

thermo scientific



## Thermo Scientific Expert and Elite series waterproof pocket testers

Accurate, on-the-go solutions  
for water analysis

**ThermoFisher**  
SCIENTIFIC

# Thermo Scientific Expert and Elite series pocket testers

## Expert pocket tester features

- Budget-friendly option
- Large, double line display
- pH and conductivity models
- Uses 4 x 1.5V micro alkaline batteries
- Average 75-100 hours of battery life
- Leakproof cap with fill line
- Long-lasting sensors
- One-year warranty

## Elite pocket tester features

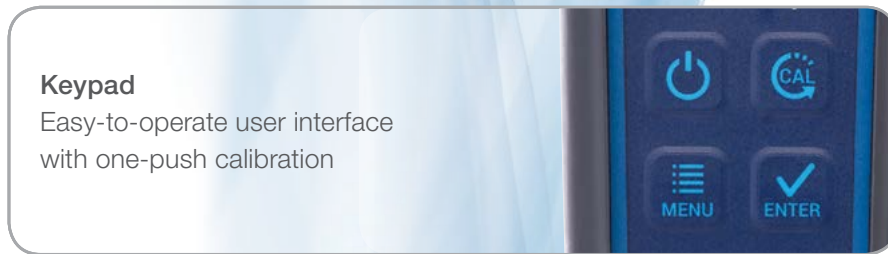
- Flexible testing option
- Large back-lit graphic display
- pH, spear, conductivity, ORP, and pH/conductivity models
- Uses 4 x AAA alkaline batteries
- Average 150-250 hours of battery life
- Wide leak-proof cap serves as stable base
- Replaceable sensors
- One-year warranty for tester (6 month warranty for replacement sensors)



Expert pH  
Pocket Tester



**Portable**  
Lanyard provision  
for on-the-go  
measurements



**Keypad**  
Easy-to-operate user interface  
with one-push calibration



**Storage**  
Wide, stable  
base allows the  
tester to stand  
independently



Elite pH  
Pocket Tester



# Thermo Scientific Expert pH and Expert CTS testers

## Main features

- Budget-friendly option
- Large, double line display
- pH and conductivity models
- Uses 4 x 1.5V micro alkaline batteries
- Average 75-100 hours of battery life
- Leakproof cap with fill line
- Long-lasting sensors
- One-year warranty



## Display:

- Large 4-digit double-line display and wide viewing angle make it easy to read and record measurements
- Battery life, ready, and calibration indicators simplify measurement and maintenance
- Simultaneous display of temperature; user-selectable °C or °F scale

## Keypad:

- Easy to operate, intuitive user interface with power, calibration, menu, and enter keys
- Simple calibration: immerse sensor in calibration solution and press “Cal”
- Auto pH buffer recognition, calibration

## Cap:

- Gasketed o-ring seal prevents leaks during measurement and storage
- Transparent cap with a fill line indicator for measurement and calibration—no beakers or sample cups needed
- New symmetrical cap can face forward or backward

## Additional features:

- Automatic temperature compensation for greater accuracy
- Auto-off function after 8.5 minutes of nonuse to extend battery life
- Multilanguage instructions available
- ABS plastic body is durable and chemically resistant

# Thermo Scientific Expert pH Testers

## pH and temperature

Simultaneously measure pH and temperature with the Thermo Scientific™ Expert pH tester, a pocket sized tester designed to provide accurate measurements on the go for a variety of applications, including hydroponic gardening, aquaculture, agriculture, pools, lab work, and other liquid applications.

- Auto-buffer recognition and auto-calibration make onsite calibration quick and easy
- 3-point calibration allows the tester to accurately measure pH across the acid and alkaline ranges
- $\pm 0.1$  pH unit

### Applications:

- Hydroponics
- Agriculture
- Aquaculture and aquariums
- Pools and spas
- Education
- Cooling towers
- Water treatment
- Environmental monitoring
- Food and beverage manufacturing
- Printing and more



Specifications		
Measuring parameter		pH, °C, °F
pH	Range	0.0 to 14.0
	Resolution	0.1
	Relative accuracy	$\pm 0.1$
	Calibration points	1 to 3
Temperature	Range	0 to 50.0°C 32.0 to 122.0°F
	Resolution	0.1°C, 0.1°F
	Relative accuracy	$\pm 0.6^\circ\text{C}$ , $\pm 1.0^\circ\text{F}$
	Automatic compensation	Yes
General	Power	Includes 4 batteries (A76 or LR44 equivalent)
	Battery life	100 hours (average)
	Auto shutoff	8.5 min after last key press
	Operating temp.	5 to 45°C
	Relative humidity	5 to 85% non-condensing
	Ingress protection	IP67 waterproof
	Dimensions (L x W x H)	17 x 4.5 x 3 cm

### Ordering information

Product description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Expert pH pocket tester, batteries	EXPERTPH
<b>pH buffer pouches</b>	
pH 4.01 buffer (NIST traceable), 25 x 20 mL pouches	910425
pH 7.00 buffer (NIST traceable), 25 x 20 mL pouches	910725
pH 10.01 buffer (NIST traceable), 25 x 20 mL pouches	911025-WA
pH electrode rinse solution, 25 pouches	911125
<b>Storage and cleaning solutions</b>	
Storage solution for pH sensor, 475 mL	910001
Protein remover solution, 4 x 60 mL	900024
<b>Accessories</b>	
Replacement clear cap for samples and storage	EXPERTCAP

# Thermo Scientific Expert CTS testers

## Conductivity, TDS, salinity, and temperature

The Thermo Scientific™ Expert CTS tester accurately measures conductivity, total dissolved solids (TDS), salinity, and temperature in one instrument, making it an ideal solution for many applications.

- Automatic calibration with 84  $\mu\text{S/cm}$ , 1413  $\mu\text{S/cm}$  or 12.88  $\text{mS/cm}$  conductivity standards
- Linear temperature compensation

### Applications:

- Hydroponics
- Agriculture
- Aquaculture and aquariums
- Pools and spas
- Education
- Cooling towers



Specifications		
Measuring parameter		Conductivity, TDS, salinity, °C, °F
Conductivity	Range	0.00 to 20.00 $\text{mS/cm}$
	Resolution	10 $\mu\text{S/cm}$ : 0 to 1990 $\mu\text{S/cm}$ , 0.10 $\text{mS/cm}$ : 2.00 to 20.0 $\text{mS}$
	Relative accuracy	$\pm 2\%$ full scale
	Automatic calibration values	84 $\mu\text{S/cm}$ , 1413 $\mu\text{S/cm}$ , 12.88 $\text{mS/cm}$
TDS	Range	0.00 to 20.00 ppt
	Resolution	10 ppm: 0 to 1990 ppm, 0.10 ppt: 2.00 to 20.0 ppt
	Relative accuracy	$\pm 2\%$ of full scale
	TDS factor	0.40 to 1.00 (selectable)
Salinity	Range	0.0 to 10.0 ppt
	Resolution	0.1 ppt
	Relative accuracy	$\pm 2\%$ of full scale
No. of calibration points		One calibration point per independent parameter
Temperature	Range	0 to 50.0°C; 32.0 to 122.0°F
	Resolution	0.1°C, 0.1°F
	Relative accuracy	$\pm 0.6^\circ\text{C}$ , $\pm 1.0^\circ\text{F}$
	Automatic temp. compensation	Yes
General	Power	Includes (4) batteries (A76 or LR44 equivalent)
	Auto shutoff	8.5 min after last key press
	Battery life	75 hours (average)
	Relative humidity	5 to 85% non-condensing
	Operating temp.	5 to 45°C
	Ingress protection	IP67 rating; waterproof
Dimensions (L x W x H)		17 x 4.5 x 3 cm

### Ordering Information

Product Description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Expert CTS pocket tester, batteries	EXPERTCTS
<b>Conductivity/TDS standard solutions and pouches</b>	
1413 $\mu\text{S/cm}$ conductivity standard, 692 ppm as NaCl TDS standard, 10 x 15 mL pouches	01100710
1413 $\mu\text{S/cm}$ conductivity standard, 692 ppm as NaCl TDS standard, 5 x 60 mL bottles	011007
12.9 $\text{mS/cm}$ conductivity standard, 7230 ppm as NaCl TDS standard, 10 x 15 mL pouches	01100610
12.9 $\text{mS/cm}$ conductivity standard, 7230 ppm as NaCl TDS standard, 5 x 60 mL bottles	011006
<b>Accessories</b>	
Replacement clear cap for samples and storage	EXPERTCAP



# Thermo Scientific Elite series pocket testers

## Main features

- Flexible testing option
- Large backlit graphic display
- pH, spear, conductivity and pH/conductivity models
- Uses 4 x AAA alkaline batteries
- Average 150-250 hours of battery life
- Wide leakproof cap serves as stable base
- Replaceable sensors
- One-year warranty for tester

**Lanyard included for on-the-go measurements**

**Soft carry case for organizing accessories**

**Includes (4) AAA batteries for operation and easy replacement**

**Easy-to-replace sensors extend tester life and reduce cost**

**Wide, stable base allows the tester to stand independently**

**Display:**

- Large double-line graphic display with backlight
- Display closer to surface of tester for a better viewing angle
- Simultaneous display of measurement and temperature

**Keypad:**

- Easy-to-operate user interface with the addition of the menu key
- One-push calibration

**Cap:**

- Leakproof
- Fill-line indicator for measurement
- Wider, stable base to stand the tester upright

**Additional Features:**

- Multi-language instructions available
- Pocket tester floats and meets IP67 waterproof rating

# Thermo Scientific Elite pH pocket tester

## pH and temperature

The Thermo Scientific™ Elite pH pocket tester features a simultaneous display of pH and temperature. One of the most common scientific measurements in the world today is pH, which measures the alkalinity and acidity of a liquid. Common industries that measure pH range from drinking water and wastewater treatment, chemical production, aquaculture, agriculture research and production, environmental monitoring, chemical and life sciences research, biochemical and pharmaceutical research, electronics production to food processing and other industrial applications.



Specifications		
pH	Range	-1.00 to 15.00 pH
	Resolution	0.01 pH
	Relative accuracy	±0.02 pH
	Calibration points	Up to 3 points
	Buffer set standard selection	USA - 4.01, 7.00, 10.01 NIST - 4.01, 6.86, 9.18
	Calibration window	±1.00 pH
	Calibration type	Point to point
Temperature	Range	0 to 60.0°C, 32.0 to 140.0°F
	Resolution	0.1°C, 0.1°F
	Accuracy	±0.6°C, ±1.0°F: 0.0 to 50.0°C, ±1.1°C, ±1.9°F: 50.1 to 60.0°C
	Compensation	Yes (ATC)
	Calibration window	±5.0°C, ±9.0°F
Accessories	Replacement pH sensor, soft carry case, lanyard, clear sample/storage cap, AAA batteries	
General	Display	Graphic, dot matrix 80 x 100 pixel
	Backlight	Yes, selectable (30 sec from the last key press)
	Auto shutoff	8.5 min (from last key press)
	Reset	User, factory
	Hold function	Yes
	Power requirements	4 AAA batteries
	Battery life	250 hours (average)
	Ingress protection	IP67 waterproof
Regulatory certifications	CE, FCC	
Environmental operating conditions	Operating temp.	5 to 45°C
	Relative humidity	5 to 85% non-condensing

### Ordering Information

Product Description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Elite pH pocket tester	ELITEPH
Thermo Scientific Elite pH pocket tester kit	ELITEPHKIT
Replacement pH sensor	01X001535
<b>pH buffer pouches</b>	
pH 4.01 buffer (NIST traceable), 25 x 15 mL pouches	910425
pH 7.00 buffer (NIST traceable), 25 x 15 mL pouches	910725
pH 10.01 buffer (NIST traceable), 25 x 15 mL pouches	911025-WA
pH electrode rinse solution 25 x 15 mL pouches	911125
<b>Storage &amp; Cleaning Solutions</b>	
Storage solution for pH sensor, 480 mL	910001
General cleaning solution for pH electrodes, 4 x 60 mL	900024

# Thermo Scientific Elite CTS pocket tester with pin/cup sensors

Conductivity, TDS, salinity, and temperature

The Elite CTS pocket tester simultaneously displays conductivity, total dissolved solids (TDS) or salinity with temperature. These measurements are ideal in applications such as environmental, agriculture, aquaculture and aquariums, hydroponics, pools and spas, education, and industrial (cooling towers). Applications in these industries may require a constant measurement of salinity and TDS. Select the cup sensor to read samples using a fillable tester or the pin sensor to read samples using a direct-insert tester.



CTS pocket tester with pin sensor

CTS pocket tester with cup sensor

Specifications		
Conductivity	Range	0.00 to 20.00 mS/cm
	Resolution	0.1 $\mu$ S/cm: 0.0 to 200.0 $\mu$ S/cm, 1 $\mu$ S/cm: 200 to 2000 $\mu$ S/cm, 0.01 mS/cm: 2.00 to 20.00 mS/cm
	Relative accuracy	$\pm$ 1% of full scale
	Normalization temperature	25.0°C
	Temperature coefficient	0.0 to 10.00%
	Calibration points	Up to 3 points
TDS	Range	0.00 to 10.00 ppt (depending on TDS factor)
	Resolution	0.1 ppm: 0.0 to 100.0 ppm, 1 ppm: 100 to 1000 ppm, 0.01 ppt: 0.10 to 10.00 ppt
	Relative accuracy	$\pm$ 1% full scale
	Calibration points	Up to 3 points
	TDS factor	0.40 to 1.00
Salinity	Range	0.00 to 10.00 ppt
	Resolution	0.10 ppt
	Relative accuracy	$\pm$ 1% of full scale
	Calibration point	One
Temperature	Range	0 to 60.0°C, 32.0 to 140.0°F
	Resolution	0.1°C, 0.1°F
	Accuracy	$\pm$ 0.6°C, $\pm$ 1.0°F: 0.0 to 50.0°C, $\pm$ 1.1°C, $\pm$ 1.9°F: 50.1 to 60.0°C
	Compensation	Yes (ATC)
Accessories	Replacement CTS sensor, soft carry case, lanyard, clear sample/storage cap, AAA batteries	

For General and Environmental specifications, please see table on page 9.

Ordering Information	
Product Description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Elite CTS pocket tester with pin sensor kit	ELITECTSPINKIT
Replacement CTS pin sensor	01X001526
Thermo Scientific Elite CTS pocket tester with cup sensor kit	ELITECTSCUPKIT
Replacement CTS cup sensor	01X001528
<b>Conductivity/TDS standard solutions and pouches</b>	
1413 $\mu$ S/cm conductivity standard, 692 ppm as NaCl TDS standard, 10 x 15 mL pouches	01100710
1413 $\mu$ S/cm conductivity standard, 692 ppm as NaCl TDS standard, 5 x 60 mL bottles	011007
12.9 mS/cm conductivity standard, 7230 ppm as NaCl TDS standard, 10 x 15 mL pouches	01100610
12.9 mS/cm conductivity standard, 7230 ppm as NaCl TDS standard, 5 x 60 mL bottles	011006



# Thermo Scientific Elite ORP pocket tester

## ORP (Oxidation-reduction potential)

The Elite ORP pocket tester features a simultaneous display of the redox measurement with temperature (manual input). Oxidation-Reduction Potential (ORP) or Redox potential measurements are used to monitor chemical reactions, to quantify ion activity, or to determine the oxidizing or reducing properties of a solution. Ideal for applications such as hydroponics, food and beverage, environmental, drinking water, wastewater, agriculture, aquaculture and aquariums, pools and spas, education, and industrial (cooling towers).



Specifications		
ORP	Range	-1000 to 1000 mV
	Resolution	±1 mV
	Relative accuracy	±3 mV
	Calibration point	One
	Calibration window	±200 mV
	Calibration type	Offset
Temperature	Range	0 to 60.0°C, 32.0 to 140.0°F
	Resolution	0.1°C, 0.1°F
	Compensation	Yes, manual input
	Input window	0 to 60.0°C, 32.0 to 140.0°F
Accessories	Replacement sensor, soft carry case, lanyard, clear sample/storage cap, AAA batteries	
General	Display	Graphic, dot matrix 80 x 100 pixel
	Backlight	Yes, selectable (30 sec from the last key press)
	Auto shutoff	8.5 min (from last key press)
	Reset	User, factory
	Hold function	Yes
	Power requirements	4 AAA batteries
	Battery life	>250 hr (pH, ORP, pH spear) >150 hr (CTS, PCTS)
	Ingress protection	IP67 waterproof
Regulatory certifications	CE, FCC	
Environmental operating conditions	Operating temp.	5 to 45°C
	Relative humidity	5 to 85% non-condensing



Ordering Information	
Product Description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Elite ORP pocket tester	ELITEORP
Replacement ORP sensor	01X001524
<b>Storage and cleaning solutions</b>	
Storage solution for pH and ORP sensor, 480 mL	910001

# Thermo Scientific Elite PCTS pocket tester

pH, conductivity, TDS, salinity, and temperature

The Elite PCTS pocket tester simultaneously displays pH, conductivity, TDS or salinity with temperature. This offers a suitable method to measuring multiple parameters with just one instrument. This tester can be used with the following applications: hydroponics, food and beverage, environmental, drinking water, wastewater, agriculture, aquaculture and aquariums, pools and spas, education, and industrial (cooling towers).



Specifications		
pH	Range	-1.00 to 15.00 pH
	Resolution	0.01 pH
	Relative accuracy	±0.02 pH
	Calibration points	Up to 3 points
	Buffer set standard selection	USA - 4.01, 7.00, 10.01 NIST - 4.01, 6.86, 9.18
	Calibration window	±1.00 pH
	Calibration type	Point to point
Conductivity	Range	0.00 to 20.00 mS/cm
	Resolution	0.1 µS/cm: 0.0 to 200.0 µS/cm, 1 µS/cm: 200 to 2000 µS/cm, 0.01 mS/cm: 2.00 to 20.00 mS/cm
	Relative accuracy	±1% full scale
	Normalization temp.	25.0°C
	Temp. coefficient	0.0 to 10.00%
TDS	Calibration points	Up to 3 points
	Range	0.00 to 10.00 ppt (depending on TDS factor)
	Resolution	0.1 ppm: 0.0 to 100.0 ppm, 1 ppm: 100 to 1000 ppm, 0.01 ppt: 0.10 to 10.00 ppt
	Relative accuracy	±1% full scale
	Calibration points	Up to 3 points
Salinity	TDS factor	0.40 to 1.00 (selectable)
	Range	0.00 to 10.00 ppt
	Resolution	0.10 ppt
	Relative accuracy	±1% full scale
Temperature	Calibration point	One
	Range	0 to 60.0°C, 32.0 to 140.0°F
	Resolution	0.1°C, 0.1°F
	Accuracy	±0.6°C, ±1.0°F: 0.0 to 50.0°C, ±1.1°C, ±1.9°F: 50.1 to 60.0°C
Accessories	Compensation	Yes (ATC)
	Calibration window	±5.0°C, ±9.0°F
	Replacement sensor, soft carry case, lanyard, clear sample/storage cap, AAA batteries	

For General and Environmental specifications, please see table on page 11.

Ordering Information	
Product Description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Elite PCTS pocket tester	ELITEPCTS
Thermo Scientific Elite PCTS pocket tester kit	ELITEPCTSKIT
Replacement PCTS sensor	01X001530
<b>pH buffer pouches</b>	
pH 4.01 buffer (NIST traceable), 25 x 15 mL pouches	910425
pH 7.00 buffer (NIST traceable), 25 x 15 mL pouches	910725
pH 10.01 buffer (NIST traceable), 25 x 15 mL pouches	911025-WA
pH electrode rinse solution, 25 x 15 mL pouches	911125
<b>Conductivity/TDS standard solution pouches</b>	
1413 µS/cm conductivity standard, 692 ppm as NaCl TDS standard, 10 x 15 mL pouches	01100710
1413 µS/cm conductivity standard, 692 ppm as NaCl TDS standard, 5 x 60 mL bottles	011007
12.9 mS/cm conductivity standard, 7230 ppm as NaCl TDS standard, 10 x 15 mL pouches	01100610
12.9 mS/cm conductivity standard, 7230 ppm as NaCl TDS standard, 5 x 60 mL bottles	011006



# Thermo Scientific Elite pH spear pocket tester

The Elite pH Spear pocket tester features a spear tip open pore sensor. This rugged and user-friendly tester is ideal for direct measurement of solid or semi-solid samples such as cheese, meat, fruit, bread and more. Used in applications such as hydroponics, food and beverage, environmental, drinking water, wastewater, agriculture, aquaculture and aquariums, pools and spas, education, and industrial (cooling towers).



Specifications		
pH	Range	-1.00 to 15.00 pH
	Resolution	0.01 pH
	Relative accuracy	±0.02 pH
	Calibration points	Up to 3 points
	Buffer set standard selection	USA - 4.01, 7.00, 10.01 NIST - 4.01, 6.86, 9.18
	Calibration window	±1.00 pH
	Calibration type	Point to point
Temperature	Range	0 to 60.0°C 32.0 to 140.0°F
	Resolution	0.1 °C, 0.1°F
	Compensation	Yes, manual input
	Input window	0 to 60.0°C 32.0 to 140.0°F
Accessories	Replacement pH spear sensor, soft carry case, lanyard, clear sample/storage cap, AAA batteries	
General	Display	Graphic, dot matrix 80 x 100 pixel
	Backlight	Yes, selectable (30 sec from the last key press)
	Auto shutoff	8.5 min (from last key press)
	Reset	User, factory
	Hold function	Yes
	Power requirements	4 AAA batteries
	Battery life	>250 hr (pH, ORP, pH spear) >150 hr (CTS, PCTS)
	Ingress protection	IP67 waterproof
Regulatory certifications	CE, FCC	
Environmental operating conditions	Operating temp.	5 to 45°C
	Relative humidity	5 to 85% non-condensing

Ordering Information	
Product Description	Cat. No.
<b>Pocket tester</b>	
Thermo Scientific Elite pH Spear pocket tester	ELITEPHSPEAR
Thermo Scientific Elite pH Spear pocket tester kit	ELITEPHSPEARKIT
Replacement pH spear sensor	01X001538
<b>pH buffer pouches</b>	
pH 4.01 (NIST traceable), box of 25 x 15 mL pouches	910425
pH 7.00 (NIST traceable), box of 25 x 15 mL pouches	910725
pH 10.01 (NIST traceable), box of 25 x 15 mL pouches	911025-WA
pH electrode rinse solution 25 x 15 mL pouches	911125
<b>Storage and cleaning solutions</b>	
Storage solution for pH sensor, 480 mL	910001
General cleaning solution for pH electrodes, 4 x 60 mL	900024



Expert  
pH Tester



Expert  
CTS Tester  
(Pin)



Elite  
PCTS  
Tester



Elite  
pH Tester



Elite CTS  
Tester  
(Pin)



Elite CTS  
Tester  
(Cup)



Elite ORP  
Tester



Elite  
pH Spear  
Tester



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