

*4 ranges, professional*

# CONDUCTIVITY METER

Model : YK-2004CD

ISO-9001, CE, IEC1010



## FEATURES

- \* Range :  
200  $\mu$ S/2 mS/20 mS/200 mS.
- \* Automatic temp. compensation,  
ATC factor adjustment.
- \* Carbon rod electrode for long life.
- \* Max., Min., Data hold.
- \* RS-232 computer interface
- \* Jumbo LCD display,  
unit with dot matrix LCD.
- \* DC 1.5V ( UM-3, AA ) x 4 PCs or  
DC 9V adapter in.
- \* Size : 203 x 76 x 38 mm.



**Lutron**

**LUTRON ELECTRONIC**

*The Art of Measurement*

# CONDUCTIVITY METER

Model : YK-2004CD

## 1. FEATURES

|   |
|---|
| * Innovative feature with built-in automatic temperature compensation factor adjustable between 0 to 5.0% per °C.   |
| * Wide range, 200 uS/2 mS/20 mS/200 mS.   |
| * Selecting " 0% per °C " of Temp. Coefficient Adjust, allows you to take uncompensated conductivity readings ( absolute conductivity measurement ).  |
| * Temperature compensation range : 0 to 50 °C.  |
| * Carbon rod electrode for long life.   |
| * Conductivity measurement ( uS, mS ) or TDS ( Total Dissolved Solids, PPM ) can be selected.   |
| * Auto range or manual range can be selected.   |
| * Wide sampling time adjustment range from two seconds to 8 hours 59 minutes 59 seconds.  |
| * RS232 computer interface.   |
| * Can default auto power off or manual power off.   |
| * Super large LCD display with contrast adjustment for best viewing angle.  |
| * Data hold, record max. and min. reading.  |
| * Power by UM3 ( 1.5 V ) x 4 batteries or DC 9V adapter.  |
| * RS232 PC serial interface.  |
| * Separate probe, easy for operation of different measurement environment.  |
| * Wide applications: water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college, water conditioning. |

## 2-1 General Specifications

|                              |   |
|------------------------------|---|
| Circuit                      | Custom one-chip of microprocessor LSI circuit.  |
| Display                      | LCD size : 58 mm x 34 mm.   |
| Measurement                  | * Conductivity ( uS, mS )<br>* TDS ( Total Dissolved Solids, PPM )<br>* Temperature ( °C, °F )  |
| Temperature Compensation     | Automatic from 0 to 60 °C ( 32 - 140 °F ), with temperature compensation factor variable between 0 to 5.0% per C.   |
| Conductivity Probe Structure | Carbon rod electrode for long life.   |
| Data Hold                    | Freeze the display reading.   |
| Memory Recall                | Maximum & Minimum value.  |
| Power off                    | Auto shut off saves battery life or manual off by push button.<br>@ Can default auto power or manual power off.<br>@ When default auto power function, power will off automatically after 10 min., if no button be pressed. |
| Sampling Time of display     | Approx. 1 second.   |
| Data Output                  | RS 232 PC serial interface.   |
| Operating Temperature        | 0 to 50 °C. - Main instrument.<br>0 to 60 °C - Conductivity probe only.   |

|                      |   |
|----------------------|---|
| Operating Humidity   | Less than 80% R.H.  |
| Power Supply         | DC 1,5 V battery ( UM3 ) x 4 PCs,<br>* <i>main instrument</i> ( Heavy duty type ).  |
|                      | DC 9V adapter input.<br>@ AC/DC power adapter is optional.  |
| Power Current        | Approx. DC 15.2 mA  |
| Weight               | 425 g/ 0.94 LB. @ Battery is included.  |
| Dimension            | <i>Main instrument</i> :<br>203 x 76 x 38 mm<br><i>Conductivity PROBE</i> :<br>Round, 22 mm Dia. x 120 mm length.                           |
| Accessories Included | Instruction manual..... 1 PC<br>Conductivity probe..... 1 PC<br>Carrying case..... 1 PC   |
| Optional Accessories | * 1.413 mS Conductivity Standard Solution<br>* AC to DC 9V adapter.<br>* RS232 cable, UPCB-02.<br>* Data Acquisition software, SW-U801-WIN. |

## 2-2 Electrical Specifications ( 23± 5 °C )

### A. Conductivity

| Range  | Measurement     | Resolution | Accuracy                              |
|--------|-----------------|------------|---------------------------------------|
| 200 uS | 0 to 200.0 uS   | 0.1 uS     | ± (2% F.S.+1d)<br>* F.S. - Full scale |
| 2 mS   | 0.2 to 2.000 mS | 0.001 mS   |                                       |
| 20 mS  | 2 to 20.00 mS   | 0.01 mS    |                                       |
| 200 mS | 20 to 200.0 mS  | 0.1 mS     |                                       |

\* Temperature Compensation :

Automatic from 0 to 60 °C ( 32 - 140 °F ), with temperature compensation factor variable between 0 to 5.0% per C.

\* The accuracy is specified under measurement value ≤ 100 mS.

\* mS - milli Simens \* @ 23± 5°C

### B. TDS ( Total Dissolved Solids )

| Range       | Measurement           | Resolution | Accuracy                              |
|-------------|-----------------------|------------|---------------------------------------|
| 200 PPM     | 0 to 132 PPM          | 0.1 PPM    | ± (2% F.S.+1d)<br>* F.S. - Full scale |
| 2,000 PPM   | 132 to 1,320 PPM      | 1 PPM      |                                       |
| 20,000 PPM  | 1,320 to 13,200 PPM   | 10 PPM     |                                       |
| 200,000 PPM | 13,200 to 132,000 PPM | 100 PPM    |                                       |

\* Temperature Compensation :

Automatic from 0 to 60 °C ( 32 - 140 °F ), with temperature compensation factor variable between 0 to 5.0% per °C.

\* The accuracy is specified under measurement value ≤ 66,000 PPM.

\* PPM - parts per million \* @ 23± 5°C

### C. Temperature

| Function | Measuring Range | Resolution | Accuracy |
|----------|-----------------|------------|----------|
| °C       | 0 °C to 60 °C   | 0.1 °C     | 0.8 °C   |
| °F       | 32 °F to 140 °F | 0.1 °F     | 1.5 °F   |

\* @ 23± 5°C