

Agilent BioTek Gas Controller for Imaging and Multimode Readers

Product description



Figure 1. Agilent BioTek Synergy H1 multimode reader with gas controller module.



Figure 2. Agilent BioTek Cytation 5 cell imaging multimode reader with gas controller module.

Live cell assays are becoming increasingly important in the life science laboratory. Many of these assays require control over atmospheric conditions, primarily CO₂ and O₂, either to modulate the environment for pH buffering or to create hypoxic conditions. These assays are traditionally run in flasks in a low-throughput workflow. However, today's labs require more automation of live cell-based assays in microplates for higher throughput and efficiency. Therefore, there is a need to quickly and easily modulate the atmospheric conditions within microplate reading and imaging instrumentation used to perform long-term live cell assays.

The gas controller module for the Agilent BioTek Cytation cell imaging multimode readers, Cytation C10 confocal imaging reader, Lionheart FX automated microscope, and Synergy hybrid multimode readers allows full control over CO₂ and O₂ concentrations to regulate the environment for microplate-based live cell assays. The gas controller and other important cell-friendly instrument features, such as variable orbital-shaking parameters and 4-Zone Incubation temperature control, provide the ideal environment for live cell assays.

Features

- Individual or simultaneous control of CO₂ and O₂ levels
- Infrared CO₂ sensor with long lifetime
- Zirconium oxide O₂ sensor needs no yearly replacement
- Simple, intuitive controls and indicators
- Compact size fits directly on the instrument

Typical applications

- Cell proliferation
- Cytotoxicity
- Cell migration
- Time lapse
- Any long-term live cell assay

Configurations

- P/N 1210013-S: CO₂ and O₂ control includes part numbers 1213032 and 1213033, CO₂, and N₂ flow meter, and tubing sets
- P/N 1210012-S: CO₂ control includes part number 1213032, CO₂ flow meter, and tubing set

Optional accessories

- CO₂ regulator; inlet fitting meets CGA 320 standard
- N₂ regulator; inlet fitting meets CGA 580 standard

Gas controller-compatible configurations

- Cytation 1, 5, and 7 cell imaging multimode readers and Cytation C10 confocal imaging reader, *all* configurations
- Lionheart FX automated microscope
- Synergy Neo2 hybrid multimode reader, *all* configurations
- Synergy H1 multimode reader configurations:
 - SH1FG: Synergy H1 with filter-optics system
 - SH1MG: Synergy H1 with monochromator-optics system
 - SH1MFG: Synergy H1 with monochromator- and filter-optics systems
 - SH1M2FG: Synergy H1 with monochromator- and filter-optics systems and variable-bandwidth monochromator fluorescence
 - SH1M2G: Synergy H1 with monochromator-optics system and variable-bandwidth monochromator fluorescence

Technical details

CO ₂ Control	
Range	0–20%
Control Resolution	± 0.1%
Stability	± 0.2% at 5% CO ₂
Sensor Type	Infrared, long lifetime
O ₂ Control	
Range	1–19%
Control Resolution	± 0.1%
Stability	± 0.2% at 1% O ₂
Sensor Type	Zirconium oxide, long lifetime, no yearly replacement required
Physical Characteristics	
Power	48 W at 24 VDC
Dimensions	13.75" W x 9.5" D x 2.5" H (35 x 24.1 x 6.35 cm)
Weight	9.5 lb (4.3 kg)

www.agilent.com/lifesciences/biotek

DE18694801

This information is subject to change without notice.

© Agilent Technologies, Inc. 2022
Printed in the USA, November 28, 2022
5994-5533EN