

4168

CONDUCTIVITY METER

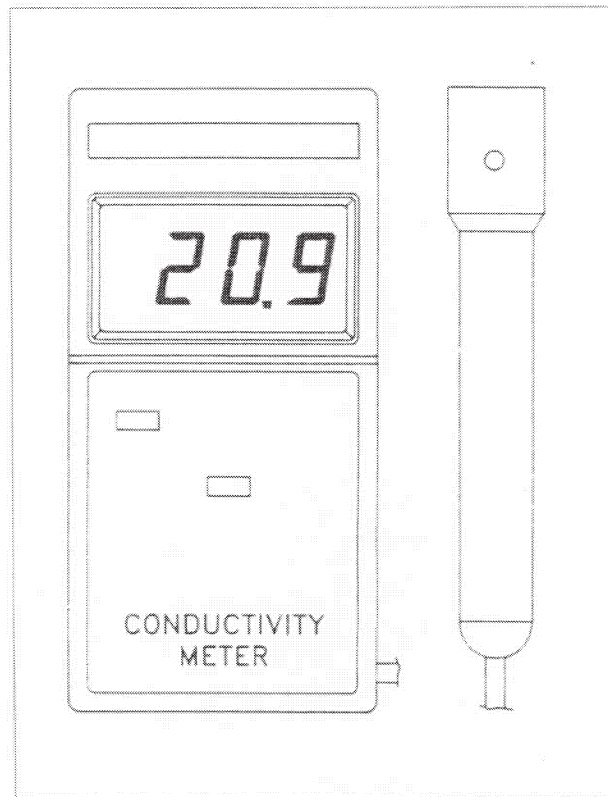


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1. FEATURES

- * The portable conductivity meter provides fast, accurate readings, with digital readability and the convenience of a remote probe separately.
- * Multi-measuring ranges: 199.9 uS, 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 uS, 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 uS for 199.9 uS range. 0.001 mS for 1.999 mS range. 0.01 mS for 19.99 mS range. <i>* uS : micro Simens, mS : milli-Simens</i>

Accuracy ($23 \pm 5 \text{ }^\circ\text{C}$)	$\pm (2\% \text{ F.S.} + 1 \text{ d})$ * 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

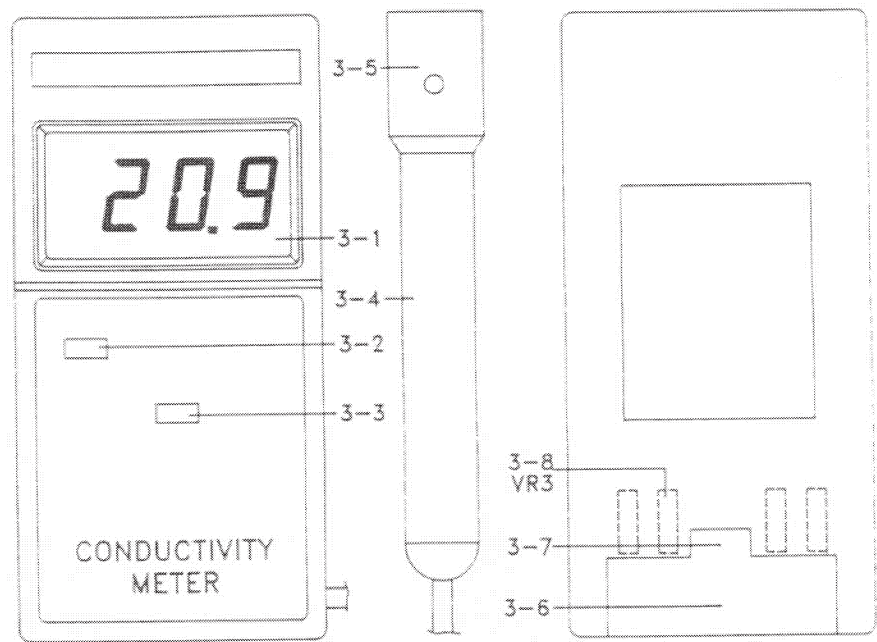


Fig. 1

- | | |
|------------------------|-------------------------------|
| 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 μ S ", " 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 (μ S, 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.