Gas Mixing Station MX 4/4

4 Channels - High Precision - Compact.

Module MX 4/4

The Concept

With the parallel **gas mixing station MX4/4** you can simultaneously supply four separate culture vessels with air, nitrogen, oxygen and carbon dioxide.

Each gas outlet has its own separate set points for mass flow, O_2 concentration and CO_2 concentration.

The **gas mixing station MX 4/4** is fitted with an independent microprocessor to be operated free-standing or via external control from a PC.

The Applications

The **gas mixing station MX 4/4** is universally suitable for all applications where biological culture vessels, e.g. a spinner flask for cell culture, must be supplied with an individual mixture of gases.

The **gas mixing station MX 4/4** allows optimisation of the culture conditions for each individual vessel.

When used together with the **cellferm-pro®** system for monitoring and control, it is possible to set up individual control of pH and pO_2 for each culture vessel.

The software **DASGIP-EasyAccess** is an easy to use application that accesses one ore more devices with a standard PC. Alle relevant process data can be logged continuously.

The Advantages

The **gas mixing station MX 4/4** provides individual pressure control of each inlet gas plus electronic mass flow control of each outlet in a minimum of space.

The optimsed algorithms utilized for the gas mixing economises on the use of expensive gases by intelligent programming.

Several gas mixing stations can be linked to a PC by the serial port connection for external control.

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Drescher Arnold & Schneider
Aktiengesellschaft für Informations- und Prozeßtechnologie

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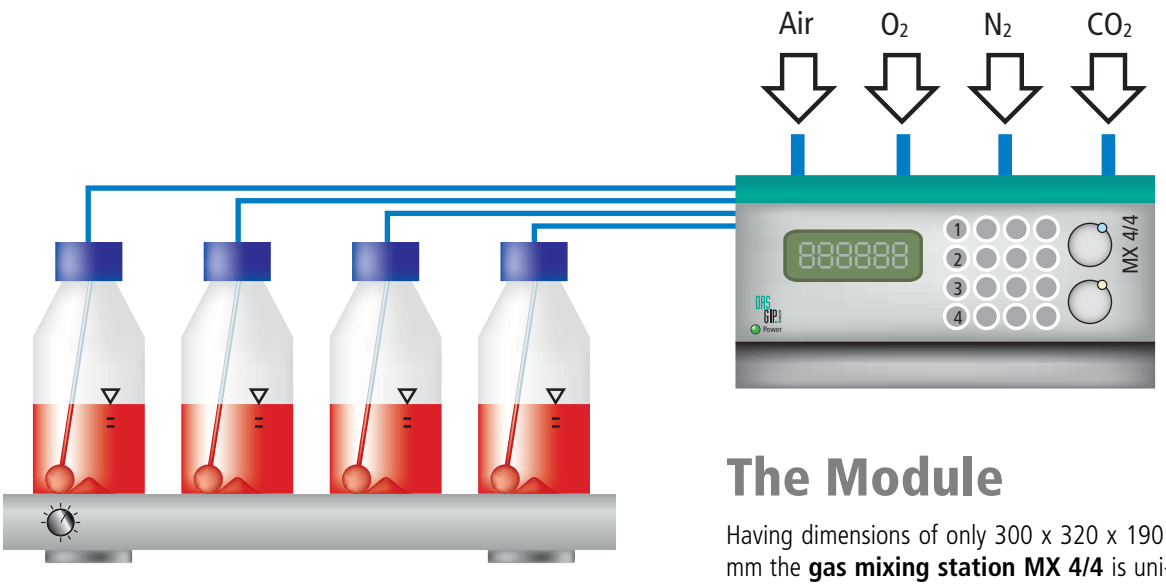

Culture System

The Module

Having dimensions of only 300 x 320 x 190 mm the **gas mixing station MX 4/4** is universally suitable for all applications where culture vessels for cell culture, must be supplied with an individual mixture of gases.

Technical Data

Subject to Change.

Inlets:	4 inlets for air, N_2, O_2, CO_2 standard connector for 6 mm plastic tubing min. 1 bar, max. 2 bar, max. 200 Nl/h per gas integrated electronic pressure regulation for each inlet gas
Gas mix:	separate flow rate, O_2 and CO_2 concentration for every outlet
Outlets:	4 outlets for 4 separate culture vessels MX4/4: 0; 1 - 50 sl/h mass flow, accuracy approx. 5% MX4/4L: 0; 0,2 - 8 sl/h mass flow, accuracy approx. 5% MX4/4H: 0; 5 - 300 sl/h mass flow, accuracy approx. 5% standard connector for 4 mm plastic tubing integrated electronic mass flow controller for each outlet
Set points:	O_2 concentration for every outlet CO_2 concentration for every outlet mass flow rate for every outlet
Process values:	mass flow rate for every outlet volume of each input gas total volume per outlet volume of each gas per outlet
Operation:	16 keys, 2 rotary controls for altering setpoint values backlit, 4-line LC display all functions can be locally or remotely controlled
System Integration:	serial port for control via a PC efficient communications protocol DTP access to all set, actual and parameter values
Software (optional):	DASGIP-EasyAccess control software and data logging ActiveX, COM, .Net programming library for VB, VBA, C++, .Net u.a. interface to MS-Excel® interface to National Instruments Labview®

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