

# EZ7900 Series Toxicity Analyzers

## Applications

- Municipal Wastewater
- Industrial Wastewater



## Online, automatic respirometry for early warning of toxicity in wastewater treatment plants

### Early Warning System against calamities

The EZ7900 Toxicity Analyzer is able to detect and measure wastewater streams that present an acute or chronic toxicity to the biomass of a biological wastewater treatment plant. This allows operators to take corrective measures to protect the viability of the activated sludge.

### Representative measurements on fresh sludge

Measurements are carried out on real sludge freshly sampled from the treatment plant by means of a self-cleaning sampling-filtration system (option). This unique approach has the following advantages: dynamic changes in biomass viability are immediately detected, while sample temperature and pH in the analysis vessel reflects those of the treatment plant.

The EZ7900 Series combines a unique, field-proven respirometric analyzer design with a robust sampling-filtration system, assuring detection of toxic compounds or shock loads in an early stage:

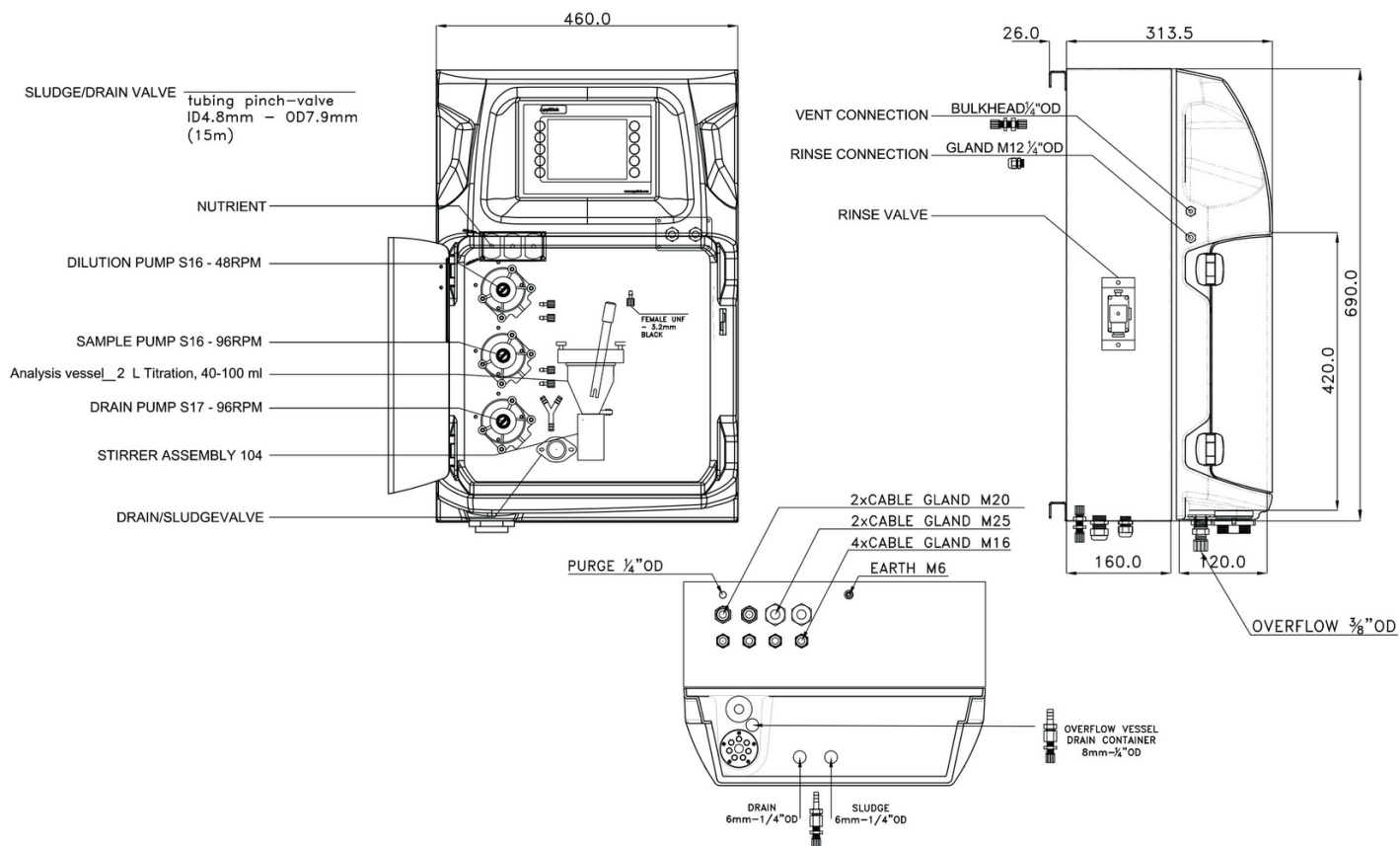
- Detection of acute and chronic toxicity on activated sludge
- Measurement of the respiration rate by means of a single dissolved oxygen (DO) sensor
- Smart automatic features
- Standard 4 - 20 mA signal output with alarm processing
- Communication ports supporting connectivity to Modbus
- Multiple stream analysis (up to 8 streams)

## Technical Data\*

<b>Parameter</b>	Toxicity; respiration rate
<b>Measurement Method</b>	Respirometry
<b>Range</b>	0 - 100 % inhibition
<b>Precision</b>	Better than 5% full scale range for standard test solutions
<b>Lower Limit of Detection (LOD)</b>	N.A.
<b>Interferences</b>	N.A.
<b>Cycle Time</b>	10 - 15 minutes
<b>Automatic cleaning</b>	Yes
<b>Calibration</b>	Automatic; standard at every analysis cycle
<b>Validation</b>	Automatic; frequency freely programmable
<b>Ambient Temperature</b>	10 - 30 °C ±4 °C deviation (50 - 86 °F ±7.2 °F dev.) at 5 - 95% relative humidity (non-condensing)
<b>Reagent Requirements</b>	Keep between 10 - 30 °C (50 - 86 °F)
<b>Sample Pressure</b>	By external overflow vessel
<b>Sample Flow Rate</b>	100 - 300 mL/min
<b>Sample Temperature</b>	10 - 30 °C (50 - 86 °F)
<b>Sample Quality</b>	Maximum particle size 500 µm, < 0.1 g/L Most applications require the use of a dual EZ9110 + EZ9120 sampling/filtration system.
<b>Power</b>	110 - 240 VAC, 4 A, 50/60 Hz Max. power consumption: 150 VA
<b>Instrument Air</b>	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
<b>Rinsing</b>	With tap water
<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>Analog Outputs</b>	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
<b>Digital Outputs</b>	Mobus RS485
<b>Alarm</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>Material</b>	Hinged part: Thermoform ABS, door: plexiglass Wall section: Galvanized steel, powder coated
<b>Dimensions (H x W x D)</b>	690 mm x 465 mm x 330 mm
<b>Weight</b>	25 kg (55 lbs.)
<b>Certifications</b>	CE compliant / UL certified

\*Subject to change without notice.

## Dimensions - Drawings



## Be confident with Hach Service

**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.

## Order Information - Part Number Configurator

Toxicity analyzer, 0 - 100%	EZ7900.99	X	X	X	X	X	2
<b>Measurement range settings / Dilution options</b>							
Standard range		0					
Customized		Z					
<b>Power supply</b>							
Standard 110 - 240 VAC; 50/60 Hz			0				
Customized			Z				
<b>Number of sample streams</b>							
1 stream				1			
2 streams				2			
3 streams				3			
4 streams				4			
5 streams				5			
6 streams				6			
7 streams				7			
8 streams				8			
<b>Outputs</b>							
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	
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	
<b>Specials</b>							
No adaption, standard version							
Customer specific adaptations required, to specify							

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