



## HQ440D Laboratory Fluoride (F<sup>-</sup>) Ion Meter Package with ISEF121 Ion Selective Electrode

**Product #:**

**8508000**

**ZAR Price:**

**Contact Hach**

**Ships within 1 week**

Designed for water quality experts, the Hach HQ440D Laboratory Multi-Meter is an advanced laboratory meter that takes the guesswork out of measurements. HQD 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 Laboratory Meter is designed to withstand years of continuous lab use. HQD meters feature a simple user interface that does not require manuals or training to operate. The Intellical ISEF121 is a digital, combination fluoride ion selective electrode (ISE) with a non-refillable, single junction reference and built-in temperature sensor. The ISEF121 electrode is intended for laboratory use. The ISEF121 is ideal for measuring fluoride concentrations in drinking water, wastewater, and general water quality applications. The ISEF121's solid-state sensor design eliminates membrane replacement and allows for dry storage of the ISE.

### **Make your Fluoride ISE water laboratory quality parameters testing more efficient and flexible**

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 ultra-bright backlit LCD screen with large font size for convenient reading.

### **Complete convenient kit**

Package content includes everything you need to start testing. Details below

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## Specifications

Automatic Buffer Recognition:	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 $\mu$ S/cm - 200.0 mS/cm
Conductivity resolution:	0.01 $\mu$ S/cm - 0.1 mS/cm upon selected measuring range
Contents:	Meter + Probe(s) + Lab. Accessories + Reagents
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:	<ul style="list-style-type: none"> <li>• 100% (water-saturated air (100%) calibration</li> <li>• 100% with 0 (water-saturated air (100%) calibration with 0 point</li> <li>• mg/L (calibration with a specified dissolved oxygen concentration (mg/L) solution)</li> <li>• mg/L with 0 (calibration with a specified dissolved oxygen concentration (mg/L) solution with 0 point)</li> <li>• Factory (calibration with the default LDO calibration)</li> </ul>
Electrode Holder:	NA
Electrode stand:	Included
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?:	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:	HQ440D – Multi/2 Channels
mV Measurement at Stable Reading:	Yes
mV Measurement Range:	-1500 - 1500 mV

mV Resolution:	0.1 mV
Needed Cable Length:	1
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
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:	ISEF12101
Resistivity Measurement:	2.5 Ω.cm - 49 MΩ.cm
Resistivity Resolution:	0.1
Salinity Measurement Range:	0 - 42 (ppt) (‰)
Salinity Resolution:	0.01 (ppt) (‰)
Sensor A:	ISEF12101
Sensor B:	NA
Sensor C:	NA
Sensors:	Sensor A: ISEF12101
	Sensor B: NA
	Sensor C: NA
Simultaneous measurements:	Yes
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 Multi Meter, Universal electrode Stand with electrode holder, ISEF121 Fluoride Ion Selective Electrode with 1 m cable, Fluoride standard solutions (500 mL): 0,5 mg/L, 1 mg/L, 10 mg/L. Fluoride ISAB powder pillows pack (100 pcs), 4 Alkaline 1,5V AA batteries, Power Supply Adapter, Power Cord, USB cable for data transfer, and Operating Documentation.

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