

# BPC<sup>®</sup> Go

Low gas volume & flow  
measurements made easier



# Gas measurements made easy



Two flow cell units with different measurement resolutions are included with every BPC Go

## Easy to start up, easy to use

It's automatic! That means low costs for labour, no expenses for expert help, and no writing results in excel files or notebooks. A simple intuitive user interface makes setting up and monitoring any research project simple. Just fill it with water, connect to a power source, then start your experiment.

## For applications where precise measurements are key

BPC Go is an excellent instrument for any application where the precise volume and flow measurements of wet and dry gases are key. It provides a wide detection range with high linearity up to 1500 ml/h for 2 ml flow cell and up to 6000 ml/h for 9 ml flow cell.

## Read results from anywhere on any device

BPC Go normalises gas flow rates and volume measurements at 0 degrees Celsius and 1 standard atmosphere. It is easy to connect to your local network or the internet, meaning laboratories and R&D institutions around the world can monitor results from any device, including tables and mobile phones.

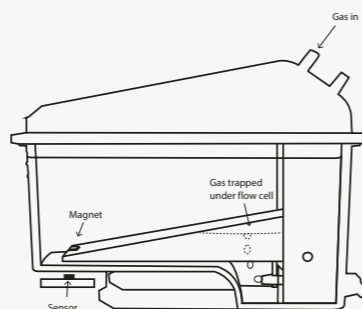
## For both continuous and batch tests

BPC Go is very flexible. It can be operated as a standalone instrument for a specific application or combined with other technologies when measuring low gas volume and flows. It also enables to run experiments in both batch and continuous mode of operations.

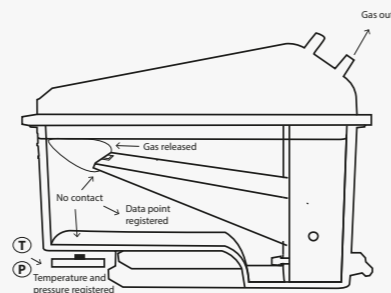
## BPC Go

BPC Go is a gas flow meter for applications where precise measurements of gas volume and flow is key. Its unique integrated data acquisition and processing systems makes it run completely independent without the need for a computer or any other external device.

## Working principle



**1.** Gas is collected under a flow cell in a chamber filled with water. While the flow cell is in its sitting position, a magnet located at its end is in contact with a sensor below it.



**2.** Once a certain volume has been collected, the force of buoyance makes the flow cell open and release the gas. The magnet at the tip of the flow cell then loses its contact with the sensor and a measurement point is detected. For each point, the ambient temperature and pressure is registered to be used adjusting the gas volume to standard conditions.



The BPC Go has a modular design where a free flow cell unit is placed inside a base unit.

This allows for easy switching between two measurement resolutions; 2 and 9 ml.



“Calibration and maintenance free”

## Measure gas volume and flow for a wide range of applications

### Measure gas volume and flow for a wide range of applications

The BPC Go allows users to measure low gas volume and flow whenever there is a demand for accurate and precise measurements. This smart analytical instrument can be used for both research and industrial applications in

- animal nutrition studies,
- wastewater analyses,
- ethanol fermentation,
- hydrogen production,
- greenhouse gas emissions,
- evaluation of microbial communities and their activity and more.

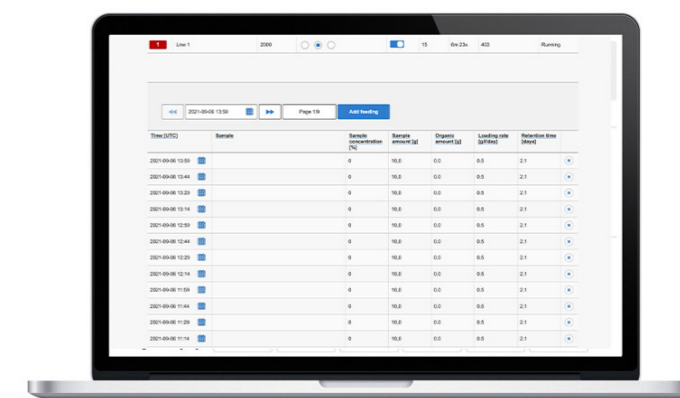
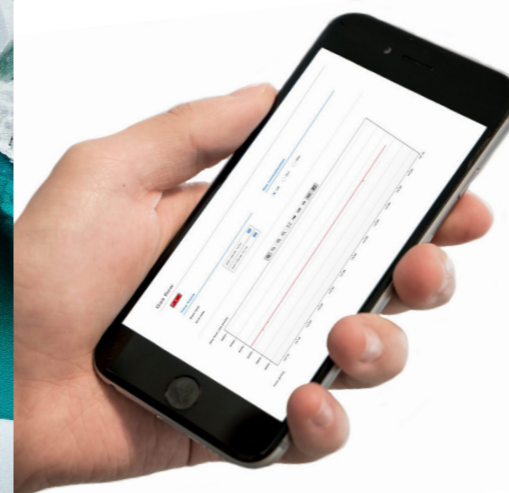
### Robust and stable

The instrument is designed and manufactured in Sweden, adding the best elements of Scandinavian form and function to quality and reliability. BPC Go ensures no data is lost, even if the entire system goes down.

### Easy maintenance and calibration free

Modular design makes the maintenance of BPC Go easier than in any BPC Instrument product before it. The calibration free flow cells come in two resolutions and can be exchanged at any point

Set up and monitor experiments and share data with less effort than before



Motors from BPC Instruments can be controlled with BPC Go

### Bring your experiment to life with Aurora™ software

Aurora is BPC Instruments' latest, custom made and revolutionary software solution for monitoring volume and gas flow. It's slimmed down design makes it optimal for running experiments for long time periods and for storing large amount of data. Control, monitor, display and download data from your experiment using the intuitive web-based Aurora™ software interface.

### Bringing embedded computing to gas flow measurements

Inbuilt storage and processing from an onboard embedded microcontroller enable BPC Go to store all gas flow measurements on the edge. That means data won't be lost due to a workstation crash, potentially saving weeks of research and development work.

### Control agitation

BPC Go comes with built in capability to control motors from BPC Instruments. Set speed, direction and on and off time to your requirements and rest assured that the content will be well mixed.





### Measurement performance

**Working principle:** liquid displacement and buoyancy

**Measurement resolution:** 2 and 9 ml

**Detection capacity:**  $3 \times 10^7$  ml for 2 ml flow cell and  $13 \times 10^7$  ml for 9 ml flow cell

**Measuring range:** 0.2 to 1500 ml/h for 2 ml flow cell and 1 to 6000 ml/h for 9 ml flow cell

**Repeatability:**  $CV \leq 3\%$  for 2 ml flow cell and  $CV \leq 1\%$  for 9 ml flow cell

**Gases:** Non aggressive gases (e.g.  $CH_4$ ,  $CO_2$ ,  $H_2$ ,  $N_2$ ...)

### Technical

**Built-in sensors:** Temperature, Pressure, Hall, Accelerometer

**Connections:** Ethernet, Power supply, USB B, Motor control

**Display:** OLED 2.8" 256 x 64 white

**Housing:** Aluminium and plastic

**Power supply:** 12 V DC / 1.0 A with 100-240 VAC

**Usage:** Indoor

**Measurement medium:** Deionised or distilled water

**Operation temperature:** 0 - 50 °C

**Operation pressure:** -50 – 50 mbar

### Measurement and weight

**BPC Go base unit:** 188 x 114 x 41 mm; 366 g

**Flow cell unit:** 138 x 102 x 45 mm; 134 g (w/o water)

**Power supply unit:** 89 x 48 x 33 mm; 127 g

**Gas connector diameter:** ID: 2.4-2.6 mm; OD: 4.2-4.7 mm

**Recommended tube size:** ID: 3.2 mm; OD: 6.4 mm

### Features

- Both continuous and batch mode of operation
- Can be accessed remotely and locally from any device with a web browser
- Possible to connect and access multiple instruments with the same web browser
- Calibration free
- No software installation needed. Comes installed on the instrument
- Data stored on instrument. No dependence on external computer and data acquisition unit
- High data storage capacity, corresponds to 2.5 years at the highest flow rate (6000 ml/h)
- Automatic compensation for gas pressure, temperature and moisture content
- Accelerometer and 4 adjustable feet for ensuring horizontal level of flow cell
- OLED display and membrane buttons for interaction with instrument without computer
- Data exported as spreadsheet for further analysis. Presented at uniform time axis for easy processing • Closed chamber allowing for serial connection of BPC Go devices
- Algorithm to avoid over- or underestimation of gas flow and volume (that may be introduced by flush gas during experiment setup)
- Easy maintenance where most parts can easily be exchanged
- Possible to control motors from BPC Instruments
- System log for operational diagnosis



## Your user experience is a top priority for us

We take pride in providing support throughout the lifetime of our products. This applies to products covered under warranty, and even products where the warranty period has expired. It is our ambition to make sure your instrument always works and continually delivers value.

*"In general, I would also like to say that we highly appreciate the support bioprocess have given us through the years. It is always quick, thorough and reliable. So once again thank you!"*

*"Thank you very much for the swift reply and action!! - it is much needed"*

*"I think we are almost ready to start the new trial and you have been wonderfully helpful."*

*"I just want to thank you a lot for your help and advice. My data is correct and you did a marvellous work in a very short time. With this, I have a great opinion about your company and I am very satisfied as a user."*

*"Your help and support in answering [NN's] questions has been exceptional and we truly appreciate that!"*

*"I do appreciate all of the details you provided before and have had good luck working with your systems in the past"*

*"It was so good to speak of your help and support throughout my research. Much appreciate it"*



## Smart Instruments for smart people

BPC Instruments is a market leader in the area of low gas flow analytical instruments for biotechnology related applications. We invest in innovation and development of smart instruments that allow for more efficient, reliable and higher quality research and analysis, leading to significant reductions in time and labour. We ensure the highest product quality throughout our portfolio, and focus on being service minded and always meeting the needs of our customers.

The company's flagship product, the Automatic Methane Potential Test System (AMPTS), has become the preferred analytical instrument around the world for conducting various anaerobic batch fermentation tests. BPC Instruments' product portfolio offers academic and industrial actors working with biogas, animal feed, wastewater, and other fields exciting products for low gas flow measurements, substrate analyses and process simulations.



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