

# Flame Photometer

## LFP-A Series



**Labtron Equipment Ltd**

Basing View, Basingstoke, Hampshire RG21 4RG, UK, Phone: 01256 610 110  
Email: [info@Labtron.com](mailto:info@Labtron.com) | Website: [www.Labtron.com](http://www.Labtron.com)

Website: [www.labtron.com](http://www.labtron.com)

These flame photometer are economical and are designed to cover a varied measurement range of Potassium from 0-100 ug/mL and Sodium from 0-160 ug/mL. It covers a wide range of applications with an additional feature of pre-selection of flame size. They are used for analyzing & measuring the content & concentration of glass, sodium, calcium, barium elements.

### Features:

- Dual channel to read K and Na testing simultaneously
- Small quantity of sample required
- Pre- opting of flame sizes
- Flameout protection device
- LCD Display

### Applications:

Flame photometer are used in testing cement, glass, ceramics, fertilizers and soil, mining, petroleum, chemical products, pharmaceutical, beverages, MSW testing, scientific research, health, education and other fields.



### Specifications:

Model No.		LFP-A10	LFP-A11	LFP-A12
Sample Uptake (mL/min)		<6		
Response Time (s)		<8		
Measurement Range (ug/mL)	K	0-15, 0-40	0-15, 0-40, 0-60	0-15, 0-40, 0-60, 0-100
	Na	0-40, 0-80	0-40, 0-80, 0-120	0-40, 0-80, 0-120, 0-160
Linearity Range (mmol/L)	K	$\leq 0.004$		
	Na	$\leq 0.008$		
Linearity Error (mmol/L)	K	$\leq 0.005, (0.0100 \sim 0.0800)$		
	Na	$\leq 0.03, (0.0500 \sim 0.400)$		
Type		With air-compressor		With air-compressor, micro-printer or PC software
Repeatability		Conduct 7 consecutive independent tests for one standard solution, the relative standard deviation: $\leq 3\%$		
Stability		Test once every minute, and test 6 times in total, the biggest change in the relative volume: $\leq 15\%$ .		
Dimension (mm)		380x770x570		
Weight (kg)		18Kg		

Flame photometers have automatic calculation of correlation coefficient features with USB interface and LCD touch screen to study them. These flame photometer comes with adjustable measuring range. The thermal energy of flame is used for the simultaneous measurement of elements K, Na, Ca, Li and Ba.

### Features:

- Direct concentration display
- Flame size can be pre-selected
- Flameout protection device
- Automatic calculation of correlation coefficient
- LPG gas is used as burning fuel

### Applications:

They are used to measure the content & concentration of elements in soil, fertilizer, tobacco, cement, glass, ceramics, fireproof material, wine, water, clinical experiments and pathology research.



### Specifications:

Model No.	LFP-A20	LFP-A21	LFP-A22	LFP-A23	LFP-A24	LFP-A25
Sample Uptake (mL/min)	<6000					
Response Time (s)	<8					
Sensitivity (ppm)	K	0.01				
	Na	0.01				
	Li	-	0.01	-	-	0.1
	Ca	-	-	2	-	2
	Ba	-	-	-	6	-
Range (ppm)	K	0-100				
	Na	0-160				
	Li	-	0-100	-	-	0-100
	Ca	-	-	0-1000	-	0-1000
	Ba	-	-	-	0-3000	-

Linearity (ppm)	K	0.195, (0.39-3.12)				
	Na	0.69, (1.15-9.2)				
	Li	-	0.15, (0.25-5)	-	-	0.15, (0.25-5)
	Ca	-	-	3, (5-100)	-	3, (5-100)
	Ba	-	-	-	9	- 9
Linearity Error (mmol/L)	K	$\leq 0.005$				
	Na	$\leq 0.03$				
	Li	-	$\leq 0.021$	-	-	$\leq 0.021$
	Ca	-	-	$\leq 0.075$	-	$\leq 0.075$
	Ba	-	-	-	$\leq 0.066$	- $\leq 0.066$
MDL (mmol/L)	K	$\leq 0.004$				
	Na	$\leq 0.008$				
	Li	-	$\leq 0.015$	-	-	$\leq 0.015$
	Ca	-	-	$\leq 0.050$	-	$\leq 0.050$
	Ba	-	-	$\leq 0.44$	-	- $\leq 0.44$
Repeatability	1 % CV for 20 consecutive samples					
Ambient Temp(°C)	10 ~35					
Humidity (%)	$\leq 85$					
Power Requirement	AC220V $\pm$ 22V, 50 $\pm$ 1 Hz					
Power (W)	250					
Standard Accessories	Air compressor ,USB interface					
Power Supply	110V/220 $\pm$ 10% ,60/50Hz					
Packing Size (mm)	580x540x400					
Packing Weight (kg)	18					

Flame photometer comes with 5 channels and are able to determine the content and concentration of metal ions K, Na, Li, Ca, and Ba. The 5 filters (K, Na, Li, Ca, and Ba) of this photometer, detects three kinds of elements. Photometer comes with touch panel system with numeric keypad for easy operations. It uses single point calibration method. It has a wide range of applications in industrial and educational environment.

### Features:

- Can show three kinds of elements content simultaneously
- Single point calibration and calibration curve can be saved
- Calibration Method: Straight line, broken line, secondary fitting
- Works on various fuels like propane, butane or liquefied petroleum gas
- RS232 interface with external computer or printer with a mist separator
- LCD Display



### Applications:

It can be widely applied to measure the content & concentration of elements in soil, fertilizer, tobacco, cement, glass, ceramics, fireproof material, wine, water, clinical experiments and pathology research.

### Specifications:

Model No.	LFP-A30	LFP-A31	LFP-A32	LFP-A33	LFP-A34	LFP-A35	
Sample Uptake (mL/min)	4 ~ 6						
Response Time (s)	<8						
Range (ppm)	K	0-100					
	Na	0-100					
	Ca	0-1000	0-1000	-	-	0-1000	-
	Li	0-100	0-100	0-100	0-100	-	-
	Ba	0-3000	-	0-3000	-	-	-
Measurement Limit (ppm)	K	0.01					
	Na	0.01					
	Ca	0.1	0.1	-	-	0.1	-
	Li	0.025	0.025	0.025	0.025	-	-
	Ba	10	-	10	-	-	-

Drift	$\leq 3\%$ (after 30 minutes when the instrument stability)
Linearity	Better than the best results of the intermediate value of 2% (single-point CAL)
Standard accessories	Air-Compressor, PC software or Micro-Printer.
Time Stability (s)	$\leq 15$ (when the sample is taken after the flame)
Calibration Methods	Straight line, broken line, secondary fitting
Dimension (mm)	530x510x580
Weight (kg)	27



**Labtron Equipment Ltd**

Sentinel House, Ancells Business Park,  
Harvest Crescent, Fleet  
GU51 2UZ, United Kingdom  
Telephone: 01252 413773  
[www.labtron.com](http://www.labtron.com) • [info@Labtron.com](mailto:info@Labtron.com)