



## HQ411D Benchtop pH/mV Meter

**Product #:**

**HQ411D**

**ZAR Price:**

**Contact Hach**

**Ships within 1 week**

Designed for water quality experts, the Hach HQ411D Laboratory pH Meter is an advanced laboratory digital 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 digital meter is designed to withstand years of continuous lab use. HQD bench meters feature a simple user interface that does not require manuals or training to operate. The HQ411D pH-meter is ideal for measuring pH, or mV/RedOx/ORP, in wastewater, drinking water or general water quality, soil, and food or beverages applications. A wide range of Intellical electrodes and sensors are available to perform accurate pH measurements in any sample media types.

### **High Performance Laboratory bench pH Meter for efficient water quality parameters testing**

High quality laboratory pH meter digitally deliver reliable measuring results with the aid of intelligent electrodes: Digital Intellical pH electrodes always measure correctly due to their integrated calibration memory. Intellical pH electrodes are recognized automatically and are interchangeable. This principle of mix + match makes sure you measure as reliable, flexible and simple as already known from the portable HQD pH meter range.

### **Optimal handling for every user**

HQD laboratory bench instruments are easy to use thanks to the intuitively understandable user interface enabling one-touch measurements. Measuring intervals can be defined by the user. Progress of stabilization is automatically indicated on the display; readings are automatically logged.

### **Immediately understandable and easy to read**

Large, illuminated graphic displays is easy to read, even in difficult light conditions. The instruments' key pads are icon-based and immediately understandable. User interface and operating instructions are available in multiple languages.

### **Complete Good Laboratory Practice (GLP) compliant communication and documentation**

All the necessary information about each reading is automatically saved.

### **Enhance productivity 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 ultra-bright backlit LCD screen with large font size for convenient reading.

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## **Specifications**

Automatic Buffer Recognition:	Yes
Backlight:	Yes
Calibration Intervals/Alerts/Reminder:	Off, selectable from 2 hours to 7 days
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
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
Electrode Holder:	NA
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 Electrode Calibration:	No
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
Measurement method:	Probe specific programmed method settings
Model:	HQ411D – pH/1 Channel
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)
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 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
pH Resolution:	Selectable:  0.001/0.01/0.1 pH
Printer:	Yes, Optional
Probes included:	None
Sensor A:	NA

Sensor B:	NA
Sensor C:	NA
Sensors:	Sensor A:
	Sensor B:
	Sensor C: NA
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 HQ411D Laboratory Single Input, pH/mV Meter - pH and ORP, 4 AA batteries, universal power adapter, USB cable for data transfer, quick start guide and user manual.

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## Required Accessories

- Intellical PHC301 Laboratory General Purposes Refillable pH Electrode, 1 m Cable (Item PHC30101)
- Intellical PHC301 Laboratory General Purposes Refillable pH Electrode, 3 m Cable (Item PHC30103)
- 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 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)