

Flame and Graphite Furnace Atomic Absorption Spectrophotometer

PC-controlled elemental analysis with flame and graphite furnace atomization, six-lamp switching and online graphite-tube monitoring. Select element lamps and sample preparation for the required detection limits.



Technical Information

Model	PT-AAS-001
Wavelength range	190-900 nm
Wavelength accuracy	±0.20 nm
Wavelength repeatability	0.10 nm
Spectral bandwidth	0.1 / 0.2 / 0.4 / 0.7 / 1.0 / 2.0 nm
Lamp positions	6, automatic switching
Optical resolution test	Mn 279.5 / 279.8 nm at 0.2 nm bandwidth
Baseline drift, static	0.002 Abs/30 min (Cu)
Detector	Photomultiplier tube
Background correction	Self-absorption / deuterium, 1 A background
Flame characteristic concentration, Cu	≤0.03 µg/mL / 1%
Flame detection limit, Cu	≤0.006 µg/mL
Flame precision, RSD	≤1% (Cu)

Technical Information	
Flame burner length	100 mm, titanium
Graphite furnace temperature	Ambient-3000°C
Graphite furnace heating rate	≥2000°C/s
Graphite characteristic mass	Cd ≤1 pg; Cu ≤10 pg
Graphite precision, RSD	Cd ≤3%; Cu ≤3%
Graphite subsystem mass	60 kg
Graphite subsystem dimensions	550×450×280 mm
Graphite subsystem supply / power	AC 220 V / 7000 W
Autosampler positions	85; configuration to confirm
Repeat measurements	1-30
Communication	RS232
Data functions	Database backup/restore, 90-day password change, electronic signature, three-level users, audit trail; calibration curves, standard additions, interpolation, statistics and reports.
Safety	Gas-pressure protection; furnace overcurrent, low protective-gas pressure and insufficient cooling-water flow protection.
Flame / graphite changeover	~9 s

Instrument accessories		
Item	Specification	Quantity
Nylon tubing, red	Ø6×1	20 m
Polyethylene tubing	Ø11×8	3 m
O-rings	Ø6×1.9 / Ø10×2 / Ø14×2 / Ø32×2.65 / Ø40×2.65	6 / 10 / 6 / 3 / 3
Fuses	3 A / 0.5 A	3 / 4
Small nuts / large threaded sleeves / bushings / sealing washers	-	4 / 8 / 8 / 8

Instrument accessories		
Item	Specification	Quantity
Alignment plate / acetylene regulator connector / relief spring	-	1 / 1 / 1
Open-end wrenches	8×10 / 12×14 / 17×19 mm	1 / 1 / 1
Phillips screwdriver	75×4 mm	1
Acetylene pressure regulator / igniter	-	1 / 1
Communication cable / power cable	RS232 1.5 m / 10 A 250 V	1 / 1
Nebulizer / spray chamber / burner	-	1 / 1 / 1
Water separator / separator base / software dongle	0.1-1 MPa / - / -	1 / 1 / 1
Instrument manual / supplied conformity document / warranty card	-	1 / 1 / 1

Graphite furnace controller accessories		
Item	Specification	Quantity
PU tubing / PVC tubing	Outer Ø4 / Ø11×8	20 m / 16 m
Pyrolytic graphite tubes / platform graphite tubes	-	2 / 2
Fuses / small nuts / large threaded sleeves / retaining rings	3 A / - / - / -	5 / 4 / 2 / 2
Pressure-regulator connector / AV cable / communication cable	- / - / RS232-9	1 / 1 / 1
Open-end wrench / hex key	28 mm / M4	1 / 1
Micropipette	5-50 µL	Quantity to confirm
Grounded socket / video capture cable	250 V 30(32) A / EASYCAP	1 / 1
Oxygen pressure regulator	YQY-07	1

Graphite furnace controller accessories		
Item	Specification	Quantity
Operating manual / supplied conformity document / warranty card	-	1 / 1 / 1

Standard configuration

Main unit with flame control and six-lamp changer; graphite furnace system and online monitoring; five element lamps and five standard solutions selected for the application; oil-free air compressor, control software and computer. Detailed accessory list is included in this PDF.

Optional configuration

Hydride-generation configuration and application-specific accessories require confirmation. Confirm whether the 85-position autosampler is included in the quoted package.

Selection and ordering

Specify elements, concentrations, matrices and atomization mode. Confirm gas, extraction, cooling water and electrical services. Listed graphite dimensions and mass describe the subsystem, not the full installation.

Technical Information

Accessory quantities refer to the stated package and must be confirmed in the order. Supplied conformity documents are not independent certification and are not reproduced or rebranded here.