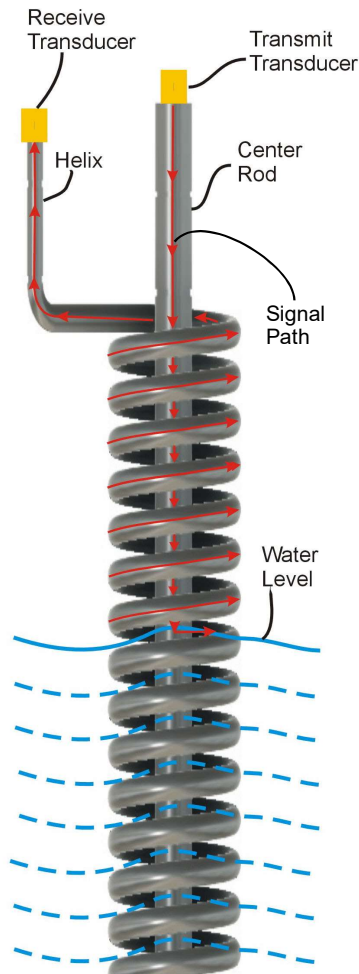
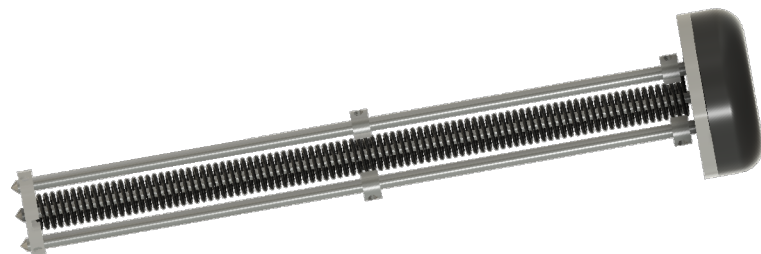


Helical Liquid Level Sensor



The Helical Type Sensor consists of a center rod surrounded by a helix. At the top end of the center rod and the helix an ultrasonic transducer is attached. The transducer attached to the center rod sends an ultrasonic wave down the center rod that acts as the ultrasonic transmitter. When the center rod comes in contact with the liquid the ultrasonic wave propagates out of the center rod into the liquid. The ultrasonic wave travels through the liquid to the helix which surrounds the center rod. The ultrasonic wave then transfers into the helix and travels up the helix to the transducer mounted to the top and acts as an ultrasonic receiver. The liquid level is determined by the amount of time it takes from when the ultrasonic wave is sent by the center rod transducer to when it is received by the helix transducer. This unique patented configuration is capable of sensing liquid levels from an inch to 15 feet in depth. Due to the design of the Helical Liquid Level sensor the signal to noise ratio is high enough to utilize common micro controller designs. Sensor output can be an industry standard or custom to the specific application.



- > Liquid sensing range entire length of sensor
- > Resolution 1mm or better over sensing range
- > Operating temperature range -40°C to 85°C
- > All metal construction, stainless steel, aluminum or titanium
- > Only detects liquid level does not detect foam on top of liquid surface
- > Measurement accuracy unaffected by changes in temperature or viscosity.

- > Sensor capable of self diagnostics
- > Sensor is self calibrating
- > Does Not detect level of highly aerated liquids
- > Shock and vibration resistant
- > Tolerant of liquid agitation or sloshing
- > Liquid temperature measurement
- > Low cost micro controller control circuit
- > Sensor mount opening can be less than 2"
- > All standard sensor output available.