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
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) / SW version, 365 L x 59.5 D mm (14.37 L x 2.34 D in)
(Length x Diameter)
Weight: 990 g (2.18 lbs) / SW version, 1420 g (3.13 lbs)
Warranty: 2 years

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 4000 mg/L

TSS Resolution
Auto-Ranging
0.001 mg/L to 1 g/L

FNU, NTU, TEF Range
Concentration
0 to 0.400; 0 to 4.00; 0 to 40.0; 0 to 400; 0 to 4000

FNU, NTU, TEF 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)

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 7 ft (2 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 15 ft (4.5 m)</td>
</tr>
<tr>
<td>SACIQ-50.0</td>
<td>480 041Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length special order up to 150 ft (45 m)</td>
</tr>
<tr>
<td>SACIQ-20.0 SW</td>
<td>480 055Y</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 065Y</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 065Y</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-150.0 SW</td>
<td>480 064Y</td>
<td>Sensor cable for all IQ SensorNet sensors, IP-68 waterproof connection; cable length special order up to 150 ft (45 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 IQ sensors</td>
</tr>
</tbody>
</table>

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

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