



HI99171

Portable pH Meter

for Leather and Paper

- Simultaneous pH and temperature measurements on a large dual-line LCD display
- User-friendly two button design
- Application specific probe
- Durable IP67 waterproof casing
- Watertight probe connection
- Probe condition indicator
- Automatic pH calibration at one or two points within two memorized buffer sets (standard or NIST)
- On-screen calibration tags
- mV measurement for electrode check
- Selectable temperature unit (°C or °F)
- Auto-off function
- Battery life indication and low battery detection

HI99171 is a light weight, portable pH meter supplied with a specially designed pH electrode intended for the direct determination of pH on flat surfaces, such as leather or paper.

The HI99171 portable pH meter together with a HI14143 combination pH electrode (when immersed in a drop of water on the surface of the sample), can determine the pH of the surface with high accuracy and repeatability without the requirement of sample destruction.

During production of cartons and paper used for food packaging, pH measurements provide a useful gauge of product compatibility. pH of a paper is usually considered one of the most reliable indices of the permanence of a paper. Conservators of historical documents (some of which are very valuable or irreplaceable) require a convenient non-destructive method to determine pH.

Leather technicians rely on a pH determination to optimize dyes, coating, and softening agents in order to preserve the fiber structure and prevent damage to leather. Leather is acidic. Its pH is measured at between 4.5 and 5.0. Surface pH measurements provide a non-destructive means to meet specifications and optimize product quality.

Specifications

HI99171

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|--------------------------------|---|--|
| pH | Range* | -2.00 to 16.00 pH / -2.0 to 16.0 pH |
| | Resolution | 0.01 pH / 0.1 pH |
| | Accuracy (@25°C/77°F) | ±0.02 pH / ±0.1 pH |
| | Calibration | Automatic, one or two-point selectable bufferset standard: 4.01; 7.01; 10.01 or NIST: 4.01; 6.86; 9.18 |
| pH-mV | Range* | ±825 mV |
| | Resolution | 1 mV |
| | Accuracy (@25°C/77°F) | ±1 mV |
| Temperature | Range* | -5.0 to 105.0°C; 23.0 to 221.0°F |
| | Resolution | 0.1°C; 0.1°F |
| | Accuracy (@25°C/77°F) | ±0.5°C (up to 60°C), ±1.0°C (outside); ±1.0°F (up to 140°F), ±2.0°F (outside) |
| Additional Specifications | Temperature Compensation | automatic, from -5.0 to 105.0°C (23.0 to 221.0°F) |
| | Probe (included) | HI14143 preamplified pH and temperature probe with flat tip, DIN connector, and 1 m (3.3') cable |
| | Battery Type / Life | 1.5V AAA (3) approx. 1400 hours of continuous use |
| | Auto-off | user selectable: after 8 min, 60 min, or disabled |
| | Environment | 0 to 50°C (32 to 122°F); RH max. 100% |
| | Meter Dimensions | 154 x 63 x 30 mm (6.1 x 2.5 x 1.2") |
| | Meter Mass (with batteries) | 196 g (6.91 oz.) |
| Case Ingress Protection Rating | IP67 | |
| Ordering Information | <p>HI99171 is supplied with HI14143 pH/temperature probe with flat tip and Quick Connect DIN connector with 1m (3.3') cable, pH 4.01 and 7.01 buffer sachets, HI700680 cleaning solution for ink stains sachets (2), HI70960 conductive electrolyte solution for pH measurement (30 mL), 100 mL beaker, 1.5V AAA batteries (3), calibration certificate of meter, calibration certificate of probe, instruction manual, and HI710142 rugged carrying case.</p> | |

* the HI14143 is limited to be used from 0 to 12 pH and from 0 to 50 °C temperature (32 to 122 °F).