS≤15m, accuracy can be ±0.25% FS Above OEM not available for two wire system				
<b>Output signal</b>	Standard: 4-20mA (3 wires)				
	OEM: 4-20mA(4 wires), 0-5v, 1-5v 0-10v, 1-10v (both signal can not be customized DC12v) RS485(PC protocol as default, Address=01, bps=9600) 4-20mA+RS485; 1-5V+RS485 1-10V, 0-10V, - Power supply 24VDC can not be OEM				
<b>Measuring mode</b>	Standard: Distance mode, the distance of ultrasonic sensor surface to measuring target surface				
	OEM: Level mode; the distance of level surface to level bottom(the bottom of tank) NOTE: Ensuring the distance of sensor surface to the level bottom is the actual mounting height, otherwise might be have installation error.				
<b>Working temp.</b>	Standard: -10~50°C				
	OEM: Negative Temp. -20°C,-30°C; Positive Temp. 60°C,70°C,80°C				
<b>Wiring Mode</b>	Waterproof connect port, down-lead 1m(length can be customized)				
<b>Installation</b>	Screw type or sifter clamping ; screw size: M68*2.0mm				
<b>Protection class</b>	IP65, OEM of IP66, IP67, IP68				
<b>Working environment</b>	Normal pressure, non-explosion-proof; non-corrosive environment				
	OEM: Anti-explosion symbol Exia II AT3 (DC12 V,range≤10m )				
<b>NOTES</b>	1. When level range ≥15m, equip with other type ultrasonic sensors 2. Users no need to set the address, bps, installation height, so please verify to factory before ordering 3. For RS485-PC product, users can adjust the parameter by software(the default software) The max measure range depends on the smooth level surface, so please confirm the real using environment and level surface when ordering.				

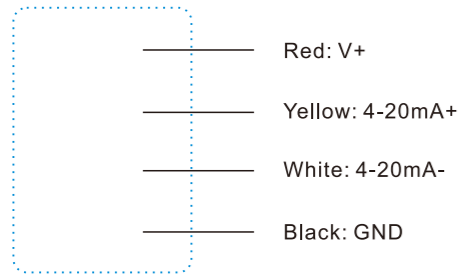
**Wiring connection**



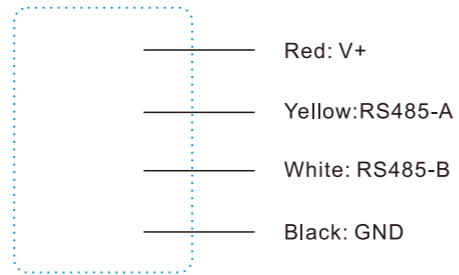
**Two wire 4-20mA**



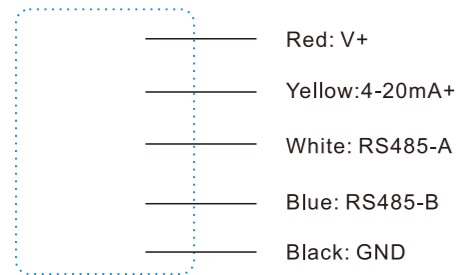
**Three wire analog output**



**Four wire analog output**



**Serial data communication output**



**Three wire analog + serial port**