

Ultrasonic level meter

◆◆◆ WSL55 Series Integrated Ultrasonic level meter



Ultrasonic pulses generated by the transducer (antenna) system, which travel at the speed of sound toward the target medium, are reflected by the surface of medium and received by the transducer system again. Due to the fact that the measurable time lapse between pulse emission and reception by antenna is proportional to the distance between antenna and highest level of target medium, the principle of ultrasonic level instrument can be illustrated as the following equation: $S=C \times T/2$, S: distance, C: velocity of sound, T: time lapse.

Features

Because of the certain bandwidth of pulses, the unidentifiable overlap between pulse emission and reception arises in specified zone extending downward from transducer face, which leads to the level measurement malfunction. Therefore this specified zone is called measurement blanking zone. The size of measurement blanking zone differs for different models of ultrasonic level instruments.

Thanks to the advanced microprocessor and unique EchoDiscovery echo processing technology, the ultrasonic level instruments can be used under various complex conditions.

The false echo storage function assures that the instrument can detect the right echo even with the presence of multiple false echoes and present accurate measurement results eventually.

The built-in temperature sensor inside transducer can complete temperature compensation for measurement results.

Ultrasonic transducer has adopted best patented sonic matching technology, which helps it strengthen its emission power, enhance the signal intensity and eventually achieve accurate measurement.

Technical parameters

Items	Specifications
Application:	Level measurement in various industrial fields, especially water treatment industry
Measurement Range:	Liquid:(0.25 ~ 4)m / (0.4 ~ 8)m / (0.5 ~ 15)
Process Connection:	G1½A / G2A
Material for Transducer Housing:	PTFE、 PU/PC
Process Temperature:	(-40 ~ 70)°C
Process Pressure:	(-0.02 ~ 0.1)MPa (4 ~ 20)mA/HART 2-Wire(DC24V)
Signal output:	4-Wire(DC24V/AC220V)
Power:	PTFE、 PU/PC