BlueSens

understanding bioprocesses

BlueVCount

High quality gas volume measurement: professional and precise
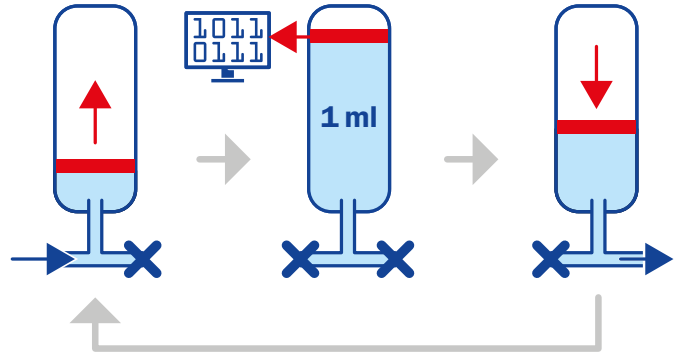
What is it for?

BlueVCount measures gas volumes in reactions of all kind. It is applicable for fermentations, degradation studies, substrate comparison studies, wastewater treatment, bioethanol or hydrogen production and is especially helpful in bio methane potential (BMP) determinations in industry and academia. Gas volume measurement delivers important information about the process and helps to optimize yields and process procedures.

How does it work?

BlueVCount is a volume measuring unit with a 1 ml cylinder that is equipped with an oil (special) sealed magnetic piston. It counts how often 1 ml gas comes through the cylinder and reports it to the integrated display or via Modbus RTU to a software (e.g. Blue-VIS). To achieve this you do not need a minimum flow.

Your demands	BlueVCount	Gas Endeavour*	Milligas-counter**
Minimum flow	No need	≥ 2(9)ml/min	1ml/h
Maximum flow	80ml/min	24(110)ml/min	20ml/min
Accuracy	±2%	n.a.	±3%
Resolution	1ml	2(9)ml	3ml
Absorber possible	✔	✔	✔
Limit of data logging	unlimited	2×10^4	unlimited
Ethernet interface	✘	✔	✘
Modbus (RS485)	✔	✘	✘
Single device available	✔	✘	✔
Gas tank/bag connectable	✔	✔	✔
Auto-compensation of humidity, pressure, temperature to display I_N	✔	✔	✘

* BioProcessControl AB
** Dr.-Ing. RITTER Apparatebau GmbH & Co.KG

BlueVCount – Technical Facts	
Minimal volume flow	0 ml/h
Max. volume flow	4.800 ml/h
Mechanical protection up to	12.000 ml/h
Resolution (Normvolumen)	1ml
Deviation from value	+- 2%
Gas pressure needed	>3hPa
Working voltage	24V
Data format	Modbus RTU
Baud rate	38400
Physical interface	RS485

BlueVCount at a glance

- More process information for a better process understanding
- Leads to less number of experiments and optimized yields
- No water or oil refill necessary
- Shows normalized volume because of integrated pressure and temperature sensors
- Integrated display for data information at any time
- Combinable devices (daisy chain) for less cable tangle
- BlueVIS ready via Modbus RTU for higher grade of automization