



E33 Analyzer and 3700E-Series Electrodeless Conductivity Sensors

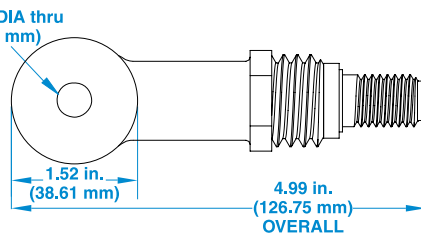
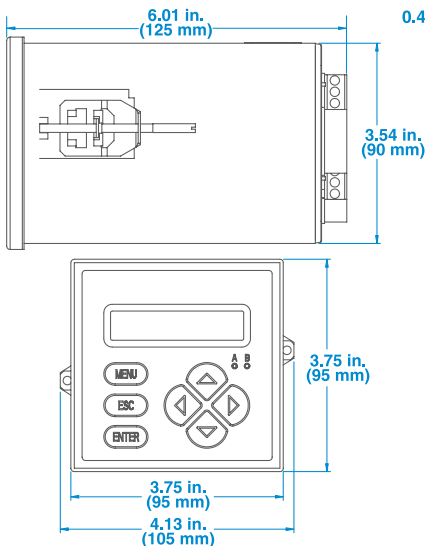


Full-featured, Low Cost Conductivity System

The Model E33 is a panel mount, 1/4 DIN, Electrodeless Conductivity Analyzer specifically designed for OEM and cost-conscious end-users. This versatile analyzer can measure conductivity, total dissolved solids, or concentration in percent. It also features built-in or custom concentration tables, two analog outputs, two relays, multiple language operation, an RS-232 output, and optional HART® communication capability.

The Model 3700E-series Electrodeless Conductivity Sensors use an innovative measurement technology that eliminates polarization and electrode coating problems that commonly affect conventional contacting electrode-type sensors. Chemical compatibility concerns for these rugged, non-fouling sensors are simplified because only one wetted material contacts the process media. Available body materials are polypropylene, PVDF, PEEK®, or PFA Teflon®.





**Convertible Style Sensor
pictured**

3700E-Series Electrodeless Conductivity Sensors

These sensors measure from
0–2,000,000 microSiemens/cm.

- Unique electrodeless technology
- Available in polypropylene, PEEK, PFA Teflon®, or PVDF wetted materials
- Standard 20-foot integral cable

E33 Analyzer

- Built-in or user-defined concentration tables
- Multiple language capability
- Menu-guided operation
- Four temperature compensation methods
- Custom OEM versions available

Specification Highlights

Display: Backlit LCD

Measurement Units:

μS/cm, mS/cm, S/cm, %, and ppm

Ambient Temperature:

-20 to 60°C (-4 to 140°F)

Temperature Compensation:

Auto/Manual, -20 to 200°C
(14 to 392°F)

Relays: Two electromechanical SPDT

Analog Outputs:

Two isolated 0/4–20 mA

Communication:

Standard: RS-232
Optional: HART® Protocol

Power: 90–130 or 190–260 VAC,
50–60 Hz.

Analyzer Performance:

Accuracy: 0.5% of span
Stability: 0.2% of span/24 hrs
Repeatability: 0.1% of span

Enclosure: 1/4 DIN with NEMA 4X
(IP65) front panel; hardware
included for panel mounting

Weight: ~1.7 lbs. (0.8 kg)

Specification Highlights

Sample Temperature:

-10 to 200°C (14 to 392°F)

Pressure Range:

200 psig at 302°C

Accuracy:

± 0.01% of reading, all ranges

Wetted Materials:

Polypropylene, PEEK, PFA Teflon®,
or PVDF

Weight: ~1 lbs. (0.45 kg)

Ordering Information

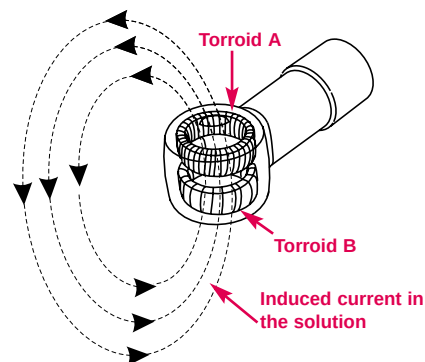
E33 Analyzer:
E33A1NN

**3700E-Series Electrodeless
Conductivity Sensors:**

For a complete listing of options,
mounting configurations, and
accessories, please contact
GLI International, Inc.

Electrodeless Technology

Electrodeless 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 analyzer drives Torroid A, inducing an alternating current in the solution. This current signal flows in a closed loop through the sensor bore and surrounding solution. Torroid B senses the magnitude of the induced current which is proportional to the conductance of the solution. The analyzer processes this signal and displays the corresponding reading.



Since this style sensor has no electrodes, problems with contacting type electrodes—such as polarization, oily fouling, process coating, and contamination—will not affect the performance of the electrodeless sensor.

GLI offers electrodeless sensors for solutions with conductivity as high as 2,000,000 microSiemens/cm, and with a temperature between 0 and 200°C. All models are automatically temperature compensated over this range.