

Fuel Cell Poisoning Module



This module is designed to test PEM fuel cell catalyst poisoning and enables reproducible and accurate investigations from 1 ppm concentration of poisoning gas.

It permits simultaneous dosing of a precise amount of different poisoning gases into the fuel cell stack anode or cathode working gas flow. Additionally, one poisoning liquid substance can be mixed into the fuel cell working gas as an option.

The system is dedicated to covering a wide range of poisoning gas concentrations from 1 ppm (10^{-6}) to 10 ppt (10^{-2}) at a minimum working gas mass flow of 100 ml_n/min.

Key features:

- Precise dosing of contaminant gas
- Very low concentration possible
- Two-step mixing
- Connects to existing testing equipment
- Multiple gas streams or a liquid stream possible



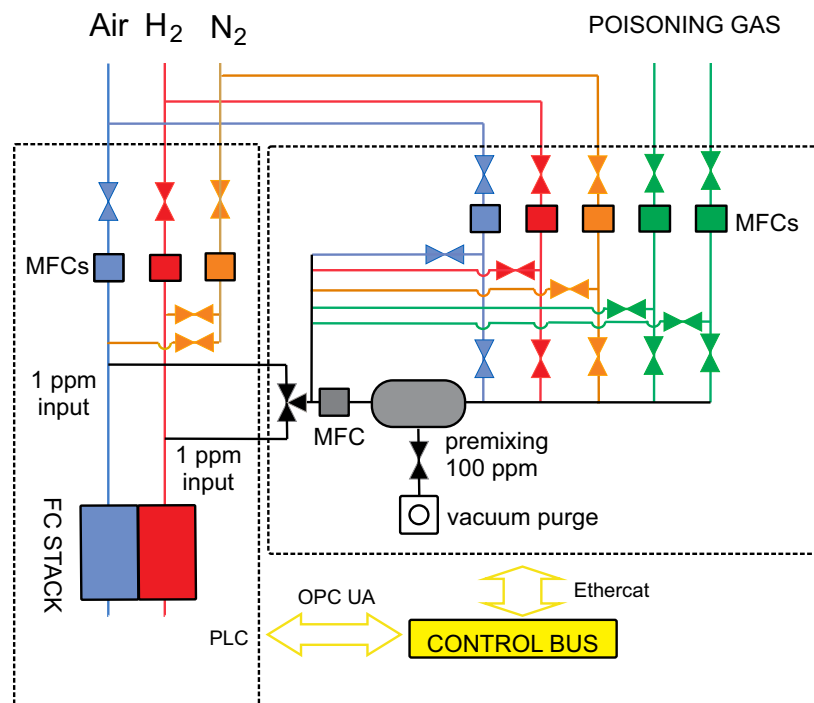
Specifications:

| | |
|-------------------------------|--------------------------|
| Contaminant concentration | 1 ppm - 10 ppt |
| Minimum working gas mass flow | 100 ml _n /min |
| Temperature | 10 - 95 °C |
| Gas contaminant streams | up to 3 |
| Liquid contaminant stream | Optional |



The module can be connected and controlled by the Leancat test bench automation system or customer's own existing test bench (via OPC UA server). The system of the mixer makes use of the advanced mixing technology developed by Leancat. The technology is capable of achieving 1 ppm concentration in the whole flow ranges > 100 ml_n/min.

FC TEST STATION FUEL CELL POISONING MODULE



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