

# CO<sub>2</sub> O<sub>2</sub> Controller Pressurized output



Supplies desired Air-CO<sub>2</sub> or N<sub>2</sub>-O<sub>2</sub>-CO<sub>2</sub> mixture at controlled pressure

**bold line**



## Tri Gas Mixer - Controlled Pressure Output

Supplies Air-CO<sub>2</sub> or N<sub>2</sub>-O<sub>2</sub>-CO<sub>2</sub> mixture at controlled pressure

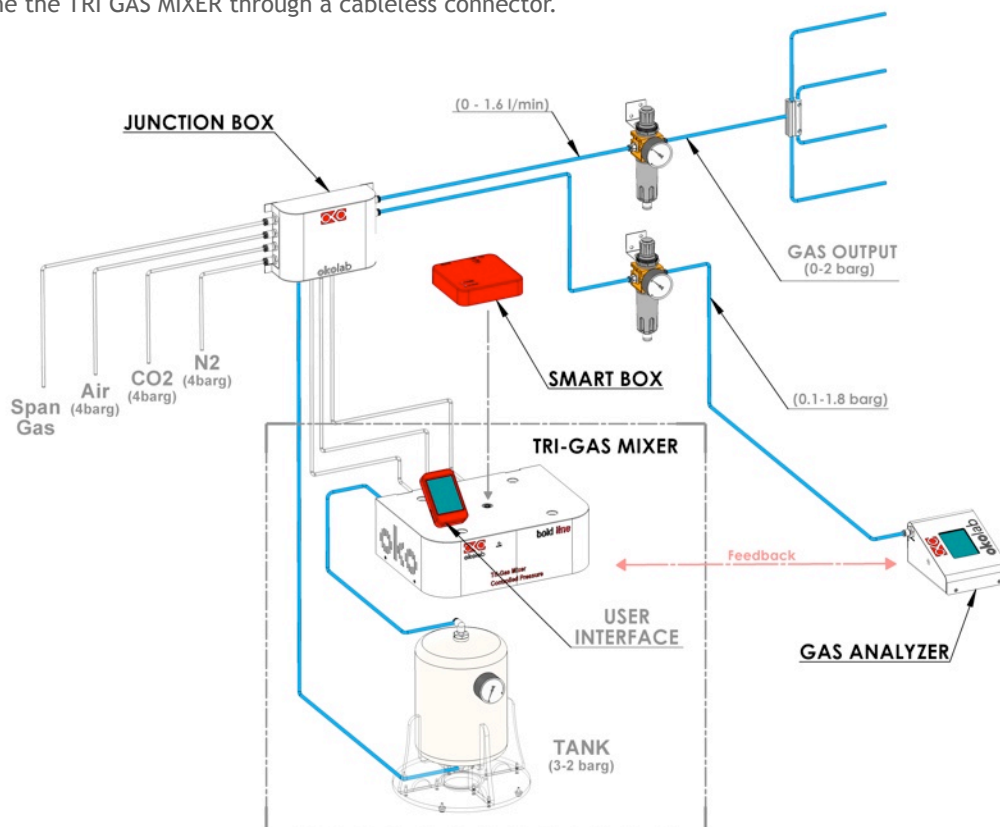
The Tri Gas Mixer replaces pre-mixed tanks and delivers CO<sub>2</sub> / O<sub>2</sub> / N<sub>2</sub> mixtures at up to 2.0 barg. One unit can deliver up to 1.6 l/min of mixed gas. The mixer is equipped with an intuitive 3.2' touch screen that can be used to define the desired gas concentration. The Tri Gas Mixer can be manually calibrated with any CO<sub>2</sub> and O<sub>2</sub> analyzer.

The Tri Gas Mixer is compatible with all the mini incubators available on the market.



### COMPONENTS AND ACCESSORIES

- **TRI GAS MIXER:** mixing unit, pressurized tank, touch screen user interface.
- **OKOLAB GAS ANALYZER:** it allows to operate the TRI GAS MIXER in closed loop mode, with feedback from gas concentration and it improves mixing accuracy from 0.2% to 0.1%.
- **JUNCTION BOX:** it is controlled via Touch Screen and allows to perform the calibration of the GAS ANALYZER sensors and to automatically switch the feed to Span Gas if an alarm is given by the GAS MIXER or by the GAS ANALYZER.
- **SMART BOX:** it is a data logger, a web server, a video streaming server and a remote assistant tool. It connects to the the TRI GAS MIXER through a cableless connector.



## TRI-GAS MIXER - features

- Operation mode CO<sub>2</sub>/O<sub>2</sub>: Adds CO<sub>2</sub> and Air to N<sub>2</sub>
- Operation mode CO<sub>2</sub>: Adds CO<sub>2</sub> to Air
- Concentration Range: CO<sub>2</sub>: 0-10%; O<sub>2</sub> 0-10%
- CO<sub>2</sub> Accuracy: ±0.2% (0.1% with addition of GAS ANALYZER)
- O<sub>2</sub> Accuracy: ±0.2% (0.1% with addition of GAS ANALYZER)
- CO<sub>2</sub> Repeatability: ±0.1%
- O<sub>2</sub> Repeatability: ±0.1%
- Output Maximum Flow Rate: 1.6 NL/min
- Maximum Output Pressure: 2.0 barg
- Pressurized vessel volume: 4.5 l (20 l optional)
- Input CO<sub>2</sub>, Air and N<sub>2</sub> Pressure: 4.0 barg
- Input Gas connectors: 6 mm OD push in fittings
- Controller Dimensions, mm: 319 x 251 x 117
- User interface: Touch screen
- Output gas filter: VOC and HEPA filter upon request
- Communicates with CO<sub>2</sub> O<sub>2</sub> Okolab GAS ANALYZER via RS232 TTL
- SDK available for operation via PC

USER INTERFACE



## TRI-GAS MIXER + GAS ANALYZER - added features

- CO<sub>2</sub> Accuracy: ±0.1%
- O<sub>2</sub> Accuracy: ±0.1%
- Closed loop operation
- CO<sub>2</sub> Sensor: Non Dispersive InfraRed (NDIR) dual wave length detector
- O<sub>2</sub> Sensor: Optical Oxygen Sensor

## TRI-GAS MIXER + GAS ANALYZER + JUNCTION BOX - added features

- Switch to Span Gas on Alarm in automatic manner
- Switch between CO<sub>2</sub>/O<sub>2</sub> and CO<sub>2</sub> mode without disconnecting and reconnecting tubes
- Sensor Calibration via Touch Pad with Span Gas without disconnecting tubes

## TRI-GAS MIXER + GAS ANALYZER + JUNCTION BOX + SMART BOX - added features

SMART BOX

Smart box connects to Internet and is operated through a web application. Its main features are:

- Data logging
- Remote operation of the gas mixer and its accessories via Web with Computer, Tablet, Smartphone
- Video Streaming
- Remote assistance



<b>TRI GAS MIXER</b>	<b>code: CO2 O2 UNIT BL CP2</b>
CO <sub>2</sub> range	0-10%
O <sub>2</sub> range	0-10%
Output Pressure	0-2.0 barg
Maximum Output Flow rate	1.6 NL/min
CO <sub>2</sub> accuracy	± 0.1% with Okolab GAS ANALYZER (0.2% w/o)
O <sub>2</sub> accuracy	± 0.1% with Okolab GAS ANALYZER (0.2% w/o)
Set point resolution	0.1%
Air, CO <sub>2</sub> and N <sub>2</sub> input pressure	4.0 barg
Controller dimensions	319 x 251 x 117 mm
Vessel volume	4.5 l
Compatibility	with any mini incubator available on the market
<b>GAS ANALYZER</b>	<b>code: CO2 O2 GAS ANALYZER</b>
CO <sub>2</sub> METER- sensor	Non Dispersive InfraRed (NDIR) dual wave length detector
O <sub>2</sub> METER - sensor	Optical Oxygen Sensor
<b>JUNCTION BOX</b>	<b>code: JUNCTION BOX</b>
<b>SMART BOX</b>	<b>code: SM-BL</b>

