

# Eutech pH 450



## pH / mV / ION / Temperature

Backlit, rugged waterproof meter is ideal for any environment

- Durable waterproof and dustproof design with IP67 rating
- **Large, backlit display** – View measurement with temperature and % slope
- **Grip-Clip™** – Quickly and easily secures the pH electrode to your beaker or container
- Calibrate up to 5 points automatically with USA or NIST buffer groups (up to 6 points with DIN). New manual option allows calibration with up to 5 custom buffer standards
- **Auto buffer recognition** – Automatically identifies the correct pH buffer for rapid calibration
- **Calibration due alarm** – Set a visible reminder when it is time to recalibrate the meter
- Ready indicator, manual or automatic measurement hold feature and optional automatic shutoff function
- **Selectable °C/°F** – Choose units to best fit your application
- **Intuitive, user-friendly icons** – Electrode status displays pH slope
- **Store up to 500 data sets** – Easy USB or RS232 output with optional data cables
- **Built-in real-time clock stamps stored data and calibration data with time and date** – Meets standards for GLP (Good Laboratory Practices)
- Extended battery life from two AA batteries, or use optional universal power adapter
- **Built-in stand with wall-mount option** – Allows for easy benchtop measurement or storage
- Compatible with pH, ORP or ISE electrodes having a BNC connector



## Specification Table

pH	Range	-2.00 to 16.00 pH
	Resolution	0.01 pH
	Accuracy	±0.01 pH
	Calibration	Up to 5 points (USA & NIST & CUSTOM) Up to 6 points (DIN)
mV	Range	±2000 mV
	Resolution	0.1 mV ±999.9 mV; 1 mV beyond
	Accuracy	±0.2 mV +2 LSD or +0.5 % of reading; whichever is greater
	Calibration	±200 mV
ION	Range	0.0 to 2000 ppm
	Resolution	0.01 / 0.1 / 1 ppm
	Accuracy	±0.5 % full scale (monovalent); ±1 % full scale (divalent)
	Calibration	From 2-4 or 2-5 points: 0.10, 1.00, 10.0, 100.0 & 1000 / 0.20, 2.00, 20.0, 200.0 & 2000 / 0.50, 5.00, 50.0 & 500.0
Temperature	Range	-10.0 to 110.0 °C (14.0 to 230.0 °F)
	Resolution	0.1 °C
	Accuracy	±0.5 °C; ±0.9 °F
	Calibration	Offset in 0.1 increments, ±10 °C or ±18 °F
Display	Custom LCD with backlight	
Memory	Stores up to 500 data sets	
Output	USB or RS232	
Real-Time Clock	Time and date stamp on calibration and stored data	
Temperature Compensation	Automatic or manual from -10 to 110 °C	
Power	Two AA batteries (included), >500 hours (without backlight); AC adapter (optional)	
Dimensions (L x W x H)	Meter	7 7/8" x 3 1/8" x 2 1/4" (20 x 8.3 x 5.7 cm)
	Boxed	9 1/8" x 9 1/8" x 2 3/4" (23 x 23 x 7 cm)
Weight	Meter	1 lb (0.5 kg)
	Boxed	1.4 lb (0.7 kg)










## Ordering Information

Order Code	Part No.	Description
<b>Meter</b>		
ECPHWP45000	01X651628	<b>pH 450 Meter Only:</b> Meter, Grip-Clip™, two AA batteries
ECPHWP45002	01X651629	<b>pH 450 Meter &amp; Electrode:</b> Meter with double junction pH electrode and ATC probe, Grip-Clip™, two AA batteries
ECPHWP45002K	01X651630	<b>pH 450 Meter Kit:</b> Meter with double-junction pH electrode and ATC probe, Grip-Clip™, two AA batteries, hard carry case, USB cable, pH buffers, storage solution, rinse solution
<b>Electrodes</b>		
ECFC7252201B	01X099417	Replacement pH electrode, double-junction, epoxy body, BNC
ECFE7372801W	93X218990	pH electrode with built-in ATC. Double-junction, epoxy body, BNC
ECFC7352901W	01X218995	pH electrode with built-in ATC. Single-junction, epoxy body, BNC
ECFC7960201B	01X256613	ORP electrode. Double-junction, epoxy body, gel-filled, BNC
PHWPTM01W	01X021807	ATC probe. Use with any standard pH electrode for temperature compensation
<b>Accessories</b>		
GRIPCLIP	GRIPCLIP	Grip-Clip™
60X426401	60X426401	Optional 100 / 240 VAC SMPS power adapter, 9 V, 6 W
MINIPHONEUSB	MINIPHONEUSB	USB cable for 450 series, mini phone plug to USB
30X427301	30X427301	RS232 cable for 450 series, mini phone plug to RS232 9-pin (F)
ECPHBUFKITC	01X639001	pH buffer set, pH 4 (red), 7 (yellow), 10 (blue), 480 mL each
ECPHBUFKIT	01X638901	Colourless pH buffer set, pH 4, 7 and 10 (480 mL each)



# Comparison Tables

Meter Features	pH 150	CON 150	pH 450	CON 450	DO 450	PD 450	PC 450	
								
	See Page 4	See Page 5	See Page 6	See Page 7	See Page 8	See Page 9	See Page 10	
	pH & mV	✓	–	✓	–	–	✓	✓
	ION	–	–	✓	–	–	–	–
	Temperature	✓	✓	✓	✓	✓	✓	✓
	Conductivity & TDS	–	✓	–	✓	–	–	✓
	Optical Dissolved Oxygen	–	–	–	–	✓	✓	–
	Salinity	–	–	–	✓	–	–	–
	Display	Three line custom LCD		Three line custom LCD with backlight				
Temperature Compensation	Automatic or manual from -10 to 110 °C							
Temperature Coefficient	–	0.00 to 10.00 %/°C	–	0.00 to 10.00 %/°C	–	–	0.00 to 10.00 %/°C	
Memory	150 data sets		500 data sets					
Output	–		USB or RS232					
Real-Time Clock	–		Time and date stamp on calibration and stored data					
Power	Two AA batteries (included)							
	>700 hours continuous use	>500 hours continuous use	>500 hours (without backlight)	>300 hours (without backlight)	>100 hours (without backlight)			
Dimensions (L x W x H)	9 V DC adapter, 1.3 A (100/240 VAC, SMPS) (optional)							
Weight	Meter: 7 7⁄8" x 3 1⁄8" x 2 1⁄4" (20 x 8.3 x 5.7 cm) ; Boxed: 9 1⁄8" x 9 1⁄8" x 2 3⁄4" (23 x 23 x 7 cm) Meter: 1 lb (0.5 kg) ; Boxed: 1.4 lb (0.7 kg)							

Eutech 150 Series & Eutech 450 Series Configurations		Electrodes						Accessories					Solutions	
		Double-Junction pH Electrode (ECFC725201B)	pH Electrode, 26 mm Diameter (ECDA9350603B)	Combi pH/Con/ ATC Electrode (COMBI03BW)	Conductivity/ATC Electrode, K = 1 (CONSEN91W)	ATC Probe (PHWPTM01W)	RDO Electrode With Cap (RDO3M)	Glip-Clip™	Hard Carry Case	USB Cable	RDO Stainless Steel Weight/Guard	RDO Calibration Sleeve	60 mL Bottles of pH 4, pH 7, Storage Solution, DI Water	60 mL Bottles of 1413 µS, 12.88 mS, 111.8 mS, DI Water
Order Code	Product Combination							✓						
ECPHWP15000	pH 150 Meter Only	✓				✓		✓						
ECPHWP15002	pH 150 Meter & Electrode	✓				✓		✓	✓			✓		
ECPHWP15002K	pH 150 Meter Kit				✓			✓						
ECCONWP15003	CON 150 Meter & Electrode				✓			✓						
ECCONWP15003K	CON 150 Meter Kit				✓			✓	✓				✓	
ECPHWP45000	pH 450 Meter Only							✓						
ECPHWP45002	pH 450 Meter & Electrode	✓				✓		✓						
ECPHWP45002K	pH 450 Meter Kit	✓				✓		✓	✓	✓		✓		
ECCONWP45003	CON 450 Meter & Electrode				✓			✓						
ECCONWP45003K	CON 450 Meter Kit				✓			✓	✓	✓			✓	
ECDOWP45000	DO 450 Meter Only													
ECDOWP45003	DO 450 Meter & Electrode						✓							
ECDOWP45003K	DO 450 Meter Kit						✓		✓	✓	✓			
ECPDWP45000	PD 450 Meter Only													
ECPDWP45004	PD 450 Meter & Electrodes		✓				✓							
ECPDWP45004K	PD 450 Meter Kit		✓				✓		✓	✓	✓	✓		
ECPCWP45000	PC 450 Meter Only							✓						
ECPCWP45004	PC 450 Meter & pH & Con/ATC Electrodes	✓			✓			✓						
ECPCWP45004K	PC 450 Meter Kit	✓			✓			✓	✓	✓		✓	✓	
ECPCWP45003	PC 450 Meter & Combi Electrode			✓										
ECPCWP45003K	PC 450 Meter Combi Kit			✓					✓	✓		✓	✓	



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