

# HQd™ Digital Meters and IntelliCAL™ Probes

Water Quality Meters & 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

DW

WW

PW

IW

E

FB



Be Right™

## 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.

<b>Parameter</b>	<b>HQ11d DEDICATED pH/mV PORTABLE METER</b>	<b>HQ14d DEDICATED CONDUCTIVITY PORTABLE METER</b>	<b>HQ30d SINGLE INPUT MULTI-PARAMETER PORTABLE METER</b>	<b>HQ40d DUAL INPUT MULTI-PARAMETER PORTABLE METER</b>
Temperature	■	■	■	■
pH -Glass	■		■	■
mV	■		■	■
Conductivity		■	■	■
TDS		■	■	■
Salinity		■	■	■
Resistivity		■	■	■
DO -Luminescent (LDO) DO -BOD Probe (with LDO)			■ ■	■ ■
ORP/Redox	■		■	■
Ammonia			■	■
Nitrate			■	■
Fluoride			■	■
Sodium			■	■
Chloride			■	■
Ammonium			■	■
<b>Product Number</b>	<b>HQ11d5300000</b>	<b>HQ14d5300000</b>	<b>HQ30d5300000</b>	<b>HQ40d5300000</b>

## 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.

**NEW!**



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

## 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



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 $\mu$ S/cm - 200 mS/cm TDS: 0 - 50,000 mg/L as NaCl Salinity: 0 - 42 g/kg or (‰) Resistivity: 2.5 $\Omega$ -cm - 49 M $\Omega$ -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)	45 mm (D) x 250 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*



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	$\pm$ 1200 mV	$\pm$ 1200 mV	$\pm$ 1200 mV	0.007 mg/L ( $5 \times 10^{-7}$ M) to 14,000 mg/L (1 M) $\text{NH}_3$ -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)	45 mm (D) x 250 mm (L)	12 mm (D) x 220 mm (L)
Sensor Type	Platinum disc	Platinum disc	Platinum disc	Gas sensing: glass w/ replaceable $\text{NH}_3$ sensitive membrane
Reference Type	—	—	—	Ag/AgCl
Junction	Open	Ceramic	Open	Annular
Body Material	Epoxy	Epoxy	Zeonor™ with Stainless Steel	Epoxy
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





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 $\mu\text{S}/\text{cm}$ - 200 mS/cm TDS: 0 - 50,000 g/L Salinity: 0 - 42 g/kg or (‰) Resistivity: 2.5 $\Omega\text{-cm}$ - 49 M $\Omega\text{-cm}$	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)
45 mm (D) x 250 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)	45 mm (D) x 250 mm (L)
4-pole graphite	Glass	Glass	Glass	Glass	Glass
—	Open	Open	Ceramic	Ceramic	Open
Noryl with Stainless Steel	Zeonor™	Zeonor™	Epoxy	Zeonor™	Zeonor™ with Stainless Steel
—	2965026	—	—	2841700	—
—	—	—	—	—	—
<b>CDC40105*</b>	<b>PHC28101*</b>	<b>PHC10101*</b>	<b>PHC20101*</b>	<b>PHC30101*</b>	<b>PHC10105*</b>



Ammonium Combination ISE	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.	Dry storage & fast response time. No replacement membranes.	Fast response time.
Standard	Standard	Standard	Standard	Standard
0.07 mg/L ( $5 \times 10^{-6}$ M) to 7,000 mg/L (0.5 M) $\text{NH}_4^+\text{-N}$	0.1 mg/L ( $3 \times 10^{-6}$ M) to 35,500 mg/L (1 M) $\text{Cl}^-$	0.02 mg/L ( $1 \times 10^{-6}$ M) to 19,000 mg/L (1 M) $\text{F}^-$	0.1 mg/L ( $7 \times 10^{-6}$ M) to 14,000 mg/L (1 M) $\text{NO}_3^-\text{-N}$	0.023 mg/L ( $1 \times 10^{-6}$ M) to 23,000 mg/L (1 M) $\text{Na}^+$
Continuous Use: 0 to 50°C	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)	12 mm (D) x 220 mm (L)
Solid-state PVC membrane	Solid-state disc	Solid-state crystal	Solid-state PVC membrane	Glass
Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Annular	Annular	Annular	Annular	Ceramic
Epoxy	Epoxy	Epoxy	Epoxy	Zeonor™
—	—	—	—	2965126
2980699	2318069	258999	2984799	4451569
<b>ISENH4181*</b>	<b>ISECI181*</b>	<b>ISEF121*</b>	<b>ISENO3181*</b>	<b>ISENa38101*</b>

## 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	<b>Portable pH Starter Kit</b> HQ11d pH meter, PHC201 gel pH probe with 1 m cable.
8506100	<b>Portable Conductivity Starter Kit</b> HQ14d conductivity meter, CDC401 standard conductivity probe with 1 m cable.
8506500	<b>Portable ORP Starter Kit</b> HQ11d meter with A/C power and USB adapters, MTC101 gel-filled standard ORP probe with 1 m cable.
8505800	<b>Advanced pH/Conductivity Kit</b> 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	<b>Complete Water Quality Kit</b> 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	<b>BOD Kit</b> HQ440d Multi Lab Meter, LBOD101 probe with 1 m cable.
8508600	<b>pH Ultra Starter Kit</b> HQ440d Multi Lab Meter, PHC281 pH Ultra refillable probe with 1 m cable.
8508700	<b>Complete Water Quality Lab</b> HQ440d Multi Lab Meter, PHC281 pH Ultra refillable probe, CDC401 conductivity probe, LDO101 LDO probe, all with 1 m cable.
8507600	<b>Ammonia ISE Measurement Kit</b> HQ440d Multi Lab Meter, ISENH3181 ammonia probe with 1 m cable.
8508000	<b>Fluoride ISE Measurement Kit</b> HQ440d Multi Lab Meter, ISEF121 fluoride probe with 1 m cable.
8507000	<b>Sodium ISE Starter Kit</b> HQ440d Multi Lab Meter, cables, ISENa381 sodium ISE probe with 1 m cable.
8508100	<b>Nitrate ISE Measurement Kit</b> HQ440d Multi Lab Meter, ISENO3181 nitrate probe with 1 m cable.



Visit: [www.hach.com/metersselect](http://www.hach.com/metersselect) 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!

Prod. No.	Description
8505100	<b>Rugged DO Field Kit</b> Rugged case with durable foam insert for organization, HQ30d meter, rugged LDO101 probe with 5 m cable.
8505200	<b>Rugged DO Field Kit with HQ40d Multi Meter</b> Rugged case with durable foam insert for organization, HQ40d meter with A/C power and USB adapters, rugged LDO101 probe with 5 m cable.
8505300	<b>Advanced DO/pH/Conductivity Rugged Field Kit</b> Rugged case with durable foam insert for organization, HQ40d meter with A/C power and USB adapters, rugged LDO101 probe with 5 m cable, rugged PHC101 pH probe with 5 m cable, rugged CDC401 conductivity probe with 5 m cable.
8505400	<b>Rugged DO/pH Field Kit</b> Rugged case with durable foam insert for organization, HQ40d meter with A/C power and USB adapters, rugged LDO101 probe with 5 m cable, rugged PHC101 pH probe with 5 m cable.
8507300	<b>Rugged ORP Field Kit</b> Rugged case with HQ40d meter with A/C power and USB adapters, MTC101 ORP rugged gel-filled probe with 5 m cable.
8507400	<b>Rugged ORP/LDO Field Kit</b> Rugged case with HQ40d meter with A/C power and USB adapters, rugged MTC101 gel-filled ORP probe with 5 m cable, rugged LDO101 LDO probe with 5 m cable.
8507500	<b>Rugged Environmental Conductivity/LDO Field Kit</b> Rugged case with HQ40d meter with A/C power and USB adapters, rugged CDC401 conductivity probe with 5 m cable, rugged LDO101 LDO probe with 5 m cable.
8505500	<b>Rugged Field Case for two probes with 5 m cables</b> , includes: Empty case and insert for meter and probe storage; (4) Containers for sample collection; 500 mL Wash Bottle.
8505501	<b>Rugged Field Case for three probes with 5 m cables</b> , includes same accessories as case 8505500.



Visit: [www.hach.com/metersselect](http://www.hach.com/metersselect) for more kits.

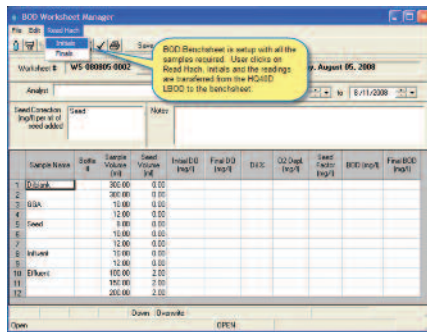




## HQd Accessories

### 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 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.*



**Universal Probe Stand for Standard IntelliCAL Probes**



**Meter Stand**

**HQd Meter USB and AC Power Adapter Kit**



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*In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.*



At Hach, it's about learning from our customers and providing the right answers. It's more than ensuring the quality of water—it's about ensuring the quality of life. When it comes to the things that touch our lives...

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.**

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**Be Right™**