



Advancing Plasma-Based Technologies

# **PLASMIONIQUE**

À l'Avant-Garde des Technologies Plasma

## **FLOCON Series Gas and Vapour Flow Management System**



**FLOCON series gas and vapour flow management systems are highly versatile and economical tools for advanced CVD, PVD and PECVD process development, as well as variety of other applications. A sophisticated computercontrol system allows programming the flow rates, ON/OFF timing and duration of individual flow controllers, using a user friendly graphic interface. Option to integrate FLOCON into a Process Management system is feasible.**

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# System Characteristics

## FLOCON SYSTEM:

FLOCON series gas, vapour and liquid flow management systems are configured with user defined number of mass flow controllers (MFC), vapour delivery and liquid flow controllers and mixers. All the output lines are controlled with shut-off valves.

## CONTROL:

The FLOCON Systems are completely automated by a master controller, which could be interfaced with other process control units and is running Plasmionique's proprietary *PLASMICON* control software. *PLASMICON* could be customized to fit user's immediate and future applications.

The system is designed around a Master – Slave template where the computer with *PLASMICON* software (master) directly controls the Flow Controllers, Valves.

The computer uses a single USB port to communicate with the system's Master Control Box. This USB connection is optically isolated from the rest of the system.

## SAFETY INTERLOCKS:

FLOCON system is provided with several Interlock ports for user provided contact signals, in order to enhance the process control safety.

## EXTERNAL INTERFACE:

The *PLASMICON* software can be customized to perform certain actions based on the state of interlock ports. These ports, which are generally used as safety interlocks, could also be used to integrate the FLOCON system into larger control systems.

## PROCESS CONTROL:

The possibility to interface other peripheral devices (slaves), provided by Plasmionique, such as RF generators, heater supplies, quartz microbalance, water and air flow switches, elecropneumatic valves, vacuum gauges, etc, into the FLOCON control system to convert the unit into an Automated Process control System is feasible.

## ENHANCED SAFETY FEATURES:

The control system design includes a built-in *WATCHDOG* that monitors the communication with the computer and its peripherals. In the event of a loss of communication, all devices connected to the control box will be disabled and an audible alarm will be triggered. Alternative control scenarios could also be implemented.

## REQUIRED UTILITIES

120/208/240 VAC, 50/60 Hz, 1 or 3 phase.