



## 3700 Inductive Conductivity Sensor, Convertible, Peek Body Material

**Product #:** 3727E2T  
**ZAR Price:** Contact Hach  
**Ships within 3 days**

The non-contact inductive sensor is suitable for conductivity measurement in contaminated water and turbid fluids. It can be used as a tee insertion, flow-through or built-in immersion probe.

The low-maintenance design eliminates polarisation or coating electrodes problems connected with electrode-type conductivity sensors. A built-in PT1000 thermometer compensates for in process temperature changes.

The measuring principle is based on inducing a low current in a closed loop of solution and measuring the magnitude of the current to determinate the solution's conductivity.

The variety of materials for the sensor body enables measuring in almost every medium. The sensor runs with digital controllers with a help of a digital gateway and can be easily combined with other sensors.

### Wide Measuring Range

Hach's Inductive Conductivity Sensors measure 200 up to 2,000,000 microSiemens/cm. A built-in PT1000 RTD compensates the measured conductivity for changes in process temperature.

### Low Maintenance Design

The inductive sensor design eliminates polarization and electrode coating problems that commonly affect conventional contacting electrode-type conductivity sensors.

### Versatile Mounting Styles

Sensors can be installed using a choice of four mounting styles—immersion, insertion, union, and sanitary.

### Principal of Operation

Inductive conductivity sensors induce a low current in a closed loop of solution, then measure the magnitude of this current to determine the solution's conductivity. The conductivity analyser drives Toroid A, inducing an alternating current in the solution. This current signal flows

in a closed loop through the sensor bore and surrounding solution. Toroid B senses the magnitude of the induced current which is proportional to the conductance of the solution. The analyser processes this signal and displays the corresponding reading.

### Withstands Harsh Environments

The inductive sensor is available in sanitary (CIP) flange style and convertible styles in PFA, polypropylene, PEEK, and PVDF material. Select sensors can withstand high pressures and temperatures.

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## Specifications

Accuracy:	0.01 % of reading, all ranges
Body material:	PEEK
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Cable Length:	6 m (20 ft)
Cell constant k:	4.44 cm <sup>-1</sup>
Flow:	Max. 3 m/s

Length:	127 mm
Material:	Sensor Body: PEEK
Measuring range:	200 µS/cm - 2000000 mS/cm
Mounting:	Convertible
Operating temperature range:	-10 - 200 °C (Sensor - limited by body material)
Pressure Range:	max. 13.8 bar at 200 °C
Sensor Cable:	Polypropylene and PVDF Sensors:  5 conductor (plus two isolated shields) cable with XLPE (cross-linked polyethylene) jacket; rated to 150 °C (302°F); 6 m (20 ft.) long
Sensor Immersion Depth:	79.2 mm
Sensor Type :	Analog
Temperature Sensor :	Temperature Compensator Pt 1000 RTD
Warranty:	12 months
Wetted Materials:	Polypropylene, PVDF, PEEK® or PFA®
What's included?:	Includes: sensor with 6 m (20 ft) cable and manual

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