

Water Quality Meters

Horiba U-20XD Series Multiparameter Meters

Years of Horiba sensor technology development have reached their culmination in the form of a 47mm diameter sensor probe: a compact monitoring solution offering high pressure tolerance, long-term continuous measurement capability and highly accurate, simultaneous analysis.

FEATURES

- Six sensors on a single probe for 2" wells or up to 13 sensors on the W-23XD
- High precision Dissolved Oxygen using Galvanic Cell technology
- Built-in memory function enables continuous data logging for one month
- Select the U-22XD Set with standard cable setup or the W-22XD for the ability to swap cable lengths
- Kits include hard case, sensors as specified, batteries, solution and manual
- SDI compatible versions are available

U-20XD SERIES MEASUREMENT PARAMETERS

	U-22XD SET	W-22XD	W-23XD
Maximum Probe Size	47mm	47mm	97mm
pH	✓	✓	✓
Dissolved Oxygen	✓	✓	✓
Conductivity	✓	✓	✓
Salinity	✓	✓	✓
Total Dissolved Solids (TDS)	✓	✓	✓
Seawater Specific Gravity	✓	✓	✓
Temperature	✓	✓	✓
Turbidity	✓	✓	✓
Depth	✓	✓	✓
Oxidation Reduction Potential (ORP)	✓	✓	✓
Data Logging	✓	✓	✓
100m Depth Mess.			✓
Nitrate Ion*			Option
Calcium Ion*			Option
Chloride Ion*			Option
Fluoride Ion*			Option
Potassium Ion*			Option
Ammonia*			Option

* Optional sensor (replacement with other ion sensors is possible).



U-20XD Series Meter with detachable cable

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

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Water Quality Meters

Horiba U-20XD Series Multiparameter Meters

SPECIFICATIONS

Control Unit

Water proof construction IP67

Multi-Probe¹

Measurement Temperature 0°- 55°C
Storage Temperature -5°- 60°C
Measurement Depth² to 100m (U-22XD Set to 30m)
Maximum Probe Size 95mm
Probe Length 430mm
Continuous Use³ 30 days
Data Logging 0
Manual Data Memory (2880 items) 0
Automatic Calibration 0

pH

Measurement Principle Glass electrode method
Range pH 0-14
Resolution 0.01 pH
Repeatability ±0.05 pH
Accuracy ±0.1 pH

- Two-point calibration
- Automatic temperature compensation

Dissolved Oxygen

Measurement Principle Diaphragm galvanic battery method
Range 0-19.99 mg/L
Resolution 0.01 mg/L
Repeatability ±0.1 mg/L
Accuracy ±0.2 mg/L

- Salt correction (0 to 40 ppt/automatic)
- Automatic temperature compensation

Conductivity

Measurement Principle 4 AC electrode method
Range 0-9.99 S/m
Resolution 0.1% F.S.
Repeatability ±1%
Accuracy ±3%

- Auto range
- Automatic temperature conversion (25°C)
- SI units

Salinity

Measurement Principle Conductivity conversion
Range 0-4‰
Resolution 0.01‰
Repeatability ±0.1‰
Accuracy ±0.3‰

Total Dissolved Solids (TDS)

Measurement Principle Conductivity conversion
Range 0-100 g/L
Resolution 0.1% F.S.
Repeatability ±2 g/L
Accuracy ±5 g/L

- Conversion factor setting

Seawater Specific Gravity

Measurement Principle Conductivity conversion
Range 0-50 σ_t
Resolution 0.1 σ_t
Repeatability ±2 σ_t
Accuracy ±5 σ_t

- Display σ_t, σ₀, σ₁₅

Temperature

Measurement Principle Thermistor method
Range 0°-55°C
Resolution 0.01°C
Repeatability ±0.3°C
Accuracy ±1.0°C

Turbidity

Measurement Principle Penetration and scattering method
Range 0-800 NTU
Resolution 0.1 NTU
Repeatability ±3%
Accuracy ±5%

- Unit selection

Water Depth

Measurement Principle Pressure method
Range (NTU or mg/L) 0-100m
Resolution 0.1m
Repeatability ±3%
Accuracy ±5%

Oxidation Reduction Potential (ORP)

Measurement Principle Platinum electrode method
Range ±1999 mV
Resolution 1 mV
Repeatability ±5 mV
Accuracy ±15 mV

Ion (W-23XD Option Only)

Measurement Principle Ion electrode method
Resolution 0.1% F.S.
Repeatability ±5%
Accuracy ±10%

Range:
 Nitric Acid Ion NO₃⁻: 0.62-62,000 mg/L (pH 3-7)
 Chloride Ion Cl⁻: 0.4-35,000 mg/L (pH 3-11)
 Calcium Ion Ca²⁺: 0.4-40,080 mg/L (pH 5-11)
 Fluoride Ion F⁻: 0.02-19,000 mg/L (pH 4-10:20 mg/L)
 Potassium Ion K⁺: 0.04-39,000 mg/L (pH 5-11:3.9 mg/L)
 Ammonia NH₃: 0.1-1,000 mg/L (pH 12 or more)

Simultaneously Measurable Parameters

U-22XD Set 10
W-22XD 10
W-23XD 13

Nitrate Ion: ClO₄⁻= 0.031 1⁻= 0.1 Br⁻= 2 NO₂⁻= 3 Cl⁻= 40
 F⁻= 200 CH₃COO⁻= 300 SO₄²⁻= more than 1000

Chloride Ion: S₂O₃²⁻, S²⁻, 1⁻, Ag⁺, Hg²⁺= not possible SCN⁻= 0.3 MnO⁴⁻= 0.1
 Br⁻= 0.03

Calcium Ion: Fe³⁺= 0.1 Fe²⁺, Zn²⁺= 1 Sr²⁺= 50 Ni²⁺, Cu²⁺= 70 Co²⁺= 350
 Mn²⁺= 500 Mg²⁺= 1,000 Na⁺, K⁺, Ba²⁺, NH₄⁺= more than 1000

Fluoride Ion: OH⁻= 10, all negative ions except for OH⁻ is permissible

Potassium Ion: Rb⁺= 0.4 Cs⁺= 3 NH₄⁺= 70 Li⁺, Na⁺, Mg²⁺, Ca²⁺,
 Ba²⁺= more than 1000

Ammonia: -

Note: The accuracy rating value is obtained from measurements at an intermediate point of the standard solution after two-point calibration (at room temperature and pressure). The repeatability and accuracy rating percentages are based on the full scale (except for salinity).

- Organic solvents, strong acids, and strong alkaline solvents cannot be measured.
 - The maximum depth for ion measurements are 100m for nitric acid ion, chloride ion, fluoride ion, 15m for calcium ion, ammonia, and 3m for potassium ion.
 - Based on the data measured automatically at 15 minute intervals. The battery life taken into account. Periodical maintenance and calibration is necessary when a lot of shellfishes and seaweeds exist at the measurement point.
- Influence of Hindering Ions, the values show permissible coexistence limits.

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