



## **EZ2400 Total Chromium + Chromium Cr(III), Cr(VI) Analyser**

**Product #:** EZ2400.XXXXXXXXXX

**AED Price:** Contact Hach

### **Online colorimetric analysis of Total Chromium + Dissolved Chromium Cr(III) + Chromium Cr(VI) in water**

EZ2000 Total Chromium Analysers achieve excellent precision and accuracy. At the heart of the colorimeter there is a compact photometer assembly developed especially for the EZ Series. Consumption of reagents is reduced by low volume analysis, yet high sensitivity is assured by a long optical path length. The limit of detection is in the low  $\mu\text{g/L}$  range.

EZ2000 Total Chromium Analysers have an internal digestion unit. This additional step prior to analysis allows to measure non-soluble or complexed metal species.

#### **Results you can rely on**

Smart automatic features for calibration, validation, priming and cleaning are embedded in the controller software and contribute to analytical performance, maximised uptime and negligible operator intervention. Precision micropumps dose all reagents. Sample lines and analysis vessel are cleaned with demineralised water to eliminate cross contamination between samples. Electronic and wet-chemical part of the analyser are strictly separated. A transparent door allows for instant visual inspection of the wet part.

#### **Flexibility that meets your needs**

EZ Series Total Chromium Analysers come in an attractive, ergonomic mainframe with a compact footprint. All hardware is controlled by the integrated industrial panel PC. The modular build allows for the analyser to match your application and operational needs.

- The standard measuring range can be narrowed by a different calibration range or extended via internal dilution options.
- Analogue and digital output options
- Multiple stream analysis for up to 8 sample streams

There are many additional options available. Please contact Hach for more details.

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### **Specifications**

Alarm:	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
Ambient temperature:	10 - 30 °C $\pm$ 4 °C deviation at 5 - 95% relative humidity (non-condensing)
Analogue outputs:	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
Automatic cleaning:	Yes
Calibration:	Automatic, 2-point; frequency freely programmable

Certifications:	CE compliant / UL certified
Cycle Time:	20 minutes Total Cr (dilution + 5 min.)
	30 minutes Total Cr & Cr(VI)
Demineralised water:	For rinsing / dilution
Detection limit:	Total Chromium, Cr(VI): $\leq 2 \mu\text{g/L}$
	Cr(III): $\leq 5 \mu\text{g/L}$
Digital outputs:	Optional: Modbus (TCP/IP, RS485)
Dimensions (H x W x D):	690 mm x 465 mm x 330 mm
Drain:	Atmospheric pressure, vented, min. $\varnothing 32 \text{ mm}$
Earth connection:	Dry and clean earth pole with low impedance ( $< 1 \text{ Ohm}$ ) using an earth cable of $> 2.5 \text{ mm}^2$
Flow rate:	100 - 300 mL/min
Instrument air:	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
Interferences:	Iron (III), mercury $> 200 \text{ mg/L}$ , molybdenum $> 200 \text{ mg/L}$ , vanadium $> 5 \text{ mg/L}$ . Large amounts of colour and turbidity interfere. Fats, oil, proteins, surfactants and tar.
Material:	Hinged part: Thermoform ABS, door: PMMA
	Wall section: Galvanised steel, powder coated
Measurement method:	Colorimetric measurement at 546 nm using diphenylcarbazide method, conform with standard method APHA 3500-Cr (B)
Measuring range:	Total Cr, Cr(VI): 10 - 500 $\mu\text{g/L}$
	Cr(III): 20 - 500 $\mu\text{g/L}$
	Optional:
	2 - 50 $\mu\text{g/L}$   Cr(III): 5 - 50 $\mu\text{g/L}$
	4 - 125 $\mu\text{g/L}$   Cr(III): 10 - 125 $\mu\text{g/L}$
	5 - 250 $\mu\text{g/L}$   Cr(III): 10 - 250 $\mu\text{g/L}$
	0.16 - 2 mg/L   Cr(III): 0.32 - 2 mg/L (with internal dilution)
	0.32 - 5 mg/L   Cr(III): 0.64 - 5 mg/L (with internal dilution)
Model:	EZ2400
Number of sample streams:	1, 2, 4 or 8
Parameter:	Chromium, total; Cr(VI), dissolved; Cr(III), dissolved
Power:	230 VAC, 50/60 Hz
	120 VAC, 50/60 Hz
	Max. power consumption: 440 VA
Precision:	Better than 2% full scale range for standard test solutions
Protection class:	Analyser cabinet: IP44 / Panel PC: IP65
Reagent Requirements:	Keep between 10 - 30 °C
Sample pressure:	By external overflow vessel
Sample quality:	Maximum particle size 100 $\mu\text{m}$ , $< 0.1 \text{ g/L}$ ; Turbidity $< 50 \text{ NTU}$
Sample temperature:	10 - 30 °C
Validation:	Automatic; frequency freely programmable
Warranty:	24 months

Weight:	25 kg
What's included?:	EZ2400 Chromium Analyser, Instruction Manual, 1 x Double Bit Door Key, 1 x Mounting Brackets, 3 x empty 2.5L Reagent Containers with Fittings (for Acid, Buffer, Persulfate) and 1 x Assembly Glass Reagent Container 2.5L (for Colour Solution)

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