



EZ7004 Chemical Oxygen Demand Analyser (COD, Dichromate Method), 1 stream, Modbus RS485



Product #: EZ7004.990A1C02

NZD Price (Incl. GST): Contact Hach

Online, automatic, wet-chemical determination of COD values in wastewater and surface water applications

Bridging traditional chemistry with modern analytics

The EZ7000 Series are wet-chemical COD analysers bringing new levels of automation, reliability and performance in measuring COD values in waste water and surface water. The superior analytical performance is exemplary of their build quality, thanks to the use of high quality components, state of the art wet chemistry and standard smart software features.

Compliance with international standard methods

The analytical mainframe of the EZ7000 Series sets new standards in traditional COD analysis thanks to the flexible architecture, while compliance with international standard methods is assured. Prior to analysis, the sample is oxidised by means of a specific acid solution and heat, in accordance with the standard method applied.

The EZ7000 Series of Online COD Analysers are the answer to the needs of those users who require “true” COD values to quantify organic pollution in various water applications:

- Wet-chemical COD analysis conform standard methods for dichromate or permanganate destruction
- Built-in sample digestion/oxidation unit
- Smart automatic features
- Control and communication via industrial panel PC
- Standard 4 - 20 mA signal output with alarm processing
- Communication ports supporting connectivity to Modbus
- Multiple stream analysis

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

Specifications

Alarm:	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
Ambient Temperature:	10 - 30 °C ±4 °C deviation at 5 - 95% relative humidity (non-condensing)
Calibration:	Automatic, 2-point; frequency freely programmable
Certifications:	CE compliant / UL certified

Cooling water:	Flow rate approx. 5 L/h; temperature max. 30 °C; pressure max. 0.5 bar
Cycle Time:	40 minutes, including oxidation time of 30 minutes.
	Remark: standard method for Cr destruction requires 120 minutes.
Demineralised water:	For rinsing purposes
Digital outputs:	Modbus RS485
Dimensions (H x W x D):	690 mm x 465 mm x 330 mm
Drain:	Atmospheric pressure, vented, min. Ø 64 mm
Earth connection:	Dry and clean earth pole with low impedance (< 1 Ohm) using an earth cable of > 2.5 mm ²
Instrument air:	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
Interferences:	Chloride > 1 g/L, inorganic reducing agents such as nitrites, sulphides and iron(II) will increase the result, aromatic hydrocarbons and pyridine are not oxidized to any appreciable extent. Some very volatile organic substances may escape the oxidation by evaporation. Straight chain aliphatic compounds are effectively oxidised by the silver sulphate/sulphuric acid solution. Fats, oil, proteins, surfactants and tar.
Lower Limit of Detection (LOD):	Cr destruction: ≤ 20 mg/L (range 40 - 500 mg/L) Mn destruction: ≤ 5 mg/L (range 0 - 20 mg/L)
Material:	Hinged part: Thermoform ABS, door: plexiglass Wall section: Galvanised steel, powder coated
Measurement method:	Redox titration after oxidation by acid-potassium dichromate solution, conform with ISO 6060 method Or redox titration after oxidation by potassium permanganate solution, conform with ISO 8467 and JIS K0806 methods
Number of sample streams:	1 stream Optional: 1 to 8 streams
Output:	Modbus RS485 Optional: Active 4 - 20 mA max. 500 Ohm load, 1 to 8 outputs RS232, Modbus TCP/IP
Parameter:	COD
Power:	220 - 240 VAC, 2 A, 50/60 Hz Max. power consumption: 440 VA; Other voltages available on request
Precision:	Better than 5% full scale range for standard test solutions
Protection Class:	Analyser cabinet: IP55 / Panel PC: IP65
Range:	100 - 10,000 mg/L O ₂ Optional: 100 - 2500 mg/L 100 - 5000 mg/L
Reagent Requirements:	Keep between 10 - 30 °C
Sample Flow Rate:	100 - 300 mL/min
Sample Pressure:	By external overflow vessel

Sample Quality:	Maximum particle size 100 µm, < 0.1 g/L; Turbidity < 50 NTU
Sample Temperature:	10 - 30 °C
Validation:	Automatic; frequency freely programmable
Warranty:	1 year
Weight:	25 kg