THUNDERBOLT®
ELISA & CHEMILUMINISCENCE ANALYZER

The ThunderBolt® is an innovative 2-plate, fully automated, open platform, that can run ELISA and Chemiluminescence (CLIA) assays. This walk-away instrument was designed to simplify your laboratory experience, increase your productivity, and reduce your waste.

- Slide-in racks with positive sample identification
- Simple workflow software that guides you through the process
- Designed to suit different laboratory demands
- High sample loading capacity: 192 primary sample tubes
- Capable of running many different protocols in a single batch
- On-board camera allows remote troubleshooting
- No disposable tips, minimal consumables, direct in-well dilution (up to 1:100)
- Occupies minimal bench space

GOLD STANDARD DIAGNOSTICS

TECHNICAL SPECIFICATIONS

Capacity

Sample Capacity	12 racks of 16 samples. Up to 192 samples total
Reagent Capacity	2 racks of 7 reagents. Up to 14 reagents total
MTP Positions	2 positions
Pre-dilution MTP Positions	1 position
Wash Buffer	2 x 1L external wash bottle positions
Liquid Waste	1 x 2L external waste bottle position

Worklist Set-up

Sample Loading	Slide-In Racks w/ barcode reading & positive sample identification
Test Tube Size (s)	Accepts from 12 of 16 mm diameter, up to 100 mm tall (custom racks available)
Reagent Loading	Slide-In racks w/ adapters for most commonly used bottles
Reagent Bottle Size (s)	22-42 mm diameter bottles accepted (custom bottle adapters available
On-Board Barcode Reader	Code 18, Code 39, Extended Code 39, EAN-13 (+2, +5), EAN-8, Interleaved 2 of 5, UPC-A (+2, +5), UPC-E, PDF-417, Codabar, QR Code, Data Matrix

Liquid Handling

Probe/Needle	Single probe, dual needle
Probe tip	Fixed needle, Washable stainless steel
Liquid level detection	Conductivity
Aspiration Volume Range	1 µl - 400 µl with ≤ 3% CV
Dispense Volume Range	25 µl - 300 µl

Hardware

Incubator technology	Forced convention to eliminate "edge effect"
MTP Positions & Temperature	2 positions. Room temperature to 40 °C
Spectrophotometer	5 filters: 405, 450, 490, 550 and 630 nm wavelengths standard (custom available), Linear Range 0 to 3.0 OD
Photomultiplier Tube (PMT)*	Detection type: glow chemiluminescence, Spectral range: 300-500 nm, Dark count: 50 counts per second (standard), Measuring time: 200 ms (adjustable 1 to 1000 ms), Dynamic range: 6 decades (*optional configuration)
Orbital MTP Shaker	Amplitude: 1 mm, Speed: Up to 900 RPM, 3 MTP (2 reaction, 1 predilution)

Software

Language	Multi-language support
User Interface	MS Windows 10 Graphical User Interface
Instrument Manager	Independent well tracking and timing. Result review In-process controls & maintenance prompts
Data Server	Database of results, maintenance logs, lot/expiry information, etc. Connects multiple instruments and consolidates data LIS integration: Bi-directional, RS232, USB, TCP/IP
Test Designer	Fully open and configurable test protocols

General Information

Ordering No.	00300 (ELISA); 00300-CL (ELISA+CLIA)
Power Specifications	Voltage: 100-265V. Frequency: 50-60Hz. Consumption: 12W w/o incubator, 120W max
Dimensions	W: 64 cm, D: 57 cm, H: 45 cm (W: 25.2 in, D: 22.5 in, H: 17.7 in), H (open): 91.5 cm (36 in)
Weight	30 kg (65 lbs)
CE Marked	Yes