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## Smart Digital Hydroponics pH Sensor

The Turtle Tough Smart Digital pH sensor for Hydroponics is specifically designed for large scale agricultural operations. Optimised for sensitivity and budget, this smart sensor technology communicates directly with data acquisition and control systems to dramatically reduce the costs associated with large scale agricultural monitoring.

### Features

- Designed for pH monitoring in agricultural operations
- Optimised for sensitivity and budget
- High durability body
- Extremely sensitive, fast response and stable glass bulb measuring element
- Tough Polypropylene body
- Resistant to various organic solvents, strong acids and alkalis.
- Plug and Play connectivity
- Communication: MODBUS RTU (RS-485) output
- Ideal for hydroponics and agriculture applications



## Smart Digital Hydroponics pH Sensor



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The Turtle Tough Smart Digital pH sensor for Hydroponics has changed how we perform pH monitoring in large scale agricultural operations. Unlike a traditional sensor, the Smart Digital sensor provides a digital output signal that directly integrates with existing data acquisition systems without the need for intermediary devices that once made this an expensive exercise.

We have systematically reduced the cost of the sensor by removing unnecessary components for hydroponics applications. As such, you only pay for what you need. A double salt bridge provides long life, while a large PTFE diaphragm ring allows high durability for this relatively light-duty application. A unique feature of this sensor is an oversized glass bulb measuring element that is extremely sensitive, fast response and stable.

The polypropylene sensor body has incredibly high mechanical strength and resilience. It is also resistant to various organic solvents, strong acids and alkalis. The Smart Digital Sensor with direct MODBUS RTU output can directly interface with your industrial network or connect with our range of communication hardware, including our Windows PC software interface and range of compatible Smart Devices.

### 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





## Specifications

Product name	Smart Digital Hydroponics pH Sensor
Code	TT-HYDRO-pH-DSS-1701D
Power/Outlet	9~36VDC/RS485 MODBUS RTU
Measurement mode	Glass/silver+ silver chloride; SNEX
Housing material	Polypropylene
Waterproof rating	IP68
Measurement range	0-14pH
Measurement accuracy	±0.25pH
Pressure resistance	≤0.3Mpa (44 psi)
Temperature compensation	Integral
Temperature range	0-60 °C
Connection	Quick Connect Plugs
Cable length	10 m cable (optional lengths available)
Thread	3/4" MNPT
Application	Hydroponics, Agriculture

**IMPORTANT:** Please note this is a commercial grade industrial product and is not intended or designed to be used for domestic or hobby purposes. Automation and system integration skills are required to use this product.