

EZ7300 SERIES

On-line Microbiology Analyzers

Analysis of Adenosine Triphosphate

Applications

- Process water
- Power
- Drinking water



On-line monitoring of microbial load in process water and drinking water applications

The first on-line microbiology analyzer complying with standard method ASTM 4012-81

The **EZ7300 Series** monitor total bacterial and pathogen load in water by measuring portions of ATP (adenosine triphosphate) of any type of microbial microorganism present in the water sample i.e. bacteria (pathogenic and non-pathogenic), microalgae and protozoa. The analyzer can be used as an Early Warning System in various applications with focus on water safety, when high ATP values indicate a potential risk in surpassing a threshold value of microorganisms in the past or in the near future.

Determination of total, intracellular and free ATP levels

Contrary to commonly available manual or semi-automated methods, the **EZ7300 Series** guarantees complete ATP recovery by quantifying different ATP portions in the sample. Operators now can access data on both extracellular (free) and intracellular ATP values, in order to differentiate living biomass from the non-living.

Advanced features

The **EZ7300** On-line Microbiology Analyzer provides results within minutes and an objective, measurable basis for actions against sudden changes in microbial levels in your process:

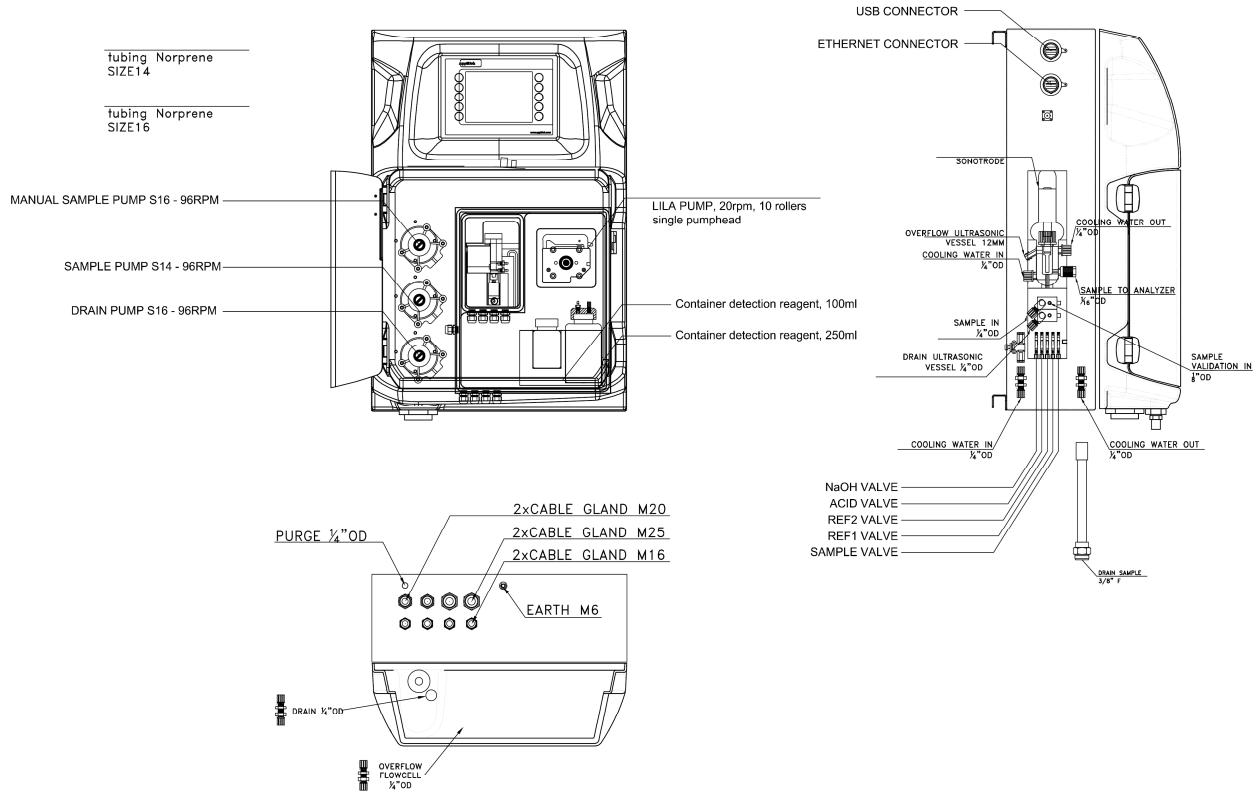
- Complying with ASTM D4012-81
- Complete ATP recovery
- No bias from the composition of the growth medium such as with plate counting
- Low cost of analysis relative to a large number of results
- Smart automatic features
- Low maintenance, easy replaceable reagent kit
- Multiple stream analysis

Technical data*

Analysis method	Determination of adenosine triphosphate (ATP) by means of chemiluminescent reaction using Luciferin and luciferase, conform with standard method ASTM D4012-81
Parameter	ATP
Measuring range	0.05 – 200 pg/mL
Cycle time	7 - 10 minutes incl. sample lysis
Limit of quantification (LOQ)	≤ 0.05 pg/mL (0.1 pM) ATP
Precision/Repeatability	Better than 4% full scale range for standard test solutions
Cleaning	Automatic, 3-step; frequency freely programmable
Calibration	Automatic, 2-point; frequency freely programmable
Validation	Automatic; frequency freely programmable
Interferences	High concentrations of Hg ²⁺ , Cu ²⁺ , Zn ²⁺ , Cd ²⁺ , Fe ²⁺ . Total salt concentrations higher than 1 g/L. pH lower than 5.5 and higher than 8.
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 4 °C – 8°C (39 °F – 46 °F) during operation, shielded from light. For prolonged storage, store at -20 °C (-4 °F) in a dark environment
Sample pressure	Maximum 3 bar for direct injection or by external overflow vessel via the grab sample pump
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
Demineralized water	Optional for final step of the cleaning procedure. Alternatively, a sample flush can be used instead.
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	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
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	30 kg (66 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

EZ7300.99XXXXX

EZ7300 Series, ATP 0.5 – 200 pg/L

All options (see Configurator)

E	Z	7	3	0	0	.	9	9	X	X	X	X	X	2
Measurement range settings / Dilution options														
standard range														
0														
customized														
Z														
power supply														
Standard 110 - 220 VAC ; 50/60 Hz														
0														
Customized														
Z														
number of sample streams														
1 stream														
1														
2 streams														
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3 streams														
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4 streams														
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8x mA														
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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														
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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														