

Microcomputer Sulfur Analyzer Carousel Sulfur Meter

Item Number: KT-CD5

Introduction

Maximize laboratory testing efficiency with this microcomputer sulfur analyzer carousel sulfur meter. Built for precise coulometric titration of coal, metallurgy, and mineral samples, this system offers rapid cycle times and automated temperature compensation.

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Application	Description	Key Benefit
Coal Mining & Beneficiation	Routine quantification of total sulfur in raw, washed, and blended coal to determine fuel grade and environmental compliance.	Rapid 3 to 6 minute testing cycles expedite grading decisions and bulk shipment certification.
Thermal Power Generation	Monitoring sulfur content in incoming feed coals and flue gas desulfurization input materials to optimize boiler efficiency.	High throughput carousel automation frees technicians while generating precise emissions-compliance documentation.
Metallurgical & Steel Works	Analyzing trace to moderate sulfur levels in coke, sintering ores, iron ore concentrates, and finished steel alloys.	Exceptional low-end resolution down to 0.0001% ensures strict adherence to metallurgical purity standards.
Petrochemical & Refining	Evaluating total sulfur concentrations in crude distillates, residual heavy oils, and refined petroleum derivatives at 920°C.	Dedicated oil temperature mode prevents incomplete combustion and carbon fouling in the titration cell.
Cement & Building Materials	Screening limestone, gypsum, kiln feeds, and alternative fuels for sulfur concentrations that influence clinker kinetics.	Broad 0.01% to 40% measurement span easily accommodates both low-sulfur additives and high-sulfur fuel sources.
Commercial Inspection & Metrology	Independent third-party verification of sulfur content for import/export commodities, minerals, and solid fuels.	Rigorous adherence to GB/T 214-2007 protocols ensures indisputable analytical validity across cross-border audits.
Geological & Mineral Exploration	Characterizing sulfur distribution across drill cores, rock strata, and multi-element mineral assays.	Flexible sample mass handling from 10 mg to 100 mg facilitates precise testing of diverse rock and ore specimens.

Parameter	Specification (KT-CD5)
Analytical Principle	Microcomputer-controlled coulometric titration
Sulfur Determination Range	0.01% – 40%
Resolution	0.001% (achievable up to 0.0001%)
Single Analysis Duration	3 – 6 minutes (matrix and sample mass dependent)
Furnace Operating Temperatures	1150°C (coal mode) / 920°C (oil mode)
Temperature Control Accuracy	±3°C (refined stability up to ±1°C)
Sample Mass Capability	10 mg – 100 mg
Carousel Sample Capacity	1 – 24 samples per automated loading sequence
Analytical Precision	Compliant with GB/T 214-1996 and GB/T 214-2007
Accuracy	Within allowable tolerance ranges of standard reference materials
Heating Tube Safety Features	Automatic silicon carbide tube startup protection and overcurrent protection
Operating Interface & Functions	Concurrent testing, data querying, parameter editing, and automated printing
Environmental Drift Correction	Automated temperature compensation

Parameter	Specification (KT-CD5)
Power Supply Requirements	220V $\pm$ 10%, 50 Hz
Maximum Power Consumption	$\leq$ 3.5 kW
External Dimensions (W $\times$ D $\times$ H)	500 mm $\times$ 500 mm $\times$ 750 mm
Structural Weight	35 kg