

## BWB NUCLEAR

### Online, four channel Lithium detection

The measurement of lithium at low concentrations within nuclear power stations has been identified as an application perfectly addressed by a new specialty flame photometer - The BWB NUCLEAR.

Designed in conjunction with our outstanding distributor in Germany, Mr. Wolfgang Glock, this unique flame photometer has 4 active channels for Lithium detection. Each channel is independently calibrated within the range of interest and this results in an increase of accuracy in keeping with industry demand.

Our simultaneous detection and display from each detection channel satisfies the requirement specifically and the tie of one of the channels to 2 wire 4-20mA output via supervisory control and data acquisition (SCADA™) links, completes the unit for online use.

Data output via our FP-PC PC application enables data sharing over the internet or intranet for users sharing information.

Clients who utilize our unique "Collection Cup" feature realise online real time analysis. Optional for 'online', continuous measurements, the collection cup turns the BWB NUCLEAR FES into an 'online', real time, 24/7 analyser with 4-20mA output linked to a single channel. Via a 2 wire output the BWB FP can seamlessly integrate with any SCADA™ system. Totally unique and available on all models."



#### + FEATURES

- 3 LITHIUM DETECTION CHANNELS FOCUSED FOR HIGH ACCURACY LITHIUM MEASUREMENTS
- "IRS" (INTERNAL REFERENCE STANDARD) AVAILABLE
- 4-20mA SCADA™ TWO WIRE OUTPUT SET TO CLIENT PROTOCOLS.
- IN-BUILT AIR COMPRESSOR
- SOLUTIONS AND LABWARE INCLUDED
- USER SELECTABLE DECIMAL PLACES
- DATA SHARING VIA PC LINK WITH BWB'S FP-PC APP
- IQ, OQ, PQ WEB-BASED CERTIFICATION AVAILABLE
- 10,000PPM CALIBRATION SOLUTION SUPPLIED, MAKES 15 LITRES OF 100PPM SOLUTION
- 1ML AND 10ML PIPETTES (10 EACH), 100X'S 20ML SAMPLE CUPS, 100ML FLASK



*Just Add Gas*

## Technical Data

*Just Add Gas*

### Sample rate

3.5 – 5ml/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

Nuclear 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

Nuclear Flame Photometer – 15.3kg

Shipping – 25kg

### Optimal range

Single point calibration

Li 0.05 – 50ppm

Multi Point Calibration

Li 0.05 – 1000ppm

### Reproducibility

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

### Chemical Interference

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

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

LOD	LOQ
Li – 0.02ppm	Li – 0.05ppm

### Time to stability

Less than 15 seconds after sample is introduced into the flame

### Ions measured

3 independent Li channels, each providing up to 14 points of calibration

### Interfaces

USB

0-1 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   | • Quick Start guides                                  | • 1L of BWB recommended cleaning solution  | • 2m of waste line   |
| • Selection of 3 Power cables to suit all regions (4th option for China) | • Warranty Registration Form                          | • 3x 150ml calibration fluids at 10,000ppm | • Set of spare fuses |
| • Gas Hose   | • Certificates of analysis for all provided Fluids    | • 100ml conical flask with screw lid       | • 10 x 10ml pipette  |
| • Aspiration Kit   | • Material Safety Data Sheets for all provided Fluids | • 100 disposable sample cups               | • 10 x 1ml pipette   |
| • Manuals covering all aspects of the Nuclear FP                         | • The FP-PC Software installation USB                 | • 1L of De-Ionised water                   |                      |



PROUDLY MANUFACTURED  
AND ENGINEERED IN THE  
UNITED KINGDOM

**www.bwbtech.com**

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\*Subject to change without notice based on local regulations and distributor