



# HQ440D Benchtop pH, Conductivity, Dissolved Oxygen, ORP, and ISE Multi-Parameter Meter, 2 Channels

Product #: HQ440D

ZAR Price: Contact Hach

Available

# Multiparameter: Plug-and-Play any Two Intellical Probes!

Designed for water quality experts, the Hach HQ440D Laboratory Multi-Meter is an advanced laboratory meter that takes the guesswork out of measurements. HQD laboratory meters connect with smart Intellical electrodes that automatically recognize the testing parameter, calibration history, and method settings to minimize errors and setup time. The advanced HQD bench meter is designed to withstand years of continuous lab use. HQD laboratory meters feature a simple user interface that does not require manuals or training to operate. The HQD digital meter is ideal for any of the following measurement parameters as a pH meter, a mV/RedOx/ORP meter, an Ion Selective (ISE) meter, a Dissolved Oxygen (DO) meter, a Biochemical Oxygen Demand (BOD) meter, a conductivity meter for measuring electrical conductivity, salinity, resistivity, or total dissolved solids (TDS), in wastewater, drinking water or general water quality applications, soil, and food or beverages applications. A wide range of Intellical electrodes, cell, probes and sensors are available to perform accurate measurements in any sample media types.

## Flexible Laboratory bench multi Meter for efficient water quality parameters testing

Two input channels for simultaneous measurement of pH, Conductivity, Total Dissolved Solid (TDS), Optical Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), Oxydo Reduction Potential (ORP/RedOx), Temperature, Ion Selective Electrode (ISE) direct concentration reading for Ammonia, Ammonium, Fluoride, Chloride, Sodium - connect any Intellical™ smart probe.

## Intuitive user interface for simple operation, reliable and accurate results

Guided calibration and check standard routines reduce calibration errors while stabilization alerts and visual measurement lock ensure that you can trust the accuracy of the results.

## Trust your measurements with Intellical smart probes that store all calibrations in the probe

Calibration history allows quick and easy change out of probes without re-calibrating. The HQD smart system records serial numbers, current calibration data, user ID, sample ID, time, and date automatically in the data log for complete Good Laboratory Practice (GLP) traceability.

#### Enhance data connectivity with easy to read results

Internal USB ports simplify data transfer, peripherals, and software updates and connection to PCs printer and keyboards, with a large ultrabright backlit LCD screen with large font size for convenient reading.

#### Improve productivity and save laboratory space

Multi meter capabilities in one instrument with Intellical probes makes switching parameters fast and easy by automatically recalling your measurement settings.

## **Specifications**

Automatic Buffer Recognition: Yes
Backlight: Yes

Barometric Pressure Measurement: Automatic compensation of DO when using an LDO or LBOD probe

Calibration Intervals/Alerts/Reminder: Off, selectable from 2 hours to 7 days

CDC Electrode Calibration: Demal (1D/ 0.1D/ 0.01D);

Molar (0.1M/ 0.01M/0.001M);

NaCl (0.05%; 25µS/cm; 1000µS/cm; 18mS/cm);

Standard sea water;

User defined

Communication: Integrated USB type A (for USB 2.0 flash memory device, printer, keyboard) and Integrated USB

type B (for PC)

Compliance Certifications: CE.WEEE

Conductivity Measurement at Stable

Reading:

Yes

Conductivity measurement: Temperature

correction:

None; Linear; NaCl Non-Linear Natural Water.

Conductivity Range: 0.01 µS/cm - 200.0 mS/cm

Conductivity resolution: 0.01 µS/cm - 0.1 mS/cm upon selected measuring range

Contents: Meter Only

Custom Calibration Standards: Yes

Data Export: Download via USB connection to PC or flash memory device. Automatically transfer entire data

log or as readings are taken.

Data Memory: 500 records/FIFO

Data storage: Automatic, GLP ISO compliant reading data stored with calibration details.

Dimensions: 859 x 175 x 235 mm

Display: Detailed mode/Large mode

Display Type: 440 x 160 pixel LCD with backlight illumination

DO Measurement Range: 0.1 - 20.0 mg/L (ppm) 1 - 200% saturation

DO Resolution: 0.1

DO sensor calibration: • 100% (water-saturated air (100%) calibration

• 100% with 0 (water-saturated air (100%) calibration with 0 point

• mg/L (calibration with a specified dissolved oxygen concentration (mg/L) solution)

• mg/L with 0 (calibration with a specified dissolved oxygen concentration (mg/L) solution with 0

point)

• Factory (calibration with the default LDO calibration)

Electrode stand: Optional

Environmental Conditions: Relative

Humidity:

90 % relative humidity (non-condensing)

Environmental Conditions: Temperature: 0 - +60 °C (32 - 140 °F)

GLP Features: Date; Time; Sample ID; Operator ID

Instrument: Bench

IP Rating: IP54 (Resistant to spray of water; Dust-proof)

ISE Direct Measurement Range: Yes

ISE Electrode Calibration: 2 - 5 points

Kit?: No

Languages user interface: English, French, German, Italian, Spanish, Danish, Dutch, Polish, Portuguese, Turkish, Swedish,

Czech, Russian

Lock Function: Continuous / Auto-stabilization ("press to read") / At Interval

Probe specific programmed method settings Measurement method:

Model: HQ440D - Multi/2 Channels

mV Measurement at Stable Reading: Yes

mV Measurement Range: -1500 - 1500 mV

mV Resolution: 0.1 mV NA Needed Cable Length:

Operating Error Messages: Clear text error messages displayed

Operating Interface: Soft Touch Keypad

**ORP** Electrode Calibration: Predefined ORP standards (including Zobell's solution)

Parameter: pH/Oxydo Reduction Potential (ORP)

Conductivity/Total Dissolved Solid (TDS)/Salinity/Resistivity

Dissolved Oxygen (DO)

Biochemical Oxygen Demand (BOD)

Ion Selective Electrode (ISE): Ammonia, Ammonium, Chloride, Fluoride, Nitrate, Sodium

PC Data Transfer Software: **HQD Series Meter Data Transfer Utility** 

Color-coded: 4.01, 7.00, 10.01 pH; pH Buffer Sets:

IUPAC: 1.679, 4.005, 7.000, 10.012, 12.45 pH

DIN: 1.09, 4.65, 9.23 pH

User-defined custom buffer sets

pH Electrode calibration: 1 - 3 Calibration points

Calibration summary data logged and displayed

pH Measurement Range: 0 - 14 pH Selectable: pH Resolution:

0.001/0.01/0.1 pH

Printer: Yes, Optional

Probes included: None

Resistivity Measurement:  $2.5 \Omega.cm - 49 M\Omega.cm$ 

0.1 Resistivity Resolution:

0 - 42 (ppt) (%) Salinity Measurement Range: Salinity Resolution: 0.01 (ppt) (%)

Sensor A: NA Sensor B: NA Sensor C: NA

Sensors: Sensor A: NA

Sensor B: NA

Sensor C: NA

Yes Simultaneous measurements:

TDS Measurement Range: 0.00 mg/L - 50.0 g/L as NaCl

TDS Resolution: 0.01 mg/L - 0.1 g/L upon measuring range.

Temperature Compensation: Automatic Temperature compensation for pH Temperature Measurement: °C or °F

Temperature Range: -10°C - 110 °C

Temperature resolution: 0.1

Type of measurement: Lab Water Quality applications.

Warranty: 36 months

Weight: 750 g (1.65 lb) without batterie; 850 g (1.87 lb) with batteries

What's included?: Meter package includes HQ440D Laboratory Dual Inputs, Multi-Parameter Meter - pH,

Conductivity, Optical Dissolved Oxygen, ORP, and ISE, 4 AA batteries, universal power adapter,

USB cable for data transfer, quick start guide and user manual

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# Required Accessories

- Intellical LBOD101 Luminescent/Optical Dissolved Oxygen (LDO) Sensor for BOD Measurements, 1 m Cable (Item LBOD10101)
- Intellical LDO101 Laboratory Luminescent/Optical Dissolved Oxygen (DO) Sensor, 1 m Cable (Item LDO10101)
- Intellical LDO101 Laboratory Luminescent/Optical Dissolved Oxygen (DO) Sensor, 3 m Cable (Item LDO10103)
- Intellical CDC401 Laboratory 4-Poles Graphite Conductivity Cell, 1 m Cable (Item CDC40101)
- Intellical CDC401 Laboratory 4-Poles Graphite Conductivity Cell, 3 m Cable (Item CDC40103)
- Intellical PHC301 Laboratory General Purposes Refillable pH Electrode, 1 m Cable (Item PHC30101)
- Intellical PHC281 Water Quality Laboratory Refillable pH Electrode, 1 m Cable (Item PHC28101)
- Intellical PHC281 Water Quality Laboratory Refillable pH Electrode, 3 m Cable (Item PHC28103)
- Intellical MTC101 Laboratory Low Maintenance Gel Filled ORP/RedOx Electrode, 1 m Cable (Item MTC10101)
- Intellical MTC101 Laboratory Low Maintenance Gel Filled ORP/RedOx Electrode, 3 m Cable (Item MTC10103)
- Intellical MTC301 Laboratory General Purpose Refillable ORP/RedOx Electrode, 1 m Cable (Item MTC30101)
- Intellical MTC301 Laboratory General Purpose Refillable ORP/RedOx Electrode, 3 m Cable (Item MTC30103)
- Intellical ISENA381 Sodium (Na<sup>+</sup>) Ion Selective Electrode (ISE), 1 m cable (Item ISENA38101)
- Intellical ISENA381 Sodium (Na+) Ion Selective Electrode (ISE), 3 m cable (Item ISENA38103)
- Intellical ISENH3181 Ammonia (NH<sub>2</sub>) Ion Selective Electrode (ISE), 1 m cable (Item ISENH318101)
- Intellical ISENH3181 Ammonia (NH<sub>3</sub>) Ion Selective Electrode (ISE), 3 m cable (Item ISENH318103)
- Intellical ISENH4181 Ammonium (NH, +) Ion Selective Electrode (ISE), 1 m cable (Item ISENH418101)
- Intellical ISENH4181 Ammonium (NH<sub>4</sub>+) Ion Selective Electrode (ISE), 3 m cable (Item ISENH418103)
- Intellical ISECL181 Chloride (C|-) Ion Selective Electrode (ISE), 1 m cable (Item ISECL18101)
- Intellical ISECL181 Chloride (C|-) Ion Selective Electrode (ISE), 3 m cable (Item ISECL18103)
- Intellical ISEF121 Fluoride (F<sup>-</sup>) Ion Selective Electrode (ISE), 1 m cable (Item ISEF12101)
- Intellical ISEF121 Fluoride (F<sup>-</sup>) Ion Selective Electrode (ISE), 3 m cable (Item ISEF12103)
- Intellical ISENO3181 Nitrate (NO<sub>3</sub><sup>-</sup>) Ion Selective Electrode (ISE), 1 m cable (Item ISENO318101)
- Intellical ISENO3181 Nitrate (NO<sub>3</sub> <sup>-</sup>) Ion Selective Electrode (ISE), 3 m cable (Item ISENO318103)
- Intellical PHC201 Laboratory General Purposes Gel Filled pH Electrode, 1 m Cable (Item PHC20101)
- Intellical PHC201 Laboratory General Purposes Gel Filled pH Electrode, 3 m Cable (Item PHC20103)
- Intellical PHC705 Laboratory General Purpose RedRod Refillable Glass pH Electrode, 1 m Cable (Item PHC70501)
- Intellical PHC805 Laboratory General Purpose Refillable Glass pH Electrode, 1 m Cable (Item PHC80501)
- Intellical PHC725 Laboratory Low Ionic Strength Media RedRod Refillable Glass pH Electrode, 1 m Cable (Item PHC72501)
- Intellical PHC735 Laboratory Dirty Media RedRod Refillable Glass pH Electrode, 1 m Cable (Item PHC73501)
- Intellical PHC745 Laboratory Clogging Media RedRod Refillable Glass pH Electrode, 1 m Cable (Item PHC74501)
- Intellical PHC705 Laboratory High Alkalinity Range RedRod Refillable Glass pH Electrode, 1 m Cable (Item PHC705A01)
- Intellical PHC729 Laboratory Surface Measurements RedRod Refillable Glass pH Electrode, 1 m Cable (Item PHC72901)