

Water Analyzer Products Description

An enterprise with foresight for
environment and future

Off-Line Water analyzer products

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Water test kit



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(Portable
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(Total coliforms
& E.coli)



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>> Water test kit



Features

- Developed on the basis of our standard method, EPA standard method and AWWA standard method
- Allows simple manipulation and easy analysis even for beginners
- Analysis time saved by up to 10 times compared to standard method
- Sold at 30 ~ 40% cheaper than imported products
- More than 60 analyzable items including COD, total nitrogen, total phosphorous and heavy metals
- Data deviation under $\pm 3\%$, $R^2=0.99$ during standard sample analysis



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>> Water test kit

■ HS-1000DW ■ HS-1000Plus ■ HS-1000SW
■ HS-2300Plus ■ HS-3300 ■ HS-R200사용

Analysis items for drinking water

Category	Item	Analytical Item	Range(mg/L)	Method						Cat.No.
Drinking water	HS-Cl ₂ (Free)	Chlorine, Free	0.02~3	DPD						83020
	HS-Fe(T)	Iron, Total	0.05~3	1,10-Phenanthroline						84020
	HS-NH ₃ (N)	Nitrogen, Ammonia	0.015~0.5	Salicylate						85020
	HS-F	Fluoride	0.05~1.5	Spadns						86020
	HS-Cu	Copper	0.04~5	Bathocuproine						87020
	HS-Cl	Chloride	0.4~10	Mercuric Thiocyanate						88020
	HS-Zn	Zinc	0.01~3	Zincon						89020
	HS-Mn	Manganese	0.006~1	PAN						90020
	HS-Al	Aluminum	0.01~0.3	ECR						91020
	HS-NO ₃ (N)	Nitrogen, Nitrate	0.05~3	Cadmium Reduction						92020

■ HS-1000DW ■ HS-1000Plus ■ HS-1000SW
■ HS-2300Plus ■ HS-3300 ■ HS-R200사용

Water quality analysis kit items

Category	Item	Analytical Item	Range(mg/L)	Method						Cat.No.
Chemical Oxygen Demand	HS-COD-UR	COD _(Cr) (Chemical Oxygen Demand)	5~40	Reactor Digestion						01011
	HS-COD-LR	COD _(Cr) (Chemical Oxygen Demand)	15~150	Reactor Digestion						01012
	HS-COD-MR	COD _(Cr) (Chemical Oxygen Demand)	50~1500	Reactor Digestion						01013
	HS-COD-HR	COD _(Cr) (Chemical Oxygen Demand)	500~15000	Reactor Digestion						01014
	HS-COD _(Mn) -L	COD _(Mn) (Chemical Oxygen Demand)	0.6~20	Reactor Digestion						01110
	HS-COD _(Mn) -H	COD _(Mn) (Chemical Oxygen Demand)	20~100	Reactor Digestion						19014
Nitrogen, phosphorous	HS-TN-U	TN(Nitrogen, Total)	0.2~5	Cadmium Reduction						02011
	HS-TN(CA)-L	TN(Nitrogen, Total)	1~50	Chromatropic acid						02022
	HS-TN(CA)-H	TN(Nitrogen, Total)	10~100	Chromatropic acid						02024
	HS-NO ₃ (N)-L	NO ₃ -N(Nitrogen, Nitrate)	0.2~10	Cadmium Reduction						05020
	HS-NO ₃ -N(CA)	NO ₃ -N(Nitrogen, Nitrate)	0.5~30	Chromatropic acid						05030
	HS-NO ₃ (N)-H	NO ₃ -N(Nitrogen, Nitrate)	1~15	Brucine						05010
	HS-NO ₂ (N)-L	NO ₂ -N(Nitrogen, Nitrite)	0.1~1	NED						04012
	HS-NO ₂ (N)-H	NO ₂ -N(Nitrogen, Nitrite)	10~150	FSS						04014
	HS-NH ₃ (N)-U	NH ₃ -N(Nitrogen, Ammonia)	0.03~1	Indophenol						06031
	HS-NH ₃ (N)-L	NH ₃ -N(Nitrogen, Ammonia)	0.2~6	Nessler						06022
	HS-NH ₃ (N)-H	NH ₃ -N(Nitrogen, Ammonia)	2~60	Nessler						06024
	HS-TP-L	TP(Phosphors, Total)	0.01~3	Ascorbic acid						03012
	HS-TP-H	TP(Phosphors, Total)	1~15	Molybdo Vanadate						03014
	HS-PO ₄ (P)-L	PO ₄ -P(Orthophosphate)	0.01~3	Ascorbic acid						07012
	HS-PO ₄ (P)-H	PO ₄ -P(Orthophosphate)	1~15	Molybdo Vanadate						07014

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■ HS-1000DW
 ■ HS-1000Plus
 ■ HS-1000SW
■ HS-2300Plus
 ■ HS-3300
 ■ HS-R200사용

Water quality analysis kit items

Category	Item	Analytical Item	Range(mg/L)	Method	■	■	■	■	■	■	Cat.No.
Heavy metals and others	HS-ABS	Detergents	0.03~0.3	Crystal Violet							40010
	HS-Al	Aluminum	0.01~0.3	ECR							27010
	HS-Cd	Cadmium	0~0.5	Dithizone							41010
	HS-Cl-L	Chloride	1~20	Mercuric Thiocyanate							35012
	HS-Cl-H	Chloride	20~60	Mercuric Thiocyanate							35014
	HS-Cr(T)	Chromium, Total	0.1~1	Diphenylcarbazide							12010
	HS-Cr(+6)	Chromium, Hexavalent	0.1~1	Diphenylcarbazide							11010
	HS-Cl ₂ (T)	Chlorine, Total	0.1~2	DPD							10020
	HS-Cl ₂ (Free)	Chlorine, Free	0.1~2	DPD							10030
	HS-Cu	Copper	0.1~5	Bathocuproine							15010
	HS-Co	Cobalt	0.05~2	PAN							43010
	HS-CN	Cyanide	0.005~0.5	DP							25010
	HS-F	Fluoride	0.1~1.5	SPANDS							26010
	HS-Fe(T)	Iron, Total	0.1~5	Phenanthroine							16010
	HS-Fe(+2)	Iron, Ferrous	0.1~5	Phenanthroine							16020
	HS-H ₂ O ₂ -L	Hydrogen peroxide	0.5~30	Titanium Sulfate							26012
	HS-H ₂ O ₂ -H	Hydrogen peroxide	3~300	Titanium Sulfate							26014
	HS-Hardness	Hardness(Ca&Mg)	0.1~4	Calmagite							24020
	HS-I ₂	Iodine	0.1~2	DPD							36010
	HS-Mn	Manganese	0~20	Periodate Oxidation							13010
	HS-Ni	Nickel	0.05~2	PAN							42010
	HS-Pb	Pb(LEAD)	0.1~5	PAR							38010
	HS-Phenol	Phenol	0.1~10	Driect Photometric							09012
	HS-S	Sulfide	0.5~5	Methylene Blue							37010
	HS-SO ₄ -L	Sulfate	5~50	Gravimetric							08012
	HS-SO ₄ -H	Sulfate	10~70	Gravimetric							08014
	HS-Si-H	Silica	20~100	Molybdosilicate							44014
	HS-Si-L	Silica	0.5~20	Molybdosilicate							44012
	HS-Zn	Zinc	0.1~5	Zincon							17010
Sea water analysis	HS-COD _(Mn) -SW	COD _(Mn) (Chemical Oxygen Demand)	0.2~3	Permanganate							29010
	HS-TN-SW	TN(Nitrogen, Total)	0.1~2.5	Cadmium Reduction							28010
	HS-NO ₃ (N)-SW	NO ₃ -N(Nitrogen, Nitrite)	0.1~2	Cadmium Reduction							31010
	HS-NO ₂ (N)-SW	NO ₂ -N(Nitrogen, Nitrite)	0.05~1	NED							32010
	HS-NH ₃ (N)-SW	NH ₃ -N(Nitrogen, Ammonia)	0.03~1	Indophenol							33010
	HS-TP-SW	TP(Phosphorus, Total)	0.01~3	Ascorbic Acid							30010
	HS-PO ₄ (p)-SW	PO ₄ -P(Orthophosphate)	0.01~3	Ascorbic Acid							34010

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>> HS-1000Plus (Portable water analyzer)



Features

- Light weight and simple design
- Semi-permanent light source-LED Lamp
- Battery and AC power compatible
- Function to automatically turn off LCD for power savings
- Use of vivid and bright graphic LCD

Specifications

>> HS-1000Plus	
Items for measurement	23 items including COD(cr), COD(Mn), total nitrogen, total phosphorous, ammoniac nitrogen, nitric nitrogen, nitrate nitrogen, phosphoric acid etc
Display	128x64 Dot, Graphic LCD
Light source	LED (365,405,450,525,605,880 nm)
Power	100~240V Free Voltage 50/60Hz
Battery	Li ion, 3.7V 850mA
Data storage	1,000 data
Dimension	98(W)*202(D)*15(H)mm
Weight	450g
Cell type	16mm round vial
Option	Thermal printer, Bluetooth

>> HS-1000SW	
Items for measurement	Seawater COD(Mn), seawater total nitrogen, seawater total phosphorous, seawater ammoniac nitrogen, seawater nitric nitrogen, seawater nitrate nitrogen, seawater orthophosphate
Display	128*64 Dot, Graphic LCD
Light source	LED (365, 405, 450, 525, 605, 880nm)
Power	100 ~ 240V Free Voltage 50/60Hz
Battery	Li ion, 3.7V 850mA
Data storage	1,000 data
Dimension	98(W)*202(D)*15(H)mm
Weight	450g
Cell type	16mm round vial
Option	Thermal printer, Bluetooth

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>> HS-2300Plus (Water analyzer for lab)



Features

- Analyzes 40 various items
- Fit for use at lab
- Wide usage in national/public research centers, wastewater and sewage treatment plant, water discharge sites, etc.
- Semi-permanent light source-LED Lamp
- Storage of maximum 400 data (download data by connecting to PC)

Specifications

Display	128 * 64 Dot, Graphic LCD
Light source	LED (405, 450, 525, 605, 655, 880nm)
Data storage	400 EA (Data Download)
Power	100 ~ 240V Free Voltage 50/60Hz
Battery	Li ion, 3.7V 850mA
Dimension	250(W) * 200(D) * 85(H)mm
Weight	1.2 Kg
Cell type	16 mm round Vial
Others	Memory Data Search
Option	Thermal Printer



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>> HS-3300 (Water analyzer & spectrophotometer)



Features

- A combination of water analysis and UV-visible spectrophotometer!
- 4-Type Cell without need for cell holder replacement
- Use as seawater analyzer
- Analysis item: 70 items including COD(Cr), COD(Mn), total nitrogen, total phosphorous and heavy metals, etc.
- Certified product: passed strict EMI and safety test required to obtain CE certificate

Specifications

Items for measurement	All items of water test kit
Wavelength range	190 ~ 1100
PC use	PC Management program
Scan speed	Max. 1000
Spectral bandpass width(nm)	<1
Light source	Deuterium, Tungsten-halogen
Monochromater	Concave blazed holographic grating
Detector	Si Photodiode
Wavelength accuracy	±0.3
Wavelength repeatability	<±0.05
Stray light (%)	<0.05
Photometric range	-0.3 ~ 3 ABS (0~200%T)
Photometric Accuracy	< 1% at 1ABS
Photometric repeatability (ABS)	±0.002 ABS at 1ABS
Drift (ABS/hr)	<±0.001 after 2hr warm-up
Baseline flatness(ABS)	±0.002ABS (after 1hr warm-up at 1100~200nm)
Noise (ABS)	<0.002ABS Peak to Peak
Display	6 inch LCD 320 * 240 dot
Sample cell	Automatic rotary type 8-position multi-cell
Power	100~120V (50/60Hz), 200~220V (50/60Hz)
Weight (kg)	11 kg
Dimension	440(W) * 405(D) * 235(H)mm
Ambient Temp(°C)	15 ~ 35
Accessories	4-type cell holder (standard) : 10mm, 25mm (square), 16mm, 25mm (round) Automatic rotary type 8-position multi-cell (option)

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>> HS-R200 (Reactor)



Application

An reactor for COD, TN, TP and others without the need for hot plate, water bath and autoclave. Temperature control and a timer function for convenient analysis.

Features

- Used to analyze items requiring reaction such as COD, TN, TP and heavy metals
- Easy to handle
- Fast heating
- Precise with temperature deviation under $\pm 1^{\circ}\text{C}$

Specifications

Max. measurement	25EA
Max. temperature	170°C
Speed of temperature increase	10°C / min
Accuracy	$\pm 1^{\circ}\text{C}$
Power	100~240V Free Voltage 50/60Hz, 300W
Fuse	5A
Dimension	195(W)*310(D)*100(H)mm
Weight	3.5kg
Others	Timer

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>> Turby-1000 (Portable turbidity meter)



Features

- Lab Quality result in a unit (Resolution 0.01NTU)
- Wide measuring range and applicable to tap water, sewage and wastewater
- Extended lamp cycle compared to competitors' (15,000 hours)
- Easy to use and calibrate
- High accuracy and resolution

Specifications

Measuring method	Nephelometric method
Measuring range	0~9.99, 10 ~ 99.9, 100 ~ 1000NTU
Accuracy	±2% (0~499NTU), ±3% (500 ~ 1000NTU)
Resolution	0.01NTU (0~9.99NTU) / 0.1NTU (10~99.9NTU) / 1NTU (100~1000NTU)
Repeatability	±1% or ±0.01NTU of result value
Light source	Tungsten lamp
Temperature operating	0 ~ 50 °C
Display	128 * 64 dot
Power	100 ~ 240V Free Voltage, 50/60Hz
Size	98(W) * 202(D) * 50(H)
Weight	500g
Consumables	STD Solution Expiry date : six months
Option	Thermal printer, Data download cable

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Water
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>> HS-1000DW (Drinking water analyzer)



Features

- Monitoring drinking water with HS 1000DW
- Drinking water analyzer by using 25mm round cell
- Completely portable system
- Semi-permanent light source-LED Lamp

Analysis items for drinking water

Item	Analytical Item	Range(mg/L)	Method	Pack	Cat.No.
HS-Cl ₂ (Free)	Chlorine, Free	0.02~3	DPD	100	83020
HS-Fe(T)	Iron, Total	0.05~3	1,10-Phenanthroline	100	84020
HS-NH ₃ (N)	Nitrogen, Ammonia	0.015~0.5	Salicylate	100	85020
HS-F	Fluoride	0.05~1.5	Spadns	100	86020
HS-Cu	Copper	0.04~5	Bathocuproine	100	87020
HS-Cl	Chloride	0.4~10	Mercuric Thiocyanate	100	88020
HS-Zn	Zinc	0.01~3	Zincon	100	89020
HS-Mn	Manganese	0.006~1	PAN	100	90020
HS-Al	Aluminum	0.01~0.3	ECR	100	91020
HS-NO ₃ (N)	Nitrogen, Nitrate	0.05~3	Cadmium Reduction	100	92020

Specifications

Display	128 * 64 Dot, Graphic LCD
Light source	LED (480, 525, 540, 560, 605, 660 nm)
Power	100 ~ 240V Free Voltage, 50/60Hz
Battery	Li ion, 3.7V 850mA
Data storage	1,000 EA
Size	98(W)*202(D)*15(H)mm
Weight	450g
Cell type	25mm round vial
Option	Thermal printer, Bluetooth

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>> ColiTest (Total Coliforms & E.coli)



Features

- Easy to use and measure
- Total coliforms / E.coli analyzed in 24 hours
- 20~50% cost savings compared to existing measurement methods
- Easy to identify the presence/absence for total coliforms & E.coli

Specifications

Analysis method	DST (Defined Substrate Technology)
Detection limit	1CFU in a 100mL Sample
Cultivation time	24hr
Cultivation temperature	35±1 °C
Storage temperature	5~30 °C (cold storage recommended)

- ♦ Avoid direct sunlight and keep in cool place.
- ♦ Add one sodium thiosulfate when using sample of tap water which is containing residual chlorine

Product information

Cat.No	Product Description
56200-03	ColiTest 100EA
56200-00	120mL Bottle 100EA
56200-04	ColiTest 100EA + 120mL Bottle 100EA
56200-10	Sodium Thiosulfate 100EA (Option)
56200-30	UV-Lamp





is our company brand name.
Your satisfaction is guaranteed
on all of our products.



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