AQUASEARCHER™

AB33 Series Benchtop Meters

AB33PH

AB33EC

AB33M1

Highly Reliable and User-Friendly Benchtop Meter for Standard Laboratory Applications

The next step in the evolution of OHAUS's original Starter Series, the all-new AquaSearcher™ AB33 benchtop meter is designed to be reliable, efficient, and user-friendly. The i-Steward ensures repeatable and consistent measurement accuracy for optimal peace of mind. The 6.5 inch LCD display and touch keypad makes changing the parameters, executing setup, and performing calibration as simple as using a smartphone.

Unique Features:

- With multifunctional touch keypads, AB33 makes measurement simple and fast within 3 steps. The intelligent i-Steward monitors the condition of electrodes, ensuring accuracy of the results.
- Auto endpoint mode and auto buffer recognition makes pH calibration easy. Auto temperature compensation, adjustable TDS factor and two kinds of cell conductivity probe compatibility are all features well suited for universal laboratory applications.
- Able to store up to 1000 items in its internal memory, AB33 allows for efficient data documentation. Standard RS232 and USB interface allows connection to external devices for expanded storage.

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i-Steward Indicators include the pH electrode condition, "Electrode Dirty/Broken," and reminder when meter needs recalibration. On-screen text prompts, menu-specific function keys and a multi-language interface shown on a 6.5" large display.

Three capacitive touch keys that change based upon use ensures the buttons are never clogged with sample residue. Most of the operation can be done within 3 steps.

Auto-Stop holds a stable reading. Continuous shows changing readings, perform up to a 3-point pH calibration using automatic buffer recognition of 3 predefined buffer groups, selectable cell constant allows for use with 2- or 4-cell conductivity cells to measure from ultrapure water to sewage.

Adjustable TDS Factor - The factor that relates conductivity to total dissolved solids is based on the type of sample being measured. To have correct temperature compensation when measuring conductivity, the linear compensation coefficient adjusts by automatic temperature compensation.

Selectable reference temperatures of 20 or 25 °C for temperature compensated conductivity readings.

A 1000-item memory for measurements and calibration trail makes for efficient data documentation. Records are associated with date and time for good traceability.

Standard RS232 and USB interface allows for connection to external devices such as a printer or computer for transfer and storage of data.

A standalone adjustable electrode holder provides full flexibility for different types of electrodes.

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Specifications

Model		a-AB33PH	a-AB33EC	a-AB33M1
pH	Measuring Range	-2.00 to 16.00 pH	n/a	-2.00 to 20.00 pH
	Resolution	0.1/0.01 pH	n/a	0.1/0.01 pH
	Selectable Resolution	Yes	n/a	Yes
	Accuracy	± 0.01 pH	n/a	± 0.01 pH
	Pre-Defined Buffer Groups	3	n/a	5
ORP, Redox	Measuring Range	±2000.0 mV	n/a	±2000.0 mV
	Resolution	1 mV	n/a	0.1mV
	Accuracy	± 1 mV	n/a	±0.5 mV
	Units	mV, RmV	n/a	mV, RmV
Conductivity	Measuring Range	n/a	0.001µS/cm to 19.99 µS/cm 20 µS/cm to 199.9 µS/cm 200 µS/cm to 1999 µS/cm 2.00 mS/cm to 19.99 mS/cm 20.0 mS/cm to 1000 mS/cm	0.01 µS/cm to 19.99 µS/cm 20 µS/cm to 199.9 µS/cm 200 µS/cm to 1999 µS/cm 2.00 mS/cm to 19.99 mS/cm 20.0 mS/cm to 500.0 mS/cm
	Resolution	n/a	0.001 µS/cm minimum; auto-range	0.01 µS/cm minimum; auto-range
	Accuracy	n/a	± 0.5 % Reading ± 2 Least Signficant Digit	
	Reference Temperature	n/a	20 °C, 25 °C	
	Cell Constants	n/a	0.01 to 10.00 cm-1	0.001 to 10.00 cm-1
	Temperature Compensation	n/a	Linear (0 to 10.0%/°C), off	
TDS	Measuring Range	n/a	0.1 mg/L to 200 g/L	0.1mg/L to 199.9 g/L
	Resolution	n/a	0.01 mg/L minimum, auto-range	
	Accuracy	n/a	± 0.5 % Reading ± 2 Least Signficant Digit	
	TDS Factor Range	n/a	Linear, 0.01 to 10.00, default 0.5	
Resistivity	Measuring Range	n/a	1 to 100 MΩ-cm	2 to 100 MΩ-cm
	Resolution	n/a	0.01 Ω-cm auto-range	
	Accuracy	n/a	± 0.5 % Reading ± 2 Least Signficant Digit	
Practical Salinity	Measuring range	n/a	0 to 100 psu	
	Resolution	n/a	0.01 psu minimum, auto-range	
	Accuracy	n/a	± 0.5 % Reading ± 2 Least Signficant Digit	
Temperature	Measuring Range	-5.0 to 110.0°C		
		23.0°F to 230.0°F		
	Resolution	0.1 °C, 0.1 °F		
	Accuracy	± 0.5 °C, ±0.5 °F	± 0.3 °C, ±0.3 °F	
	Calibration	No		
Calibration	Calibration points	Up to 3 points	1 point cell constant calibration; 6 conductivity standard solutions available (10, 84, 146.5, 500, 1413 µS/cm and 12.88mS/cm)	Up to 5 points for pH; 1 point cell constant calibration; 6 conductivity standard solutions available (10, 84, 146.5, 500, 1413 µS/cm and 12.88mS/cm)
	Calibration Sign	Slope/offset & Face	Cell Constant & Face	Slope/offset & Cell Constant & Face
	Calibration mode	Linear		
Meter Specifications	Display Type	6.5" Segment & Dot matrix LCD with backlight		
	Multilanguage User Interface	English, Spanish, French, Portuguese, Chinese, Russian and Turkish		
	Measurement End-point Modes	Auto-stop, Continuous		
	Datalog for measurement	1000 sets data points with time and date stamp		
	Datalog for calibration	Last calibration		
	Keypad	Capacitive touch		
	Output	Connect to PC via RS232 and USB, Connect to Printer via RS232		
	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		

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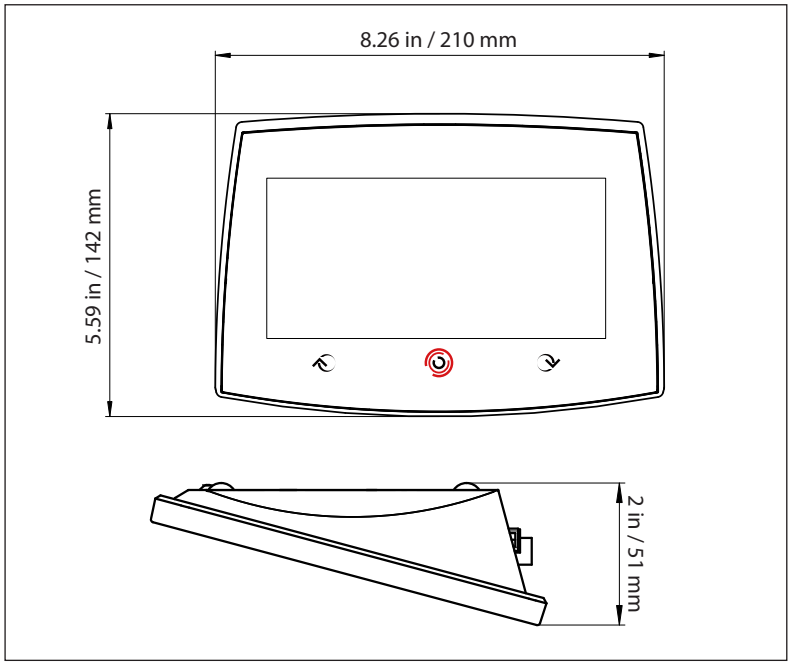
Outline Dimensions



Packages Available in six configurations

a-AB33PH-B

- a-AB33PH Benchtop Meter
- Stand-Alone Electrode Holder

a-AB33PH-F

- a-AB33PH-B Content
- ST310 pH Electrode
- pH Buffer Mini Kits (4 × 50mL)

a-AB33EC-B

- a-AB33EC Benchtop Meter,
- Stand-Alone Electrode Holder

a-AB33EC-F

- a-AB33EC-B Content
- STCON7 Probe
- Conductivity Standard Kits (84 uS/cm, 4 × 50mL)

a-AB33M1-B

- a-AB33M1 Benchtop Meter
- Stand-Alone Electrode Holder

a-AB33M1-F

- a-AB33M1-B Content
- ST310 pH Electrode
- STCON3 Probe
- pH Buffer Mini Kits (4 × 50mL)
- Conductivity Standard Kits (1413 uS/cm, 4 × 50mL)

Other Features and Equipment

- **Application:**
  AB33PH: pH, oxidation-reduction potential (ORP) with Temperature Measurements
  AB33EC: Conductivity, Total Dissolved Solids (TDS), Salinity and Resistivity with Temperature Measurements
  AB33M1: pH, oxidation-reduction potential (ORP), Conductivity, Total Dissolved Solids (TDS), Salinity and Resistivity with Temperature Measurements
- **Operation:** AC adapter (included)
- **Communication:** RS232, USB Device (included)
- **Construction:** Capacitive touch, ABS housing, standalone electrode holder
- **Design Features:** i-Steward, Two Independent Channels (for AB33M-1), Calibration due alarm, 1,000 measurement memory

Compliance

- **Product Safety:** IEC/EN 61010-1
- **Electromagnetic Safety:** IEC/EN 61326-1 Class B, basic environments; FCC Part 15 Class A; Canada ICES-003 Class A
- **Compliance Marks:** CE, RCM
- **Others:** WEEE, RoHS

Accessories

Electrode holder AB33 30661423
Stirrer Compact AS20 30661425
SF40A Printer 30045641
Tester BNC AB33 AB41 30658042

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
30059255	Reference Electrolyte (3M KCl Solution Saturated AgCl, 30 mL)
30059256	pH Electrode Protection Solution (3M KCl, 125 mL)
30100441	Conductivity Standard Solution 10 µS/cm, 250 mL
30100442	Conductivity Standard Solution 84 µS/cm, 250 mL
	Conductivity Standard Solution

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