thermo scientific

Thermo Scientific™ Eutech™ Expert pH

Leak proof, transparent cap with a stable base



Lanyard provision



Specifications

pH	
Range	0.0 to 14.0 pH
Resolution	0.1 pH
Relative Accuracy	±0.1 pH
No. of Cal Points	Up to 3 points; calibration standard sold separately
Sensor Type	Non-replaceable, single junction sensor
Temperature	
Range	0 to 50.0 °C / 32.0 to 122.0 °F
Resolution	0.1 °C / 0.1 °F
Relative Accuracy	±0.5 °C / ±0.9 °F +1 LSD
Automatic Temperature Compensation	Yes
General	
Power	Includes (4) batteries (A76 or LR44 equivalent)
Auto-Off	8.5 mins after last key press
Operating Temp.	5 to 45 °C
Ingress Protection	IP67 rating ; waterproof
Dimensions (LxWxH)	17 x 4.5 x 3 cm

Applications

• Hydroponics • Agriculture • Aquaculture & Aquariums • Pools & Spas • Education • Cooling Towers • Water Treatment • Environmental Monitoring • Food & Beverage Manufacturing • Printing and more!



Find out more at
thermofisher.com/phpockettester

1 Year Warranty • Made in Singapore

Please refer to inside for operating instructions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IS-EXPERTPH-E 1016 RevA

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Thermo Scientific™ Eutech™ Expert pH



For use in hydroponics and more

- Large 4 digit double line display
- Simultaneous display of pH and temperature
- Battery life, ready and calibration indicators
- Automatic temperature compensation
- Auto buffer recognition & calibration
- Multi language operational instructions



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Operating Instructions For Expert pH

Conditioning Before First Use

The pH sensor must be hydrated to perform properly. If the pH electrode has been stored dry, soak as long as needed to re-hydrate the sensor. Electrode storage solution works best, followed by pH buffer solution, followed by tap water. 10 minutes is usually adequate but it may take much longer if the bulb is extremely dry. The transparent cap can be used for soaking and storage. Keep upright for best results. Never store the sensor for extended periods of time in deionized water.

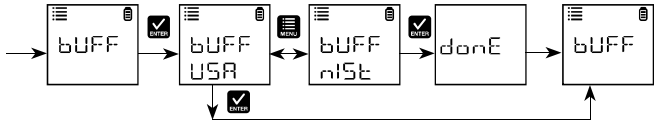
Measurement

1. Remove the cap and press the ⏻ to power on the tester.
2. Dip sensor in at least 20mm of test solution or up to the MAX fill line of the cap.
3. Stir gently while the reading stabilizes and wait for the ⏱ icon to stop blinking.
4. The ☑ will appear on the display indicating that the reading is stable and measurement is complete.

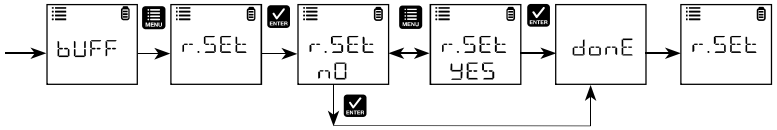
Note: The tester automatically shuts off after 8.5 minutes of non-use to conserve batteries if you forget to turn it off.

Menu (To Change Settings)

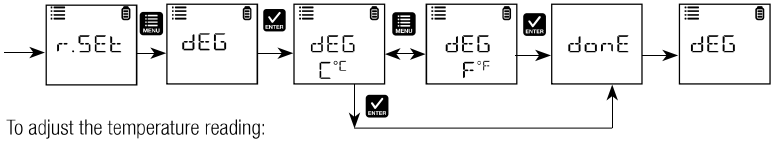
Press MENU to begin, and to leave the menu at anytime. Press CAL to return to the measurement mode.
To choose USA (4.0, 7.0, 10.0) or NIST (4.0, 6.9, 9.2) buffer values for automatic calibration:



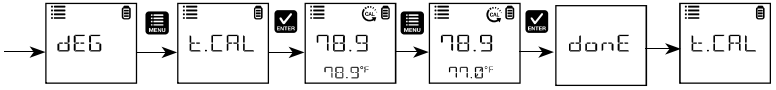
To reset the calibration to factory default condition:



To change celsius / fahrenheit temperature unit:



To adjust the temperature reading:



Calibration

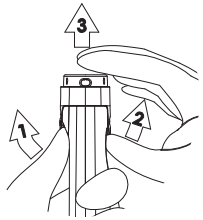
For best results, periodic calibration with accurate buffers is recommended prior to measurement. Use up to 3 standards and bracket your intended measuring range in any order. The tester will return to measurement after each calibration point and retain the calibration when the instrument is powered off.

1. Remove the cap and press the ⏻ to power on the tester.
2. Dip the sensor in at least 20mm of pH buffer.
3. Stir gently and press CAL to begin the pH calibration.
4. The display will show CAL followed by the default pH value. CAL is indicated on the display during calibration mode.
5. The ⏱ icon will stop blinking when the pH reading is stable.
6. The ☑ icon is displayed when the automatic buffer value has been detected.
7. After 3 seconds, the tester will automatically calibrate the value. Alternatively, pressing ENTER will also accept the value manually. Tester will show donE to confirm the calibration.
8. To calibrate additional point(s), repeat with additional pH buffers.
9. To abort pH calibration, press CAL to escape.

Useful Notes

1. To avoid cross contamination, rinse with clean water between samples and calibration standards.
2. For long-term storage, fill the cap with 20 mm of storage solution (NOT de-ionized water). This will keep the sensor conditioned and ready for next use.
3. **Not recommended** for prolonged use with solutions containing heavy metals, proteins, tris buffer, or sulfides which will clog the junction leading to slow response and eventual failure.

Changing Batteries (4) A76 or LR44 button cell type



1. Holding the tester with one hand, slide in the thumb to clear the front catch.
2. While still holding the tester, slide in the other thumb to clear the back catch.
3. With both catches are cleared, vertically slide the battery cover off the tester.
4. Change the batteries noting the polarity (flat positive side to the left). Replace the battery cover onto the tester with the shorter tab above the display locking the front and back to ensure a watertight seal.

Maintenance

1. Rinse sensor with clean water after each use.
2. Clean the sensor with a soft brush and mild dish soap to remove dirt and grease.

Error Messages

1. –Batteries are weak and need replacement soon.
2. bAt Lo (low battery) – The battery power is too low to power on the instrument and requires iimmediate replacement.
3. StbL Err (stabilizing error) – Appears when calibration is attempted but the reading is not yet stable. Wait for the reading to stabilize or manually confirm the calibration by pressing enter.
3. bUFF Err (buffer error) – The buffer is outside of the calibration range.
4. SLPE Err (slope error) – The 2nd or 3rd calibration point is not within 80% to 120% slope range.
5. Or (over range) – The reading is above the measuring range of tester.
6. Ur (under range) – The reading is below the measuring range of tester.

Testers and Accessories Order Information

Ordering Code	Product Description
Pocket Tester	
EXPERTPH	pH pocket tester with batteries
pH Buffer Solutions and Sachets	
ECBU4BT	Colourless pH 4.01, 480 mL
ECBU7BT	Colourless pH 7.00, 480 mL
ECBU10BT	Colourless pH 10.01, 480 mL
ECPHBUFKIT	Colourless pH buffer set, pH 4.01, 7.00, 10.01, 480 mL each
ECBU4BS	pH 4.01 (NIST traceable), box of 20 x 20 mL sachets
ECBU7BS	pH 7.00 (NIST traceable), box of 20 x 20 mL sachets
ECBU10BS	pH 10.01 (NIST traceable), box of 20 x 20 mL sachets
ECRINWT	pH deionized water (NIST traceable), box of 20 x 20 mL sachets
ECBU4710R	pH buffer sachet set, pH 4.01, 7.00, 10.01, deionized water, 5 x 20 mL each
Storage and Cleaning Solutions	
ECRE005	Storage solution for pH sensor, 480 mL
ECDPCBT	Protein remover solution, 480 mL
Other Accessories	
EXPERTCAP	Replacement sensor cap
LANYARD	Tester lanyard

Warranty

This instrument is supplied with a warranty against manufacturing defects for a period of one year from the date of purchase.