QUICK START FOR KSONIK MICRO

INTRODUCTION

The KSONIK MICRO works on the non-contact principle of ultrasonics. A pulse of energy emits from the Transducer at the speed of sound and is detected on its return. The transmitter can distinguish the difference between the correct echo and other ambient noise. When the signal returns, the KSONIK MICRO measures the time period, and then knowing the speed of sound, it can accurately calculate the distance from the material to the transducer. The KSONIK MICRO will adjust the 4-20mA output accordingly.

In level mode the KSONIK MICRO measures level in a tank. This means at the furthest point or when the tank is empty, the instrument will read 4mA. At the closest point the tank will be full and the instrument will read 20mA.

QUICK START FOR LEVEL

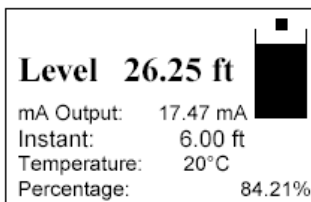1. Connect up the power to the instrument.

2. Press   SCROLL

3. Use   ▲ ▼   to get to the default security Code 5159 and then press   ENTER

4. Use   ▲ ▼   to select level and then press   ENTER

5. Press   RUN

Aim the transducer at a wall about 6 ft / 2.000 m away and check the display. It should read the following moving the transducer back and forth will change the level reading.


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Level   26.25 ft
mA Output:      17.47 mA
Instant:         6.00 ft
Temperature:     20°C
Percentage:              84.21%
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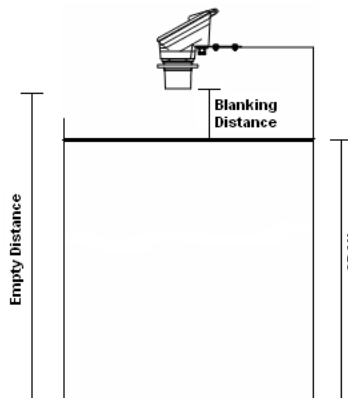
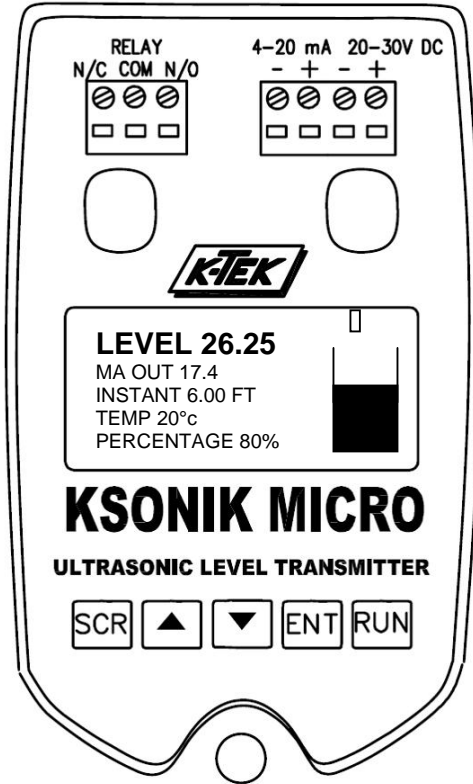If the Level reading is below 26.25 ft then move the transducer closer to the wall.
If the Level reading is above 26.25 ft then move the transducer away from the wall.
You may now proceed and check other parameters.

You may now change the rest of the program to suit your application. The most important is the Empty distance and the span. The rate of change should stay on 3.28 ft/min / 1 m/min.

TERMINAL CONNECTIONS

RELAY
N/C COM N/O

4-20 mA 20-30V DC
- + - +

LEVEL 26.25
MA OUT 17.4
INSTANT 6.00 FT
TEMP 20°c
PERCENTAGE 80%

KSONIK MICRO

ULTRASONIC LEVEL TRANSMITTER

SCR ▲ ▼ ENT RUN

POWER SUPPLY	OUTPUT	RELAY
Ground	+ 4-20mA	N/O relay contact
+20/30Vdc	- Ground	COM relay contact
		N/C relay contact

INSTALLATION

The KSONIK MICRO is protected to IP65. The Transmitter is dust and waterproof so it can be mounted outside. The KSONIK MICRO should be mounted using the bracket supplied.
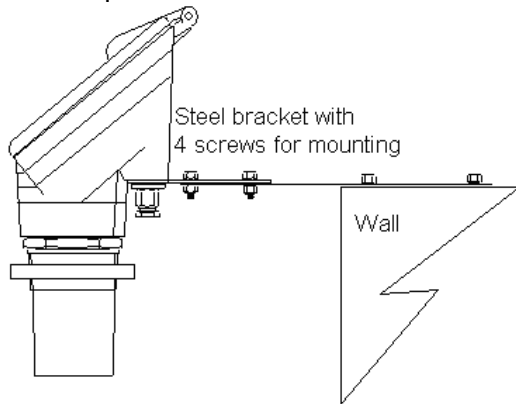
REMOVE PLASTIC END CAP

Do not install the KSONIK MICRO in areas of high vibration as this may cause failure.
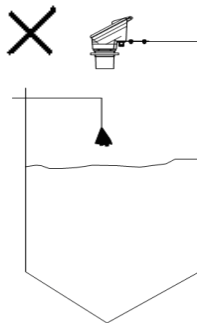
Do not install the KSONIK MICRO in the close vicinity of electrical cable, SCR's or variable speed drives.

The installation of KSONIK MICRO is the most important section of the user manual and has been divided up into 6 sub sections.
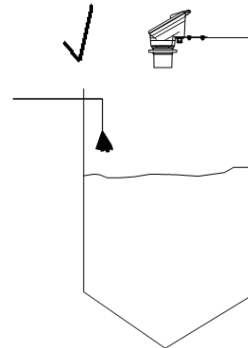
1. The KSONIK MICRO must be fitted at least 1.64 ft / 0.50 m above the highest point of level.

2. Always use the plastic nut. The KSONIK MICRO must be fitted to a rigid support. Use mild steel or a suitable plastic. Do not use stainless steel as this can cause ringing.

Steel bracket with
4 screws for mounting

Wall

3. The KSONIK MICRO must be perpendicular to the material it is measuring with a clear line of sight and must not be above beams or filling points.

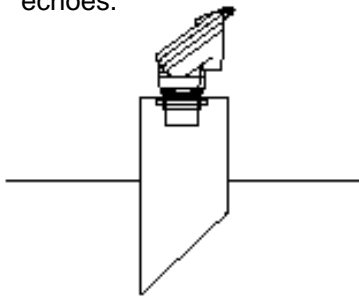| THIS IS INCORRECT AS THE FILLING POINT IS OBSCURING THE KSONIK MICRO LINE OF SIGHT | THIS IS CORRECT AS THE FILLING POINT IS NOT OBSCURING THE KSONIK MICRO LINE OF SIGHT |

4. If the KSONIK MICRO is in a coned vessel, it must be positioned over the cone. This ensures that the Transducer receives the true echo and not one from the sides of the cone.

5. The transducer should be perpendicular to liquid level.

6. When a standpipe is being used it must be as wide as possible; i.e. the pipe diameter must be at least half its height, preferably made of plastic. The base MUST have a 45° chamfer to reduce the echo size from the bottom of the standpipe. No welding should be present on the inside of the pipe as this causes false echoes.

7. If any large electrical equipment is installed in the vicinity, then earthed steel conduit must be used.

SECURITY CODE

To advance to the programming mode the correct security code must be entered. The factory default code is 5159. This code can be changed in the programming mode. If you forget the security code please contact your local K-Tek agent for the override code.

Please see manual on CD for FULL installation instructions

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