



Automated wet chemical analysis

## Gallery Plus Aqua Master discrete analyzer

### Fully-automated photometric water and nutrient analyzer

The Thermo Scientific™ Gallery™ Plus Aqua Master is a fully-automated, discrete photometric analyzer dedicated for high-throughput water and nutrient analysis. Many different applications can be run simultaneously from a single sample. Panels of system applications are predefined into the analyzer for water and environmental quality control and testing. Complicated spiking, calibration sequences, and quality control procedures can be fully automated to meet local regulatory approved test methods. Moreover, new user-specific applications can be defined.

The Gallery Plus analyzer employs colorimetric end-point and kinetic, as well as turbidimetric and bichromatic reactions, with or without sample blanking. The system supports automated standard addition measurement method for complex sample matrices. The optional electrochemical measurement (ECM) unit uses pH glass electrodes for pH measurement. The ECM unit is also capable of conductivity measurement.

#### Measurement

Single channel interference filter photometer with beam splitting reference, 12 filter positions.

Filter range	340–880 nm
Incubation temperature	Controlled at 25–60 °C, no cooling, preset to 37 °C
Light source	Xenon flash lamp
Absorbance range	0–3.5 A, resolution of 0.001 A, reproducibility of SD <0.005 A at 2 A

Optional ECM unit for simultaneous measurement of pH and conductivity parallel to photometric measurements.

pH range	2–12 pH
Conductivity range	20 µS/cm–112 mS/cm
ECM tests per hour	Up to 67

## Reaction vessels

Thermo Scientific™ DECACELL™ discrete disposable cuvettes.  
 Continuous access to cuvettes without interrupting test processing.

On-board capacity	360 measurement cells, 36 cuvettes with 10 reaction cells, 1 to 3 hours walk-away time depending on workload
Reaction end volume	120–300 µL

## Samples and reagents

Continuous access to samples and Thermo Scientific™ Gallery™ system reagents without interrupting test processing. Automatic identification via internal barcode reader. Clearly displayed real-time reagent volume and remaining test capacity. Up to four reagent additions per test.

On-board capacity	Up to 108 samples, 9- or 18-position sample rack, max. 6 racks, 42 reagent positions in the cooled disk
Sample volumes	2–120 µL, possibility to extend up to 240 µL
Sample containers	0.5 mL, 2.0 mL, 4.0 mL cups and sample tubes (diameter 12–16 mm, length 75–100 mm)
Sample barcodes*	Code 128 and barcodes USS Codabar, Interleaved 2 of 5 and Code 39 with a check digit
Reagent volumes	2–240 µL
Reagent containers	10 mL and 20 mL vials
Sample and reagent dispensing	CV ≤2% for volumes ≥2 µL

\*Used with sample tubes in a 9-position sample rack.

## Calibration

Factor, bias, linear, logit-log, spline, second order, and point-to-point calibration. Method-dependent use of individual calibrators or automatically diluted series from a stock calibrator. Previous curve comparison available.

## Quality control

Real-time QC program with multiple, user-definable Westgard rules. Control frequency user-definable. Out-of-specification control results flagged. QC chart printouts, daily and cumulative reports.

## Dilutions

Automatic sample pre-dilution. Automatic dilution of over-range tests with automatic rerun. Addition of manual pre-dilution value for result calculation.

## Data management

Microsoft® Windows® 10 workstation with graphical user interface. Data input online, via mouse, touchscreen, keyboard, and barcode reader. Different user groups can have different access rights. Different user interface language versions available.

LIS interface	CLSI LIS02-A2
Hardware interface	RS-232 or TCP/IP
Result reports	Collated by sample, manual entry of off-line results allowing for fully-collated result reports, results calculated from both measured and off-line results. Spreadsheet reporting for further calculations possible.
Traceability	Full traceability with long term storage of results including associated calibrations and reagent lot data.
Capacity	Up to 350 tests/hour with one-reagent method.
Dimensions and weight	94 cm (width) × 70 cm (depth) × 62/130 cm (height/with open cover), 110 kg (weight). Separate workstation.
Power requirements	100–240 VAC ±10%, 50–60 Hz ±5%, 300 W
Deionized water consumptions	2.5 litres/hour
Average noise level at 1 meter	<60 dB(A)
Environmental conditions	Operating temperature range of 18–30 °C, humidity 40–80% (non-condensing)
Regulatory	Conforms to <ul style="list-style-type: none"> <li>CAN/CSA-C22.2 No. 61010-1-12, 61010-2-081:15, 61010-2-010:15</li> <li>UL Std. No. 61010-1:2012, 61010-2-081:2015, 61010-2-010:2015</li> <li>FCC CFR 47 Part 15, subpart B</li> <li>2011/65/EU RoHS Directive</li> <li>2006/42/EC Machinery Directive</li> <li>2014/30/EU Electromagnetic Compatibility (EMC) Directive</li> </ul>
Ordering codes	98620005 Gallery Plus Aqua Master discrete analyzer 98621005 Gallery Plus Aqua Master discrete analyzer with ECM unit

Learn more at [thermofisher.com/AquaMaster](https://www.thermofisher.com/AquaMaster)

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