

BWB SOIL

Highly accurate and cost effective analysis in the lab or 'on the road'

Potassium is essential to plant growth, fertilisers and soil substrates have been analysed using flame photometry for decades. Building upon 2017 research papers conducted by Professor Akiharu Sasaki for the specific use of flame photometer analysis in the agricultural industry over and above other methods of analysis the BWB SOIL Flame Photometer was born.

This unique instrument has been designed and developed in conjunction with various field requests and operational requirements for the specific analysis of fertilisers and soil substrates. Building upon the footprint of the award winning BWB XP instrument the SOIL offers all the benefits of our base product optimised over and beyond the requirements for analysis in the agricultural industry.

The SOIL instrument offers enhanced Ca detection alongside Sodium and Potassium with the option to utilise Lithium as an internal reference standard.

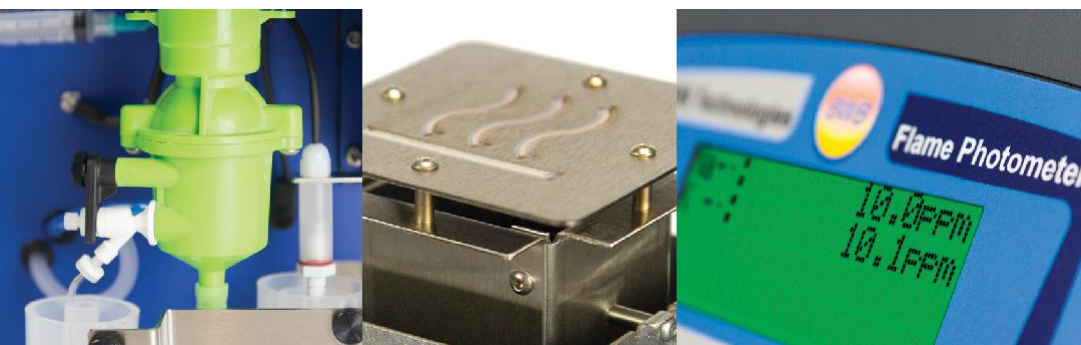
The ease of portability of this instrument and 'Just add Gas' configuration allows the instrument to be set up in the back of a van and conduct field analysis on site at various geographical locations. With a thermal printer fitted as standard, traceability for sample analysis is maintained throughout.

The BWB SOIL is the first instrument of its kind optimised for the agricultural industry.



+ FEATURES

- SIMULTANEOUS DETECTION AND DISPLAY OF ALL 4 ATOMS OF INTEREST
- "IRS" (INTERNAL REFERENCE STANDARD) AVAILABLE
- INTUITIVE USER INTERFACE FOR TRUE EASE OF USE
- DISPLAY PROMPTS STEP BY STEP OPERATION
- BUILT-IN AIR COMPRESSOR
- SOLUTIONS AND LABWARE INCLUDED
- DATA SHARING VIA PC LINK
- OPERATOR INDEPENDENT DETERMINATION OF RESULTS
- 4 USER SELECTABLE UNITS OF MEASURE
- USER SELECTABLE DECIMAL PLACES
- OPTIONAL INTEGRATED PRINTER USES READILY AVAILABLE PAPER
- IQ, OQ, PQ WEB-BASED CERTIFICATION AVAILABLE
- CAN BE USED WITH EITHER THE BWB COLLECTION CUP FEATURE OR OUR AFHS AUTOMATED SAMPLE HANDLING SYSTEM.



Just Add Gas

Technical Data

Just Add Gas

Sample rate

3.5 – 7ml/min

Tubing materials

Silicone and Tygon®

Required desk space for Instrument

50cm (H) x 45cm (W) x 45cm (D)

For Safety reasons the Flame photometer requires 1m of unobstructed space above to allow dissipation of heat from the chimney.

Instrument size

Soil Flame Photometer

51cm (H) x 38cm (W) x 41cm (D)

(20in x 14in x 16in)

Shipping

62cm (H) x 55cm (W) x 47cm (D)

(24in x 22in x 19in)

Weight

Soil Flame Photometer – 15.3kg

Shipping – 25kg

Optimal range

Single point calibration

Na 0.1 – 60ppm

K 0.05 – 100ppm

Ca 1.0 – 100ppm

Multi Point Calibration

Na 0.1 – 1000ppm

K 0.05 – 1000ppm

Ca 1.0 – 1000ppm

Reproducibility

<1% Coefficient of variability for 20 consecutive samples over ten minutes at concentrations of 100ppm or less. (After instrument stabilisation).

Specificity

Na/K/Li = <0.5% to each other when equal in concentration at <100ppm

Limit of detection (LOD) and limit of quantification (LOQ) displayed

LOD LOQ

Na – 0.03ppm Na – 0.1ppm

K – 0.02ppm K – 0.05ppm

Ca – 0.3ppm Ca – 1ppm

Time to stability

Less than 15 seconds after sample is introduced into the flame

Ions measured

Simultaneous measurement of Na, K, and Ca

Interfaces

USB

0-2.5 volt output (based on sample concentration linked to element of users choice)

Optional 4-20mA output in place of the above

Optional integrated printer

.CSV and .PDF generated reports and files via

FP-PC software

Recommended minimum warm up time based on ambient temperature

21°C – 40 minutes

Power requirements

100V – 250V AC at 50 or 60Hz

automatically selecting

Fuel requirement

Propane, Butane or Natural Gas*

regulated to 19Bar. Flow rate of 0.4l/min

*with modifications. BWB Technologies recommends either Propane or Butane for optimum results.

Readout

LCD, four line, alpha numeric, back lit.

+ WHAT'S IN THE BOX

- PC Leads USB and RS232
- Selection of 3 Power cables to suit all regions (4th option for China)
- Gas Hose
- Aspiration Kit
- Manuals covering all aspects of the Soil FP
- Quick Start guides
- Warranty Registration Form
- Certificates of analysis for all provided Fluids
- Material Safety Data Sheets for all provided Fluids
- The FP-PC Software installation USB
- 150ml of BWB recommended cleaning solution
- 150ml calibration fluids for all 3 elements at 10,000ppm.
- 100ml conical flask with screw lid
- 100 disposable sample cups
- 1L of De-Ionised water
- 2m of waste t
- Set of spare f
- 10 x 10ml pip
- 10 x 1ml pipet



Proudly Engineered and Manufactured in England

www.bwbtech.com



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