Drexelbrook’s Interface transmitter can accurately measure the hydrocarbon/water (BS&W) interface location at the bottom of fuel storage tanks.

Drexelbrook’s RF/Admittance level transmitter can be used to provide water level information to a fuel management inventory system so that net gallons of Petroleum can be computed accurately. It can also be used for leak detection, where any unscheduled decrease in water level indicates a leak in the tank bottom. The signal can also be used to control automatic water draw-off.

For installation convenience, the intrinsically-safe sensing element can be mounted through a side wall of the tank or through the roof. The specific model and measuring area (active length) of the sensing element should be specified to be consistent with the expected maximum height of the water level, mounting considerations and mounting tolerances.

Final calibration can be done quickly and accurately after installation with a known water level.

Measurement Independent of Changing Densities
System accuracy is not affected by changes in temperature, density, or variations in oil level.

Get Right to the Bottom of the Tank
Minimal dead space allows the operator to read the water level within one inch of the tank bottom. If the sensing element is located in a sump there is no dead space.

Mounting Flexibility
Sensing element may be top mounted or side mounted.

No Routine Maintenance
No moving parts to corrode, break down or wear out.

Supplied with Calibration Details for Bench Calibration
Final calibration can be done quickly and accurately after installation with a known water level.

TM: Tradename of AMETEK Drexelbrook.
## Transmitter Characteristics

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounted thru Hot Tap*</td>
<td>509-56-724 509-76-724 508-46-24</td>
<td>200psi @ 150°F (13.8 bar @ 65°C)</td>
<td>CS, 316SS, FEP</td>
<td>.56-inch (14) O.D. FEP insulated rod † Max. active 4 ft. (1.2M) 26-inch (660) active standard</td>
<td>0-10 in. (254) 0-18 in. (457) 0-26 in. (660) 0-35 in. (889)</td>
</tr>
<tr>
<td>Top of Tank</td>
<td>509-56-722 509-76-722 508-46-722</td>
<td>Atmospheric @ 150°F(65°C)</td>
<td>316SS, PVC, FEP</td>
<td>PVC covered cable with .56-inch (14) O.D. insulated rod 75 ft. (22.9M) adjustable cable, 5 ft. (1.5M) active rod standard</td>
<td>0-60 inches (1524)</td>
</tr>
<tr>
<td>At Bottom of Standpipe</td>
<td>509-56-723 509-76-723 508-46-723</td>
<td>200psi @ 150°F (13.8 bar @ 65°C)</td>
<td>CS, FEP</td>
<td>56 (14) O.D. FEP insulated rod Max. length 10 ft. (3M)</td>
<td>0-60 inches (1524)</td>
</tr>
</tbody>
</table>

* 285-1-211 Hot Tap Kit required.  ** See Transmitter Specification; Output on Pg. 3. Consult Factory for Flexible Sensing Element that can be anchored to vessel bottom. †Consult Factory for longer lengths. All dimensions in inches (mm) unless noted.

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### Most Common Sensing Element Installation Methods

#### Hot Tap Side Mount

- **Installed Length:** Range = 1.4 + 38 inches (97 mm)
- **Extended Length:** Range = 2.8 + 53 inches (135 mm)

![Hot Tap Side Mount Diagram](image)

- **To remote electronic unit**
- **Adjustment to fit tank height.**
- **Active Length:** 60 inch (1.5 mm)
- **Active Length Diameter:** 0.56 inch (14 mm)
- **Sensing element largest point:** 0.85 (22 mm)
- **Sensing element designed to fit on tank bottom**

**700-5-96**

- **In Tank Flexible portion up to 70 feet (21.3M) is Field Adjustable.**
- **Span:** 0-60 inches (1.5M).
- **See 700-5-96-CD for Details.**
### Transmitter Specifications:

<table>
<thead>
<tr>
<th>Output</th>
<th>Honeywell Protocol</th>
<th>HART Protocol</th>
<th>2-wire Analog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmitter Series</td>
<td>509-56</td>
<td>509-76</td>
<td>508-46</td>
</tr>
<tr>
<td>Minimum Span</td>
<td>6 inches</td>
<td>6 inches</td>
<td>6 inches</td>
</tr>
<tr>
<td>Electronic Unit</td>
<td>Integral / Remote</td>
<td>Integral / Remote</td>
<td>Integral / Remote</td>
</tr>
<tr>
<td>Output Isolation Voltage Breakdown:</td>
<td>4000V</td>
<td>4000V</td>
<td>4000V</td>
</tr>
<tr>
<td>Supply Voltage Effect (per 40vdc change)</td>
<td>± 0.1% of full scale</td>
<td>± 0.1% of full scale</td>
<td>± 0.2% of full scale</td>
</tr>
<tr>
<td>Minimum Operating Voltage (at 20mA)</td>
<td>13vdc at transmitter</td>
<td>13vdc at transmitter</td>
<td>11.5vdc at transmitter</td>
</tr>
<tr>
<td>Maximum Load Resistance at 24vdc</td>
<td>600 ohms</td>
<td>600 ohms</td>
<td>625 ohms</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 1% of full scale</td>
<td>± 1% of full scale</td>
<td>± 1% of full scale</td>
</tr>
<tr>
<td>Ambient Temperature Limits</td>
<td>-40°F to +185°F (-40°C to +85°C)</td>
<td>-40°F to +185°F (-40°C to +85°C)</td>
<td>-40°F to +185°F (-40°C to +85°C)</td>
</tr>
<tr>
<td>Ambient Temperature Effects</td>
<td>±0.1% per 50°F (28°C)</td>
<td>±0.1% per 50°F (28°C)</td>
<td>±0.25% per 30°F (17°C)</td>
</tr>
<tr>
<td>Linearity</td>
<td>±0.25%</td>
<td>±0.25%</td>
<td>±0.25%</td>
</tr>
<tr>
<td>Response Time</td>
<td>less than 2 seconds</td>
<td>less than 2 seconds</td>
<td>20 milliseconds</td>
</tr>
</tbody>
</table>

- **Electronic Housings**: available to meet Nema 4X and Nema 7 requirements.
- **Intrinsically Safe Sensing Element and Cable**: Safe for Class I, Groups A, B, C, D, and Class II Groups E, F, G (Div. 1 and 2), and Exia IIC Zone 0.
- **Electronics and Signal Wires**: Intrinsically safe for Class 1, Div.1 Groups C and D when used with approved barriers. Also non-incendive for Class 1, Div.2 Groups A, B, C, D, and Exia IIC Zone 1, when powered from an intrinsically safe power source.
- **Approvals** Consult Factory for Specific Approvals. FM, CSA, CENELEC (Kema), SAA, plus others available.

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![Stilling Well](image)

**Fixed Roof Tanks**

**Floating Roof Tanks**

**Internal Floating Roof Tanks**

**Transmitters Available for Any Vessel Configuration**

**With Side or Top Mounted Sensing Elements**
Guaranteed Performance

Because of our conviction that Drexelbrook level instrumentation will handle even the most difficult problems, we offer our products on a guaranteed-performance basis.

If the Drexelbrook instrument does not perform according to our quotation, we will accept its return for full credit within a specified period after delivery.

This guarantee is subject to our inspection at the job site and the condition that Drexelbrook be given a reasonable amount of time in which to correct any problems, with the customer’s cooperation in effecting such changes.

To purchase a Drexelbrook product with this guarantee, we ask only that you describe the application as completely as possible using our standard quotation request form. With the information you provide, plus any supplementary data we consider important, we will quote on a guaranteed-performance basis and provide you with a written customer satisfaction guarantee.