

# **HiTECH**

Technologies, Inc.

## **SONOMETER 30**

### ***Penetrating Pulse Technology***

**provides through the wall measurement  
of liquid levels**

Model SM-30

**IDEAL for**

- ◆ **Biotech**
- ◆ **Chemicals**
- ◆ **Electric Power**
- ◆ **Food & Beverages**
- ◆ **Liquefied Gases**
- ◆ **Hydrocarbons**
- ◆ **Interface & Crystallization**
- ◆ **Pharmaceuticals**
- ◆ **Pure water**

**Functions with:**

Corrosive, Toxic, Purified, Aggressive Liquids.

**External transducer:**

Hygienic, Maintenance free, Non-Hazardous.

**Unaffected by:**

All vapors or changes in vapor concentrations.

Foam and surface foaming.

Pressure and pressure variations.

**Installation:**

Easy to install no welding required.



This revolutionary level system was developed and field proven in Europe. Now available in the USA, exclusively from **HiTECH**, this proprietary approach that we call “**penetrating pulse technology**”, enables “**Through the Wall**” level measurement.

The fundamental measurement principle is easy to understand. The sensor emits a brief penetrating acoustic pulse. This pulse is transmitted through the bottom of the vessel into the liquid. The pulse is then reflected back to the sensor from the liquid surface. From the time required for the pulse to travel to the liquid surface and back, the actual level is computed.

Materials measured may be highly toxic, abrasive, or corrosive, and/or contained in a sealed or pressurized vessel even at high temperatures. Additionally, concerns related to contamination, vessel integrity, internal obstructions, or sensor wear are eliminated.

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## SPECIFICATIONS

### Type

Penetrating Pulse Technology continuous level measurement

### Operating Range

Application dependent up to 65 feet

### Accuracy

Application dependent. With compensating transducer 0.04" 1 mm

### Sensitivity

Application dependent

### Response Time

Programmable from 10 mseconds

### Dead Band

Application dependent  
Standard 2" (54 mm)

### Output Signal

0/4...20 mA, isolated  
direct or reverse action  
user calibration functions

**NOTE:** Parameters are set with the keyboard and integrated display or via the serial interface.

### Loop Resistance

500 Ohms.

### Operating Temperature

Electronics -4- 158°F  
Transducer Housing -20 - 176°F  
Vessel Surface Max = 275°F

### Maximum Wall Thickness

2.0" metal, glass, fiberglass,  
or plastic with or without lining.

### Power Requirements

19 ... 30 VAC/DC  
500 mA

### Electrical Connection

Screw terminal connections.

### Housing

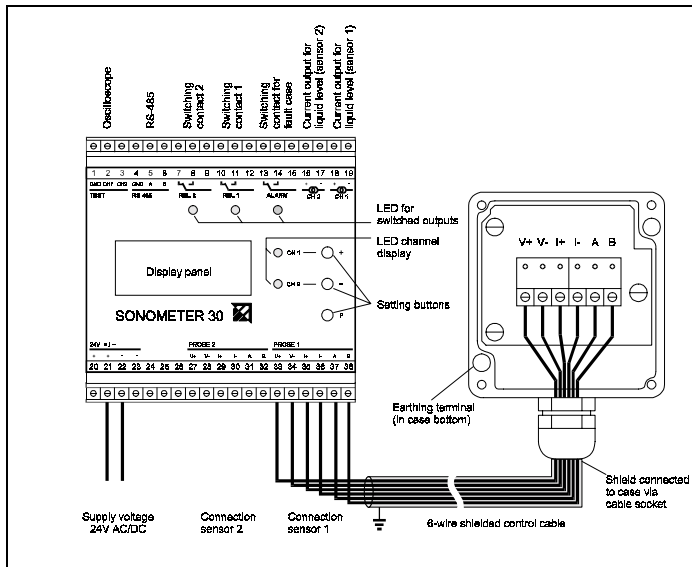
Rating: NEMA 4, Opt. NEMA 4X  
Mounting: DIN Rail

### Materials of Construction

Electronics: Polycarbonate  
(3.94" x 2.96" x 3.94")  
Transducer: 316 SS TI/KYNAR  
(Appl. dependent)

### Approvals

PTB EEx m II T6  
CE



## PERFORMANCE GUARANTEE

Since 1986, every instrument sold by **HiTECH** has been guaranteed to perform in the application it originally was engineered and recommended for. Our company policy remains the same, every product sold comes with a written performance guarantee.

Should the equipment be unable to perform satisfactorily in your application and we are not able to correct the problem, we will accept the instrument in return and issue full credit. This performance guarantee is valid for 60 days. Thereafter, our standard limited two years factory warranty goes into effect.