

1 Instrument – 5 Technologies – 100+ Parameters

EZ Series Online Analysers for industrial
and environmental water analysis



Colorimetric Analyser



ISE Analyser



Titrator



Voltammetric Trace Metal Analyser



Chemiluminescence Analyser

The Hach® EZ Series covers a unique range of parameters on a single analyser platform. Five measurement technologies (colorimetry, titration, ion-selective electrode, voltammetry, and chemiluminescence) allow for a wide selection of measuring ranges and applications.

All instruments come in the same rugged mainframe with a compact footprint. Their common user interface on industrial panel PCs is easy to use and keeps training efforts low. Administrator access and activated/deactivated menu keys provide security. Various analog and digital communication outputs support easy integration into your systems. Discontinuous analysis at programmable intervals assures low reagent consumption and eliminates cross-contamination.

EZ Series analysers share wear and spare parts thus requesting less inventory. Similar maintenance steps again bring down training efforts. Optional Hach service agreements protect your investment and help ensure compliance.



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The EZ Series Periodic Table of Elements

IA										IIA																																		
1 ^{pH} H 1.0079 Hydrogen																																												
3 Li 6.941 Lithium					4 Be 9.012 Beryllium																																							
11 ^{Sodium} Na 22.9898 Sodium					12 ^{Magnesium} Mg 24.305 Magnesium																																							
					IIIB					IVB					VB					VIB					VII B					VIII B														
19 ^{Potassium} K 39.102 Potassium					20 ^{Calcium} Ca 40.08 Calcium					21 Sc 44.956 Scandium					22 Ti 47.88 Titanium					23 V 50.942 Vanadium					24 ^{Total Chromium} Cr 51.996 Chromium					25 ^{Total Manganese} Mn 54.938 Manganese					26 ^{Total Iron} Fe 55.847 Iron					27 Co 58.933 Cobalt				
37 Rb 85.4678 Rubidium					38 Sr 87.6 Strontium					39 Y 88.906 Yttrium					40 Zr 91.22 Zirconium					41 Nb 92.906 Niobium					42 ^{Molybdenum} Mo 95.94 Molybdenum					43 Tc (98) Technetium					44 Ru 101.07 Ruthenium					45 Rh 102.906 Rhodium				
55 Cs 132.9054 Caesium					56 Ba 137.33 Barium					57 La 138.906 Lanthanum					72 Hf 178.49 Hafnium					73 Ta 180.948 Tantalum					74 W 183.85 Tungsten					75 Re 186.207 Rhenium					76 Os 190.2 Osmium					77 Ir 192.22 Iridium				
87 Fr (223) Francium					88 Ra 226.025 Radium					89 Ac 227.028 Actinium																																		

Element name

Relative atomic mass

Additional parameters

Microbial Load / ATP	Cyanide Total Cyanide	Volatile Fatty Acids (VFA) FOS/TAC	Chlorine, free Chlorine, total	Hydrogen Peroxide
Toxicity	Thiocyanate SCN⁻	Urea	Formaldehyde	Glucose
Potassium hydroxide	Sodium hydroxide Sodium bisulfite	Sulphur dioxide	TMAH (Tetramethyl-ammonium hydroxide)	Color Color Aurubis
Available on www.hach.com	Available on request			

										VIIIA	
										2	
										He 4.003 Helium	
			IIIA	IVA	VA	VIA	VIIA				
										9 Fluoride	
										10	
										Ne 20.179 Neon	
										11	
										Na 22.990 Sodium	
										12	
										Mg 24.305 Magnesium	
										13 Total Aluminium Al(III)	
										14 Silica	
										15 Total P Phosphate	
										16 Sulfate Sulfide	
										17 Chloride	
										18	
										Ar 39.948 Argon	
										19	
										K 39.098 Potassium	
										20	
										Ca 40.078 Calcium	
										21	
										Sc 44.956 Scandium	
										22	
										Ti 47.867 Titanium	
										23 Total Vanadium V	
										24 Chromium	
										25 Total Manganese Mn	
										26 Iron	
										27	
										Co 58.933 Cobalt	
										28 Total Nickel Ni(II)	
										29 Total Copper Cu(II)	
										30 Total Zinc Zn(II)	
										31	
										Ga 69.72 Gallium	
										32	
										Ge 72.59 Germanium	
										33 Total Arsenic As(III) As(III+V)	
										34 Total Selenium	
										35	
										Br 79.904 Bromine	
										36	
										Kr 83.80 Krypton	
										37	
										Rb 85.468 Rubidium	
										38	
										Sr 87.62 Strontium	
										39	
										Y 88.906 Yttrium	
										40	
										Zr 91.224 Zirconium	
										41	
										Nb 92.906 Niobium	
										42 Total Niobium Nb	
										43 Total Molybdenum Mo	
										44 Total Rhenium Re	
										45 Total Ruthenium Ru	
										46	
										Pd 106.42 Palladium	
										47 Total Silver Ag(I)	
										48 Total Cadmium Cd(II)	
										49	
										In 114.82 Indium	
										50 Total Tin Sn(II)	
										51 Total Antimony Sb(III+V)	
										52	
										Te 127.60 Tellurium	
										53 Iodine	
										54	
										Xe 131.29 Xenon	
										55	
										Cs 132.905 Cesium	
										56	
										Ba 137.327 Barium	
										57	
										La 138.905 Lanthanum	
										58	
										Ce 140.12 Cerium	
										59	
										Pr 140.908 Praseodymium	
										60 Total Mercury Hg(II)	
										61	
										Tl 204.383 Thallium	
										62 Total Lead Pb(II)	
										63	
										Bi 208.980 Bismuth	
										64	
										Po (209) Polonium	
										65	
										At (210) Astatine	
										66	
										Rn (222) Radon	

Atomic symbol

Atomic number

EZ Series Parameter

oxide H ₂ O ₂	Hydrazine N ₂ H ₄	DEHA (Diethylhydroxylamine)	Anionic charge Kationic charge Charge density	Thorium
	Acidity, free Acidity, total	Hydrofluoric Acid	Acetic Acid Lactic Acid Oxalic Acid	Hydrochloric Acid Phosphoric Acid Sulfuric Acid



Be Right™

Complete solutions for the complete water cycle

Risk mitigation, compliance, safety and instrument uptime: these are common requirements in water management, independent of the application. The EZ Series Analysers provide a solution for continuously monitoring parameters that are critical to these concerns.

Application examples

- Monitoring of microbial ATP as the common denominator in bacterial and pathogen contamination, e.g. for prevention of biofouling in RO membranes
- Controlling of primary disinfection and disinfection by-products (DBPs)
- Detection of trace metals in source water, the distribution network or in your wastewater effluent post chemical precipitation and clarification
- Cost-effective determination of organic carbon in surface water intake
- Monitoring of corrosion, scaling and fouling indicators in your feed water
- Controlling of process efficiency and critical process parameters in anaerobic digestion
- Detection of acute and chronic toxicity in wastewater streams to protect your vulnerable microorganisms

EZ Series Overview

Thanks to the versatile instrument platform in many cases it will be possible to match the online analysis to the method you are using in your laboratory.

- EZ1000 Series: colorimetric analysers
- EZ2000 Series: colorimetric analysers with digestion
- EZ3000 Series: ion-selective analysers
- EZ3500 Series: ion-selective analysers with standard addition for complex matrices
- EZ4000 Series: single parameter titrators
- EZ5000 Series: multi parameter titrators
- EZ6000 Series: voltammetric trace metal analysers
- EZ7000 Series: dedicated analysers, e.g. for COD, TOC or Total Nitrogen + Total Phosphorus

Sample Preconditioning

EZ Series Analysers can be combined with sample preconditioning units for external dilution or filtration to meet the requirements of the individual application. All systems are designed for fully automatic operation and require virtually no human intervention.

The self-cleaning EZ9000 Series filtration systems are either equipped with a blow-back action by instrument air or a specific cleaning cycle to prevent the filter element, the sample tubing and the analyzer from blocking and blinding. This design principle allows for trouble-free sampling and contributes to high up-times.

Service Partnership

Hach provides on-site and in-factory repair, preventative maintenance, and calibration programs for your instruments to ensure reliability and instrument up-time. We have services to fit your specific needs.