



# INSTRUMENTATION FOR LABORATORY ANALYSIS

THE UK'S LEADING SPECIALIST IN THE DESIGN & MANUFACTURE  
OF TEMPERATURE MEASURING EQUIPMENT FOR OVER 35 YEARS

## 8000 pH METER

- Easy to use 2-point re-calibration function
- Manual temperature compensation
- High accuracy  $\pm 0.05$  pH
- 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  $\pm 0.05$  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.

Order code	Description
860-800	8000 pH meter

The 8000 pH meter is inclusive of pH electrode



Specification	8000 pH meter
Range	0 to 14 pH
Resolution	0.01 pH
Accuracy	$\pm 0.05$ 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 & TEMPERATURE METER KIT

- Simultaneously displays pH & temperature
- Automatic temperature compensation (ATC)
- Includes Biomaster Antimicrobial Technology
- Interchangeable electrodes

The 8100 pH meter features an easy to read, LCD 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 zip pouch for easy transportation and storage.

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.

Order code	Description
860-810	8100 pH kit
170-101	Spare temperature probe



Specification	pH meter	Temperature
Range	0 to 14 pH	0 to 99.9 °C
Resolution	0.01 pH	0.1 °C
Accuracy	$\pm 0.05$ pH	$\pm 0.5$ °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 KIT

- Manual/automatic temperature compensation
- Easy to use 2-point re-calibration function
- High accuracy  $\pm 0.02$  pH
- Waterproof IP66/67, robust design

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 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.

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. For our extensive range of temperature probes, visit our website or contact our sales office. The 8100 Plus is also available as a meter only.



## Each kit contains:

- 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)
- Zip pouch (830-080)







Order code	Description
860-820	8100 Plus kit
225-085	8100 Plus pH meter*
170-100	Temperature probe
830-231	Protective silicone boot - white
832-015	Stainless steel wall bracket

\*The 8100 Plus is exclusive of pH electrode & probe

Specification	pH	mV	Temperature
Range	-2 to 16 pH	$\pm 1000$ mV	-39.9 to 149.9 °C
Resolution	0.01 pH	1 mV	0.1 °C
Accuracy	$\pm 0.02$ pH	$\pm 1$ mV	$\pm 0.4$ °C (-9.9 to 69.9 °C)
Battery & life	3 x 1.5 volt AAA - 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

		Order code
<b>BUDGET pH ELECTRODE</b>  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
<b>GENERAL PURPOSE ELECTRODE</b>  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
<b>SPEAR-SHAPED ELECTRODES</b>  Ø6 or Ø12 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)
<b>KNIFE PROBE ELECTRODE</b>  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. Each electrode is supplied with a one metre lead.

# CALIBRATION SOLUTIONS & CAPSULES

## 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)

## pH PAL PLUS pH TESTER

- Pocket-sized meter, ideal for everyday use
- Automatic re-calibration feature

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  $\pm 0.2$  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.

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	$\pm 0.2$ 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

# THERMADATA® PHARM WIFI LOGGERS

- External sensor(s) designed to simulate fridge contents temperature
- FREE software with NO ongoing or subscription charges
- Access recorded data worldwide via internet
- High/low alerts via email

The ThermaData Pharm WiFi loggers are a battery powered, cost-effective, temperature monitoring system that remotely records storage and transportation temperatures of perishable items such as food, vaccines and medication.

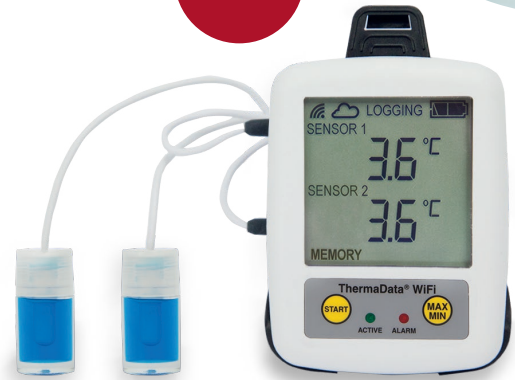
Each logger has an intuitive LCD displaying; temperature, WiFi connection status, max/min recorded temperatures, alarm status and battery life. Simple to set up, the logger once up and running will transmit recorded data to a WiFi router connected to the internet which can then be accessed and viewed from a PC, laptop or tablet anywhere in the world.

At programmable intervals, the loggers will record temperature from both sensors, recording up to a maximum of 18000 readings (9000 from each sensor). Each logger incorporates a red and green LED. The flashing green LED indicates that the logger is active/logging and the flashing red LED indicates that the customised preset alarms have been exceeded. Each logger communicates directly to the WiFi router at set intervals to push data through the internet into ThermaData Studio. The information is available to be analysed and exported into a report format. Each unit is supplied with a USB lead and free wall bracket. ThermaData Studio software is available to download FREE from our website and is licence free, no ongoing or subscription charges.

Each thermistor probe is encased in a sealed bottle and incorporates a one metre PUR/PVC fixed lead. To begin monitoring, simply unscrew and top up with Glycol solution (50 ml bottle supplied). **Please Note:** Model TD1F Pharm is supplied with one external remote probe and an internal sensor. Model TD2F is supplied with two external remote probes. For more information contact our sales office.

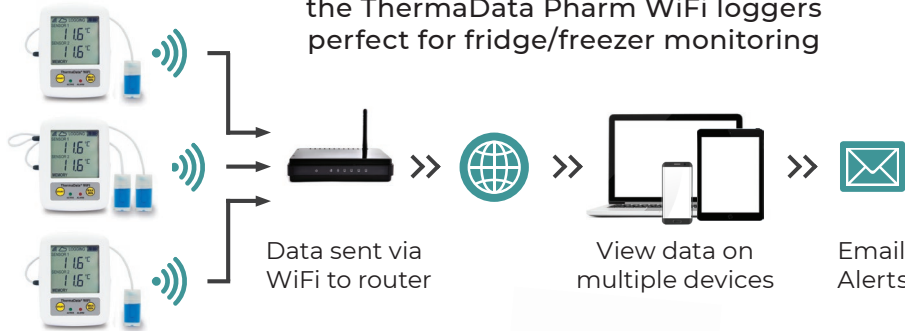


**new**



PHARM WIFI LOGGERS

Simple setup & easy to use software makes the ThermaData Pharm WiFi loggers perfect for fridge/freezer monitoring



**new**



Magnetic mount (830-800)



Order code	Description
298-011-PHM	Model TD1F c/w Pharm probe
298-111-PHM	Model TD2F c/w Pharm probes
830-880	Protective silicone boot - black
832-590	ABS wall bracket
830-800	Magnetic mount
816-035	Replacement Glycol solution - 50 ml

**Inclusive of thermistor probe(s) & USB lead**

Specification	Model TD1F	Model TD2F
Range - internal	0 to 50 °C	N/A
Range - external	-40 to 70 °C	-40 to 70 °C
Resolution	0.1 °C/°F	
Accuracy	±0.5 °C	
Memory	2 x 9000 readings	
Sample rate	0.1 to 330 minutes	
Battery & life	2 x 1.5 volt AA - approx. 1 year	
Display	12 mm LCD/2 LED's	
Dimensions	29 x 72.5 x 96 mm	
Weight	165 grams	

**FREE traceable certificate of calibration included**

Please note: WiFi routers have a range of 100 metres depending on the make, model, capabilities and setup of the router. Environmental conditions may also affect the signal strength.



# THERMAGUARD® PHARM THERMOMETER



- External sensor(s) designed to simulate fridge contents temperature
- Two models available - single or dual external sensors
- Optional UKAS Calibration Certificate available
- Programmable high/low audible alarm

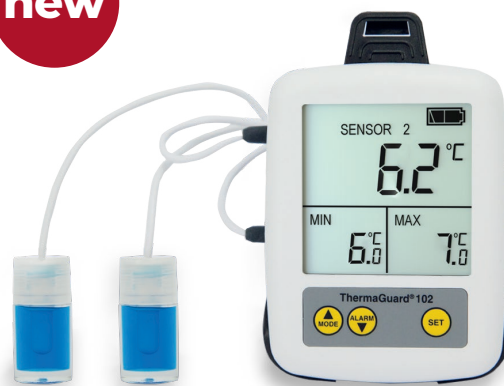


The ThermaGuard Pharm has been specifically designed for use in monitoring the storage and transportation temperatures of perishable items such as food, vaccines and medication. Each thermometer features a large LCD display, which simultaneously displays the current and max/min recorded temperatures.

Both units feature programmable audible alarms allowing the user to preset high and low temperature limits. When the alarm is active the LCD will flash. The alarm can be silenced by pressing any button.

Housed in a splashproof IP54 ABS case, which includes Biomaster Antimicrobial Technology to reduce bacterial growth, both ThermaGuard Pharm models feature a CalCheck 0.0 °C (±0.1 °C) function that allows the user to verify the accuracy of the thermometer at any time, giving confidence that measurements are accurate.

Each thermistor probe is encased in a sealed bottle. To begin monitoring, simply unscrew and top up with Glycol solution (50 ml bottle supplied).



## ● Two models available with optional UKAS Certificate of Calibration

The ThermaGuard Pharm 101 incorporates two temperature sensors; a remote water resistant thermistor probe with a one metre PVC lead for monitoring the product temperature and an internal sensor to monitor room temperature. The ThermaGuard 102 incorporates two remote water resistant thermistor probes, both with one metre PVC leads for monitoring dual applications. An optional two-point UKAS Certificate of Calibration is available. Each certificate indicates deviations from standards at -18 and 0 °C.

## ● FREE wall bracket included

Each ThermaGuard is supplied with an ABS plastic wall bracket that incorporates a built-in foot stand, hook for hanging and screw thread for tripod mounting.



## OPTIONAL ACCESSORIES:

- Protective silicone boot (830-880)
- Magnetic mount (830-800)
- Replacement Glycol solution 50 ml (816-035)



Order code	Description
226-911	ThermaGuard Pharm 101
226-921	ThermaGuard Pharm 101 & UKAS Cert
226-912	ThermaGuard Pharm 102
226-922	ThermaGuard Pharm 102 & UKAS Cert
830-880	Protective silicone boot - black
832-590	ABS wall bracket
830-800	Magnetic mount
816-035	Replacement Glycol solution - 50 ml
<b>UKAS certificate applies to remote probe(s) only</b>	

Specification	ThermaGuard Pharm
Range - internal	-19.9 to 49.9 °C (101 model only)
Range - external	-39.9 to 49.9 °C
Resolution	0.1 °C/°F
Accuracy	±0.4 °C
Battery	2 x 1.5 volt AA
Battery life	25000 hours (without alarm)
Sensor type	Thermistor
Display	Custom LCD
Dimensions	29 x 73 x 96 mm
Weight	165 grams
<b>Optional UKAS certificate of calibration available</b>	



British Manufacturer

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