CyberScan 11 & 110 Series
Standard Handheld
• pH • Conductivity • Dissolved Oxygen

SOLUTIONS FOR WATER ANALYSIS

EUTECH
INSTRUMENTS
Technology Made Easy ...

3 Year Meter Warranty

MEAS
READY
7.00 pH
25.0 °C
CyberScan pH 110

Corporate Profile

EUTECH INSTRUMENTS
Technology Made Easy ...

| **Over 15 Years of Product Excellence** | Eutech Instruments is a leading ISO9001-certified company established in 1990. Dedicated to the design and manufacture of sensor-based instruments for water quality analysis, Eutech is a pioneer in the development of ASIC-based (Application Specific Integrated Circuit) instruments, and is internationally recognised for its achievements in sensor technology, software programming and product design. Eutech has an extensive product line, which includes the world's first Windows® CE-driven colour touchscreen research-grade bench meter.

| **Commitment to R&D** | Eutech's competitiveness comes from our strong commitment to R&D. This is backed by a dedicated team of scientists and engineers who thrives on meeting new technological challenges to simplify laboratory and field analytical procedures. The Eutech team is constantly driven to explore the latest technologies and applying them in our design and manufacture of advanced instruments. The result is a unique line of products that are accurate, consistent, reliable and easy to use.

| **Comprehensive Product Line** | Eutech's constant drive for innovation is reason for our unique and expansive portfolio of microprocessor-based instruments and chemical sensor systems. We offer a comprehensive range of laboratory and field instruments for electrochemical and photometric water analysis. Eutech also manufactures continuous on-line process instruments for the monitoring and control of pH, Conductivity, Total Dissolved Solids (TDS), Redox Potential (ORP), Dissolved Oxygen (DO) and other water quality parameters.

Eutech products range from compact pocket testers and portable meters to research-grade benchtop meters and industrial process controllers. Each product carries the signature Eutech intuitive design and is packed with advanced user-friendly features.

| **Customer Focus** | Every Eutech innovation is conceptualised with the user in mind. This, coupled with our strategic location in the design and technology hub of Asia, has enabled the company to produce cutting edge instruments at competitive prices. Our consistent demonstration of insight into customer needs and product demands has earned the company consecutive Frost & Sullivan Market Engineering awards for Product Line Strategy.

Driven by a successful Total Customer Satisfaction Program incorporated in the ISO9001:2000 Quality System, all products undergo extensive testing and calibration by a qualified team of technical experts. Stringent quality control measures guarantee consistency, durability and performance. Eutech products are certified to comply with various global testing standards.

| **Forging New Frontiers in Water Analysis** | Underlying Eutech's objective to be a world leader in the field of water analysis instrumentation, the company adopts a proactive stand in anticipating the needs of the industry. With increasing global awareness and concern for water quality, the future provides new and exciting challenges and opportunities. To realize the potential of advanced water analytical technologies, Eutech will continue to forge close links and strategic alliances with research institutions, government agencies and private sector firms worldwide. These efforts support the Eutech mission – to make advanced technology easy to use.

| **Global Reach** | Eutech products are marketed in over seventy countries worldwide, through an extensive network of associate companies and distributors, with manufacturing facilities in Singapore and Malaysia. Eutech Instruments Singapore has a full-fledged value-chain operation which comprises R&D, manufacturing, marketing, customer service and logistics for worldwide support to customers.

Global Offices

Asia Pacific (Head Office) | Eutech Instruments Pte Ltd
Blk 55, Ayer Rajah Crescent, #04-16/24, Singapore 139949
Tel: (65) 6778-6876 • Fax: (65) 6773-0836 • www.eutechinst.com

North & South America | OAKTON Instruments
P.O. Box 5136, Vernon Hills, IL 60061, USA
Tel: toll free 1-888-4OAKTON (1-888-462-5866)
• Fax: (1) 847-247-2984 • www.4oakton.com

Europe | Eutech Instruments Europe B.V.
P.O. Box 254, 3860 AG Nijkerk Netherlands Wallerstraat 125K, 3862 CN Nijkerk Netherlands
Tel: (31) 033-2463887 • Fax: (31) 033-2460832 • www.eutech.nl

Malaysia | Eutech Instruments Sdn Bhd
No. 1, Lengkok Keluli 2, Bukit Raja Prime Industrial Park,
41050 Bukit Raja, Klang Selangor D.E., Malaysia
Tel: (603) 3342-8533 • Fax: (603) 3342-6520 • www.eutechinst.com

China | Eutech China
(A Division of Scientific Products (China) Pte Ltd)
Unit D, 20/F Longlife Mansion, No.1566 YanAn West Road,
Shanghai 200052, China
Tel: (86) 021-5109-5800 • Fax (86) 021-5258-2508 • www.eutech.cn

India | Eutech India
(A Division of Scientific Products (India) Pvt Ltd)
Unit No. 2013-2020, 2nd Floor, Oberoi Garden Estate, "A" Wing,
Chandivali Farms Road, Chandivali, Sakinaka, Andheri (E),
Mumbai 400 072, India
Tel: (91) 22 6716 2200 • Fax: (91) 22 6716 2244

Contents

Main
Features

- IP54 Splashproof
- Easy To Use
- 3 Years Warranty
- Quick, Stable & Accurate Results
- Full-Range Accuracy
- Direct Meter-To-PC Data Transfer

Flexible for Indoor or Outdoor Use
With battery or AC/DC power options

Sturdy Foldable Hinge
For bench-top operation

One-Hand Operation
Electrode holder allows one-hand operation and keeps electrodes or temperature probes neat and tidy

Sophisticated Features with User-Friendly Interface
Microprocessor-based meter incorporates new generation Application Specific Integrated Circuit (ASIC) for advanced features with a user-friendly interface

Ergonomically Designed to Fit your Palm Perfectly
Meters are innovatively designed for easy handling

IP54-Rated to Protect Against Accidental Spills
Splashproof tactile keypad protects meter from accidental spills and confirms key selection with demonstrative feedback during operation

Convenient Data Transfer
(pH 110 / CON 110 / DO 110 only)
RS232 outlet allows you to send data to a portable printer or computer easily

Averaging/ Stability Indicator Function
Prompts when reading has stabilized

Easy-To-Read Display
Self-diagnostic with electrode diagnosis and simultaneous display of measured values

Energy and Cost Saving
Auto-off function shuts meter off after 20 minutes from last key pressed to conserve battery life

Momentarily Freezes Readings
Hold function freezes readings for easy viewing and recording

Automatic Temperature Compensation (ATC)
ATC automatically compensates for electrode response under varying temperature conditions
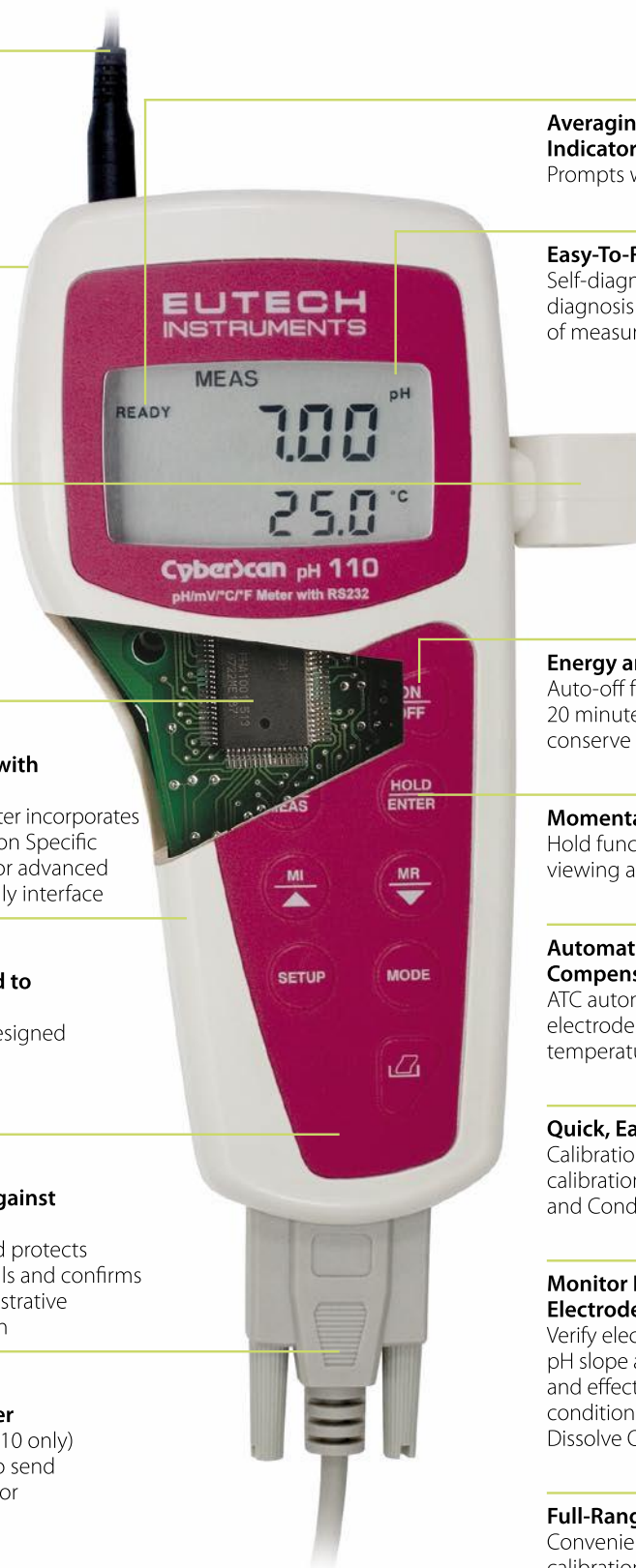
Quick, Easy and Accurate Calibration
Calibration is easy with auto-buffer/calibration standard recognition for pH and Conductivity

Monitor Electrode Performance with Electrode Characteristics Display
Verify electrode performances easily with pH slope and offset displays in pH models, and effective cell constant or electrode condition display in Conductivity and Dissolve Oxygen models

Full-Range Accuracy
Convenient multi-point push-button calibration ensures unprecedented full-range accuracy

User-friendly with advanced features, the economy CyberScan pH 11 and 110 come in sturdy IP54-rated housing to protect against dust and incidental splashes. The standard handheld meters are self-diagnostic for easy trouble-shooting and ergonomically designed to fit your palm perfectly.

Applications: • *Food processing* • *Water and wastewater treatment* • *Cooling towers* • *Printing* • *Ponds and aquariums* • *Agriculture and hydroponics* • *Education institutions* • *Electroplating operations (use with ORP electrode)*

Eutech CyberScan
Standard Handheld pH Series

CyberScan pH 110

pH / mV / Rel. mV / ºC / ºF / RS232
The CyberScan pH 110 gives you twice the memory storage space and comes with RS232 output for convenient data transfer from meter to computer with DAS.

- Multi-parameter options allow you to measure pH and temperature, or Millivolt for ORP (Redox) and Ion Concentration
- Quick, easy calibration with up to 6 points push-button calibration and auto-buffer recognition
- Caters to a wide range of applications with choice of USA, NIST, DIN and PWB pH buffer options
- Convenient data transfer to a printer or PC with RS232 output
- Non-volatile memory holds calibration settings and up to 100 data sets, even when you run out of batteries

CyberScan pH 11

pH / mV / Rel. mV / ºC
The economy CyberScan pH 11 runs on microprocessor technology to give you advanced yet user-friendly features.

- Quick, easy calibration with up to 5 points push-button calibration and auto-buffer recognition
- Higher accuracy under varying temperature conditions with Automatic/Manual Temperature Compensation
- Non-volatile memory holds calibration settings and up to 50 data sets, even when you run out of batteries

Intricately designed to deliver lab-accurate results, the economy CyberScan CON 11 and 110 guarantees full-range accuracy and eliminates guesswork with up to 5-point calibration, auto-ranging capabilities and auto-calibration standard recognition. The standard handheld meters are user-friendly, self-diagnostic for easy trouble-shooting and designed ergonomically to fit your palm perfectly for effortless one-hand operation.

Available in rugged carrying case kit set, complete with calibration solutions, standard solution and deionised rinse water for handy on-site calibration and measurement.

Applications: • *Environmental monitoring* • *Educational institutions* • *Laboratories* • *Water treatment* • *Printing* • *Brines* • *Swimming pools* • *Rinse water* • *Cooling towers* • *Boilers* • *Aquaculture and aquariums* • *Hydroponics* • *Fertilizer/chemical concentration*

Eutech CyberScan
Standard Handheld Conductivity Series

CyberScan CON 110

Conductivity / Total Dissolved Solid (TDS) / ºC / ºF / RS232
The CyberScan CON 110 gives you twice the memory storage space and comes with RS232 output for convenient data transfer from meter to computer with DAS.

• Convenient data transfer to a printer or PC with RS232 output

• One-glance monitoring of electrode performance with electrode data display

• Non-volatile memory holds calibration settings and up to 100 data sets, even when you run out of batteries

CyberScan CON 11

Conductivity / Total Dissolved Solid (TDS) / ºC
The economy CyberScan CON 11 runs on microprocessor technology to give you advanced yet user-friendly features.

• Quick, easy calibration with manual and automatic (single/multiple calibration) calibration options

• Full-range accuracy with up to 5 points push-button calibration

• More accurate measurements with user-customisation such as normalisation temperature, TDS factor and temperature coefficient

• Non-volatile memory holds calibration settings and up to 50 data sets, even when you run out of batteries

Accurate with advanced features, yet so user-friendly - The CyberScan DO 110 is equipped with an Application Specific Integrated Circuit (ASIC) to deliver repeatable, stable measurements. Its unique galvanic electrode with in-built ATC function eliminates polarisation delay, delivers quick, constant responses and requires almost zero maintenance.

Applications: • *Aquaculture and aquariums* • *Wastewater and water treatment* • *Plant water intake and discharge* • *Recirculating systems and industrial process systems* • *Laboratories* • *Educational institutions*

Eutech CyberScan
Standard Handheld Dissolved Oxygen

CyberScan DO 110

Dissolved Oxygen (DO) / ºC / ºF

- Toggle between mg/L (ppm) or % saturation easily with the press of a button
- More accurate measurement with auto-compensation of salinity and pressure with manual input
- Non-volatile memory stores calibration settings and 100 data sets with temperature readings, even when your batteries run out
- One-glance monitoring of electrode performance with electrode data display
- Self-diagnostic for easy trouble-shooting and sturdy with IP54-compliant housing

Data Acquisition Software

DAS Software (pH 110 / CON 110 / DO 110)

Windows® Compatible
For effortless report generation and data-management, the DAS software is a PC-based Data Acquisition Software that helps you organise acquired readings in any popular spreadsheet programme of your choice. Data sets with temperature readings are accompanied by time and date-stamping, conveniently formatted to the GLP standard.

RS232 cable included for direct data downloading from your handheld meter.

Windows® is the registered trademark of Microsoft Corporation

Images are for viewing purpose only.
Meter and accessories are sold separately.

Refer to 'Ordering Information' section for meter and accessories purchase.

| **Calibrating Solutions/Sachets** | Eutech offers a handy range of pre-treatment, cleaning and calibrating solutions for pH and Conductivity/TDS.
Available in convenient bottles or sachets for on-site calibrations and measurements.

| **Cyberkit** | Made of sturdy reinforced plastic with the double-security of a protective die-cut foam lining. The Cyberkit comes complete with calibrating sachets and sample bottles, and is thoughtfully designed to hold your electrodes and meter. It's all you need for your outfield measurements!

| **Microprinter** | Imagine the convenience of printing directly from your meter whenever, wherever! This compact dot-matrix microprinter connects easily to your CyberScan handheld meter via an RS232C outlet. Ideal for data-recording and report-generation.

| **Pouch** | Keep hands free with this convenient carrying pouch which allows the meter to be strapped onto your belt.

| **AC/DC Adapter** | Optional external AC/DC adapter gives users the flexibility of choosing between batteries or powering meter from the electrical mains outlet.

Ordering Information

Order No.	Stock Code	Items
ECPH1102K	01X361103	CyberScan pH 11 Meter with pH Electrode ECFC7252201B, Temperature Probe ECPH5TEM01P & Carrying Case ECPHWPKIT
ECPH1101	01X361101	CyberScan pH 11 Meter with Temperature Probe ECPH5TEM01P
ECPH11002K	01X361203	CyberScan pH 110 Meter with pH Electrode ECFC7252201B, Temperature Probe ECPH5TEM01P, Software, RS232C Cable & Carrying Case ECPHWPKIT
ECPH11001	01X361201	CyberScan pH 110 Meter with Temperature Probe ECPH5TEM01P, Software & RS232C Cable
ECFC7252101B	01X099412	Plastic Body Single Junction pH Electrode (1 m Cable)
ECFC7252201B	01X099417	Plastic Body Double Junction pH Electrode (1 m Cable)
ECFC7352901B	01X218964	3-In-1 pH/Temp. Electrode (1m Cable)
ECFC7960101B	01X256612	Plastic Body Single Junction ORP Electrode (1 m Cable)
ECFC7960201B	01X256613	Plastic Body Double Junction ORP Electrode (1 m Cable)
ECPH5TEM01P	01X021804	Temperature Probe for pH 11 & 110 Series
ECCON1103K	01X366305	CyberScan CON 11 Meter with Conductivity Electrode ECCONSEN91W & Carrying Case ECCONWPKIT
ECCON1103	01X366303	CyberScan CON 11 Meter with Conductivity Electrode ECCONSEN91W
ECCON11003K	01X366309	CyberScan CON 110 Meter with Conductivity Electrode ECCONSEN91W, Software, RS232C Cable & Carrying Case ECCONWPKIT
ECCON11003	01X366307	CyberScan CON 110 Meter with RS232C Cable, Software & Conductivity Electrode ECCONSEN91W
ECCONSEN91W	01X244702	Ultem Body Conductivity Electrode (K=1.0) with 2 Stainless Steel Rings & Built-In Temperature Sensor
ECCONSEN72W	93X244303	Epoxy-Body Conductivity Electrode (K=0.1) with 2 Platinum Rings & Built-In Temperature Sensor
ECCONSEN73W	93X244306	Epoxy-Body Conductivity Electrode (K=10.0) with 2 Platinum Rings & Built-In Temperature Sensor
ECDO11001K	01X403502	CyberScan DO 110 Meter with ECDOHANDY NEW (3 m Cable), Software, RS232C Cable & Carrying Case
ECDO11002K	01X403503	CyberScan DO 110 Meter with ECDOHANDY NEW (8 m Cable), Software, RS232C Cable & Carrying Case
ECDOHANDYNEW	01X239601	Submersible Dissolved Oxygen Electrode with 3 m Cable (17cm x 2.3 cm)
ECPOUCH02	56X201400	Carrying Pouch for Meter
ECPHWPKIT	01X266801	pH Carrying Kit with Buffer Solutions
ECCONWPKIT	01X266802	Conductivity Carrying Kit with Calibration Solutions
ECCA02M09F09	30X219503	CyberScan to PC (RS232C) Communication Cable, 9-Pin Male to 9-Pin Female Connector (1 m Cable)
ECMICROPRNTR01	01X230001	Serial Impact Micro-Printer (110 VAC)
ECMICROPRNTR02	01X230002	Serial Impact Micro-Printer (220 VAC)
ECMICROPRNTR02CLK	01X230004	Serial Impact Micro-Printer with Real Time Clock (220 VAC)

CyberScan Standard Handheld
Specification Tables

CE

We reserve the right to make changes, improvements and modifications to products shown.

pH Handheld Meters		pH 110	pH 11
pH	Range	- 2.00 to 16.00 pH	
	Resolution	0.01 pH	
	Accuracy	± 0.01 pH	
Temperature	Range	- 10.0 to 110.0 ℃ or 14.0 to 230 ℉	- 10.0 to 110.0 ℃
	Resolution	0.1 ℃ / ℉	0.1 ℃
	Accuracy	± 0.5 ℃ (± 0.9 ℉)	± 0.5 ℃
mV (Extended)	Range	-1999 to 1999 mV	
	Resolution	1 mV	
	Accuracy	± 0.2 mV	
mV	Range	- 199.9 to + 199.9 mV	
	Resolution	0.1 mV	
	Accuracy	± 0.2 mV	
No. of Calibration Points		2 to 6 Points (With DIN pH buffers)	2 to 5 Points
pH Buffer Sets		USA : pH 1.68 / 4.01 / 7.00 / 10.01 / 12.45 NIST : pH 1.68 / 4.01 / 6.86 / 9.18 / 12.45 DIN : pH 1.09 / 3.06 / 4.65 / 6.79 / 9.23 / 12.75 Low Ionic : pH 4.10 / 6.97	USA : pH 1.68 / 4.01 / 7.00 / 10.01 / 12.45 NIST : pH 1.68 / 4.01 / 6.86 / 9.18 / 12.45

Conductivity Handheld Meters		CON 110	CON 11
Conductivity	Range	.. to 19.99 µS/cm ; .. to 199.9 µS/cm ; .. to 1999 µS/cm .. to 19.99 mS/cm ; .. to 199.9 mS/cm	
	Resolution	0.05 % Full scale	
	Accuracy	± 1% Full scale + 1 digit	
TDS	Range	.. to 9.99 ppm ; .. to 99.9 ppm ; .. to 999 ppm .. to 9.99 ppt ; .. to 99.9 ppt (Based on TDS factor 0.50)	
	Resolution	0.05 % Full scale	
	Accuracy	± 1% Full scale + 1 digit	
Temperature	Range	- 10.0 to 110.0 ℃ or 14.0 to 230 ℉	- 10.0 to 110.0 ℃
	Resolution	0.1 ℃ / ℉	0.1 ℃
	Accuracy	± 0.5 ℃ (± 0.9 ℉)	± 0.5 ℃
TDS Factor		0.40 to 1.00 (Selectable)	
Temperature Coefficient		0 to 10 % / ℃ (Selectable)	
No. of Calibration Points		Automatic : 1 to 4 points (84.0 µS/cm, 1413 µS/cm; 12.88 mS/cm, 111.8 mS/cm) Manual : 1 to 5 points (User defined standards / 1 per range)	
Cell Constant		0.1, 1.0, 10.0 (Selectable)	
Normalisation Temperature		20.0 or 25.0 ℃	

Dissolved Oxygen Handheld Meter		DO 110
Dissolved Oxygen	Range	0.00 to 19.99 mg/l or ppm
	Resolution	0.01 mg/l; 0.01 ppm
	Accuracy	± 1.5 % Full scale
% Saturation Of Oxygen	Range	0.0 to 199.9 %
	Resolution	0.1 %
	Accuracy	± 1.5 % Full scale
Temperature	Range	0.0 to 50.0 ℃ or 32.0 to 122 ℉
	Resolution	0.1 ℃ / ℉
	Accuracy	± 0.3 ℃ / 0.5 ℉
Salinity Correction	Range	0.0 to 50.0 ppt
	Resolution	0.1 ppt
	Method	Automatic correction after manual input
Barometric Pressure Correction	Range	500 to 1499 mmHg or 66.6 to 199.9 kPA
	Resolution	1 mmHg or 0.1 kPA
	Method	Automatic correction after manual input
No. of Calibration Points		2 points (0 % and 100%)

CyberScan Standard Handheld
Comparison Tables

Meter Features	pH 110	pH 11	CON 110	CON 11	DO 110
Temperature Compensation	Automatic/manual (0 - 100 ℃)				Automatic/manual (0 - 50 ℃)
Averaging/Stability	Yes (Selectable)				
Auto-Hold	Yes (Selectable)				
Auto-Off	20 minutes after last key pressed (Selectable)				
Electrode Condition	Yes				
Memory	100 Data sets	50 Data sets	100 Data sets	50 Data sets	100 Data sets
Printing Option	Yes (RS232C)	-	Yes (RS232C)	-	Yes (RS232C)
Power Requirements	4 x 1.5 V "AAA" Alkaline batteries or 9 V DC adapter, 200mA				
Battery Life	> 700 Hours (Alkaline batteries)		> 200 Hours (Alkaline batteries)		700 Hours (Alkaline batteries)
Dimension ; Weight	Meter: 18 (L) x 9 (B) x 4 (H) cm ; 220 g Boxed: 24 (L) x 23 (B) x 7 (H) cm ; 600 g				Meter: 18 (L) x 9 (B) x 4 (H) cm ; 220 g Boxed: 24 (L) x 23 (B) x 7 (H) cm ; 1200 g

Selection Guide	pH 110	pH 11	CON 110	CON 11	DO 110
pH	✔	✔	-	-	-
mV	✔	✔	-	-	-
Rel. mV	✔	-	-	-	-
RS232	✔	-	✔	-	✔
Memory	✔	✔	✔	✔	✔
Conductivity (EC)	-	-	✔	✔	-
Total Dissolved Solids (TDS)	-	-	✔	✔	-
Dissolved Oxygen (DO)	-	-	-	-	✔

<< Environmental Monitoring
>> Laboratories

<< Swimming Pools
>> Wastewater

Eutech Instruments manufactures a comprehensive range of laboratory and field instrumentation for water analysis. Eutech Instruments also produces on-line process instruments for water quality monitoring and control. Innovative products from Eutech include:

| Dual Display Testers | EcoScan Palmtops | Waterproof Portable Colorimeters and Turbidimeters | CyberScan Portable Series | CyberScan Bench Series | CyberScan Touchscreen

| **World-Wide Sales and Service Support |** Eutech provides world-wide sales and service support for all its products through its network of international distributors. Contact us at marketing@eutechinst.com for details of your nearest distributor.

Distributed by:

EUTECH INSTRUMENTS
Technology Made Easy ...

ISO 9001 CERTIFIED

FROST & SULLIVAN
Market Engineering Award Recipient
Awarded in 2001 & 2003

www.eutechinst.com | marketing@eutechinst.com

Singapore · USA · Netherlands · Malaysia · China · India

POR 08X233299 8/06 Rev 3