

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.

The EZ Series Periodic Table of Elements

IA		IIA		III B	IV B	VB	VIB	VII B	←	VIII B
1 H 1.0079 Hydrogen										
3 Li 6.941 Lithium	4 Be 9.012 Beryllium									
11 Na 22.9898 Sodium	12 Mg 24.305 Magnesium									
19 K 39.102 Potassium	20 Ca 40.08 Calcium	21 Sc 44.956 Scandium	22 Ti 47.88 Titanium	23 V 50.942 Vanadium	24 Cr 51.996 Chromium	25 Mn 54.938 Manganese	26 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 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	Colour	Toxicity
Thiocyanate SCN ⁻	Urea	Formaldehyde	Glucose	Acidity, free Acidity, total
Sodium hydroxide Sodium bisulfite	Sulphur dioxide	TMAH (Tetramethyl- ammonium hydroxide)		
Available on www.hach.com	Available on request			

										VIII A								
										III A	IV A	V A	V I A	V II A	2			
										5 B 10.811 Boron	6 C 12.011 Carbon	7 N 14.007 Nitrogen	8 O 15.999 Oxygen	9 F 18.998 Fluorine	10 He 4.003 Helium			
										13 Al 26.982 Aluminium	14 Si 28.086 Silicon	15 P 30.974 Phosphorus	16 S 32.06 Sulphur	17 Cl 35.453 Chlorine	18 Ar 39.948 Argon			
										28 Ni 58.71 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.72 Gallium	32 Ge 72.59 Germanium	33 As 74.922 Arsenic	34 Se 78.96 Selenium	35 Br 79.904 Bromine	36 Kr 83.80 Krypton
										46 Pd 106.42 Palladium	47 Ag 107.868 Silver	48 Cd 112.41 Cadmium	49 In 114.82 Indium	50 Sn 118.69 Tin	51 Sb 121.75 Antimony	52 Te 127.60 Tellurium	53 I 126.905 Iodine	54 Xe 131.29 Xenon
										78 Pt 195.08 Platinum	79 Au 196.967 Gold	80 Hg 200.59 Mercury	81 Tl 204.383 Thallium	82 Pb 207.2 Lead	83 Bi 208.980 Bismuth	84 Po (209) Polonium	85 At (210) Astatine	86 Rn (222) Radon



IB **IIB**

Atomic symbol

Atomic number

EZ Series Parameter

	Hydrazine N ₂ H ₄	DEHA (Diethylhydroxylamine)	Anionic charge Kationic charge Charge density	Thorium
	Hydrofluoric Acid	Acetic Acid Lactic Acid Oxalic Acid	Hydrochloric Acid Phosphoric Acid Sulfuric Acid	Potassium hydroxide



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.