

Water Analysis

PRODUCT

Volume 14



Consistency, Reliability, Durability and Performance

ROFESSI NSTRUMI & LAB AN

pH ISE

ORP

EC

TDS

DO

TEMP

WATER

& ANALYSIS

PROFESSIONAL

INSTRUMENTS FOR

WATER & LAB ANALYSIS

ESSIONAL

NEATS FOR WATER

Adwa Instruments

Founded in 1998, Adwa Instruments is one of the leading manufacturers of instrumentation to measure pH, Conductivity, ORP, Dissolved Oxygen and Temperature for Research and Industry. Headquartered in Szeged, Hungary and with a manufacturing plant in Romania, Europe, Adwa Instruments is dedicated through a worldwide distributor network, to provide top class instrumentation and service.

Thanks to the customers' feedback, we have developed a line of user-friendly products which are durable, reliable and accurate, with an excellent cost-performance ratio. All of our instruments are supplied complete with the necessary electrodes, probes, calibration solutions and are ready for use. Some units combine two or more parameters, providing added versatility and excellent value for money. From basic hand-held units to high-performance benchtop type laboratory instruments, Adwa Instruments has a reputation for reliability and accuracy.

Total quality and customer satisfaction is the guiding principle of Adwa Instruments. We try to anticipate, to understand and go beyond the expectations of our customers. Total quality demands continuous improvement in all our processes, products and services.

As a result, our corporate philosophy is focused on total customer satisfaction.



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Standard Pocket Testers

AD100-AD101

Standard Pocket pH Testers

Microprocessor based pH testers, assure to produce fast and stable readings.

They come with features such as automatic temperature compensation, low battery indication, automatic shut-off after 8 minutes and others

They are also incorporated with easy push buttons for automatic calibration and splashproof keypad that prevents water infiltration.



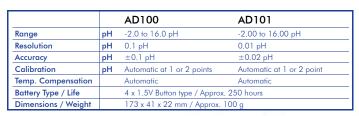
Calibrate directly in buffer solution sachets

Calibration can be performed right in buffer solution sachets for the most accurate readings.



Easy battery replacement

An easily removable cover provides access to the replaceable battery.





Protective cap

Protect the pH bulb from external environmental effects when the meter is non-use.



1 or 2 point automatic calibration

These testers are feature automatic 1 or 2 point calibration to a known buffer.

Automatic temperature compensation

Readings are automatically compensated for variations in temperature.



AD100 and AD101 are supplied with

 $\label{eq:AD70004-pH4-calibration solutions} \textbf{AD70004-pH4-calibration solutions in sachet (20 ml);} \ \textbf{AD70007-pH7-calibration solutions in sachet (20 ml);} \ \textbf{Protective cap;} \ \textbf{Batteries (4 x 1.5V, button types);} \ \textbf{Instruction manual}$

Accessories

AD70004P - pH 4.01 calibration solution (20 ml sachet, 25 pcs.)
AD70007P - pH 7.01 calibration solution (20 ml sachet, 25 pcs.)
AD70010P - pH 10.01 calibration solution (20 ml sachet, 25 pcs.)

AD70000P - Rinse solution (20 ml sachet, 25 pcs.) AD70300 - Electrode storage solution (230 ml bottle) AD7061 - Electrode cleaning solution (230 ml bottle)

AD203-AD204

Standard Pocket Conductivity Testers

Easy to use, simple maintenance and yet high accuracy Conductivity pocket testers for daily measuring purposes.

With its built-in automatic temperature compensation feature, it ensures accurate readings under any ambient conditions.

Features such as splash-proof keypad prevent water infiltration into the testers, easy to read display among others make the testers easy and simple to maintain but yet provide professional measurements.

If calibration is necessary, simply submerge the electrode tip into the calibration solution and adjust the easily accessible trimmer on the side of the tester.







Readings are automatically compensated for variations in temperature.

AD201-AD202

Standard Pocket TDS Testers

These pocket testers have an easy to read display and for better resolution they also show the full scale readout so to obtain the actual test values.

These TDS pocket testers provide a fast and dependable way to measure the Total Dissolved Solids in your water samples.

The built-in automatic temperature compensation feature ensures accurate readings under any ambient conditions.

The splash-proof keypad prevents water infiltrations into the testers.

If calibration is necessary, simply submerge the electrode tip into the calibration solution and adjust the easily accessible trimmer on the side of the tester.

AD203 is supplied with

AD70031 - 1413 μ S/cm calibration solution in sachet (20 ml); Protective cap; Screwdriver for calibration; Batteries (4 x 1.5V, button types); Instruction manual

AD204 is supplied with

AD70030 - 12.88 mS/cm calibration solution in sachet (20 ml); Protective cap; Screwdriver for calibration; Batteries (4 x 1.5V, button types); Instruction manual

AD201 is supplied with

AD70032 - 1382 ppm calibration solution in sachet (20 ml); Protective cap; Screwdriver for calibration; Batteries (4 x 1.5V, button types); Instruction manual

AD202 is supplied with

AD70030 - 12.88 mS/cm calibration solution in sachet (20 ml); Protective cap; Screwdriver for calibration; Batteries (4 x 1.5V, button types); Instruction manual

		AD203	AD204	AD201	AD202			
D	EC	0 to 1999 μS/cm	0.00 to 19.99 mS/cm	-	-			
Range	TDS	-	-	0 to 1999 ppm	0.00 to 10.00 ppt			
Resolution	EC	1 μS/cm	0.01 mS/cm	-	-			
Resolution	TDS	_	=	1 ppm	0.01 ppt			
Accuracy	EC/TDS	±2% f.s.	±2% f.s.	±2% f.s	±2% f.s.			
Conversion factor		_	=	0.5 ppm	0.5 ppm			
Temp. Compensation		Automatic	Automatic	Automatic	Automatic			
Battery Type / Life		4 x 1.5V Button type / Approx. 150 hours						
Dimensions / Weight		173 x 41 x 22 mm / Approx. 100 g						

Accessories

AD70031P - 1413 μ S/cm EC standard solution (20 ml sachet, 25 pcs.) [AD203]

AD70030P - 12.88 mS/cm EC standard solution (20 ml sachet, 25 pcs.) [AD204, AD202]

AD70032P - 1382 ppm TDS standard solution (20 ml sachet, 25 pcs.) [AD201] **AD70442P** - 1500 ppm TDS standard solution (20 ml sachet, 25 pcs.) [AD201]

AD70000P - Rinse solution (20 ml sachet, 25 pcs.) AD7061 - Electrode cleaning solution (230 ml bottle)

Calibration, Rinse and other solutions see on page 20

Waterproof Pocket Testers

AD11-AD12

Professional Waterproof pH-Temperature Pocket Testers with replaceable probe

AD11 and AD12 are the most advanced microprocessor based Waterproof pH/Temp pocket testers in the market.

These fast, stable and precise pocket testers are for users who require the greatest accuracy. The modular design allows replacing the electrode in a fast and simple way.

Features such as stability indicator, automatic calibration, and automatic temperature compensation make these waterproof pocket testers a must-have in a variety of industries.



AD11P - Replaceable combination probe for AD11 and AD12

• pH/Temperature

AD14

Professional Waterproof pH-ORP-Temperature Pocket Tester with replaceable probe

AD14 is designed for simultaneous pH, ORP and Temperature measurements. The large 2 row display (LCD) also has graphic symbols to guide you through the operations. Calibration is performed automatically in 1 or 2 points.



AD14P - Replaceable combination probe for AD14

• pH/ORP/Temperature



Automatic temperature compensation (ATC)

- All pH readings are automatically temperature compensated. The encapsulated sensor allows fast and accurate temperature measurement and compensation.
- Temperature values can be displayed in °C or °F units.



HOLD function

Freezes the display for easy and accurate recording.



Stability indicator

The meter displays an hourglass symbol that will disappear when the measurement has achieved stability, and the reading should be taken.



Replaceable probe

Simple user-replaceable probe: just unscrew the plastic ring on the top of the electrode and replace the probe with a new one!



Low battery indicator

When the batteries become weak, the battery symbol on the LCD lights up to indicate a low battery condition.



Calibrate directly in buffer solution sachets

Calibration can be performed right in buffer solution sachets for the most accurate readings.

1 or 2 point automatic calibration

The meter can be calibrated at one or two points for pH with auto-buffer recognition and against 3 memorized buffer values



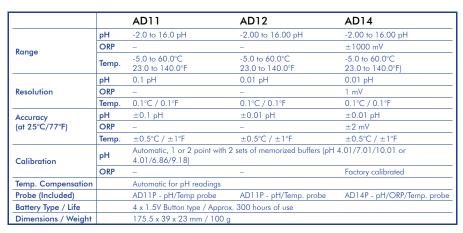
AD11P - pH/Temperature probe [AD11, AD12] AD14P - pH/ORP/Temperature probe [AD14] AD70004P - pH 4.01 calibration solution (20 ml sachet, 25 pcs.)

AD70007P - pH 7.01 calibration solution (20 ml sachet, 25 pcs.)

AD70010P - pH 10.01 calibration solution (20 ml sachet, 25 pcs.)

AD70000P - Rinse solution (20 ml sachet, 25 pcs.)
AD70300 - Electrode storage solution (230 ml

AD7061 - Electrode cleaning solution (230 ml bottle) **AD7020** - ORP test solution, 200/275 mV (230 ml bottle) [AD14]



AD11 and AD12 are supplied with

AD11P - pH/Temperature probe; AD70004 - pH4 calibration solutions in sachet (20 ml); AD70007 - pH7 calibration solutions in sachet (20 ml); Protective cap; Clip holder; Wrist strap; Batteries (4 x 1.5, button types); Instruction manual

AD14 is supplied with

AD14P - pH/ORP/Temperature probe; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solutions in sachet (20 ml); Protective cap; Clip holder; Wrist strap; Batteries (4 x 1.5, button types); Instruction manual

AD31-AD32

Professional Waterproof

Conductivity-TDS-Temperature

Pocket Testers with replaceable probe

AD31 and AD32 are waterproof Conductivity, TDS and temperature testers. The housing has been completely sealed against humidity. All Conductivity and TDS readings are automatically temperature compensated (ATC), and temperature values can be displayed in °C or °F units. The Conductivity/TDS conversion factor (CONV) can be selected by the user, as well as the coefficient β (BETA) for temperature compensation. The instruments can be calibrated at one point. Measurements are highly accurate with a unique stability indicator right on the LCD. The models are also provided with a low battery symbol which warns the user to replace the batteries.



AD32P - Replaceable combination probe for AD31 and AD32

The AD32P probe supplied with the meters, is interchangeable and can be easily replaced by the user. The encapsulated temperature sensor allows fast and accurate temperature measurement and compensation



AD33-AD35

Professional Waterproof Conductivity-Temperature Pocket Testers with replaceable probe

AD33 and AD35 are waterproof Conductivity testers, that also measure and display temperature. The housing has been completely sealed against humidity. All Conductivity readings are automatically temperature compensated, and temperature values can be displayed in °C or °F units.

Conductivity calibration is automatic at one point, while temperature is factory calibrated and the user can perform an adjustment only. To prolong battery life, these models are provided with an auto-off feature that turns them off after 5 minutes of non-use.

Moreover, when batteries become too weak to ensure reliable readings the meter automatically turns off.



AD33P - Replaceable combination probe for AD33 and AD35

The AD33P probe supplied with the meters, is interchangeable and can be easily replaced by the user. The encapsulated temperature sensor allows fast and accurate temperature measurement and compensation



Battery percentage indicator [AD31, AD32]

After turn on the meter, all the used segments will be visible for one second (or as long as the button is pressed), followed by the percentage indication of the remaining battery life.



Automatic calibration

Simple and easy automatic 1 point calibration.



AD32P - EC/TDS/Temperature probe; **AD70031** - 1413 µS/cm calibration solutions in sachet (20 ml); Protective cap; Clip holder; Wrist strap; Batteries (4 x 1.5, button types); Instruction manual

AD32 is supplied with

AD32P - EC/TDS/Temperature probe; **AD70030** - 12.88 mS/cm calibration solutions in sachet (20 ml); Protective cap; Clip holder; Wrist strap; Batteries (4 x 1.5, button types); Instruction manual

AD33 is supplied with

AD33P - EC/Temperature probe, **AD70031** - 1413 μ S/cm calibration solutions in sachet (20 ml); Protective cap; Clip holder; Wrist strap; Batteries (4 x 1.5, button types);Instruction manual

AD35 is supplied with

AD33P - EC/Temperature probe; Protective cap; Clip holder; Wrist strap; Batteries (4 \times 1.5, button types); Instruction manual



Replaceable probe

Simple user-replaceable probe: just unscrew the plastic ring on the top of the electrode and replace the probe with a new one!

Accessories

AD32P - Replaceable EC/TDS/Temperature probe [AD31, AD32]

AD33P - Replaceable EC/Temperature probe [AD33, AD35]

AD7033 - 84 μ S/cm calibration solution (230 ml bottle) [AD35]

AD70030P - 12.88 mS/cm EC standard solution (20 ml sachet, 25 pcs.) [AD32]

AD70031P - 1413 μ S/cm EC standard solution (20 ml sachet, 25 pcs.) [AD31, AD33]

AD70442P - 1500 ppm TDS standard solution (20 ml sachet, 25 pcs.)

AD70000P - Rinse solution (20 ml sachet, 25 pcs.)

AD7061 - Electrode cleaning solution (230 ml bottle)

		AD31	AD32	AD33	AD35
	EC	0 to 3999 μS/cm	0.00 to 20.00 mS/cm	0 to 1999 μS/cm	0 to 199.9 μS/cm
Range	TDS	0 to 2000 ppm	0.00 to 10.00 ppt	-	-
	Temp.	0.0 to 60.0°C / 32.0 to 140.0°F			
	EC	1 μS/cm	0.01 mS/cm	1 μS/cm	0.1 μS/cm
Resolution	TDS	1 ppm	0.01 ppt	-	-
	Temp.	0.1°C / 0.1°F	0.1°C / 0.1°F	0.1°C / 0.1°F	0.1°C / 0.1°F
Accuracy	EC/TDS	±2% f.s.	±2% f.s.	±2% f.s.	±2% f.s.
(at 25°C/77°F)	Temp.	±0.5°C / ±1°F	±0.5°C / ±1°F	±0.5°C / ±1°F	±0.5°C / ±1°F
Calibration	EC/TDS	Automatic, 1 point			
Temp. Compensation		Automatic			
Probe (Included)		AD32P - EC/TDS/Temp. probe	AD32P - EC/TDS/Temp. probe	AD33P - EC/Temp. probe	AD33P - EC/Temp. probe
Battery Type		4 x 1.5V Button type			
		Approx. 100 hours of use	Approx. 100 hours of use	Approx. 150 hours of use	Approx. 150 hours of use
Dimensions / Weight		175.5 x 39 x 23 mm / 100 g			

Electrodes, Probes and other Accessories see on page 18; Calibration, Rinse and other solutions see on page 20

Continuous Monitors

EC0209

Continuous pH Monitor

ECO209 is a continuous pH monitor suitable for constant monitoring of pH level of a given water or solution sample such as aquarium tank, ponds, hydroponics systems, among others. It is easy to use, with simple maintenance features, with 2 calibration points for better accuracy.

		ECO209
Range	рН	0.0 to 14.0 pH
Resolution	рΗ	0.1 pH
Accuracy (at 25°C/77°F)	рН	±0.2 pH
Calibration		Manual, 2 points through trimmer
Probe (Included)		AD1230B - epoxy body pH electrode with double junction, BNC connector
Environment		0 to 50°C, 95% RH max
Power Supply		External, 12 Vdc
Dimensions / Weight		120 x 134 x 54 mm / Approx. 250 a

EC209 is supplied with

AD1230B - pH electrode with epoxy body, double junction, BNC connector; Stainless steel grounding probe; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solution in sachet (20 ml); Screwdriver for calibration; 12 Vdc adapter; Instruction manual

Electrodes, Probes and other Accessories see on page 18; Calibration, Rinse and other solutions see on page 20



AD1230B - pH electrode

AD1286 - pH electrode

AD70004P - pH 4.01 calibration solution (20 ml sachet, 25 pcs.)

AD70007P - pH 7.01 calibration solution (20 ml sachet, 25 pcs.)

AD70010P - pH 10.01 calibration solution (20 ml sachet, 25 pcs.)

AD70000P - Rinse solution (20 ml sachet, 25 pcs.)

AD70300 - Electrode storage solution (230 ml bottle)

AD7061 - Electrode cleaning solution (230 ml bottle)

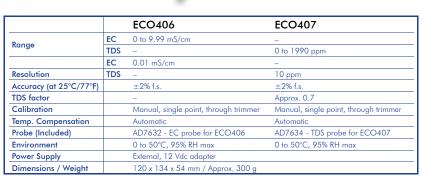


EC0406-EC0407

Continuous Conductivity [ECO406] and TDS [ECO407] Monitors

These continuous indicators are designed for easy maintenance, simple to read, accurate readings and cost effective purpose, to meet the general requirements of all range of users. They come with single point manual calibration and automatic temperature compensation that makes these monitors even more reliable.

The meters are supplied with an epoxy body (EC, TDS) probe for a more durable life-span, with calibration solutions and screwdriver for calibration purposes. The ideal tool to monitor your nutrient solution continuously without having to worry about dead batteries





EC406 is supplied with

AD7632 - EC probe for ECO406 with 2 m cable; AD70031 - 1413 μ S/cm calibration solutions in sachet (20 ml); Screwdriver for calibration; 12 Vdc adapter, Instruction manual

ECO407 is supplied with

AD7634 - TDS probe for ECO407 with 2 m cable; AD70032 - 1382 ppm calibration solutions in sachet (20 ml); Screwdriver for calibration; 12 Vdc adapter; Instruction manual

Accessories

AD7632 - EC probe for ECO406 with 2 m cable AD7634 - TDS probe for ECO407 with 2 m cable

AD70031P - 1413 μ S/cm EC calibration solution (20 ml sachet, 25 pcs.) [ECO406] AD70032P - 1382 ppm calibration solution (20 ml sachet, 25 pcs.) [ECO407]

AD70442P - 1500 ppm TDS standard solution (20 ml sachet, 25 pcs.) [ECO407]

AD70000P - Rinse solution (20 ml sachet, 25 pcs.) AD7061 - Electrode cleaning solution (230 ml bottle)

Standard Professional Portable Meters

ATC / MTC

Automatic and manual temperature compensation.

Stability indicator

The meter displays an hourglass symbol that will disappear when the measurement has achieved stability, and the reading should be taken.

Hold Function

Freeze the first stable reading on the LCD.

Auto Shut-off

To save battery life, the meters have an auto-off feature.

Low battery indicator

When the batteries become weak, the battery symbol on the LCD lights up to indicate a low battery condition.



AD310 AD410 Shut-off AD410 Shut-off

Sta pH





		AD110	AD111				
	рН	-2.00 to 16.00 pH	-2.00 to 16.00 pH				
Range	mV	-	±1000 mV				
	Temp.	-5.0 to 105.0°C	-5.0 to 105.0°C				
	рН	0.01 pH	0.01 pH				
Resolution	mV	=	1 mV				
	Temp.	0.1°C	0.1℃				
	pН	±0.02 pH	±0.02 pH				
Accuracy	mV	=	±2 mV				
(at 25°C/77°F)	Temp.	±0.5°C up to 60°C ±1°C (outside)	±0.5°C up to 60°C ±1°C (outside)				
0.111	рН	Automatic, 1 or 2 point, with 3 memorized buffers value	Automatic, 1 or 2 point, with 3 memorized buffers value				
Calibration	mV	=	Factory calibrated				
	Temp.	Factory calibrated	Factory calibrated				
Probes (included)		AD1230B - epoxy body pH electrode with double junction, BNC connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable					
Temp. Compensation		Automatic or 25°C fixed					
Battery Type / Life		4 x 1.5V AA batteries / Approx. 1500 hours of continuous use					
Dimensions / Weight		70 x 145 x 26 mm / Approx. 200 g	<u> </u>				

AD110-AD111

Standard Professional pH-Temperature (AD110) and pH-ORP-Temperature (AD111) Portable Meters

AD110 and **AD111** are compact pH meters featuring automatic pH calibration, HOLD function, low battery indication, temperature measurement and compensation. In addition, AD111 can measure in the mV range.

AD110 and **AD111** offer you the greatest value-for-money for basic pH, ORP [AD111] and Temperature measurements. 2 points push-button calibration with auto buffer recognition in 3 points (pH 4.01, pH 7.01 and pH 10.01).

Auto-off after 8 minutes of non-use conserves energy and lengthens battery life-span.



Optional AD3230B - ORP electrode [AD111]

• Gel filled combination ORP electrode with platinum contact

AD110 and AD111 are supplied with

AD1230B - pH electrode with epoxy body, double junction, BNC connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solution in sachet (20 ml); Batteries (4 x 1.5V, AA alkaline); Instruction manual

Accessories

Find an accessory guide for portable meters on page 13

AD310-AD410

Standard Professional Conductivity-Temperature [AD310] and TDS-Temperature [AD410] Portable Meters

AD310 and AD410 are portable microprocessor-based instruments for measuring EC or TDS, and temperature.

The auto ranging feature of the EC and TDS readings automatically sets the instrument to the scale with the highest resolution.

Measurements are compensated for temperature effect automatically (ATC) or manually (MTC). The temperature compensation feature can also be disabled to measure actual conductivity or TDS. The temperature coefficient is user selectable. The instruments also feature a measurement stability indicator.



AD310 is supplied with

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor and 1 m cable; AD70031 - 1413 μS/cm calibration solutions in sachet (20 ml); Batteries (4 x 1.5V, AA alkaline); Instruction manual

AD410 is supplied with

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor and 1 m cable; AD70032 - 1382 ppm calibration solutions in sachet (20 ml); Batteries (4 x 1.5V, AA alkaline); Instruction manual

Accessories

Find an accessory guide for portable meters on page 13

		AD310	AD410
	EC	19.99 μS/cm 199.9 μS/cm 1999 μS/cm 19.99 mS/cm 199.9 mS/cm	-
Range	TDS	-	9.99 ppm 99.9 ppm 999 ppm 9.99 ppt 99.9 ppt
	Temp.	-9.9 to 120.0°C	-9.9 to 120.0°C
	EC	0.01 μ S/cm 0.1 μ S/cm 1 μ S/cm 0.01 mS/cm 0.1 mS/cm	-
Resolution	TDS	-	0.01 ppm 0.1 ppm 1 ppm 0.01 ppt 0.1 ppt
	Temp.	0.1℃	0.1°C
Accuracy (at 25°C/77°F)	EC	±1% f.s.	=
	TDS	=	±1% f.s.
(41 23 6/77 1)	Temp.	±0.5°C	±0.5°C
	EC	Offset: 0.0 µS/cm; Slope: 1 point with 6 memorized standards (84.0, 1413 µS/cm; 5.00, 12.88, 80.0, 111.8 mS/cm) or one custom value	-
Calibration	TDS	-	Offset: 0.0 ppm; Slope: 1 point with 4 memorized standards (800, 1382 ppm; 6.44,40.0 ppt) or one custom value
Temperature Compensation		ATC/MTC, -9.9 to 120.0°C	ATC/MTC, -9.9 to 120.0°C
Temperature Coefficient		Selectable from 0.00 to 6.00% / °C	Selectable from 0.00 to 6.00% / °C
Reference Temperature		Selectable at 20.0 or 25.0°C	Selectable at 20.0 or 25.0°C
Probe (Included)		AD76309 - Stainless steel, 4-ring EC/TDS/Temperatur	re probe with DIN connector and 1 m cable
Battery Type / Life		4 x 1.5V AA batteries / Approx. 200 hours of continuo	ous use
Dimensions / Weight		70 x 145 x 26 mm / Approx. 200 g	

Professional Waterproof Portable Meters

ATC / MTC

Automatic and manual temperature compensation.

Stability indicator

The meter displays an hourglass symbol that will disappear when the measurement has achieved stability, and the reading should be taken.

GLP

GLP allows storage and retrieval of data regarding the status of the system.

Memory

Store your current readings, samples on demand, with a time stamp.

PC Interface

Logged data can be transferred to a PC or printer through the RS232 port.

Auto Shut-off

To save battery life, the meters have an auto-off feature.

Low battery indicator

When the batteries become weak, the battery symbol on the LCD lights up to indicate a low battery condition

be laken.	Hd	ORP	EC	TDS	Temperature	Dissolved Oxygen	ATC	MTC	Stability Indicator	Low Battery Indicator	Hold Function	Auto Shut-off	Pc Interface	GLP	Memory
AD130	•	•			•		•	•	•	•	•	•			
AD131	•	•			•		•	•	•	•	•	•		•	
AD132	•	•			•		•	•	•	•	•	•	•	•	•
AD330			•	•	•		•	•	•	•	•	•		•	
AD331			•		•		•	•	•	•	•	•		•	•
AD332			•	•	•		•	•	•	•	•	•	•	•	•
AD630					•	•	•		•		•	•	•	•	•



Professional Multi-Parameter Splash-Proof pH-ORP-Temp Portable Meter

AD130 is a heavy-duty portable pH meter designed to provide laboratory results and accuracy even under harsh industrial conditions.

- 7 memorized buffers for pH calibration (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01 and 12.45)
- Messages on the LCD to make the calibration easy and accurate
- pH readings with manual or automatic
- Temperature compensation
- pH calibration using pH buffers with 0.01 resolution
- Temperature range from -20 to 120°C (-4 to 248°F) using A7662 probe

AD130 can also use ORP electrodes to measure mV, with a resolution up to 0.1 mV.



AD130 is supplied with

AD1230B - pH electrode with epoxy body, double junction, BNC connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable; AD70004 - pH4 calibration solution in sachet (20 ml), AD70007 - pH7 calibration solution in sachet (20 ml); Wrist strap; Batteries (4 x 1.5V, AA alkaline); Instruction manual

Optional AD3230B - ORP

 Gel filled combination ORP electrode with platinum contact



Accessories

Find an accessory guide for portable meters on page 13

AD131 - AD132

Professional Waterproof pH-ORP-Temperature Portable Meter with GLP & RS232 interface

AD131 and AD132 are heavy-duty portable waterproof meters for pH, ORP (Oxidation Reduction Potential) and temperature

measurements, designed to provide laboratory results and accuracy even under harsh industrial conditions.

- 7 memorized buffers for pH calibration (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01 and 12.45)
- Messages on the LCD to make the calibration easy and accurate
- pH readings with manual or automatic temperature compensation
- Calibration time-out alarm
- · Log-on-demand
- HOLD feature to freeze stable reading on the LCD
- GLP feature to view last calibration data for pH and relative mV
- PC interface [AD132]
- AD132 allows connection to an external serial printer with the following specification: at least 16 characters/line, baud rate 9600 and 9-pin RS232 input



AD131 and AD132 are supplied with

AD1230B - pH electrode with epoxy body, double junction, BNC connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solution in sachet (20 ml); Wrist strap; Batteries (4 x 1.5V, AA alkaline); Instruction manual; AD9551 - Serial communication cable [AD132]

Optional AD3230B - ORP electrode

 Gel filled combination ORP electrode with platinum contact



Accessories

Find an accessory guide for portable meters on page 13

		AD130	AD131 - AD132
	рН	-2.00 to 16.00	-2.00 to 16.00
Range	ORP	±1999 mV	±2000 mV
	Temp	-20.0 to 120.0°C / -4.0 to 248.0°F	-20.0 to 120.0°C / - 4.0 to 248.0°F
	рН	0.01 pH	0.01 pH
Resolution	ORP	0.1 ±699.9 mV / 1 mV (outside)	0.1 mV (±999.9 mV) / 1 mV (outside)
	Temp	0.1°C (0.1°F)	0.1°C (0.1 °F)
	рН	± 0.01 pH	±0.01 pH
Accuracy (at 25°C/77°F)	ORP	± 0.2 up to ± 699.9 mV / ± 1 mV (outside)	± 0.2 mV up to ± 699.9 mV / ± 0.5 mV up to ± 999.9 mV / \pm 2 mV (outside)
(41 25 C/77 1)	Temp	±0.4°C (±0.8°F) (excluding probe error)	± 0.4 °C (± 0.7 °F) (excluding probe error)
Calibration	рН	1 or 2 point calibration, 7 standard buffers available (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45)	Up to 5-point calibration, with 7 standard buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45)
	ORP	Factory calibrated	Factory calibrated
Temperature compensation		ATC/MTC, -20.0 to 120.0°C (-4.0 to 248.0°F)	ATC/MTC, -20 to 120°C (-4.0 to 248.0 °F)
Unit		°C and °F	°C and °F
Memory		=	Log-on-demand 500 samples
GLP		=	Yes (With time stamp)
Hold function		Yes	Yes (Auto End Point)
Low battery indication		Yes	-
Stability indicator		Yes	Yes
Auto shutt-off		20 min. (can be disabled)	5 min. (can be disabled)
PC Interface		=	RS232 for PC software and External Printer [AD132]
Probe (Included)		AD1230B - epoxy body pH electrode with double junction, BNC connector and	d 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable
Battery Type / Life		4 x 1.5V AA batteries / Approx. 500 hours of continuous use	4 x 1.5V AA batteries / Approx. 300 hours of continuous use
Dimensions / Weight		188 x 96 x 70 mm / 460 g	188 x 96 x 70 mm / 460 g



4 rings, stainless steel probe

The meter comes with an AD76309 EC/TDS/Temperature probe with built-in temperature sensor



AD331 is supplied with

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor; **AD70031** - 1413 μ S/cm calibration solutions in sachet (20 ml); **AD70030** - 12.88 mS/cm calibration solutions in sachet (20 ml); Wrist strap; Batteries (4 x 1.5V, AA alkaline); Instruction manual

Accessories

Find an accessory guide for portable meters on page 13

AD331

Professional Waterproof Conductivity-Temperature Portable Meter with GLP

AD331 is a waterproof portable meter that reads Conductivity in 5 ranges and temperature. The auto ranging feature of the EC range automatically sets the instrument to the scale with the highest resolution. Measurements are compensated for temperature effect automatically (ATC) or manually (MTC). It is also possible to disable the temperature compensation feature to measure the actual conductivity. The temperature coefficient is user selectable. This instrument also features a measurement stability indicator, GLP capability, and a user selectable ID code to uniquely identify the instrument.

		AD331
Range	EC	0.00 to 19.99 μ S/cm 20.0 to 199.9 μ S/cm 200 to 1999 μ S/cm 2.00 to 19.99 mS/cm 20.0 to 199.9 mS/cm
	Temp.	-9.9 to 120.0 °C
Resolution	EC	0.01 µ\$/cm 0.1 µ\$/cm 1 µ\$/cm 0.01 m\$/cm 0.1 m\$/cm
	Temp.	0.1 °C
Accuracy	EC/TDS	±1% f.s.
(at 25°C/77°F)	Temp.	±0.5 °C
Calibration	EC	Offset 0.0 μ S/cm; Slope: 1 point with 6 memorized standards (84.0, 1413 μ S/cm; 5.00,12.88, 80.0, 111.8 mS/cm) or one custom value
Temperature compensation		ATC/MTC, -9.9 to 120 °C
Temperature coefficient		Selectable from 0.00 to 10.00% / °C
Reference temperature		Selectable from 15.0 to 30.0°C
Probe (included)		AD76309 - Stainless steel, 4-ring EC/TDS/Temperature probe with DIN connector and 1 m cable
Memory		Log-on-demand: Up to 250 samples
GLP		Yes with time stamp
Hold function		Yes (Auto)
Low battery indication		Yes
Auto shutt-off		User selectable: 5 minutes or disabled
Battery Type / Life		4 x 1.5V AA batteries / Approx. 200 h of continuous use
Dimensions / Weight		188 x 96 x 70 mm / 460 g

AD330 - AD332

Professional Waterproof Conductivity-TDS-Temperature Portable Meter with GLP & RS232 interface

AD330 and **AD332** are waterproof portable meters that read TDS and Conductivity in 5 ranges and temperature.

The auto ranging feature of the EC and TDS ranges automatically sets the instrument to the scale with the highest resolution. Measurements are compensated for temperature effect automatically (ATC) or manually (MTC). It is also possible to disable the temperature compensation feature to measure the actual conductivity.

The temperature coefficient is user selectable. These instruments also features a measurement stability indicator, GLP capability, and a user selectable ID code to uniquely identify the instrument. Moreover, AD332 includes PC interface and printing function.

		AD330 - AD332
	EC	0.00 to 19.99 μ S/cm 20.0 to 199.9 μ S/cm 200 to 1999 μ S/cm 2.00 to 19.99 mS/cm 20.0 to 199.9 mS/cm
Range	TDS	0.00 to 9.99 ppm 10.0 to 99.9 ppm 100 to 999 ppm 1.00 to 9.99 ppt 10.0 to 99.9 ppt
	Temp.	-9.9 to 120.0 °C
	EC	0.01 μS/cm 0.1 μS/cm 1 μS/cm 0.01 mS/cm 0.1 mS/cm
Resolution	TDS	0.01 ppm 0.1 ppm 1 ppm 0.01 ppt 0.1 ppt
	Temp.	0.1 ℃
Accuracy	EC/TDS	±1% f.s.
(at 25°C/77°F)	Temp.	±0.5 ℃
Calibration	EC	Offset: 0.0 µS/cm; Slope: 1 point with 6 memorized standards (84.0, 1413 µS/cm; 5.00,12.88, 80.0, 111.8 mS/cm)
Temperature compensation		ATC/MTC, -9.9 to 120°C
Temperature coefficient		Selectable from 0.00 to 10.00% / °C
Reference temperature		Selectable from 15.0 to 30.0°C
TDS factor		User selectable from 0.40 to 1.00 (default value: 0.50)
Probe (included)		AD76309 - Stainless steel, 4-ring EC/TDS/Temperature probe with DIN connector and 1 m cable
Memory		Log-on-demand: Up to 250 samples [AD332]
GLP		Yes with time stamp
Printer		External through RS232 [AD332]
Hold function		Yes (Auto)
Low battery indication		Yes
Auto shutt-off		User selectable: 5 minutes or disabled
PC Interface		RS232 for PC software and External Printer [AD332]
Battery Type / Life		4 x 1.5V AA batteries / Approx. 200 h of continuous use
Dimensions / Weight		188 x 96 x 70 mm / 460 g



AD330 and AD332 are supplied with

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor; AD70031 - 1413 μ S/cm calibration solutions in sachet (20 ml); AD70030 - 12.88 mS/cm calibration solutions in sachet (20 ml); Wrist strap; Batteries (4 x 1.5V, AA alkaline); Instruction manual; AD9551 - Serial communication cable [AD332]

Accessories

Find an accessory guide for portable meters on page 13

Dissolved Oxygen & Temperature Waterproof Portable Meter with GLP & RS232 interface

AD630 is a heavy-duty portable waterproof meter for DO (Dissolved Oxygen) and temperature measurements, designed to provide laboratory results and accuracy even under harsh industrial conditions.

- DO readings displayed in ppm or % saturation units
- \bullet DO calibration at 1 or 2 standard points (0 and 100%), or at 1 custom point (>20%)
- Galvanic DO probe with built-in temperature sensor
- Automatic temperature compensation
- · Log-on-demand
- Setup mode for setting altitude & salinity compensation factors, temperature measure unit (°C or °F), serial communication parameters, date & time, auto-off, instrument ID code
- HOLD feature to freeze stable reading on the LCD
- GLP feature to view last calibration data
- PC interface via RS232 port

AD630 is supplied with

AD8001/3 - Galvanic DO probe with built-in temperature sensor; AD8001A/P - Spare membrane with O-ring; AD9072S - Electrolyte solution (30 ml bottle); AD9551 - Serial communication cable; Wrist strap; Batteries (4 x 1.5V, AA alkaline); Instruction manual

Accessories

AD8001/3 - Galvanic DO probe with built-in temperature sensor

AD8001A/P - Spare membrane with O-ring (5 pcs) AD7040 - Two-component zero oxygen solution

AD9072S - Electrolite solution for DO galvanic probe

AD9316 - Application software

AD9551 - Serial communication cable

AD9345 - Hard carrying case (Dimensions: 400 mm x 300 mm x 100 mm)

Electrodes, Probes and other Accessories see on page 18; Calibration, Rinse and other solutions see on page 20



AD8001/3 galvanic DO probe with built-in temperature sensor

 Galvanic probe: Unlike polarographic probes, Galvanic DO probes do not require any conditioning time when the unit is switched on, saving time when many measurements are required.

	AD630
Range	0.00 to 45.00 ppm O2 0.0 to 300.0 % saturation 0.0 to 50.0°C / 32.0 to 122.0°F
Resolution	0.01 ppm / 0.1% 0.1°C / 0.1°F
Accuracy	±1.5% f.s. (DO) ±0.5°C / ±1.0°F
DO calibration	Automatic, at 1 or 2 standard points (0 and 100%) or 1 custom point (> 20%)
Tempreature Calibration	User offset adjustment
Temperature Compensation	Automatic from 0 to 50°C
Altitude Compensation	0 to 4000 m (resolution 100 m)
Salinity Compensation	0.0 to 50.0 g/l (resolution 0.1 g/l)
Memory	Log-on-demand: Up to 100 samples
GLP	Yes
PC Interface	RS232 port
Probe (included)	AD8001/3 - Galvanic DO probe with internal temperature sensor, DIN connector and 3 m cable
Environment	0 to 50°C (32 to 122°F) RH max. 100% non-condensing
Battery Type / Life	4 x 1.5 V AA, alkaline battery / Approx. 200 hours of continuous use
Auto shutt-off	User selectable: 5 minutes or disabled
Dimensions / Weight	188 x 96 x 70 mm / 460 g

Accessory guide for portable meters



AD9551 - Serial communication cable [AD132, AD332, AD630]

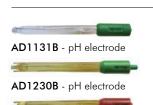


AD9316 - Application software [AD132, AD332, AD630]



AD70000P - Rinse solution (20 ml sachet, 25 pcs.)
AD7061 - Electrode cleaning solution (230 ml bottle)





AD1286 - pH electrode



AD7662 - Temperature probe

AD3230B - ORP electrode [AD111, AD130, AD131, AD132]



AD70300 - Electrode storage solution (230 ml bottle);

AD7082 - Electrode refillable solution 3.5 M KCI (30 ml bottle, 4 pcs.)



AD9345 - Hard carrying case for waterproof portable meters Dimensions: 400 mm x 300 mm x 100 mm

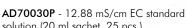
AD9350 - Hard carrying case for standard portable meters Dimensions: 240 mm x 180 mm x 80 mm



AD310 - AD410 - AD330 - AD331 - AD332



AD76309 - Conductivity probe with built-in temperature sensor



solution (20 ml sachet, 25 pcs.) **AD70031P** - 1413 µS/cm EC calibration solution (20 ml sachet, 25 pcs.

AD70032P - 1382 ppm calibration solution (20 ml sachet, 25 pcs.)

AD7033 - 84 μ S/cm calibration solution (230 ml bottle) AD7034 - 80000 μ S/cm calibration solution (230 ml bottle) AD7035 - 111800 μ S/cm calibration solution (230 ml bottle) AD7039 - 5000 μ S/cm calibration solution (230 ml bottle)



More about electrodes and probes on page 18; About calibration, rinse and other solutions on page 20

Benchtop Meters

Compact assistance for work and education



AD1131B Electrode

The AD1000 family is supplied with the AD1131 - refillable, glass body pH electrode with double junction and BNC connector.



Non-skid footpads

The footpads are ensuring stability for the meters even on slippery surfaces.



AD1000-AD1020

Professional Multi-Parameter pH-ORP-Temperature and pH-ORP-ISE-Temperature Benchtop Meters with RS232/USB interface & GLP

AD1000 and **AD1020** are professional benchtop meters with ranges for pH, ORP (Oxidation Reduction Potential), ISE [1020] and temperature measurements. Relative mV readings are also provided.

- Up to 5-point calibration with 7 memorized buffers and two custom buffers
- Calibration time-out alarm
- pH calibration using buffers with 0.001 resolution
- pH readings with manual or automatic temperature compensation
- Log-on-demand (up to 50 samples) and automatic logging (up to 1000 samples)
- Two selectable alarm limits
- User selectable logging interval mode
- HOLD feature to freeze the stable reading on the LCD
- GLP feature to view last calibration data for pH, ISE and relative mV
- PC interface/RS232/USB

AD1030-AD1040-AD1200

Professional Multi-Parameter pH-ORP-Temperature and pH-ORP-ISE-Temperature Benchtop Meters with GLP

AD1030, AD1040 and AD1200 are professional benchtop meters for pH, ORP (Oxidation Reduction Potential), ISE (AD1200 only) and temperature measurements. Relative mV readings are also provided.

- \bullet Up to 3-point calibration with 7 memorized buffers and two custom buffers
- Calibration time-out alarm
- \bullet pH calibration using buffers with 0.001 resolution
- pH readings with manual or automatic temperature compensation
- Up to 50 samples for log-on-demand [AD1040, AD1200]
- Two selectable alarm limits
- HOLD feature to freeze the stable reading on the LCD
- GLP feature to view last calibration data for:
 - pH and relative mV ranges [AD1040]
 - \bullet pH, ISE and relative mV ranges [AD1200]

Optional electrode holder

AD9315 is an adjustable arm with great stability and flexibility



Optional AD3230B ORP electrode

Gel-filled combination ORP electrode with platinum contact



Optional AD1230B pH electrode

Gel-filled, epoxy body, interchangeable pH electrode



"Cal Due" Alarm

Visual reminder when recalibration is neccessary.

Data Logging [AD1000, AD1020, AD1040, AD1200]

Store your samples into a built-in memory.

PC interface - Data transfer [AD1000, AD1020]

Transfer your measurment's data to your PC.





GLP [AD1000, AD1020, AD1040, AD1200]

GLP allows storage and retrieval of data regarding the status of the system.



HOLD Function

Freeze the first stable reading on the LCD.

		AD1000	AD1020	AD1030/1040	AD1200			
	рН	-2.00 to 16.00 pH / -2.000 to 16.000 pH	-2.00 to 16.00 pH / -2.000 to 16.000 pH	-2.00 to 16.00 pH / -2.000 to 16.000 pH	-2.00 to 16.00 pH / -2.000 to 16.000 pl			
D.	ORP	±2000 mV	±2000 mV	±2000 mV	±2000 mV			
Range	ISE	-	0.001 to 19999 ppm	-	0.001 to 19999 ppm			
	Temp.	-20.0 to 120.0°C (- 4.0 to 248.0°F)						
	рН	0.01 pH / 0.001 pH						
	ORP	0.1 mV (±999.9 mV) / 1 mV (outside)	0.1 mV (±999.9 mV) / 1 mV (outside)	0.1 mV (±999.9 mV) / 1 mV (outside)	0.1 mV (±999.9 mV) / 1 mV (outside)			
Resolution		-	0.001 ppm (0.001 to 9.999) 0.01 ppm (10.00 to 99.99) 0.1 ppm (100.0 to 999.9) 1 ppm (1000 to 19999)	-	0.001 ppm (0.001 to 9.999) 0.01 ppm (10.00 to 99.99) 0.1 ppm (100.0 to 999.9) 1 ppm (1000 to 19999)			
	Temp.	0.1°C (0.1°F)	0.1°C (0.1°F)	0.1°C (0.1°F)	0.1°C (0.1°F)			
	рН	±0.01 pH / ±0.002 pH						
Accuracy (at 25°C/77°F)	ORP	±0.2 mV up to ±699.9 mV ±0.5 mV up to ±999.9 mV ± 2 mV outside	±0.2 mV up to ±699.9 mV ±0.5 mV up to ±999.9 mV ± 2 mV outside	±0.2 mV up to ±699.9 mV ±0.5 mV up to ±999.9 mV ± 2 mV outside	±0.2 mV up to ±699.9 mV ±0.5 mV up to ±999.9 mV ± 2 mV outside			
(,,	ISE	=	±0.5% f.s. ISE	-	±0.5% f.s. ISE			
	Temp.	±0.4°C (±0.7°F) (excluding probe error)						
Calibration	рН	Up to 5 point calibration, with 2 custom and 7 standard buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45)	Up to 5 point calibration, with 2 custom and 7 standard buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45)	Up to 3 point calibration, with 2 custom and 7 standard buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45)	Up to 3 point calibration, with 2 custom and 7 standard buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45)			
Canbranen	ISE	-	Up to two-point calibration, 5 standard solutions available (0.1,1,10,100,1000 ppm)	-	Up to two-point calibration, 5 standard solutions available (0.1,1,10,100,1000 ppm)			
Memory		Log-on-demand: Up to 50 samples; Automatic logging: Up to 1000 samples	Log-on-demand: Up to 50 samples; Automatic logging: Up to 1000 samples	Log-on-demand: Up to 50 samples [AD1040]	Log-on-demand: Up to 50 samples			
PC Interface		USB and RS232	USB and RS232	-	-			
Probes (included)		AD1131B - Refillable, glass body pH electrod	e with double junction, BNC connector and 1 m	cable; AD7662 - Stainless steel temperature prol	pe with 1 m cable			
Power supply		12 Vdc power adapter		<u> </u>	<u> </u>			
Dimensions		230 x 180 x 50 mm						
Weight		1.8 kg	1.8 kg	1.8 kg	1.8 kg			

AD1000 and AD1020 are supplied with

AD1131B - Refillable glass body pH electrode with BNC connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable; Electrode holder; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solutions in sachet (20 ml).

AD1030, AD1040 and AD1200 are supplied with

AD1131B - Refillable glass body pH electrode with BNC connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable; Electrode holder; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solutions in sachet (20 ml); 12 Vdc power adapter; Instruction manual.

Accessories

AD1131B - pH electrode

AD1230B - pH electrode AD1286 - pH electrode

AD3230B - Combination ORP electrode

AD7662 - Temperature probe

AD7000 - Rinse solution, 20 ml sachet (230 ml bottle)

AD7004 - pH 4.01 calibration solution (230 ml bottle)

AD7007 - pH 7.01 calibration solution (230 ml bottle)

AD7010 - pH 10.01 calibration solution (230 ml bottle) AD7020 - ORP test solution, 200/275 mV (230 ml bottle)

AD70300 - Electrode storage solution (230 ml bottle)

AD7061 - Electrode cleaning solution (230 ml bottle)

AD7082 - Electrode cledining solution 3.5 M KCl (30 ml bottle, 4 pcs.)

AD7082S - Electrode refillable solution 3.5 M KCl (30 ml bottle)

AD9315 - Electrode holder

AD9316 - Application software [AD1000, AD1020]

AD9551 - Serial communication cable [AD1000, AD1020]

Electrodes, Probes and other Accessories see on page 18; Calibration, Rinse and other solutions see on page 20

Professional Multi-Parameter Conductivity-TDS-Temperature Benchtop Meter with GLP

AD3000 is a microprocessor-based conductivity, TDS and temperature meter.

The auto ranging feature of the EC and TDS ranges automatically sets the instrument to the scale with the highest resolution. Measurements are compensated for temperature effect automatically (ATC) or manually (MTC) with the conductivity probe with built-in temperature sensor. It is also possible to disable the temperature compensation and measure the actual conductivity.

The temperature coefficient is user selectable. The instrument is equipped with a stability indicator, to indicate when the measurement is to be recorded.



With **AD3000** you can choose between Custom or Automatic calibration.

Wide-scale of measuring ranges

AD3000 features 5 measuring ranges both EC and TDS.

Autoranging

The EC and TDS scales are autoranging. The meter automatically sets the scale with the highest possible resolution.



Stability indicator

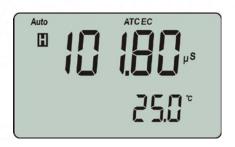
The meter displays an hourglass symbol that will disappear when the measurement has achieved stability, and the reading should be taken.





GLP

With the GLP function, AD3000 allows the user to enter an ID code to uniquely identify the instrument. GLP also allows to store and retrieve data regarding the status of the system.



Hold Function

Freeze the first stable reading on the LCD.

Data Logging

AD3000 allows you to store up to 250 samples. By storing a sample, a complete information is memorized:

• Date



• EC or TDS readings



• Temperature readings



		AD3000	
Range	EC	0.00 to 19.99 μ S/cm 20.0 to 199.9 μ S/cm 200 to 1999 μ S/ci 2.00 to 19.99 mS/cm 20.0 to 199.9 mS/cm	
	TDS	0.00 to 9.99 ppm 10.0 to 99.9 ppm 100 to 999 ppm 1.00 to 9.99 ppt 10.0 to 99.9 ppt	
	Temp.	-9.9 to 120 °C	
Resolution	EC	0.01 μS/cm 0.1 μS/cm 1 μS/cm 0.01 mS/cm 0.1 mS/cm	
	TDS	0.01 ppm 0.1 ppm 1 ppm 0.01 ppt 0.1 ppt	
	Temp.	0.1℃	
	EC	±1% f.s.	
Accuracy (at 25°C/77°F)	TDS	±1% f.s.	
(di 23 C/// 1)	Temp.	±0.5 °C	
Calibration	EC	Offset at 0.00 μ S/cm; Slope at 1 point with 6 memorized values (84.0, 1413 μ S/cm; 5.00, 12.88, 80.0, 111.8 mS/cm) or with custom value	
Memory	Log-on-demand: Up to 250 samples		
Probes (included)	AD76309 - Stainless steel, 4-ring EC/TDS/Temperature probe with DIN connector and 1 m cable		
Power supply	12 Vdc power adapter		
Dimensions	230 x 180 x 50 mm		
Weight		1.8 kg	

AD3000 is supplied with

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor; **AD70031** - 1413 μ S/cm calibration solutions in sachet (20 ml); **AD70030** - 12.88 mS/cm calibration solutions in sachet (20 ml); 12 Vdc power adapter; Instruction manual.

Accessories

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor

AD7030 - 12.88 mS/cm EC standard solution (230 ml bottle) **AD7031** - 1413 μ S/cm EC calibration solution (230 ml bottle)

AD7032 - 1382 ppm calibration solution (230 ml bottle) **AD7033** - 84 μ S/cm calibration solution (230 ml bottle)

AD7034 - 80000 μ S/cm calibration solution (230 ml bottle) AD7035 - 111800 μ S/cm calibration solution (230 ml bottle)

AD7039 - 5000 µS/cm calibration solution (230 ml bottle)

AD7000 - Rinse solution (230 ml bottle)

AD7061 - Electrode cleaning solution (230 ml bottle)

Electrodes, Probes and other Accessories see on page 18; Calibration, Rinse and other solutions see on page 20

Professional Multi-Parameter pH-ORP-Conductivity-TDS-Temperature Benchtop Meter with GLP



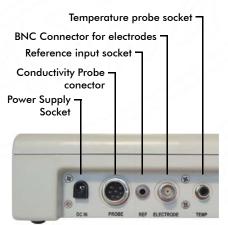
AD8000 is a microprocessor-based pH, ORP, conductivity, TDS, and temperature benchtop meter. Relative mV feature is also provided. The auto-ranging feature of the EC and TDS ranges automatically sets the instrument to the scale with the highest resolution. pH measurements are compensated for temperature effect automatically (ATC) using an AD7662 temperature probe, while the EC readings can be compensated automatically (ATC) using the supplied conductivity probe with a built-in temperature sensor ,or manually (MTC). It is also possible to disable the temperature compensation and measure the actual conductivity. The temperature coefficient is user selectable. The pH calibration can be performed at 1, 2, or 3 points with five memorized buffers (pH 4.01, 6.86, 7.01, 9.18, 10.01).

Besides, AD8000 is provided with calibration timeout alarm, GLP feature to view last calibration data, and automatic HOLD feature to freeze the first stable reading on the LCD.



EC/TDS/Temperature and pH electrode included

The AD8000 comes with the AD76309 EC/TDS/Temperature probe with a built-in temperature sensor, with the AD1131B refillable, glass body pH electrode and with the AD7662 stainless steel temperature probe.



GLP

GLP is a set of functions that allow data storage (and retrieval) about the electrode status and maintenance. All data regarding pH, relative mV and EC calibrations are stored in the instrument memory.

Autoranging

The EC and TDS scales are autoranging. The meter automatically sets the scale with the highest possible resolution.



Hold Function

Freeze the first stable reading on the

		AD8000		
Range	рН	-2.00 to 16.00 pH /-2.000 to 16.000 pH		
	ORP	±699.9 mV / ±2000 mV		
	EC	0.00 to 19.99 $\mu \rm S/cm$ 20.0 to 199.9 $\mu \rm S/cm$ 200 to 1999 $\mu \rm S/cm$ 2.00 to 19.99 mS/cm 20.0 to 199.9 mS/cm		
	TDS	0.00 to 9.99 ppm 10.0 to 99.9 ppm 100 to 999 ppm 1.00 to 9.99 ppt 10.0 to 99.9 ppt		
	Temp.	-9.9 to 120 °C (pH range) 0.0 to 100.0°C (EC range)		
	рН	0.01 pH / 0.001 pH		
	ORP	0.1 mV (±699.9 mV) / 1 mV (±2000 mV)		
Resolution	EC	0.01 μS/cm 0.1 μS/cm 1 μS/cm 0.01 mS/cm 0.1 mS/cm		
	TDS	0.01 ppm 0.1 ppm 1 ppm 0.01 ppt 0.1 ppt		
	Temp.	0.1℃		
	рН	± 0.01 pH / ± 0.002 pH		
Accuracy	ORP	± 0.2 mV up to ± 699.9 mV ± 1 mV up to ± 2000 mV		
(at 25°C/77°F)	EC	±1% f.s.		
	TDS	±1% f.s.		
	Temp.	±0.5 ℃		
Calibration	рН	Up to 3-point calibration, 5 buffer available (4.01, 6.86, 7.01, 9.18, 10.01 pH)		
	EC	Offset at 0.00 μ S/cm; Slope at 1 point with 6 memorized values (84.0, 1413 μ S/cm; 5.00, 12.88, 80.0, 111.8 mS/cm) or with custom value		
Probes (included)	AD1131B - Refillable, glass body pH electrode with double junction BNC connector and 1 m cable; AD76309 - Stainless steel, 4-ring EC/TDS/Temperature probe with DIN connector and 1 m cable; AD7662 - Stainless steel temperature probe with 1 m cable			
Power supply		12 Vdc power adapter		
Dimensions		230 x 180 x 50 mm		
Weight		1.8 kg		

AD8000 is supplied with

AD1131B - Refillable glass body pH electrode with BNC connector and 1 m cable; AD76309 - EC/TDS/Temperature probe with built-in temperature sensor; AD7662 - Stainless steel temperature probe with 1 m cable; AD70004 - pH4 calibration solution in sachet (20 ml); AD70007 - pH7 calibration solutions in sachet (20 ml); **AD70031** - 1413 μ S/cm calibration solutions in sachet (20 ml); **AD70030** - 12.88 mS/cm calibration solutions in sachet (20 ml); 12 Vdc power adapter; Instruction



Optional ORP electrode

• AD3230B Gel filled combination ORP electrode with platinum contact



Optional electrode holder

• AD9315 is an adjustable arm with great stability and flexibility

Accessories

AD1131B - pH electrode AD1230B - pH electrode AD1286 - pH electrode

AD3230B - Combination ORP electrode

AD76309 - EC/TDS/Temperature probe with built-in temperature sensor

AD7662 - Temperature probe

AD7000 - Rinse solution, 20 ml sachet (230 ml bottle) AD7004 - pH 4.01 calibration solution (230 ml bottle)

AD7007 - pH 7.01 calibration solution (230 ml bottle) AD7010 - pH 10.01 calibration solution (230 ml bottle)

AD7030 - 12.88 mS/cm EC standard solution (230 ml bottle)

AD7031 - 1413 µS/cm EC calibration solution (230 ml bottle)

AD7032 - 1382 ppm calibration solution (230 ml bottle) **AD7033** - 84 μ S/cm calibration solution (230 ml bottle)

AD7034 - 80000 μ S/cm calibration solution (230 ml bottle) **AD7035** - 111800 μ S/cm calibration solution (230 ml bottle)

AD7039 - 5000 μ S/cm calibration solution (230 ml bottle)

AD7020 - ORP test solution, 200/275 mV (230 ml bottle)

AD70300 - Electrode storage solution (230 ml bottle)

AD7061 - Electrode cleaning solution (230 ml bottle)

AD7082 - Electrode refillable solution 3.5 M KCI (30 ml bottle, 4 pcs.)

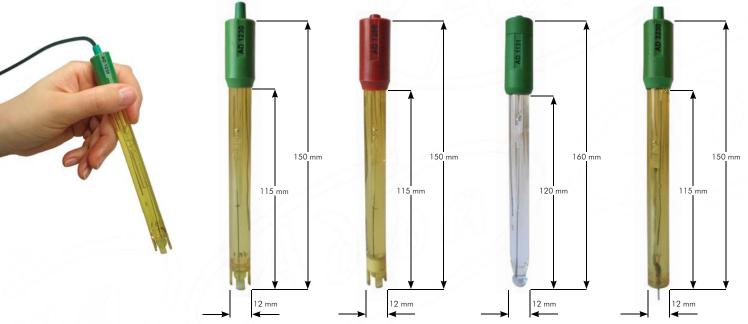
AD7082S - Electrode refillable solution 3.5 M KCI (30 ml bottle)

AD9315 - Electrode holder

Electrodes, Probes and other Accessories see on page 18; Calibration, Rinse and other solutions see on page 20

ACCESSORIES

Electrodes and Probes



	<u> </u>			
	AD1230B	AD1286	AD1131B	AD3230B
Description	Combination pH electrode	pH electrode	Refillable, combination pH electrode	Gel filled, combination ORP electrode with platinum contact
Reference	Double, Ag/AgCl	Double Ag/AgCl	Double Ag/AgCl	Single Ag/AgCl
Junction/Flow rate	Ceramic, single / 15-20µL/H	PTFE	Ceramic, single / 15-20µL/H	Ceramic, single
Electrolyte	Gel	Polymer	KCI 3.5M	Gel
Max. Pressure	2 bar	3 bar	0.1 bar	2 bar
Range	pH: 0 to 13	pH: 0 to 13	pH: 0 to 13	ORP: ±2000mV
Recommended Operational Temperature	0 to 70°C (32 to 158°F)	0 to 80°C (32 to 176°F)	0 to 100°C (32 to 212°F)	-5 to 70°C (23 to 158°F)
Tip/Shape	Spheric (dia: 7.5 mm)	Spheric (dia: 7.5 mm)	Spheric (dia: 9.5 mm)	Platinum pin
Temperature Sensor	No	No	No	No
Body Material	PEI	PEI	Glass	PEI
Cable	Cable Coaxical: 1 m (3.3')		Coaxical: 1m (3.3')	Coaxical: 1m (3.3')
Connector	BNC	BNC	BNC	BNC

- A7705	AD76309	4 ring stainless steel conductivity/tds probe with internal temperature sensor and 1 meter long cable
E- Al rise	AD7632	CONDUCTIVITY PROBE WITH 2 METERS LONG CABLE FOR ECO406
E	AD7634	TDS PROBE WITH 2 METERS LONG CABLE AND WITHOUT CONNECTOR FOR ECO407
	AD7662	STAINLESS STEEL TEMPERATURE PROBE WITH 1 METER LONG CABLE, SUPPLIED WITH BENCHTOP AND PORTABLE METERS
	AD8001/3	GALVANIC DO PROBE WITH BUILT-IN TEMPERATURE SENSOR, DIN CONNECTOR AND 3 METERS LONG CABLE FOR AD630
	AD11P	REPLACEABLE pH/TEMP ELECTRODE FOR AD11 AND AD12
30	AD14P	REPLACEABLE pH/ORP/TEMPERATURE ELECTRODE FOR AD14
	AD32P	REPLACEABLE EC/TDS/TEMP ELECTRODE FOR AD31 & AD32
	AD33P	REPLACEABLE EC/TEMP ELECTRODE FOR AD33, AD34, AD35 & AD36

ACCESSORIES

Other accessories

	AD8001 A/P	SPARE MEMBRANES WITH O-RING (5 PCS) FOR AD8001/3 DO GALVANIC PROBE
	AD9315	ELECTRODE HOLDER FOR BENCHTOP METERS
Mad Rungary M.	AD9316	APPLICATION SOFTWARE FOR BENCHTOP METERS AND WATERPROOF PORTABLE METERS
	AD9335	EUROPEAN ADAPTER FOR BENCHTOP METERS WITH EURO PLUG (TYPE C) INPUT: 220 VAC OUTPUT: 12 VDC
	AD9336	US ADAPTER FOR BENCHTOP METERS WITH US PLUG (TYPE A) INPUT: 110 VAC OUTPUT: 12 VDC
	AD9337	AUSTRALIAN ADAPTER FOR BENCHTOP METERS WITH AUSTRALIAN 2 PIN PLUG (TYPE I) INPUT: 230-240 VAC OUTPUT: 12 VDC
	AD9338	UK ADAPTER FOR BENCHTOP METERS WITH UK PLUG (TYPE G) INPUT: 230 VAC OUTPUT: 12 VDC
	AD9345	HARD CARRYING CASE FOR ADWA WATERPROOF PORTABLE METERS (AD130, AD131, AD132, AD330, AD331, AD332, AD630) DIMENSIONS: 400 mm x 300 mm x 100 mm
	AD9350	HARD CARRYING CASE FOR ADWA STANDARD PORTABLE METERS (AD110, AD111, AD310, AD410) DIMENSIONS: 240 mm x 180 mm x 80 mm
	AD9551	RS232 SERIAL COMMUNICATION CABLE

CALIBRATION AND OTHER SOLUTIONS

Adwa's calibration solutions are made from established formulas. The pH calibration solutions are available in 230ml durable plastic bottles and are economical and convenient for laboratory use, or in 20 ml sachets for quick, accurate and convenient calibrations. All of our pH, Conductivity, TDS and ORP calibration solutions have a lot number and expiration date printed on them. Cleaning solutions and storage solutions are also available.





CODE	DESCRIPTION	CODE	DESCRIPTION
AD70000P	Electrode rinse solution, 20 ml sachet in box of 25 pcs.	AD7032	1382 ppm buffer solution in 230 ml
AD70004P	pH 4.01 buffer solution, 20 ml sachet in box of 25 pcs.	AD7033	84 μS/cm calibration solution in 230 ml bottle
AD70007P	pH 7.01 buffer solution, 20 ml sachet in box of 25 pcs.	AD7034	$80000\mu\text{S/cm}$ calibration solution in 230 ml bottle
AD7000	Electrode rinse solution in 230ml bottle	AD7035	111800 μS/cm calibration solution in 230 ml bottle
AD70010P	pH 10.01 buffer solution, 20 ml sachet in box of 25 pcs.	AD7039	5000 μ S/cm calibration solution in 230 ml bottle
AD70030P	12.88 mS/cm calibration solution, 20 ml sachet in box of 25 pcs.	AD7040	Zero oxygen solution, supplied in carton box with dry chemical reagent, 12 g (AD7040-1) and solvent in bottle 500 ml (AD7040-2); CERTIFICATE included
AD70031P	1413 μS/cm calibration solution, 20 ml sachet in box of 25 pcs.	AD7442	1500 ppm TDS buffer solution in 230 ml bottle
AD70032P	1382 ppm calibration solution, 20 ml sachet in box of 25 pcs.	AD70442P	1500 ppm calibration solution, 20 ml sachet in box of 25 pcs.
AD7004	pH 4.01 buffer solution in 230 ml bottle	AD7061	Electrode cleaning solution in 230 ml bottle
AD7007	pH 7.01 buffer solution in 230 ml bottle	AD7071S	Electrode refillable solution 3.5 M KCL+ AgCl, 30ml
AD7010	pH 10.01 buffer solution in 230 ml bottle	AD7082S	Electrode refillable solution 3.5 M KCL 30ml
AD7020	ORP test solution (200/275 mV) , 230 ml bottle	AD7082	Electrode refillable solution 3.5 M KCL, 4 X 30ml
AD70300	Electrode storage solution in 230 ml bottle	AD9072S	Electrolyte solution for DO galvanic probe in 30 ml bottle
AD7030	12.88 mS/cm buffer solution in 230 ml bottle	AD9072	Electrolyte solution for DO galvanic probe, 4 X 30ml
AD7031	1413 μ S/cm buffer solution in 230 ml bottle		

Authorized Distributor

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