

FLUIDION® ALERT ONE (HANDHELD *E. COLI* ANALYZER)

The Standalone Emergency Response Unit for Water Quality



The world's first handheld microbiology lab

ALERT One from Fluidion® is the world's smallest *E. coli* analyzer: it fits in the palm of your hand and can automatically measure bacteria in a manually-collected sample. It performs incubation, optical monitoring (multispectral absorbance and fluorescence) and signal analysis, providing rapid *E.coli* measurements that are displayed on a small integrated screen. ALERT One greatly simplifies measurement logistics, eliminates the need for sample refrigeration during transportation prior to standard laboratory measurements, and minimizes errors due to sample degradation between collection and measurement. It has been shown to have similar accuracy and repeatability to an approved laboratory using MPN methods, and relies on the reliable Fluidion® ALERT technology that has been verified by the WHO and UNICEF¹.

Bring the lab to the sample, not the sample to the lab!

ALERT One can be used in a large variety of settings for quantifying *E. coli*, Total Coliforms or Fecal Coliforms presence in finished drinking water, but also in lakes, reservoirs, rivers, coastal water, catchment sites or in water treatment plants. It has a miniature form factor and can be powered from a USB-C port using either a battery pack or a miniature charger, which makes it easy to transport and deploy anywhere in the world, and to operate in ad-hoc locations, in a car or inside a facility. ALERT One greatly simplifies water quality monitoring at remote field locations, or in disaster-impacted areas. With ALERT One,

TECHNICAL SPECIFICATIONS

Dimensions	Length: 9.1" (23.1 cm) Diameter: 3.3" (8.4 cm)	Total measurements	Single sample
Weight	2.1 lbs. (950 g)	Response time	2 h - 14 h
Environmental conditions	15 °F to 105 °F (-10 °C to 40 °C)	Materials	PVC, Silicone, ABS, SST316L
Measurement range	2 – 5×10 ⁵ bacteria/100 mL	Communication*	USB-C port
Parameters	<i>E. coli</i> , Total or fecal coliforms; Enterococci	Power source	Power adapter or battery pack (5V DC 15W, trickle charge)

*No cellular connection or SIM card needed.

¹WHO and UNICEF Joint Monitoring Programme, "Laboratory evaluation of portable water quality testing kits – Fluidion ALERT Lab", pp.1-23 (2022)

water quality monitoring is considerably simplified while minimizing cost and time-to-result. It is intuitive and fully operational out-of-the-box. A larger portable version (Alert LAB) and a fully-automated in-situ version (Alert System V2) are also available.

A fast and reliable response

The ALERT One provides a quantified response in terms of *E. coli*/100 mL present in the sampled water, that has been validated through numerous side-by-side studies with approved laboratories and international organizations¹. The system implements Fluidion's multispectral optical detection technology, which ensures high accuracy consistent measurements and rapid time-to-result.

Usage examples



Left: ALERT One performing a measurement at an urban recreational site, powered by a portable battery pack.

Upper right: Sample being loaded into the ALERT One. **Lower right:** ALERT One during a field operation, next to the ALERT Lab.