



Challenge.

Increasing efficiency,
decreasing downtime

Solution.

E/One Gas Stations combine monitoring
and control systems into a single,
integrated platform



UTILITY SYSTEMS

Always on line.

Power utilities and independent power producers are increasingly concerned with upfront capital expenditures and subsequent on-site engineering and installation costs. They also require accurate, real-time monitoring information so that unit efficiency and generator performance can be maximized — and downtime minimized. The E/One Gas Station addresses each of these concerns and allows plant operators, together with E/One, to configure targeted solutions for original equipment supply and retrofit applications.

The E/One Gas Station is a modular approach that combines monitoring and control systems into a single integrated platform, customized to meet specific site requirements and budget parameters. Gas Station modules include:

- Main gas supply manifold and associated controls
- Gas purity monitoring
- Overheat monitoring
- Dew point monitoring
- Gas drying
- Partial discharge monitoring
- Seal oil system monitoring and control
- Customized annunciator panels



Typical Gas Station configuration – main gas supply and control, purity and overheat monitoring, and gas drying.

Gas Station Modules



Generator Auxiliary System (GAS)

Used in conjunction with E/One's main gas supply manifold, provides local display of critical gas supply parameters, including supply pressures, case, and differential pressure. Maybe supplied with digital displays in place of gages.



Generator Gas Analyzer (GGA)

Provides continuous monitoring of hydrogen and purge gases for efficiency and safety.



Generator Condition Monitor (GCM-X)

Provides early warning of generator hotspots, which can lead to catastrophic failure.



Generator Gas Dryer (GGD)

Removes moisture and contaminants from cooling gas, reducing threats of corrosion and windage losses.



Auxiliary Systems (AUX)

Customized to meet specific requirements and often include seal oil system monitoring and site-specific annunciator displays.



GGA and GCM-X Dual-Module Gas Station

The popular two-module GGA/GCM-X Gas Station combines continuous gas purity monitoring throughout all phases of operation, with early warning of overheat monitoring. An ideal retrofit configuration in support of generator life extension.

Features and Benefits

- Flexible, cost-efficient approach to gas monitoring and control systems
- Modularity couples best of technology with reduced installation and on-site engineering costs
- Customized to meet specific needs and budgets
- Hazardous area designs — compliance with national and international requirements

Specifications Gas Station

	GGA	GCM-X
CHARACTERISTICS		
Operating Principle	Thermoconductivity	Ionization Chamber
Gas Flow Rate	100-700 cc/min (500 cc nominal)	Adjustable
Measurement	H2 in Air H2 in CO2 Air in CO2	Thermal Particulation
Display	Alphanumeric LED's LCD	Bar Graph LED's LCD
ELECTRICAL CHARACTERISTICS		
Power Output Relays	115/230VAC, 50/60Hz Warning, Alarm, Trouble	115/230VAC, 50/60Hz Warning, Verified Alarm, Trouble
Output Signals (All output signals 4-20mA)	Purity	Ionization Chamber Flow
MECHANICAL CHARACTERISTICS		
Module Dimensions	23"(H) x 25"(W) x 12.25"(D)	23"(H) x 25"(W) x 10.25"(D)
Temperature	32-125 F (0-52 C)	32-125 F (0-52 C)
Relative Humidity	0-95%	0-95%
Gas Connections	As required	As required
Gas Pressure	100 psi maximum	150 psi maximum
Area Classification	Class I, Division I, Group B ATEX, Zone 1, Ex, H2	Class I, Division I, Group B ATEX, Zone 1, Ex, H2

	GAS	GGD
CHARACTERISTICS		
Operating Principle	N/A	Adsorption (Molecular Sieve) Generator dependent
Gas Flow Rate		
Measurement		Dew Point
Display	Alphanumeric (optional) Analog gauge(s) LED's (optional) LCD (optional)	Alphanumeric Analog gauge(s) LED's (optional) LCD (optional)
ELECTRICAL CHARACTERISTICS		
Power Output Relays	115/230VAC, 50/60Hz Supply Pressure, Case Pressure Trouble (optional)	460/60/3 Phase High Temperature, High Dew Point (optional) Trouble
Output Signals (All output signals 4-20mA) Case Pressure	Supply Pressures (optional)	Dew Point
MECHANICAL CHARACTERISTICS		
Module Dimensions	23"(H) x 25"(W) x 7.5"(D)	23"(H) x 25"(W) x 7.5"(D)
Temperature	32 to 125 F/0 to 52 C	32 to 125 F/0 to 52 C
Relative Humidity	0-95%	0-95%
Gas Connections	As required	3/4", 150# RF Flange
Gas Pressure	150 psi maximum	10/75 psi min/max
Area Classification	Class I, Division I, Group B ATEX, Zone 1, Ex, H2	ATEX, Zone 1, Ex, H2
2-Module Gas Station 78"(H) x 30"(W) x 36"(D)		
4-Module Gas Station 78"(H) x 59"(W) x 54"(D)		
6-Module Gas Station 84"(H) x 84"(W) x 60"(D)		

*Environment One Utility Systems
is an ISO 9001 registered firm.*

Notes: GAS Modules may be configured to meet customer requirements.
Contact E/One for detailed specifications of Gas Station configurations.

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