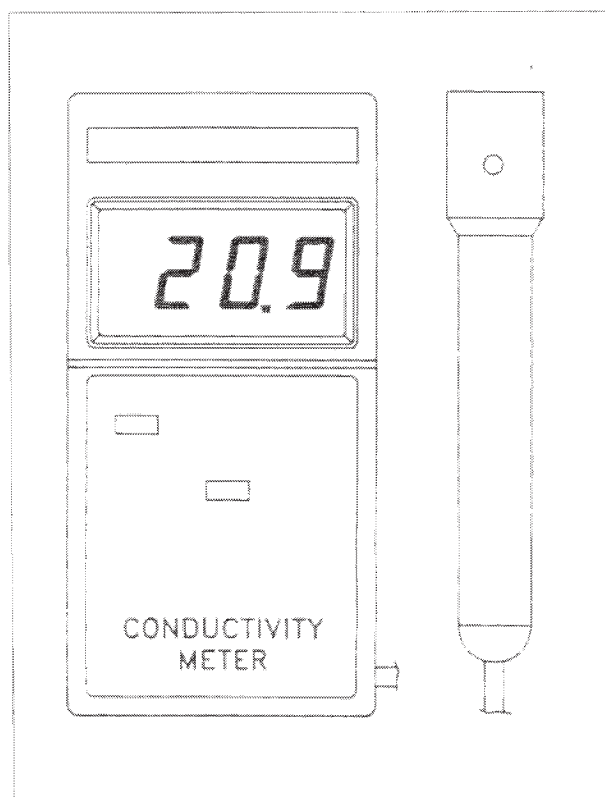


4168

# CONDUCTIVITY METER



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## 1. FEATURES

- \* The portable conductivity meter provides fast, accurate readings, with digital readability and the convenience of a remote probe separately.
- \* Multi-measuring ranges: 199.9  $\mu$ S, 1.999 mS, 19.99 mS.
- \* DATA HOLD function for stored the desired value on display.
- \* Large LCD display for low power consumption & clear read-out even in bright ambient light condition.
- \* Used the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.
- \* Compact size, designed for easy carry out & operation.
- \* Built-in low battery indicator.
- \* Wide applications: water contioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college, water conditioning.

## 2. GENERAL SPECIFICATIONS

Display	18 mm (0.7") LCD, 3 1/2 digits., 3 1/2 digits, max. display 1999.
Measurement & Range	199.9 $\mu$ S, 1.999 mS, 19.99 mS, Data Hold. <i>* Build in 199.9 mS range, it only for reference, not specify the accuracy.</i>
Resolution	0.1 $\mu$ S for 199.9 $\mu$ S range. 0.001 mS for 1.999 mS range. 0.01 mS for 19.99 mS range. <i>* <math>\mu</math>S : micro Simens, mS : milli-Simens</i>

Accuracy ( $23 \pm 5^{\circ}\text{C}$ )	$\pm (2\% \text{ F.S.} + 1 \text{ d})$ * F. S. – Full scale
Over Range Indicator	Display shows '1'.
Sampling Time	Approx. 0.4 second.
Temp. Compensation	Automatic, $0^{\circ}\text{C}$ to $50^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ to $122^{\circ}\text{F}$ ).
Operating Temp.	$0^{\circ}\text{C}$ to $50^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ to $122^{\circ}\text{F}$ ).
Operating Humidity	Max. 80% RH.
Power Supply	006P DC 9V battery (heavy duty type).
Power Current	Approx. DC 5 mA.
Weight	340 g/0.75 LB (w/battery & electrode).
Dimension	168 x 80 x 35mm (6.6 x 3.2 x 1.2 inch).
Electrode Size	Round, 22 mm Dia. x 120 mm length.
Accessories	Instruction Manual.....1 PC.
Included	Conductivity electrode..... 1 PC. Carrying Case..... 1 PC.
Cal. Solution	Optional, 1,413 mS calibration solution. CD-14

### 3. FRONT PANEL DESCRIPTION

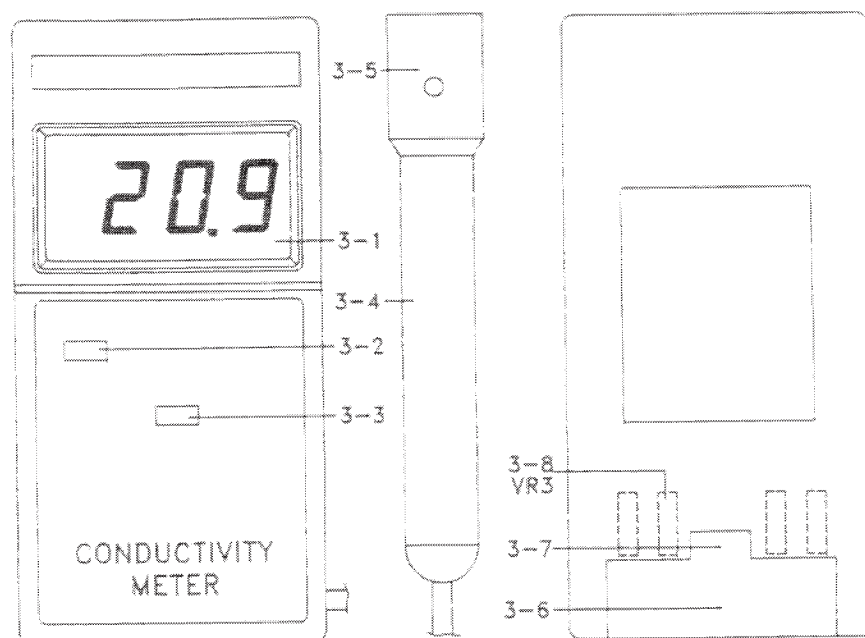


Fig. 1

- |                        |                               |
|------------------------|-------------------------------|
| 3-1 Display            | 3-5 Conductivity Electrode    |
| 3-2 Off/On/Hold Switch | 3-6 Battery Compartment/Cover |
| 3-3 Range Switch       | 3-7 Battery Cover Screw       |
| 3-4 Electrode Handle   | 3-8 Calibration Adj. VR(VR 3) |

#### 4. MEASURING PROCEDURES

- 1) Slide the " Off/On/Hold Switch " (3-2, Fig. 1) to the "On" position.
- 2) Slide the " Range Switch " (3-3, Fig. 1) to the " 199.9 uS ", " 1.999 mS ", " 19.99 mS " according the measurement requirement.
- 3) Hold the " Electrode Handle " (3-4, Fig. 1) by hand & let the " Conductivity Electrode " (3-5, Fig. 1) is immersed wholly into the measured solution, then the Display will show the conductivity values (uS, mS).
- 4) Data hold  
When make any measurement, if select the " On/Off/ Hold Switch " (3-2, Fig.1) to the " Hold " position will keep the data on the display. It will release the data hold function select the " On/Off/Hold Switch " to the " On " position again.

##### Measuring Consideration :

- A. If display show "1", it indicate on out-of-range measurement If the display indicates one or more leading zeros, shift to the next lower range scale to improve the measurement.
- B. Though this meter build in 199.9 mS range, but it only for reference, not specify the accuracy.
- C. As to keep the better accuracy, please slide to the lower range if the reading value of the lower range can get higher resolution (more digits).

## 5. CALIBRATION PROCEDURE

When re-calibrate the instrument, please according the following procedures :

- 1) Prepare a " 1.413 mS Calibration Solution " (CD-14, optional).
- 2) Slide the " Range Switch " (3-3, Fig. 1) to the " 1.999 mS " position.
- 3) Hold the " Electrode Handle " (3-4, Fig. 1) by hand & let the " Conductivity Electrode " (3-5, Fig. 1) is immersed wholly into the above " 1.413 mS Calibration Solution ", then adjust the " Calibration Adj. VR " (VR 3, ref. 3-8, Fig. 1) until the display show the value same as 1.413 mS exactly.

## 6. REPLACEMENT OF BATTERY

- 1) When the left corner of LCD display show " BAT " it indicate a normal battery output of less than 6.5 V – 7.5 V. It is necessary to replace the battery. However, in-spec measurement may still be made for several hours after low battery indicator appears before the instrument become inaccurate.
- 2) Loose the " Battery Cover Screw " (3-7, fig. 1), slide the " Battery cover " (3-6, Fig. 1) away from the instrument and remove the battery.
- 3) Replace with 9V battery (heavy duty type) and reinstate the cover.
- 4) Make sure the battery cover is secured with the screw after change the battery.