Water Level Sensors are used in a wide array of applications, in many natural and industrial environments, including streams, watersheds, wells, caves, water/wastewater treatment plants, aquaculture operations, landfills, and processing plants. Each sensor provides research-grade accuracy and reliability.

### MAJOR SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Measurement Range</th>
<th>Accuracy</th>
<th>Current Drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS451</td>
<td>Pressure Transducer/ Temperature Probe</td>
<td>0 to 2.9 psig, 0 to 7.25 psig, 0 to 14.5 psig, 0 to 29.0 psig, 0 to 72.5 psig, 0 to 145 psig</td>
<td>±0.1%, ±0.05%</td>
<td>Quiescent: &lt;50 µA Measurement/ Communication: 8 mA (1 s measurement) Maximum: 40 mA</td>
</tr>
<tr>
<td>CS456</td>
<td>Pressure Transducer/ Temperature Probe</td>
<td>0 to 2.9 psig, 0 to 7.25 psig, 0 to 14.5 psig, 0 to 29.0 psig, 0 to 72.5 psig, 0 to 145 psig</td>
<td>±0.1%, ±0.05%</td>
<td>Quiescent: &lt;50 µA Measurement/ Communication: 8 mA (1 s measurement) Maximum: 40 mA</td>
</tr>
<tr>
<td>CRS451</td>
<td>Water-Level Recording Sensor</td>
<td>0 to 7.25 psig, 0 to 14.5 psig, 0 to 29.0 psig, 0 to 145 psig</td>
<td>±0.1%</td>
<td>Quiescent: &lt;80 µA Measurement/ Communication: 4 mA (1 s measurement)</td>
</tr>
<tr>
<td>CRS456</td>
<td>Water-Level Recording Sensor</td>
<td>0 to 7.25 psig, 0 to 14.5 psig, 0 to 29.0 psig, 0 to 145 psig</td>
<td>±0.1%</td>
<td>Quiescent: &lt;80 µA Measurement/ Communication: 4 mA (1 s measurement)</td>
</tr>
<tr>
<td>CRS451V</td>
<td>Water-Level Recording Sensor</td>
<td>0 to 7.25 psig, 0 to 14.5 psig, 0 to 29.0 psig, 0 to 145 psig</td>
<td>±0.1%</td>
<td>Quiescent: &lt;80 µA Measurement/ Communication: 4 mA (1 s measurement)</td>
</tr>
<tr>
<td>CRS456V</td>
<td>Water-Level Recording Sensor</td>
<td>0 to 7.25 psig, 0 to 14.5 psig, 0 to 29.0 psig, 0 to 145 psig</td>
<td>±0.1%</td>
<td>Quiescent: &lt;80 µA Measurement/ Communication: 4 mA (1 s measurement)</td>
</tr>
</tbody>
</table>
### Output

| CS475A | Radar-Ranging Sensor  
For water level measurements | Output | Measurement Range | Accuracy | Current Drain |
|--------|------------------------|--------|-------------------|----------|---------------|
|        | SDI-12                 | 0.5 to 35 m  
(1.64 to 114.8 ft) | ±2 mm  
(±0.0065 ft) | < 500 μA  
(sleep, low power mode) |< 5 mA  
(sleep, normal power mode) |< 7 mA  
(measurement state) |

| SR50A | Sonic Ranging Sensor  
For water level measurements | Output | Measurement Range | Accuracy | Current Drain |
|--------|------------------------|--------|-------------------|----------|---------------|
|        | SDI-12, RS-232, RS-485 | 1.6 to 32.8 ft  
(0.5 to 10 m) | ±1 cm (0.4 in.) or 0.4%  
of distance to target  
(whichever is greatest); requires external temperature compensation | Active (typical): 250 mA  
Quiescent SDI-12 Mode: < 1.0 mA  
Quiescent RS-232/RS-485 Modes: <1.25 mA  
(≤9600 bps) <2.0 mA  
(>9600 bps) |

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*The 0 to 2.9 psig range is not available for the high-accuracy option for the CS451 and CS456 pressure transducers.*

*The CS475A is FCC approved for outdoor use (FCC IC number M01PULS616263); individual FCC license not required.*