

AQUALYZER® 9040 SERIES

Silica, Phosphate, Hydrazine,
Silica/Phosphate, Ammonia, Copper
and Ethylene Glycol Analyzers

REVOLUTIONARY PATENTED TECHNOLOGY

Our Colorimetric Analyzers (Aqualyzer® Series 9040) are based on the new patented Loop Flow Analysis (LFA) cycle.

Common application points in a boiler system for online silica measurement include: make-up water, condensate, boiler feedwater, saturated steam/main steam and cooling water. Application points for phosphate include: boiler water and cooling water.

LFA technology involves isolating, manipulating and testing a known volume of sample in a closed loop system. A powerful programmable microprocessor allows for customized program cycles, ensuring accuracy and reliability with every application.



FEATURES

Highest accuracy (e.g. for silica: +/- 1ppb or +/- 2% of reading)

Widest range analysis (e.g. for silica: ranges available from 0.1ppb to 200ppm)

Single, dual stream or multi-parameters SiO₂/PO₄

Short cycle times with no sample heater needed

Automatic dilution when above normal concentration range

Automatic calibration

Adjustable cycle and calibration frequency

Ultra-low reagent consumption and smallest size instruments

No reagent pumps or compressed air requirements

Grab sample capability

Standardized flow through constant head with automatic flow detection

Last 400 results stored internally



Wet Section

BENEFITS

Low reagent and standard consumption

Minimal maintenance required

Automatic operation

PERFORMANCE

Sensor Classification:	Colometric with glass flowcell and LED source
Application:	Demineralized, boiler, potable, surface and waste water
Power Requirements:	12V
Power Supply:	110-120VAC or 220-240VAC, 50/60 Hz, 100 VA
Humidity:	Up to 90% not condensable
Ambient Temperature Range:	10-45° C analyzer (50-113° F)
Range:	Silica: 0-500 ppb, 0-5000 ppb, 0-200 ppm* Phosphate: 0-2.4 ppm, 0-7 ppm, 0-20 ppm, 0-200 ppm* Hydrazine, Copper: 0-100 ppb, 0-1 ppm* Ammonia: 0-750 ppb, 0-7.5 ppm* Ethylene Glycol: 0-15 ppm, 0-150 ppm* *By Auto Dilution
Accuracy:	Silica: +/- 1 ppb or +/- 2% of reading, whichever is greater Phosphate, Hydrazine, Ammonia, Copper, Ethylene Glycol: +/- 2% of full scale
Unit Dimensions:	Height=31.5" (80.01 cm), Width=16.54" (42.01 cm), Depth=11.13" (28.27 cm)
Atmospheric Pressure Range:	No Limits
Effect of Electromagnetic Fields:	EMC tested according to CE compliance
Tolerance to Electrostatic Discharges:	EMC tested according to CE compliance
Positioning and Installation Details:	Wall or panel mounting analyzer, installed approx 39" (99cm) from the ground, maximum 13' (396cm) from sampling point
Response Time (approximate):	Silica: 10 min, Phosphate: 6 min, Hydrazine: 12 min, Ammonia: 12 min, Copper: 9 min, Ethylene Glycol: 10 min
Alarms:	Concentration, cal error, out of service/sample
Reproducibility:	Silica: +/- 1 ppb or +/- 2% of reading, whichever is greater Phosphate, Hydrazine, Ammonia, Copper, Ethylene Glycol: +/- 2% of reading
Degree of Protection:	IP55 (NEMA 4): Wet section, IP65 (NEMA 4x): Electronics
Required Maintenance:	Once a month replenish reagents, once a year replace tubing
Reagent Consumption (approximate):	Silica, Phosphate, Ammonia, Copper: 1 liter each per month Hydrazine, Ethylene Glycol: 4 liters each per month
Reactor Volume:	10 ml
Materials in Contact with Sample:	Glass, Silicone, Plexiglass, Stainless Steel AISI 316
CE Certification (on request):	Meets low voltage and low electromagnetic compatibility directives
Sample Conditioning Requirements:	Filtering between 10 and 60 micron, depending on the matrix, needed only to avoid clogging. Internal disposable filters supplied (60 micron).

SAMPLE DELIVERY OPERATING CONDITIONS

Temperature Range:	5-55° C (41-131° F)
Flow:	150-200 ml/min, 5-30 psig (0.35 – 2.07 bar)
Turbidity:	Not applicable, sample blank correction
Color:	Not applicable, sample blank correction
PH:	3-12

SIGNAL OUTPUTS

4-20 mA, Voltage 0-5:	4-20mA (galvanic isolator module available as option) or 0-5V
Printer Options:	Optional, serial output RS232 or 485
Serial I/O for Signals:	Serial data output RS232 or 485 available as option

OPERATIONAL CALIBRATION

Frequency/Intervals:	Recommended: 7 days
Single/Multi-Point:	Multi-Point: zero and mid range
Matrix Corrections:	Yes, sample blank correction
Manual/Automatic:	Both