Flame AAS Analyzer - Double Beam Atomic Absorption Spectrometer - 190-900 nm - 1800 lines/mm

Model **MSSP-IAA320SWISS** | Brand **Master Science**





The Master Science Flame AAS Analyzer is a double-beam atomic absorption spectrometer with built-in data processing and an LCD display, ready to measure metals by flame absorption, flame emission, graphite furnace and hydride generation. The double-beam path compensates for lamp, wavelength and electronic drift, giving a steady baseline from the first sample.

KEY HIGHLIGHTS

- Stable baseline
- Quick start
- Precise flame conditions
- Higher light throughput
- Low upkeep burner

AT A GLANCE

190 to 900 nm WAVELENGTH RANGE	**0.2, 0.4, 0.7, 1.4, 2.4, 5.0 nm** SPECTRAL BANDWIDTH
≤ ±0.5 nm WAVELENGTH ACCURACY	**≤ 0.3 nm (single direction)** WAVELENGTH REPEATABILITY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

Hollow cathode lamps need only a short warm-up, so multi-element work starts quickly, and the titanium alloy burner reaches thermal balance fast without water cooling.

> For higher-throughput labs, compare it with the Master Science PC-controlled AAS with eight-lamp turret.

Key Benefits

Stable baseline
the double-beam optics cancel lamp and temperature drift automatically.

Quick start
lamps need no long preheating, so analysis can begin almost immediately.

Precise flame conditions
pressure and flow stabilisers keep the flame steady and noise low in the Master Science Flame AAS Analyzer.

Higher light throughput
total-reflection optics and beam shaping increase the energy reaching the slit.

Low upkeep burner
the corrosion-resistant titanium burner works without water cooling.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSSP-IAA320SWISS
SKU	MSSP-IAA320SWISS
Atomization	Flame (graphite furnace and hydride generation optional)
Resolution	< 40 %
Grating	1800 lines/mm
Characteristic Concentration	≤ 0.04 µg/mL/1% (Cu)
Detection Limit	≤ 0.008 µg/mL (Cu)
Background Correction	Deuterium lamp, greater than 30×
Power Supply	220 V, 3 A, 50 Hz

OPTICAL PERFORMANCE

Optical System	Double beam, total reflection optics
Wavelength Range	**190 to 900 nm**
Wavelength Accuracy	**≤ ±0.5 nm**
Wavelength Repeatability	**≤ 0.3 nm (single direction)**
Spectral Bandwidth	0.2, 0.4, 0.7, 1.4, 2.4, 5.0 nm
Baseline Stability	±0.004 Abs/30 min
Baseline wander	double-beam correction keeps readings stable.

DISPLAY & DATA

Data Output	RS232; PC interface
Printer	Optional

DIMENSIONS & WEIGHT

Gross Weight	138 kg (main unit); 56 kg (accessories)
Package Size	1260 × 800 × 770 mm (main unit); 560 × 460 × 1400 mm (accessories)

COMMON LABORATORY PROBLEMS AND HOW THIS AAS HELPS

Common Laboratory Problems and How This AAS Helps	How the Master Science Flame AAS Analyzer handles everyday problems in metal analysis:
Slow element changes	short lamp warm-up speeds multi-element work.
Noisy flame signal	stabilised gas flow lowers noise.
Burner corrosion	titanium alloy construction resists attack.
Need for lower detection limits	graphite furnace and hydride options extend the range.

Applications

The Master Science Flame AAS Analyzer is used for

Heavy metal testing in water and wastewater Metals in food, feed and agricultural samples Soil and geological analysis Metallurgical and alloy testing Teaching and research laboratories

Data Processing

- Integral holding, peak height and peak area modes
- Auto zero and deuterium background correction
- Linear and non-linear curve fitting
- On-screen curves and report printing; PC interface

Optics and Atomization

- Total reflection optical path free of chromatic error
- Fine light beam through the flame for low characteristic concentration
- Titanium alloy 10 cm burner

Gas System

- Precision pressure and flow stabilisation
- Quick gas changeover and safety protection for air-acetylene flame

Standard Accessories Included

- Oil-free air compressor
- Glass nebulizer
- Cu hollow cathode lamp
- Nebulizer unit
- Burner unit
- Dust cover
- Water-separating gas filter
- 10 cm titanium burner

Optional Accessories

- GRD-3202 graphite furnace system
- Hydride generator
- Additional hollow cathode lamps
- Graphite tubes
- PC software
- Recirculating cooling water system