TURTLE TOUGH®

The Smart Digital Turbidity Sensor with Auto-Clean 135°IR combines smart sensor technology with industry leading optical measurement.

Turbidity Sensor - Smart Digital, Auto-Clean 135°IR

The Turtle Tough Smart Digital Turbidity Sensor with auto clean technology and 135° IR Beam is the state-of-the-art when it comes to combining smart sensor technology with industry-leading optical measurement

Features

- 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
- A high-quality quartz lens greatly improves the optical transmittance allowing for superior transmission and absorption of infrared wavelengths
- Wide range, high stability, high precision and excellent reproducibility
- Communication: MODBUS RTU (RS-485)

Turbidity Sensor - Smart Digital, Auto-Clean 135°IR

Few sensors can boast the versatility, low maintenance and industrial strength that the TT-NTU-DSS-7832D-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-NTU-DSS-7832D-SC comes complete 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 simplify 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

1" MNPT THREAD

AUTOMATIC SENSOR WIPE

Turbidity Sensor - Smart Digital, Auto-Clean

Product Name	Turbidity Sensor - Smart Digital Auto-Clean 135°IR
Code	TT-NTU-DSS-7832D-SC
Power/Outlet	9 - 36VDC/RS485 MODBUS RTU
Measurement Mode	135°IR scattered light method
Dimensions	Diameter: 50mm* Length: 223mm
Housing Material	PVC + 316 Stainless steel
Waterproof Rating	IP68
Measurement Range	10-3000 NTU
Measurement Accuracy	±5% or 0.5 NTU, whichever is greater
Pressure Rating	≤ 44 PSIG
Measuring Temperature	0-45°C
Calibration	Standard liquid calibration, water sample calibration
Cable Length	Standard 10m. Optional lengths available on request
Thread	1" MNPT
Weight	2.0 Kg
Application	General industrial applications, rivers, lakes, environmental monitoring, water quality, etc.