



TOUGH Series Digital Smart Conductivity Sensor

Item #: TT-TOUGH-CON-DSS2-0.01-3743D

Designed for Pure Water applications

Features

- Suitable for low conductivity applications in the semiconductor, power, water and pharmaceutical industries
- Cell constant: $K=0.01$
- Temperature range: 0°C to 130°C
- Measurement range: $-20\mu\text{s}/\text{cm}$
- $3/4"$ MNPT front-thread
- Made from a combination of FDA-approved fluid receiving materials
- SS316 (2 Electrode)
- Plug n Play Connectivity

Communication output

- Direct Modbus RTU Output (DSS2)

Digital Smart Sensor Technology (DSS)

- Stores calibration data
- Computes temperature-compensated measurement values
- Provides data-rich Parameters

Installation types

- Inline



TOUGH Series
Digital Smart Conductivity Sensor for Pure Water

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3/4" MNPT front thread
for inline use

TOUGH Series
Digital Smart Conductivity Sensor for Pure Water

Turtle Tough's Digital Smart Conductivity Sensor for Pure Water is designed for pure water applications such as boiler feed water and condensate water.

With Direct Smart Sensor connectivity, the sensor is easily integrated into your plant PLC, DCS or industrial control computers, as well as our range of Turtle Tough controllers and displays.

Measuring the specific conductivity of aqueous solutions is critical for determining impurities in water. The measurement accuracy is greatly improved by smart sensor technology that enables the sensor to automatically compensate for temperature variations, polarization of the electrode surface, as well as cable capacitance, even under extreme conditions.

Suitable for low conductivity applications in the semiconductor, power, water and pharmaceutical industries, these sensors are compact and easy to use.

The sensor can be installed in several ways, one of which is through a compression gland, which is a simple and effective method of direct insertion into the process pipeline. The sensor is also designed with a 3/4" MNPT front thread for inline use.

The sensor is made from a combination of FDA-approved fluid receiving materials. This makes them ideal for monitoring pure water systems for the preparation of injectable solutions and similar applications. In this application, the sanitary crimping method is used for installation.

Digital Smart Sensor Technology (DSS)

Manage the health and performance of your sensors while maintaining an even closer eye on your process. Due to the onboard microprocessor and memory chip on the sensor's body, our Digital Smart Sensors perform all functions usually performed by an external analyser or transmitter. They store calibration information directly to the sensor and output a fully calibrated digital signal.

Smart sensors can store historical information such as:

- Time in service
- Calibration intervals
- Service conditions
- Diagnostic information that records changes to the sensor



Sensor Name	TOUGH Digital Smart Conductivity Sensor for Pure Water
Product Code	TT-TOUGH-CON-DSS2-0.01-3743D
Measuring Type	Conductivity
Output	Output Communication: DSS2 Modbus RTU Open source digital signal output (Modbus RTU) compatible with a wide range of devices that can accept a Modbus signal*
Cell Constants	K=0.01
Pressure	290 PSI
Temperature Range	0°C to 130°C (32°F to 266°F)
Temperature Compensation	NTC10K
Measurement Range	0-20us/cm
Accuracy	±1% F.S
Cable Length	Standard 10m (32ft), extended up to 100m, (328ft) optional
Connection	Quick Connect Plug - NEMA 6P
Process Connections	¾" MNPT front thread
Wetted Materials of Construction	SS316 (2 Electrode)
Housing Material	Polypropylene (PP)
Waterproof Grade	IP68
Warranty	12 Month Conditional Warranty. Visit turtletoughsensors.com/warranty-returns