



METAL SCIENTIFIC
Measure with Precision

M5 OPTICAL EMISSION SPECTROMETER



M5 is the 4th generation Arc/Spark-OES with high performance lowering operating cost for metal analysis and this is the latest research and development of detection equipment. The overall optical design has been enhanced, and with improvements of CMOS technology used to further improve the performance of the M5 while retaining the major benefit of earlier units. The operation is simple and easy to learn. The test result is stable & accuracy.

26 Fe Iron 55.8450	+	7 N Nitrogen 14.0070	13 Al Aluminium 26.9815	29 Cu Copper 63.5460	27 Co Cobalt 58.9332	28 Ni Nickel 58.9634	30 Zn Zinc 65.4090	12 Mg Magnesium 1.0079	82 Pb Lead 207.2000	22 Ti Titanium 47.8670
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High Performance Metal Analyzer

Technical Data for M5

	Item	Index
OPTICAL SYSTEM	Optical structure	The Paschen Runge construction full vacuum type optics
	Room temperature	35 °C ± 2 °C
	Wavelength Range	165~589nm (Extendable)
	Focal Length	400 mm
	Grating Line	2400m1/mm
	Detector	8-Multi block high performance linear CMOS array
	First order spectral line dispersion rare	1.2nm/mm
	Average resolution ratio	10pm/pixel
EXCITATION TABLE	Gas	Rushing argon (99.999%)
	Argon flow rate	When excited: 3-5L/min Standby time: no need for standby traffic
	Electrode	Tungsten electrode technology
	Analyze the gap	Sample stage:3.4 mm
EXCITATION LIGHT	Type	HEPS
	Frequency	100-1000HZ
	Discharge current	1-400A
	Special technology	Optimization of discharge parameters design
	Pre-combustion	High-energy pre-combustion technology
	Processor	High end ARM, high-speed data synchronization acquisition and processing
DATA COLLECTION SYSTEM	Interface	Ethernet data transmission based on DM9000A
	Power	220VAC 50/60Hz (Customized)
OTHERS	Measuring Elements	C, Si, Mn, P, S, Fe, Cr, Al, Cu, Ni, Ti, Co, Zn, Sn, Mg, Pb & N
	Power consumption	Maximum:750W standby:100W
	Working temperature	10-35°C (temperature ≥5°C)
	Dimension	860mm(L)*680mm(W)*438mm(H)
	Weight	About 100Kg

Main Features

1 Superior Performance Optical System

1. Paschen-Runge Structure has concave grating and full spectrum coverage, it can be satisfied with customers demand for elements.
2. The direct optical technology and optical devices are made of MgF₂ to guarantee the best performance in the UV region.
3. High resolution of Multi-CMOS read-out system, lower dark current, better detection limit, higher stability and stronger sensitivity.

2 Intelligent Vacuum Measurement and Control

1. The vacuum system is program control completely, while ensuring the vacuum to reduce vacuum pump running time.
2. Two-level setting, under the circumstance of the instrument is not running, the instrument needs to open the standby of vacuum operation status.
3. Multi-level vacuum isolation measurements and increasing the oil filter device, and it can keep the optical components working in reliable environment.

3 Intelligent Sample Inspire Stand

- 1 The excitation station can lead laser into the optical system directly.
2. The open electrode frame design, it can adjust sample folder so as to analyze all kinds of shapes and sizes.
3. To transform electrode can have the better performance for small samples and analysis of complex geometry samples.

4 Intelligent Digital Excitation Light Source

- 1 Fully digital intelligent composite light source DDD technology can have superior analytical performance.
2. The compact design and semiconductor control technology, and make light source have better stability and stronger reliability.
3. HEPS can excite parameter adjustment and fully satisfied different matrix, different samples and the demand of analytical elements.

5 Leans Cleaning Device

1. The stainless steel vacuum valve has a better isolation effect in cleaning the lens.
2. The design of single lens can easily disassemble.
3. Cross mechanism device can protect optical system effectively under the circumstance of no quarantine.

6 Friendly Analysis Software

1. The dedicated spectrum software meets international spectrometer production standards, the operation interface has user-friendly design and function standardization.
2. The software in the instrument has equipped with multiple factory calibration curves and many material analysis methods and advanced solutions.
3. According to users' material requirements, the staff members can extend upper limit and lower limit of the standard curves on site.





Contact Us:



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📍 D-507, 5th Floor, Ganesh Glory 11,
Jagatpur Road, Nr. BSNL Office,
S.G. Highway, Ahmedabad, Gujarat, India 382470

📞 +91 99797 77018 | +91 97248 16698

@ sales@metalscientific.com

🌐 www.metalscientific.com

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