A & E LAB (UK) CO.,LTD

Flame Photometer Solution

www.ukaelab.com

AELAB Flame Photometer AE-FP Series

Our Flame Photometer is used for analyzing & measuring the content & concentration of elements " **K, Na, Li, Ca, Ba** ". It can be widely applied to agriculture (soil, fertilizer, and tobacco), industry (cement, glass, ceramics, mineral or ore powder, fireproof material), food (wine, water), laboratory, clinical experiments and pathology research (serum, urine, and plasma), etc.

Application fields:

Beveage **Environmental** **Chemical** **Cement Industries** **Food** **Pharmaceutical**
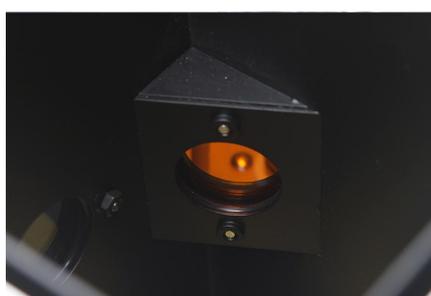
Features:

◆ With **K, Na, Li, Ca, Ba** five filters, which can detect three kinds of elements.
◆ LCD Screen display, touch panel with numeric keypad.
◆ With auto correlation coefficient calculating function.
◆ With ore-select function for flame size.
◆ A flame-out protection device.
◆ with single point calibration function.
◆ Calibration curve can be saved.
◆ With RS232 interface, can connect with external printer.
◆ with a mist separator.
◆ Easy adjustable Relief valve, direct view of pressure gauge.
◆ LPG Burning Gas

Technical Specifications:

Measurement Range	K: 0-100ppm, Na: 0-160ppm, Li: 0-100ppm, Ca: 0-1000ppm, Ba: 0-3000ppm
Display	LCD Display, display show the concentration value. Display range: 0.000~999.9
Elements Dispaly Channels	Max. 3 channels
Display Range (ug/ml)	Potassium:0-100, sodium: 0-160, lithium: 0-100, calcium: 0-1000, barium: 0-3000
Response Time	<8 seconds
Minimum Suction Volume	< 6mL/min
Repeatability	Repeat 7 consecutive independent measurements on the same standard solution ≤ 3%
Stability	The biggest change in the relative volume in 15s: ≤3%
Linear Error	K:0.2ppm, Na:0.5ppm, Li:0.1ppm, Ca:2ppm, Ba:8ppm.
Min. Detection Limit	K:0.1ppm, Na:0.1ppm, Li:0.1ppm, Ca:2ppm, Ba:8ppm.
Curve Calibration	Straight-line method; Polygon method; Quadratic fit.
Linearity	Better than the best results of the intermediate value of 2% (single-point CAL)
Standard Accessories	Air-compress & Micro-printer for all models
Optional Accessories	PC Software
Packing Size	74x40x55 cm (carton box)
Gross Weight	27 kg (carton box)

Model Selection:

2 Elements	
Model	**Elements**
AE-FP8201	K, NA
AE-FP8202	K, LI
AE-FP8203	K, BA
AE-FP8204	K, CA
AE-FP8205	NA,LI
AE-FP8206	NA,CA
AE-FP8207	NA,BA
AE-FP8208	LI,CA
AE-FP8209	LI,BA
AE-FP8210	CA,BA

3 Elements	
Model	**Elements**
AE-FP8301	K, NA,LI
AE-FP8302	K, NA, CA
AE-FP8303	K, NA, BA
AE-FP8304	NA,LI,CA
AE-FP8305	NA,LI,BA
AE-FP8306	LI, CA, BA.

4 Elements	
Model	**Elements**
AE-FP8401	K, NA,LI,CA
AE-FP8402	K, NA, LI, BA
AE-FP8403	NA,LI,CA,BA
5 Elements	
Model	**Elements**
AE-FP8501	K, NA,LI, CA,BA

Economic Models:

Model	AE-FP8201-A	AE-FP8201-B
Display	LCD display	
Range	K: 0-100ppm, Na: 0-160ppm	
Stability	The biggest change in the relative volume in 15s: ≤3%	
Linear Error	K: 0.2ppm Na: 0.5ppm	
Min. Detection limit	K: 0.1ppm Na: 0.1ppm	
Curve calibration	Straight-line method, Polygon method; 2-points calibrate.	Straight-line method, Polygon method; 1-10 points calibrate.
Linearity	Better than the best results of the intermediate value of 2% (single-point CAL)	
Standand Accessory	Air Compressor	
Optional Accessory	Micro-printer	

Standard Accessories:

Main device 1unit
1. Operating manual   1pc
2. Air compressor 1unit
3. PU pipe for air road 2.5m
4. Silicone tube (spare) 0.6m
5. Funnel parts 1pc
6. Glass cylinder 1pc
7. Capillary 1pc
8. Fuse 2pcs
9. Power cable 1pc
10. Micro-printer 1set
(AE-FP8201-A/B not include)

Micro-printer + Operating manual

Air Compressor

Spare part kit+ Pipe for air road
+Glass cylinder+Power cable

Chimney Parts

Pressure Reducing Valve /
Moisture Separator

Observation Window

LCD Screen

Operation Panel

Spray Chamber

Waste Container

Ignition

Utube

Power Switch

Gas Valve

Pressure Gauge

Air compressor

Main Machine

Glass Tube

Liquefied Petroleum
Gas Pipe

Chimney Parts

Regulator

Warranty Card

Operating Manual

PU Hose (air)

Silicone Tube

Capillary

Clamps, Steel Wires, Rubber Plugs

Technical Specifications:

Detection Limits

Element	mmol/L	ppm (ug/ml)
Potassum (K)	≤0.004	≤0.156
Sodium (Na)	≤ 0.008	≤0.184
Lithium (Li)	≤0.015	≤0.104
Calcium (Ca)	≤0.050	≤2.00
Barium (Ba)	≤0.044	≤6.03

Linear Error

Element	mmol/L
Potassum (K)	0.005
Sodium (Na)	0.03
Lithium (Li)	0.021
Calcium (Ca)	0.075
Barium (Ba)	0.066

General Specification

Reproducibility	≤2%
Stabilty	< 3%
Response Time	< 8 seconds
Sample Uptake Volume	< 6 ml/minute
Printer	Integral Thermal Printer
USB Data Output	Optional FPWin Data Collection Software
Display	7 inch Colour LCD touch screen
Languages	English, Turkish, Portuguese, Polish, Russian
Concentration units	ug/ml, mg/100ml, mmol/l, meq/l
Gases	LPG, natural gas, propane butane
Dimensions	400x250x500mm
Weight	8kgs

Specification for Air Compressor

Type	Single Cylinder Piston Compressor with air tank - Oil Free
Power	1/6 HP
Speed	1450-1700 rpm
Air Output	20-23 l/min
Adjustable Pressure Range	0- 6 Bar
Air Tank	3 litres

Analytical Measuring Range

High Range	0 ~ 5ppm
Medium Range	0~ 30ppm
Low Range	0~ 150ppm