SEMI-GAS® supplies SEMI S2 certified, production-ready ultra high purity gas source systems, distribution systems and control technology to leaders in the Semiconductor industry and related high-tech fields. Built to address the most rigorous precision and purity demands of these specialized applications, SEMI-GAS® solutions are globally renowned for their premier levels of safety, quality, and performance.

**GigaGuard™ GG-ESS**

**Emergency Shutdown System**

**DESIGN STANDARDS**
- Conforms to SEMI S2 Standards
- UL Labeled
- Intuitive Operator Control
- Programmable Inputs

**FEATURES**
- Safely Interrupts Gas Flow During Undesirable System Conditions
- For Use with Semi Automatic Centurion™, Decaturion™, and Nanoturion™ Gas Systems
- Monitors Up to 11 Optically Isolated Inputs
- Various LEDs Provide Constant System Status
- A Purge Key Disables Specific Sensors During System Purging
- All Programmable Inputs are Customizable by Application
- Continuously Monitors System Conditions for Alarms
- Internal Buzzer Sounds During Any Alarm Condition
- Remote Control Boxes for System Status and Remote Shutdown are Available
- A Dual Version of the ESS is Available for Two Cylinder Control and Switchover Capabilities

**ENGINEERING DATA**
- Dimensions: 5”T X 8”W X 6”D
- Weight: 3.5 lbs
- Voltage: (User Selectable) 100 to 124 VAC or 200 to 250 VAC
- Pneumatic: 80 to 100 psi
- Design: CMOS Microprocessor Based Systems

**MATERIALS OF CONSTRUCTION**
- Welded 11 Ga Steel Enclosure
- LED Indicators Lights
- 8 Bit Microprocessor
- Phoenix Terminal Connector Strips
- Barb Fittings for Pneumatics
- 8/32 Threaded Captive Fasteners for Mounting
- Soft Membrane Front Panel

**ORDERING INFORMATION**
Contact your SEMI-GAS® sales rep or visit www.semi-gas.com

**BY APPLIED ENERGY SYSTEMS**
180 Quaker Lane
Malvern, PA 19355

**Phone:** 610.647.8744
**Fax:** 610.640.4548
**Email:** sales@semi-gas.com

GIGAGUARD-GG-ESS-082016-V1
SAFETY FEATURES

- **Controller Z-Purge Kit** for systems installed in Class 1 Division 2 hazardous locations, as well as applications for silane and silane mixtures greater than 1.37% (required for silane).
- **Shutboy Software Upgrade** to accommodate Shutboy valve shutters for automatically closing the gas cylinder valve during emergency situations (optional).

ORDERING INFORMATION

Example: Dual Channel Emergency Shutdown System with Z-Purge

![Diagram showing GigaGuard™ GG-ESS Emergency Shutdown System]

**Product**

GG = GigaGuard™ Controller

**Series**

ESS = Emergency Shutdown System

**Operation**

S = Single Channel
D = Dual Channel (for Autoswitchover)

**Z-Purge**

Z = Z-Purge
O = No Z-Purge

*All GigaGuard™ Controllers can be customized to meet unique specifications. Contact your SEMI-GAS® sales rep for details.*