

M6 OPTICAL EMISSION SPECTROMETER



M6 Optical Emission Spectrometer is the most advanced Arc/Spark-OES with Ultimate Performance for Metal Analysis. It uses full-digital technology to replace bulky photomultiplier tube (PMT) simulation technology and in the lead of international spectrometer technology. The adoption of vacuum optical chamber design, full-digital excitation light source, advanced CMOS detectors, and high-speed data readout system equips the device with high properties, ultra-low limit of detection (LOD), long-term stability and repeatability.





















Technical Data for M6

Focal Length Wavelength Range Detector Walth resolution CMOS detectors Light chamber Auto control within 6-20 pa Pixel resolution Grating line First order spectral line dispersion rare Average resolution ratio Spark chamber temperature is controlled automatically Type Spark frequency Digital arc and spark source Spark frequency Discharge current Ignition voltage Excitation light Optimization of discharge parameters design High energy pre-combustion acquisition and processing Electrode Hagh above technology Adjustable electrode technolo	Item		Index
Detector Multi resolution CMOS detectors Light chamber Auto control within 6-20 pa Pixel resolution 30 pm Grating line 2400m1/mm First order spectral line dispersion rare Average resolution ratio 10pm/pixel Full spectrum Spark chamber temperature is controlled automatically Type Digital arc and spark source Spark frequency 100-1000HZ Discharge current 1-80A Ignition voltage > 15000V Excitation light Optimization of discharge parameters design High energy pre-combustion technology HEPS Processor High-speed data synchronization acquisition and processing Electrode Tungsten electrode technology Make up Thermal deformation self-compensation design Argon flushed with minimal consumption of Argon Spray discharge electrode technology Adjustable electrode technology Measurable elements C, Si, Mn, P, S, Fe, Cr, Al, Cu, Ni, Ti, Co, Zn, Sn, Mg, Pb & N Dimension 650mm(L)*860mm*1200mm(H) Weight About 235kg Storage temperature 0°C-45°C Operating temperature 10°C-35°C, 23±2°C is recommended Power AC220V/50Hz (Customized) Power Consumption Spark:700W/Stand by:100W Argon quality 99.999%, Argon pressure>4Mpa Argon consumption SL/min during spark mode		Focal Length	400 nm
Light chamber Auto control within 6-20 pa Pixel resolution 30 pm Grating line 2400m1/mm First order spectral line dispersion rare Average resolution ratio 10pm/pixel Full spectrum Spark chamber temperature is controlled automatically Type Digital arc and spark source Spark frequency 100-1000HZ Discharge current 1-80A Ignition voltage >15000V Excitation light Optimization of discharge parameters design High energy pre-combustion technology HEPS Processor High-speed data synchronization acquisition and processing Electrode Tungsten electrode technology Make up Thermal deformation self-compensation design Argon flushed with minimal consumption of Argon Spray discharge electrode technology Adjustable electrode technology Adjustable electrode technology Adjustable electrode technology Adjustable electrode technology Operating temperature Power Operating temperature Power Consumption Spark:700W/Stand by:100W Argon quality 99.999%, Argon pressure>4Mpa Argon consumption SL/min during spark mode		Wavelength Range	130nm-800nm
Pixel resolution 30 pm Grating line 2400m1/mm First order spectral line dispersion rare Average resolution ratio Spark chamber temperature is controlled automatically Type Digital arc and spark source Spark frequency 100-1000HZ Discharge current 1-80A Ignition voltage >15000V Excitation light Optimization of discharge parameters design High energy pre-combustion technology HEPS Processor High-speed data synchronization acquisition and processing Electrode Tungsten electrode technology Make up Thermal deformation self-compensation design Argon flushed with minimal consumption of Argon Spray discharge electrode technology Adjustable electrode technology Adjustable electrode technology Measurable elements C, Si, Mn, P, S, Fe, Cr, Al, Cu, Ni, Ti, Co, Zn, Sn, Mg, Pb & N Dimension 650mm(L)*860mm*1200mm(H) Weight About 235kg Storage temperature 0°C-45°C Operating temperature 10°C-35°C, 23±2°C is recommended Power AC220V/50Hz (Customized) Power AC220V/50Hz (Customized) Power Consumption Spark:700W/Stand by:100W Argon quality 99.999%, Argon pressure>4Mpa Argon consumption 5L/min during spark mode		Detector	Multi resolution CMOS detectors
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Average resolution ratio Average resolution ratio Spark chamber temperature is controlled automatically Type Spark frequency Spark frequency Digital arc and spark source Spark frequency 100-1000HZ Discharge current L-80A Ignition voltage Excitation light Optimization of discharge parameters design High energy pre-combustion technology HEPS Processor High-speed data synchronization acquisition and processing Electrode Tungsten electrode technology Make up Thermal deformation self-compensation design Argon flushed with minimal consumption of Argon Spray discharge electrode technology Adjustable electrode technology Adjustable electrode technology Measurable elements C, Si, Mn, P, S, Fe, Cr, Al, Cu, Ni, Ti, Co, Zn, Sn, Mg, Pb & N Dimension 650mm(L)*860mm*1200mm(H) Weight About 235kg Storage temperature 0°C-45°C Operating temperature 10°C-35°C, 23±2°C is recommended Power AC220V/50Hz (Customized) Power onsumption Spark:700W/Stand by:100W Argon quality 99.999%, Argon pressure>4Mpa Argon consumption 5L/min during spark mode		Grating line	2400m1/mm
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SPARK SOURCE Discharge current 1-80A		Spark chamb	per temperature is controlled automatically
SPARK SOURCE Discharge current 1-80A 15000V		Туре	Digital arc and spark source
Ignition voltage >15000V		Spark frequency	100-1000HZ
SOURCE Excitation light		Discharge current	1-80A
Excitation light Optimization of discharge parameters design High energy pre-combustion technology HEPS Processor High-speed data synchronization acquisition and processing Electrode Tungsten electrode technology Make up Thermal deformation self-compensation design Argon flushed with minimal consumption of Argon Spray discharge electrode technology Adjustable electrode technology Measurable elements C, Si, Mn, P, S, Fe, Cr, Al, Cu, Ni, Ti, Co, Zn, Sn, Mg, Pb & N Dimension 650mm(L)*860mm*1200mm(H) Weight About 235kg Storage temperature 0°C-45°C Operating temperature 10°C-35°C, 23±2°C is recommended Power AC220V/50Hz (Customized) Power consumption Spark:700W/Stand by:100W Argon quality 99.999%, Argon pressure>4Mpa Argon consumption 5L/min during spark mode		Ignition voltage	>15000V
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Argon consumption 5L/min during spark mode		Power consumption	Spark:700W/Stand by:100W
		Argon quality	99.999%, Argon pressure>4Mpa
Interface Ethernet data transmission based on DM9000A		Argon consumption	5L/min during spark mode
		Interface	Ethernet data transmission based on DM9000A

Main Features

1 Optical system

- 1.Integration of optical chamber forming, dynamic Romanian archives park installation, resistance to environmental temperature changes.
- 2. Light vacuum chamber designed to ensure the C, S, P, N to achieve the best performance.
- 3. Ray room temperature control, constant temperature of 35°C.
- 4. Direct MgF2 lens optics technology and materials to ensure the best energy C, S, P, N ultraviolet wavelengths.

2 Sample excitation station

- 1. Optimization of argon gas circuit design ensures effective cooling station excite and motivate metal dust generated in the process effectively into the filter. the sample excitation is more stable, and greatly reduce the body's intake of metal dust, help protect the operator health and safety.
- 2. Smaller excitation space, argon gas consumption less.
- 3. With the function of the electrode should sweep, longer service life, easy cleaning electrode.
- 4. 13 mm aperture stimulate a more conducive sample analysis.

3 Analysis Software

- 1. CMOS-based multi-language Windows system full spectrum graphical analysis software, convenient and practical.
- 2. Comprehensive management control of the entire measurement process and provide users with powerful data processing capability and test report output capacity.
- 3. Instrument can be configured with multiple factory calibration curve and more material analysis and advanced solutions.
- 4. Software to achieve full spectrum of detection, intelligent deduction interference, buckle dark current, background and noise algorithms to improve analytical instruments.
- 5. Complete automatic system diagnostics.
- 6. Comprehensive database management functions can be easily query, summary data.
- 7. Intelligent correction algorithms to ensure stable and reliable instrument.
- 8. Complete spectrum of information and interference deduction algorithm to ensure more accurate instrumental analysis.







Contact Us:



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- O-507, 5th Floor, Ganesh Glory 11, Jagatpur Road, Nr. BSNL Office, S.G. Highway, Ahmedabad, Gujarat, India 382470
- (S) +91 99797 77018 | +91 97248 16698
- @ sales@metalscientific.com
- www.metalscientific.com