



www.ktekcorp.com

KSONIK™

Long Range Ultrasonic Level Transmitter Model KSONIK III

FEATURES

- Long range up to 197 feet / 60 meters
- Graphic LCD Display
- Single or Dual Channel Configuration
- 5 Configurable Relays / 8 Amp
- Pump Cycling & Pump Monitoring
- Remote Totalizer Count Outputs
- Configurable as a Single or Dual Open Channel Flow Meter
- Differential Level Measurement
- Integrated Analytical KSCOPE Software
- Automatic Variable Gain & Power for Difficult Applications

OPTIONS

- Transducers for Liquids, Solids & Corrosive Liquids
- Windows Based Configuration Software
- Aiming Kit

APPLICATIONS

- Great For Sumps or Lift Stations With Up To Five Pumps
- Cost Effective Level Measurement For Multiple Silo Applications
- Versatile: Short or Long Range Liquid or Dusty Solids Applications
- Open Channel Flow Measurement in the following configurations:
 - V-Notch
 - Flumes
 - Weirs

DESCRIPTION

The KSONIK III is an Ultrasonic Level Transmitter capable of measuring two separate levels in liquid or solid applications up to 197 ft / 60 meters, or flow rates in all types of open channel flow applications. The unit is available with two 4-20 mA DC analog and five (5) relay outputs. A system can consist of up to two transducers and a single transmitter with the transducer(s) installed at the top of a silo or tank, facing down towards the material being measured.

OPERATION

The transmitter's microprocessor simultaneously fires an electronic pulse to the transducer and starts a timer. The transducer converts this electronic pulse to an acoustic pulse, which is directed toward the surface of the material being measured. When the acoustic pulse contacts the surface of the material, energy is reflected back to the transducer, which converts this reflected energy back to an electronic pulse. This pulse is sent back to the microprocessor, which stops the timer and determines the "time of flight" of the signal. By combining the speed of sound through air and the "time of flight" of the pulse, the microprocessor accurately determines the level of the product. Powerful software removes false echoes from the signal and electronic filters remove ambient noise.

SPECIFICATIONS

Enclosure	Polycarbonate with clear hinged lid; IP65 / NEMA 4	
Power Supply	120 VAC or 220 VAC; ±15% 50/60 Hz, 8VA	
Dimensions	8.4 x 7.3 x 4.7 inches / 213 x 185 x 118 mm	
Weight	3.52 lbs / 1.6 kg	
Temperature Range	-22 to 149°F / -30 to 65°C	
Output	Analog: 1 ea. (Single Channel) or 2 ea. (Dual Channel) 4-20mA isolated; 16 bit resolution; 750 ohm max. resistance	
Range	197 ft. / 60 m	
Accuracy	0.25% full span with temperature compensation	
Local Indication	128 x 64 dot graphic display	
Configuration	5 touch button keys or optional KSCOPE Software	
Blanking Distance	Refer to Ultrasonic Transducer & Accessories ACS-0003-1	
Rate of Change	0.03 to 65 ft / minute; 0.01 to 20 m / minute	
Classification	General Purpose	
CE Mark	EN 50082-2	Immunity
	EN 50081	Emission
	EN 61010-1	Safety



ORDERING INFORMATION:

Ordering Notes:

- 1) Transmitter, Transducer(s) & Accessories must be ordered separately.
- 2) The listed transducers below are compatible with the KSONIK III transmitter
- 3) For a dual transmitter type (/D), identical transducers must be used with the KSONIK III

KSONIK3 / a / b :

- /a Power Supply
2 120 VAC - 220 VAC
- /b Instrument Type
S Single Channel
D Dual Channel

TRANSDUCER(S):

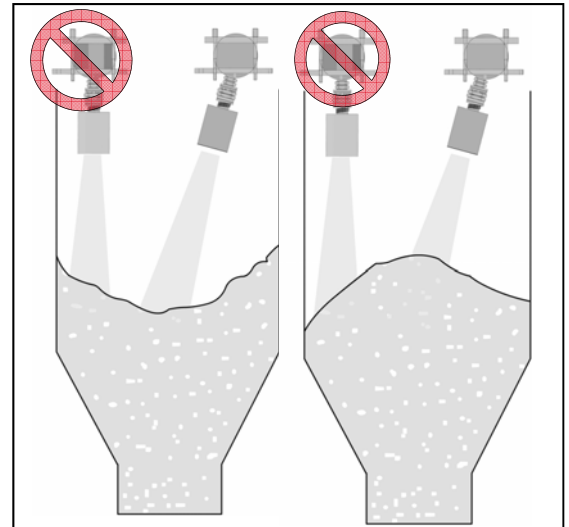
(order separately; refer to Transducer Data Sheet ACS-0003-1 for complete details)

Model	Measuring Range
K10C	Liquids (49.2 ft. / 15 m max) or Solids (16.4 ft. / 5 m max)
K10T3C	Corrosive Liquids (49.2 ft. / 15 m max) with 3" PTFE Lined Flange
K10T4C	Corrosive Liquids (49.2 ft. / 15 m max) with 4" PTFE Lined Flange
K10FC	Solids (49.2 ft. / 15 m max) with Foam Facing
K20C	Liquids (99 ft. / 30 m max) or Solids (99 ft. / 30 m max)
K20HC	Powders (99 ft. / 30 m max)
K60C	Liquids (197 ft. / 60 m max) or Solids (197 ft. / 60 m max)

Note: All transducers are temperature compensated and are supplied with 16ft (5m) cable lengths.

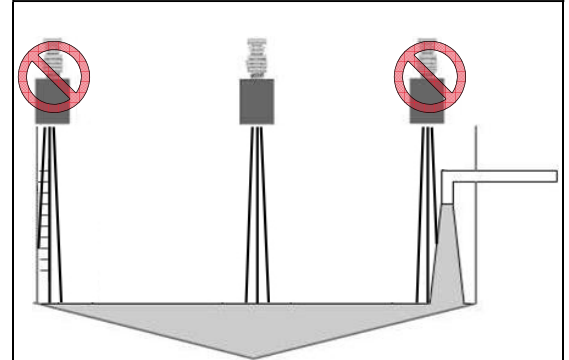
AVAILABLE ACCESSORIES

- AKIT Aiming Kit (304 SS Mounting & Clamping Plates)
- KSCOPE KSONIK Scope Software



Solids Installation Recommendations

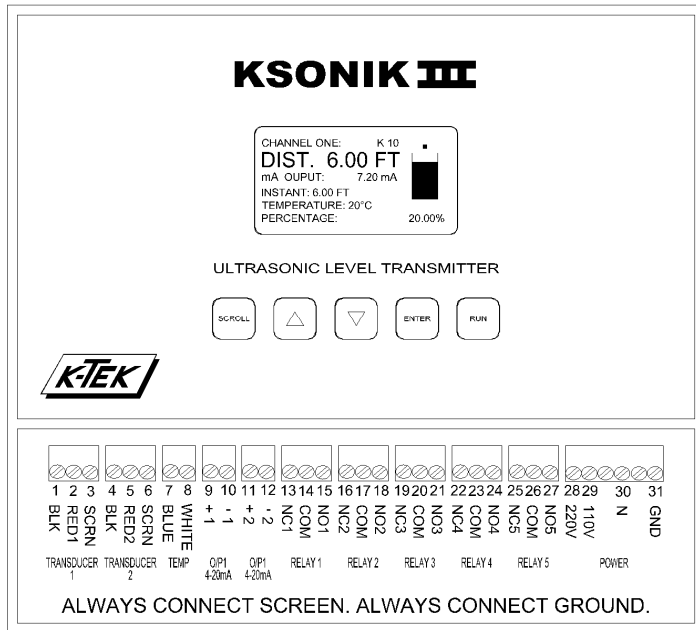
Aiming Kit is recommended to aim at middle of silo. This helps to get the maximum return echo.



Liquids Installation Recommendations

Avoid installations where vessel obstructions or fill lines interfere with beam path.

WIRING CONNECTIONS



DIMENSIONS

