



Handheld Raman Spectrometer

Identify the substance in seconds

Cora 100 is a small and lightweight Raman spectrometer which fits in your hand and is ideally suited for identifying or confirming substances at the touch of a button. You can simply identify unknown samples like hazardous materials, narcotics, explosives, and chemical warfare agents or verify incoming goods without being a trained chemist. The easy-to-use software and helpful accessories enable you to quickly make life-saving decisions in the field and in hot-zone environments.



Drugs and narcotics

Cora 100 identifies different drugs and narcotics through the packaging without needing sample preparation or destroying the sample. Typical samples are in the form of:

- Powders
- Tablets
- Liquids



Hazardous materials

The chemical fingerprint reveals whether an unknown substance is hazardous or dangerous. Fast identification of substances on-site and with no direct sample contact helps to assess the risks involved in:

- Spilled substances
- Leaked liquids
- Substances in unlabeled plastic packaging or glass vials



Explosives

With the in-built timer function provided by Cora 100 you can analyze potentially explosive materials from a safe distance. The spectrometer can be mounted on a camera thread for stable positioning on a tripod. The built-in reference database contains information on:

- Commercial explosives
- Home-made explosives
- Precursors



Raw materials and final products

Identify and verify substances with Cora 100 – from incoming raw materials inspection to identification of counterfeits and quality assurance of intermediate and finished products. Analyses can be performed:

- On liquids, gels, and solids
- Through glass bottles, plastic bags, and transparent containers
- On pure substances and mixtures

Highlights of Cora 100

Look, measure, and act – within seconds

Cora 100 identifies unknown substances or incoming goods, and shows you the results in seconds without complicated steps or sample preparation. The time between measurement and action is minimized and you are safe at all times as there is no need to unpack substances from the bag or container.

Fits in your hand and in your bag

With its small footprint and weight of only 700 g Cora 100 is a real handheld instrument. It has successfully been tested according to military specifications, MIL-STD 810G, as well as European tests for dust and water, and is defined as "IP67 waterproof". Cora 100 doesn't care whether it's hot, cold, humid, wet, or dirty – it's built for operation in the field and can be used under harsh conditions between -20 °C and +40 °C.

All the chemistry you need

Cora 100 has built-in chemical intelligence. The on-board Raman libraries for hazardous materials, explosives, narcotics, and chemical warfare agents enable the matching of an unknown substance within seconds to allow you to make life-saving decisions in the field. The collected data is saved and stored in the instrument for subsequent report generation.



Cora 100 speaks your language

The desktop software "Cora 100 Connect" gives you easy device management in your native language. It provides the necessary tools for library development, data storage and transfer as well as method and user management and means you can manage measurements, spectra, and reports across your organization.

Cora 100 and its PC software are available in English as standard, with Spanish, Mandarin, French, and German as optional languages. Further languages are available upon request.

Be well-equipped – the right accessories for every situation

Cora 100 comes with a point-and-shoot adapter, a vial holder, and a 90°-angled sampling adapter. These accessories allow you to measure through transparent plastic bags or glass so you can keep dangerous substances safely sealed. With the angled adapter you can position the instrument anywhere on the sample and thereby perform hands-off measurements, e.g. for investigating potentially explosive substances.



Specifications

	Cora 100
Laser excitation	785 nm
Laser power	300 mW output, >215 mW at sample
Spectral range	400 cm ⁻¹ to 2300 cm ⁻¹
Spectral resolution	max. 10 cm ⁻¹
Detector type	Linear CCD array
Display	Transmissive color TFT with LED backlighting
Software	Embedded Linux
Data formats	Text
Connectivity	USB 2.0 mass storage device
Battery	Rechargeable Li-ion, typical use battery life 8 h ¹
AC adapter	Optional output 5 VDC/1 A USB for charging
Size	15.8 cm x 10.1 cm x 2.9 cm
Weight	650 g
Operating temperature	-20 °C to +40 °C
Storage temperature	-30 °C to +50 °C
Accessories	Point-and-shoot adapter, vial holder, 90° angle adapter with mounting tools, laser aperture cap with polystyrene target for system test
Items included with product	Instrument, watertight case, shoulder strap, USB cable, vials

¹ Approximate value only. Actual endurance depends on scan times used, screen brightness settings, and general instrument duty cycle.

