



Description

The AquaMetrix ES-5 series toroidal conductivity sensors are used in processes where conventional contacting sensors may become fouled or corroded. These probes are unique in the marketplace. They are loop-powered and provide direct 4-20 mA output.

Each sensor comes standard with a Pt100 RTD temperature device, which provides automatic temperature compensation to 25°C (77°F).

The AquaMetrix ES-5 sensors are equipped with 1.5" MNPT threads on both ends so that they can be mounted for in-flow applications or submersion mounted in tanks or open vessels.

Operating Principle

Toroidal conductivity sensors are made up of two-wire wound toroids encapsulated in a potting compound and encased in a plastic body. One toroid acts as a transmitter and the other as a receiver. An electric current is induced between the toroids through the process solution. This current is directly proportional to the conductivity of the process solution.

(The terms electrodeless and toroidal are interchangeable in regards to this type of conductivity sensor.)

Features

- Loop powered 4-20 mA output
- Low Maintenance - Reduced cleaning requirements
- No electrode corrosion - Toroid is fully encapsulated
- One Wetted Material - Easier chemical compatibility
- Choice of three Measuring range
- Automatic temperature compensation

Applications

- Plating
- High purity water applications
- Pharmaceutical Applications
- Reverse Osmosis systems
- Fume Scrubbers
- Boilers
- Cooling Towers
- Textile Manufacturing
- Food and Beverage

Model ES-5 Series Electrodeless Conductivity Sensors

Technical Data

Wetted Materials

CPVC (ES5-C) or Kynar (ES5-K)

Measuring Range

ES5-C-1: 0 - 10 mS/cm

ES5-C-2: 0 - 100 mS/cm

ES5-C-3: 0 - 1000 mS/cm

Temperature Compensation

Pt 100 RTD

Operating Temperature Range

-10 to 60°C

Pressure/Temperature Limits

50 psi at 40°C

Power

24 VDC

Load

600 Ω max at 24 VDC

Maximum Flow Rate

10 ft (3 m)/sec

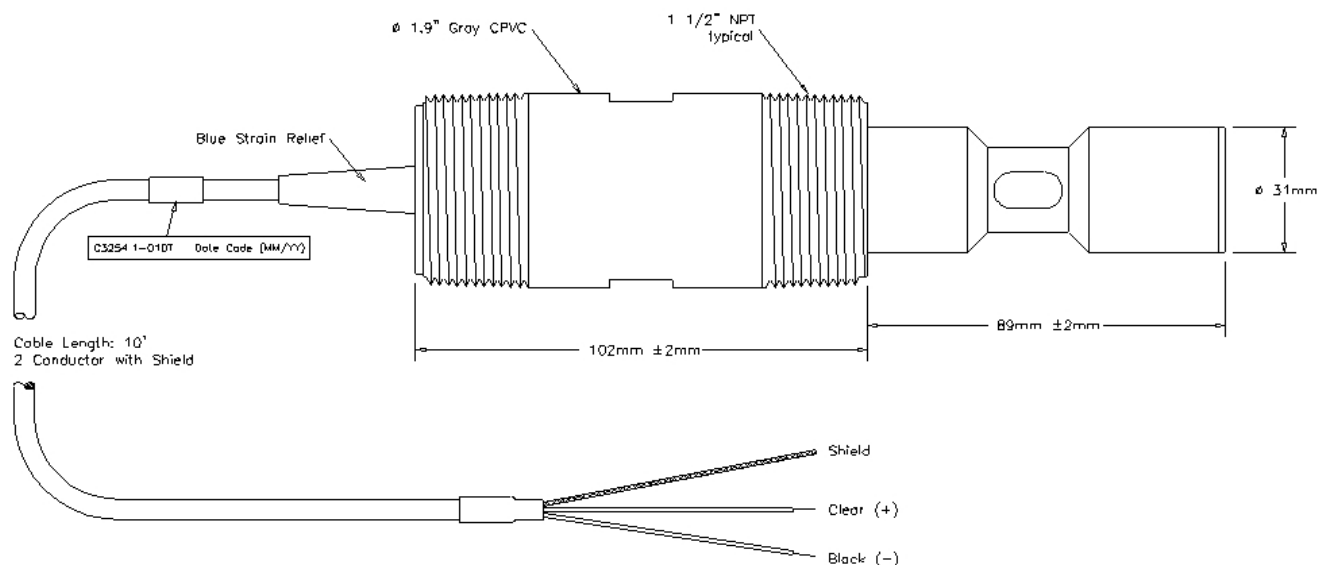
Sensor Cable

20 ft (6 m)

Process Connection

1.5" MNPT at both ends of sensor for submersion or in-line.

Dimensions



ES-5-A 4-20 mA output, CPVC body with 1.5" MNPT thread fitting

Order Information

	Cell Constant Range
ES-5-1	0 to 10 mS/cm
ES-5-2	0 to 100 mS/cm
ES-5-3	0 to 1000 mS/cm

Related Products

ES-1-A 6-wire toroidal probe