





Serstech offers a complete solution for measuring, storing, analysing and sharing chemical data.

## Serstech 100 Indicator, the three-in-one solution

**1. Screen method** This is ideal for screening a sample for the presence of a restricted substance. In other words, when you know what you are looking for. A typical user would be a police officer screening for narcotics on the street level.

You can choose one or all target substance categories from a list (e.g. Narcotics and/or Explosives). The Indicator will then analyse the sample and search for a match in the stored spectra. Depending on your licence level, this may be up to several thousands of substances. If a match to a restricted substance is found, you will be alerted by the substance receiving a red screen.

**2. Verify method** This is similar to the Screen method in the sense that you know what you are searching for, but in this case you only search for a match to one specific substance rather than several.

A typical example might be the verification of incoming raw materials in an industrial context, as part of a quality assurance process. To measure, you first choose a substance from the spectra databases. The Indicator then analyses the sample and compares it with the chosen reference. If there is a match, you receive a green "Pass" message.

**3. Identify method** This is the most common of the three measuring modes, and typically used by first responders, for example. Their goal is to identify all the unknown substances in a sample, rather than singling out a specific substance or substances.

The Indicator matches the unknown chemical to the chosen on-board spectra groups. All substances that match the sample will be listed, and you can access specific substance (chemical safety) information for all matches found. This is not category matching like that used in the Screen method described above. The analysis is based on molecular spectral data only, regardless of category.

- Rugged waterproof design (Mil-Spec and IP67)
- Truly handheld format
- Intuitive user interface
- Advanced mixture analysis
- Library Manager
- Non-touch screen for reliable usage in any conditions

## Serstech 100 Indicator Technical Specifications

Part No	IND-1001
Instrument type	Handheld Raman spectrometer
Laser Excitation Wavelength	785nm, Stability <0.01 nm, Linewidth <0.1 nm
Laser Output Power	Max 300mW
Max Spectral Range	450 cm- <sup>1</sup> to 2 300 cm- <sup>1</sup>
Spectral Resolution	10 cm- <sup>1</sup>
Detector Type	Linear CCD Array
Display	3.5" transmissive color TFT with LED backlighting
Memory	Enough for 20 000 measurements (8 GB)
Data Formats	Text; .txt, .csv
Connectivity	USB 2.0
Battery Rechargeable	Li-ion, capacity 7,22 Wh, >4 hrs Continuous Operation, non-user replaceable
AC Adapter	5 VDC/1 A USB for Charging
Weight	650 g (1.4 lb)
Size	15.8 cm x 10.1 cm x 2.9 cm (6.2 x 4.0 x 1.1")
Operating Temperature	-20 °C to +40 °C
Storage Temperature	-30 °C to +50 °C
Included accessories	Instrument, watertight case, shoulder strap, USB cable, laser aperture cap with polystyrene target, sample
	vials, point-and-shoot adapter, vial holder, 90° angle adapter, attachment point
Exposure	Manual mode (0.001 – 60 sec) and automatic mode
Additional Features	User authorisation, Event logging, Scan Time Delay
Basic Database	>100 substances with compound data. Wide range of categories represented, e.g.
	Narcotics and Precursors, Explosives, Pharmaceuticals, Solvents, Polymers.
Additional databases	Choose from 8 000 substances in more than 20 sub-categories incl. Cosmetics, Food, Polymers, Pharma,
	Explosives, Forensics and Hazardous Chemicals. Users can also create their own database at no extra cost.
Warranty	1 year standard, users can buy two additional years
MTBF	50 000 h
Relative humidity	5-90%
Approvals	EN 60825-1:2007 Class 3B, EN 61000-6-3:2007, AS/NZS CISPR 22, EN 61000-6-1-6-1:2007, EN 61000-4-
	2, -3, EN 60950–1:2006–05-29 + A1/A2/A11/AC1, EN 60950-22:2006-06-19 + C1/A11/A11C1, EN
	61010-1:2010 (Third Edition), Directive 2012/19/EU (WEEE), Directive 2011/65/EU (RoHS), IEC 60529
	IP67, MIL-STD-810G 514.6 (vibration), MIL-STD-810G 516.6 (functional shock)
Multilanguage	Chinese, Danish, English, French, German, Japanese, Russian, Swedish
Software	Data Management Tool (DMT) is designed to help the user manage all data on the instrument.
	It's available for MS Windows and Mac OS X



With the *point and shoot adapter* analysis can be made from any surface by gently pressing the adapter against it.



The 90° *angled adapter* offers several convenient ways of measuring.

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