**YSI IQ SensorNet VisoTurb®**

**Total Suspended Solids & Turbidity Sensor**

The VisoTurb is an optical based turbidity or TSS (total suspended solids) sensor for the IQ SensorNet process monitoring and control system. At the effluent of a wastewater treatment plant, turbidity is a quantitative measure of any remaining undissolved solids that can help indicate problems during the treatment process. Turbidity can be measured relatively simply online with optical methodology. This is why turbidity is extremely suitable for measuring the cleaning efficiency of wastewater treatment plants.

- **Factory Calibration**
  The VisoTurb sensors are precisely calibrated with a multi-point factory calibration. The calibration is extremely stable and there is no need to calibrate on-site. A matrix adjustment is possible as needed.

- **UltraClean™ Ultrasonic Cleaning**
  The ultrasound source is integrated in the sensor and generates high-frequency vibrations of the optical windows. Ultrasonic cleaning prevents biofouling resulting in maintenance free operation with accurate measurements everytime.

- **Measurement Principle**
  Utilizes nephelometric measurement technology in accordance with EN ISO 7027 (DIN EN 27027 or ISO 7027). Sample discoloration does not affect measurements.

- **2-year Warranty**

**Parameters:**
- Total Suspended Solids
- Turbidity

A VisoTurb sensor with UltraClean technology remains clean after a 30-day deployment.

Watch the UltraClean™ technology cleaning in action:

bit.ly/IQclean

YSI.com/VisoTurb
IQ SensorNet VisoTurb TSS & Turbidity Sensor General Specifications

**Calibration Capability**  
Factory calibrated; user calibration available

**Typical Applications**  
VisoTurb® 700 IQ: Water & Wastewater applications  
VisoTurb® 700 IQ SW: Seawater, Brackish Water, Aquaculture

**Cleaning System**  
UltraClean™ ultrasonic clean technology; Non-mechanical

**Signal Output**  
Digital

**Lightning Protection**  
Yes; when used with IQ SensorNet components

**SensCheck**  
Detects optic contamination or failure of cleaning system for early malfunction detection

**Power Consumption**  
1.5 watts

**Maximum Pressure**  
10 bars (145 psi); with sensor connection cable

**Electrical Connections**  
2-wire shield cable with quick sensor connection

**Process Variation Coefficient**  
According to DIN 38402 part 51: <1% (up to 2000 FNU)

**Repeatability**  
According to DIN ISO 5725 or DIN 1319: <0.015% or ≥0.006 FNU

**Sensor**

- **Material:** Housing - V4A stainless steel 1.4571 (SW version Titanium, POM (Polyoxmethylene)); Sapphire window
- **Rating:** IP68; waterproof
- **Dimensions:** 365 L x 40 D mm (14.37 L x 1.57 D in); 365 L x 59.5 D mm (14.37 L x 2.34 D in) (length x diameter)
- **Weight:** 990 g (2.18 lbs); 1420 g (3.13 lbs)
- **Warranty:** 2 years

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**IQ SensorNet VisoTurb TSS & Turbidity Sensor Technical Specifications**

**TSS Range**

- Concentration: 0 to 0.400 mg/L; 0 to 4.00 mg/L; 0 to 40.0 mg/L; 0 to 400 mg/L; 0 to 4.00 g/L; 0 to 40.0 g/L; 0 to 400 g/L

**TSS Resolution**

- Auto-Ranging: 0.001 mg/L to 1 g/L

**FNUs, NTUs, TEF**

- Concentration: 0 to 0.400; 0 to 4.00; 0 to 40.0; 0 to 400; 0 to 4000
- Resolution: Auto-Ranging: 0.001 to 1

**Temperature**

- Operating: 32 to 140 °F (0 to 60 °C)
- Storage: 23 to 149 °F (-5 to 65 °C)

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**IQ SensorNet VisoTurb TSS & Turbidity Sensor Ordering Information**

<table>
<thead>
<tr>
<th>Name</th>
<th>Item #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VisoTurb 700 IQ</td>
<td>600 010Y</td>
<td>Digital turbidity sensor with UltraClean™ cleaning for the IQ system ideal for water, wastewater, sludge applications</td>
</tr>
<tr>
<td>VisoTurb 700 IQ SW</td>
<td>600 011Y</td>
<td>Digital turbidity sensor with UltraClean™ cleaning for the IQ system ideal for industrial or corrosive applications</td>
</tr>
<tr>
<td>SACIQ-1.5</td>
<td>480 040Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 4.9 ft (1.5 m)</td>
</tr>
<tr>
<td>SACIQ-7.0</td>
<td>480 042Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 23 ft (7 m)</td>
</tr>
<tr>
<td>SACIQ-15.0</td>
<td>480 044Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 49 ft (15 m)</td>
</tr>
<tr>
<td>SACIQ-50</td>
<td>480 041VY</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length special order up to 330 ft (100 m)</td>
</tr>
<tr>
<td>SACIQ-20.0 SW</td>
<td>480 045Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 65 ft (20 m) with screwable SACIQ-Plug</td>
</tr>
<tr>
<td>SACIQ-25.0 SW</td>
<td>480 066Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 82 ft (25 m) with screwable SACIQ-Plug</td>
</tr>
<tr>
<td>SACIQ-50.0 SW</td>
<td>480 060Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 162 ft (50 m) with screwable SACIQ-Plug</td>
</tr>
<tr>
<td>SACIQ-75.0 SW</td>
<td>480 067Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 243 ft (75 m) with screwable SACIQ-Plug</td>
</tr>
<tr>
<td>SACIQ-100.0 SW</td>
<td>480 062Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length 330 ft (100 m) with screwable SACIQ-Plug</td>
</tr>
<tr>
<td>SACIQ-50 SW</td>
<td>480 064Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length special order up to 330 ft (100 m) with screwable SACIQ-Plug</td>
</tr>
<tr>
<td>SACIQ-Plug</td>
<td>480 065Y</td>
<td>Screwable plug for all SACIQ sensor cables for IO sensors</td>
</tr>
</tbody>
</table>

Visit YSI.com/IQ for additional information on the entire IQ SensorNet system.

YSI
1725 Brannum Lane, Yellow Springs, OH 45387
Tel +1 937.767.7241  800.897.4151 (US)
info@ysi.com
YSI.com
@YSIinc

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