



## HQ40d Portable pH, Conductivity, Dissolved Oxygen, ORP, and ISE Multi-Parameter Meter

Product #:

HQ40D53000000

 **Hazardous**

### **OBSOLETE ITEM**

This item is no longer available.

Items with this mark may be considered hazardous under some shipping conditions.

If necessary, we will change your selected shipping method to accommodate these items.

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

Designed for your water quality applications measuring pH, Conductivity, TDS, Salinity, Dissolved Oxygen (DO), ORP and ISE, the Hach HQ40D portable multi meter is a two channels advanced handheld digital meter that takes the guesswork out of measurements. The Hach HQD digital multimeter combines reliability, flexibility and ease of use. The HQD portable meters connect with a wide range of Intellical smart electrodes addressing different parameters, sample types and operating environment for water quality, environmental and treatment process purposes. The Intellical probe automatically recognize the testing parameter, store the calibration history, and method settings to minimize errors and setup time. In their Rugged outdoor version the Intellical sensors are nearly indestructible and available with multiple cable lengths.

Replaced by NEW HQ Series.

### **Rugged multi meter for outstanding and flexible field water testing.**

Dual input channels for flexible measurements without the need for multiple instruments, for pH, Conductivity, Resistivity, Total Dissolved Solids (TDS), Optical Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), Oxidation Reduction Potential (ORP), Ammonia, Ammonium, Fluoride, Chloride, Sodium, and temperature - connect to any Intellical™ smart electrode, sensor or 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. Calibration status indicator and custom calibration alerts ensure accurate results.

### **Trust your measurements - Intellical™ smart probes 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. Error-free O<sub>2</sub> results without calibration or replacing the electrolyte.

### **Easy to Use in the Field**

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 the one screen with back light for low light conditions. Display results can be enlarged.

### **Designed for demanding field operating conditions**

Rugged and waterproof meter design provides worry-free, reliable operation in field environments.

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## **Specifications**

AC Power Adapter and USB/DC Adapter:	Included
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
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.
Digital (intelligent) electrode inputs:	2 channels
Display:	Detailed mode/Large mode
Display Type:	240 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 Type:	Intellical Standard Laboratory or Rugged Field
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
Inputs:	2
Instrument:	Portable
IP Rating:	IP67
ISE Direct Measurement Range:	Yes
ISE Electrode Calibration:	2 - 5 Points
Kit?:	Yes
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
Measurement method:	Probe specific programmed method settings
Model:	HQ40D – Multi/2 Channels
mV Measurement at Stable Reading:	Yes
mV Measurement Range:	-1500 - 1500 mV
mV Resolution:	0.1 mV
Needed Cable Length:	NA
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
Parameters:	NA
	NA
	NA
PC Data Transfer Software :	HQD Series Meter Data Transfer Utility
pH Buffer Sets:	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
pH Electrode calibration:	1 - 3 Calibration points
	Calibration summary data logged and displayed
pH Measurement Range:	0 - 14 pH
pH Resolution:	Selectable:
	0.001/0.01/0.1 pH
Printer:	Yes, Optional
Probes included:	None
Salinity Measurement Range:	0 - 42 (ppt) (‰)
Salinity Resolution:	0.01 (ppt) (‰)
Sensor A:	NA
Sensor B:	NA
Sensor C:	NA
Sensors:	Sensor A: None
	Sensor B: None
	Sensor C:
Simultaneous measurements:	Yes, 2 channels
TDS Measurement Range:	0.00 mg/L - 50.0 g/L NaCl

TDS Resolution:	0.01 mg/L up - 0.1 g/L upon measuring range
Temperature Compensation:	Automatic Temperature compensation for pH
Temperature Measurement:	°C or °F
Temperature resolution:	0.1
Type of measurement:	Portable/Field Water Quality Applications
Warranty:	36 months
Weight:	335 g (0.75 lb) without batteries; 430 g (0.95 lb) with
What's included?:	Meter package includes HQ40D Portable Meter; 4 AA batteries; Power adapter, USB/DC power adapter for data transfer; quick-start guide and user manual; Standard Field case; Protective Glove for Portable HQd Meter; 120 mL Sample Container (x5).

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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, 3 m Cable (Item LDO10103)
- Intellical LDO101 Field Luminescent/Optical Dissolved Oxygen (DO) Sensor, 5 m Cable (Item LDO10105)
- Intellical LDO101 Field Luminescent/Optical Dissolved Oxygen (DO) Sensor, 10 m Cable (Item LDO10110)
- Intellical LDO101 Field Luminescent/Optical Dissolved Oxygen (DO) Sensor, 15 m Cable (Item LDO10115)
- Intellical LDO101 Field Luminescent/Optical Dissolved Oxygen (DO) Sensor, 30 m Cable (Item LDO10130)
- Intellical CDC401 Laboratory 4-Poles Graphite Conductivity Cell, 3 m Cable (Item CDC40103)
- Intellical CDC401 Field 4-Poles Graphite Conductivity Cell, 5 m Cable (Item CDC40105)
- Intellical CDC401 Field 4-Poles Graphite Conductivity Cell, 10 m Cable (Item CDC40110)
- Intellical CDC401 Field 4-Poles Graphite Conductivity Cell, 15 m Cable (Item CDC40115)
- Intellical CDC401 Field 4-Poles Graphite Conductivity Cell, 30 m Cable (Item CDC40130)
- Intellical PHC301 Laboratory General Purposes Refillable pH Electrode, 3 m Cable (Item PHC30103)
- Intellical PHC101 Field Low Maintenance Gel Filled pH Electrode, 5 m Cable (Item PHC10105)
- Intellical PHC101 Field Low Maintenance Gel Filled pH Electrode, 10 m Cable (Item PHC10110)
- Intellical PHC101 Field Low Maintenance Gel Filled pH Electrode, 15 m Cable (Item PHC10115)
- Intellical PHC101 Field Low Maintenance Gel Filled pH Electrode, 30 m Cable (Item PHC10130)
- 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 MTC101 Field Low Maintenance Gel Filled ORP/RedOx Electrode, 5 m Cable (Item MTC10105)
- Intellical MTC101 Field Low Maintenance Gel Filled ORP/RedOx Electrode, 10 m Cable (Item MTC10110)
- Intellical MTC101 Field Low Maintenance Gel Filled ORP/RedOx Electrode, 15 m Cable (Item MTC10115)
- Intellical MTC101 Field Low Maintenance Gel Filled ORP/RedOx Electrode, 30 m Cable (Item MTC10130)
- Intellical ISENA381 Sodium (Na<sup>+</sup>) Ion Selective Electrode (ISE), 1 m cable (Item ISENA38101)
- Intellical ISENA381 Sodium (Na<sup>+</sup>) Ion Selective Electrode (ISE), 3 m cable (Item ISENA38103)
- Intellical ISENH3181 Ammonia (NH<sub>3</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<sub>4</sub><sup>+</sup>) Ion Selective Electrode (ISE), 1 m cable (Item ISENH418101)
- Intellical ISENH4181 Ammonium (NH<sub>4</sub><sup>+</sup>) Ion Selective Electrode (ISE), 3 m cable (Item ISENH418103)
- Intellical ISECL181 Chloride (Cl<sup>-</sup>) Ion Selective Electrode (ISE), 1 m cable (Item ISECL18101)
- Intellical ISECL181 Chloride (Cl<sup>-</sup>) 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)