

GB 100 Plus 4 Channels Gas Mixer

Create dynamic gas mixtures for micro flows



MCQ INSTRUMENTS

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High Flexibility - From static to dynamic gas mixtures

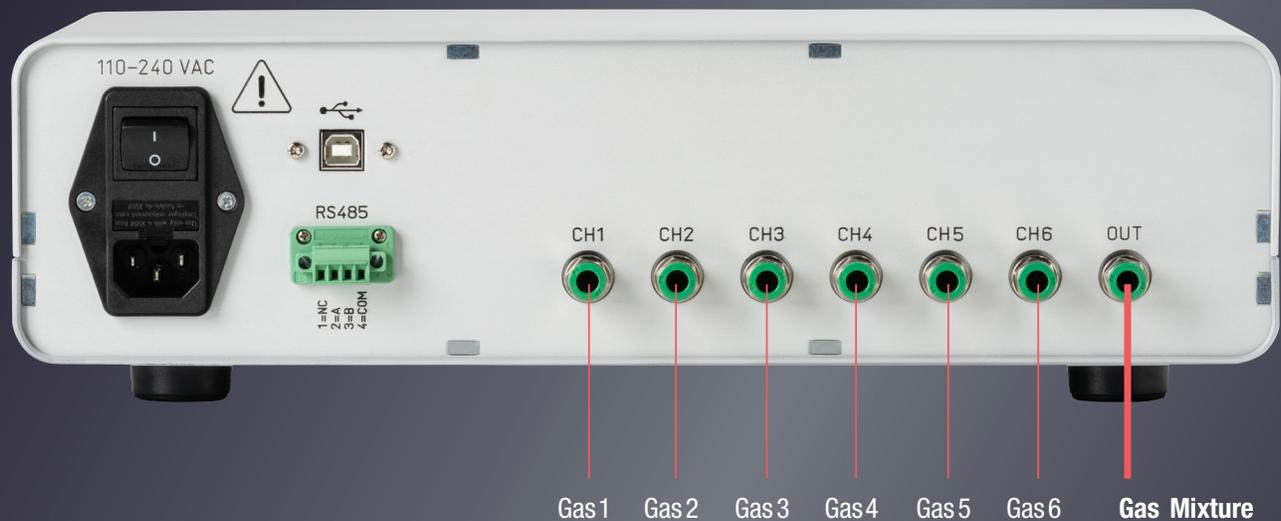
Pre-mixed gas cylinders are notoriously expensive and limiting. By using the MCQ gas mixers it is possible to create dynamic gas mixtures at any time, letting you free to set your flow rates, concentrations and blending on-demand from different sources of gas.

GB100 Plus provides a level of flexibility that gas cylinders simply cannot.

The Ultimate Gas Mixers

MCQ Instruments offers the best, cheapest and fastest solutions to manage, control, measure and create Gas Mixtures or Dilutions.

We produce advanced, certified, interconnected, and trusted technologies that can help you to achieve your goals without any efforts. From laboratories to industrial needs, we have the right product that will manage your gas processes with automation



Key Features

The MCQ Gas Blender 100 Plus is the ultimate solution specifically designed for laboratories, for non - corrosive gas mixings and dilutions. It is an innovative all-in-one replacement for traditional mass flow controllers multi-channel solutions.

- Gases: N₂, O₂, CO₂, CH₄, Air, He, H₂
- High Accuracy – Native calibration on available gas with 1% of accuracy for each channel
- Lab in a Box – All the tools in a single, compact and easy to transport box.
- Software Bundle – Mixture Creator is a user friendly interface, with which you can easily manage any gas mixing process.
- GB Family – We have as many solutions as many are your needs.

Touch Display

The Gas Blender 100 Plus is a stand-alone device, and it allows you to control all the parameters and access all the main features by the Touch Display.

The user interface already contains several of the most important actions such as: Play and Stop the gas mixing, regulation of the gas ratio for each channel, native gases setting and much more.

Automated Feedback System

With Gas Blender 100 Plus, you can create, save and load your automatic mixture program, set the percentage of each channel, the total flow of the gas mixture and process duration.

The program code can be edited anytime, exported to an external file and reloaded later.

Intuitive Software

For Advanced functionality or to control the instrument via PC, we also provide MCQ Mixture Creator. A complete gas mixing software, that allows direct access and control to all the parameters of our products. Thanks to a user-friendly interface, you can manage the gas mixing process to modify and control both the final blending and your dynamic dilution.



Made in Italy



Pending

Easy to Integrate

Gas Blender 100 Plus is not only USB connected, but Bluetooth ready, with the possibility of future Wi-Fi implementation. This functionality allows to remote control the instrument.

Its integrability with Profibus, Modbus & Simulink gives the possibility of an extremely easy integration into other systems. Moreover, we supply a Python Library to control the instrument via RS485.



Market Analysis

Research and Development (R&D) Labs, Institutes and Centers

- Calibration of Instruments
- Preparation of Test Gases
- Analytical Equipment
- Local Preparation of Gas Mixtures
- Chemical Laboratory

Analysis

- Gas Chromatography
- Quality Control

Food & Beverage

- Regulation of Controlled Atmospheres Life Sciences

Life Sciences

- Biotechnology
- Regulation of Gaseous Atmospheres
- Studies on Cell Cultures
- Pharmaceutical

Specifications

Accuracy (for each channel)	N2, 20 °C, 101.325 kPa (1 atm): 5-100% FS: 1% of SP < 5% FS: 0,2% of FS
Repeatability	0,10% of reading
Response time (for each channel)	100 ms
Power Supply	In Bundle
Operation Pressure	Max 3 bar
Working Temperature	0-50 °C
Mass Flow Rates (for each channel)	0 – 200 mL/min (Standard) 0 – 500 mL/min (on Request)
Total Mixture Flow Rate	Up to 1,2 L/min (Standard) Up to 3 L/min (on Request)
Gases	N ₂ , O ₂ , CO ₂ , CH ₄ , Air, He, H ₂ (additional gases supported on request)
Compatibility	Profibus, Modbus, Matlab Simulink, Python
Communication	USB PC Interface RS485 with open proprietary protocol
Fittings	Swagelok NPT or Push-in fittings for 6-4mm tubes. Others on request
Inlet Gas Channel	Up to 6 Inputs
Outlet Gas Channel	1 Output of mixed gases
User Interface	Gas mixing software. Touch Display.
Certifications	CE, TUV, cTUVUS, Made in Italy

Ordering Info

Order No.	Description
75-2304	GB-100PLUS (4 channels) Gas Mixer



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