



# AQUASEARCHER™

AB23 Series Benchtop Meter



AB23PH



AB23EC

## *Simple-to-Use Benchtop Meter Designed for Easy Sample Measurement*

Designed with a large LCD Display and six instructional menu buttons, the AB23 series bench meter is simple and straightforward. A 99-item memory for measurements ensures efficient data collection. A stand-alone electrode holder with a small base provides the user greater flexibility when running experiments and makes the AB23 benchtop meter a perfect space saving meter for your lab.

### *Unique Features:*

- With six instructional menu buttons, auto buffer recognition or auto temperature compensation, AB23 series is an easy and straightforward meter for measurement.
- Large 5-inch bright LCD display with complete measurement information simplifies operation and allows you to monitor the results from a distance.
- Featuring a compact stand-alone electrode holder, AB23 series increases the flexibility of experiments and fits ideally in any lab.

# AQUASEARCHER™ AB23 Benchtop Meter

## Specifications

| Model                |                                | a-AB23PH                                                                               | a-AB23EC                                                                                                                                  |
|----------------------|--------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| pH                   | Measuring Range                | 0.00 to 14.00 pH                                                                       | n/a                                                                                                                                       |
|                      | Resolution                     | 0.01 pH                                                                                | n/a                                                                                                                                       |
|                      | Selectable Resolution          | No                                                                                     | n/a                                                                                                                                       |
|                      | Accuracy                       | ± 0.01 pH                                                                              | n/a                                                                                                                                       |
|                      | Pre-Defined Buffer Groups      | 2                                                                                      | n/a                                                                                                                                       |
| ORP, Redox           | Measuring Range                | ± 1999 mV                                                                              | n/a                                                                                                                                       |
|                      | Resolution                     | 1 mV                                                                                   | n/a                                                                                                                                       |
|                      | Accuracy                       | ± 1 mV                                                                                 | n/a                                                                                                                                       |
|                      | Units                          | mv                                                                                     | n/a                                                                                                                                       |
| Conductivity         | Measuring Range                | n/a                                                                                    | 0.01 µS/cm to 19.99 µS/cm<br>20 µS/cm to 199.9 µS/cm<br>200 µS/cm to 1999 µS/cm<br>2.00 mS/cm to 19.99 mS/cm<br>20.0 mS/cm to 199.9 mS/cm |
|                      | Resolution                     | n/a                                                                                    | 0.01 µS/cm minimum; auto-range                                                                                                            |
|                      | Accuracy                       | n/a                                                                                    | ± 1 % Reading ± 3 LSD*                                                                                                                    |
|                      | Reference Temperature          | n/a                                                                                    | 20 °C, 25 °C                                                                                                                              |
|                      | Cell Constants                 | n/a                                                                                    | 0.08 to 2.0 cm-1                                                                                                                          |
|                      | Temperature Compensation       | n/a                                                                                    | Linear (0 to 10.0%/°C), off                                                                                                               |
| TDS                  | Measuring Range                | n/a                                                                                    | 0.1 mg/L to 199.9 g/L                                                                                                                     |
|                      | Resolution                     | n/a                                                                                    | 0.01 mg/L minimum, auto-range                                                                                                             |
|                      | Accuracy                       | n/a                                                                                    | ± 1 % Reading ± 3 LSD*                                                                                                                    |
|                      | TDS Factor Range               | n/a                                                                                    | Linear, 0.04 to 10.00, default 0.5                                                                                                        |
| Practical Salinity   | Measuring range                | n/a                                                                                    | 0 to 99.9 psu                                                                                                                             |
|                      | Resolution                     | n/a                                                                                    | 0.01 psu minimum, auto-range                                                                                                              |
|                      | Accuracy                       | n/a                                                                                    | ± 1 % Reading ± 3 LSD*                                                                                                                    |
| Temperature          | Measuring Range                | 0.0 to 100.0 °C                                                                        |                                                                                                                                           |
|                      |                                | 32.0 °F to 212.0 °F                                                                    |                                                                                                                                           |
|                      | Resolution                     | 0.1 °C, 0.1 °F                                                                         |                                                                                                                                           |
|                      | Accuracy                       | ± 0.5 °C, ±0.5 °F                                                                      |                                                                                                                                           |
|                      | Calibration                    | No                                                                                     |                                                                                                                                           |
| Calibration          | Calibration points             | Up to 3 points, 6 pH buffers available<br>(1.68, 4.01, 6.86, 7.00, 9.18, 10.01, 12.45) | 1 point cell constant calibration; 4 conductivity standard<br>solutions available (10, 84, 1413 µS/cm and 12.88mS/cm)                     |
|                      | Calibration Sign               | Face Sign                                                                              |                                                                                                                                           |
|                      | Calibration mode               | Linear                                                                                 |                                                                                                                                           |
| Meter Specifications | Display Type                   | 5" segment LCD with backlight                                                          |                                                                                                                                           |
|                      | Measurement End-point<br>Modes | Auto-stop, Continuous                                                                  |                                                                                                                                           |
|                      | Datalog for measurement        | 99 sets                                                                                |                                                                                                                                           |
|                      | Datalog for calibration        | Last calibration                                                                       |                                                                                                                                           |
|                      | Keypad                         | Membrane                                                                               |                                                                                                                                           |
|                      | pH electrode input             | BNC                                                                                    |                                                                                                                                           |
|                      | Conductivity input             | Mini-Din                                                                               |                                                                                                                                           |
|                      | Temperature input              | Cinch, NTC 30 kΩ                                                                       |                                                                                                                                           |
|                      | Installation Overvoltage       | Category II                                                                            |                                                                                                                                           |
|                      | Pollution                      | Degree 2                                                                               |                                                                                                                                           |
|                      | Power Supply                   | Universal, 100-240 VAC, 50-60 Hz                                                       |                                                                                                                                           |
|                      | Ambient Operating              | 5 to 40 °C, 5 to 80 %, non-condensing                                                  |                                                                                                                                           |

\*Least Significant Digit

# AQUASEARCHER™ AB23 Benchtop Meter

| Item #   | Solutions                                                     |
|----------|---------------------------------------------------------------|
| 30100424 | Buffer pH 1.68 250 mL                                         |
| 30100425 | Buffer pH 4.01 250 mL                                         |
| 30100426 | Buffer pH 6.86 250 mL                                         |
| 30100427 | Buffer pH 7.00 250 mL                                         |
| 30100428 | Buffer pH 9.18 250 mL                                         |
| 30100429 | Buffer pH 10.01 250 mL                                        |
| 30100440 | Buffer pH 12.45 250 mL                                        |
| 30860659 | Buffer pH1.68 250ml Dual-port                                 |
| 30860660 | Buffer pH4.01 250ml Dual-port                                 |
| 30860661 | Buffer pH6.86 250ml Dual-port                                 |
| 30860662 | Buffer pH7.00 250ml Dual-port                                 |
| 30860663 | Buffer pH9.18 250ml Dual-port                                 |
| 30860664 | Buffer pH10.01 250ml Dual-port                                |
| 30860665 | Buffer pH12.45 250ml Dual-port                                |
| 30059255 | Reference Electrolyte (3M KCl Solution Saturated AgCl, 30 mL) |
| 30059256 | pH Electrode Protection Solution (3M KCl, 125 mL)             |
| 30100442 | Conductivity Standard Solution 84 µS/cm, 250 mL               |
| 30393269 | Conductivity Standard Solution 500 uS/cm 250 mL               |
| 30100443 | Conductivity Standard Solution 1413 µS/cm, 250 mL             |
| 30100444 | Conductivity Standard Solution 12.88 mS/cm, 250 mL            |
| 30860667 | Standard Cond 84µS/cm 250ml Dual                              |
| 30860668 | Standard Cond 1413µS/cm 250ml Dual                            |
| 30860669 | Standard Cond 12.88mS/cm 250ml Dual                           |
| 30860670 | Standard Cond 500µS/cm, 250ml Dual                            |

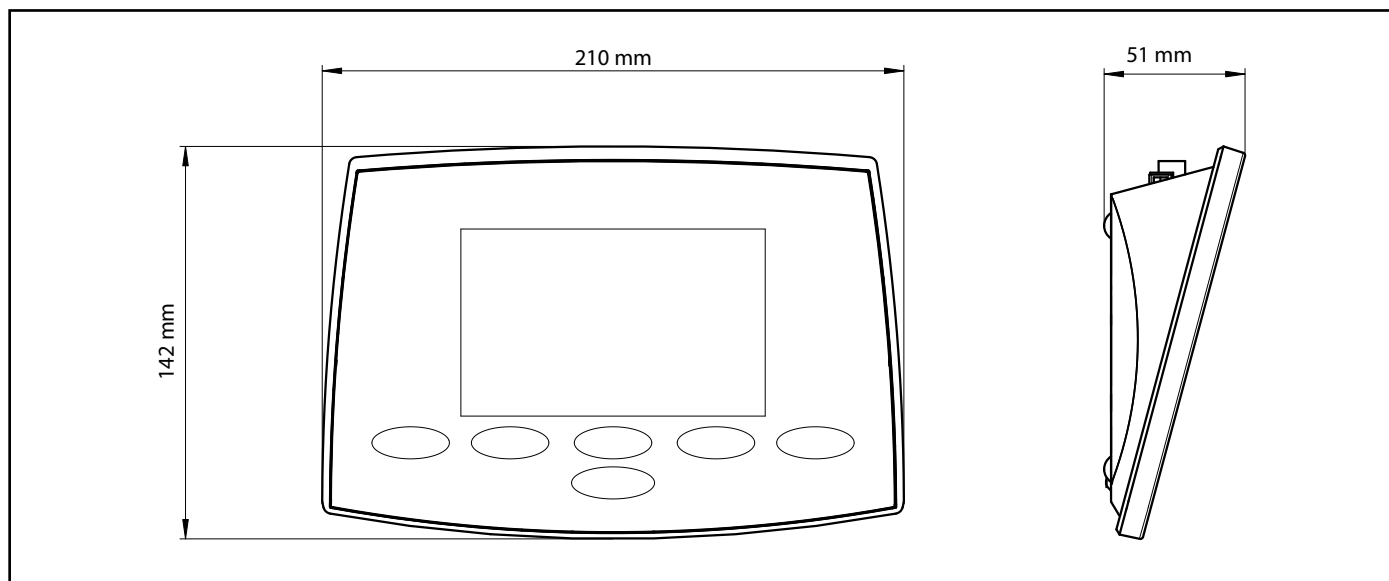
| Item #   | Electrodes                 |
|----------|----------------------------|
| 30129354 | pH electrode ST350         |
| 83033967 | pH electrode ST320         |
| 83033965 | pH electrode ST310         |
| 30393265 | pH electrode ST272         |
| 30240974 | pH electrode ST270         |
| 30129357 | pH electrode ST260         |
| 83033968 | pH electrode ST230         |
| 83033966 | pH electrode ST210         |
| 30087566 | pH electrode STMICRO5      |
| 30087569 | pH electrode STMICRO8      |
| 30129470 | pH electrode STSURF        |
| 83033969 | pH electrode STPURE        |
| 30038555 | ORP electrode STORP1       |
| 30038553 | ORP electrode STORP2       |
| 30059253 | Reference Electrode STREF1 |
| 83033972 | Conductivity probe STCON3  |
| 30080693 | Conductivity probe STCON7  |
| 83033970 | Temperature probe STTEMP30 |
| 30681113 | pH electrode ST322         |

## Packages Available in four configurations

| a-AB23PH-B                                                                                                           | a-AB23PH-F                                                                                                                                     | a-AB23EC-B                                                                                                          | a-AB23EC-F                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>- a-AB23PH Benchtop Meter,</li> <li>- Stand-Alone Electrode Holder</li> </ul> | <ul style="list-style-type: none"> <li>- a-AB23PH-B Content</li> <li>- ST322 pH Electrode</li> <li>- pH Buffer Mini Kits (4 × 50mL)</li> </ul> | <ul style="list-style-type: none"> <li>- a-AB23EC Benchtop Meter</li> <li>- Stand-Alone Electrode Holder</li> </ul> | <ul style="list-style-type: none"> <li>- AB23EC-B Content</li> <li>- STCON3 Probe</li> <li>- Conductivity Standard Kits (1413 uS/cm, 4 × 50mL)</li> </ul> |

# AQUASEARCHER™ AB23 Series Benchtop Meter

## Outline Dimensions



## Other Features and Equipment

- **Application:**  
AB23PH: pH, oxidation-reduction potential (ORP) with Temperature Measurements  
AB23EC: Conductivity, Total Dissolved Solids (TDS), Salinity with Temperature Measurements
- **Operation:** AC adapter (included)
- **Construction:** ABS housing, mechanical keys, standalone electrode holder
- **Design Features:** Auto buffer recognition, three point calibration, electrode condition icon

## Compliance

- **Electromagnetic Compatibility:** C E, FCC
- **Electromagnetic Safety:** EN 61326-1

## Accessories

|                             |          |
|-----------------------------|----------|
| Electrode holder AB23 ..... | 30661424 |
| Stirrer Compact AS20 .....  | 30661425 |

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*The management system governing the manufacture of this product is ISO 9001:2015 certified.*

