

ECS-40 Series

Electrodeless Conductivity Sensors



The Electrodeless method of measuring conductivity has many advantages over conventional methods. In particular the sensors will operate with virtually zero maintenance and provide reliable measurements over extended periods of time.

The ECS40 series can be mounted inline, in a tank wall, large bore pipe or in an open tank using a variety of fittings. The option of several different hygienic flanges caters for the majority of applications.

The sensor is manufactured in PEEK™ a food grade material with excellent chemical resistance and high temperature performance. The construction of the sensor allows it to operate at 100°C continuously and withstand thermal shocks, commonly associated with CIP applications and can be steam sterilised up to 135°C.

The sensors are fitted with Pt1000 temperature sensors and are compatible with all LTH Electrodeless conductivity instruments. The temperature sensor is mounted in direct contact with the medium via a stainless steel jacket, an alternative PEEK jacket is available where stainless steel might be unacceptable. Connection is made via an IP67 plug which simplifies installation and maintenance.

Features

- ◆ Low Maintenance
- ◆ Hygienic inline, Dip and Tank Mounting Options
- ◆ Ideal for Process, Dairy, Brewing and Food Applications
- ◆ Conductivity and Solution Concentration Measurements
- ◆ Steam Sterilisable to 135°C, Thermal Shock Resistant
- ◆ IP67 Connection Simplifies Installation and Maintenance
- ◆ Fast Temperature Response $t_{90} < 10$ secs

Notes: Flanges for the ECS49 sensors must be ordered separately. Minimum pipe size for insertion sensors 2.5", 63.5 mm. Optional PEEK temperature pocket available. Temperature, pressure and solution composition will influence the life expectancy of the measurement sensor. Varivent® is the registered trademark of Tuchenhagen GmbH.

This sensor can be used with MXD73/75 Analyser on page 6 and BXD17 Analyser on page 10

Technical Specifications

ECS 42T Dip Sensor

Wetted Material Peek, 316 stainless steel temperature pocket, 316 stainless steel stem

Order Code 8515 600mm dip
8516 1200mm dip

ECS 49T Hygienic Insertion Sensor

Wetted Material Peek, 316 stainless steel temperature pocket, 316 stainless steel flange, ordered separately. EPDM seal

Maximum pressure 100 psi (6.5 bar).

Order Code 8527

ECS 43T In-Line Sensor

Wetted Material Peek, 316 stainless steel temperature pocket, PVC EPDM seal

Maximum pressure 100 psi (6.5 bar)

Maximum Temperature 60 °C (PVC Tee)

Order Code 8523

ECS 45T In-Line Sensor

Wetted Material Peek, 316 stainless steel temperature pocket and tee. EPDM seal.

Maximum pressure 100 psi (6.5 bar)

Order Code 8525

ECS 47T Insertion Sensor

Wetted Material Peek, 316 stainless steel temperature pocket and screwed fitting. EPDM seal.

Maximum pressure 150 psi (10 bar)

Order Code 8526

ECS 48T Hygienic Insertion Sensor

Wetted Material Peek, 316 stainless steel temperature pocket, 316 stainless steel flange, ordered separately. EPDM seal.

Maximum pressure 100 psi (6.5 bar)

Order Code 8528