

ATP Fluorescence detector LD-ATP

The **LD-ATP Fluorescence Detector** offers rapid, sensitive ATP-based hygiene monitoring using firefly bioluminescence. With a **touchscreen interface**, high sensitivity, and results in seconds, it's ideal for surface cleanliness checks in food service, healthcare, and environmental monitoring. Simple to use, customizable, and portable, it supports fast microbial residue detection without the need for lab-trained personnel.



Features:

Touchscreen Display

Large, user-friendly touchscreen replaces traditional button operation for easier and faster interaction.

High Sensitivity

Detects ATP concentrations as low as $10^{-15} \sim 10^{-18}$ mol, ensuring accurate detection of microbial and biological residues.

Ultra-Fast Detection

Results are available in just seconds, compared to 18–24 hours required by traditional culture methods.

Bioluminescence Principle

Uses the luciferase-luciferin reaction system to detect ATP via emitted light, reflecting the level of contamination.

Wide Application

Ideal for surface hygiene testing in catering, food processing, medical equipment, industrial water treatment, environmental monitoring, and public health sectors.

Portable and Handheld Design

Lightweight and compact, suitable for on-site, real-time cleanliness assessment.

Customizable Detection Limits

Users can set upper and lower thresholds based on specific environmental standards for rapid assessment and alerts.

Easy to Use

Simple operation allows general personnel to perform tests after minimal training—no lab expertise required.

Durable and Easy to Maintain

Flexible, plug-type test casing design allows for regular cleaning and extended instrument lifespan.

Reliable and Trusted

Adopted and recognized by well-known domestic and international brands for quality assurance in hygiene control.

Specifications:

Category	Details
Display & Processor	3.5-inch high-precision graphic touch screen; 32-bit high-speed data processing chip



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Detection Precision	1×10 ⁻¹⁸ mol
Specific Index Detection	Coliform: 1 - 10 ⁶ cfu
Detection Range	0 - 999,999 RLUs
Detection Time	15 seconds
Detection Interference	±5 or ±5 RLUs
Environmental Adaptation	Operating temperature: 5°C - 40°C; Operating humidity: 20 - 85%
Performance-related	ATP Recovery Rate: 90 - 110%; Detection Modes: RLU, coliform group screening
Function Settings	50 user ID settings; Number of settable result limits: 251; Automatic judgment of conformity/disqualification; Automatic statistical pass rate
Self-inspection & Calibration	Built-in self-calibration light source; 30-second self-inspection on boot
Standby & Consumables	Standby at 20°C: 6 months; Uses stable liquid luciferase; Wet-integrated collection swab
Data Transmission & Accessories	MiniUSB interface, upload results to PC; Equipped with dedicated software driver USB disk (replacing traditional CD)
Appearance & Power Supply	Dimensions (W×H×D): 188mm×77mm×37mm; Uses rechargeable lithium battery, no battery replacement needed