DATA SHEET

HQd Digital Meters and IntelliCAL[™] Probes



Hach, the leader in water quality, has developed a customized solution for water quality testing that takes the guesswork out of your measurements. Designed for your water applications, the Hach HQd IntelliCAL[™] smart probes automatically recognize the testing parameter, calibration history, and method settings to minimize errors and setup time.

Features & Benefits

Easy to Use in the Field

The wide variety of rugged probe options available for the portable meter means this is perfect for field use. All connections between the meter and the probe are secure and waterproof. Connectors can be color-coded for quick identification. Information is clearly displayed on one screen with back light for low light conditions. Display results can be enlarged for easier reading.

Simple and Fast Lab Set-up

Offering a complete portfolio of water testing parameters and a simple benchtop set-up, this meter provides the ultimate in lab analysis. The intuitive user interface with guided calibration ensures accurate results. And with a new large backlit LCD screen, the meter is simple to read even when measuring two parameters simultaneously.



DW = drinking water WW = wastewater municipal PW = pure water / power IW = industrial water E = environmental C = collections FB = food and beverage



WW PW IW

DW

EB

HQd Portable Meters



Now offering a complete water analysis portfolio of testing parameters with standard, rugged, and ultra options. Hach's HQd system gives maximum measurement flexibility and ease of operation with interchangeable probes and automatic parameter recognition.

Parameter	HQ11d DEDICATED pH/mV PORTABLE METER	HQ14d DEDICATED CONDUCTIVITY PORTABLE METER	HQ30d SINGLE INPUT MULTI-PARAMETER PORTABLE METER	HQ40d DUAL INPUT MULTI-PARAMETER PORTABLE METER
Temperature				
pH -Glass				•
mV				
Conductivity				
TDS				
Salinity				
Resistivity				
DO -Luminescent (LDO) DO -BOD Probe (with LDO)				:
ORP/Redox				
Ammonia				
Nitrate				
Fluoride				
Sodium				
Chloride				
Ammonium				
Product Number	HQ11d53000000	HQ14d53000000	HQ30d53000000	HQ40d53000000

HQd Portable Meter Specifications

Power

4 AA batteries (battery life: >200 hours) USB/DC and AC/DC power connection included (HQ40d only) USB/DC and AC/DC power connections available (HQ30d, HQ14d, HQ11d)

Languages

Selectable: English, French, German, Italian, Spanish, Danish, Dutch, Polish, Portuguese, Turkish, Swedish, Czech, Russian

Display

Display readings from one or two probes Simultaneous readings from two probes (HQ40d only)

pH Display: pH, mV, temperature *Conductivity Display:* Conductivity, TDS, salinity, resistivity, temperature *LDO/LBOD Display:* dissolved oxygen, pressure, temperature

ORP/Redox Display: mV, temperature ISE Display: Concentration, mV, temperature

Data Memory

500 results

Data Storage

GLP/ISO compliant data stored with calibration details. Calibration and check standard data stored in data log. Automatically store in "press to read" mode and interval measurement mode. Manually store in "continuous read" mode.

Data Export

Download via USB connection to PC or flash memory device. Automatically transfer entire data log or as readings are taken.

Connections

Optional w/ use of USB/Power adapter: USB type A (USB flash memory device, printer, keyboard) Integrated USB type B (PC)

Communication

Direct to PC (Bi-directional) via USB Virtual Serial Port and USB/Power Adapter

Temperature Correction/Compensation Off, automatic, and manual (auto correction is parameter dependent)

Display Lock Function

Continuous measurement or "press to read" mode available with averaging function for LDO measurement

Automatic pH Buffer Recognition

Color-coded: 4.01, 7.00, 10.01 pH; *IUPAC:* 1.679, 4.005, 7.000, 10.012, 12.45 *DIN:* 1.09, 4.65, 9.23 User-defined custom buffer sets

Keyboard

External PC keyboard via USB connection

Water Resistance

Meter Casing: 1 meter submersion for 30 minutes (IP67)

Dimensions

23.5 x 17.5 x 8.6 cm (9.3 x 6.9 x 3.4 in.)

Weight

335 g (0.75 lb.)

HQd Benchtop Meters

All the benefits of the digital HQd system, with simplified data transfer and easy-to-read results on a large, backlit screen.

Parameter	HQ411d DEDICATED pH/mV BENCHTOP METER	HQ430d SINGLE INPUT MULTI-PARAMETER BENCHTOP METER	HQ440d DUAL INPUT MULTI-PARAMETER BENCHTOP METER
Temperature			
pH -Glass			
mV			
Conductivity			
TDS			
Salinity			
Resistivity			
DO - Luminescent (LDO) DO - BOD Probe (with LDO)		:	:
ORP/Redox			
Ammonia			
Nitrate			
Fluoride			
Sodium			
Chloride		-	
Ammonium			
Product Number	HQ411D	HQ430D	HQ440D

NEW

HQd Benchtop Meter Specifications

Power

115/230V w/ Universal Power Adapter Kit

Optional/Backup Power

4 AA batteries (Battery life: up to 200 hours)

Languages

Selectable: English, French, German, Italian, Spanish, Danish, Dutch, Polish, Portuguese, Turkish, Swedish, Czech, Russian

Display

Backlit Graphical LCD Display readings from one or two probes Simultaneous readings from two probes (HQ440d only)

pH Display: pH, mV, temperature *Conductivity Display:* Conductivity, TDS, salinity, resistivity, temperature *LDO/LBOD Display:* dissolved oxygen,

pressure, temperature

ORP/Redox Display: mV, temperature ISE Display: Concentration, mV, temperature

Data Memory 500 results

Data Storage

GLP/ISO compliant data stored with calibration details. Calibration and check standard data stored in data log. Automatically store in "press to read" mode and interval measurement mode. Manually store in "continuous read" mode.

Connections

Integrated USB type A (USB flash memory device, printer, keyboard) Integrated USB type B (PC)

Data Export

Download via USB connection to PC or flash memory device. Automatically transfer entire data log or as readings are taken.

Communication

Direct to PC (Bi-directional) via USB Virtual Serial Port

Temperature Correction/Compensation Off, automatic, and manual (auto correction is parameter dependent)

Display Lock Function

Continuous measurement or "press to read" mode available with averaging function for LDO measurement

Automatic pH Buffer Recognition

Color-coded: 4.01, 7.00, 10.01 pH; *IUPAC:* 1.679, 4.005, 7.000, 10.012, 12.45 *DIN:* 1.09, 4.65, 9.23 User-defined custom buffer sets

Keyboard

External PC keyboard via USB connection

Water Resistance

Meter Casing: Spray-resistant and dust resistant (IP54)

Dimensions 23.5 x 17.5 x 8.6 cm (9.3 x 6.9 x 3.4 in.)

Weight

Approx 750g (1.87 lbs)

HQd IntelliCAL Probes

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Specifications	DO Luminescent Dissolved Oxygen	DO Luminescent Dissolved Oxygen	BOD Luminescent Dissolved Oxygen	Conductivity
Special Feature	LDO technology. No membranes.	LDO technology. No membranes.	LDO technology. Designed for BOD applications. No membranes	
Probe Type	Standard	Rugged	Standard	Standard
Range	DO: 0.1 - 20.0 mg/L % Saturation: 1 - 200%	DO: 0.1 - 20.0 mg/L % Saturation: 1 - 200%	DO: 0.1 - 20.0 mg/L % Saturation: 1 - 200%	Conductivity: 0.01 μS/cm - 200 mS/cm TDS: 0 - 50,000 mg/L as NaCl Salinity: 0 - 42 g/kg or (‰) Resistivity: 2.5 Ω·cm - 49 MΩ·cm
Temp Range	Continuous Use: 0 to 50°C	Continuous Use: 0 to 50°C	Continuous Use: 0 to 50°C	Continuous Use: -10 to 110°C
Thermistor	■ (ATC)	(ATC)		(ATC)
Dimensions	15 mm (D) x 200 mm (L)	15 mm (D) x 220 mm (L)	15.875 mm (D)** x 200 mm (L)	14 mm (D) x 200 mm (L)
Sensor Type	Lumiphore	Lumiphore	Lumiphore	4-pole graphite
Junction	—	—	—	_
Body Material	PC/Abs	PC/Abs with Stainless Steel	PC/Abs	Noryl
Filling Solution	—	—	—	_
ISA Required	—	—	—	—
Prod. No.	LDO10101*	LDO10105*	LBOD10101*	CDC40101*





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Specifications	ORP/Redox Combination Gel-filled	ORP/Redox Combination Refillable	ORP/Redox Combination Gel-filled	Ammonia Combination ISE
Special Feature	Flat disc sensor for easy cleaning. Low maintenance.	Flat disc sensor for easy cleaning.	Flat disc sensor for easy cleaning.	Easy-to-replace membrane modules.
Probe Type	Standard	Standard	Rugged	Standard
Range	±1200 mV	±1200 mV	±1200 mV	0.007 mg/L (5x10 ⁻⁷ M) to 14,000 mg/L (1 M) NH ₃ -N
Temp Range	Continuous Use: 0 to 80°C	Continuous Use: 0 to 80°C	Continuous Use: 0 to 80°C	Continuous Use: 0 to 50°C
Thermistor			•	
Dimensions	12 mm (D) x 200 mm (L)	12 mm (D) x 200 mm (L)	12 mm (D) x 220 mm (L)	12 mm (D) x 220 mm (L)
Sensor Type	Platinum disc	Platinum disc	Platinum disc	Gas sensing: glass w/ replaceable NH ₃ sensitive membrane
Reference Type	—	—	—	Ag/AgCl
Junction	Open	Ceramic	Open	Annular
Body Material	Ероху	Ероху	Zeonor [™] with Stainless Steel	Ероху
Filling Solution	—	2841700	-	4447226
ISA Required	—	_	-	4447169
Prod. No.	MTC10101*	MTC30101*	MTC10105*	ISENH3181*

*1 meter standard and 5 meter rugged probes described above. All standard probes available in 1 or 3 meter cable lengths. All rugged probes available in 5, 10, 15 or 30 meter cable lengths. **Fits BOD bottle neck size > 15.875mm inside diameter

	NEW!	

Conductivity	pH Ultra Refillable Combination	pH Gel-filled Combination	pH Gel-filled Combination	pH Refillable Combination	pH Gel-filled Combination
	Fast response time.	Wastewater and difficult samples.	General purpose. Clean water samples		Low maintenance.
Rugged	Standard	Standard	Standard	Standard	Rugged
Conductivity: 0.01 μS/cm - 200 mS/cm TDS: 0 - 50,000 g/L Salinity: 0 - 42 g/kg or (‰) Resistivity: 2.5 Ω⋅cm - 49 MΩ⋅cm	0 to 14 pH	2 to 14 pH	0 to 14 pH	0 to 14 pH	2 to 14 pH
Continuous Use: -10 to 110°C	Continuous Use: 0 to 80°C	Continuous Use: 0 to 50°C	Continuous Use: 0 to 80°C	Continuous Use: 0 to 80°C	Continuous Use: 0 to 50°C
■ (ATC)	(ATC)	(ATC)	(ATC)	(ATC)	(ATC)
14 mm (D) x 220 mm (L)	12 mm (D) x 200 mm (L)	12 mm (D) x 200 mm (L)	12 mm (D) x 200 mm (L)	12 mm (D) x 200 mm (L)	12 mm (D) x 220 mm (L)
4-pole graphite	Glass	Glass	Glass	Glass	Glass
_	Open	Open	Ceramic	Ceramic	Open
Noryl with Stainless Steel	Zeonor™	Zeonor™	Ероху	Zeonor™	Zeonor [™] with Stainless Steel
_	2965026	—	—	2841700	—
_	—	—	—	—	—
CDC40105*	PHC28101*	PHC10101*	PHC20101*	PHC30101*	PHC10105*



Chloride Combination ISE	Fluoride Combination ISE	Nitrate Combination ISE	Sodium Combination ISE
Dry storage & fast response time. No replacement membranes.	Dry storage & fast response time. No replacement membranes.	Dry storage & fast response time. No replacement membranes.	Fast response time.
Standard	Standard	Standard	Standard
0.1 mg/L (3x10 ⁻⁶ M) to 35,500 mg/L (1 M) Cl⁻	0.02 mg/L (1x10 ⁻⁶ M) to 19,000 mg/L (1 M) F⁻	0.1 mg/L (7x10 ⁻⁶ M) to 14,000 mg/L (1 M) NO ₃ ⁻ -N	0.023 mg/L (1x10 ⁻⁶ M) to 23,000 mg/L (1 M) Na ⁺
Continuous Use: 5 to 50°C	Continuous Use: 5 to 50°C	Continuous Use: 0 to 50°C	Continuous Use: 0 to 50°C
12 mm (D) x 220 mm (L)	12 mm (D) x 220 mm (L)	12 mm (D) x 220 mm (L)	12 mm (D) x 220 mm (L)
Solid-state disc	Solid-state crystal	Solid-state PVC membrane	Glass
Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Annular	Annular	Annular	Ceramic
Ероху	Ероху	Ероху	Zeonor™
—	—	—	2965126
2318069	258999	2984799	4451569
ISECI181*	ISEF121*	ISENO3181*	ISENa38101*
	Combination ISE Dry storage & fast response time. No replacement membranes. Standard 0.1 mg/L (3x10 ⁻⁶ M) to 35,500 mg/L (1 M) Cl ⁻ Continuous Use: 5 to 50°C 12 mm (D) x 220 mm (L) Solid-state disc Ag/AgCl Annular Epoxy — 2318069	Combination ISECombination ISEDry storage & fast response time. No replacement membranes.Dry storage & fast response time. No replacement membranes.StandardDry storage & fast response time. No replacement membranes.0.1 mg/L (3x10 ⁻⁶ M) to 35,500 mg/L (1 M) Cl ⁻ 0.02 mg/L (1x10 ⁻⁶ M) to 19,000 mg/L (1 M) F ⁻ Continuous Use: 5 to 50°CContinuous Use: 5 to 50°CImage: StandardImage: Standard12 mm (D) x 220 mm (L)12 mm (D) x 220 mm (L)Solid-state discSolid-state crystalAg/AgClAg/AgClAnnularAnnularEpoxyEpoxyImage: StandardImage: Standard2318069258999	Combination ISECombination ISECombination ISEDry storage & fast response time. No replacement membranes.Dry storage & fast response time. No replacement membranes.Dry storage & fast response time. No replacement membranes.StandardStandardStandardStandard0.1 mg/L (3x10 ⁻⁶ M) to 35,500 mg/L (1 M) Cl ⁻ 0.02 mg/L (1x10 ⁻⁶ M) to 19,000 mg/L (1 M) F ⁻ 0.1 mg/L (7x10 ⁻⁶ M) to 14,000 mg/L (1 M) NO3 ⁻ -NContinuous Use: 5 to 50°CContinuous Use: 5 to 50°CContinuous Use: 0 to 50°CImage: Image: Imag

HQd Meter & IntelliCAL Probe Bundles

- HQd meters and IntelliCAL probes now available in packaged configurations for your laboratory or portable applications
- Choose from basic starter kits or complete advanced kits
- Include buffers, standards, and accessories for quick ordering and simple start up.

Portable Bundles Prod. No. Description 8507530 Portable pH Starter Kit HQ11d pH meter, PHC201 gel pH probe with 1 m cable. 8506100 **Portable Conductivity Starter Kit** HQ14d conductivity meter, CDC401 standard conductivity probe with 1 m cable. 8506500 Portable ORP Starter Kit HQ11d meter with A/C power and USB adapters, MTC101 gel-filled standard ORP probe with 1 m cable. 8505800 Advanced pH/Conductivity Kit HQ40d meter with A/C power and USB adapters, PHC30 refillable pH probe with 1 m cable, CDC401 conductivity probe with 1 m cable. 8506000 **Complete Water Quality Kit**

Portable Multi HQ40d meter with A/C power and USB adapters, PHC301 refillable pH probe with 1 m cable, CDC401 conductivity probe with 1 m cable, LDO101 standard LDO probe with 1 m cable.

Benchtop Bundles

Prod. No.	Description
8508500	BOD Kit
	HQ440d Multi Lab Meter, LBOD101 probe with 1 m cable.
8508600	
000000	pH Ultra Starter Kit
	HQ440d Multi Lab Meter, PHC281 pH Ultra refillable probe with 1 m cable.
8508700	Complete Water Quality Lab
	HQ440d Multi Lab Meter, PHC281 pH Ultra refillable probe, CDC401 conductivity probe, LDO101 LDO probe, all with 1 m cable.
8507600	Ammonia ISE Measurement Kit
	HQ440d Multi Lab Meter, ISENH3181 ammonia probe with 1 m cable.
8508000	Fluoride ISE Measurement Kit
	HQ440d Multi Lab Meter, ISEF121 fluoride probe with 1 m cable.
8507000	Sodium ISE Starter Kit
	HQ440d Multi Lab Meter, cables, ISENa381 sodium ISE probe with 1 m cable.
8508100	Nitrate ISE Measurement Kit
	HQ440d Multi Lab Meter, ISENO3181 nitrate probe with 1 m cable.





Visit: www.hach.com/meterselect for more bundles.







HQd Rugged Field Kits

- Hach HQd meters and pH, ORP, Conductivity, and LDO probes are now available in rugged field kits
- Feature rugged probes available only from Hach.

• All required buffers and accessories for field measurement are organized securely in one durable case!



Visit: www.hach.com/meterselect for more kits.







HQd Accessories

WM-BOD MGR Hach BOD Manager™ Software automates data entry and calculations from the HQ40d Meter and LBOD probe, providing improved productivity and data integrity for BOD testing. This stand-alone version includes: single computer license with a 2 gigabyte database, tracking up to 300 samp

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tracking up to 300 samples, HQd meter interface, one year of support and software updates, one hour of live web-based training, and training video.

- HQDBODMGR Hach BOD Manager software in a complete kit with HQd benchtop meter and LBOD probe.
- 5812711 Replacement Membrane (pack of 3) for IntelliCAL Ammonia Probe
- **5838000** Replacement LBOD Sensor Cap; includes iButton[®] and sensor cap
- 5850800 Replacement Stirrer Assembly for IntelliCAL LBOD Probe
- **5811200** Replacement LDO Sensor Cap; includes iButton[®] and sensor cap
- 5825900 Replacement Polymer Shroud Kit for Rugged Probes; includes protective bell and locking ring
- 5828610 Probe Cable Depth Markers; 5/pkg. (for rugged probes only)
- 4754900 Meter Stand for portable HQd meters
- 8508850 Universal Probe Stand for Standard IntelliCAL Probes
- 5828700 Protective Glove for Meter
- 9345200 Field Meter Protective Caps (for use with Protective Glove)
- 5829400 Probe Holder for portable HQd meter (standard probes only)
- **5825800** Field Kit; includes hard-sided carrying case, protective glove, and 5 120 mL sample cups
- 5818400 Color Coded Probe Clips; includes ten clips of five different colors
- **5826300** USB and A/C Power Adapter Kit; adapter is not waterproof (Included with HQ40d models)
- 5854000 HQd Software Upgrade Kit
- LZV582 USB Keyboard
- 2960100 USB Printer; Citizen PD-24 Handy Printer, 120-220 Vac
- **5836000** Printer Paper for PD-24, Thermal 5/pk

iButton[®] is a trademark of Maxim Integrated Products.

Meter Stand

HQd Meter USB and AC Power Adapter Kit



Universal Probe Stand for Standard IntelliCAL Probes

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Keep it pure. Make it simple. Be right.

For current price information, technical support, and ordering assistance, contact the Hach office or distributor serving your area.

In the United States, contact:

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U.S. exporters and customers in Canada, Latin America, sub-Saharan Africa, Asia, and Australia/New Zealand, contact:

HACH COMPANY World Headquarters P.O. Box 389 Loveland, Colorado 80539-0389 U.S.A. Telephone: 970-669-3050 Fax: 970-461-3939 E-mail: intl@hach.com **www.hach.com**

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