

ULTRASONIC LIQUID LEVEL TRANSMITTER

BFL740



Product Introduction

BFL740 Ultrasonic liquid level transmitter is a combination of ultrasonic sensor, temperature sensor, servo circuit and transmitter circuit. It uses surface mount component technology and ASC chipware, which makes the circuit compact and reliable. The circuit board is coated and offers high stability and long-term reliability. The housing is made from NLEPF synthetic materials with sturdy a design and good acoustic properties. The transducer can be used in most working condition . When fixing it on the tank lid, conatiner housing or bracket, a 68mm hole is required. The BFL740 features active temperature stabilization, easy installation and a low cost

Mounting installation

1. Measured range starts from the bottom of the horn
2. Highest level cannot be in the blind spot (Deadband)
3. Level measurement should avoid the mounting hole, aim a smooth level surface for best results
4. Use a sun/rain shade when mounting outside
5. When mounting, sensor should be kept a distance from the wall surface because of the beam angle
6. When mounting the level sensor, the mounting hole should be at the centre of one half of the tank / silo

Ultrasonic sensor	Low range-sensor	Medium range-sensor		Long range-sensor		
The Max. range	≤5m	≤7m	≤10m	≤10m	≤12m	≤15m
Deadband	Standard: 300mm	350mm	500mm	500mm	600mm	800mm
	OEM:200mm	/	/	/		
Power supply	Standard: DC24V	DC24V	DC24V	DC24V	DC24V	DC24V
	Option: DC12V	Option: DC12V	/	Option:DC12V	/	/
Beam angle	15°	12°	9°			
Operating frequency	38K±10Khz		55K±10Khz	40K±5Khz		
Accuracy	Standard: ±0.5% FS or ±5mm (at 25°C , Absolutely flat target under good standard conditions)					
	Options: FS≤1m, accuracy can be ±1mm FS≤2m, accuracy can be ±3mm FS≤15m, accuracy can be ±0.25% FS Above options not available for two wire model					
Output signal	Standard: 4-20mA (2 wire) (3-wire option)					
	Options: 4-20mA(4 wires), 0-20mA, 0-5v, 1-5v 0-10v, 1-10v (both signal can not be customized DC12v) RS485(MCU protocol as default, Address=01, bps=9600) 4-20mA+RS485; 1-5V+RS485, 1~2NPN 1-10V, 0-10V, 4-20mA(two wire) - Power supply 24VDC can not be OEM					
Measuring mode	Standard: Distance mode, the distance of the ultrasonic sensor surface to measuring target surface					
	Optional: Level mode; the distance of the level surface to level bottom(the bottom of tank) NOTE: Ensure the distance of the sensor surface to the level bottom is the accurate mounting height, otherwise there may be an installation based measurement error.					
Working temp.	Standard: 0~50°C					
	Options: Negative Temp. -10°C , -20°C , -30°C ; Positive Temp. 60°C , 70°C , 80°C					
Wiring	Water resistant connecting gland, flying-lead 0.5m (length can be customized)					
Installation	Screwed type; thread size: M68*2.0mm					
Protection class	IP65, IP66, IP67, IP68 (IP67 Standard)					
Working environment	Normal pressure, not hazardous area; install in non-corrosive environment					
	Option : Anti-explosion symbol Exia II AT3 (DC12 V, range≤10m) The material of the sensor housing: PTFE for long range sensor. Good corrosion resistance					
NOTES	1. When level range ≥15m, see out other types of ultrasonic level 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 parameters via our software (PC software) The max measuring range depends on the smooth level surface, so please confirm the actual environment and surface level at rest when ordering.					