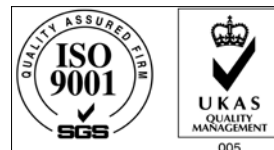


*200 uS/2 mS/20 mS/200 mS, Real time data logger*

# **CODUCTIVITY METER**

**Model : YK-2005CD**

*ISO-9001, CE, IEC1010*



**LUTRON ELECTRONIC**

***The Art of Measurement***

# CONDUCTIVITY METER

Model : YK-2005CD

## 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.
* Real time data logger, build in clock ( hour-min.-sec., year-month-date ).
* Auto or manual data record, 16,000 Data logger no.
* 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.

Data Output	RS 232 PC serial interface.
Operating Temperature	0 to 50 °C. - Main instrument. 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, * <i>main instrument</i> ( Heavy duty type ). DC 9V adapter input. <i>@ AC/DC power adapter is optional.</i>
Power Supply	DC 3V silver battery.
* <i>clock module</i>	Type : CR2032.
Power Current	Approx. DC 15.2 mA
Weight	425 g/ 0.94 LB. <i>@ Battery is included.</i>
Dimension	<i>Main instrument :</i> 203 x 76 x 38 mm <i>Conductivity PROBE :</i> Round, 22 mm Dia. x 120 mm length.
Accessories Included	Instruction manual..... 1 PC Conductivity probe..... 1 PC DC 3V silver battery, CR2032..... 1 PC Carrying case..... 1 PC
Optional Accessories	* 1.413 mS Conductivity Standard Solution * AC to DC 9V adapter. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN. * Data Logger software, SW-DL2005.

## 2-1 General Specifications

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 58 mm x 34 mm.	
Measurement	* Conductivity ( uS, mS ) * TDS ( Total Dissolved Solids, PPM ) * 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.	
Sampling Time of Data Logger	Manual	Push the data logger button once will save data one time. <i>@ Set the sampling time to 0 second</i>
	Auto	2 sec to 8 hour 59 min. 59 sec.
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. <i>@ Can default auto power or manual power off.</i> <i>@ When default auto power function, power will off automatically after 10 min., if no button be pressed.</i>	
Sampling Time of display	Approx. 1 second.	

## 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 ) * 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	
* <i>Temperature Compensation :</i> <i>Automatic from 0 to 60 °C ( 32 - 140 °F ), with temperature compensation factor variable between 0 to 5.0% per C.</i> * <i>The accuracy is specified under measurement value ≤ 100 mS.</i> * <i>mS - milli Simens</i> * <i>@ 23± 5°C</i>			

### B. TDS ( Total Dissolved Solids )

Range	Measurement	Resolution	Accuracy
200 PPM	0 to 132 PPM	0.1 PPM	± ( 2% F.S.+1d ) * 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	
* <i>Temperature Compensation :</i> <i>Automatic from 0 to 60 °C ( 32 - 140 °F ), with temperature compensation factor variable between 0 to 5.0% per C.</i> * <i>The accuracy is specified under measurement value ≤ 66,000 PPM.</i> * <i>PPM - parts per million</i> * <i>@ 23± 5°C</i>			

### 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
* <i>@ 23± 5°C</i>			