

# Ultrasonic Level Transmitter



measuring  
•  
monitoring  
•  
analyzing

NEO-7



- Measuring Range: 19.6' or 39.3'
- Reflective Technology, Reliable Measurement even with Condensation
- Corrosion Resistant PVDF Transducer
- Narrow 3" Beam Width for Applications with Limited Space
- Fail-safe Diagnostics with Selectable Signal Fail-safe Outputs
- LCD Display Indicates Level in Inches, Meters, or Percent of Span
- Configuration via Push button Display or NEOCal Software
- Automatic Temperature Compensation from -40 to 176 °F



KOBOLD companies worldwide:

ARGENTINA, AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHILE, CHINA, COLOMBIA, CZECH REPUBLIC, EGYPT, FRANCE, GERMANY, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, ROMANIA, SINGAPORE, SPAIN, SWITZERLAND, TAIWAN, THAILAND, TUNISIA, TURKEY, UNITED KINGDOM, USA, VIETNAM

KOBOLD Instruments, Inc.  
1801 Parkway View Drive  
Pittsburgh, PA 15205  
Main Office:  
1.800.998.1020  
1.412.788.4890  
info@koboldusa.com  
www.koboldusa.com



Description

KOBOLD Model NEO-7000 level transmitters provide continuous level measurement up to 39.3' with a 4-20mA analog output signal and can be configured via an integral push button display module or NEOCal software. The proprietary, non-contact Reflective Technology delivers reliable level measurement in condensing environments. It is ideal for bulk tanks with non-foaming or mildly vaporous media such as chemicals, water, waste water and oils. Typical application areas include: bulk storage, neutralization tanks, clarifiers, and waste sumps.

Technical Data

Range

- NEO-7006: 8.0" to 19.6'
NEO-7012: 18.0" to 39.3'

Accuracy: ± 0.2% of Range

Resolution

- NEO-7006: 0.079"
NEO-7012: 0.196"

Dead Band

- NEO-7006: 8.0"
NEO-7012: 18.0"

Beam Width

- NEO-7006: 3.0"
NEO-7012: 6.0"

Configuration: Push Button or NEOCal® P.C. Software Windows USB 2.0

Memory: Non-volatile

Display Type: LCD, 6-digits

Display Units: Inch, Centimeter, or Percent

Supply Voltage: 14-28 VDC

Loop Resistance: 500 Ohms @ 24 VDC

Signal Output: 4-20mA, Two-wire

Signal Invert: 4-20mA or 20-4mA

Signal Fail-safe: 4mA, 20mA, 21mA, 22mA, Hold Last

Process Temperature: -40 to 176 °F (-40 to 80 °C)

Temp. Compensation: Automatic

Ambient Temperature

- NEO-7006: -31 to 140 °F (-30 to 60 °C)
NEO-7012: -40 to 176 °F (-40 to 80 °C)

Technical Data (continued)

Pressure Rating: 30 PSI (2 bar)

Enclosure Rating: Type 6P (IP68)

Enclosure Material

NEO-7006: Polypropylene

NEO-7012: Aluminum

Conduit Entrance: 1/2" NPT

Transducer Type: Reflective

Transducer Material: Polyvinylidene Fluoride

Process Connection

NEO-7006: 2" NPT Male

NEO-7012: 3" NPT Male

Classification

NEO-70xx Versions: General Purpose

NEO-7006-IS Version: Intrinsically Safe

Approval(s)

NEO-70xx: UL 61010-1

NEO-7006-IS (USA): Class I, Div I, A, B, C, & D T4; Class II, Div I, E, F, & G T4; Class III, T135C; Class I, Zone 0, IIC AEx ia T4 Ga; Class II, Zone 20, IIIC AEx ia, T135C, Da

(Canada): Class I, Div I, A, B, C, & D T4; Class II, Div I, E, F, G T4; Class III, T135C

(for IECEx): Ex ia IIC T4 Ga; Ex ia IIIC, T135C Da; Tamb: -40 to 80 °C

Entity Parameters: Upon Request

Compliance: CE, RoHS

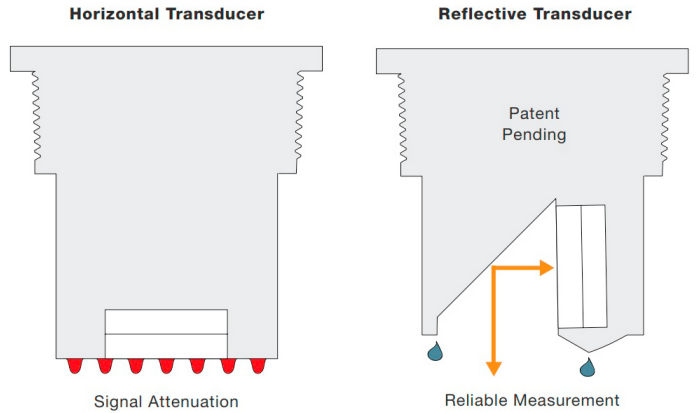
Order Details

Table with 2 columns: Model Number, Description. Rows include NEO-7006, NEO-7006-IS, NEO-7012, Item Number, Accessory, NEO-PFOB.



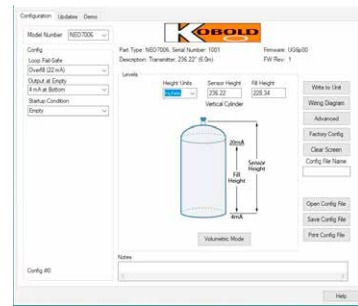
**Reflective Technology**

Condensation is the most common variable in liquid level applications. Condensation attenuates the acoustic signal of ultrasonic sensors with horizontal transducers, weakening their signal strength and signal to noise ratio by up to 50%, substantially reducing their measurement reliability. At the core of Reflective Technology is a simple principle. Unlike flat horizontal surfaces, significant water droplets cannot adhere to smooth vertical surfaces. By orienting the transducer vertically, the condensation runs off the transducer and does not affect the sensor performance. The unimpeded transmit and receive signals are redirected to and from the liquid off a 45° reflector, delivering reliable level measurement.



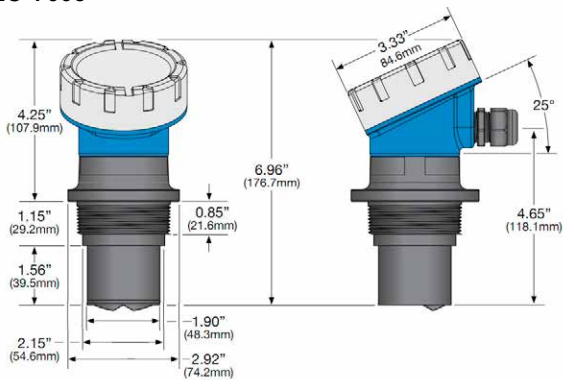
**Configuration**

In addition to the push button display module, the sensor may be configured via our NEOCal software and one Fob USB adapter. NEOCal is a PC utility program that allows users to easily configure their sensors, update firmware, save configurations, and print wiring schematics prior to installation.

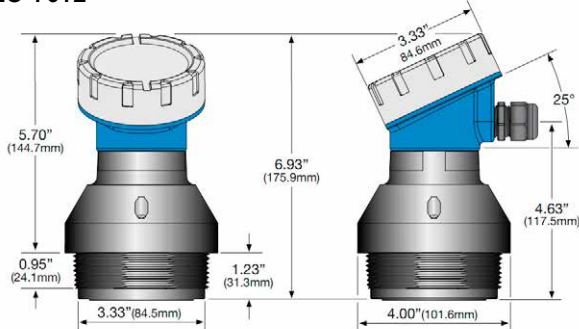


**Dimensions**

**NEO-7006**



**NEO-7012**



**NEO-7006-IS**

