

EZ1000 SERIES

On-line Colorimetric Analyzers Analysis of Iron

Applications

- Waste water
- Drinking water
- Power
- 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 **EZ1000 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.

The **EZ1000 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
- Smart automatic features
- Control and communication via industrial panel PC
- Standard 4 - 20 mA signal output with alarm processing
- Standard Ethernet TCP/IP connection
- Higher measuring ranges: internal sample dilution
- Multiple stream analysis

DASTEC S.R.L.

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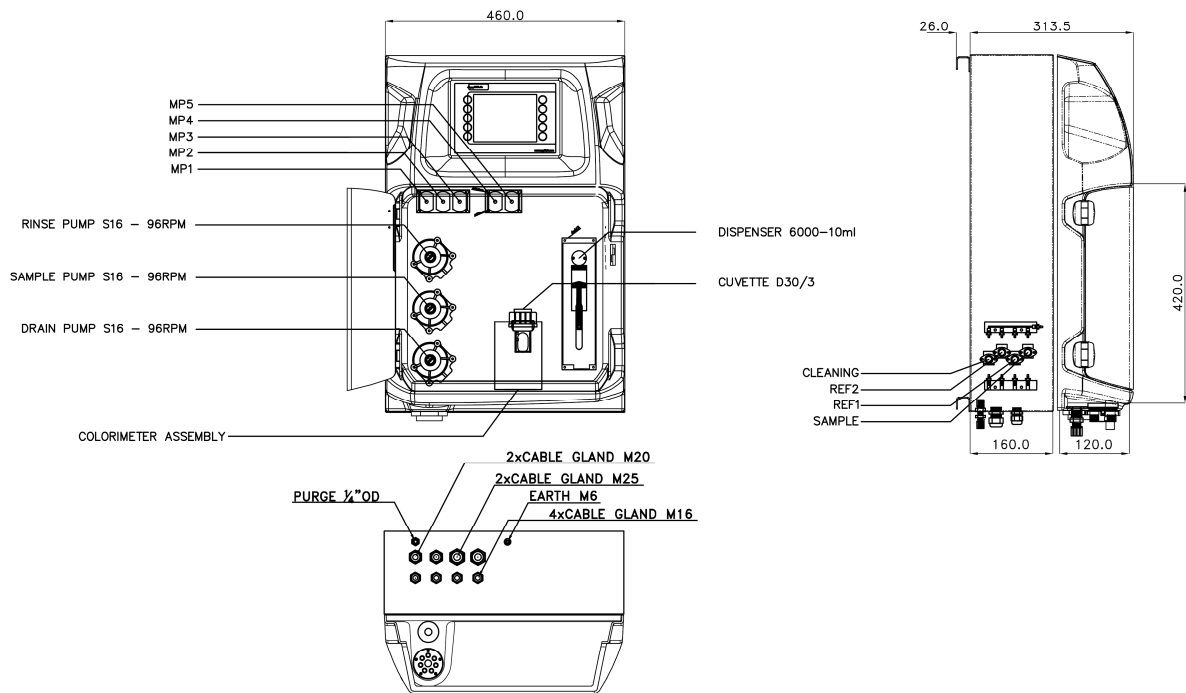
Be Right™

Technical data*

Analysis method	Colorimetric measurement using TPTZ color solution, conform with APHA 3500-Fe (B)
Parameter	Fe (II) / Fe (III) / Fe total dissolved (Fe II + III)
Measuring range	0 – 1 mg/L Fe ²⁺
Cycle time	10 minutes Fe (II), Fe total dissolved (dilution +5 min.) 15 minutes all combined parameters
Limit of quantification (LOQ)	≤ 5 µg/L
Precision/Repeatability	Better than 2% full scale range for standard test solutions
Cleaning	Automatic; frequency freely programmable
Calibration	Automatic, 2-point; frequency freely programmable
Validation	Automatic; frequency freely programmable
Interferences	Metal ions like lead [(Pb) ²⁺] > 10 mg/L, zinc [(Zn) ²⁺] > 2 mg/L, nickel [(Ni) ²⁺] > 2 mg/L. Strong oxidizing agents, cyanide [(CN) ⁻], nitrite [(NO ₂) ⁻] and phosphate [P] (polyphosphate more than orthophosphate), chromium [Cr], zinc [Zn] in concentrations exceeding 10 times that of iron. Iron [Fe] and copper [Cu] in excess of 5 mg/l, nickel [Ni] in excess of 2 mg/l. Bismuth [Bi], cadmium [Cd], mercury [Hg], molybdate and silver [Ag] precipitate phenanthroline. Polyphosphate must be absent. Large amounts of color and turbidity interferes. Fats, oil, proteins, surfactants and tar.
Ambient operating conditions	10 °C – 30 °C +/- 4 °C deviation (50 °F – 86 °F +/- 7.2 °F deviation) at 5 - 95% relative humidity non-condensing
Reagent temperature	Keep between 10 °C - 30 °C (50 °F - 86°F)
Sample pressure	By external overflow vessel
Sample flow rate	100 - 300 ml per minute
Other sample requirements	Temperature: 10 °C – 30 °C (50 °F – 86 °F); Maximum size 100 µm, < 0.1 g/l; Turbidity < 50 NTU
Power	220 - 240 VAC, 2 A, 50/60 Hz Max. power consumption: 150 VA; Other voltages available on request
Instrument air	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
Deminerlized water	For rinsing and/or dilution
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
Analogue outputs	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
Digital outputs (option)	MODBUS, RS232, RS485
Alarms	Malfunctioning alarm (potential free contact); result alarm (potential free contact)
Protection class	Analyzer cabinet: IP55 / Panel PC: IP65
Materials, hinged part	Thermoform ABS, Door: plexiglass
Materials, wall section	Galvanized steel, powder coated
Dimensions (H X W X D)	69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")
Total weight	25 kg (55 lbs.)
Certification	CE compliant / UL certified
Warranty	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

EZ1023.99XXXXX	EZ1000 Series, Fe II 0-1 mg/L
EZ1024.99XXXXX	EZ1000 Series, Fe total dissolved (Fe II+III), 0-1 mg/L
EZ1302.99XXXXX	EZ1000 Series, Fe II / Fe total diss (Fe II+III), 0-1 mg/L
EZ1303.99XXXXX	EZ1000 Series, Fe II / Fe III / Fe total diss (Fe II+III), 0-1 mg/L

All options (see Configurator)

E	Z	1	X	X	X	.	9	9	X	X	X	X	X	2
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Measurement range settings / Dilution options

10% of standard range	A
25% of standard range	B
50% of standard range	C
standard range	0
internal MP dilution (factor 4)	1
internal MP dilution (factor 8)	2
internal dispenser dilution (max factor 100)	5
customized	Z

power supply

Standard 110 - 220 VAC ; 50/60 Hz	0
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

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