pH and Conductivity Transmitter

CDTX-300

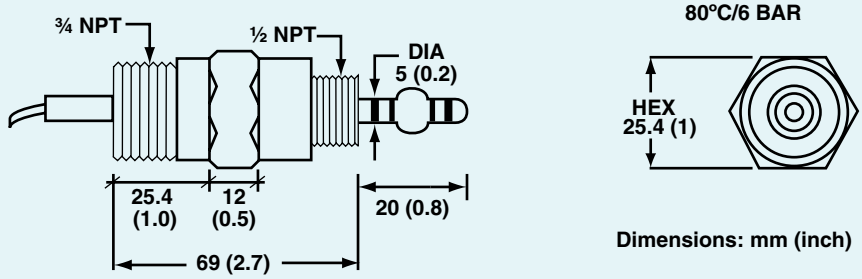
- **pH and Conductivity Transmitter Designed to Accept Signals Directly from a pH Electrode and a Conductivity Probe at the Same Time**
- **Direct Connection of the Probes to the Transmitter Assures a Positive Electrical Connection with No Signal Loss**
- **Most Useful in Remote Process Control Applications**

The CDTX-300 two-wire transmitter is widely used for process control in industry today. This instrument is particularly useful in industrial conditions where electrical interference is an important factor. By galvanically isolating the signals, any interference created is prevented from reaching the transmitter. A loop isolator may be required when connecting to data acquisition equipment. The CDTX-300 uses two wires which reduces costs and eliminates the need for expensive coaxial cable. Two-wire transmitters are ideal when used in remote applications that do not have AC power available.

The CDTX-300 series conductivity transmitter uses top of-the-line, 4-Ring Potentiometric probes. As opposed to the more widely used 2-Ring Amperometric method, the 4-Ring Potentiometric method provides the highest accuracy and repeatability attainable. When measuring liquids that have a high conductivity, the 2-Ring system is susceptible to polarization. 4-Ring electrodes eliminate the polarization effect by splitting the four rings into 2 current electrodes and 2 voltage electrodes. When placed in a conductive liquid, the 2 current electrodes take the alternating voltage and create a current. This alternating current produces a buffer field from which polarization is absent. The voltage is then measured in this field assuring no altered readings.

CDTX-300 shown smaller than actual size.

CDE-300 Probe Specifications



Specifications

Range:
pH: 0 to 14 pH
Conductivity: 0 to 10 mS/cm (mmho/cm)
Accuracy [@20°C (68°F)]:
pH: ±0.5% FS;
Conductivity: ±2% FS
Calibration: Manual through offset and slope trimmers for both pH and conductivity at:
pH: 4/10 and 7 pH
Conductivity: 0 and 5 mS/cm
Temperature Compensation:
Conductivity: Automatic from 0 to 60°C (41 to 132°F) with a ß of 2%
Output: 4 to 20 mA isolated
Power: 12 to 24 Vdc
Protection: IP 54
Environment: 0 to 50°C (32 to 122°F); 0 to 95% RH non-condensing
Dimensions: 160 L x 105 W x 31 mm H (6.3 x 4.1 x 1.2")
Weight: 280 g (9.9 oz)

To Order

Model No.	Description
CDTX-300	Mini surface mount pH/conductivity transmitter
CDE-300	In-line or submersible conductivity probe
CCT-100	Loop isolator
PHE-7351-15	Industrial electrode for in-line or submersion
PHA-4	4.00 pH buffer solution 500 mL (1 pt) bottle
PHA-7	7.00 pH buffer solution 500 mL (1 pt) bottle
PHA-10	10.00 pH buffer solution 500 mL (1 pt) bottle
CDSA-4500	4500 µS conductivity standard, 1 qt
PSS-D12B	12 or 24 Vdc power supply

Comes complete with operator's manual.

***Ordering Example: CDTX-300**, pH/conductivity transmitter, **PHE-7351-15**, pH electrode, **PHA-7**, 7.00 buffer solution, **CDE-300**, conductivity cell, **CDSA-4500**, conductivity standard.*

Our Conductivity Instruments product line continues to expand, visit omega.com for new details!