

Serstech Arx mkII

Simplicity. Speed. Precision.



Experience simplicity, speed and precision with Serstech Arx mkII designed for and with field operators. With one-hand and single-button operation, the pocket-size Arx mkII is your reliable solution for precise chemical identification.

Determine what's in front of you in seconds, without complexity. With more than 24000 substances divided in Narcotics, Explosives, TICs, CWAs and Pharma libraries - Serstech Arx mkII delivers fast and accurate results.

Built for precision in the field. Our algorithms reduce fluorescence in difficult substances, and the Deep Scan™ feature identifies even small traces of chemicals in complex mixtures.

Use ChemDash Mobile to connect Serstech Arx mkII wirelessly and send case reports instantly from the field. For secure operations, Wi-Fi and Bluetooth can be disabled as needed.

Serstech Arx mkII is the only handheld Raman device compatible with military networks via ATAK. Designed for ease and speed. The interface is straightforward, optimized for use with tactical gloves. A dedicated night vision mode works with most night-vision goggles.



 **SERSTECH**

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Your trusted vendor in the
DACH region.

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Instrument Specifications

Instrument type	Handheld Raman spectrometer
Weight	590 g (1.3 lb)
Size	160 mm x 85 mm x 28 mm (6.2 x 3.3 x 1.1)
Laser excitation wavelength	785 nm
Laser output power	Max 300 mW, user adjustable
Barcode reader	Yes, QR and most common barcode formats
Max spectral range	400 cm ⁻¹ to 2300 cm ⁻¹
Auto-focus	Yes, 0–4 mm
Spectral resolution	8–10 cm ⁻¹
Detector type	Linear CMOS
Display	3.5" Transflective TFT with LED backlight, Night-vision mode
Internal memory	More than 100 000 measurements
Data export formats	txt, .csv, .jcamp
Connectivity	USB-C, Wi-Fi (2.4 GHz), Bluetooth 5.1
Battery	Rechargeable - more than 12 hours of typical use
Operating temperature	-20°C to +50°C (-4°F to 122°F)
Storage temperature	-30°C to +50°C (-22°F to 122°F)
Start-up time	Less than 20 sec. in room temperature
Relative humidity	5–90%.
Scan time	Most substances less than 5 sec
Exposure	Auto-exposure or manual exposure, 0.001 – 60 sec
MTBF	50 000h
Approvals	CE, IEC 60529 IP67, MIL-STD-810G 514.6 (vibration), MIL-STD-810G 516.6 (functional shock), SWGDRUG category A compliant for presumptive testing, g, 21 CFR part 11 compliant (Instrument and ChemDash) ATAК

Accessories and Optional Components

Included accessories	Vial holder, watertight case, protective cap with calibration target, sample vials, USB-C cable, AC adapter 5 VDC/1 A USB for charging
Software included	ChemDash Lite. Optional software: ChemDash Pro and ChemDash mobile (iOS & Android)
Available libraries	Explosives, Narcotics, Chemical Warfare Agents, Hazardous materials, Pharmaceuticals, Biotoxins, User defined libraries. Total number of substances more than 24 000

Functionality and Features

Type of samples	Solid, liquids, powders, and tablets
Mixture analysis	Yes
Deep scan	Enables identification of very small quantities within complex mixtures
Fluorescence reduction	Built-in algorithms reduce fluorescence interference from challenging substances
Delay function	Yes, 1 sec to 15 min
Features	Auto-focus, QuickScan, User authorization, Event logging, Scan delay, User-defined libraries, User-added substances and Night-vision mode

Serstech SERS-dock



Simplicity. Speed. Precision.

Identify chemical threats detected by AP4C + S4PF/S4PE

Identifying chemical threats, detected with an AP4C + S4PF/S4PE, can be done easily and quickly with Arx handheld Raman using the Serstech Arx and SERS (Surface Enhanced Raman Spectroscopy).

To combat chemical threats in the field, sufficient equipment for detection and identification of such threats is required. These tools must comply with the demands set by the tough conditions where they are needed e.g., small size, light weight, durable, easy to use, and accurate.

The AP4C by Proengin fulfill these requirements and can detect potentially hazardous gases. Whenever a liquid or solid is suspected to contaminate a surface, the S4PF/S4PE can be used to determine whether the material is organic and/or containing sulfur (S), nitrogen (N), phosphorous (P), or Arsenic (As).

For accurate more identification, Raman spectroscopy is commonly utilized. If sufficient material is available, a direct measurement with a handheld Raman device can be carried out in seconds.

If only a small amount of the sample is available, it can still pose a significant threat. The SERS4PF is then used to safely and efficiently transfer the sample collected with the S4PF/S4PE to the SERS substrate via solution. SERS allows for identification of trace amounts (ca 0,1 mg) of sample even after being heated with S4PF/S4PE.



Serstech SERSdock



Specifications

Size	Ø 26 / 13; H: 42 (mm)
Weight	8 g
Detection limit	10 µg
Compatible Devices	Serstech Arx mkII, Serstech SERS kit, AP4C + S4PF/S4PE
Sample Types	Solid, liquid traces
Included in the kit	1 x SERSdock, 1 x SERS adapter, 10 x Solvent bottles (4ml Methanol), 10 x SERS disks

How It Works

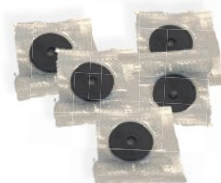
Transferring the samples from the scraper tip is simple. Keeping the S4PF/S4PE in one hand, the SERS kit with SERSDock attached, is prepared using the other hand. By gently pressing/squeezing the solvent reservoir and lifting it off, the correct amount of solvent is released onto the SERS substrate.



Solvent (4ml)



SERSdock



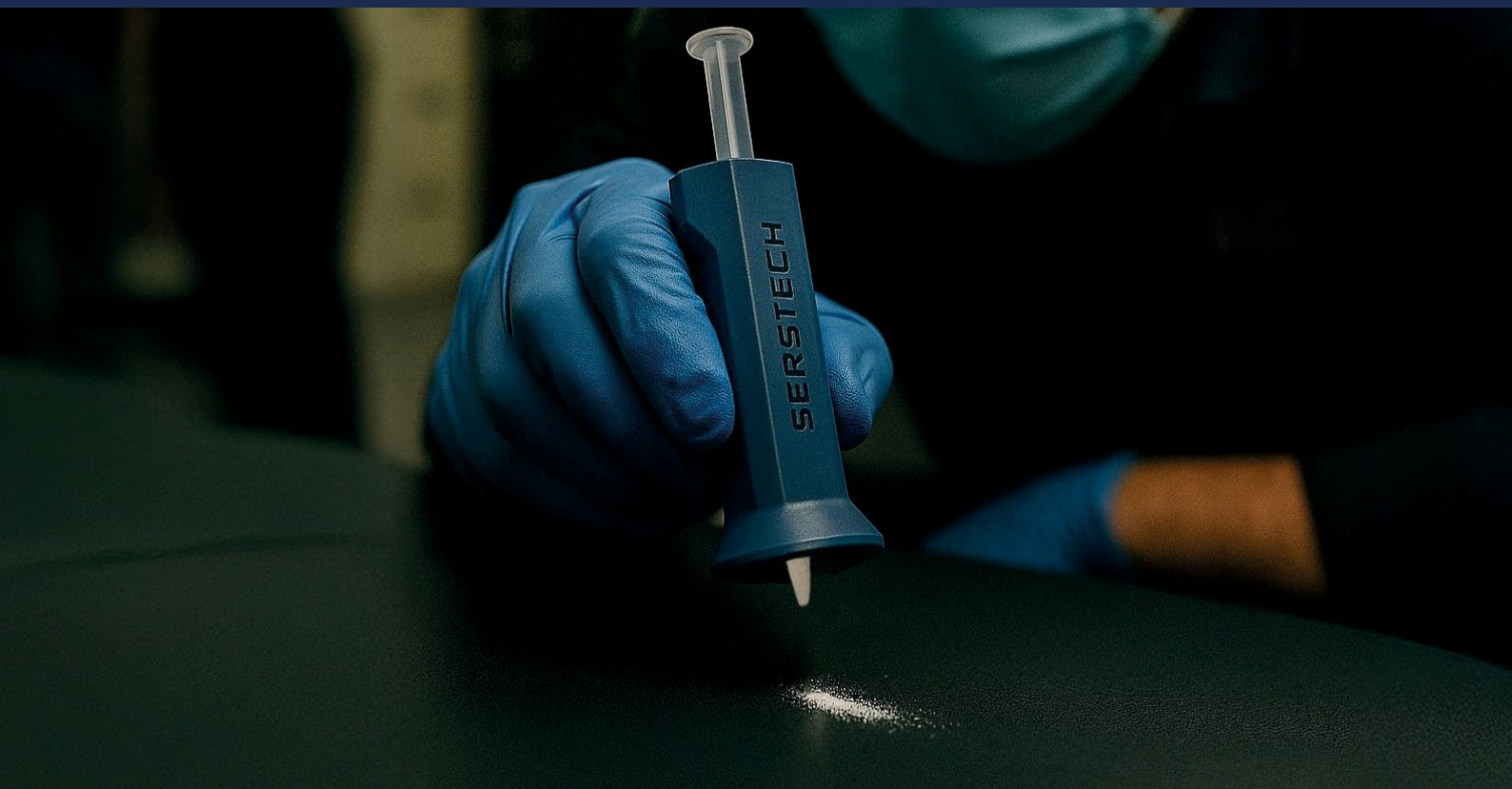
SERS disk



Assembled on SERS adapter

Serstech TraSERSwab

Simplicity. Speed. Precision.



Collect, dissolve, and prepare samples for SERS analysis

Collect trace material, dissolve it, and prepare a SERS (Surface Enhanced Raman Spectroscopy) measurement - all in one go.

To combat chemical threats in the field, accurate identification tools are essential. These tools must also be small, lightweight, durable, and easy to use to withstand demanding conditions.

The TraSERSwab collects traces of powders from surfaces and accurately transfers them onto the SERS kit for analysis. Together with the SERS kit, it enables the detection and identification of a wide range of chemicals, including narcotics and chemical warfare agents, in amounts as low as **0.05 mg**.

It is compatible with various solvents, allowing for broad analyte detection. Suitable for **narcotics, explosives, CBRNe, HazMat / TIC**.

TraSERSwab Specifications

Detection limit	0,05 mg
Size	H: 12 / Ø 4 (cm)
Weight	24 g
Included in the package	10 TraSERSwabs, 20 solvent vials

SERS kit (Patented)



TraSERSwab (Patent Pending)



Serstech ChemDash



Simplicity. Speed. Precision.

Manage your devices, libraries, and measurements easily and efficiently with Serstech ChemDash

Build your own libraries. Add your measurements to your own libraries and share these between instruments across your organization. Each library entry can contain CAS number, GHS symbols and even you standard operating procedures for safe handling.

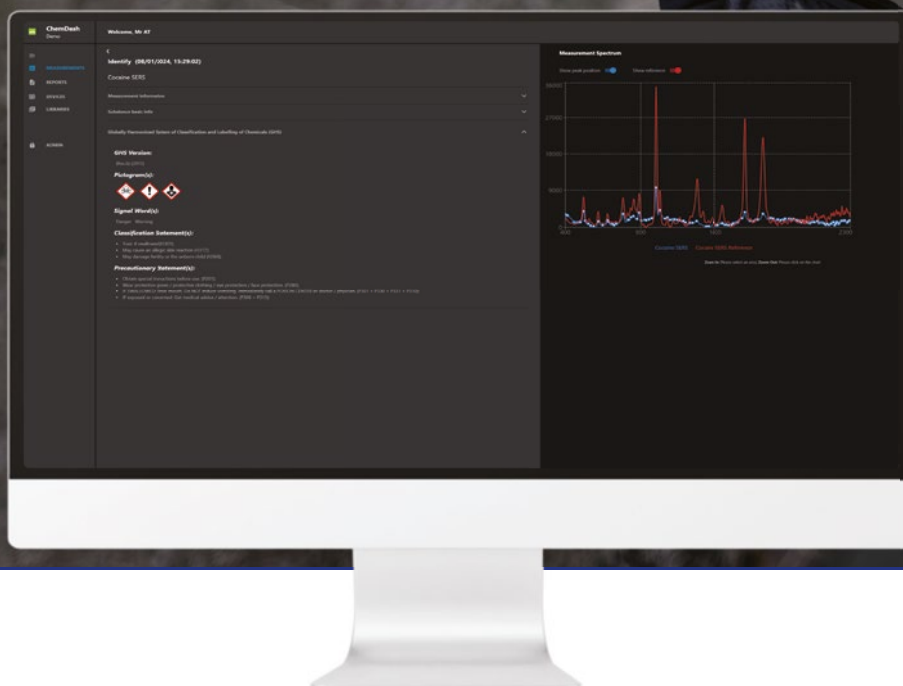
Create case reports. Create case reports based on one or several measurements. Report templates allow for custom reports to be created in seconds.

Efficient and easy to use. Serstech ChemDash is easy to learn and use and only minimal training is needed. Manage, update, and synchronize the data of all instruments in your organization quickly and effortlessly.

Analyze your measurements. Analyze and compare spectra and the components of mixtures. Each spectrum and component can be compared against the library references.

Keep up-to-date. ChemDash allows you to manage all Serstech instruments within your organization. Set user rights, update instrument libraries and software and backup all data from all instruments.

Serstech ChemDash



- Analyze measurements
- Create reports
- Create and share libraries
- Import/export libraries
- Manage and classify new substances
- Export measurement data
- Manage and synchronize your instruments
- Manage users and privileges
- Upgrade firmware and libraries
- Multiple language support
- Communication over WiFi or cable
- Workflows

	ChemDash Lite	ChemDash Pro
Connectivity	USB	USB, WiFi
Standard reports	Yes	Yes
View measurements	Yes	Yes
Measurement reports	Yes	Yes
Device update tool	Yes	Yes
Manage custom libraries	Yes	Yes
Import/export custom libraries	-	Yes
Customize reports	-	Yes
Customized workflows	-	Yes
Advanced settings	-	Yes
Number of devices	1	Multiple