

# X-RAY FLUORESCENCE SPECTROMETERS & ANALYZERS SPECTROSCAN

solutions for your laboratory



spectrometers  
and analyzers

# ABOUT US

SPECTRON NPO Ltd. is ISO 9001:2015 certified



Founded in 1989, SPECTRON remains Russia's leading manufacturer of X-Ray spectrometers and analyzers. The staff of highly qualified engineers, designers, researchers and other experts constantly work on the development and implementation of modern solutions in the field of analytical chemistry.

Our product line includes the range of XRF spectrometers and analyzers; our high technical expertise, constant research for innovative techniques, method implementation support and powerful software help to solve numerous analytical tasks in industry and research.

All instruments supplied are designed and configured in accordance with our clients' specific analytical tasks and are equipped with the necessary accessories, consumables and software.

Today, SPECTRON has supplied over 12 000 instruments for various applications worldwide.



# TRAINING AND SUPPORT



SPECTRON has in-home methodical support laboratory and training center.

We are always ready to provide our clients and partners with such solutions as:

- Development and validation of test methods
- Methodical guidelines development
- Calibration of instruments with customer's samples
- Remote support via the Internet
- Free training on operation, maintenance and service for customers and partners
- Service support within the whole lifetime period

# SPECTROSCAN SE



## Energy dispersive X-ray fluorescence (EDXRF) Sulfur Analyzer for petroleum and petroleum products

- Unique analytical performance for portable EDXRF analyzer
- The best choice for testing low-sulfur fuels
- Measurement range from 5 ppm to 5%
- Outstanding LOD for EDXRF: 1.5 ppm

EDXRF sulfur analyzer SPECTROSCAN SE is designed for Sulfur determination in all kinds of petroleum samples: from high-sulfur crude to the best grade gasoline.

Spectroscan SE fully complies with ASTM D4294, ISO 20847, ISO 8754, and IP 336 standards.

## Features and Advantages

- No Helium purge
- LOD is 1.5 ppm
- Constant self-check, zero and span correction
- Easy operation, no installation requirements
- Suitable for mobile laboratory
- Ultra close position of sample to X-ray optics provides the superior sensitivity
- Special ventilated sample cups for volatile petroleum products

### Due to lateral sampler and vertical positioning of sample cup window:

- Errors due to sample inhomogeneity (e.g. water and air bubbles in sample) are excluded.
- X-ray optics is protected from accidental sample spills/leaks.
- No need for additional protection film and no errors from film contamination and non-uniformity.
- Sample compartment can be easily removed and cleaned.

Spectroscan SE is a desktop compact EDXRF with built-in PC, color touch-screen and thermal printer.

There are several in-memory calibrations for ASTM and ISO standards and up to several hundred user calibrations can be recorded in the instrument's memory.

Calibrations and measurement results are displayed in graphical and table forms.

Spectroscan SE has several outputs for PC connection both for data transfer and for remote assistance of Spectron engineers.

## Measurement procedure

Requires just a few simple actions

- enter the sample's name (or number) via the touch-screen;
- pour two portions of the same sample into sample cups;
- measure them one after another

All remaining operations run automatically

- sulfur content in the sample is calculated, displayed on the screen, printed out and integrated into LIMS (option);
- repeatability report – the difference between readings of the first and the second portions of the sample is calculated



## Specifications

|                                  |                                                                      |
|----------------------------------|----------------------------------------------------------------------|
| Elements                         | Sulfur, <sup>16</sup> S                                              |
| Measurement principle            | Energy dispersive X-ray fluorescence (EDXRF)                         |
| Limit of Detection, LOD, at 200s | 1.5 ppm                                                              |
| Measurement range                | 5 ppm – 5.0%                                                         |
| Standards compliance             | ASTM D4294, ISO 20847, ISO 8754, IP 336                              |
| X-ray tube                       | 5 kV, 5.0 W, Ag target                                               |
| Detector                         | sealed Proportional Counter                                          |
| Sample compartment               | 1 sample, vertically placed                                          |
| Sample cups                      | Ventilated sample cup, 8 mL                                          |
| Measurement time                 | 10 – 999 s, user-selectable                                          |
| Consumable gases                 | No                                                                   |
| Interface                        | Built-in PC with 7" color touch-screen and printer                   |
| Outputs                          | Ethernet (RJ45), USB memory stick, RS-232, Optional LIMS integration |
| Power requirements               | 230±23V, 50/60 Hz, 100 VA                                            |
| Dimensions                       | 400 × 320 × 185 mm                                                   |
| Weight                           | 8.5 kg                                                               |



SPECTRON



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