

# HIGH-PRECISION PH METER

PCE-PH 228LAB-ME3



- » **fast, precise pH and temperature measurement**
- » **pH electrode with 3 mm microtip**
- » **redox measurement (with optional electrode)**
- » **GLP data management**
- » **simple 2, 3, 4 and 5-point calibration**
- » **calibration reminder**
- » **Permanent Measurement Verification (PMV)**
- » **graphic display of measurement progress**
- » **data logger**
- » **application: beer, blood, dairy products**
- » **for food industry, agriculture, laboratory**

The high-precision pH meter stands for precision, user-friendliness and GLP (Good Laboratory Practice) conformity. With a high-resolution LC display, the high-precision pH meter provides a clear and concise display of the measured values. GLP compliance is guaranteed by automatic data recording and traceable documentation. It is possible to measure pH or redox values and temperature with external sensors.

Permanent Measurement Verification (PMV) shows the user where the measured value is within the calibration range by using a coloured bar in order to determine whether the measurement is made within the correct range. The electrode is refillable and the diaphragm can be cleaned. The thin electrode has an extended body length, which is suitable for precision analysis of small-volume samples, such as in an NMR tube.

The graphically guided calibration makes the process simple and user-friendly. User and sample management allow easy navigation and setting of measurement parameters on the high-precision pH meter. Sample information can be saved to facilitate the management and identification of measurements. A generous internal data memory saves extensive records without the need for external storage. The USB-C port on the pH meter ensures fast data transfer and charging.

## Specification

| pH                                    |                                                                           |
|---------------------------------------|---------------------------------------------------------------------------|
| Measuring range                       | -2 ... +20 pH                                                             |
| Resolution                            | 0,001 pH                                                                  |
| Accuracy                              | ±0.002 pH +2 digits                                                       |
| Redox                                 |                                                                           |
| Measuring range                       | -2000 ... +2000 mV                                                        |
| Resolution                            | 1 mV                                                                      |
| Accuracy                              | ±2 mV                                                                     |
| Temperature sensor                    |                                                                           |
| Measuring range                       | -20 ... +100 °C                                                           |
| Resolution                            | 0,1 °C                                                                    |
| Accuracy                              | ±0.5°C (@ 20°C)                                                           |
| Electrode                             |                                                                           |
| Designation                           | PCE-PH-LAB-ME3                                                            |
| Measuring range                       | 0 ... 14 pH                                                               |
| Temperature range                     | 0 ... 100 °C                                                              |
| Application                           | Beer, blood, dairy products in the food industry, agriculture, laboratory |
| Reference electrolyte                 | Ag/AgCl                                                                   |
| Shank material                        | Glass                                                                     |
| Material of diaphragm                 | Ceramics                                                                  |
| Shank length                          | 165 mm                                                                    |
| Shank length additional information   | Top: 75 mm<br>Bottom: 90 mm                                               |
| Shank diameter                        | 3 mm                                                                      |
| Shank diameter additional information | Oben: 12 mm<br>Unten: 3 mm                                                |
| Cable length                          | 1 m                                                                       |

| General technical data                   |                                                                                                                   |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Measuring functions                      | MIN, MAX                                                                                                          |
| Connections                              | BNC                                                                                                               |
| Display type                             | LCD with backlight                                                                                                |
| Storage medium                           | Internal memory                                                                                                   |
| Storage capacity                         | 32 GB                                                                                                             |
| Memory capacity (additional information) | 100 recordings with a maximum of 100,000 data points per recording                                                |
| Storage interval from                    | 1 s                                                                                                               |
| Storage interval to                      | 12 h                                                                                                              |
| Interface                                | USB-C                                                                                                             |
| Number of calibration points             | 5                                                                                                                 |
| Menu language                            | Turkish, English, Polish, Spanish, German, Chinese, Russian, Japanese, French, Danish, Italian, Dutch, Portuguese |
| Protection class (device)                | IP52                                                                                                              |
| Power supply                             | 5 V DC, 500 mA                                                                                                    |
| (Rechargeable) battery                   | 1 x 3,7 V internal , Lithium polymer battery                                                                      |
| Capacity                                 | 2500 mAh                                                                                                          |
| Operating conditions                     | -20 ... 65 °C , 10 ... 95 % RH                                                                                    |
| Storage conditions                       | -20 ... 65 °C , 10 ... 95 % RH                                                                                    |
| Dimensions ( L x W x H )                 | 178 x 85 x 32 mm                                                                                                  |
| Weight                                   | 252 g                                                                                                             |