

FULL-SPECTRUM SPARK DIRECT READING SPECTROMETER (PROFESSIONAL TYPE)

CODE OES-R420



- Can be widely used in industries such as metallurgy, casting, machinery, steel, and non-ferrous metals. It is widely used in the research and development of raw materials, parts, and product processes in fields such as automotive manufacturing, aerospace, shipyard, electromechanical equipment, engineering machinery, electronics and electrical engineering, education, and scientific research.
- Can be used for sample analysis of metals and their alloys such as Fe, Al, Cu, Ni, Co, Mg, Ti, Zn, Pb, Sn, Mn, etc.
- Optimal optical system in a 10,000-class ultra-clean environment, with an all-solid-state digital spark light source. Energy and frequency parameters are continuously adjustable, MTBF (mean time between failure) > 5000 hours, adaptable to a variety of different materials. A massive number of spectral lines make the analysis no longer limited, including elemental content of high and low curve segments. Automatic matching analysis of a wide range of unknown samples to automatically match the best analytical procedures. Automatic deduction of inter-element summing and multiplication of interferences, resulting in more accurate analysis results. Automatic calibration of pixel drift to ensure the stability of the optical system.
- Multilingual versions are available (Chinese, English, Russian, German).

STANDARD DELIVERY

Main unit	1 pc
Computer	1 set
Printer	1 pc
Voltage regulator	1 pc
Standardised sample	1 set
Analysis and calibration software	1 set
Consumable and spare parts	1 set

OPTIONAL ACCESSORY

Lathe	OES-R420-LATHE	220×300mm, 220V
Electrode brush	OES-R420-BRUSH	/
Small sample fixture	OES-R420-RODLIKE	Ø3.1~7mm regular bar sample
	OES-R420-FILIFORM	Ø0.5~3mm filament sample
Gasket	OES-R420-GASKET1	Copper, ID6mm
	OES-R420-GASKET2	Copper, ID8mm
	OES-R420-GASKET3	Boron nitride, ID4mm
	OES-R420-GASKET4	Boron nitride, ID6mm

SPECIFICATION

Optical system	Full-spectrum technology	coverage of the full range of elemental analyses
	Detector	multiple CCD detectors, unlimited maximum number of detection channels
	Optical system construction	paschen-runge construction, grating focal length 500 mm, roland circle diameter: 500 mm
	Raster scribing	2700 lines/mm
	Spectral range	160~500nm
	Resolution	better than 0.01nm (line resolution 0.7407nm/mm, pixel resolution 0.005926nm)
	Pixel dimension	8 μ m
	Dispersion	class I: 0.74nm/mm, class II: 0.37nm/mm
Excitation source	Excitation frequency	20~1000Hz
	Excitation current	90A
	Excitation voltage	190V
Spark stand	Discharge parameter	Inductance: 120 μ H, Resistance: 3.5 Ω , Capacitance: 5 μ F, Voltage: 380V
	Dimension	125x95mm, max. load 50kg
	Lens	One-piece lens isolation valve
	Excitation electrode	tungsten electrode
Gas supply	Argon quality	purity: 99.999%, pressure: \geq 0.6MPa
	Flow rate	tidal flushing mode, excitation: 8L/min, standby: 60ml/min
General analysis time		<40s
Data processing		single excitation, slice exposure, simultaneous acquisition, simultaneous counting back, independent control of the integration of different CCD exposure time, to enhance the identification of trace elements, to reduce the detection limit of the instrument, adjust the integration time with the wavelength band, to enhance the stability of the instrument.
Work environment		20~25 $^{\circ}$ C, <70%RH
Power		AC220V, 50Hz, 1 \emptyset , 16A, 2.5KW, ground resistance <4 Ω
Dimension (LxWxH)		545x380x435mm
Weight		70kg