

## 7230 Digital Probe

The 7230 Series HT Digital Probe is a new magnetostrictive level measurement system from BW Controls™ for high temperature applications in the oil and gas industry including pipeline tanks and oil and water separators.

The level sensor provides a multi-variable output that includes level, interface and temperature data that only requires one process connection. The 7230 does not need to be calibrated when installed, or re-calibrated when the liquid in the tank changes. It is easy to install, requires minimal maintenance, and has an impressive accuracy of 0.01% of measured span. The 7230 has an explosion proof certification for Class 1, Div. 1, Group A, B, C, and D hazardous areas.

There are two communication protocols available. The 7231 with Modbus RTU is the standard protocol. The 7235 comes with a proprietary, ASCII protocol and is recommended for OEM applications. An optional Analog interface is also available.

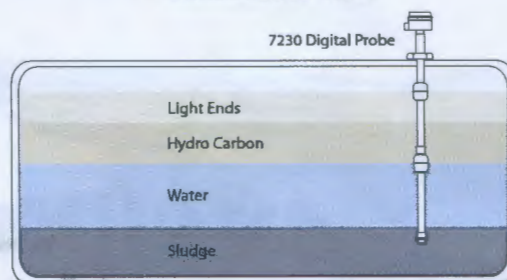
What is impressive about this instrument is that the measurements are completely independent of changes in the process material's electrical characteristics and densities. Hydrocarbon based condensates have a predictable range of specific gravity that are well within the range of the standard floats, which means that variations in hydrocarbon make up will not cause level measurement errors.

In addition, the measurements are not affected by vapors, stratification, or temperature changes. This makes the 7230 Series probe ideal for applications where liquids with different physical characteristics are mixed in one tank such as condensate and separator tanks.

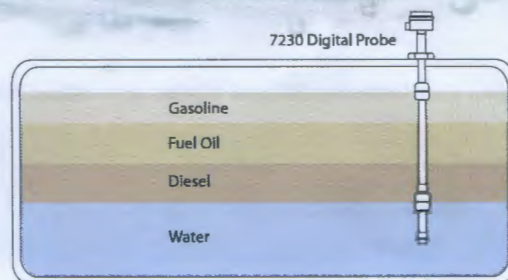
### 7230 Series HT Digital Probe Features

- No calibration or re-calibration required
- Multi-variable output, level, interface and 1 or 5 temperatures
- Modbus RTU standard communication protocol
- Accuracy of 0.01% of measured span
- Temperature range up to 257°F
- Easy to install, minimal maintenance required
- FM approval for Class 1, Div. 1, Group A, B, C, and D hazardous areas

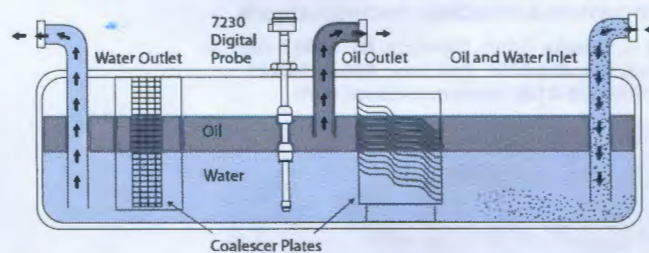
### Condensate Tank



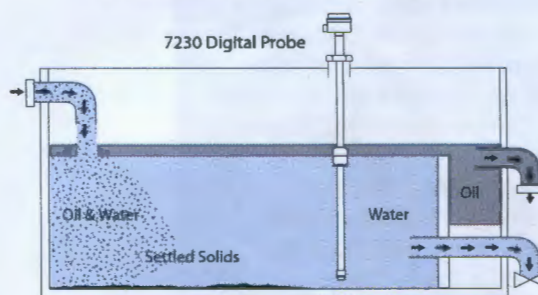
### Trans-Mix Tank



### Coalescing Oil and Water Separator



### Conventional Oil-Water Separator





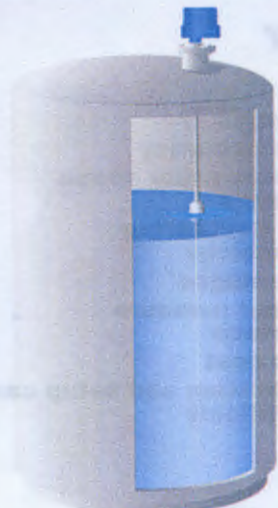
## Floats



- **Advantages**
  - Unlimited tank height
  - Gas suitable high accuracy
  - Low cost if not remote reading
- **Disadvantages**
  - Floating parts exposed to fluids
  - Limited pressure rating
  - Not very good in corrosive services
  - Not suitable for crystalline
  - High maintenance

Pressure	Point Level	Continuous	Liquids	Granulars	Slurries	Interface
Accuracy	Point Level	Continuous	Liquids	Granulars	Slurries	Interface
Service	Point Level	Continuous	Liquids	Granulars	Slurries	Interface

## Magnetostrictive

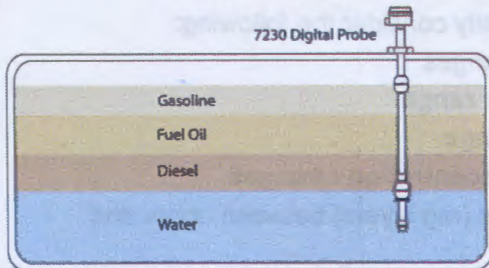


- **Advantages**
  - **Requires no calibration**
  - **Very High Accuracy**
  - **Suitable for most liquids**
  - **Multivariable measurement includes temperature and interface**
- **Disadvantages**
  - **Not suited for slurries or highly viscous liquid**
  - **Agitation and turbulence**

<input checked="" type="checkbox"/> Always Effective	<b>Point Level</b>	<b>Liquids</b>	Granulars	Slurries	Interface
<input type="checkbox"/> Sometimes Effective	Continuous	Liquids	Granulars	Slurries	Interface
<input type="checkbox"/> Never Effective	Continuous	Liquids	Granulars	Slurries	Interface

## Pipeline and Well Head Applications

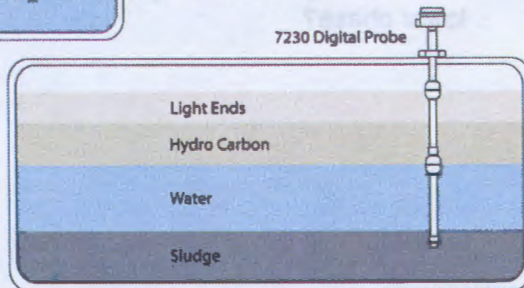
### Trans-Mix Tank



### Petroleum

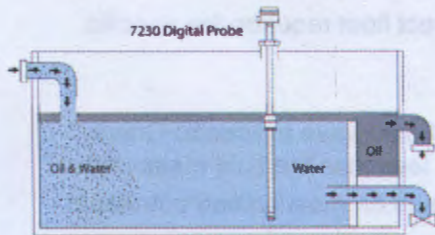
### Natural Gas

### Condensate Tank



## Oil Water Separators

### Conventional Oil-Water Separator



### Coalescing Oil and Water Separator

