

pH Pal Plus pH Tester

ideal for food processing & hydroponics

- pocket-sized meter, ideal for everyday use
- automatic re-calibration feature
- easy to read 8 mm LCD display
- display hold function

The pH Pal Plus pH tester is a user-friendly, simple to use pocket-sized pH meter that incorporates an automatic re-calibration feature. At the touch of a button, the instrument will automatically re-calibrate itself when used in conjunction with a 7.00 pH buffer solution.

The unit is housed in a water resistant case and features an easy to read 8 mm LCD display indicating pH over the range of 0 to 14 pH with a resolution of 0.1 pH and an accuracy of ± 0.2 pH.

The pH Pal Plus tester will power off automatically after ten minutes, maximising battery life. This pH Pal is ideal for measuring the pH in food processing, hydroponics and water testing applications. The pH tester is an invaluable tool when mixing concentrates with water.

The unit is powered by four LR44 button cell batteries (supplied) and includes a protective cap. For pH buffer solutions and capsules, see page 118.



optional accessory

This ready-made 7.00 pH buffer solution ensures the pH meter is reading correctly



- HOLD
- AUTO OFF
- IP65

order code	description
813-513	pH Pal Plus pH tester
816-051	7.00 pH buffer solution

specification	pH Pal Plus pH tester
range	0 to 14 pH
resolution	0.1 pH
accuracy	± 0.2 pH
battery	4 x 1.5 volt LR44 button cell
battery life	150 hours
display	8 mm LCD
dimensions	15 x 32 x 170 mm
weight	70 grams

8000 pH meter

& interchangeable electrode

- easy to use 2-point re-calibration function
- supplied complete with a pH electrode

The 8000 pH meter features an easy to read, LCD display and is supplied with a budget pH electrode.

The 8000 pH meter indicates pH over the range of 0 to 14 pH with a resolution of 0.01 pH and an accuracy of ± 0.05 pH. The pH readings are manually temperature compensated over the range of 0 to 60 °C (default 25 °C).

The unit will power off automatically after ten minutes, maximising battery life.

At the touch of a button, the instrument will automatically re-calibrate itself when used in conjunction with pH buffer solutions. See page 118 for pH electrodes, buffer solutions and capsules.

order code	description
860-800	8000 pH meter
the 8000 pH meter is inclusive of pH electrode	



budget pH electrode (823-500)



specification	8000 pH meter
range	0 to 14 pH
resolution	0.01 pH
accuracy	± 0.05 pH
battery & life	3 x 1.5 volt AAA - 5000 hours
sensor type	combination electrode
display	custom LCD
dimensions	25 x 56 x 128 mm
weight	130 grams

8100 pH Kit

pH & temperature meter

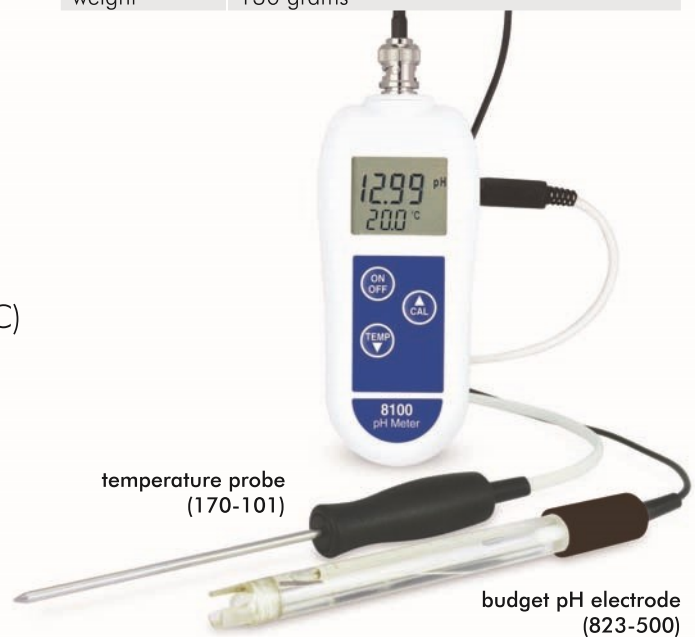
- simultaneously displays pH & temperature
- automatic temperature compensation (ATC)

The 8100 pH meter features an easy to read, LCD display and is supplied as a kit which includes an 8100 pH meter, budget pH electrode, temperature probe, 4.01 and 7.00 pH buffer solutions and carrying case.

The 8100 pH meter indicates pH over the range of 0 to 14 pH with a resolution of 0.01 pH and temperature over the range of 0 to 99.9 °C with a resolution of 0.1 °C. The pH readings are automatically temperature compensated over the operating range of 0 to 60 °C utilising the temperature probe supplied.

At the touch of a button, the instrument will automatically re-calibrate itself when used in conjunction with pH buffer solutions. See page 118 for pH electrodes, buffer solutions and capsules.

order code	description
860-810	8100 pH kit
170-101	spare temperature probe



temperature probe (170-101)

budget pH electrode (823-500)



specification	pH	temperature
range	0 to 14 pH	0 to 99.9 °C
resolution	0.01 pH	0.1 °C
accuracy	± 0.05 pH	± 0.5 °C
battery & life	3 x 1.5 volt AAA - 5000 hours	
sensor type	combination electrode / thermistor	
display	custom LCD	
dimensions	25 x 56 x 128 mm	
weight	130 grams	

8100 Plus pH meter

pH & temperature meter

- robust waterproof case offering IP66/67 protection
- manual/automatic temperature compensation
- easy to use 2-point re-calibration function
- large, easy to read backlit LCD

The 8100 Plus pH meter is a three-in-one instrument that features a large easy to read, LCD display that indicates pH over the range of -2 to 16 pH with a resolution of 0.01 pH, mV over the range of -1000 to 1000 mV and temperature over the range of -39.9 to 149.9 °C with a resolution of 0.1 °C. The LCD display features both low battery indication and a user selectable backlight.

The pH readings are either manually or automatically temperature compensated over the range of 0 to 80 °C. To automatically compensate, it is necessary to utilise a thermistor temperature probe. Each unit incorporates an auto-power off facility that automatically turns the instrument off after ten minutes, maximising battery life.

The 8100 Plus has an integrated rubber seal to ensure complete water resistance and helps to reduce the possibility of damage in harsh environments. At the touch of a button, the instrument will automatically re-calibrate (two-point autocal) itself when used in conjunction with pH buffer solutions. For pH electrodes, buffer solutions and capsules, see overleaf.

Each unit incorporates an easy to use BNC connector and Lumberg screw-locking type connector, allowing a wide range of interchangeable thermistor probes to be used. We offer an extensive range of temperature probes, see pages 80 and 81 for full details.

The 8100 Plus is available as a meter only or as a complete kit.



order code	description
225-085	8100 Plus pH meter*
860-820	8100 Plus kit
170-100	temperature probe
830-231	silicone boot - white
832-015	s/steel wall bracket

*8100 Plus is exclusive of pH electrode & probe



general purpose electrode
(823-501)

temperature probe
(170-100)

8100 Plus pH meter kit

- 8100 Plus pH meter (225-085)
- temperature probe (170-100)
- general purpose pH electrode (823-501)
- 4.01 pH buffer solution (816-050)
- 7.00 pH buffer solution (816-051)
- carrying case (830-080)







specification	pH	mV	temperature
range	-2 to 16 pH	±1000 mV	-39.9 to 149.9 °C
resolution	0.01 pH	1 mV	0.1 °C
accuracy	±0.02 pH	±1 mV	±0.4 °C (-9.9 to 69.9 °C)
battery	3 x 1.5 volt AAA		
battery life	maximum 5 years (2500 hours)		
sensor type	combination electrode / thermistor		
display	12 mm LCD		
dimensions	32 x 71 x 141 mm		
weight	230 grams		

pH Electrodes

with BNC connector

pH meters are only part of the system, of equal importance is the design of the pH electrodes that are used to physically measure the product. This range of standard hand held pH electrodes are fully interchangeable via a BNC connector and are designed for use with the 8000/8100 and 8100 Plus pH meters or similar.

		order code
budget pH electrode  Ø12 x 120 mm	This plastic bodied electrode is ideal for measuring the pH in liquids and semi-solids, in a variety of industries including hydroponics, education and scientific.	823-500
general purpose electrode  Ø12 x 120 mm	This plastic bodied electrode is ideal for measuring the pH in liquids and semi-solids in a wide variety of industries including food processing, agriculture and pharmaceutical.	823-501
spear-shaped electrodes  Ø6 or 12 x 120 mm	These glass penetration pH electrodes measure pH in semi-solid and soft materials. Ideal for use in a wide variety of industries including food processing and agriculture.	823-502 (Ø12 mm) 823-503 (Ø6 mm)
knife probe electrode  Ø15 x 150 mm	This stainless steel, sheathed glass electrode is ideal for insertion into meat, cheese or similar. The knife probe can also be used in a variety of applications in food processing and agriculture.	823-510

Please note: maximum operating temperature range of pH electrodes is 80 °C

Calibration Solutions & Capsules

for pH meters & electrodes

pH buffer, cleaning & storage solutions

These ready-made solutions are suitable for checking and cleaning pH instrumentation and pH electrodes.

Buffer solutions are available for 4.01, 7.00 and 10.01 pH.



order code	description
816-050	4.01 pH buffer solution - 100 ml
816-051	7.00 pH buffer solution - 100 ml
816-052	10.01 pH buffer solution - 100 ml
816-040	cleaning solution - 500 ml
816-041	storage solution - 500 ml

pH buffer capsules

These DIY pH buffer capsules are available in four standard values, 4.00, 7.00, 9.00 and 10.00 pH.

Each capsule makes 100 ml of solution when mixed with de-ionised water. Supplied in packs of ten capsules.



order code	description
816-004	4.00 pH buffer capsules (10)
816-007	7.00 pH buffer capsules (10)
816-009	9.00 pH buffer capsules (10)
816-010	10.00 pH buffer capsules (10)

TDS Conductivity Testers

for measuring the ppm or μS in various liquids

- water resistant case offering IP65 protection
- automatic temperature compensation (ATC)
- easy to use, pocket-sized meter
- accuracy of $\pm 2\%$ of full scale

These TDS conductivity testers indicate ppm (parts per million) or μS (micro-siemens), ideal for monitoring a variety of applications including the amount of salts, nutrients or dissolved solids in water. At the touch of a button the readings are automatically temperature compensated over the range of 0 to 50 °C.

There are four models, two TDS and two conductivity testers, suitable for testing either low or high concentrations of total dissolved solids in liquids.

Housed in a water resistant case that features an easy to read 6 mm LCD display, each meter is powered by four LR44 button cell batteries (*supplied*) and is supplied with a protective cap.

See below for our range of ppm, μS and mS calibration solutions, all supplied in 90 ml bottles.



TDS calibration solutions

These ready-made solutions are suitable for checking TDS and conductivity instrumentation and electrodes.

Calibration solutions are available for 1382 ppm, 6440 ppm, 1413 μS and 12.88 mS



order code	description
813-525	TDS1 ppm tester
813-526	TDS2 ppm tester
813-527	COND3 μSiemen tester
813-528	COND4 μSiemen tester
816-055	1382 ppm solution - 90 ml (TDS1)
816-057	6440 ppm solution - 90 ml (TDS2)
816-054	1413 μS solution - 90 ml (COND3)
816-056	12.88 mS solution - 90 ml (COND4)

specification	TDS1	TDS2	COND3	COND4
range	10-1990	100-9999	10-1990	100-19900
resolution	10 ppm	100 ppm	10 μS	100 μS
accuracy	$\pm 2\%$ of full scale			
battery & life	4 x 1.5 volt LR44 - 100 hours			
display	6 mm LCD			
dimensions	15 x 32 x 147 mm			
weight	70 grams			