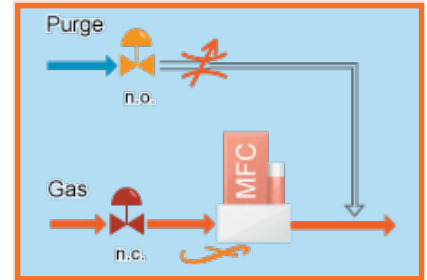
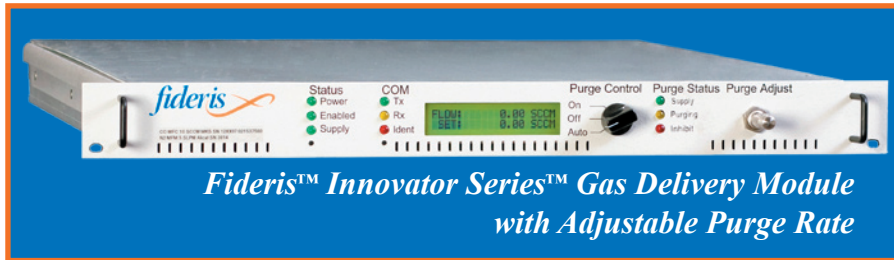


Fideris™ Innovator Series™ Gas Delivery Module with Adjustable Purge Rate



STANDARD FEATURES

- ▶ Provides mass flow control of one gas and a fail-safe purge system with needle valve adjustable purge rate
- ▶ Flow rates up to 2500 SLPM per gas
- ▶ All-digital control eliminates analog calibration requirements and inaccuracies
- ▶ *Ethernet Interface for simple configuration and expansion!*
- ▶ The output from multiple Gas Delivery Modules may be combined to provide dynamically controlled gas flow rates and compositions, including Stoichiometric Control.
- ▶ System-wide control of all Fideris™ Test System Components using *FCPower™* Software, Labview™, or other programming language
- ▶ Integrated hardwired Run/Standby signal
- ▶ Power Over Ethernet (PoE) for redundant power
- ▶ Front panel LED status of Ethernet communications, inlet gas pressure, gas enabled, and power
- ▶ Pressure regulator on inlet gas lines to provide the highest degree of accuracy, and check valves for gas backflow prevention

Optional Features

- ▶ Also available: Single and Dual Gas Delivery, Gas Blending, Extended Range, and Gas Delivery with Fixed Purge Rate
- ▶ Mix and Match modules to delivery various flow rates and gases. Manifolds and static mixers can be utilized for more aggressive blending. Liquid delivery modules also available
- ▶ Upgrade to ultra-high purity materials and surface finish
- ▶ *Hot Swap-Ability!* When the system is running, it has the capability of swapping a redundant module (if so equipped) for the primary module.
- ▶ Ambient combustible and carbon monoxide gas detectors
- ▶ Pneumatically controlled valves
- ▶ Front panel pressure gauge

*Invest your time in research...
NOT in developing test equipment.*

The most
innovative testing
solutions in the industry.

fideris™
innovative solutions

Typical Applications

- ▶ Fuel Cell Testing
- ▶ Gas Blending
- ▶ Sensor Testing
- ▶ Environmental Chambers
- ▶ Catalyst Testing and Evaluation

Specifications of the Gas Delivery Module with Adjustable Purge Rate

GAS CONTROL	Mass flow control of one gas plus fail-safe operation of purge gas
GAS INLET VALVES	Solenoid or pneumatically operated bubble tight valve
MAXIMUM INLET GAS PRESSURE	125 PSI (8.62 Bar)
MASS FLOW CONTROLLER BRANDS	All digitally controlled brands available including Alicat, Bronkhorst, Brooks, MKS, or Sierra
PURGE VALVE	Fail-safe, normally open, solenoid valve or pneumatically operated valve
PURGE	Flow rate controlled by front panel needle valve (optional readback mass flow meter)

Electrical Requirements

CONTROL VOLTAGE	26-50VDC
COMMUNICATION	Ethernet (DHCP)

Front Panel Controls and Displays

PURGE OPERATION MODE SWITCH	On, Disable, Auto
PURGE FLOW CONTROL	Manually adjustable valve
UNIT STATUS	LCD with backlight, flow setpoint, and actual flow
COMMUNICATIONS	Tx, Rx, Ident LEDs
INLET PRESSURE STATUS	LED illuminates above threshold pressure
ENABLED / STANDBY STATUS	Enabled LED
SUPPLY PRESSURE GAUGE	1 ½" (optional)

Back Panel Connections

POWER / RUN/STANDBY	Molex 39660-1004
DATA CONNECTIONS	RJ45 (8P8C) Ethernet
SUPPLY CONNECTION	Swagelok® bulkhead union or optional quick-connect. 1/4" on 1U modules, 1/4" or 3/8" on 2U modules, 1/2" or 3/4" on 3U modules. VCR on optional UHP (Ultra-High Purity) models
OUTLET CONNECTION	Swagelok® bulkhead union or optional quick-connect. 1/4" on 1U modules, 1/4" or 3/8" on 2U modules, 1/2" or 3/4" on 3U modules. VCR on optional UHP models
PURGE CONNECTION	1/4" Swagelok® bulkhead union or optional quick-connect

Physical Characteristics

DIMENSIONS	1U Modules : 1.75", 2U Modules: 3.5", 3U Modules: 5.25" 19" rackmount; 21" deep
SYSTEM WEIGHT	Dependent on configuration, approximately 15 lbs for 1U
OPERATING ENVIRONMENT	40°F to 100°F; 85% RH
CABINET LOCATION	Indoors
CLEARANCE FOR OPERATION	Back: 6", Sides: 0", Top: 0"
OPTIONAL UHP MODULE MATERIALS AND FINISH	316L (VAR if a welded component). Surface finish 10 μinch Ra

Specifications subject to change. This equipment may be protected by one or more of the following patents: U.S. Patent # 5,512,831, 6,324,042, 6,383,671, 6,792,320, 6,697,245, 6,821,660. Additional patents pending. Copyright 2009 TesSol, Incorporated. All rights reserved. All brand or product names are the trademarks or registered trademarks of their respective company. The following are trademarks of TesSol, Incorporated: Fideris, the Fideris logo, TesSol, the TesSol logo, Innovator Series, and FCPower.



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