



## Plug-and-Play with any two INTELLICAL electrodes!

HQ440D Dual channel lab digital multi meter

Order number: HQ440D.98.00002

Laboratory two channel multi meter for pH, ORP, ISE, Conductivity, TDS, Resistivity, Salinity and LDO. Basic instrument without electrodes.

- Have confidence in your readings!
- Optimised handling
- User friendly
- Fully GLP compliant communication and documentation
- Reliable O<sub>2</sub> results with minimum effort

The digital meter/electrode system HQD combines reliability, flexibility and ease of use. Interchangeable INTELLICAL electrodes are recognised automatically and store all relevant data.

### Technical Specifications

Accuracy	ORP: 0.1 mV
Auto-buffer recognition	pH: Colour-coded: 4.01, 7.00, 10.01 IUPAC: 1.679, 4.005, 7.000, 10.012, 12.45 DIN: 1.09, 4.65, 9.23 User-defined custom buffer sets  Conductivity: 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
BOD5/CBOD resolution	Available when integrated with Hach WIMS BOD Manager software
Battery requirements	4 AA
Cable resistance correction	Digital - not needed
Calibration curves display	Calibration summary data logged and displayed
Calibration intervals/alerts/reminder	2 hours - 7 days

Casing IP rating	IP54
Communication	Direct to PC (Bi-directional) via USB virtual serial port
Compliance	CE.WEEE
Conductivity accuracy	± 0.5 % in 1 µS/cm to 200 mS/cm range
Conductivity measurement range	0.01 µS/cm - 200 mS/cm
Conductivity measurement: Temperature correction	Not linear (natural waters DIN 38404 & EN ISO 7888 or NaCL), linear coefficient, no compensation
Conductivity resolution	5 digits with 2 digits after decimal point
Custom calibration standards	User-defined standard sets
DO measurement range	0.00 - 20.0 mg/L DO
DO resolution	0.01 mg/L or 0.1 % DO saturation
Data Storage	Automatically store in "press to read" mode and interval measurement mode. Manually store in "continuous read" mode.
Data logger	Download via USB connection to PC or flash stick. Automatically transfer entire data log or as readings are taken.
Data storage	500 results
Digital (intelligent) electrode inputs	2 channel
Dimensions (H x W x D)	86 mm x 175 mm x 234 mm
Display	Continuous measurement or "press to read" mode available with averaging function for LDO measurement.
Display	Backlit Graphical LCD Display readings from one or two electrodes Simultaneous readings from two electrodes pH: pH, mV, temperature Conductivity: Conductivity, TDS, salinity, resistivity, temperature LDO: dissolved oxygen, pressure, temperature LBOD: dissolved oxygen, pressure, temperature ORP/Redox: mV, temperature ISE: Concentration, mV, temperature
Display type	240 x 160 pixel Backlit Graphical LCD
Environmental conditions: relative humidity	90 % relative humidity (non-condensing)
Fixed buffer selection	IUPAC standards (DIN 19266), Technical buffer (DIN 19267), 4-7-10 series, or user defined
ISE direct measurement	Yes
ISE electrode calibration	Electrode specific - see electrode user instructions

Inputs	M12 digital (2) for INTELLICAL probes
Interface languages	13
Internal result storage capacity	500
Language user interfaces	Selectable: English, French, German, Italian, Spanish, Danish, Dutch, Polish, Portuguese, Turkish, Swedish, Czech, Russian
Length	235 mm
ORP electrode calibration	Predefined ORP standards (including Zobell's solution)
Operating Interface	Keypad
Operating error messages	Full text messages
Outputs	USB to PC / flash stick
PC data transfer software	included
Power requirements (Voltage)	7 V
Pressure compensation	Automatic
Printer	As optional accessory
Resolution	0.1 mV
Resolution	3 digits max.
Result ID	Time stamp, user ID, sample-ID, etc.
Salinity measurement range	0 - 42 g/kg
Salinity resolution	0.01 ppt
TDS measurement range	0.0 - 50.0 mg/L
Temperature accuracy	$\pm 0.3$ °C
Temperature compensation	Automatic, off, manual (auto correction is parameter dependent) Automatic Temperature compensation for pH
Temperature range	-10 - 110 °C
Temperature resolution	0.1 °C
Warranty	3 years
Water Resisitance	Meter Casing: Spray-resistant and dust resistant (IP54)
Weight	0.850 kg without batteries
mV accuracy	$\pm 0.1$ mV
mV measurement at stable reading	5 stabilisation settings
mV measurement range	-1500 - 1500 mV

mV resolution 0.1 mV

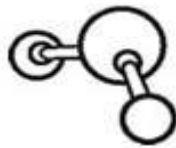
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pH Measurement at stable reading 5 stabilisation settings

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Subject to change without notice.

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