

Instrumentation designed
with the user in mind.

ULTRASONIC LEVEL TRANSMITTERS

for
LIQUIDS

- ◆ Breweries
- ◆ Chemicals
- ◆ Food Processing
- ◆ Pharmaceuticals
- ◆ Power Plants
- ◆ Pulp & Paper
- ◆ Water & Wastewater

ADVANTAGES

- Intrinsically Safe - Agency Approved*
- Narrow Beam Angle ($\pm 2.5^\circ$ from center axis)
- 4 to 20 mA output (optional HART protocol)
- Open channel flow characterization
- Vessel volume conversion
- 32-point linearization
- Full temperature compensation
- Fixed target suppression
- Simple push-button programming
- Operating modes:

Basic: Simple start up and 4/20 mA programming without Display Module option.

Sophisticated: Using the Display Module which includes a 6 digit custom LCD display, the operator can choose between a menu driven QUICKSET and full parameter programming.

Narrow Beam Technology



The -6 & -8 versions of Princo's **SmartSonic™ L4660-SE/SG-300** series are **SMART Intrinsically Safe TWO-WIRE** ultrasonic level transmitters that incorporate unique narrow beam technology.

SmartSonic™ compact transmitters include field proven innovative advanced, process adaptive signal processing software to identify and validate the surface signal.

Princo's SmartSonic™ utilizing innovative patented technology, is the best ultrasonic level measurement system on the market today.

The only

10 Year Warranty

The longest in the industry!

ATEX II IG EEx ia IIB T6* 

* Unit Approved as Nivelco Model # EchoTREK S__-__-Ex

Specifications

Intrinsically Safe Two-Wire SmartSonic

Models Available

Range	Model Designation
10" to 20 feet	xxx-38
14" to 26 feet	xxx-37

Accuracy * \pm 0.2% of the measured distance plus 0.05% of the range

Resolution (Dependent upon measured distance)

< 80 inches:	0.04 inches
80...198 inches:	0.08 inches
16.4... 26 feet:	0.2 inches

Dead Band

10" (20' range); 14" (26' range)

Output:

Analog:	4 ...20 mA
Digital:	HART protocol (optional)

Loop power test connectors:

ammeter plug-in, 200 mV, 0.5%

Display: 6 digits, icons and bargraph

(SAP-200 display module only)

Intrinsic Safety Approval¹:

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Based on the following maximum values:

$$U_i = 30 \text{ V}; I_i = 140 \text{ mA}; P_i = 1.0 \text{ W}$$

$$C_i = 15 \text{ nF}; L_i = 0.2 \text{ mH}$$

Power supply

12 ...36 VDC / 48 mW ...720 mW
Electrically isolated
Transient & surge protected

Transducer material

Kynar (PVDF)
Teflon (PTFE) optional

Housing material

Aluminium: Powder paint coated

Process temperature

-4 °F ... +176 °F PVDF
-22 °F ... +194 °F PTFE

Ambient temperature

-22 °F ... +158 °F
-13 °F ... +140 °F with SAP-200

Pressure (Absolute)

0.5** ... 3 bar (0.05 ... 0.3 MPa)

Seals material

FPM (Viton)

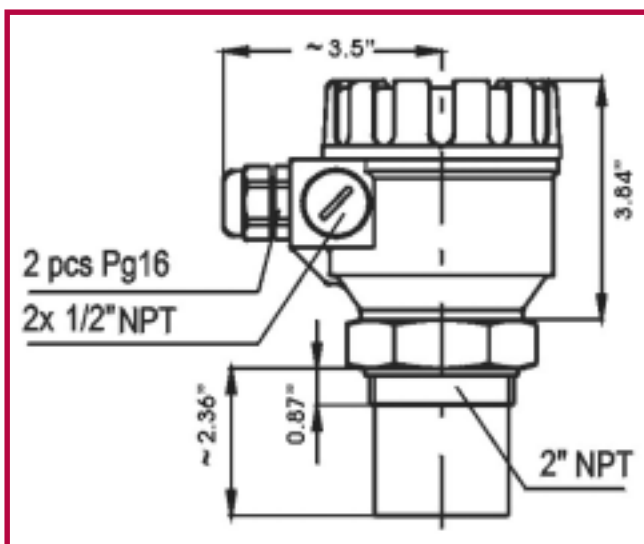
Enclosure:

Sensor: NEMA 6
Housing: NEMA 4X

* Under optimal reflection conditions and stabilized transducer temperature.

** At pressures under 1 bar absolute, consult Princo.

¹ Unit Approved as Nivelco Model # EchoTREK S...-...-Ex



10-YEAR WARRANTY

All PRINCO level control instruments are backed by a 10-year warranty. PRINCO will repair or replace, at our option, any instrument that fails under normal use for up to 10 years after purchase.



PRINCO

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Revised 2-7-08