

# HQd Digital Meters and IntelliCAL™ Probes

## Features and Benefits

### HQd DIGITAL METERS

#### Guided Calibrations

All Hach HQd Digital Meters provide an intuitive user interface with guided calibration routines to reduce calibration errors and simplify operation. Automated check standard routines and calibration alerts ensure accurate results.

#### Traceability and Reporting

HQd meters record probe serial numbers, current calibration data, user ID, sample ID, time, and date with each measurement. Each measurement can be linked to sample ID, user ID, and probe serial number for complete traceability and regulatory reporting.

#### Easy to Use in the Field

All connections between the meter and the probe are secure and waterproof. Connectors are color-coded for quick identification. Information is clearly displayed on one screen with back light for low light conditions.

#### Two Models to Choose From

- HQ40d Dual-input Multi-parameter Meter**  
 Plug-and-play with any two IntelliCAL probes to measure pH, conductivity or dissolved oxygen using LDO technology in any combination. The HQ40d meter has three connection ports—two ports for simultaneous measurement using two IntelliCAL probes and an additional port for USB and external power. Measurements can be made and viewed simultaneously. Transfer the data log or individual readings (GLP/ISO) to PC or flash stick. The HQ40d meter comes with a field kit including a protective glove, two probe holders, and sample cups.
- HQ30d Single-input Multi-parameter Meter**  
 Plug-and-play with any one IntelliCAL probe to measure pH, conductivity or dissolved oxygen using LDO technology. The HQ30d meter has one port for measurement with one IntelliCAL probe and one port for external power. Quickly and easily swap IntelliCAL probes without re-calibration. The meter is password-protected for accurate, tamper proof reporting. A 500-result data log stores measurements, calibrations, and check standards.



Hach HQd Digital Meters and IntelliCAL Probes can take up to two simultaneous measurements for pH, conductivity, dissolved oxygen (Hach LDO®), and temperature with a single meter. Purchase the probes needed now and expand to other parameters later. Calibration history is stored in the probe. The meter automatically recognizes the parameter being measured and prompts the user through the appropriate calibration protocol.

DW

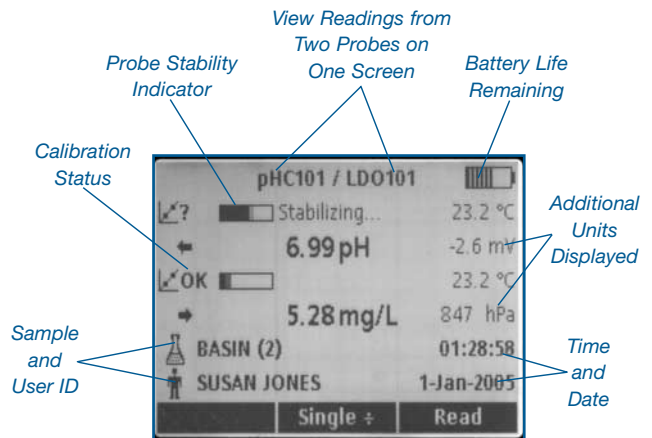
WW

PW

IW

E

FB



Continued on next page.

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



Be Right™

## Features and Benefits *continued*

### IntelliCAL PROBES

#### Calibration History Stays with the Probe

Each Hach IntelliCAL probe stores its calibration history in the probe itself, minimizing probe replacement and calibration. The serial number is also stored in the probe to provide complete traceability and chain of custody reporting for regulated measurements.

#### Ready to Use

Factory-calibrated IntelliCAL probes are ready to use, right out of the box. The probe will even alert the user when it is time to re-calibrate.

#### Versatile and Durable

All IntelliCAL probes are fully submersible for up to 24 hours. Move probes between meters without the need to re-calibrate. With a wide variety of cable lengths—from 1 to 30 meters—these probes can be used in any situation. Quickly identify probes by their break-resistant, color-coded bands. Virtually indestructible “Rugged” probes have reinforced, steel-sheathed cables that are durable yet manageable.

#### Two Probe Styles to Choose From

- **IntelliCAL Standard Probes**

*IntelliCAL standard probes are waterproof for up to 24 hours at a depth of three meters (only the refillable liquid pH probe is non-submersible). Choice of cable lengths from one to three meters.*

- **IntelliCAL Rugged Probes**

*IntelliCAL rugged probes are designed for harsh environments. These probes feature a super-tough, stainless steel body and polymer sensor shroud that is waterproof for 24 hours at a depth of 30 meters. The reinforced, steel-sheathed cables are durable, yet manageable. Choice of cable lengths from five to 30 meters.*

#### Five Probe Types to Choose From

- **Combination pH**  
*Gel-filled pH probe also measures temperature.*
- **Refillable pH**  
*Liquid-filled pH probe also measures temperature (not available in Rugged style).*
- **Conductivity**  
*Four-pole graphite design probe measures conductivity (ms/cm) and temperature.*
- **Dissolved Oxygen (DO)**  
*Using patented Hach Luminescent Dissolved Oxygen technology, this probe measures DO (mg/L), pressure, and temperature.*
- **LBOD**  
*By integrating a stirrer into the LDO probe, this probe will comply with requirements of the USEPA-based BOD5 and CBOD testing.*



*The NEW Hach LBOD IntelliCAL™ probe has all the same great benefits of the Hach LDO probe, with the built-in features to measure BOD!*



## Specifications\*

### HQd DIGITAL METERS

#### Power

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

#### Languages

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

#### Display

Display readings from one or two probes  
Simultaneous readings from two probes  
*pH*: pH, mV, temperature  
*Conductivity*: selected parameter, temperature correction, temperature  
*LDO*: dissolved oxygen, pressure, temperature  
*LBOD*: dissolved oxygen, pressure, temperature

#### Data Memory

500 results

#### Data Storage

GLP/ISO compliant reading data stored with calibration details.  
Calibration details and check standard readings documented as events in 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 stick.  
Automatically transfer entire data log or as readings are taken.

#### Temperature Correction/Compensation

Off, automatic, and manual (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  
*DIN*: 1.09, 4.65, 9.23

#### Keyboard

External PC keyboard connector

#### Water Resistance

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

#### Dimensions

19.7 x 9.5 cm (7.75 x 3.75 in.)

#### Weight

335 g (0.75 lb.)

### IntelliCAL PROBES

#### Temperature

*Range*: -10.0 to 110.0°C  
*Resolution*: 0.1°C  
(Visit [www.hach.com](http://www.hach.com) for exact probe operating temperatures.)

#### pH/ORP

*Range*: 0 to 14 pH (combination probe); 2 to 14 pH (refillable probe)  
*Resolution*: 0.1/0.01/0.001 selectable

#### ORP (mV)

*Range*: ±1,500 mV  
*Resolution*: 0.1 mV (HQ40d meter); 1 mV (HQ30d or HQ11d meter)

#### Conductivity

*Range*: 0.01 ?S/cm to 200 mS/cm  
*Resolution*: 0.01 ?S/cm (5 digits, maximum)

#### Resistivity

*Range*: 2.5 ohm cm to 49 Mohm cm  
*Resolution*: 0.1 ohm cm (5 digits, maximum)

#### Salinity

*Range*: 0 to 42 g/kg or ‰  
*Resolution*: 0.01 ppt

#### Total Dissolved Solids

*Range*: 0.0 to 50.0 mg/L  
*Resolution*: 0.1 mg/L

#### Dissolved Oxygen (using LDO technology)

*Range*: 0.00 to 20.00 mg/L (0 to 200%)  
*Resolution*: 0.01 mg/L

#### BOD5/CBOD (using LDO technology)

*Range*: 0.05 to 10.0 mg/L  
*Resolution*: 0.01 mg/L

#### Elevation Limitation

5,000 m (16,400 ft.), maximum

#### Water Resistance

*Standard*: IP67, waterproof for 24 hours at a depth of 3 meters (refillable liquid pH probes are not submersible)  
*Rugged*: IP67, waterproof for 24 hours at a depth of 30 meters  
*LBOD*: IP65, waterproof for strong jets of water

#### Cable Lengths

*Standard (all except LBOD)*: 1 or 3 m (3.3 or 9.8 ft.)  
*Rugged*: 5, 10, 15, or 30 m (16.4, 32.8, 49.2, or 98.4 ft.)  
*LBOD*: 1.8 m (5.9 ft.)

#### Dimensions

*Standard (all except LBOD)*: 17.8 cm (7 in.)  
*Rugged*: 21.6 cm (8.5 in.)  
*LBOD*: 19.1 x 4.1 cm (7.5 x 1.6 in.)

#### Weight

*Standard (all except LBOD)*: 45 g (1.6 oz.)  
*Rugged*: 57 g (1.3 oz.)  
*LBOD*: 225 g (8 oz.)

\*Specifications subject to change without notice.

## Ordering Information

### METERS ONLY

<b>HQ40d53000000</b>	HQ40d Dual-input Multi-parameter Meter
<b>HQ30d53000000</b>	HQ30d Single-input Multi-parameter Meter

### SENSORS ONLY

#### pH/ORP

<b>pHC10101</b>	Combination pH Standard Probe with 1-m Cable
<b>pHC10103</b>	Combination pH Standard Probe with 3-m Cable
<b>pHC10105</b>	Combination pH Rugged Probe with 5-m Cable
<b>pHC10110</b>	Combination pH Rugged Probe with 10-m Cable
<b>pHC10115</b>	Combination pH Rugged Probe with 15-m Cable
<b>pHC10130</b>	Combination pH Rugged Probe with 30-m Cable
<b>pHC30101</b>	Refillable pH Standard Probe with 1-m Cable
<b>pHC30103</b>	Refillable pH Standard Probe with 3-m Cable

#### Conductivity

<b>CDC40101</b>	Conductivity Standard Probe with 1-m Cable
<b>CDC40103</b>	Conductivity Standard Probe with 3-m Cable
<b>CDC40105</b>	Conductivity Rugged Probe with 5-m Cable
<b>CDC40110</b>	Conductivity Rugged Probe with 10-m Cable
<b>CDC40115</b>	Conductivity Rugged Probe with 15-m Cable
<b>CDC40130</b>	Conductivity Rugged Probe with 30-m Cable

#### LDO

<b>LDO10101</b>	LDO Standard Probe with 1-m Cable
<b>LDO10103</b>	LDO Standard Probe with 3-m Cable
<b>LDO10105</b>	LDO Rugged Probe with 5-m Cable
<b>LDO10110</b>	LDO Rugged Probe with 10-m Cable
<b>LDO10115</b>	LDO Rugged Probe with 15-m Cable
<b>LDO10130</b>	LDO Rugged Probe with 30-m Cable

#### BOD

<b>LBOD10101</b>	LDO Probe with Integrated Stirrer and 1.8-m Cable
<b>HQDBOD01</b>	BOD System; includes HQ40d meter, LBOD probe, and meter stand

### ACCESSORIES

<b>4754900</b>	Meter Stand
<b>5828700</b>	Protective Glove for Meter
<b>5829400</b>	Probe Holder (standard probes only)
<b>5825800</b>	Field Kit; includes protective glove, 2 standard probe holders, and 5 120-mL sample cups.
<b>5818400</b>	Color Coded Probe Clips; includes ten clips of five different colors (one package of clips are included with each probe)
<b>5828610</b>	Probe Cable Depth Markers; 5/pkg. (for rugged probes only)
<b>5825900</b>	Replacement Shroud Kit for Rugged Probes; includes protective bell and locking ring.
<b>5811200</b>	Replacement LDO Sensor Cap; includes iButton® and sensor cap
<b>5813400</b>	USB/DC Power Adapter
<b>5826300</b>	A/C Power Adapter (adapter is not waterproof)
<b>LZV582</b>	Keyboard (HQ40d meter only)

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Lit. No. 2599

176 Printed in U.S.A.

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**Keep it pure.**

**Make it simple.**

**Be right.**

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