

SPECTRO **xSORT** XHH04

Handheld ED-XRF Spectrometer



Advanced On-Site Analysis of Rocks,
Ores, Concentrates, and Tailings

Get fast elemental analysis in the field with SPECTRO xSORT

Mining and geochemical operations present numerous challenges for analytical instrumentation.

Multi-element. Users need to determine the composition of ores, concentrates, and tailings containing a range of elements — an extremely wide range: potentially more than half of the periodic table.

Multi-range, from trace element content to weight percentages. Analytical tools must also often provide users with accurate measurements of a wide range of concentrations of these elements, across numerous sample types. Multiple analyses must be performed, from feed material evaluation to ongoing process control monitoring.

Minimum time to results. Complex materials and deposits make it difficult to ensure consistent feed quality to a processing plant, even with improved material blending capabilities. Process control needs to be able to respond more quickly and proactively to any change. Efficient processes are more complex and require more accurate dosing of reagents to reduce costs and minimize waste. Turnaround time (TAT) is of the essence.

Challenging sites. Mines may be situated anywhere, from the far north of Alaska to the high altitudes of Chile's Atacama Desert. Remote locations often present logistical and engineering challenges. Unlike commercial hub labs in centralized, accessible places, which can easily receive samples from anywhere on their continent, mine sites are often difficult to access. Supply capabilities may be limited by factors such as air-only transport or seasonal access. Enter the SPECTRO xSORT.



THE SPECTRO xSORT HANDHELD X-RAY FLUORESCENCE (XRF) SPECTROMETER

furnishes high-throughput, highly reliable elemental screening of countless geological and mining sample types in widely varying conditions.

FAST

For many analysis tasks of geological and mining samples, SPECTRO xSORT displays results in less than a minute! Screening even a large site or sizable pile of material takes hours, not days.



EASY

Reduced in size compared to previous models and well balanced, SPECTRO xSORT is optimized for day-long, fatigue-less, one-handed operation. The ergonomic design includes a light-squeeze trigger; a 5" big, easy-reading, wide-angle, high-definition display; extra physical buttons ideal for gloved hands. Results: effortless operation with all-day comfort.

The instrument is provided with a small and portable stand. In addition, a larger docking station is offered as an option. Both support a faster turnaround-time as during the time one sample is tested, the next one can already be taken and prepared for analysis.

Setting up the sample stand is easy as setting up a deck chair. Mounting the instrument into the docking station and connecting it to an external computer is easier and faster than ever before.

SPECTRO **xSORT** advantages everywhere you go

Optional overview camera — capture images or barcodes / QR codes

Optional GPS for location & documentation

Optional target video camera — test spot images

High-resolution, high-sensitivity silicon drift detector (SDD)

Shutter for internal component protection (detector and tube). Serves as sample for SPECTRO's unique iCAL (Intelligent Calibration Logic) standardization - for continuous system monitoring and correction so that all installed methods are always ready for use.

Connections: WiFi, Bluetooth to network with phone, tablet, PC, notebook, printer

X-ray safety gasket — prevent backscatter radiation from light element matrix samples

Lightweight: 2.97 lb / 1.35 kg (3.52 lb / 1.6 kg with battery)

Long-lasting quick-change battery for up to 5 hours operation

microSD card slot, USB-C port

Charging port / power supply

Easy-reading 5-inch, high-definition touch display

Extra control buttons for gloved operation

BUILT-IN PROTECTION & STANDARDIZATION

The shutter that automatically closes the measurement window between analyses — to protect internal components — also functions as the sample material for unique, automatic iCAL standardization. All methods loaded into SPECTRO xSORT are always ready for use.

INFORMATION-INTENSIVE

The instrument is fully equipped for comprehensive data capture and documentation, everywhere it goes. Features and options include everything from an onboard GPS and two cameras to WiFi and Bluetooth to microSD storage and USB connectivity.

FLEXIBLE

Factory methods offer maximum analytical flexibility. Users get ultra-wide coverage of elements and sample matrices. And operators don't have to switch methods between samples.

POWERFUL SOFTWARE

SPECTRO xSORT combines powerful XRF Analyzer Pro Mobile analytical operating software with fast-reaction Industrial Android modules (for touch operation, hardened security, quick access to all functions, and Windows PC compatibility). Standard features include spectra viewer and a customizable display of elements.

When mounted in the docking station, it can be connected to the even more powerful XRF Analyzer Pro 4 software. This supports the operator with additional benefits like the storage of all raw data for further treatment. If, for example, a more dedicated analytical method will be used instead of the screening program, sample data just need to be re-processed, not re-measured. The software also supports during set-up and calibration of dedicated applications.

SPECTRO xSORT grab one and go

SPECTRO xSORT

SPECTRO xSORT provides reliable, high-productivity measurement and analysis. Get results on-site, increase sampling frequency, reduce overall turn-around times, and reduce overall cost by sending less samples to the lab for analysis.

Excellent Support

AMECARE Performance Services maximize uptime for products and services from SPECTRO Analytical and associated companies. The program is staffed by hundreds of experienced service engineers in 50 countries. They provide high-value, customized support for optimum performance plus the longest possible equipment life. Ask about proactive performance maintenance, performance upgrades, applications solutions, consultation, targeted training, and ongoing support.



Complete Line

The innovative handheld solution SPECTRO xSORT joins SPECTRO's portable SPECTROSCOUT and benchtop ED-XRF flagship SPECTRO XEPOS in the fields of geological and mining applications. As the operation software XRF Analyzer Pro uses the same structure in all the XRF instruments from SPECTRO, operators benefit from a fast learning curve when using an additional analyzer from this product family.

Whatever the product, SPECTRO's 40-plus years of experience in elemental analysis — along with its unparalleled technical innovation and excellence — ensure the best results in the business.

www.spectro.com

GERMANY

SPECTRO Analytical Instruments GmbH
Boschstrasse 10
D-47533 Kleve
Tel. +49.2821.892.0
spectro.sales@ametek.com

U.S.A.

SPECTRO Analytical Instruments Inc.
50 Fordham Rd
Wilmington 01887, MA
Tel. +1 800 548 5809
+1 201 642 3000
spectro-usa.sales@ametek.com

CHINA

AMETEK Commercial
Enterprise (Shanghai) CO., LTD.
Part A1, A4 2nd Floor Building No. 1 Plot Section
No. 526 Fute 3rd Road East; Pilot Free Trade Zone
200131 Shanghai
Tel. +86.400.022.7699
spectro-china.sales@ametek.com



Subsidiaries:

► **FRANCE:** Tel. +33.1.3068.8970, spectro-france.sales@ametek.com ► **GREAT BRITAIN:** Tel. +44.1162.462.950, spectro-uk.sales@ametek.com
► **INDIA:** Tel. +91.22.6196.8200, sales.spectroindia@ametek.com ► **ITALY:** Tel. +39.02.94693.1, spectro-italy.sales@ametek.com
► **JAPAN:** Tel. +81.3.6809.2405, spectro-japan.info@ametek.co.jp ► **SOUTH AFRICA:** Tel. +27.11.979.4241, spectro-za.sales@ametek.com

SPECTRO operates worldwide and is present in more than 50 countries. For SPECTRO near you, please visit www.spectro.com/worldwide
© 2025 AMETEK Inc., all rights reserved, subject to technical modifications • D-25, Rev. 0 • 80902742 • Photos: SPECTRO, Adobe Stock
Registered trademarks of SPECTRO Analytical Instruments GmbH • **SPECTRO**: USA (3,645,267); EU (005673694); "SPECTRO": EU (009693763)
"xSORT": USA (IR 3,767,555); Japan, China (IR 978 588); EU (007058456); "SPECTRO XEPOS": Germany (39851192), USA (2,415,185);
"SPECTROSCOUT": EU (10705424); USA (4,394,468); Japan (1141441); South Korea (1141441); China (1141441)