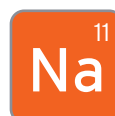


The New Digital BWB Flame Photometer Range Innovative, World Leading Technologies





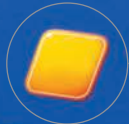
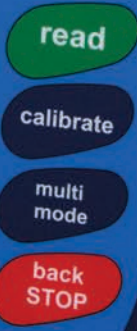
BWB Technologies



Flame Photometers

Na**:
K **:
Li**:
Ca**:

150.0mmol/l
5.0mmol/l
1.0mmol/l
5.0mmol/l



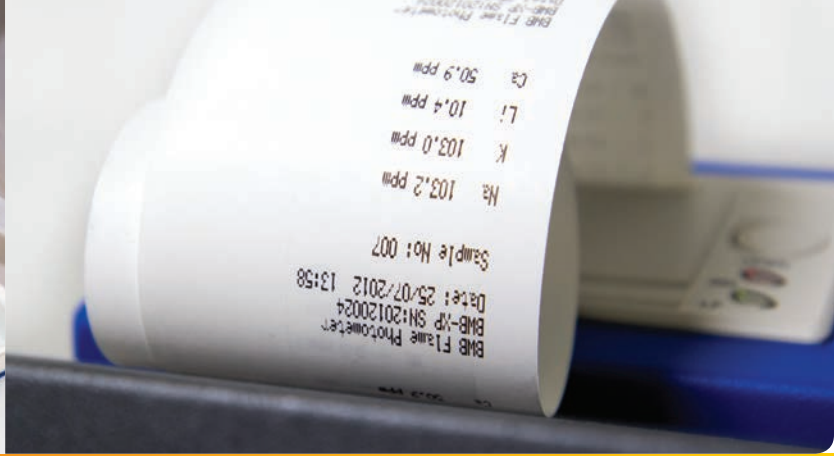
A totally digital, microprocessor based instrument bringing flame photometry into the 21st century.



Flame photometers that push the boundaries of low temperature flame analysis.

What can be achieved by analytical analysis with a low temperature propane or butane flame has been redefined by BWB Technologies.

Just Add Gas



Not just better than the other flame photometers
- BWB offers a cost effective, accurate and reliable
alternative to other technologies...

A flame photometer better than ICP, AAS and ISE analysers

Not just better than the other flame photometers - BWB offers a cost effective, accurate and reliable alternative to other technologies such as Inductively Coupled Plasma (ICP) and Atomic Absorption Spectrophotometers (AAS) and Ion Selective Electrode (ISE) Analysers .

Many of our customers already own an AAS or ICP, but choose to measure Lithium, Sodium, Potassium, Calcium and Barium with their BWB flame photometer rather than the more expensive and complex instruments. This decision saves them time & money as well as increasing the accuracy and reliability of their results

What is a flame photometer?

BWB flame photometers are used for measuring Lithium, Sodium, Potassium, Calcium & Barium in many different industries including

- Cement • Beverage • Pharmacies in Clinics • Medical Schools
- Petrochemical • Paper • Fertilizer • Wine • Food • Nuclear Power Stations • Salt and Potassium mines • Sugar Industry.



Common BWB flame photometer features

All BWB products are built around the same innovative product design and world leading technologies, sharing the same core features across the range.

Just add gas!

BWB have revolutionised the flame photometry market by offering an instrument with all accessories supplied as standard. This means that the process of ordering a BWB flame photometer is incredibly simple. There are no complex product codes, accessory lists or ordering requirements. When you order a BWB flame photometer it will arrive with all the accessories you need.

Up to 5 Channels of simultaneous detection and display

The ability to measure and calibrate up to 5 different ions at the same time offer huge advantages over more traditional instrumentation. As the BWB is the first and only flame photometer to offer simultaneous detection and display, our customers do not need to waste valuable time changing filters and re-calibrating when a different measurement is required.

Built-in air compressor

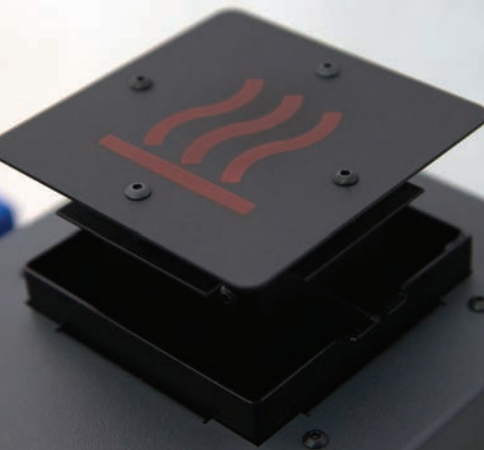
Greatly reduces noise and laboratory footprint while increasing instrument stability, accuracy and reproducibility.

Advanced calibration system

The ability to store calibration data and perform multi-mode calibrations reduces analysis time significantly.

Interfaces

Connect to your PC using either USB or RS232. A 0-1volt output is available for a chart recorder or for process control a 4-20mA output can be made available.



New modern technology offers increased accuracy and reliability

Introduced in 2005, the BWB flame photometer was designed from the ground up, using new, innovative and modern technology to give unsurpassed levels of accuracy, usability and reliability. With clean lines and contemporary bright colour schemes, the instrument looks exceptionally modern and will fit into any laboratory. The instrument has large LCD displays which can be easily viewed from any angle.

Computer connectivity as standard!

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

Ease of use

With exceptional ease of use, a clear liquid backlit crystal display users are guided through an analysis using simple menu options. The display, used in conjunction with a comprehensive membrane switch panel ensures that accurate and reliable results can be obtained with minimal training. As modern businesses may experience a large turnover of staff, laboratory managers will appreciate the comprehensive training DVD supplied with every BWB flame photometer.

Long term savings

Excellent value for money and very low total cost of ownership.

Selective analysis

Flame photometry, excludes most elements, which means very little interference.

Reliable & simple

An adjustment of the flame is all the operator can "fiddle" with.

Fast!

Once the instrument has stabilized it takes just a matter of seconds to obtain results.

The BWB flame photometer family

The award winning BWB XP

General purpose flame photometer



The BWB XP is the first and only 5 channel flame photometer with simultaneous detection and display of all 5 elements. A high quality and high performance instrument, the BWB XP employs modern technology to improve both accuracy and stability while significantly reducing analysis time.

The BWB XP is the greatest advance in flame photometry for 30 years!

BWB BIO

Flame photometer for biological samples



The BWB BIO has been created for measuring biological solutions and is modernized for today's research work, routine quick measurements of especially lithium and calcium, and high accuracy of the traditional sodium and potassium elements.

Our recent release is the combination of several "wish lists" from Phds in Germany, USA and Canada principally in renal research, diabetes and alzheimer research. Production reagents and solutions QA and QC are facilitated quickly by our unique simultaneous detection and data processing for all atoms detected.

Our connection to a PC creates .csv files and data presentations to answer the requests of our clients over the last 5 years across the globe. Truly intuitive user friendly operation spans all languages and appeals to all levels of users skillsets.



BWB SUGAR

Flame photometer for the sugar industry



In keeping with the published papers from 1977 forward, potassium detection is afforded with up to 4 channels of detection for extreme accuracy along the range of potassium control. Alternatively a combination of sodium, lithium, calcium and potassium is offered as standard for the researcher as well as the production processor.

This powerful and growing global industry now has the attending facilities for Synthetic Fuels or Bio-Fuels production as well from the harvest of the beet or cane. For this derivative product BWB Technologies offers a hybridized Flame Photometer we have named SynFuels. Depending on the portion of the bio conversion that is desired to measure, special chemical resistant tubing comes standard on the BWB FP.

BWB NUCLEAR

Flame photometer for the nuclear industry



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

The most accurate and advanced lithium flame photometer ever manufactured!

The BWB flame photometer has always been renowned for super stable and accurate lithium measurement.

Now this winning formula has been improved with a novel adaptation and optimisation of the proprietary BWB optical array detection systems which allows four channels of lithium measurement. This latest configuration has been specifically designed to specification laid out by leading experts within the nuclear power industry.

BWB WINE

Flame photometer for the wine industry



With our new "Light Pipe Technology" and multiple calcium detectors systems we are now able to meet the rigid standards of calcium detection in wine as this additive is blended in and then removed out in processing. Of course our potassium and Sodium channels are also specified for this important industry as well.

The BWB Wine flame photometer not only offers a superior analytical instrument for the industry but is also a vital tool for optimising product quality through early detection and measurement of these key elements.

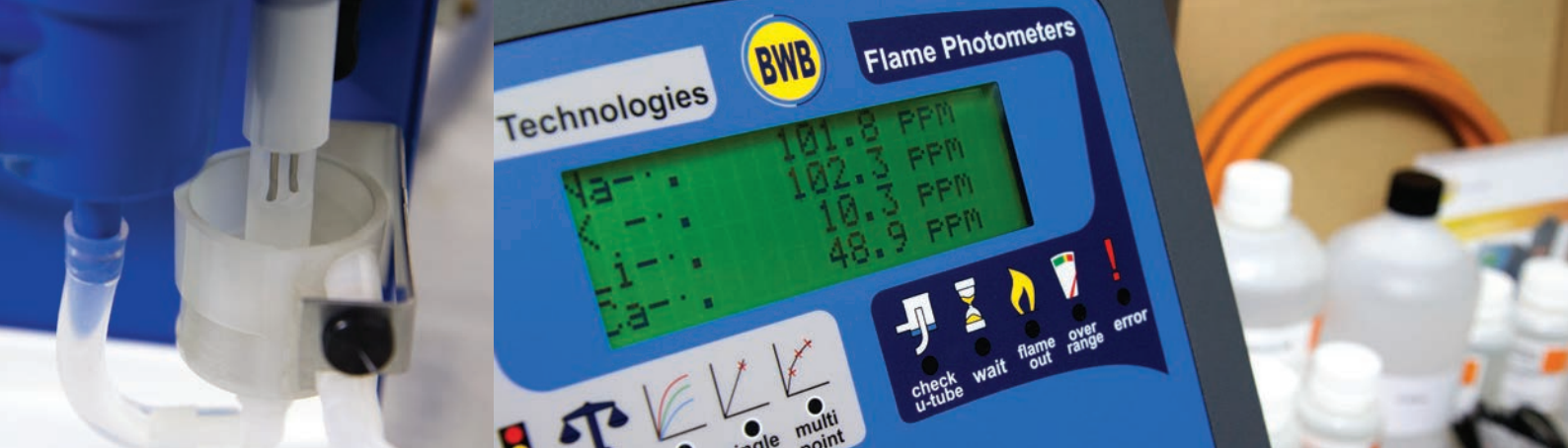
BWB IND

Flame photometer for industrial applications



The Industrial iteration of the BWB Technologies Flame Photometers has been created at the request of major sugar beet processing companies where our provision of 4-20mA outputs, tied to the potassium channel in this iteration, allows high and low point settings compatible with control room 2 wire processors. For instance in the Sugar arena the 4 mA is set at 10ppm K+ and the 20mA at 100ppm K+ as these detection levels are core to the quality of the sugar processing methods. In Nuclear installations we have used multiple lithium detection channels with 4-20mA two wire outputs set to client protocols.

The BWB flame photometer is a game-changer in what is possible with a low temperature flame and our product development program has, since day one, been driven by our customers demands. We have strong, mutually beneficial partnerships within many commercial and academic organisations who faced specific challenges that were addressed by a BWB IND flame photometer.



BWB Technologies supply a range of products for our customers to ensure that their flame photometer performs to the highest standards for years to come! Also we offer FAST delivery!

A BWB IND your organisation?

We would like to discuss your current challenges, analytical applications and have the opportunity to investigate a unique solution for you! Why not contact BWB Technologies today and see if we can provide a unique BWB IND solution for you?

BWB flame photometer solutions & other consumables

BWB Technologies supply a range of products for our customers to ensure that their flame photometer performs to the highest standards for years to come! Also we offer FAST delivery!

The BWB fluids kit

BWB's calibration standards offer convenience and value for money. Delivered in high concentration of 10,000 ppm, the small 150ml bottle delivers 15 litres of top quality calibration standards. Additionally the high concentrations give our customers the confidence and satisfaction of a long shelf life.

Our standard fluids kit contains the following items;
5 Calibration standards at 10,000ppm, 1 litre Diluent Concentrate, Decon® 90 cleaning agent concentrate

Laboratory starter pack

BWB's philosophy of Just Add Gas means our customers enjoy a complete solution that they can set-up within 30 minutes and use straight out of the box. Just Add Gas means that nothing is left out, including the laboratory equipment needed to prepare standards/samples and analyse them with the BWB flame photometer. Many customer appreciate the quality and durability of these components and reorder the laboratory starter pack after the initial items are depleted.

The starter pack contains: Pipettes 1ml x 10, Pipettes 10ml x 10, Volumetric Flask 100ml, Sample Cups x 100.

BWB support services

BWB Technologies are proud to manufacture award winning, market leading flame photometers, but our customer service does not stop after we make a sale!

We offer a unique on-line IQ OQ PQ programme for system validation and certification as well as extended warranty options.

BWB provide support to our customers and distributors which is second to none!

International support network

An independently owned private company with manufacturing in the United Kingdom under strict ISO control protocols. BWB are a global company with offices in Europe, America and the Middle East and a world-wide network of high quality distributors. We offer unsurpassed levels of technical support available 24/7 and employ real experts in flame photometry.

From our manufacturing plant in Newbury, England, BWB Technologies have introduced our series of flame photometer products, and accessories, which exceed existing expectations in terms of specification, usability, accuracy, reporting, build quality and value for money.

Specifications

Linearisation

Included in the software, and available on any of the 5 elements.
Achievable on both single and Multi Point calibrations.

Aspiration Rate

3-5.5ml/min

Optimal Range

Single Point Calibration

Na - 0.05 - 60ppm

K - 0.05 - 100ppm

Li - 0.1 - 50ppm

Ca - 2.5 - 100ppm

Multi Point Calibration

Na - 0.05 - 1000ppm*

K - 0.05 - 1000ppm*

Li - 0.1 - 1000ppm*

Ca - 2.5 - 1000ppm*

Ba - 30 - 3000ppm

* High levels of salts can be problematic.

Reproducibility

<1% coefficient of variability for 20 consecutive samples over 10 minutes
(after instrument stabilisation) at concentrations of 100ppm or less.

Limits of Detection

Na - 0.02ppm

K - 0.02ppm

Li - 0.05ppm

Ca - 1.0ppm

Ba - 10ppm

Time to Stability

Less than 15 seconds after sample is introduced into the flame.

Interfaces

USB

RS232

0-1 Volt (or optionally 4-20mA)

Drift

Less than 1% per 30 minutes after instrument stabilisation.

Specificity

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

Number of Parameters Measured

Simultaneous display of Na, K, Ca, Li, Ba.

Size

Instrument = 51 cm high x 38 cm wide x 41 cm deep (20 in x 14 in x 16 in)

Shipping = 62 cm high x 47 cm wide x 47 cm deep (24.5 in x 21.5 in x 18.5 in)

Weight

Instrument = 17 kg (38 lbs)

Shipping = 30 kgs (66 lbs)



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