



# Electronic Sensors, Inc.

## Model 505 Two-Wire Ultrasonic Transmitter

### DESCRIPTION & OPERATION

The 505-2400 Series Continuous ultrasonic level transmitter provides superior performance previously not available in a two-wire ultrasonic transmitter with a range of up to 30 feet. The compact transducer design allows mounting in any 2-inch nozzle. It also allows for a recessed nozzle mounting, enabling the user to measure from the very top of the tank. The automatic profiling (tank

mapping) eliminates interfering signals from agitators and other obstructions in the vessel without the need to empty the vessel. The level measurement output is a 4-20 mA current signal.

Ideal for use in Explosion-hazard areas, you can configure the unit using the integral switches, without power, at the vessel or in the shop. Unit can be set up before placing it in a hazardous area.

### SPECIFICATIONS

**Full Scale Measurement Range**  
1-30 ft.

**Accuracy**  
±0.5 % of F.S. Range

**Temperature Range**  
Electronics: -40° F to 160° F  
Sensor: -40° F to 160° F for CPVC  
-40° F to 200° F for PFA

**Temperature Compensation**  
Built-in, Automatic

**Power Requirement**  
Minimum supply voltage is 19 volts at 4 mA.  
Load resistance =  $(V_{\text{supply}} - 12.0) / .02$

**Output Signal**  
4 – 20 mA<sub>dc</sub> (isolated)

**Sensor Material**  
CPVC - standard.  
(Chlorinated polyvinyl chloride)  
PFA/316 SS - optional  
(Perfluoroalkoxy copolymer resin)

**Pressure**  
-10 to +50 PSIG

**Minimum Span**  
10% of maximum range

**Repeatability**  
0.125 inch

**Resolution**  
0.125 inch

**Signal Damping**  
0-90 seconds  
(field selectable)

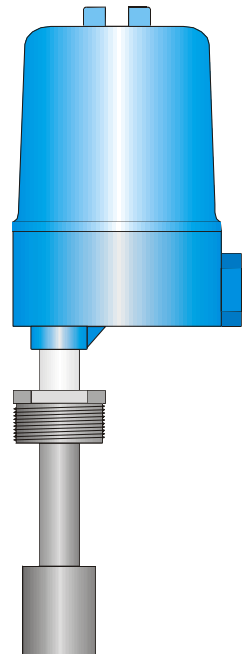
**Output Mode**  
Height (level) or distance  
(field selectable)

**Response Time**  
2 seconds

**Repeat Rate**  
4 times per second (factory set)

**Electrical Enclosure**  
NEMA 4X (ip-65) Cast Aluminum,  
Explosion proof, standard.

**Warranty**  
1 year



**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

**Electronic Sensors, Inc.**

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Rev. 07/05

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**Level Devil**  
Bulk Inventory Management Solutions

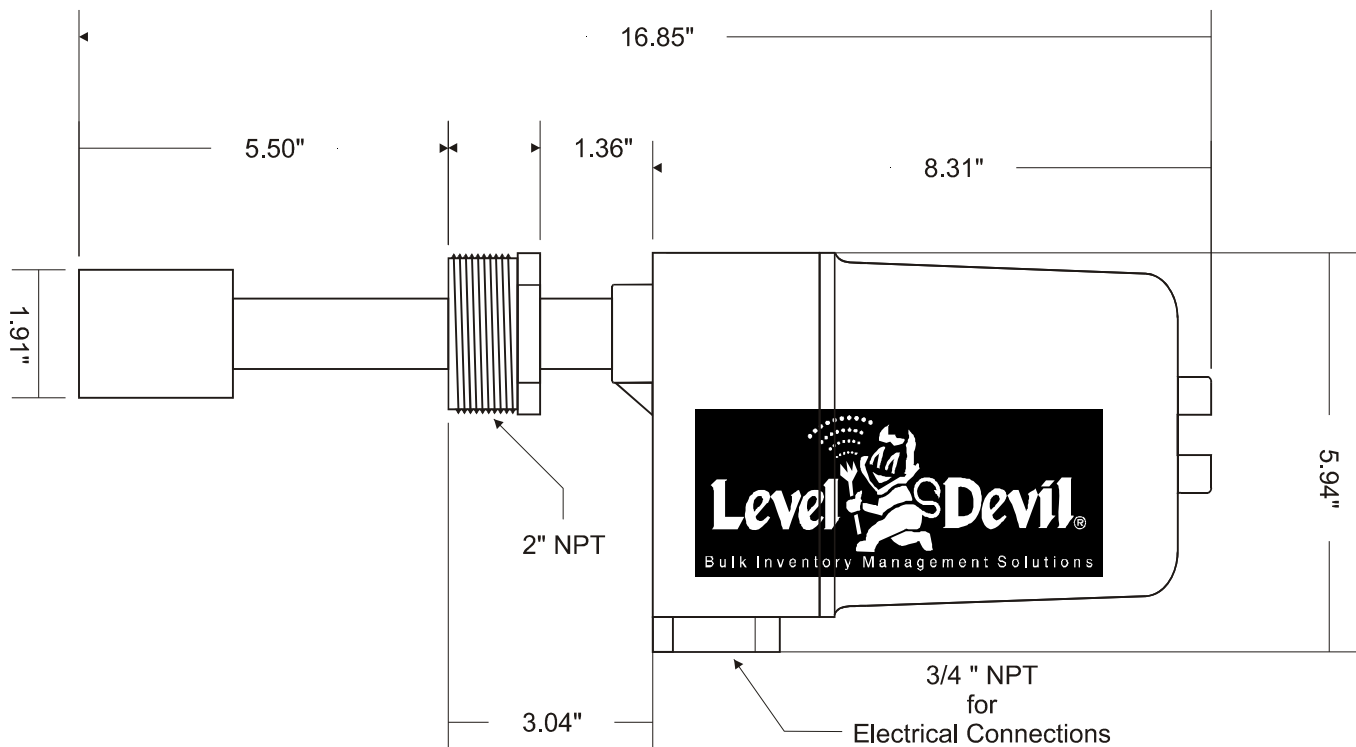
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## ORDERING INFORMATION

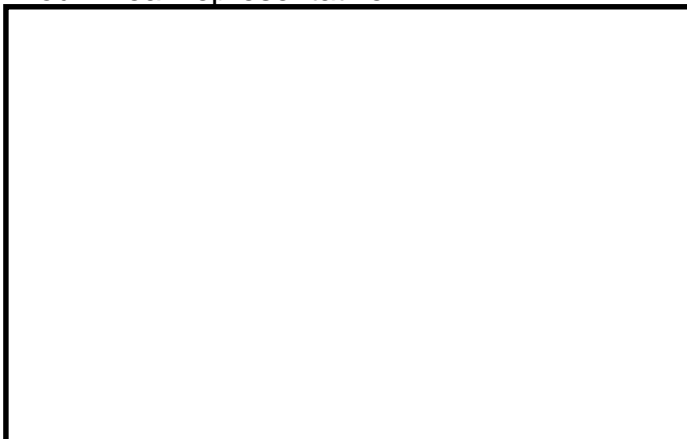
505-2400-002 CPVC -40° F to 160° F Transducer Temperature Range

505-2400-006 PFA -40° F to 200° F Transducer Temperature Range

## OUTLINE DRAWING



Your Area Representative:



### **Electronic Sensors, Inc.**

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