

اسپکتروفتومتر HI801 HANNA

اسپکتروفتومتر : HI801 یک اسپکتروفتومتر ناحیه Visible است که امکان اندازه گیری تمام طول موج های نور مرئی را فراهم می کند.

با اسپکتروفتومتر HI801 روش های اندازه گیری خود را شخصی سازی کنید، دامنه گسترده ای از اندازه گیری ها را انجام دهید و با اطمینان کامل به دقت نتایج آزمون های خود اعتماد کنید



- از مشخصات بارز اسپکتروفتومتر HI801 ، انتخاب دقیق طول موج بین ۳۴۰ نانومتر تا ۹۰۰ نانومتر مطابق با روش و دقت لازم در صنایع مختلف مانند آزمایشگاه های حرفه ای ، تأسیسات تصفیه آب ، کارخانه های صنایع غذایی و ... می باشد.
- با وجود سیستم نوری با کیفیت بالا و طراحی منحصر به فرد ، نتایج دقیق هستند.
- گزینه های سفارشی شامل اشکال و اندازه های مختلف کوت ، منحنی های کالیبراسیون و روش ها است.

اسپکتروفتومتر iris

طراحی برتر برای نتایج برتر

- اسپکتروفتومتر HI801 iris می تواند طیف گسترده ای از اندازه گیری های تحلیلی را آزمایش کند و قادر به اندازه گیری در طیف طول موجی از ۳۴۰ نانومتر تا ۹۰۰ نانومتر است.

- اسپکتروفتومتر HI801 iris با طراحی جمع و جور سیستم نوری پیشرفته خود، می تواند تقریباً در فضاهای کوچک و در عین حال با نتایج دقیق و مداوم به کار برده شود.



نیازی به تبدیل اندازه گیری وجود ندارد

این که آیا شما در حال آزمایش کلر هستید یا آنالیزهای آنزیمی را اجرا می کنید، اسپکتروفتومتر به راحتی نتایج را در واحدهای مورد نظر شما نمایش می دهد. iris می تواند بر اساس نیاز شما میزان انتقال، جذب و غلظت را اندازه گیری کند.

روشهای از پیش برنامه ریزی شده با امکان ویرایش

اسپکتروفتومتر HI801 هانا با بیش از ۸۰ روش تجزیه و تحلیل شیمیایی که معمولاً استفاده می شود از قبل برنامه ریزی شده است تا به شما در شروع کار کمک کند و به سادگی با اتصال به رایانه یا فلش، این روش ها را می توانید به روز کنید.

شما می توانید iris خود را با حداکثر ۱۰۰ روش شخصی برنامه ریزی کنید. راهنمای مرحله به مرحله iris در ایجاد روش ها به شما کمک می کند. برای تطبیق پذیری بیشتر، هر روش می تواند شامل ۱۰ نقطه کالیبراسیون، پنج طول موج متفاوت و حداکثر پنج تایمر واکنش باشند. در برخی از روشها برای انجام واکنش بین نمونه و معرف نیاز به سپری شدن زمان مشخصی هست که تایمر داخلی دستگاه این امکان را به آزمایش کننده میدهد تا پس از سپری شدن زمان مورد نظر به مرحله بعدی برود. همچنین برای صرفه جویی در وقت، به راحتی روشهای مورد نیاز خود را مستقیماً از صفحه اصلی انتخاب کنید.



- تغییر اندازه نمونه به راحتی: با استفاده از نگهدارنده کوت یونیورسال و شناسایی اتوماتیک، اندازه کوت میتواند بر اساس نیاز انتخاب شود. کوت سازه‌های از پیش معرفی شده همیشه بر روی صفحه نمایش نشان داده می‌شود تا بر اساس طول عبور نور نتایج با دقت بسیاری محاسبه می‌شود.
- نگرانی در تعویض لامپ: در iris از لامپ تنگستن-هالوژن برای بهره‌وری بیشتر انرژی، عمر طولانی‌تر و کیفیت بهتر نور برای طیف گسترده‌ای از طول موج استفاده میشود. کیت لامپ آماده و آماده نصب وجود دارد تا با تعویض آسان لامپ دستگاه آماده کار شود.
- طراحی شده برای محیط‌های گوناگون: با توجه به کوچک بودن دستگاه iris و باطری داخلی دستگاه امکان راه اندازی و جابجایی دستگاه به سادگی وجود دارد. باطری قابل شارژ لیتیومی دستگاه با یکبار شارژ کامل امکان اندازه‌گیری ۳۰۰ تست یا ۸ ساعت کار مداوم را دارا می‌باشد.
- دسترسی آسان به نتایج: نتایج به راحتی با استفاده از USB یا اتصال مستقیم به کامپیوتر بر اساس شاخص نمونه، روش تست و رنج داده‌ها در دسترس کاربر قرار دارد همچنین از نتایج میتوان به صورت pdf یا CSV برای همه داده‌ها بدون نیاز به نرم افزار تخصصی خروجی تهیه کرد.
- همه داده‌های ورودی به راحتی قابل دیدن می‌باشد: با نمایشگر ۶ اینچی اطلاعات به راحتی قابل خواندن می‌باشد و کاراکترها به راحتی دیده حتی در نور زیاد به راحتی دیده می‌شوند. و از راه دور نیز قابل رویت هستند.
- کلید لمسی خازنی: کلیدهای لمسی کاملاً نسبت به رطوبت و گرد و غبار عایق هستند و به راحتی تمیز می‌شوند و حتی با دستکش آزمایشگاهی هم کار می‌کنند.



در صورت تمایل به خرید دستگاه **HANNA HI801** و یا آگاهی از قیمت **HI801** [هانا](#) با ما تماس بگیرید.

مشخصات فنی دستگاه اسپکتروفوتومتر **HANNA HI801** :

Specification	Detail
sku	HI801-01
Wavelength Range	340 to 900 nm
Wavelength Resolution	1 nm
Wavelength Accuracy	±1.5 nm
Measurement Modes	Transmittance (%), Absorbance, Concentration

Specification	Detail
Wavelength Selection	Automatic, based on the selected method (editable for user methods only)
Light Source	Tungsten halogen lamp
Optical System	Split beam
Wavelength Calibration	Internal, automatic at power-on (with visual feedback)
Stray Light	<0.1 % T at 340 nm with NaNO ₂
Spectral bandwidth	5 nm
Sample Cell	10 mm square 50 mm rectangular 16 mm round 22 mm round 13 mm round (vial) with barcode
Logging Memory	up to 9999 measured values
Export Capability	.csv file format, .pdf file format
Connectivity	1x USB A (mass storage host) 1x USB B (mass storage device)
Battery Type / Life	3000 measurements or 8 hours*
Power Supply	15 VDC power adapter 10.8 VDC Li-Ion rechargeable battery
Environment	0 to 50 °C (32 to 122 °F) 0 to 95% RH non-condensing
Dimensions	155 x 205 x 322 mm (6.1 x 8.0 x 12.6)
Weight	3.4 kg (7.5 lbs.)
Number of Methods	up to 150 factory (103 pre-loaded) up to 100 user
Ordering Information	HI801 is supplied with 22 mm sample cuvette and cap (4), 10 mm square, 13 mm round and 16 mm round cuvette adapters, cloth for wiping cuvettes, scissors, USB cable, lithium ion rechargeable battery, 115VAC to 15VDC power adapter, USB drive, instruction manual, and instrument quality certificate.

pH Range	6.5 to 8.5 pH
pH Resolution	0.1 pH
pH Accuracy	±0.1 pH
pH Method	Adaptation of the Phenol Red method

Oxygen, Dissolved Range	0.0 to 10.0 mg/L (as O ₂)
Oxygen, Dissolved Resolution	0.1 mg/L
Oxygen, Dissolved Accuracy	±0.4 mg/L ±3% of reading

Oxygen, Dissolved Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Azide modified Winkler method
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Absorbance Range	0.000 to 3.000 Abs
Absorbance Resolution	0.001 Abs
Absorbance Accuracy	5 mAbs at 0.000-0.500 Abs 1% at 0.500-3.000 Abs

Alkalinity Range	0 to 500 mg/L (as CaCO ₃)
Alkalinity Resolution	1 mg/L
Alkalinity Accuracy	±5 mg/L ±5% of reading
Alkalinity Method	Colorimetric Method

Seawater Alkalinity Range	0 to 300 mg/L (as CaCO ₃)
Seawater Alkalinity Resolution	1 mg/L
Seawater Alkalinity Accuracy	±5 mg/L ±5% of reading
Seawater Alkalinity Method	Colorimetric Method

Aluminum Range	0.00 to 1.00 mg/L (as Al ³⁺)
Aluminum Resolution	0.01 mg/L
Aluminum Accuracy	±0.04 mg/L ±4% of reading
Aluminum Method	Adaptation of the aluminon method.

Ammonia Range	Low Range: 0.00 to 3.00 mg/L (as NH ₃ -N) Medium Range: 0.00 to 10.00 mg/L (as NH ₃ -N) High Range: 0.0 to 100.0 mg/L (as NH ₃ -N)
Ammonia Resolution	Low and Medium Range: 0.01 mg/L High Range: 0.1 mg/L
Ammonia Accuracy	Low Range: ± 0.04 mg/L $\pm 4\%$ of reading Medium Range: ± 0.05 mg/L $\pm 5\%$ of reading High range: ± 0.5 mg/L $\pm 5\%$ of reading
Ammonia Method	Adaptation of the ASTM Manual of Water and Environmental Technology, D1426 Nessler method.

Anionic Surfactants Range	0.00 to 3.50 mg/L (as SDBS)
Anionic Surfactants Resolution	0.01 mg/L
Anionic Surfactants Accuracy	± 0.04 mg/L $\pm 3\%$ of reading
Anionic Surfactants Method	Adaptation of the USEPA method 425.1 and Standard Methods for the Examination of Water and Wastewater, 20th edition, 5540C, Anionic Surfactants as MBAS

Bromine Range	0.00 to 8.00 mg/L (as Br ₂)
Bromine Resolution	0.01 mg/L
Bromine Accuracy	± 0.08 mg/L $\pm 3\%$ of reading
Bromine Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, DPD method

Calcium Range	0 to 400 mg/L (as Ca ²⁺)
Calcium Resolution	1 mg/L
Calcium Accuracy	± 10 mg/L $\pm 5\%$ of reading
Calcium Method	Adaptation of the Oxalate method

Carbon Dioxide Range	0.00 to 2.00 mg/L (as ClO ₂)
Carbon Dioxide Resolution	0.01 mg/L
Carbon Dioxide Accuracy	±0.10 mg/L ±5% of reading
Carbon Dioxide Method	Adaptation of the Chlorophenol Red method

Chemical Oxygen Demand Range	Low Range: 0 to 150 mg/L Medium Range: 0 to 1500 mg/L (Note - ISO reagents only valid to 1000 mg/L) High Range: 0 to 15000 mg/L
Chemical Oxygen Demand Resolution	1 mg/L
Chemical Oxygen Demand Accuracy	Low Range: ±5 mg/L or ±4% of reading Medium Range: ±15 mg/L or ±4% of reading High Range: ±150 mg/L or ±2% of reading
Chemical Oxygen Demand Method	Adaptation of the USEPA 410.4

Chloride Range	0.0 to 20.0 mg/L (as Cl)
Chloride Resolution	0.1 mg/L
Chloride Accuracy	±0.5 mg/L ±6% of reading
Chloride Method	Adaptation of the mercury(II) thiocyanate method

Chlorine Dioxide Range	0.00 to 2.00 mg/L (as ClO ₂)
Chlorine Dioxide Resolution	0.01 mg/L
Chlorine Dioxide Accuracy	±0.10 mg/L ±5% of reading
Chlorine Dioxide Method	Adaptation of the Chlorophenol Red method

Free Chlorine Range	Ultra Low Range : 0.000 to 0.500 mg/L (as Cl ₂) Low Range : 0.00 to 5.00 mg/L (as Cl ₂) High Range : 0.00 to 10.00 mg/L (as Cl ₂)
Free Chlorine Resolution	Ultra Low Range : 0.001 mg/ Low Range : 0.01 mg/L High Range : 0.01 mg/L
Free Chlorine Accuracy	Ultra Low Range : ±0.020 mg/L ±3% of reading Low Range : ±0.03 mg/L ±3% of reading High Range : ±0.03 mg/L ±3% of reading
Total Chlorine Range	Ultra Low Range : 0.000 to 0.500 mg/L (as Cl ₂) Low Range : 0.00 to 5.00 mg/L (as Cl ₂) High Range : 0.00 to 10.00 mg/L (as Cl ₂) Ultra High Range : 0 to 500 mg/L (as Cl ₂)
Total Chlorine Resolution	Ultra Low Range : 0.001 mg/L Low Range : 0.01 mg/L High Range : 0.01 mg/L Ultra High Range : 1 mg/L
Total Chlorine Accuracy	Ultra Low Range : ±0.020 mg/L ±3% of reading Low Range : ±0.03 mg/L ±3% of reading High Range : ±0.03 mg/L ±3% of reading Ultra High Range : ±3 mg/L ±3% of reading

Chromium, Hexavalent Range	Low Range : 0 to 300 µg/L (as Cr(VI)) High Range : 0 to 1000 µg/L (as Cr(VI))
Chromium, Hexavalent Resolution	Low Range : 1 µg/L High Range : 1 µg/L
Chromium, Hexavalent Accuracy	Low Range : ±10 µg/L ±4% of reading High Range : ±5 µg/L ±4% of reading at 25 °C
Chromium, Hexavalent Method	Adaptation of the ASTM Manual of Water and Environmental Technology, D1687, Diphenylcarbohydrazide method

Color, Water Range	0 to 500 PCU (Platinum Cobalt Units)
Color, Water Resolution	1 PCU
Color, Water Accuracy	±10 PCU ±5% of reading

Color, Water Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Colorimetric Platinum Cobalt method
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Color, Maple Syrup Range	0.00 to 100.00 %T
Color, Maple Syrup Resolution	0.01 %T
Color, Maple Syrup Accuracy	±3% of reading
Color, Maple Syrup Method	Direct measure

Copper Range	Low Range : 0.000 to 1.500 mg/L (as Cu) High Range : 0.00 to 5.00 mg/L (as Cu)
Copper Resolution	Low Range :0.001 mg/L High Range : 0.01 mg/L
Copper Accuracy	Low Range : ±0.010 mg/L ±5% of reading High Range : ±0.02 mg/L ±4% of reading
Copper Method	Adaptation of the EPA method

Cyanide Range	0.000 to 0.200 mg/L (as CN-)
Cyanide Resolution	0.001 mg/L
Cyanide Accuracy	±0.005 mg/L ±3% of reading
Cyanide Method	Pyridine-Pyrazalone

Cyanuric Acid Range	0 to 100 mg/L (as CYA)
Cyanuric Acid Resolution	1 mg/L
Cyanuric Acid Accuracy	±1 mg/L ±15% of reading
Cyanuric Acid Method	Adaptation of the turbidimetric method

Fluoride Range	Low Range : 0.00 to 2.00 mg/L (as F) High Range : 0.0 to 20.0 mg/L (as F)
Fluoride Resolution	Low Range : 0.01 mg/L High Range : 0.1 mg/L
Fluoride Accuracy	Low Range : ± 0.03 mg/L $\pm 3\%$ of reading High Range : ± 0.5 mg/L $\pm 3\%$ of reading
Fluoride Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, SPADNS method

Hardness, Total Range	Low Range : 0 to 250 mg/L (as CaCO ₃) Medium Range : 200 to 500 mg/L (as CaCO ₃) High Range : 400 to 750 mg/L (as CaCO ₃)
Hardness, Total Resolution	1 mg/L
Hardness, Total Accuracy	Low Range : ± 5 mg/L $\pm 4\%$ of reading Medium Range : ± 7 mg/L $\pm 3\%$ of reading High Range : ± 10 mg/L $\pm 2\%$ of reading
Hardness, Total Method	Adaptation of the EPA recommended method 130.1

Hardness, Calcium Range	0.00 to 2.70 mg/L (as CaCO ₃)
Hardness, Calcium Resolution	0.01 mg/L
Hardness, Calcium Accuracy	± 0.11 mg/L $\pm 5\%$ of reading
Hardness, Calcium Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Calmagite method

Hardness, Magnesium Range	0.00 to 2.00 mg/L (CaCO ₃)
Hardness, Magnesium Resolution	0.01 mg/L
Hardness, Magnesium Accuracy	± 0.11 mg/L $\pm 5\%$ of reading

Hardness, Magnesium Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, EDTA Colorimetric method
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Hydrazine Range	0 to 400 $\mu\text{g/L}$ (as N_2H_4)
Hydrazine Resolution	1 $\mu\text{g/L}$
Hydrazine Accuracy	$\pm 4\%$ of full scale reading
Hydrazine Method	Adaptation of the ASTM Manual of Water and Environmental Technology, method D1385, p-Dimethylaminobenzaldehyde method

Iodine Range	0.0 to 12.5 mg/L (as I_2)
Iodine Resolution	0.1 mg/L
Iodine Accuracy	± 0.1 mg/L $\pm 5\%$ of reading
Iodine Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, DPD method

Iron Range	Low Range : 0.000 to 1.600 mg/L (as Fe) High Range : 0.00 to 5.00 mg/L (as Fe)
Iron Resolution	Low Range : 0.001 mg/L High Range : 0.01 mg/L
Iron Accuracy	Low Range : ± 0.010 mg/L $\pm 8\%$ of reading High Range : ± 0.04 mg/L $\pm 2\%$ of reading
Iron Method	Low Range : Adaptation of the TPTZ Method High Range : Adaptation of the EPA Phenanthroline method 315B, for natural and treated waters

Magnesium Range	0 to 150 mg/L (as Mg^{2+})
Magnesium Resolution	1 mg/L
Magnesium Accuracy	± 5 mg/L $\pm 3\%$ of reading

Magnesium Method	Adaptation of the Calmagite method
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Manganese Range	Low Range : 0 to 300 µg/L (as Mn) High Range : 0.0 to 20.0 mg/L (as Mn)
Manganese Resolution	Low Range : 1 µg/L High Range : 0.1 mg/L
Manganese Accuracy	Low Range : ±10 µg/L ±3% of reading High Range : ±0.2 mg/L ±3% of reading
Manganese Method	Low Range : Adaptation of the PAN Method High Range : Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Periodate method

Molybdenum Range	0.0 to 40.0 mg/L (as Mo6+)
Molybdenum Resolution	0.1 mg/L
Molybdenum Accuracy	±0.3 mg/L ±5% of reading
Molybdenum Method	Adaptation of the mercaptoacetic acid method

Nickel Range	Low Range : 0.000 to 1.000 mg/L (as Ni) High Range : 0.00 to 7.00 g/L (as Ni)
Nickel Resolution	Low Range : 0.001 mg/L High Range : 0.01 g/L
Nickel Accuracy	Low Range : ±0.010 mg/L ±7% of reading High Range : ±0.07g/L ±4% of reading
Nickel Method	Low Range : Adaptation of the PAN method High Range : Adaptation of the photometric method

Nitrate Range	0.0 to 30.0 mg/L (as NO ₃ - N) Chromotropic Acid : 0.0 to 30.0 mg/L (as NO ₃ --N)
Nitrate Resolution	0.1 mg/L
Nitrate Accuracy	±0.5 mg/L ±10% of reading Chromotropic Acid : ±1.0 mg/L or ±3% of reading
Nitrate Method	Adaptation of the cadmium reduction method Chromotropic Acid : Chromotropic acid method

Nitrite Range	Marine Ultra Low Range : 0 to 200 µg/L (as NO ₂ -N) Low Range : 0 to 600 µg/L (as NO ₂ -N) High Range : 0 to 150 mg/L (as NO ₂ -)
Nitrite Resolution	Marine Ultra Low Range : 1 µg/L Low Range : 1 µg/L High Range : 1 mg/L
Nitrite Accuracy	Marine Ultra Low Range : ±10 µg/L ±4% of reading Low Range : ±20 µg/L ±4% of reading High Range : ±4 mg/L ±4% of reading
Nitrite Method	Marine Ultra Low Range : Adaptation of the EPA Diazotization method 354.1 Low Range : Adaptation of the EPA Diazotization method 354.1 High Range : Adaptation of the Ferrous Sulfate method

Nitrogen, Total Range	Low Range : 0.0 to 25.0 mg/L (as N) High Range : 10 to 150 mg/L (as N)
Nitrogen, Total Resolution	Low Range : 0.1 mg/L High Range : 1 mg/L
Nitrogen, Total Accuracy	Low Range : ±1.0 mg/L or ±5% of reading High Range : ±3 mg/L or ±4% of reading
Nitrogen, Total Method	Chromotropic acid method

Oxygen, Scavenger Range	Carbohydrazide : 0.00 to 1.50 mg/L (as Carbohydrazide) Diethylhydroxylamine)(DEHA) : 0 to 1000 µg/L (as DEHA) Hydroquinone : 0.00 to 2.50 mg/L (as Hydroquinone) Iso-ascorbic Acid :0.00 to 4.50 mg/L (as Iso-ascorbic acid)
Oxygen, Scavenger Resolution	Carbohydrazide : 0.01 mg/L Diethylhydroxylamine)(DEHA) : 1 µg/L

	Hydroquinone : 0.01 mg/L Iso-ascorbic Acid : 0.01 mg/L
Oxygen, Scavenger Accuracy	Carbohydrazide : ± 0.02 mg/L $\pm 3\%$ of reading Diethylhydroxylamine)(DEHA) : ± 5 μ g/L $\pm 5\%$ of reading Hydroquinone : ± 0.04 mg/L $\pm 3\%$ of reading Iso-ascorbic Acid : ± 0.03 mg/L $\pm 3\%$ of reading
Oxygen, Scavenger Method	Adaptation of the iron reduction method

Ozone Range	0.00 to 2.00 mg/L (as O ₃)
Ozone Resolution	0.01 mg/L
Ozone Accuracy	± 0.02 mg/L $\pm 3\%$ of reading
Ozone Method	Colorimetric DPD Method

Phosphate Range	Low Range : 0.00 to 2.50 mg/L (as PO ₄ 3-) High Range : 0.0 to 30.0 mg/L (as PO ₄ 3-)
Phosphate Resolution	Low Range : 0.01 mg/L High Range : 0.1 mg/L
Phosphate Accuracy	Low Range : ± 0.04 mg/L $\pm 4\%$ of reading High Range : ± 1.0 mg/L $\pm 4\%$ of reading
Phosphate Method	Low Range : Adaptation of the Ascorbic Acid method High Range : Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Amino Acid method

Phosphorous, Acid Hydrolyzable Range	0.00 to 1.60 mg/L (as P)
Phosphorous, Acid Hydrolyzable Resolution	0.01 mg/L
Phosphorous, Acid Hydrolyzable Accuracy	± 0.05 mg/L or $\pm 5\%$ of reading

Phosphorous, Acid Hydrolyzable Method	Adaptation of the EPA method 365.2 and Standard Methods for the Examination of Water and Wastewater, 20th edition, 4500-P E, ascorbic acid method.
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Phosphorous, Reactive Range	Low Range : 0.00 to 1.60 mg/L (as P) High Range : 0.0 to 32.6 mg/L (as P)
Phosphorous, Reactive Resolution	Low Range : 0.01 mg/L High Range : 0.1 mg/L
Phosphorous, Reactive Accuracy	Low Range : ± 0.05 mg/L or $\pm 4\%$ of reading High Range : ± 0.5 mg/L or $\pm 4\%$ of reading
Phosphorous, Reactive Method	Adaptation of the EPA method 365.2 and Standard Methods for the Examination of Water and Wastewater, 20th edition, 4500-P E, ascorbic acid method.

Phosphorous, Total Range	Low Range : 0.00 to 1.15 mg/L (as P) High Range : 0.0 to 32.6 mg/L (as P)
Phosphorous, Total Accuracy	Low Range : 0.01 mg/L High Range : 0.1 mg/L
Phosphorous, Total Resolution	Low Range : ± 0.05 mg/L or $\pm 6\%$ of reading High Range : ± 0.5 mg/L or $\pm 5\%$ of reading
Phosphorous, Total Method	Low Range : Adaptation of the EPA method 365.2 and Standard Methods for the Examination of Water and Wastewater, 20th edition, 4500-P E, ascorbic acid method. High Range : Adaptation of the Standard Methods for the Examination of Water and Wastewater

Potassium Range	Low Range : 0.0 to 20.0 mg/L (as K) Medium Range : 10 to 100 mg/L (as K) High Range : 20 to 200 mg/L (as K)
Potassium Resolution	Low Range : 0.1 mg/L Medium Range : 1 mg/L High Range : 1 mg/L
Potassium Accuracy	Low Range : ± 2 mg/L $\pm 7\%$ of reading Medium Range : ± 10 mg/L $\pm 7\%$ of reading High Range : ± 20 mg/L $\pm 7\%$ of reading

Potassium Method	Adaptation of the Turbidimetric Tetraphenylborate method
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Silica Range	Low Range : 0.00 to 2.00 mg/L (as SiO ₂) High Range : 0 to 200 mg/L (as SiO ₂)
Silica Resolution	Low Range : 0.01 mg/L High Range : 1 mg/L
Silica Accuracy	Low Range : ± 0.03 mg/L $\pm 3\%$ of reading High Range : ± 1 mg/L $\pm 5\%$ of reading
Silica Method	Low Range : Adaptation of the ASTM Manual of Water and Environmental Technology, D859, Heteropoly Molybdenum Blue method High Range : Adaptation of the USEPA Method 370.1 for drinking, surface and saline waters, domestic and industrial wastes and

Silver Range	0.000 to 1.000 mg/L (as Ag)
Silver Resolution	0.001 mg/L
Silver Accuracy	± 0.020 mg/L $\pm 5\%$ of reading
Silver Method	Adaptation of the PAN method

Sulfate Range	0 to 150 mg/L (as SO ₄ ²⁻)
Sulfate Resolution	1 mg/L
Sulfate Accuracy	± 5 mg/L $\pm 3\%$ of reading
Sulfate Method	Sulfate is precipitated with barium chloride crystals

Zinc Range	0.00 to 3.00 mg/L (as Zn)
Zinc Resolution	0.01 mg/L

Zinc Accuracy	$\pm 0.03 \text{ mg/L} \pm 3\%$ of reading
Zinc Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Zincon method

Wavelength Range	340 to 900 nm
Wavelength Resolution	1 nm
Wavelength Accuracy	$\pm 1.5 \text{ nm}$
Measurement Modes	Transmittance (% T), absorbance (abs), concentration with choice of units (ppm, mg/L, ppt, °f, °e, ppb, meq/L, $\mu\text{g/L}$, PCU, Pfund, pH, dKH, °dH, meq/kg or no measurement unit)
Wavelength Selection	automatic, based on the selected method (editable for user methods only)
Optical System	split beam sample and reference light detectors
Wavelength Calibration	internal, automatic at power-on, visual feedback
Spectral bandwidth	5 nm (full width at half maximum)
Stray Light	$< 0.1\% \text{ T}$ at 340 nm with NaNO_2
Programs (Factory/User)	up to 150 factory (85 pre-loaded); up to 100 user developed
Sample Cell	16 mm round, 22 mm round, 13 mm vial, 10 mm square, 50 mm rectangular (with automatic detection)
Data Points Stored	up to 9999 measured values
Export Capability	.csv file format, .pdf file format
Connectivity	1 micro USB port for charging and PC connectivity
Connectivity	(1) USB - A (mass storage host); (1) USB - B (mass storage device)
Power Supply	15 VDC power adapter; 10.8 VDC Li-Ion rechargeable battery
Battery Type/Life	3000 measurements or 8 hours
Environment	0 to 50 °C (32 to 122 °F); 0 to 95% RH
Weight	3 kg (6.6 lbs)
Dimensions	155 x 205 x 322 mm (6.1 x 8.0 x 12.6")

Ordering Information	HI801 is supplied with 22 mm sample cuvette and cap (4), 10 mm square, 13 mm round and 16 mm round cuvette adapters, cloth for wiping cuvettes, scissors, USB cable, lithium ion rechargeable battery, 115VAC to 15VDC power adapter, USB drive, instruction manual, and instrument quality certificate.
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