

Compact "Loop Powered" Ultrasonic Level Transmitter

The KSONIX MICRO COMPACT Ultrasonic Level Transmitter is designed to measure liquid (13 ft. / 4 m) levels. The range can be configured by the two touch buttons and KSCOPE COMPACT software. The KSONIX MICRO COMPACT is mounted on top of the vessel or tank. The microprocessor in the KSONIX MICRO COMPACT fires an electronic pulse that the transducer converts into an acoustic pulse. The pulse travels to the level that is being measured and is reflected back to the transducer. The transducer then converts the energy back into an electronic signal and stops the counter in the microprocessor, which then knowing the speed of sound through the air, can accurately determine the distance. The powerful firmware removes false echoes and the electronic filter removes ambient noise.

FEATURES

- Up to 13 ft. / 4 m Measuring Range
- Low Cost, Compact Level Transmitter with Integral Transducer
- Green and Red LED for Indication
- Ease of Installation & Configuration
- Auto Variable Power Control for Difficult Applications
- Temperature Compensation
- No Maintenance
- PVDF Wetted Parts for Corrosive Applications

APPLICATIONS

- Liquids Only
- Slurries
 - Sumps
 - Diesel
 - Waste Water
 - Raw Water

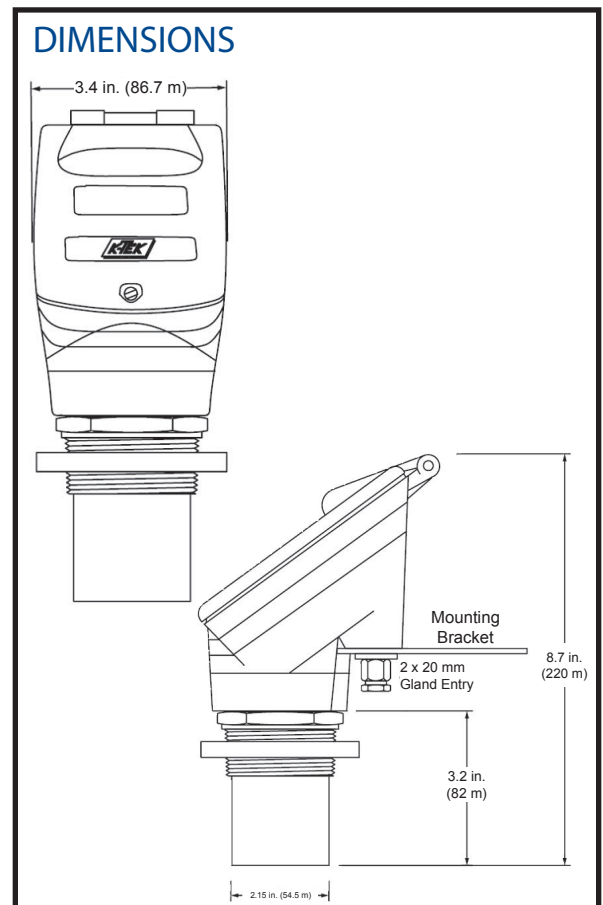
OPTIONS

- Flange Mounting (ANSI or DIN)



SPECIFICATIONS

Enclosure	Enclosure: Polycarbonate, IP65 Transducer: IP68, PVDF (KYNAR®)
Power Supply	24 VDC (20 to 30 VDC)
Electrical Connection	20 mm
Operating Frequency	53kHz
Beam Angle	10°
Dimensions	Electronics: 8.6 in x 3.4 in / 220 mm x 86 mm Transducer: 2.2 in x 3.2 in / 56 mm x 82 mm
Weight	2.64 lbs. / 1.2 kgs
Process Connection	2" MNPT; PVC retainer nut included for open top tank installations
Temperature Range	-22 to 149°F / -30 to 65°C Temperature Compensated
Output:	Transmitter: 4-20 mAADC 16 bit (max impedance 750 ohms)
Range	13 ft. / 4 m
Accuracy	± 0.25% Full Span
Local Indication	Green and Red LED
Configuration	2 touch button keys or KSCOPE COMPACT
Blanking Distance	1 ft. / 0.3 m
Rate of Change	0.3 to 66 ft. / minute; 0.1 to 20 m / minute
Classification	General Purpose
CE Compliance	EN 50082-2 Immunity EN 50081 Emission



ORDERING INFORMATION

KMICROCOMPACT/a/b/c/d

/a	Device Type
	LP Loop Powered
/b	Transducer Material / Application
	PVDF Liquids to 13 ft. / 4 m Standard Including Corrosive Applications
/c	Power Supply
	1 20-30 VDC Standard
/d	Mounting Options
X	No Mounting option Required (2" MNPT) Standard
3	3" ANSI flange connection, PVC
4	4" ANSI flange connection, PVC
6	6" ANSI flange connection, PVC
D80	80 mm flange connection, PVC
D100	100 mm flange connection, PVC
D150	150 mm flange connection, PVC
CF	Custom Flange (Consult factory for available sizes and materials)
KSCOPE	KSCOPE compact software option allows the user to set up the
COMPACT	KSONIK MICRO COMPACT as an open channel flow meter. It
SOFTWARE	also allows the user to maximize the other features on the KSONIK MICRO COMPACT. (The KSCOPE COMPACT Software will be supplied as a CD with a cable)



FACEPLATE



APPLICATION GUIDELINES

The ultrasonic pulse leaves the sensor as a narrow beam that increases in width with the increasing distance from the device. Every object within this beam produces an interface echo which is received by the sensor. Interface echoes can be suppressed by mounting the sensor at right angles to the material surface and clear of any internal tank obstructions.

MICRO LP Compact Measuring Length vs. Beam Width

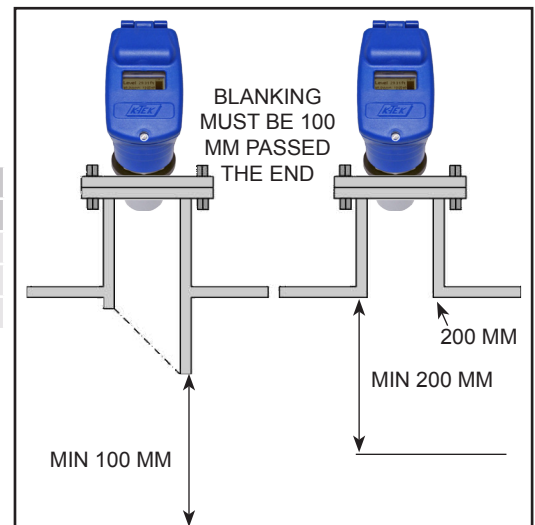
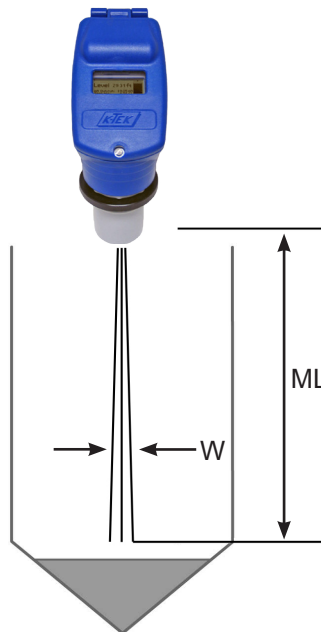
Liquid	
Beam (ML)	Max Beam (W)
2 ft	2 in
10 ft	7.5 in

NOZZLE INSTALLATION

The KSONIK MICRO Compact must be installed at a height so that the blanking distance is not interfered with, even at the maximum fill level. A pipe nozzle can be used if you cannot obtain the blanking distance in any other way or if a nozzle is pre-existing on a tank structure. The interior of the nozzle must be smooth with no edges, welded joints or burrs on the inside of the tank side nozzle end.

Notes

1. Installations require a minimum 3 in / 80 mm diameter (D) and can effectively measure with a maximum 12 in / 300 mm nozzle length (L).
2. The MICRO Compact may not function correctly if the blanking distance is not above the maximum level measured.
3. Best results are achieved with a 45° cut nozzle



MOUNTING RECOMMENDATIONS

