Online Conductivity Indicating Transmitter
MS CD 18

FEATURE

- Advanced Embedded Microcontroller Based Design
- Panel Mounting
- Easy Front Key Calibration
- LED Display
- 4 to 20 mA DC Isolated Output

DESCRIPTION

It is an economical meter for online measurement of specific Conductivity of solution using a Conductivity cell for RO plant or DM plant applications. It enables to measure the Conductivity without manual balancing and specific Conductivity is read directly on a digital panel. This is available in panel mounting facility in compact size.

PRINCIPLE

Conductivity is the ability of a solution, a metal or a gas - in brief all materials to pass an electric current. In solutions the current is carried by cations and anions whereas in metals it is carried by electrons. How well a solution conducts electricity depends on a number of factors:

- Concentration of ions
- Mobility of ions
- Valence of ions
- Temperature

All substances possess some degree of conductivity.
In aqueous solutions the level of ionic strength varies from the low conductivity of ultrapure water to the high conductivity of concentrated chemical samples. Conductivity may be measured by applying an alternating electrical current (I) to two electrodes immersed in a solution and measuring the resulting voltage (U). During this process, the cations migrate to the negative electrode, the anions to the positive electrode and the solution acts as an electrical conductor.

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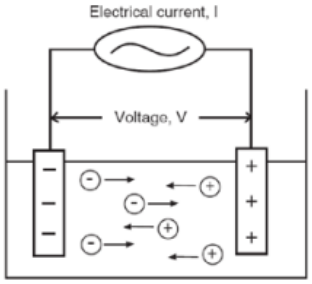

The resistance of the solution (R) can be calculated using Ohm's law as shown below. The resistance unit is [Ohms] or [Ω].

$$R = U/I$$

Where:
U = voltage [V]
I = current [A]
R = resistance of the solution [Ω]

The conductance (G) is defined as the reciprocal of the electrical resistance (R) of a solution between two electrodes. It is measured in Siemens [S] which equals [Ω^{-1}].

TECHNICAL SPECIFICATION

Range	: 0.00~19.99 µS/cm, 0.0~199.9 µS/cm,0~1999 µS/cm, 0~9999 µS/cm or 0.00~20.00 mS/cm (Specify)
Resolution	: 0.01 µS/cm, 0.1 µS/cm, 1 µS/cm , 0.01 mS/cm
Measuring Accuracy	: ±1% FS
Indication	: 3.5 digit LED display
Retransmission Output	: 4 to 20 mA Isolated
Power Requirement	: 230 V AC ±10%, 50 Hz Single Phase
Size	: 96 x 96 mm
Environment	: 0 ~ 50ºC

APPLICATION

Water Treatment Plant (WTP)	Wastewater Treatment Plant (WWTP)
Effluent Treatment Plant (ETP)	Sewage Treatment Plant (STP)
RO Water Plant	Power Plant
Hydroponics	Chemical Industry
Textile Industry	Paper & Pulp
Beverages / Food Industry	Pharma Industry
Scrubber Application	Pigment Industry
Steel Industry	Aqua Culture

Note: Due to continuous improvement in product specifications & looks may vary