

# EZ2000 SERIES

## On-line Colorimetric Analyzers / Digestion+ Analysis of Total Cyanide

### Applications

- Waste water
- Drinking water
- Surface water



## Single and multiple parameter water analysis for industrial and environmental applications

Managing both quantity and quality of water resources has traditionally been a challenging task for private companies and authorities. The art of on-line monitoring can help them to measure quickly and effectively all the relevant parameters in the water, originating from either a natural source or an industrial site.

Since their introduction in 2009 the **EZ2000 Series** of On-line Colorimetric Analyzers have served in hundreds of industrial water, drinking water and municipal water applications. The flexible analyzer mainframe allows a perfect on-line duplicate of any standard/laboratory wet-chemical method, with outstanding precision and accuracy.

Contrary to the **EZ1000 Series**, the **EZ2000** has an internal sample digestion unit. This additional step prior to analysis allows to measure non-soluble or complexed metal species, a typical behavior of some metals in drinking water or natural waters.

The **EZ2000 Series** on-line analyzers stem from many years of analytical expertise and application knowledge in colorimetry in an attractive, yet rugged mainframe with a compact footprint, harnessing the following features:

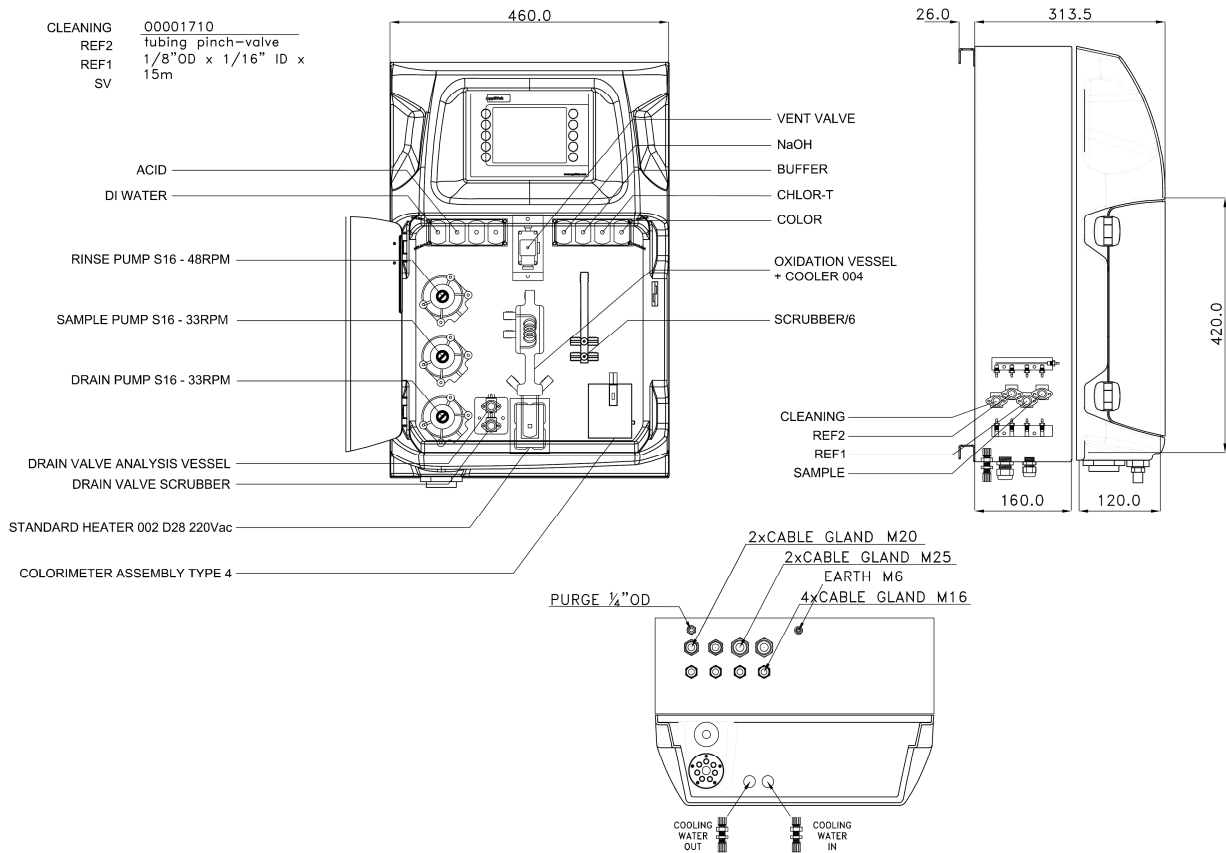
- Excellent analytical performance
- Built-in sample digestion unit
- Smart automatic features
- Control and communication via industrial panel PC
- Standard 4 - 20 mA signal output with alarm processing
- Communication ports supporting connectivity to Modbus
- Higher measuring ranges: internal sample dilution
- Multiple stream analysis

## Technical data\*

<b>Analysis method</b>	Colorimetric measurement at 578 nm using chloramine T method, conform with standard method APHA 4500-CN (E)
<b>Parameter</b>	Total CN
<b>Measuring range</b>	0 – 100 µg/L CN
<b>Cycle time</b>	45 minutes (dilution +5 min.)
<b>Limit of quantification (LOQ)</b>	≤ 1 µg/L
<b>Precision/Repeatability</b>	Better than 5% full scale range for standard test solutions
<b>Cleaning</b>	Automatic; frequency freely programmable
<b>Calibration</b>	Automatic, 2-point; frequency freely programmable
<b>Validation</b>	Automatic; frequency freely programmable
<b>Interferences</b>	Ions like nitrite $[(NO_2)] > 5$ mg/L, sulphide $[(S)^{2-}] > 100$ mg/L and sulphite $[(SO_3)^{2-}]$ . Thiocyanate will cause high results. Large amounts of color and turbidity interfere. Fats, oil, proteins, surfactants and tar.
<b>Ambient operating conditions</b>	10 °C – 30 °C +/- 4 °C deviation (50 °F – 86 °F +/- 7.2 °F deviation) at 5 - 95% relative humidity non-condensing
<b>Reagent temperature</b>	Keep between 10 °C - 30 °C (50 °F - 86°F)
<b>Sample pressure</b>	By external overflow vessel
<b>Sample flow rate</b>	100 - 300 ml per minute
<b>Other sample requirements</b>	Temperature: 10 °C – 30 °C (50 °F – 86 °F); Maximum size 100 µm, < 0.1 g/l; Turbidity < 50 NTU
<b>Power</b>	220 - 240 VAC, 2 A, 50/60 Hz Max. power consumption: 150 VA; Other voltages available on request
<b>Instrument air</b>	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
<b>Demineralized water</b>	For dilution purposes
<b>Drain</b>	Atmospheric pressure, vented, min. Ø 64 mm
<b>Earth connection</b>	Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm <sup>2</sup>
<b>Analogue outputs</b>	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
<b>Digital outputs (option)</b>	MODBUS, RS232, RS485
<b>Alarms</b>	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
<b>Protection class</b>	Analyzer cabinet: IP55 / Panel PC: IP65
<b>Materials, hinged part</b>	Thermoform ABS, Door: plexiglass
<b>Materials, wall section</b>	Galvanized steel, powder coated
<b>Dimensions (H X W X D)</b>	69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")
<b>Total weight</b>	25 kg (55 lbs.)
<b>Certification</b>	CE compliant / UL certified
<b>Warranty</b>	2 years

\* Subject to change without further notice.

## Dimensions - Drawings



## Service packages

### Start-Up/Commissioning:

Our service technicians visit your site and setup instrumentation, provide basic end-user training on operations and maintenance, and validate settings and performance to get you started.

### Service Agreement:

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

*Contact us to learn about what Hach Service option is right for you.*

## Order information

EZ2500.99XXXXX

EZ2000 Series, Total CN 0 – 100 µg/L

All options (see Configurator)

E	Z	2	5	0	0	.	9	9	X	X	X	X	X	2
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### Measurement range settings / Dilution options

standard range	0
internal MP dilution (factor 10)	3
customized	Z

### power supply

220 VAC / 50 Hz	A
110 VAC / 60 Hz	B
Customized	Z

### number of sample streams

1 stream	1
2 streams	2
3 streams	3
4 streams	4
5 streams	5
6 streams	6
7 streams	7
8 streams	8

### Outputs

1x mA	1
2x mA	2
3x mA	3
4x mA	4
5x mA	5
6x mA	6
7x mA	7
8x mA	8
RS232	A
Modbus TCP/IP	B
Modbus RS485	C
AnaCommDa	D
1x mA + Modbus RS485	E
2x mA + Modbus RS485	F
3x mA + Modbus RS485	G
4x mA + Modbus RS485	H
1x mA + Modbus TCP/IP	I
2x mA + Modbus TCP/IP	J
3x mA + Modbus TCP/IP	K
4x mA + Modbus TCP/IP	L
Customized / combined	Z

### Specials

no adaption, standard version	0
customer specific adaptations required, to specify	S