

Gas Mixing Interface

Integrated control
for gas mixing



The Gas Mixing Interface provides additional mounting for up to 5 mass flow controllers (MFC's)

Configuration of FuelCell® software for an 850R External Interface for dilution of Air with N₂ for O₂-mass transport limiting and transport resistance measurements

The Gas Mixing Interface features

- Mounting for up to 5 mass flow controllers (MFCs)
- Plug-and-Play Accessory for 850/855 Fuel Cell Test Systems
- Integrated control of gas mixture type and composition in FuelCell® software
- Industry standard connector for connection of serial / RS485 devices
- Connectors for up to 3 MFCs
- Connectors for External Alarm Input
- Connectors for factory options including furnace control, burp valve control and others

Additional MFC's facilitates gas mixing for

- Reformate simulation - Humidified mix of H₂, CO₂ & CO
- Mass transport limiting studies - Air/O₂ and N₂ mixing for low p_{O₂}
- Impurities and contaminants investigations



CONFIGURATIONS: Gas Mixing Interface

Setup Instrument

NOTICE: DO NOT MAKE CHANGES TO THIS SCREEN WITHOUT CONSULTING THE FUELCELL MANUALS!
All Configuration parameters are described in "Chapter 11 - Instrument Configuration" of the FuelCell Manual as well as in the Online Help.

Temp. Follower Impedance / Potentiostat Data Expansion (Option 892)
Fuel Configuration Auto MultiGas Reformate System Configuration Alarms

Simulator Type:

Main Anode Gas Name: Main Cathode Gas Name:

Tank	Gas Name	Controller (Liters/Minute)	Gas Concentration (PPM)
Tank 1:	H2 + CO2	1	500000
Tank 2:	H2 + CO	0.2	100
Tank 3:	H2	1	1E6
Tank 4:	O2	2	1E6
Tank 5:	N/A	0	0

Concentration Display Units:

OK Cancel Help

Configuration of FuelCell® software with Gas Mixing Interface for Reformate Simulation, a mixture of humidified H₂, CO₂ and CO

Setup Fuel (Enhanced)

Parameter	Anode (H ₂)	Cathode (Air)
Flow Control Method	Stochiometric	Stochiometric
Minimum Flow (l/min)	0.1	0.2
Load Based Flow (l/min/Cell)	0.05	0.05
Stoichiometric Ratio	1.5	2.5
Mixing Gas (CO ₂)	100000 PPM	
Mixing Gas (CO)	25 PPM	
Auto Multi Gas Switch	H ₂	Air
Temperature Setpoint (°C)	75	68
Temperature Maximum (°C)	100	100
Humidification	Wet	Wet

OK Cancel Help