

# GB NANO H

## 3 Channels GAS Mixer

Max Flow Rate: Up to 500 mL/min  
Custom Firmware and Software  
Multi-System Cell Expansion (from 2 up to 4)  
No Specific Skills are required  
IQ OQ GMP Ready  
Smart Alarms.

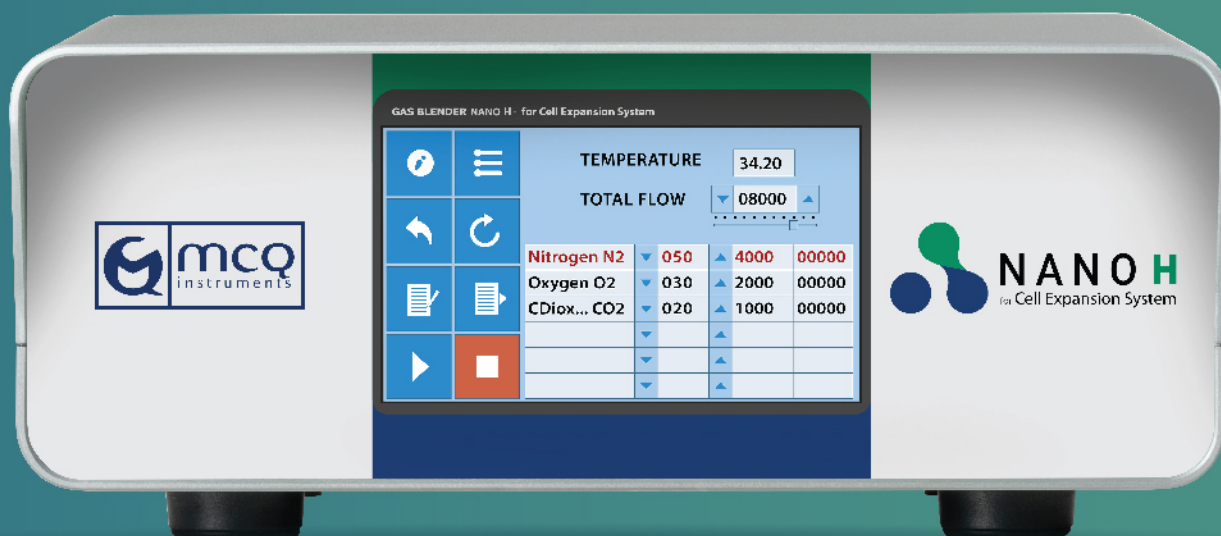
®



www.mcqinst.com  
info@mcqinst.com

## For CELL EXPANSION SYSTEMS

Manage the flow of N<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub> or Dilute Air.



## GB NANO H SUPPORTS FROM 2 UP 4 CELL EXPANSION SYSTEMS

Designed specifically for cell expansion processes, the GB Nano H offers precise control and blending of gases, creating optimal growth conditions. This versatility, coupled with its ability to connect from 2 up to 4 cell expansion systems simultaneously, allows for the creation of various conditions, including Hypoxia and Anoxia, using Pure Gas Cylinders or diluting Air from the wall-mounted pipe.



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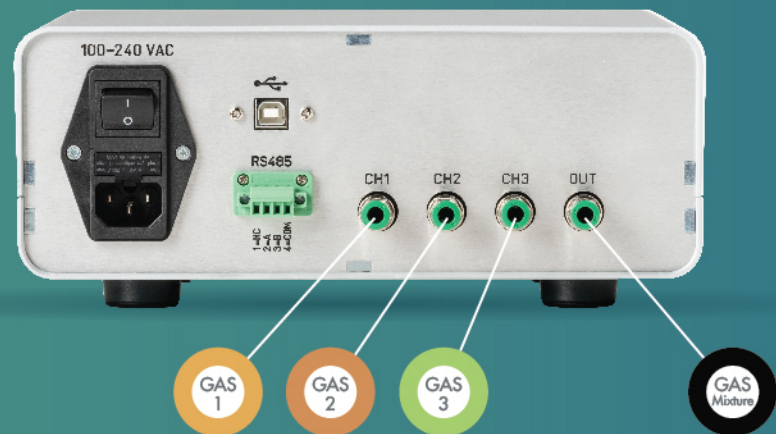
# Flexibility and Multi-System Cell Expansion.

MCQ Instruments offers the best, cheapest and fastest solutions to manage, control, measure the flow of pure cylinders of N<sub>2</sub>, O<sub>2</sub>, and CO<sub>2</sub> in order to create specific conditions such as Hypoxia, Anoxia, or any other. Additionally, the Gas Mixer enables the dilution of Air to attain the desired gas composition. The GB Nano H supports from 2 up to 4 cell expansion systems for increased capacity.

## Gases:

N<sub>2</sub>,  
O<sub>2</sub>,  
CO<sub>2</sub>,  
Air,  
H<sub>2</sub>

(additional gases  
supported on request)



## Custom Firmware

Our custom software and firmware give you significantly more control over your cell culturing compared to the other regular Gas Mixers. Get alerted to potential issues, and connect our Gas Mixer with various cell expansion systems. More features are under development (coming soon).

## Smart Alarms.

Our advanced Gas Mixer is equipped with intelligent alarms that monitor the gas flow, ensuring the safety and stability of the cell expansion experiments:

- NO FLOW: Indicating disconnected gas cylinders, or complete obstructions.
- UNDER FLOW: Identifying gas supply restrictions or approaching empty gas cylinders.
- OVER FLOW: Alerting to sudden pressure surges.
- INSTABILITY: Detecting irregular pressure regulation or control issues.



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## Touch Display & PC Software Included.

The GB Nano H is a standalone device that allows you to control all parameters and access all main features through its touch display.

For Advanced functionality or to control the instrument via PC, we also provide MCQ Mixture Creator.



## Certified Products.



Type Approved  
Safety  
Regular Production  
Surveillance  
[www.tuv.com](http://www.tuv.com)  
ID 111218183



## No Specific Skills Required

It is an easy to use and FULLY AUTOMATED Gas Mixer.

No specific skills are required to start creating your Gas Mixtures. Fast, stable, accurate. It assures top performances even when managing low flow rates.

## IQ OQ GMP Ready.

We ensure adherence to rigorous manufacturing processes through a comprehensive validation system:

Our "IQ OQ GMP Ready" slogan reflects our unwavering commitment to quality and compliance. It signifies that our products have undergone rigorous testing and meet the highest standards of manufacturing practices, ensuring the safety and reliability you demand for your research endeavors.



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# Accurate. Compact. Reliable.

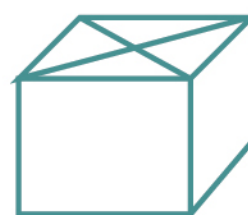
*"The MCQ Gas Blender Nano H is the ultimate solution specifically designed for laboratories, for non - corrosive gas mixings and dilutions. It is an innovative all - in - one replacement for traditional pre-mixed cylinders solution."*

## Specifications.

<b>Accuracy:</b> (for each channel)	N2, 20 °C, 101.325 kPa (1 atm): 5-100% FS: 1% of SP < 5% FS: 0,5% of FS
<b>Repeatability:</b>	0,10% of reading
<b>Response time:</b> (for each channel)	100 ms
<b>Operation Pressure:</b>	Max 3 bar
<b>Working Temperature:</b>	15 - 35 °C
<b>Mass Flow Rates:</b> (for each channel)	0,5 - 500 mL/min on N2 (Standard)
<b>Total Mixture Flow Rate:</b>	Up to 500 mL/min
<b>Gases:</b>	N2, O2, CO2, Air, H2 (additional gases supported on request)
<b>Compatibility:</b>	Profibus, Modbus, Simulink, Python
<b>Communication:</b>	USB PC Interface RS485 with open proprietary protocol
<b>Alarms:</b>	4 - No Flow, Under Flow, OverFlow and Instability
<b>Fittings:</b>	PTC (Push to Connect): EU: Inlet 6 mm - Outlet 1/4" US & APAC: Inlet & Outlet 1/4"
<b>Inlet Gas Channel:</b>	3 Inputs
<b>Outlet Gas Channel:</b>	1 Output of mixed gases
<b>User Interface:</b>	Gas mixing software. Touch Display.
<b>Certifications:</b>	CE, TUV, cTUVUS, Made in Italy



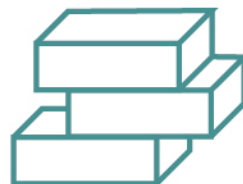
**High Accuracy**  
Native calibration on  
available gas with  
1% of accuracy for  
each channel



**Lab in a Box**  
All the tools in a  
single, compact and  
easy to transport box.



**Software Bundle**  
Mixture Creator is an  
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.

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