



# Product brochure

Pushing the boundaries of  
Flame Photometry



**BWB**  
TECHNOLOGIES  
FLAME PHOTOMETER EXPERTS

+44 (0)1787 273 451  
[www.bwbtech.com](http://www.bwbtech.com)

# The experts in flame photometry

An independently owned private company with Flame Photometer manufacturing in the United Kingdom under strict ISO 9001 quality protocols.

BWB are a global company with offices in Europe, America and the Middle East and a world-wide network of high quality levels of technical support available 24/7 and employ real experts in flame photometry to ensure they remain at the cutting edge year on year.



## Advanced calibration system

Highly accurate calibration curves can be generated with up to 10 points of calibration per element Multi-Ion and Multi-Point standards can be used to further expedite your time to analysis



## Simultaneous detection and display

Our simultaneous detection and display of all 5 elements drastically speeds up the sample throughput time and prevents operators from constant recalibration procedures



## Intuitive interface for true ease of use

With thousands of instruments around the world overcoming language barriers was a key in our development. The BWB range offers simple to use, LCD driven user prompts to help you along the way.



## Built in air compressor

Reduce interferences, noise and footprint from ghastly oil leak prone external compressors, our systems all have a service and oil free compressor built in as standard.



## Free of charge PC software

Offering a free of charge PC software that allows the user to create a .CSV or .PDF reports. Calibration curves can be downloaded from the instrument and saved to the PC for use at a later date, either export the results or recall the results saved to the instrument when needed.



## Internal results storage

Utilise the instrument as a standalone device with no PC requirement, up to 200 results can be stored within the internal memory.



## Gas Selection

A specially developed built in gas regulator enabling the use of Propane, LPG, Butane or Natural Gas (Methane) as standard and with no user modification required.



## Continuous development nature

Our Flame Photometers are designed from the ground up from experts in the field and our continuous development nature ensures that instruments remain at the cutting edge year on year.



## 'Just add gas'

We don't believe in hidden charges and additional accessories, to start using your award winning BWB instrument we refer to our motto 'Just add gas' meaning exactly that. We supply everything you'll need to start using our instruments straight out of the box, Calibration standards and basic labware enables the rapid creation of calibration standards, you can be running results within an hour of unboxing.

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# BWB flame photometer range

BWB Technologies Flame Photometer Range consistently pushes the boundaries of low temperature flame photometry. Our Flame Photometers are used for measuring Lithium, Sodium, Potassium, Calcium and Barium.

BWB Technologies is renowned for our commitment to excellence. We design and manufacture the latest specification Flame Photometer instrumentation on the market, with high levels of accuracy and reliability, at a cost effective price.

Manufactured in the United Kingdom, quality is our top priority and each series of flame photometer products exceed expectations in terms of specification, ease of use for the user, accuracy, and reporting.

When you purchase a flame photometer from BWB Technologies, you can access dedicated and knowledgeable 24/7 customer support staff to help with all of your technical requirements and questions.

Our vast distribution network means we always have a native speaking distributor who can guide you through your onboarding, organise swift delivery of any extra or replacement parts, and help answer any questions you may have.

BWB Technologies is ISO9001 Quality Standard Certified and Globally Accredited as being the best provider of after-sales support for any questions and guidance you may require to get the best out of the machine.

*“The BWB instrument is the most advanced I have seen. Even inexperienced customers have no trouble installing the instrument without supervision, by simply following the clear and user friendly instruction manual. I have found BWB’s application and technical support second to none”*

Murdoch Macaskill,  
Daintree Scientific,  
AUSTRALIA



## XP Flame Photometer

Our award winning 5 channel instrument

Li Na K Ca Cs Ba



## XP Plus Flame Photometer

Our award winning 4 channel instrument

Li Na K Ca Cs Ba



## BIO Flame Photometer

For biological applications

Li Na K Ca Cs Ba



## BIO AV Flame Photometer

For biological applications

Li Na K Ca Cs Ba



## NUCLEAR Flame Photometer

Online, four channel Lithium detection

Li Na K Ca Cs Ba



## SUGAR Flame Photometer

Redefining Sugar refining from beet or cane

Li Na K Ca Cs Ba



## LI Flame Photometer

The most accurate lithium flame photometer!

Li Na K Ca Cs Ba



## SYN FUELS Flame Photometer

Reliable and accurate analysis of all four atoms of interest

Li Na K Ca Cs Ba



## SFP Flame Photometer

Evolving Flame Photometry to fit your specific needs

Li Na K Ca Cs Ba

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# The BWB Flash Flame Photometer

## Finally, a Flame Photometer specific to your needs.

The first simultaneous Flame Photometer with built in compressor and configurable element analysis to your requirements.

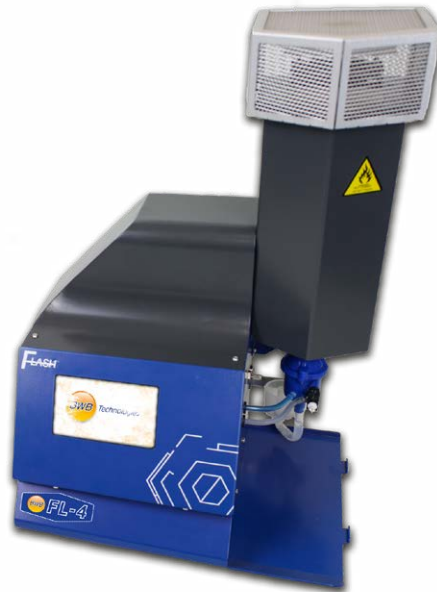
The BWB Flash is the first and only fully configurable up to four channel flame photometer that detects and displays all calibrated ions at the same time.

The BWB Flash was created by combining the award-winning features of our XP model with new, innovative, and cutting-edge technology to provide unrivalled levels of accuracy, usability, and reliability while significantly reducing analysis time. When a different measurement is required, our customers do not need to waste valuable time changing filters and re-calibrating, as is a common requirement in all other Flame Photometer designs from 1951 to the present.

The Flash looks exceptionally modern, with clean lines and contemporary bright colour schemes that will fit into any laboratory. The instrument has a large 5" touch screen display that can be easily viewed from any angle and operated with most laboratory disposable gloves.

Our metal casework creates a sturdy portable instrument with nearly limitless future recycling possibilities. Of course, ROHS-compliant components and materials are used throughout.

The BWB Carbon Footprint is exceptionally low, in keeping with the company's goals of being a responsible manufacturer,



and we've succeeded in lowering the gas consumption rate by 13% while also lowering the electricity consumption (kWh) by 26% compared to previous model generations.

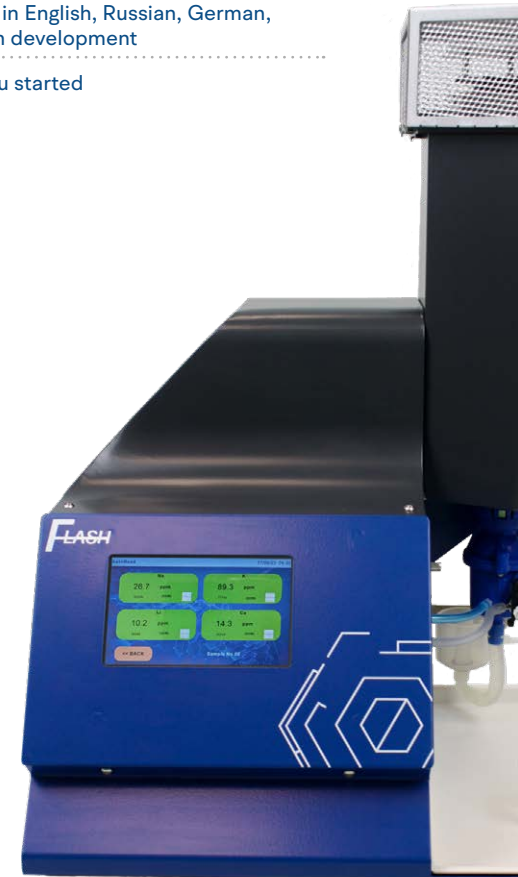
Unlike other manufacturers who charge extra for essential accessories, BWB includes everything needed to use the product right away. Simply add Gas!! (Propane, LPG, or butane) We also include data sharing via USB from the BWB Flash to your PC as standard. This connects the BWB Flame Emission Spectrometer (FES) output to the Internet or your company intranet systems, allowing for Distributed Control, which is critical for multinational corporations, universities, and government agencies.

## Features

- Large 5" touch screen display compatible with the majority of disposable laboratory gloves
- True ease of use with large buttons and simple to understand text and symbols
- Built-in air compressor and gas regulator
- Calibration standards supplied as standard in 10,000ppm concentrations
- Auto-read technology enables operator independent determination of results
- User selectable decimal places
- IQ, OQ, PQ We-based certification available: IQ OQ PQ is completely unique to the analytical instrumentation arena. Available in English, Russian, German, Mandarin, French and Spanish. More languages in development
- Complete set of basic labware included to get you started

## Available in 7 different models

- FL-2** Includes analysis of Sodium and Potassium
- FL-3** Includes analysis of Sodium, Potassium and Lithium
- FL-4** Includes analysis of Sodium, Potassium, Lithium and Calcium
- FL-C** Includes analysis of Calcium
- FL-K** Includes analysis of Potassium
- FL-L** Includes analysis of Lithium
- FL-N** Includes analysis of Sodium



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## FP-PC

The BWB flame photometer has been configured to easily satisfy the most sophisticated IT requirements. The FP-PC app provides a useful interface to the BWB Flame Photometer (FP) facilitating the following operations:

- Normal calibration Report production
- Logging of streaming data for continuous on-line applications. (A 4-20 mA signal can also be output proportional to a calibrated channel on the FP).
- Extraction of data from the flame photometer when operated in automatic or semi-automatic mode with or without auto-sampler / auto-diluter known as Automatic Fluid Handling System (AFHS)

Calibration manipulation including:

1. Upload from / download to the FP
2. Storage / retrieval of calibrations using the PC or system hard drive

These functions are provided by the Welcome, Calibrate, Report, Logging, AFHS tabs together with one more (XP-Cal or BIO-Cal) that is dependent on the mode that the FP is being operated in.

The FP-PC app, included with every purchase, has been written with GLP compliance in mind and facilitates the creation of data and reports in PDF format.



## IQ OQ PQ Certification

This unique validation and certification program has been specially created to ensure the end user has the technical knowledge required to install and initialise their BWB Flame Photometer and the technical know-how and confidence to operate any of our 2015 and onwards range of flame photometers correctly and efficiently.

### IQ - Installation Qualification

The installation qualification covers in detail the key steps required to correctly set up the BWB range of photometers and Auto Fluid Handling System. IQ stages include: maintenance and service plans, the installation environment and health and safety requirements.

### OQ - Operation Qualification

The operation qualification covers the steps required to ensure that the BWB flame photometer and AFHS are operating correctly. The user will undertake a series of hardware checks and test readings, providing the results to BWB for analysis.

### PQ - Performance Qualification

The performance qualification has been designed to ensure that the instruments perform to the original factory specifications. Once the IQ and OQ sections have been completed, the user runs a sample manually or using AFHS with the solutions, prints out the results and sends to BWB for analysis. After completion of the qualification and confirmation from BWB, a signed certificate will be issued to the user.

# Protecting the environment

We aim to help reduce our carbon footprint one Flame Photometer at a time, that's why we have a number of different practices in place to try and make sure that our products and core business structure is as environmentally friendly as possible.

## Our green goals



Using LED lighting with efficient heating systems across our manufacturing facility.



Utilising only 'green' energy suppliers our electricity is supplied from 100% renewable sources and our natural gas consumption is 100% carbon neutral\*



Environmentally friendly packaging created from pre-recycled content or utilising materials that can be easily recycled across the globe.



The use of paper based packaging tape to reduce our plastic consumption and allow our cardboard boxes to be easily recycled.



Product design considerations such as re-cyclability and life cycle assessments are taken into account at the development phase of our new products.

### In house recycling scheme

We have our own in house recycling scheme for factory generated waste to ensure that our employees and the company are doing all we can to help protect and preserve the environment.

### Tree planting promise

We're committing to planting at least 50 trees for every model of flame photometer we sell from 01 May 2021.

In addition we have an ultimate goal to plant 1000 trees for every company employee by 2025.



Striving to meet as many of the United Nations 17 sustainability development goals is a key priority for us in our commitment to protect the environment.

We have adapted our processes and products to meet the following goals:



*“The BWB Flame Photometer is very easy to use. The [reducibility] is very good”*

Lillian Custals  
University of Miami  
USA

*“easy to install, easy to handle, gives accurate measurements”*

Wolfgang Glock  
THG-Glock Instruments  
GERMANY

*“The device works [with great] stability, in a wide measuring range and with good accuracy and reproducibility”*

PhD Eng. Katarzyna Stec  
Institute of Building Materials  
POLAND

*“After 5 years in operation, the Flame Photometer shows us many advantages”*

Nguyen Thi Thanh Ha  
Institute of Agricultural Science  
VIETNAM

*“The unit was removed from the packaging, set up, calibrated and was producing acceptable results within a couple of hours!”*

Richard Griffiths  
Fujifilm Imaging Colorants Ltd  
UK

*“The report publishing aspect of the software via PDF is excellent! Simple clear graph and set of results with event the capability of adding your own company logo.”*

Mick Howards  
R-MC Power Recovery Ltd  
UK

*“The BWB photometer is more user friendly and easier to use than others we came across. It is really good value for money.”*

Gregory Bathfield  
Electrical & Control Specialists Ltd  
MAURITIUS

## Distributors

We have a global network of first class distributors. Visit our website, [www.bwbtech.com](http://www.bwbtech.com) for full details.



*“Direct customer support from BWB has been FIRST CLASS, a real happy to help/ resolve any matters approach, as has the supply of the service items [etc].”*

Richard Griffiths  
Fujifilm Imaging Colorants Ltd  
UK

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BWB Technologies Ltd. warrants, subject to the conditions itemised within this document, through either BWB personnel or personnel of its authorised distributors, to repair or replace free of all charges, including labour, any part of this product which fails within the warranty time specified above, appertaining to this particular product. Such failure must have occurred because of a defect in material or workmanship and not have occurred as a result of operation of the product other than in accordance with procedures described in the instructions furnished with this product.

Manufactured in Newbury, County of Berkshire, England.

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