TURTLE TOUGH®

The Smart Digital Suspended Solids Sensor with auto clean and dual IR beam combines smart sensor technology with industry leading optical measurement.

Suspended Solids Sensor - Smart Digital, Auto-Clean & Dual IR Beam

The Turtle Tough Smart Digital Suspended Solids Sensor with auto clean technology and dual IR beam is the state of the art when it comes to combining Smart sensor technology with industry-leading optical measurement

Features

- Dual IR Beam (90° + 135°) for high measurement accuracy < ±2%
- Smart Sensor Technology directly integrates with your industrial network or with Turtle Tough Smart Analysers
- High-quality materials and superior construction for industrial applications.
- Highly stable near-monochromatic infrared light source avoids the interference of chroma in liquid and external visible light influence
- Built-in luminosity compensation provides improved measurement accuracy
- High-quality quartz lens improves the optical transmittance allowing for superior transmission and absorption of infrared wavelengths
- TSS range: 0.1~50000 mg/L*
- High stability, high precision and excellent repeatability (±2%)
- Communication: MODBUS RTU (RS-485) and 4 to 20mA output

Suspended Solids Sensor - Smart Digital, Auto-Clean & Dual IR Beam

Few sensors can boast the versatility, low maintenance and industrial strength that the TT-SS-DSS-7833D-SC turbidity sensor has to offer. The sensor body is made of 316L stainless steel, which is corrosion-resistant and extremely durable. A titanium version is also available for seawater applications or environments with high levels of corrosion.

The IP68 waterproof design can be fully immersed for continuous turbidity measurement in a wide variety of industrial applications including water quality monitoring, municipal water, industrial process water, cooling water, activated carbon filter effluent and membrane filtration effluent just to name a few.

The TT-SS-DSS-7833D-SC comes with a fully automatic sensor wiper. This self-cleaning function effectively prevents solid particles from building up on the lens, not only reducing the maintenance requirement, but greatly improving measurement accuracy over the long term. The self-cleaning function can be set according to the application requirements to provide stable data and reliable performance, while the built-in diagnostic functions greatly simplifies the sensor management.

The principle of the Turtle Tough Smart Digital Turbidity sensor is based on the combined infrared absorption and scattered light method. The ISO7027 method can be used to continuously and accurately determine the turbidity value. According to ISO7027 infrared double-scattering light technology is not affected by chromaticity to determine the sludge concentration value.

SMART Sensor Technology

SMART Sensors have revolutionised the way our customers manage and maintain sensors. Unlike most other smart sensors, Turtle Tough provide you with the option of a propriety digital signal or an open-source Modbus RTU signal that is universally accepted. This allows the sensor to be directly connected to your industrial network without the need for proprietary hardware. Turtle Tough also provide state-of-the-art analysers and controllers should you require a sophisticated turnkey control solution. SMART sensors have the added benefit of storing a detailed performance history and diagnostics on-board enabling superior sensor management. Sensors can be cleaned and calibrated offline to facilitate a hot-swapping maintenance regime. Need to know more about hot-swapping? Ask our team

AUTO-CLEANING
FUNCTION

*Smart Digital Suspended Solids Sensor
- Auto-Clean Dual IR Beam*

Sensor name	Suspended Solids Smart Digital Sensor Auto clean wiper and dual IR beam technology
Code	TT-SS-DSS-7833D-SC
Measurement range	0.1~50000 mg/L *(The measurement range must be chosen at the time of order)*
Measurement accuracy	< ±5% of measured value
Repeatability	±2%
Pressure range	≤0.4 Mpa
Flow rate	≤2.5 m/s, 8.2 ft/s
Main material	Body SUS316L/Titanium alloy (marine) /PVC Cover: POM, Cable: PUR
Power supply	DC 12VDC
Communication protocol	MODBUS RS485
Measuring temperature	0-45°C (not freeze)
Weight	1.65 Kg
Protective rate	IP68/NEMA6P
Cable length	Standard:10m, the maximum may be extended to 100m
Application	General industrial applications, rivers, lakes, environmental monitoring, water quality, etc.