



**SPECTRONICS INDIA**

AN ISO 9001:2015 &  
CE CERTIFIED COMPANY

# SI-209

## MICROPROCESSOR FLAME PHOTOMETER

The sample solution is aspirated through an auto-miser. Sample, Air and the fuel are mixed in the mixing chamber which is then sprayed as a very fine mist into the flame. The color of the flame is changed depending upon the concentration of elements present. Radiations from the flame pass through the sensing system and specific narrow band interference filter which permits only the characteristic radiation to pass to the photo-detector. The output of the photo-detector is then processed by the microcontroller and the final results are displayed on graphical LCD display.

In both models 5-Point calibration facility and non-linearity correction is provided through automatic curve fitting software. Facility has been provided for re-standardization with a single standard, thereby, eliminating the need of the multiple standards once a calibration has been performed.

### SALIENT FEATURES

- Microprocessor Based with Printer Interface
- Auto Gas Cutoff
- Auto Flame Failure Detection
- Four Measurements in Single Aspiration
- Setup Storage Facility
- Sample Data Storage Facility
- Curve Calibration Programmability Using Maximum of 5 Standards
- Multiple Calibration Curve Saving Facility
- Data Processing Through Curve Fitting Techniques, Least Square, Quadratic
- Online Help Key
- Direct Results in ppm and meq
- Useful for Medical & Soil Testing



### SPECIFICATIONS :

Mode	General	Serum	Urine
Range	Na: 0 - 100 ppm Upto 250 meq/l, 1:100 dil K: 0 - 100 ppm Upto 250 meq/l, 1:100 dil Ca: 0 - 100 ppm Upto 250 meq/l, 1:100 dil Li: 0 - 100 ppm Upto 250 meq/l, 1:100 dil	Na: 0 - 200 1:100 dil K: 0 - 10 1:100 dil Li: 0 - 2 1:5 dil	Na: 0 - 250 1:100 dil K: 0 - 100 1:100 dil Ca: 0 - 10 1:2 dil
Sensitivity	General: Na: 0.5 ppm, K: 0.5 ppm, Li: 0.5 ppm, Ca: 15 ppm		
Filters	Na & K supplied (Ca & Li are optional at extra cost)		
Resolution	0.1 ppm/meq		
Reproducibility	< 1% coefficient of variation for 20 consecutive samples using 10 ppm Na set as maximum standard		
Curve Fit Accuracy	< 2% error when 3 ppm Na/K and 5 ppm Li are set as maximum standards		
Display	128 x 64 Graphical LCD Display		
Average Time	In-built in software		
Flame System	LPG and dry oil free air		
Detector	Silicon photodiode		
Calibration	Upto 5-Point calibration with curve fitting software		
Gas Control	Adjustable with knobs		
Flame Failure	Auto detection		
Gas Cutoff	Automatic		
Ignition System	Auto ignition		
Atomizer	Axial flow type		
Printer	Provision for attachment of dot matrix printer or HP laserjet/inkjet (non-windows) printers with centronics parallel interface		
RS-232C	Available (PC software at extra cost)		
Power	230 V ± 10% AC, 50 Hz		
Dimensions	285 x 255 x 210 mm (L x B x H) (Approx.)		
Weight	7.5 Kg (Approx.)		

### COMPRESSOR UNIT

Air Supply	By oil free mini compressor unit with pressure regulator
Combustion Gas	LPG controlled by precision regulator
Power	230 V ± 10% AC, 50 Hz
Dimensions	290 x 255 x 210 mm (L x B x H) (Approx.)
Weight	8 Kg (Approx.)

### ACCESSORIES

- Instrument with Na & K Filters
- Sample Holders
- Instruction Manual
- Air and Gas Tubing along with End Clamps
- Chimney
- Capability Tubes
- Air Compressor



Appearance and specification subject to change due to continuous development.



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Mfgr: Laboratory & Scientific Instruments

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