



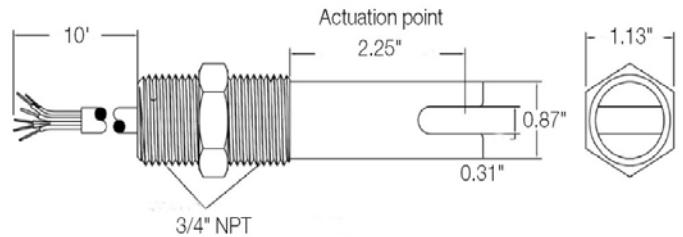
# Series NK-8000 Ultrasonic Level Switch Installation/Operation Instructions

KOBOLD Instruments, Inc. 1801 Parkway View Drive, Pittsburgh PA 15205  
Telephone: (412) 788-2830 · FAX: (412) 788-4890 www.koboldusa.com

## Description

KOBOLD's NK-8000 level switch is a compact, ultrasonic gap switch which is suitable for use with low-viscosity, non-coating liquids. The switch employs an ultrasonic transmitter and receiver within the switch probe.

When the probe is immersed in liquid, the gap fills resulting in the ultrasonic transmitter being acoustically coupled to the receiver. This acoustic coupling is sensed by a detection circuit and results in the activation of the integral SPDT relay.



Note: Actuation points of 6", 12", 18", or 24" available upon request

**WARNING:** This is an electrically operated device and only properly trained personnel should install and maintain this product. Be sure that the power supplied to the sensor is appropriate for the electronics supplied. Electrical wiring should be performed in accordance with any and all applicable national, state and local codes.

## Specifications

### Input Power:

**Voltage:** 5...30 VDC  
**Current:** 100mA Max

**Switching Delay:** ~0.5 Seconds

**Media Temperature:** -20...176°F (212°F optional)

### Output:

SPDT Relay (N/O / N/C)  
**Max Current:** 1 A  
**Max Voltage:** 30 VDC

**Operating Pressure:** 1000 PSIG Max.

**Sensor Material:** 316L Stainless Steel

## Installation

- 1.) In order to ensure a leak-tight seal, a thread sealant such as PTFE tape (or other appropriate thread sealant) should be used on the probe threads prior to installation.
- 2.) Install the NK-8000 through a 3/4" NPT female threaded port. For proper operation, install with the "gap" positioned vertically. This will help eliminate the possibility of trapping air bubbles within the sensor gap.

**NOTE:** The laser etched model number on the fitting hex is indicative of the "gap" location between the forks for alignment purposes. Position this etched flat to either the 12 o'clock or 6 o'clock position when tightening.

- 3.) Connect wiring according to diagram.
- 4.) Apply power and verify proper operation.

